EXHIBIT 8

RATE DESIGN

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Attachment7_2025_RRWF_BHI_04162025

Attachment10_2026_Cost_Allocation_Model_v1.0_BHI_04162025

Attachment12_2026_RTSR_Workform_BHI_04162025

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Attachment14_Excel_Current_Tariff_Sheet_BHI_04162025

EXHIBIT 8 – RATE DESIGN

8.0 OVERVIEW

This Exhibit documents the calculation of BHI's proposed distribution rates by rate class for the 2026 Test Year based on the rate design as proposed in this Exhibit 8. The following areas are discussed in this Exhibit 8:

- Fixed/Variable Proportion
- Retail Transmission Service Rates ("RTSRs")
- Retail Service Charges
- Regulatory Charges
- Specific Service Charges
- Low Voltage Service Rates
- Smart Meter Entity Charge
- Loss Adjustment Factors
- Tariff of Rates and Charges
- Revenue Reconciliation
- Bill Impact Information
- Rate Mitigation

BHI proposes to recover a service revenue requirement of $52,840,656 and a base revenue requirement of $48,485,131 as identified in Table 1 below.

Table 1 – 2026 Test Year Service and Base Revenue Requirement

Description	2026 Test Year
OM&A Expenses	$30,040,101
Depreciation and Amortization	$10,046,886
Property Taxes	$375,892
Regulated Return on Capital	$11,445,947
PILs	$931,830
Service Revenue Requirement	**$52,840,656**
Less Revenue Offsets	$(4,355,525)
Base Revenue Requirement	**$48,485,131**

Base Revenue Requirement is allocated to rate classes as identified in Table 2 below. Class Revenue Requirements are discussed in further detail in Section 7.2 of Exhibit 7.

Table 2 – Proposed Allocation of Base Distribution Revenue to Rate Class

Rate Class	2026 Proposed Base Revenue Requirement	Transformer Allowance	2026 Proposed Gross Distribution Revenue
Residential	$31,201,987	$0	$31,201,987
GS<50 kW	$6,698,228	$0	$6,698,228
GS>50 kW	$10,198,368	$446,825	$10,645,193
Street Lighting	$249,081	$0	$249,081
Unmetered Scattered Load (USL)	$137,466	$0	$137,466
Total	**$48,485,131**	**$446,825**	**$48,931,955**

8.1 FIXED/VARIABLE PROPORTION

8.1.1 Current Fixed/Variable Proportion

BHI provides the current fixed/variable proportion for each rate class in Table 3 below. (GS>50 kW revenue is gross of the transformer allowance). BHI calculated the current fixed/variable proportions by multiplying its existing 2025 OEB-approved distribution rates by the billing determinants in its 2026 load forecast.

Table 3 – Current Fixed/Variable Proportion

Rate Class	2026 Billing Determinants @ 2025 Rates			Fixed Revenue Proportion	Variable Revenue Proportion
	Fixed Distribution Revenue	Variable Distribution Revenue	Total Distribution Revenue		
Residential	$24,721,308	$0	$24,721,308	100.0%	—%
GS<50 kW	$2,046,586	$3,260,415	$5,307,001	38.6%	61.4%
GS>50 kW	$898,658	$7,587,600	$8,486,257	10.6%	89.4%
Street Lighting	$135,677	$73,195	$208,872	65.0%	35.0%
Unmetered Scattered Load (USL)	$75,755	$62,359	$138,115	54.8%	45.2%
Total	**$27,877,983**	**$10,983,569**	**$38,861,552**	**71.7%**	**28.3%**

8.1.2 Proposed Fixed/Variable Proportion

BHI proposes to use the fixed/variable proportions, as calculated in Table 3, to calculate the distribution rates for the 2026 Test Year with the exception of the GS>50 kW rate class. The current fixed/variable proportions result in a monthly fixed charge above the ceiling for the GS>50 kW rate class, as calculated in the cost allocation study. BHI adjusted the fixed rate that was calculated using the current fixed/variable proportions ($99.79 per month) to the ceiling ($84.65 per month), which resulted in an increase to the volumetric rate from $4.8277 per kW to $4.9155 per kW. Table 4 below identifies the proposed fixed/variable proportion for each rate class (GS>50 kW revenue is gross of the transformer allowance).

Table 4 – Proposed Fixed/Variable Proportion

Rate Class	2026 Billing Determinants @ 2026 Rates			Fixed Revenue Proportion	Variable Revenue Proportion
	Fixed Distribution Revenue	Variable Distribution Revenue	Total Distribution Revenue		
Residential	$31,201,987	$0	$31,201,987	100.0%	—%
GS<50 kW	$2,583,097	$4,115,131	$6,698,228	38.6%	61.4%
GS>50 kW	$967,073	$9,678,120	$10,645,193	9.1%	90.9%
Street Lighting	$161,795	$87,286	$249,081	65.0%	35.0%
Unmetered Scattered Load (USL)	$75,399	$62,067	$137,466	54.8%	45.2%
Total	**$34,989,352**	**$13,942,603**	**$48,931,955**	**71.5%**	**28.5%**

8.1.3 Proposed Monthly Service Charges

BHI provides its proposed monthly service charges in Table 5 below.

Table 5 – Proposed Monthly Service Charges

Rate Class	Total Distribution Revenue	Fixed Revenue Proportion	Fixed Revenue	Customers/ Connections	Proposed Monthly Service Charge
Residential	$31,201,987	100.0%	$31,201,987	63,119	$41.19
GS<50 kW	$6,698,228	38.6%	$2,583,097	5,823	$36.96
GS>50 kW	$10,645,193	9.1%	$967,073	952	$84.65
Street Lighting	$249,081	65.0%	$161,795	17,348	$0.78
Unmetered Scattered Load (USL)	$137,466	54.8%	$75,399	584	$10.76
Total Gross Distribution Revenue	**$48,931,955**		**$34,989,352**		
Transformer Allowance	$(446,825)				
Total Net Distribution Revenue	**$48,485,131**				

Table 6 below compares BHI's current and proposed monthly fixed charges with the ceiling and floor fixed charges as calculated in BHI's Cost Allocation study filed as Attachment10_2026_Cost_Allocation_Model_v1.0_BHI_04162025.

Table 6 – Monthly Service Charge Comparison

Rate Class	Current 2025 Fixed Monthly Service Charge	Proposed 2026 Fixed Monthly Service Charge	Minimum System with PLCC Adjustment (Ceiling)	Avoided Cost (Floor)
Residential	$32.64	$41.19	$25.92	$4.59
GS<50 kW	$29.29	$36.96	$45.49	$10.19
GS>50 kW	$78.66	$84.65	$84.65	$38.03
Street Lighting	$0.65	$0.78	$5.57	$0.48
Unmetered Scattered Load (USL)	$10.81	$10.76	$12.72	$0.57

8.1.4 Proposed Distribution Volumetric Charges

BHI provides its proposed distribution volumetric charges in Table 7 below.

Table 7 – Proposed Distribution Volumetric Charges

Rate Class	Total Distribution Revenue	Variable Revenue Proportion	Variable Revenue	Consumption / Demand	Billing Determinant	Proposed Distribution Volumetric Charge
Residential	$31,201,987	—%	$0	554,448,693	kWh	$0.0000
GS<50 kW	$6,698,228	61.4%	$4,115,131	168,539,128	kWh	$0.0244
GS>50 kW	$10,645,193	90.9%	$9,678,120	1,968,903	kW	$4.9155
Street Lighting	$249,081	35.0%	$87,286	15,672	kW	$5.5695
Unmetered Scattered Load (USL)	$137,466	45.2%	$62,067	3,312,078	kWh	$0.0187
Total Gross Distribution Revenue	**$48,931,955**		**$13,942,603**			
Transformer Allowance	$(446,825)					
Total Net Distribution Revenue	**$48,485,131**					

8.1.5 Transformer Allowance for Ownership

BHI is proposing to maintain its current Transformer Allowance for Ownership of $0.60/kW. The Transformer Allowance for Ownership is intended to reimburse customers who own their own transformers for the costs of transformation from primary to secondary voltage. BHI provides this service and these costs are included in base distribution rates; when a customer owns its own transformer it is incurring these costs directly and as such is entitled to receive a credit.

BHI's estimated transformer allowance for the 2026 Test Year is $446,825.

8.2 RETAIL TRANSMISSION SERVICE RATES (RTSRs)

In preparing this Application, BHI has complied with OEB's *Guideline G-2008-0001: Electricity Distribution Retail Transmission Service Rates*, issued on June 28, 2012 and subsequent updates to the Uniform Transmission Rates ("UTRs"). BHI does not incur any sub-transmission charges. BHI provides a completed version of the OEB's 2026 RTSR Workform posted February 5, 2025 as live Excel file Attachment12_2026_RTSR_Workform_BHI_04162025.

BHI confirms that the information provided in this Exhibit 8 is consistent with that provided in the Working Capital Allowance calculation per Section 2.2.5 of the Chapter 2 Filing requirements.

8.3 RETAIL SERVICE CHARGES

Retail services refer to services provided by a distributor to retailers or customers related to the competitive supply of electricity as set out in the Retail Settlement Code. Current retail service rates and charges were established on a generic basis.

On November 29, 2018, the OEB issued its *Report of the Ontario Energy Board: Energy Retailer Service Charges*[1], which set out the OEB's conclusions following the review of energy retailer service charges. The final charges and accounting guidance were set out in the OEB's Decision and Order, to be effective May 1, 2019.[2] The Report stated that the rates are subject to an adjustment mechanism using the annual adjustment factor applied in the OEB's incentive regulation mechanism.

On September 26, 2024, the OEB issued its Decision and Order on Energy Retailer Service Charges[3] for 2025 cost-based applications. As of the date of this filing, the OEB had not issued the annual adjustment factor for 2026 rates; and as such BHI has used the Energy Retailer Service Charges for 2025 cost-based applications in its Proposed Tariff of Rates and Charges, subject to an update if new charges are available prior to the OEB rendering its Decision on this Application.

[1] EB-2015-0304
[2] Ibid, Decision and Order, February 14, 2019
[3] EB-2024-0226

8.4 REGULATORY CHARGES

The Wholesale Market Service ("WMS") rate is designed to allow distributors to recover costs charged by the IESO for the operation of the IESO-administered markets and the operation of the IESO-controlled grid.

The Rural or Remote Electricity Rate Protection ("RRRP") program is designed to reduce costs for eligible customers located in certain rural or remote areas where the cost of distributing electricity is higher.

The Standard Supply Service Charge ("SSSC") is set by the OEB as an administrative fee payable by customers who purchase electricity directly from their distributor.

These rates are set by the OEB on a generic (i.e., province-wide) basis. This Application reflects the current WMS rate of $0.0041/kWh, Capacity Based Recovery ("CBR") rate of $0.0004/kWh, RRRP rate of $0.0015/kWh, and SSSC of $0.25/kWh. These are the most recent rates approved by the OEB[4] .

[4] Ontario Energy Board, *Decision and Order in the matter of Regulatory Charges Effective January 1, 2025*, EB-2024-0282 (December 10, 2024), p15

8.5 SPECIFIC SERVICE CHARGES

BHI is not requesting a new specific service charge or a change to the level of an existing charge.

BHI does not have any rates or charges in its Conditions of Service that do not appear on its OEB-approved tariff sheet.

BHI confirms that the revenue from the total of the specific service charges in the 2026 Test Year corresponds with the revenue recorded under Other Revenues as identified in Section 6.3 of Exhibit 6.

8.5.1 Wireline Pole Attachment Charge

The OEB determined wireline pole attachment charges which applied to carriers in its *Report of the Ontario Energy Board – Wireline Pole Attachment Charges* dated March 22, 2018, where carriers are defined in Appendix A[5]. The Report set the charge at $43.63 annually per attacher, per pole, effective January 1, 2019, to be adjusted each year by the OEB's inflation factor.

Legislative changes under Bill 257 (Supporting Broadband and Infrastructure Expansion Act, 2021) introduced new regulations (O. Reg. 842/21) under the Ontario Energy Board Act, 1998, which took effect on January 1, 2022. The regulation mandated a province-wide pole attachment charge based on the OEB's 2018 methodology, with specific modifications including use of the proportional methodology for cost allocation instead of the hybrid equal-sharing approach and no inflation adjustments for 2021 or 2022. The 2023 and subsequent years' charges are determined using the OEB's inflation adjustment mechanism. The annual charge is set by OEB order without a hearing.

The OEB through its decision and order EB-2024-0227 issued on September 26, 2024, has set the distribution pole attachment charge for 2025 to be $39.14 per pole, per year. BHI will apply

[5]EB-2015-0304, p8

this OEB approved rate to its attachments and will update for 2026 rates if they become available prior to the OEB rendering its decision on this Application.

8.6 LOW VOLTAGE SERVICE RATES

BHI is not a fully or partially embedded distributor and therefore does not incur low voltage charges.

8.7 SMART METER ENTITY CHARGE

On September 8, 2022, the OEB issued its Decision and Order regarding the Independent Electricity System Operator ("IESO") / Smart Metering Entity – Smart Metering Charge from January 1, 2023 to December 31, 2027[6]. This Decision approved the Smart Metering Charge ("SMC") to be levied and collected by the IESO in its capacity as the Smart Metering Entity ("SME"), effective January 1, 2023. BHI will charge the current OEB-approved SMC of $0.42 per meter per month until the OEB approves any updated SMC.

8.8 LOSS ADJUSTMENT FACTORS

BHI has calculated its proposed Supply Facilities Loss Factor ("SFLF"), distribution and total loss factors for the 2026 Test Year in Tab "App.2-R_Loss Factors" of the OEB Chapter 2 Appendices filed as live Excel file Attachment1_OEB_Chapter2Appendices_BHI_04162025.

OEB Appendix 2-R is reproduced in Table 8 below for ease of reference.

[6] EB-2022-0137

Table 8 – OEB Appendix 2-R Loss Factors

	Description	Historical Years					5-Year Average
		2020	2021	2022	2023	2024	
	Losses Within Distributor's System						
A	"Wholesale" kWh delivered to distributor (higher value)	1,560,832,200	1,570,411,100	1,582,272,268	1,538,474,828	1,566,109,307	1,563,619,941
B	"Wholesale" kWh delivered to distributor (lower value)	1,555,579,189	1,563,660,424	1,577,204,650	1,533,707,118	1,561,257,762	1,558,281,829
C	microFIT kWh supplied to distributor	9,882,707	9,718,702	9,647,170	8,663,953	9,039,538	9,390,414
D	Other Embedded Generation	—	—	—	—	—	—
E	Portion of "Wholesale" kWh delivered to distributor for its Large Use Customer(s)	—	—	—	—	—	—
F	Net "Wholesale" kWh delivered to distributor = B + C + D - E	1,565,461,896	1,573,379,126	1,586,851,820	1,542,371,071	1,570,297,300	1,567,672,243
G	"Retail" kWh delivered by distributor	1,504,792,712	1,513,843,506	1,531,698,249	1,484,415,329	1,511,587,889	1,509,267,537
H	Portion of "Retail" kWh delivered by distributor to its Large Use Customer(s)	—	—	—	—	—	—
I	Net "Retail" kWh delivered by distributor = G - H	1,504,792,712	1,513,843,506	1,531,698,249	1,484,415,329	1,511,587,889	1,509,267,537
J	Loss Factor in Distributor's system = F / I	1.0403	1.0393	1.0360	1.0390	1.0388	1.0387
	Losses Upstream of Distributor's System						
K	Supply Facilities Loss Factor	1.0034	1.0043	1.0032	1.0031	1.0031	1.0034
	Total Losses						
L	Total Loss Factor = J x K	1.0438	1.0438	1.0393	1.0423	1.0421	1.0423

BHI confirms it is not a fully or partially embedded distributor. BHI calculated the SFLF by dividing “the wholesale kWh at the virtual meter on the primary side of the transformer at the interface with the transmission grid” by “the wholesale kWh at the metering installations on the secondary or low voltage side of the transformer at the interface with the transmission grid” (i.e., the loss of electricity between the transformer stations and BHI’s wholesale meter points). BHI confirms that there is no variance in loss factor between this Application and RRR filings for historical years.

BHI is proposing a total distribution loss factor of 1.0423 as identified in Table 9 below. BHI's proposed loss factor is less than 5% and is showing a declining trend.

Table 9 – 2026 Test Year Proposed Loss Factors

Customer	Distribution Loss Factor	SFLF	Total Loss Factor
Secondary Metered Customer <5,000kW	1.0387	1.0034	1.0423
Primary Metered Customer <5,000kW	1.0284	1.0034	1.0319

The year-over-year fluctuation in loss factors observed in Table 8 is due to the composition of BHI's distribution network, which operates across three distinct voltage systems: 27.6kV, 13.8kV, and 4.16kV. Distribution losses vary among these systems, with the highest losses occurring on the 4.16kV system. The overall loss rate fluctuates annually based on the proportion of energy delivered through each voltage level. Additionally, the 4.16kV system continues to be incrementally loaded at or near its maximum allowable capacity, leading to higher losses, primarily due to customer-driven new connections being served through this voltage.

8.8.1 Distribution System Loss Analysis

As part of BHI's Decision and Order in its 2021 Cost of Service application, BHI committed to prepare a plan to reduce distribution losses as much as possible through cost-effective measures[7].

BHI engaged a third-party consultant, CIMA+, to conduct a distribution system loss analysis. The study was completed and filed with the OEB through a letter dated August 17, 2023, and is attached as Appendix C to this Exhibit 8.

The report provides a detailed system analysis of line losses on affected feeders and includes recommended mitigation measures such as phase load-balancing, voltage conversion, reconductoring, power factor correction using VAR compensation, and distribution feeder reconfiguration. These initiatives align with BHI's ongoing efforts to adopt cost-effective solutions for loss reduction as part of its regular infrastructure projects.

BHI operates legacy 13.8kV and 4.16kV systems, which have limitations in loading and carrying capacity. To mitigate losses, BHI restricts the expansion of these lower-voltage systems and

[7] EB-2020-0007, Decision and Rate Order, Schedule B, p.17

prioritizes the deployment of its 27.6kV system, which has a higher load-carrying capacity. This approach supports load growth while reducing system losses as new connections are added.

Beyond planning and designing for loss reduction, BHI has implemented several cost-effective initiatives to minimize existing line losses, including load balancing and system optimization based on asset size and demand, voltage conversion by transitioning the 4.16kV and 13.8kV networks to the 27.6kV standard, and distribution feeder reconfiguration to enhance system reliability and performance.

Since the study was published, BHI has completed several loss reduction projects. Load balancing and system optimization were undertaken at Appleby MS (F1, F4, F5, F6), Brant MS (F2, F3), Howard MS (F1, F2), and Palermo TS (A4M5, A4M6). Distribution feeder reconfiguration was completed at Cumberland TS (76M25, 76M26) and Burlington TS (39M5, 39M35). Voltage conversion from 13.8kV to 27.6kV was carried out at Fairview MS (F2, F3).

BHI plans to continue implementing cost-effective loss reduction measures over the 2026-2030 period. It will conduct regular power system analyses, including system loss estimation using CYME software, and take corrective actions as needed. BHI's strategy for the 2026-2030 period will focus on load balancing, system optimization, distribution feeder reconfiguration, and voltage conversion as part of broader system investments. BHI does not undertake projects solely for loss reduction, but instead incorporates these measures into broader system improvement plans that consider asset age, load balancing, feeder congestion, and other operational priorities.

BHI continues to seek opportunities to reduce losses in a cost-effective manner, ensuring that the benefits of loss reduction outweigh the implementation costs. This strategic approach has been maintained in developing the plans submitted with this Application and DSP, ensuring that loss reduction efforts align with overall system improvements and corporate strategic goals.

8.9 TARIFF OF RATES AND CHARGES

BHI provides its Current and Proposed Tariff of Rates and Charges in Appendix A and Appendix B respectively, and in the OEB's 2026 Tariff Schedule and Bill Impacts Model filed as live Excel file Attachment13_Tariff_Schedule_and_Bill_Impact_Model_BHI_04162025. BHI files its Current Tariff of Rates and Charges as a separate live Excel file Attachment14_Excel_Current_Tariff_Sheet_BHI_04162025.

8.10 REVENUE RECONCILIATION

BHI provides detailed calculations of revenue per customer class in Table 10 to Table 12 below.

- Table 10 identifies the billing determinants for the 2026 Test Year.
- Table 11 identifies the calculation of revenue using BHI's 2025 rates and the 2026 Test Year billing determinants as identified in Table 10.
- Table 12 identifies the calculation of revenue using BHI's proposed 2026 rates and the 2026 Test Year billing determinants as identified in Table 10.

Table 10 – Billing Determinants 2026 Test Year

Class	Annual kWh	Annual kW	Annualized Customers	Annualized Connections
Residential	554,448,693	—	757,428	—
GS<50 kW	168,539,128	—	69,881	—
GS>50 kW	732,505,202	1,968,903	11,424	—
Street Lighting	5,608,031	15,672	—	208,178
Unmetered Scattered Load	3,312,078	—	—	7,008
Total	**1,464,413,133**	**1,984,575**	**838,734**	**215,186**

Table 11 – Distribution Revenue by Customer Class - Current Rates

Class	Fixed Rate	Variable Rate	Fixed Distribution Revenue	Variable Distribution Revenue	Gross Distribution Revenue	Transformer Allowance	Net Distribution Revenue
Residential	$32.64	$0.0000	$24,721,308	$0	$24,721,308	$0	$24,721,308
GS<50 kW	$29.29	$0.0193	$2,046,586	$3,260,415	$5,307,001	$0	$5,307,001
GS>50 kW	$78.66	$3.8537	$898,658	$7,587,600	$8,486,257	$(446,825)	$8,039,433
Street Lighting	$0.65	$4.6705	$135,677	$73,195	$208,872	$0	$208,872
Unmetered Scattered Load	$10.81	$0.0188	$75,755	$62,359	$138,115	$0	$138,115
Total			**$27,877,983**	**$10,983,569**	**$38,861,552**	**$(446,825)**	**$38,414,728**

Table 12 – Distribution Revenue by Customer Class - Proposed Rates

Class	Fixed Rate	Variable Rate	Fixed Distribution Revenue	Variable Distribution Revenue	Gross Distribution Revenue	Transformer Allowance	Net Distribution Revenue
Residential	$41.19	$0.0000	$31,198,475	$0	$31,198,475	$0	$31,198,475
GS<50 kW	$36.96	$0.0244	$2,582,805	$4,112,355	$6,695,159	$0	$6,695,159
GS>50 kW	$84.65	$4.9155	$967,049	$9,678,143	$10,645,192	$(446,825)	$10,198,367
Street Lighting	$0.78	$5.5695	$162,379	$87,285	$249,664	$0	$249,664
Unmetered Scattered Load	$10.76	$0.0187	$75,401	$61,936	$137,337	$0	$137,337
Total			**$34,986,110**	**$13,939,718**	**$48,925,828**	**$(446,825)**	**$48,479,003**

BHI provides a detailed reconciliation of customer class revenue and other revenue to total revenue requirement for the 2026 Test Year in Table 13 below. BHI's Service Revenue Requirement for the 2026 Test Year is made of:

- $48,931,955 revenue from distribution rates (prior to rounding);
- $(446,825) from transformer allowance; and
- $4,355,525 from other revenue.

Table 13 – Reconciliation of Customer Class Revenue and Other Revenue

Class	Revenue from Distribution Rates	Transformer Allowance	Base Revenue Requirement	Other Revenue	Service Revenue Requirement
Residential	$31,201,987	$0	$31,201,987	$2,819,101	$34,021,089
GS<50 kW	$6,698,228	$0	$6,698,228	$533,664	$7,231,892
GS>50 kW	$10,645,193	$(446,825)	$10,198,368	$971,764	$11,170,132
Street Lighting	$249,081	$0	$249,081	$20,931	$270,012
Unmetered Scattered Load	$137,466	$0	$137,466	$10,065	$147,531
Total	**$48,931,955**	**$(446,825)**	**$48,485,131**	**$4,355,525**	**$52,840,656**

BHI provides a reconciliation of its base revenue requirement in the 2026 Test Year against its proposed rates in Table 14 below. This table and the associated calculations are provided in Tab "13. Rate Design" in the OEB's Revenue Requirement Workform filed as Attachment7_2025_RRWF_BHI_04162025. BHI confirms that the test year demand/ consumption and the proposed rates recover the base revenue requirement to serve the forecasted customers and demand/consumption, subject to rounding of $(6,128).

Table 14 – Reconciliation of Base Revenue Requirement vs. Proposed Rates

Class	Calculated Fixed Revenue	Calculated Variable Revenue	Transformer Allowance	Net Distribution Revenue
Residential	$31,198,475	$0	$0	$31,198,475
GS<50 kW	$2,582,805	$4,112,355	$0	$6,695,159
GS>50 kW	$967,049	$9,678,143	$(446,825)	$10,198,367
Street Lighting	$162,379	$87,285	$0	$249,664
Unmetered Scattered Load	$75,401	$61,936	$0	$137,337
Total	**$34,986,110**	**$13,939,718**	**$(446,825)**	**$48,479,003**

Revenue	$48,479,003
Base Revenue Requirement	$48,485,131
Difference	**$(6,128)**

8.11 BILL IMPACT INFORMATION

BHI summarizes its bill impacts by customer class in Table 15 below.

Table 15 – Bill Impact Summary

Class	kWh	kW	Distribution (Fixed and Volumetric) Sub-Total A			
			Current Rates	Proposed Rates	$ Change	% Impact
Residential	750		$32.74	$42.58	$9.84	30.1 %
GS<50 kW	1500		$58.48	$76.29	$17.81	30.5 %
GS<50 kW	2000		$68.18	$89.19	$21.01	30.8 %
GS>50 kW	36700	200	$851.96	$1,168.36	$316.40	37.1 %
Street Lighting	175	0.22	$1.68	$2.13	$0.45	26.7 %
Unmetered Scattered Load	2000		$48.64	$51.09	$2.45	5.0 %

Class	kWh	kW	Distribution (including pass-through) Sub-Total B			
			Current Rates	Proposed Rates	$ Change	% Impact
Residential	750		$36.67	$46.44	$9.77	26.6 %
GS<50 kW	1500		$66.22	$83.73	$17.51	26.4 %
GS<50 kW	2000		$78.37	$98.98	$20.61	26.3 %
GS>50 kW	36700	200	$983.45	$1,462.84	$479.39	48.7 %
Street Lighting	175	0.22	$2.70	$3.99	$1.29	47.8 %
Unmetered Scattered Load	2000		$41.17	$36.95	$(4.22)	(10.3)%

Class	kWh	kW	Total Bill (after HST and OER)			
			Current Rates	Proposed Rates	$ Change	% Impact
Residential	750		$133.18	$142.94	$9.76	7.3 %
GS<50 kW	1500		$256.83	$274.32	$17.49	6.8 %
GS<50 kW	2000		$332.43	$353.02	$20.59	6.2 %
GS>50 kW	36700	200	$5,870.47	$6,412.18	$541.71	9.2 %
Street Lighting	175	0.22	$26.82	$28.28	$1.46	5.4 %
Unmetered Scattered Load	2000		$312.49	$314.53	$2.05	0.7 %

Further details are provided in the OEB's Tariff Schedule and Bill Impacts model, filed as Attachment13_Tariff_Schedule_and_Bill_Impact_Model_BHI_04162025, which identifies existing rates and proposed changes to rates, and calculates detailed bill impacts including:

- % change in distribution excluding pass-through costs (e.g., DVAs) – "Sub-Total A",
- % change in distribution – "Sub-Total B";
- % change in delivery – "Sub-Total C"; and
- % change in total bill.

Rates and charges input into the Tariff Schedule and Bill Impacts model have been rounded to the decimal places as shown on BHI's current and proposed Tariff of Rates and Charges.

8.12 RATE MITIGATION

8.12.1 Mitigation Plan Approaches

BHI confirms that a rate mitigation plan is not required as no customer class is experiencing a total bill increase of greater than 10% as identified in Table 15 above.

8.13 RATE HARMONIZATION MITIGATION ISSUES

Rate harmonization does not apply to BHI.

APPENDICES

Appendix A – Current Tariff of Rates and Charges

SCHEDULE A

TARIFF OF RATES AND CHARGES

FINAL RATE ORDER

BURLINGTON HYDRO INC.

EB-2024-0010

FEBRUARY 11, 2025

Burlington Hydro Inc.

TARIFF OF RATES AND CHARGES

Effective and Implementation Date January 1, 2025

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2024-0010

RESIDENTIAL SERVICE CLASSIFICATION

This classification applies to low voltage connection assets that operate at 750 volts or less and supply electrical energy to residential customers where such energy is used exclusively in separately metered living accommodation. Customers shall be residing in single dwelling units that consist of a detached house or one unit of a semi-detached, duplex, triplex, or quadruplex house, with residential zoning. Separately metered dwellings within a town house complex or apartment building also qualify as residential customers. Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Global Adjustment and the HST.

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	32.64
Rate Rider for Recovery of Incremental Capital (2025) - effective March 1, 2025 until December 31, 2025	$	0.10
Smart Metering Entity Charge - effective until December 31, 2027	$	0.42
Rate Rider for Disposition of Global Adjustment Account (2025) - effective until December 31, 2025 Applicable only for Non-RPP Customers	$/kWh	0.0013
Rate Rider for Disposition of Deferral/Variance Accounts (2025) - effective until December 31, 2025	$/kWh	0.0007
Rate Rider for Disposition of Capacity Based Recovery Account (2025) - effective until December 31, 2025 Applicable only for Class B Customers	$/kWh	0.0002
Retail Transmission Rate - Network Service Rate	$/kWh	0.0128
Retail Transmission Rate - Line and Transformation Connection Service Rate	$/kWh	0.0096

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate (WMS) - not including CBR	$/kWh	0.0041
Capacity Based Recovery (CBR) - Applicable for Class B Customers	$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0015
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

Burlington Hydro Inc.

TARIFF OF RATES AND CHARGES

Effective and Implementation Date January 1, 2025

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2024-0010

GENERAL SERVICE LESS THAN 50 KW SERVICE CLASSIFICATION

This classification applies to low voltage connection assets that operate at 750 volts or less and supply electricity to general service customers whose monthly average peak demand during a calendar year is less than, or forecast by BHI to be less than, 50 kW. Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Global Adjustment and the HST.

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	29.29
Rate Rider for Recovery of Incremental Capital (2025) - effective March 1, 2025 until December 31, 2025	$	0.09
Smart Metering Entity Charge - effective until December 31, 2027	$	0.42
Distribution Volumetric Rate	$/kWh	0.0193
Rate Rider for Disposition of Global Adjustment Account (2025) - effective until December 31, 2025 Applicable only for Non-RPP Customers	$/kWh	0.0013
Rate Rider for Disposition of Deferral/Variance Accounts (2025) - effective until December 31, 2025	$/kWh	0.0009
Rate Rider for Disposition of Capacity Based Recovery Account (2025) - effective until December 31, 2025 Applicable only for Class B Customers	$/kWh	0.0002
Rate Rider for Recovery of Incremental Capital (2025) - effective March 1, 2025 until December 31, 2025	$/kWh	0.0001
Retail Transmission Rate - Network Service Rate	$/kWh	0.0123
Retail Transmission Rate - Line and Transformation Connection Service Rate	$/kWh	0.0087

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate (WMS) - not including CBR	$/kWh	0.0041
Capacity Based Recovery (CBR) - Applicable for Class B Customers	$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0015
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

Burlington Hydro Inc.

TARIFF OF RATES AND CHARGES

Effective and Implementation Date January 1, 2025

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2024-0010

GENERAL SERVICE 50 TO 4,999 KW SERVICE CLASSIFICATION

This classification applies to general service customers with a monthly average peak demand during a calendar year equal to or greater than, or is forecast by Burlington Hydro Inc. to be equal to or greater than, 50 kW but less than 5,000 kW. Class A and Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

If included in the following listing of monthly rates and charges, the rate rider for the disposition of WMS - Sub-account CBR Class B is not applicable to wholesale market participants (WMP), customers that transitioned between Class A and Class B during the variance account accumulation period, or to customers that were in Class A for the entire period. Customers who transitioned are to be charged or refunded their share of the variance disposed through customer specific billing adjustments. This rate rider is to be consistently applied for the entire period to the sunset date of the rate rider. In addition, this rate rider is applicable to all new Class B customers.

If included in the following listing of monthly rates and charges, the rate rider for the disposition of Global Adjustment is only applicable to non-RPP Class B customers. It is not applicable to WMP, customers that transitioned between Class A and Class B during the variance account accumulation period, or to customers that were in Class A for the entire period. Customers who transitioned are to be charged or refunded their share of the variance disposed through customer specific billing adjustments. This rate rider is to be consistently applied for the entire period to the sunset date of the rate rider. In addition, this rate rider is applicable to all new non-RPP Class B customers.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Global Adjustment and the HST.

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	78.66
Rate Rider for Recovery of Incremental Capital (2025) - effective March 1, 2025 until December 31, 2025	$	0.24
Distribution Volumetric Rate	$/kW	3.8537
Rate Rider for Disposition of Global Adjustment Account (2025) - effective until December 31, 2025 Applicable only for Non-RPP Customers	$/kWh	0.0013
Rate Rider for Disposition of Deferral/Variance Accounts (2025) - effective until December 31, 2025	$/kW	0.3483
Rate Rider for Disposition of Capacity Based Recovery Account (2025) - effective until December 31, 2025 Applicable only for Class B Customers	$/kW	0.0706
Rate Rider for Recovery of Incremental Capital (2025) - effective March 1, 2025 until December 31, 2025	$/kW	0.0116
Retail Transmission Rate - Network Service Rate - Interval Metered	$/kW	5.0599
Retail Transmission Rate - Line and Transformation Connection Service Rate - Interval Metered	$/kW	3.7940

Burlington Hydro Inc.

TARIFF OF RATES AND CHARGES

Effective and Implementation Date January 1, 2025

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2024-0010

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate (WMS) - not including CBR	$/kWh	0.0041
Capacity Based Recovery (CBR) - Applicable for Class B Customers	$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0015
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

Burlington Hydro Inc.

TARIFF OF RATES AND CHARGES

Effective and Implementation Date January 1, 2025

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2024-0010

UNMETERED SCATTERED LOAD SERVICE CLASSIFICATION

This classification applies to low voltage connection assets that operate at 750 volts or less and supply electricity to general service customers whose monthly average peak demand during a calendar year is less than, or forecast by Burlington Hydro Inc. to be less than, 50 kW and the consumption is unmetered. Such connections include cable TV power packs, bus shelters, telephone booths, traffic lights, railway crossings, etc. The customer will provide detailed manufacturer information/documentation with regard to electrical demand/consumption of the proposed unmetered load. Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Global Adjustment and the HST.

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	10.81
Rate Rider for Recovery of Incremental Capital (2025) - effective March 1, 2025 until December 31, 2025	$	0.03
Distribution Volumetric Rate	$/kWh	0.0188
Rate Rider for Disposition of Capacity Based Recovery Account (2025) - effective until December 31, 2025 Applicable only for Class B Customers	$/kWh	0.0002
Rate Rider for Disposition of Deferral/Variance Accounts (2025) - effective until December 31, 2025	$/kWh	0.0009
Rate Rider for Recovery of Incremental Capital (2025) - effective March 1, 2025 until December 31, 2025	$/kWh	0.0001
Retail Transmission Rate - Network Service Rate	$/kWh	0.0123
Retail Transmission Rate - Line and Transformation Connection Service Rate	$/kWh	0.0087

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate (WMS) - not including CBR	$/kWh	0.0041
Capacity Based Recovery (CBR) - Applicable for Class B Customers	$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0015
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

Burlington Hydro Inc.

TARIFF OF RATES AND CHARGES

Effective and Implementation Date January 1, 2025

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EB-2024-0010

STREET LIGHTING SERVICE CLASSIFICATION

This classification refers to roadway lighting customers such as the City of Burlington, the Regional Municipality of Halton, Ministry of Transportation and private roadway lighting, controlled by photo cells. The daily consumption for these customers will be based on the calculated connected load times the required night time or lighting times established in the approved Ontario Energy Board street lighting load shape template. Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Global Adjustment and the HST.

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge (per device)	$	0.65
Distribution Volumetric Rate	$/kW	4.6705
Rate Rider for Disposition of Global Adjustment Account (2025) - effective until December 31, 2025 Applicable only for Non-RPP Customers	$/kWh	0.0013
Rate Rider for Disposition of Deferral/Variance Accounts (2025) - effective until December 31, 2025	$/kW	0.3435
Rate Rider for Disposition of Capacity Based Recovery Account (2025) - effective until December 31, 2025 Applicable only for Class B Customers	$/kW	0.0725
Rate Rider for Recovery of Incremental Capital (2025) - effective March 1, 2025 until December 31, 2025	$/kW	0.0141
Retail Transmission Rate - Network Service Rate	$/kW	3.6978
Retail Transmission Rate - Line Connection Service Rate	$/kW	2.7000

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate (WMS) - not including CBR	$/kWh	0.0041
Capacity Based Recovery (CBR) - Applicable for Class B Customers	$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0015
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

Burlington Hydro Inc.

TARIFF OF RATES AND CHARGES

Effective and Implementation Date January 1, 2025

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2024-0010

microFIT SERVICE CLASSIFICATION

This classification applies to an electricity generation facility contracted under the Independent Electricity System Operator's microFIT program and connected to the distributor's distribution system. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor’s Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Global Adjustment and the HST.

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	5.00

Burlington Hydro Inc.

TARIFF OF RATES AND CHARGES

Effective and Implementation Date January 1, 2025

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EB-2024-0010

ALLOWANCES

Transformer Allowance for Ownership - per kW of billing demand/month	$/kW	(0.60)
Primary Metering Allowance for Transformer Losses - applied to measured demand & energy	%	(1.00)

SPECIFIC SERVICE CHARGES

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Global Adjustment and the HST.

Customer Administration

Arrears certificate	$	15.00
Credit reference/credit check (plus credit agency costs)	$	15.00
Statement of account	$	15.00
Account set up charge/change of occupancy charge (plus credit agency costs if applicable)	$	30.00
Returned cheque (plus bank charges)	$	15.00

Non-Payment of Account

Late Payment – per month (effective annual rate 19.56% per annum or 0.04896% compounded daily rate)	%	1.50
Reconnection at meter - during regular hours	$	65.00
Reconnection at meter - after regular hours	$	185.00

Other

Temporary service - install & remove - overhead - no transformer	$	500.00
Specific charge for wireline access to the power poles - $/pole/year (with the exception of wireless attachments)	$	39.14

Burlington Hydro Inc.

TARIFF OF RATES AND CHARGES

Effective and Implementation Date January 1, 2025

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2024-0010

RETAIL SERVICE CHARGES (if applicable)

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

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Retail Service Charges refer to services provided by a distributor to retailers or customers related to the supply of competitive electricity.

One-time charge, per retailer, to establish the service agreement between the distributor and the retailer	$	121.23
Monthly Fixed Charge, per retailer	$	48.50
Monthly Variable Charge, per customer, per retailer	$/cust.	1.20
Distributor-consolidated billing monthly charge, per customer, per retailer	$/cust.	0.71
Retailer-consolidated billing monthly credit, per customer, per retailer	$/cust.	(0.71)
Service Transaction Requests (STR)		
Request fee, per request, applied to the requesting party	$	0.61
Processing fee, per request, applied to the requesting party	$	1.20
Request for customer information as outlined in Section 10.6.3 and Chapter 11 of the Retail Settlement Code directly to retailers and customers, if not delivered electronically through the Electronic Business Transaction (EBT) system, applied to the requesting party		
Up to twice a year	$	no charge
More than twice a year, per request (plus incremental delivery costs)	$	4.85
Notice of switch letter charge, per letter (unless the distributor has opted out of applying the charge as per the Ontario Energy Board's Decision and Order EB-2015-0304, issued on February 14, 2019)	$	2.42

LOSS FACTORS

If the distributor is not capable of prorating changed loss factors jointly with distribution rates, the revised loss factors will be implemented upon the first subsequent billing for each billing cycle.

Total Loss Factor - Secondary Metered Customer < 5,000 kW	1.0382
Total Loss Factor - Primary Metered Customer < 5,000 kW	1.0279

Appendix B – Proposed Tariff of Rates and Charges

Burlington Hydro Inc.

TARIFF OF RATES AND CHARGES

Effective and Implementation Date January 1, 2026

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2025-0051

RESIDENTIAL SERVICE CLASSIFICATION

This classification applies to low voltage connection assets that operate at 750 volts or less and supply electrical energy to residential customers where such energy is used exclusively in separately metered living accommodation. Customers shall be residing in single dwelling units that consist of a detached house or one unit of a semi-detached, duplex, triplex, or quadruplex house, with residential zoning. Separately metered dwellings within a town house complex or apartment building also qualify as residential customers. Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable. In addition, the charges in the MONTHLY RATES AND CHARGES - Regulatory Component of this schedule do not apply to a customer that is an embedded wholesale market participant.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Global Adjustment and the HST.

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	41.19
Rate Rider for Disposition of Account 1509 - effective until December 31, 2026	$	0.27
Rate Rider for Group 2 Deferral/Variance Account Balances - effective until December 31, 2026	$	1.12
Smart Metering Entity Charge - effective until December 31, 2027	$	0.42
Rate Rider for Disposition of Capacity Based Recovery Account (2025) - effective until December 31, 2025 Applicable only for Class B Customers	$/kWh	0.0002
Rate Rider for Disposition of Deferral/Variance Accounts - effective until December 31, 2026	$/kWh	0.0001
Rate Rider for Disposition of Capacity Based Recovery (CBR) Account Applicable only for Class B Customers - effective until December 31, 2026	$/kWh	0.0005
Rate Rider for Disposition of Global Adjustment Account - Applicable to Non-RPP Customers Only - effective until December 31, 2026	$/kWh	0.0062
Retail Transmission Rate - Network Service Rate	$/kWh	0.0128
Retail Transmission Rate - Line and Transformation Connection Service Rate	$/kWh	0.0096

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate (WMS) - not including CBR	$/kWh	0.0041
Capacity Based Recovery (CBR) - Applicable for Class B Customers	$/kWh	0.0004

Burlington Hydro Inc.

TARIFF OF RATES AND CHARGES

Effective and Implementation Date January 1, 2026

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2025-0051

Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0015
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

Burlington Hydro Inc.

TARIFF OF RATES AND CHARGES

Effective and Implementation Date January 1, 2026

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2025-0051

GENERAL SERVICE LESS THAN 50 KW SERVICE CLASSIFICATION

This classification applies to low voltage connection assets that operate at 750 volts or less and supply electricity to general service customers whose monthly average peak demand during a calendar year is less than, or forecast by BHI to be less than, 50 kW. Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

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It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Global Adjustment and the HST.

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	36.96
Rate Rider for Disposition of Account 1509 - effective until December 31, 2026	$	0.63
Smart Metering Entity Charge - effective until December 31, 2027	$	0.42
Distribution Volumetric Rate	$/kWh	0.0244
Rate Rider for Disposition of Capacity Based Recovery Account (2025) - effective until December 31, 2025 Applicable only for Class B Customers	$/kWh	0.0002
Rate Rider for Disposition of Deferral/Variance Accounts - effective until December 31, 2026	$/kWh	0.0002
Rate Rider for Disposition of Capacity Based Recovery (CBR) Account Applicable only for Class B Customers - effective until December 31, 2026	$/kWh	0.0005
Rate Rider for Disposition of Global Adjustment Account - Applicable to Non-RPP Customers Only - effective until December 31, 2026	$/kWh	0.0062
Rate Rider for Group 2 Deferral/Variance Account Balances - effective until December 31, 2026	$/kWh	0.0014
Retail Transmission Rate - Network Service Rate	$/kWh	0.0123
Retail Transmission Rate - Line and Transformation Connection Service Rate	$/kWh	0.0087

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate (WMS) - not including CBR	$/kWh	0.0041
Capacity Based Recovery (CBR) - Applicable for Class B Customers	$/kWh	0.0004

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Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0015
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

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GENERAL SERVICE 50 TO 4,999 KW SERVICE CLASSIFICATION

This classification applies to general service customers with a monthly average peak demand during a calendar year equal to or greater than, or is forecast by Burlington Hydro Inc. to be equal to or greater than, 50 kW but less than 5,000 kW. Class A and Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

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If included in the following listing of monthly rates and charges, the rate rider for the disposition of WMS - Sub-account CBR Class B is not applicable to wholesale market participants (WMP), customers that transitioned between Class A and Class B during the variance account accumulation period, or to customers that were in Class A for the entire period. Customers who transitioned are to be charged or refunded their share of the variance disposed through customer specific billing adjustments. This rate rider is to be consistently applied for the entire period to the sunset date of the rate rider. In addition, this rate rider is applicable to all new Class B customers.

If included in the following listing of monthly rates and charges, the rate rider for the disposition of Global Adjustment is only applicable to non-RPP Class B customers. It is not applicable to WMP, customers that transitioned between Class A and Class B during the variance account accumulation period, or to customers that were in Class A for the entire period. Customers who transitioned are to be charged or refunded their share of the variance disposed through customer specific billing adjustments. This rate rider is to be consistently applied for the entire period to the sunset date of the rate rider. In addition, this rate rider is applicable to all new non-RPP Class B customers.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Ontario Energy Board approval, such as the Global Adjustment and the HST.

MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	84.65
Rate Rider for Disposition of Account 1509 - effective until December 31, 2026	$	6.11
Distribution Volumetric Rate	$/kW	4.9155
Rate Rider for Disposition of Capacity Based Recovery Account (2025) - effective until December 31, 2025 Applicable only for Class B Customers	$/kW	0.0706
Rate Rider for Disposition of Deferral/Variance Accounts - effective until December 31, 2026	$/kW	0.0831
Rate Rider for Disposition of Capacity Based Recovery (CBR) Account Applicable only for Class B Customers - effective until December 31, 2026	$/kW	0.1810
Rate Rider for Disposition of Global Adjustment Account - Applicable to Non-RPP Customers Only - effective until December 31, 2026	$/kWh	0.0062

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		EB-2025-0051
Rate Rider for Group 2 Deferral/Variance Account Balances - effective until December 31, 2026	$/kW	0.4725
Retail Transmission Rate - Network Service Rate - Interval Metered	$/kW	5.0599
Retail Transmission Rate - Line and Transformation Connection Service Rate - Interval Metered	$/kW	3.7940

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate (WMS) - not including CBR	$/kWh	0.0041
Capacity Based Recovery (CBR) - Applicable for Class B Customers	$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0015
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

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UNMETERED SCATTERED LOAD SERVICE CLASSIFICATION

This classification applies to low voltage connection assets that operate at 750 volts or less and supply electricity to general service customers whose monthly average peak demand during a calendar year is less than, or forecast by Burlington Hydro Inc. to be less than, 50 kW and the consumption is unmetered. Such connections include cable TV power packs, bus shelters, telephone booths, traffic lights, railway crossings, etc. The customer will provide detailed manufacturer information/documentation with regard to electrical demand/consumption of the proposed unmetered load. Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, or as specified herein.

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MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	10.76
Rate Rider for Disposition of Account 1509 - effective until December 31, 2026	$	0.13
Distribution Volumetric Rate	$/kWh	0.0187
Rate Rider for Disposition of Capacity Based Recovery Account (2025) - effective until December 31, 2025 Applicable only for Class B Customers	$/kWh	0.0002
Rate Rider for Disposition of Deferral/Variance Accounts - effective until December 31, 2026	$/kWh	0.0002
Rate Rider for Disposition of Capacity Based Recovery (CBR) Account Applicable only for Class B Customers - effective until December 31, 2026	$/kWh	0.0005
Rate Rider for Group 2 Deferral/Variance Account Balances - effective until December 31, 2026	$/kWh	0.0014
Retail Transmission Rate - Network Service Rate	$/kWh	0.0123
Retail Transmission Rate - Line and Transformation Connection Service Rate	$/kWh	0.0087

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate (WMS) - not including CBR	$/kWh	0.0041
Capacity Based Recovery (CBR) - Applicable for Class B Customers	$/kWh	0.0004

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Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0015
Standard Supply Service - Administrative Charge (if applicable)	$	0.25

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STREET LIGHTING SERVICE CLASSIFICATION

This classification refers to roadway lighting customers such as the City of Burlington, the Regional Municipality of Halton, Ministry of Transportation and private roadway lighting, controlled by photo cells. The daily consumption for these customers will be based on the calculated connected load times the required night time or lighting times established in the approved Ontario Energy Board street lighting load shape template. Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

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MONTHLY RATES AND CHARGES - Delivery Component

Service Charge (per device)	$	0.78
Rate Rider for Disposition of Account 1509 - effective until December 31, 2026	$	0.01
Distribution Volumetric Rate	$/kW	5.5695
Rate Rider for Disposition of Capacity Based Recovery Account (2025) - effective until December 31, 2025 Applicable only for Class B Customers	$/kW	0.0725
Rate Rider for Disposition of Deferral/Variance Accounts - effective until December 31, 2026	$/kW	0.0797
Rate Rider for Disposition of Capacity Based Recovery (CBR) Account Applicable only for Class B Customers - effective until December 31, 2026	$/kW	0.1827
Rate Rider for Disposition of Global Adjustment Account - Applicable to Non-RPP Customers Only - effective until December 31, 2026	$/kWh	0.0062
Rate Rider for Group 2 Deferral/Variance Account Balances - effective until December 31, 2026	$/kW	0.5202
Retail Transmission Rate - Network Service Rate	$/kW	3.6978
Retail Transmission Rate - Line Connection Service Rate	$/kW	2.7000

MONTHLY RATES AND CHARGES - Regulatory Component

Wholesale Market Service Rate (WMS) - not including CBR	$/kWh	0.0041
Capacity Based Recovery (CBR) - Applicable for Class B Customers	$/kWh	0.0004
Rural or Remote Electricity Rate Protection Charge (RRRP)	$/kWh	0.0015

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Standard Supply Service - Administrative Charge (if applicable)	$	0.25

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microFIT SERVICE CLASSIFICATION

This classification applies to an electricity generation facility contracted under the Independent Electricity System Operator's microFIT program and connected to the distributor's distribution system. Further servicing details are available in the distributor's Conditions of Service.

APPLICATION

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MONTHLY RATES AND CHARGES - Delivery Component

Service Charge	$	5.00

ALLOWANCES

Transformer Allowance for Ownership - per kW of billing demand/month	$/kW	(0.60)
Primary Metering Allowance for Transformer Losses - applied to measured demand & energy	%	(1.00)

SPECIFIC SERVICE CHARGES

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Customer Administration

Arrears certificate	$	15.00
Credit reference/credit check (plus credit agency costs)	$	15.00
Statement of account	$	15.00
Account set up charge/change of occupancy charge (plus credit agency costs if applicable)	$	30.00

Returned cheque (plus bank charges)	$	15.00

Non-Payment of Account

Late Payment – per month (effective annual rate 19.56% per annum or 0.04896% compounded daily rate)	%	1.50
Reconnection at meter - during regular hours	$	65.00
Reconnection at meter - after regular hours	$	185.00

Other

Temporary service - install & remove - overhead - no transformer	$	500.00
Specific charge for wireline access to the power poles - $/pole/year	$	40.55
(with the exception of wireless attachments)		40.55

RETAIL SERVICE CHARGES (if applicable)

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Ontario Energy Board, and amendments thereto as approved by the Ontario Energy Board, which may be applicable to the administration of this schedule.

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Retail Service Charges refer to services provided by a distributor to retailers or customers related to the supply of competitive electricity.

One-time charge, per retailer, to establish the service agreement between the distributor and the retailer	$	121.23
Monthly Fixed Charge, per retailer	$	48.50
Monthly Variable Charge, per customer, per retailer	$/cust.	1.20
Distributor-consolidated billing monthly charge, per customer, per retailer	$/cust.	0.71
Retailer-consolidated billing monthly credit, per customer, per retailer	$/cust.	(0.71)
Service Transaction Requests (STR)		
Request fee, per request, applied to the requesting party	$	0.61
Processing fee, per request, applied to the requesting party	$	1.20
Request for customer information as outlined in Section 10.6.3 and Chapter 11 of the Retail Settlement Code directly to retailers and customers, if not delivered electronically through the Electronic Business Transaction (EBT) system, applied to the requesting party		
Up to twice a year	$	no charge
More than twice a year, per request (plus incremental delivery costs)	$	4.85

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Notice of switch letter charge, per letter (unless the distributor has opted out of applying the charge as per the Ontario Energy Board's Decision and Order EB-2015-0304, issued on February 14, 2019)	$	2.42

LOSS FACTORS

If the distributor is not capable of prorating changed loss factors jointly with distribution rates, the revised loss factors will be implemented upon the first subsequent billing for each billing cycle.

Total Loss Factor - Secondary Metered Customer < 5,000 kW	1.0382
Total Loss Factor - Primary Metered Customer < 5,000 kW	1.0279

Appendix C – Distribution System Loss Analysis

BURLINGTON HYDRO INC.

DISTRIBUTION SYSTEM LOSS ANALYSIS

July 21, 2023

C16-00191

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Distribution System Loss Analysis

Loss Modelling and Mitigation Review for a Sample of Ten Feeders

Project no C16-00191

PREPARED BY:

Nicholas Mior, Electrical EIT

VERIFIED BY:

Abdul Aziz Khan, M.Eng., P.Eng.

CIMA+
500-5935 Airport Road,
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July 21, 2023

Revision History

Revision	Date	Description	Prepared By	Verified By
0	23-06-2023	Final Report	NM	AAK
1	21-07-2023	Revised as per BHI comments.	NM	AAK

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Appendix A – Analysis Results- Base Case

Appendix B – Analysis Results- Mitigation Case

1. Executive Summary

In July of 2022, CIMA+ was engaged to focus on the distribution feeder line losses and provide Burlington Hydro Inc. (BHI) with a review of these losses for ten (10) BHI selected feeders, representing different voltage classes, that would offer a cross section view of the feeders in the BHI distribution system. The BHI distribution system consists of 160 feeders, of which 98 are operating at 4.16kV, 28 are operating at 13.8kV and 34 are operating at 27.6kV. For the purpose of this report, 10 BHI feeders equaling 6.25% of the total system, have been selected and analysed to represent the overall system. This analysis would provide a general overview of potential improvements that could be implemented across the remaining feeders. The feeder data provided by Burlington Hydro is listed in *Table 1* below.

Table 1: Sample Feeder and Total Feeders Count

Sr. No.	Feeder Name	Voltage	Three Phase Peak Load
1	HARV F2	4.16kV	1764 kVA
2	HOWD F3	4.16kV	403 kVA
3	EAST F3	4.16kV	1706 kVA
4	TOWL F3	13.8kV	3980 kVA
5	LOWV F3	13.8kV	1517 kVA
6	PALM F2	13.8kV	3067 kVA
7	280M6	27.6kV	22,199 kVA
8	39M32	27.6kV	14,122 kVA
9	76M30	27.6kV	16,723 kVA
10	13M25	27.6kV	5386 kVA
No. of Sample Feeders Studied	10 out of 160 (6.25%)		

To identify any areas of concern, the calculation of theoretical losses were conducted using the peak demand and associated feeder data provided by BHI. This analysis provided the opportunity to assess possible mitigation measures that could reduce the calculated primary line loss in areas that were experiencing losses greater than BHI's five-year average total system losses of 3.4% (translated to 4% peak losses) set by the Ontario Energy Board (OEB). The 4% is an estimate of losses experienced during peak demand. Typically, a 15% to 35% factor is used to convert the five-year average loss to the peak loss; this report considers a conservative factor of 18% (i.e., 3.4% * 1.18= 4%). Additionally, the feeders were evaluated for LDC best operating practices including, a current imbalance less than 10% and a power factor of 95% or greater.

The base case losses, under peak demand, were calculated within CYME for each feeder, which were then used to gauge the impact of the proposed loss mitigation efforts that would be applied to the CYME model.

Several mitigation measures were considered for each feeder based on the calculated line losses and the feeder data supplied by Burlington Hydro. The potential mitigation measures included phase load balancing, voltage conversion, reconductoring, power factor correction using VAR compensation and distribution feeder reconfiguration. Changes were made to the CYME models to allow the impacts of each mitigation measure to be recalculated for comparison against the base case findings.

The following results were obtained after considering all possible mitigation options and the review of each feeder's base case simulation had been completed:

- Three (3) out of the ten (10) feeders have line losses greater than 4%. The three feeders are HARV F2 and HOWD F3 operating at 4.16kV and 280M6 operating at 27.6kV. The line losses for HOWD F3 could be reduced below 4% while the losses experienced by HARV F2 and 280M6 cannot be reduced cost-effectively.
- Three (3) out of the ten (10) feeders have a power factor below the LDC limit of 95% which includes HARV F2, HOWD F3 and 76M30. With the addition of VAR compensation mitigation, the power factor could improve to 95% or greater for all three feeders.
- Five (5) out of the ten (10) feeders have a current imbalance greater than 10% which are HARV F2, HOWD F3, EAST F3, LOWV F3 and PALM F2. The HARV F2, EAST F3 & LOWV F3 could benefit from load balancing to bring the current imbalance below 10% while the HOWD F3 & PALM F2 would not experience a current imbalance below 10% from load balancing based on the available cost-effective solutions.

2. Introduction

Burlington Hydro Inc. (BHI) is a local distribution company serving approximately 68,000 residential and commercial customers in the City of Burlington. It operates under a distribution licence, maintains 32 MS (Municipal Stations) and almost 1,600 kilometers of distribution lines throughout its service area. BHI's total service area is 188 km^2, of which 90 km^2 are rural and the remainder is urban. The system contains multiple voltage levels, including 4.16kV, 13.8kV, and 27.6kV, as well as the substations required to transform the voltage between these levels. The distribution feeders supply a mix of both lightly loaded, long rural lines as well as dense, heavily loaded urban centers. The diversity of supply voltages and distribution areas pose some difficulty in determining the best course of action to reduce system losses.

The overall goal as stated by BHI is to "maintain its five-year average total system losses at the target of 3.4% set by the OEB through cost effective measures". The losses that BHI is currently reporting, and the goals set by the company are comparable to other LDCs of similar size.

For each feeder, the losses were evaluated based on the peak demand load as provided in the CYME model. Once the losses were calculated based on the CYME simulations, any feeder with calculated total line losses exceeding 4% of the feeder load was targeted for mitigation review. The 4% is an estimate of losses experienced during peak demand. Typically, a 15% to 35% factor

is used to convert the five-year average loss to the peak loss; this report considers a conservative factor of 18% (i.e., 3.4% * 1.18= 4%).

CIMA+ were engaged to provide Burlington Hydro with a review of the primary line losses for ten (10) BHI selected feeders that would offer a cross section view of the overall system. The review was to provide possible mitigation measures that would reduce primary line losses based on the calculated theoretical losses generated using the peak demand and associated feeder data provided by Burlington Hydro.

Given that the calculated primary line losses are based on the feeders peak demand loading, the Total Loss values derived in this study cannot be used for any economic evaluation or cost-benefit analysis and are only to be used for analytical purposes when assessing the impacts of possible mitigation measures.

3. General Discussion of Distribution System Losses

Energy losses in a distribution system include transformation losses at the transmission connected stations, feeder line losses, distribution transformation losses, and secondary line losses. All of these components contribute to the distribution losses of an LDC in Ontario.

The total losses in an electrical system are constantly changing due to physical changes as well as changes in electrical demand. Total losses also include unaccounted usage such as power diversion, un-metered loads (streetlights, sentinel lights), and losses resulting from metering inaccuracy. Burlington Hydro's operational and construction decisions adhere to best practices which in turn reduce losses or keep them to a minimum.

Distribution losses are imperative in any electrical distribution system, and LDCs are always looking for opportunities to reduce losses in a cost-effective manner. The benefit, in the form of reduced losses, must outweigh the costs of implementing the corrective action. Each LDC will have different thresholds for this measure. Projects undertaken on a distribution system are not usually made just to reduce system losses, but rather as a part of a overall improvement plan which looks at other factors such as asset age, load balancing, feeder congestion, and other important operational elements.

3.1 Analysing Losses and Mitigation Strategies

Distribution system losses include Technical Losses and Non-Technical Losses. Technical losses are defined as those attributable to the operation of a distribution system, such as primary voltage line losses, secondary line losses, and transformation losses. Non-Technical Losses include all un-accounted for energy like power diversion, billing errors, and un-metered loads.

To determine where the technical distribution losses are occurring, LDCs maintain a model of the system in an engineering analysis software to allow study of the system under various conditions. Burlington Hydro maintains a system model in the CYME engineering software package. The system model allows the LDC to simulate various loss reduction strategies (one or multiple tactics)

to see which ones have the greatest impact. These loss reduction measures could then be costed to allow for an economic evaluation of the investment.

The following is a brief description of various loss reduction initiatives and their impact on a distribution system. In reviewing Burlington Hydro's system, the CIMA+ team evaluated several of the following loss mitigation options for the various studied feeders to determine if possible viable solutions that are worthy of moving to a cost-benefit analysis.

3.1.1 Load Balancing and System Optimization

The aim of System Optimization is to balance loads and current flow through a system to reduce losses. As losses are proportional to the mathematical square of the current (I^2R), reducing the current on the neutral conductor by evenly balancing the load across all three phases could substantially impact losses. Evenly spreading load across various local feeders could also reduce losses. Realtime monitoring of the station feeders and intelligent line devices can provide key information about the performance of the distribution system.

Line losses in an unbalanced three phase distribution system are higher than a balanced three phase system. Complete balance of the feeder's individual phase loads is unattainable due to the nature of the system configuration but keeping the phase loading as closely balanced as possible results in line loss reductions. Feeder phase load balancing is an on-going effort that is best addressed during the design stage for new load additions, as well as during periodic reviews for established feeders.

Depending on the configuration of the distribution system, phase load balancing may not always be a simple task. The availability of other phases or the ability to split loads between existing phases may not be physically possible or operationally acceptable for safety reasons.

3.1.2 Voltage Profile Management

The management of the supply voltage at transformer stations, feeder voltage regulators, and intelligent voltage controllers can help regulate the primary voltage across the distribution system. LDCs have been controlling station demand at peak times with conservation voltage reduction management systems, which in turn could reduce system losses. Advancements in technology now permit local voltage control for small clusters of loads, and this offers the ability to impact demand, losses, and voltage performance.

The most common applications for voltage support are using voltage regulators or static capacitor installations along the feeder.

3.1.3 Voltage Conversion

Increasing the voltage at which electricity is distributed reduces losses. For any given electrical load, the supply voltage and current are directly correlated meaning, as the supply voltage increases the required current decreases. Given the I^2R relationship, losses are reduced exponentially.

In the 1950-1970's, most LDCs were installing 4.16kV distribution systems. This was a common supply voltage, and most of the distribution equipment that was manufactured was geared to this system voltage. In time, as insulation technology improved, distribution voltages steadily increased to higher voltages such as, 13.8kV, and 27.6kV.

LDCs have been routinely performing voltage conversation as a normal course of business when replacing depreciated plant or when driven by other factors (i.e., Road widenings or expansion projects). Some LDCs have made business cases to prematurely replace lower voltage distribution systems before end of life, based on factors including reduction of losses.

3.1.4 Power Factor Correction

Distribution systems supply real power (kilowatts) and reactive power (kilovars). The relationship of Real Power (watts) to Reactive Power (vars) is called the Power Factor. Reactive power is a necessary component in the supply of power to customers. The combination of real and reactive power is called apparent power (kVA), and the apparent power flowing through distribution lines determines the current in the line, and the losses that are proportional to the total current flowing. If the reactive power component can be lowered, the resulting improvement of Power Factor results in the reduction of line current and lower losses.

LDCs are required to maintain better than a 95% Power Factor in their system. Most often this is provided through the application of large static capacitor banks at transformer stations or distribution substations. This manages the power factor from the viewpoint of transmission supply points but does nothing to change the reactive power flowing through the distribution system feeders. The most common practice to improve power factor on distribution feeders is by the application of static shunt capacitors on the lines, located closer to the loads. The capacitors are a source of reactive power that is close to the load, resulting in lower losses due the reduction of the feeder line current. An additional benefit of the capacitors is improved voltage regulation on the feeder.

3.1.5 Reconductoring

Reconductoring, or the replacement of an existing conductor with a larger size, could directly affect the losses in a system by reducing the resistance of the circuit between the source and customer loads. Conductors are often selected for an application based on the load at that time, balanced against ampacity limitations of the conductor. If the load increases or the system configuration changes over time, the conductor size of a given line segment may no longer be adequate. Increasing the size of the conductor segment could reduce line losses by reducing the impedance of the line, which reduces the R in the I^2R loss relationship.

On its own, reconductoring is not the most effective loss mitigation measure, but combined with improved operational flexibility and replacement of aging-equipment can provide a positive impact.

3.1.6 Distribution Feeder Reconfiguration

Feeder Reconfiguration (FR) is an operational process that modifies the feeder topology structure by changing the section as well as the tie switches status. The main objective of FR is to find a radial operating configuration that optimizes certain objectives while satisfying operational constraints. Increased number of switches leads to a better reconfiguration but at the same time increases investment cost as well as outage time. Hence, optimal composition and placement of switches is required. The challenge associated with feeder reconfiguration is that its a multi-objective approach that requires the coordination of several dependent outcomes. The objective outcomes include cost reduction (investment and operational), loss minimization, improved reliability and voltage profile improvement.

3.1.7 Transformer Efficiency and Replacement

As stated previously, the physical properties of a transformer directly contribute to the overall losses in a system. As technology and manufacturing processes advance, transformer losses can be specified and reduced where required. Given the 40-50 year life cycle of a distribution transformer, manufacturing improvements in efficiency over time are difficult to take advantage of. However, if a unit is at end of life, it is an excellent opportunity to replace the transformer with a more efficient model.

For the purposes of this feeder loss review and the limited amount of transformer loading data provided, load consolidation and/or transformer replacements were not considered as a plausible option.

3.1.8 Embedded Distributed Generation

Embedded Distributed Generation (DG) can offer the LDC an opportunity to improve a feeders' voltage profile as well as help to reduce losses on the feeder by providing supply capacity close to the feeder loads. The DG can be either customer owned or in some cases can be owned and operated by the LDC. However, in either case it can also present other challenges to an LDC system that need to be considered. Fault level contributions and protection system coordination are just two of the aspects to be considered. For the purposes of this study, all DG sources were turned off to simulate the worst-case scenarios.

3.1.9 Non-Technical Losses

Non-technical losses are included in the overall Distribution System Losses. As stated earlier, these include power diversion, unmetered loads (streetlighting, sentinel lighting, bus shelters, cable amplifiers) as well as meter inaccuracies, and billing errors.

Overall system losses are calculated by subtracting all metered consumption from the metered input energy at the point(s) of supply entering a distribution system. In this method of calculation, power diversion and un-metered loads are included as losses in a distribution system.

LDCs manage meter accuracy by adherence to Industry Canada regulations regarding meter accuracy and verification programs. Accurate inventories of un-metered loads are an effective tool of understanding the loss makeup of an LDC, but a good understanding of the energy consumption of un-metered loads is required to accurately account for the unmetered consumption in a distribution system.

3.1.10 Conservation and Demand Management

Conservation and demand management is a program aimed at reducing the total load on the distribution system. By replacing existing loads with more energy efficient loads (e.g. lighting retrofits) or time shifting loads to periods of lower demand (e.g. electric water heater control program), the peak demand of a distribution system could be reduced. This reduction of the peak demand current impacts the I^2 portion of the I^2R loss relationship.

4. Study Methodology

Distribution system losses are comprised of transformation losses as well as primary and secondary line losses. Transformer losses are determined by the overall efficiency of the unit, which is mandated by CSA standards for general use by Ontario LDCs. Secondary line losses (i.e between the distribution transformer and the customer meter) were not modelled in the CYME software models provided by Burlington Hydro, so were not analyzed as part of this study. Therefore, this study focuses on the primary voltage distribution line losses only.

Ten (10) feeders were selected by Burlington Hydro as a sample of their distribution system. The feeder load data provided by Burlington Hydro is listed in *Table 2* below. A variety of feeders were selected by BHI so that a sample from every voltage level, high and low loading, and varied feeder lengths are analysed. These sample feeders are being analysed as archetypes to point to other feeders for further review by Burlington Hydro, based upon study findings.

Table 2: Supplied Feeder Data

Feeder Name	Voltage	Three Phase Peak Load	Calculated Imbalance %	Feeder Power Factor %
HARV F2	4.16kV	1764 kVA	11%	92%
HOWD F3	4.16kV	403 kVA	60%	93%
EAST F3	4.16kV	1706 kVA	14%	96%
TOWL F3	13.8kV	3980 kVA	10%	96%
LOWV F3	13.8kV	1517 kVA	15%	96%
PALM F2	13.8kV	3067 kVA	14%	95%
280M6	27.6kV	22,199 kVA	1%	95%
39M32	27.6kV	14,122 kVA	8%	96%
76M30	27.6kV	16,723 kVA	1%	91%
13M25	27.6kV	5386 kVA	3%	98%

The following information was provided to CIMA+ by Burlington Hydro at the beginning of the study:

- CYMDIST feeder models
- Feeder loading conditions as included in CYME Model

CIMA+ considered the feeder loading and allocation information included in the CYME model as a true representative of the BHI system. Any generation modelled in CYME was shut off and not factored into the analysis.

Once the losses were calculated based on the CYME simulations, any feeder with calculated total line losses exceeding 4% of the feeder load was targeted for mitigation review. Once these feeders were identified, some mitigation scenarios were run to see if the identified measures would have any worthwhile impact on lowering the losses. The following mitigation strategies were employed on the feeder models:

- Power factor correction was explored for any feeder having a client stated PF of less than 95%.

  To simulate this, the feeder source configuration was altered in CYME to, lower phase currents that would be seen with a 95% power factor, while maintaining the base case real power component (kW) of the feeder load. Then the peak load was allocated across all transformers on the feeder in the same manner as the base case calculations and the losses were recalculated. This simulates a “Best Possible” mitigation measure for power factor correction on the feeder.

- To review the effects of load balancing, we explored the impacts of this effort on all feeders with an unbalance greater than a 10%.

  CYME has a “System Optimization” application that reviews the feeder loading and makes suggestions on what loads to shift to another phase to improve the phase load balance. We reviewed each CYME suggestion and applied those relocations that appeared to be operationally acceptable based on the single line information and the CYME models that were provided for each feeder.

- Where line losses were calculated to be above 4%, the feeder model was searched to identify any cost-efficient mitigation to reduce losses.

For each feeder, the losses were evaluated based on the peak demand load as provided in the CYME model. The CYME model was also able to provide an estimate of circuit length of both cables and overhead line.

The overall feeder losses were used to evaluate any reduction in losses resulting from applying the mitigation measures.

5. Analysis Results

The analysis performed on each feeder and the results found are outlined in this section. The following sections provide discussions regarding studies performed to mitigate issues with conclusions and recommendations to follow.

Table 2 summarizes the feeder data provided by Burlington Hydro. *Table 3* shows the Cyme calculated values for the losses and approximate lengths of cable and overhead lines.

Table 4 shows the possible loss mitigation measures that could be undertaken for each feeder based on the loss calculations and the physical properties of the feeder found from the CYME simulations.

Table 3: Cyme Loss Analysis Summary (Base Case)

Feeder Name	Total Feeder Cable (m)	Total Feeder OH Line (m)	Calculated Losses (% of Load)				Total Losses (kVA)
			Line (%)	Cable (%)	TX (%) (N.L.L + L.L)	Total (%)	
HARV F2	816	3362	5.03	0.28	1.51	6.82	107.25
HOWD F3	17	10293	4.61	0.01	1.90	6.53	22.56
EAST F3	1846	5699	0.69	0.14	1.56	2.39	34.87
TOWL F3	23703	2932	0.59	0.68	1.56	2.83	99.44
LOWVF3	4307	39929	0.93	0.01	2.23	3.17	40.03
PALM F2	12585	2876	0.31	0.10	1.59	2.01	52.19
280M6	72917	144474	6.40	0.15	3.40	9.95	1982.85
39M32	20837	47711	3.65	0.18	3.15	6.99	883.78
76M30	7725	10578	2.43	0.04	1.60	4.80	597.6
13M25	7658	14428	1.18	0.17	3.31	4.65	223.09

Table 4: Possible Loss Mitigation Measures

Feeder Name	PF Correction	Load Balancing	Voltage Conversion	Line Reconductoring	Feeder Reconfiguration
HARV F2	✓	✓	✓	✓	✓
HOWD F3	✓	✓	✗	✗	✗
EAST F3	✗	✓	✗	✗	✗
TOWL F3	✗	✗	✗	✗	✗
LOWV F3	✗	✓	✗	✗	✗
PALM F2	✗	✓	✗	✗	✗
280M6	✗	✗	✗	✗	✓
39M32	✗	✓	✗	✗	✗
76M30	✓	✗	✗	✗	✗
13M25	✗	✗	✗	✗	✗

When reviewing the calculated losses and determining which mitigation measure might apply, the primary focus was on methods to reduce the line losses. Transformer losses are not easily changed unless a wholesale effort to replace older transformers is made, which seemed very unlikely. Likewise, cable losses are not something that can be easily addressed unless Burlington Hydro plans to upgrade existing cables regardless of the asset's age.

The choice of mitigating measures undertaken for each feeder are explained in the individual sections below.

Table 5 below summarizes the Base Case calculations for total feeder losses.

Table 5: Total Calculated Losses

Feeder Name	Base Case Calculated Total Losses (kVA)[1]
HARV F2	107kVA
HOWD F3	23kVA
EAST F3	35kVA
TOWL F3	100kVA
LOWV F3	40kVA
PALM F2	52kVA
280M6	1983kVA
39M32	884kVA
76M30	598kVA
13M25	223kVA

1. These values are indicative of an instantaneous snapshot of losses at peak demand only and are used as a measure to compare the impacts of the proposed mitigation measures. Since distribution systems do not operate at continuous peak demand, these values cannot be considered for costing of losses for economic evaluation.

5.1 HARV F2 Analysis Review and Mitigation Measures

HARV F2 is a 4.16kV feeder from the Harvester Station. The feeder has more overhead lines than underground cables (i.e., 816m cables, 3.4km OH line). This is reflected in the allocation of the losses shown in *Table 3* above. This feeder also has slight phase load imbalance (11%) and a lower power factor of (92%). The calculated Total Losses on the feeder are estimated to be 107kVA, which is approximately 6.8% of the feeder load.

Given the above findings and detailed in *Table 6* below, voltage conversion could be an option if the feeder is nearing end-of-life which could result in the reduction of the existing line losses of 5% (and total losses of 6.8%) to a lower percentage.

The difference between HARV F2 and EAST F3, both being 4.16kV feeders with same loading, but higher line losses at HARV F2 is the fact that the bulk of the higher current is transmitted through the single circuit while in EAST F3 the current is split among multiple sub-circuits at the station/beginning of the feeder which results in lower I^2R losses.

We made modifications to the CYME model to see if the selected mitigation measures could provide a significant drop in losses on the feeder. The results and discussion of the scenarios are discussed below.

5.1.1 HARV F2 – Phase Load Balancing

We attempted to move some loads around on alternative phases in effort to gauge the impact of corrective phase balancing. *Table 6* below indicates the possible reduction in losses resulting from a load balancing effort.

5.1.2 HARV F2 – Power Factor Correction

Given the feeder power factor of 92%, we undertook to review the impacts of modelling static capacitor installations (200 kVAR) on the feeder to see if a power factor correction to 95% would have a positive impact on reducing the feeder losses.

5.1.3 HARV F2 – Reconductoring

The existing conductor for feeder HARV F2 was found out to be 350kcmil for the larger load current. In the CYME model we changed the conductor from 350kcmil to 556kcmil for all sections which had greater than 1000kVA Thru Power to gauge the impact of reconductoring efforts.

We found that reconductoring a high Thru Power section of 350kcmil line to 556kcmil may have a minor impact on the calculated losses on the feeder.

5.1.4 HARV F2 – Feeder Reconfiguration

Distribution feeder reconfiguration was also explored for this feeder, where opening the disconnect switch (section ID 22217088 which removes roughly 460kW of load that would need

to be transferred to another feeder) could have reduced line losses to 3.5%. Further analysis is required to determine if other sources/feeders could support the incremental load transferred from feeder HARV F2.

Table 6: HARV F2 Calculated Impacts of Mitigation Measures

HARV F2	Base Case	Load Balance	PF Correction	Reconductoring
Total Loss (kVA)	107.25	106.56	106.0	96.23
Total Losses as % of Load (%)	6.82	6.35	6.33	6.25
Red Phase (A)	216	228	218	217
White Phase (A)	261	248	239	237
Blue Phase (A)	227	227	218	217
Current Imbalance (%)	11	6	6	6
Power Factor (%)	92	93	96	96

All mitigation measures simulated yielded a marginal reduction in the calculated losses.

5.2 HOWD F3 Analysis Review and Mitigation Measures

HOWD F3 is a 4.16kV feeder from the Howard Station. Similar to the HARV F2 feeder, the HOWD F3 circuit has very little cabling and mostly overhead line (i.e., 17m cables, 10.3km OH line) but the load on this feeder is very low at approximately 403kVA. This is reflected in the allocation of the losses shown in *Table 3* above. This feeder also has slightly lower power factor of (93%) and could benefit from power factor correction to improve it. The calculated Total Losses on the feeder are estimated to be 22kVA, which is approximately 6.53% of the feeder load.

This feeder is severely unbalanced and could benefit from the effort to better balance the phase loads.

5.2.1 HOWD F3 – Phase Load Balancing

We attempted to move some loads around on alternative phases in effort to gauge the impact of corrective phase balancing. *Table 7* below indicates the possible reduction in losses resulting from a load balancing effort. As indicated in *Table 7*, the current imbalance is reduced from 60% to 16% but is still slightly over 10% meaning future loads at this feeder should be installed in such a manner to improve the load current balance.

5.2.2 HOWD F3 – Power Factor Correction

Given the feeder power factor of 93%, we undertook to review the impacts of modelling static capacitor installations (50 kVAR) on the feeder to see if a power factor correction to 95% would have a positive impact on reducing the feeder losses.

Table 7: HOWD F3 Calculated Impacts of Mitigation Measures

HOWD F3	Base Case	Load Balance	PF Correction
Total Loss (kVA)	22.56	16.61	16.59
Total Losses as % of Load (%)	6.53	4.89	4.89
Red Phase (A)	56	49	46
White Phase (A)	83	61	59
Blue Phase (A)	21	49	47
Current Imbalance (%)	60	15	16
Power Factor (%)	93	94	97

Both mitigation measures simulated yielded a reasonable reduction in the calculated losses.

5.3 EAST F3 Analysis Review and Mitigation Measures

EAST F3 is a 4.16kV feeder from the Easterbrook Station. This circuit has moderate cabling but is mostly overhead line (i.e., 1.9km cables, 5.7km OH line). This is reflected in the allocation of the losses shown in *Table 3* above. This feeder also has a power factor of 96% and therefore no mitigation is considered. The calculated Total Losses on the feeder are estimated to be 35kVA, which is approximately 2.4% of the feeder load.

This feeder is slightly unbalanced (14%) and could benefit from the effort to better balance the phase loads.

5.3.1 EAST F3 – Phase Load Balancing

We attempted to move some loads around on alternative phases in effort to gauge the impact of corrective phase balancing. *Table 8* below indicates the possible reduction in losses resulting from a load balancing effort.

Table 8: EAST F3 Calculated Impacts of Mitigation Measure

EAST F3	Base Case	Load Balance
Total Loss (kVA)	34.87	34.76
Total Losses as % of Load (%)	2.39	2.39
Red Phase (A)	224	227
White Phase (A)	199	227
Blue Phase (A)	258	227
Current Imbalance (%)	14	0.03
Power Factor (%)	96	96

The mitigation measure yielded no reduction in the calculated losses; however, it significantly reduces the current imbalance.

5.4 TOWL F3 Analysis Review and Mitigation Measures

This is a 13.8kV feeder supplied from the Towerline MS. (Cabling vs OH Line). Both the phase load balance of 10% and power factor of 96% are within the normal operating range that most LDCs strive to achieve.

The overall calculated feeder losses are 2.83% (with line losses of 0.59%) which are below the 4% threshold so there were no mitigation actions to be explored for this feeder as it is within the OEB target.

5.5 LOWV F3 Analysis Review and Mitigation Measures

LOWV F3 is a 13.8kV feeder supplied from the Lowville MS. This circuit has moderate cabling but is mostly overhead line (i.e., 4.3km cables, 40km OH line). This is reflected in the allocation of the losses shown in *Table 3* above. This feeder also has a power factor of 96% and therefore no mitigation is required. The calculated Total Losses on the feeder are estimated to be 40kVA, which is approximately 3.2% of the feeder load.

This feeder is slightly unbalanced (15%) and could benefit from the effort to better balance the phase loads.

5.5.1 LOWV F3 – Phase Load Balancing

We attempted to move some loads around on alternative phases in effort to gauge the impact of corrective phase balancing. *Table 9* below indicates the possible reduction in losses resulting from a load balancing effort.

Table 9: LOWV F3 Calculated Impacts of Mitigation Measure

LOWV F3	Base Case	Load Balance
Total Loss (kVA)	40.03	39.46
Total Losses as % of Load (%)	3.17	3.12
Red Phase (A)	67	61
White Phase (A)	52	62
Blue Phase (A)	64	62
Current Imbalance (%)	15	1
Power Factor (%)	96	96

The mitigation measure yielded no reduction in the calculated losses; however, it significantly reduces the current imbalance.

5.6 PALM F2 Analysis Review and Mitigation Measures

PALM F2 is a 13.8kV feeder supplied from the Palmer MS. This circuit has more cables and less overhead line (i.e., 12.5km cables, 3km OH line). This is reflected in the allocation of the losses

shown in *Table 3* above. This feeder also has a power factor of 95% and therefore no mitigation is required. The calculated Total Losses on the feeder are estimated to be 52kVA, which is approximately 2% of the feeder load.

This feeder is slightly unbalanced (14%) and could benefit from the effort to better balance the phase loads.

5.6.1 PALM F2 – Phase Load Balancing

We attempted to move some loads around on alternative phases in effort to gauge the impact of corrective phase balancing. *Table 10* below indicates the possible reduction in losses resulting from a load balancing effort.

Table 10: PALM F2 Calculated Impacts of Mitigation Measure

PALM F2	Base Case	Load Balance
Total Loss (kVA)	52.19	52.14
Total Losses as % of Load (%)	2.01	2.01
Red Phase (A)	113	113
White Phase (A)	143	140
Blue Phase (A)	120	123
Current Imbalance (%)	14	12
Power Factor (%)	95	95

The mitigation measure yielded a marginal reduction in the calculated losses; however, it slightly reduces the current imbalance to 12% and a further re-allocation of load was not possible while reducing the current imbalance. As indicated in *Table 10*, the current imbalance is reduced from 14% to 12% but is still slightly over 10% and future loads at this feeder should be installed in such a manner to improve the load current balance.

5.7 280M6 Analysis Review and Mitigation Measures

This is a 27.6kV feeder with 73km cable and 144km overhead line supplied from the Tremaine T.S. The 280M6 also supply feeders LOWV F1 to F4 and RESV F1 & F2. Both, the phase load balance at 1% and the feeder power factor of 95% are within the normal operating range that most LDCs strive to achieve. The calculated feeder line losses are 6.40% which is above the 4% and was found to offer no significant options to reduce the feeder line losses in the current state.

5.7.1 280M6 – Feeder Reconfiguration

Distribution feeder reconfiguration was also explored for this feeder 280M6 where the line losses could be reduced to 4.44% by transferring feeders RESV F1 & RESV F2 to another source/TS OR line losses could be reduced to 3.4% by transferring feeders LOWV F1 to F4 to another

source/TS. Further analysis is required to determine if other sources/feeders could support the incremental load transferred from feeder 280M6.

5.8 39M32 Analysis Review and Mitigation Measures

39M32 is a 27.6kV feeder supplied from the Burlington T.S. This circuit has 21km of cables and 47km overhead line. The 39M32 also supply feeders FARW F1, F2, F4 to F6 and PART F1 to F3. This is reflected in the allocation of the losses shown in *Table 3* above. Both, the phase load balance at 8% and the power factor of 96% are within the normal operating range of 10% that most LDCs strive to achieve.

The overall calculated feeder line losses are 3.65% which are below the 4% threshold so there were no mitigation actions to be explored for this feeder as it is within the OEB target.

5.9 76M30 Analysis Review and Mitigation Measures

76M30 is a 27.6kV feeder from the Cumberland Station. This circuit has 8km of cables and 11km overhead line. Feeder 76M30 does not have any MS connected downstream. This is reflected in the allocation of the losses shown in *Table 3* above. This feeder also has slightly lower power factor of (91%) and could benefit from power factor correction to improve it.

The calculated feeder line losses are 2.43% which are below the 4% threshold so there were no mitigation actions to be explored for this feeder as it is within the OEB target.

5.9.1 76M30 – Power Factor Correction

Given the feeder power factor of 91%, we undertook to review the impacts of modelling static capacitor installations (2000 kVAR) on the feeder to see if a power factor correction to 95% could have a positive impact on reducing the feeder losses.

Table 11: 76M30 Calculated Impacts of Mitigation Measures

76M30	Base Case	PF Correction
Total Loss (kVA)	597.6	597.58
Total Losses as % of Load (%)	4.08	4.08
Red Phase (A)	336	322
White Phase (A)	331	317
Blue Phase (A)	332	318
Current Imbalance (%)	1	1
Power Factor (%)	91	95

The mitigation measure did not improve the calculated losses; however, it improved the power factor to 95% which is a preferred range for power factor.

5.10 13M25 Analysis Review and Mitigation Measures

This is a 27.6kV feeder with 7.7km of cable and 14.5km of overhead line supplied from the Bronte T.S. The 13M25 also supply the feeders PIDA F1 to F3. The current imbalance at 3% and power factor of 98% are within the normal operating range of 10% that most LDCs strive to achieve.

The overall calculated feeder line losses are 1.18% which are below the 4% threshold so there were no mitigation actions to be explored for this feeder as it is within the OEB target.

6. Conclusions

Based on the base case analysis discussed and the possible loss mitigation measures explored and reviewed in *Section 4* above, we offer the following study conclusions.

- For the existing feeders that have good power factor and a reasonable load balance of 10% or less, Burlington Hydro is operating according to the standard best practices of Ontario LDCs.
- Of the ten (10) feeders selected by Burlington Hydro for the Loss Mitigation Review, one of the 4.16kV feeder (HARV F2) was found to offer no significant options to reduce the feeder losses in the current state. The difference between HARV F2 and EAST F3, both being 4.16kV feeders with same loading, but higher line losses at HARV F2 is the fact that the bulk of the higher current is transmitted through the single circuit while in EAST F3 the current is split among multiple sub-circuits at the station/beginning of the feeder which results in lower I^2R losses. Voltage conversion would be an option if the feeder is nearing end-of-life which could result in the reduction of the existing line losses of 5% (and total losses of 6.8%) to a lower percentage. Distribution feeder reconfiguration was also explored for this feeder by opening the disconnect switch (section ID 22217088 removing roughly 460kW of load that would need to be transferred to another feeder) could have reduced line losses to only 3.5%. Further analysis is required to determine if other sources/feeders could support the incremental load transferred from feeder HARV F2.
- The HOWD F3 feeder could benefit from efforts to correct phase load imbalances. The estimated impacts of such efforts are calculated to be up to a 1.5% reduction in line losses. Load balancing is a relatively low cost effort and could be done on a targeted basis and scheduled as “filler work” if necessary.
- Of the ten (10) feeders selected by Burlington Hydro for the Loss Mitigation Review, one of the 27.6kV feeder (280M6) was found to offer no significant options to reduce the feeder line losses (of 6.4%) in the current state. Distribution feeder reconfiguration was also explored for this feeder 280M6 where the line losses could be reduced to 4.44% by transferring feeders RESV F1 & RESV F2 to another source/TS OR line losses could be reduced to 3.4% by transferring feeders LOWV F1 to F4 to another source/TS. Further

analysis is required to determine if other sources/feeders could support the incremental load transferred from feeder 280M6.

- The remaining seven (7) feeders (except HARV F2, HOWD F3 and 280M6) had lower line losses. However, they were analysed for improvement in load imbalance and power factor correction to be more in-line with the Ontario LDC's requirement.
- A high-level sizing for capacitor (VAR Compensators) installations on the feeders, where power factor is below 95%, is indicated for power factor improvement purposes. Detailed design should be carried out along with manufacturers inputs to choose best technology for the application. Three (3) out of the ten (10) feeders have a power factor below the LDC limit of 95% which are HARV F2, HOWD F3 and 76M30.

7. Recommendations

Based on the analysis and the conclusions drawn from the results, we offer the following recommendations:

- For the existing 27.6kV feeders that have good power factor of 95% and a reasonable load balance of 10% or less, Burlington Hydro is operating according to the standard best practices of Ontario LDCs and should maintain these efforts into the future. The exception to this being feeder 76M30 which slightly varies from this criteria (i.e., feeder 76M30 has a power factor of 91% which could be improved with VAR compensation).
- Feeders of all voltage levels in the BHI distribution system could be explored for reconfiguration to minimize the system losses.
- For feeders in the system where power factor and/or load balance are outside of the industry best practices, regular review of these characteristics is recommended to ensure the optimum operation of the distribution system with respect to loss reduction.
- Any power factor correction efforts should include more detailed analysis to determine the optimum size and placement of pole mounted capacitors.
- Load balancing to a 10% target should be an on-going effort to minimize the feeder losses. These efforts could be planned and implemented in stages, with a monitoring period to gauge the effects before moving more loads.
- Voltage conversion for the sole purpose of reducing losses (such as HARV F2) is not likely to be economic. However, voltage conversion for any feeders nearing end-of-life replacement is recommended from line losses prospect.

A

Appendix A

Analysis Results – Base Case

CIMA+

Feeder Name	Station	Voltage (kV)	R (amp)	W (amp)	B (amp)	Three Phase Peak Apparent Power Demand (kVA)	Three Phase Peak Real Power Demand (kW)	Three Phase Peak Reactive Power Demand (kVAR)	Calculated Imbalance (%)	Power factor (%)	Total Feeder Cable (m)	Total Feeder OH Line (m)	Calculated Losses (% of Load)				
													Line (%)	Cable (%)	TX (%) (N.L.L. + L.L)	Total (%)	Total (kVA)
HARV F2	Harvester M.S.	4.16	216.8	261.1	227.2	1764	1624	688	11%	92%	816	3362	5.03%	0.28%	1.51%	6.82%	107.25
HOWD F3	Howard M.S.	4.16	56.2	83	21.6	403	375	147	60%	93%	17	10293	4.61%	0.01%	1.90%	6.53%	22.56
EAST F3	Easterbrook M.S.	4.16	224.1	198.9	258.4	1706	1631	501	14%	96%	1846	5699	0.69%	0.14%	1.56%	2.39%	34.87
TOWL F3	Towerline M.S.	13.8	152.3	178.3	157.7	3980	3826	1098	10%	96%	23703	2932	0.59%	0.68%	1.56%	2.83%	99.44
LOWV F3	Lowville M.S.	13.8	67.5	52.3	64.7	1517	1461	409	15%	96%	4307	39929	0.93%	0.01%	2.23%	3.17%	40.03
PALM F2	Palmer M.S.	13.8	113.1	143.6	120.4	3067	2917	948	14%	95%	12585	2876	0.31%	0.10%	1.59%	2.01%	52.19
280M6	Tremaine T.S.	27.6	440.2	442.2	444.8	22199	21067	6997	1%	95%	72917	144474	6.40%	0.15%	3.40%	9.95%	1982.85
39M32	Burlington T.S.	27.6	303.3	280.8	260.1	14122	13568	3916	8%	96%	20837	47711	3.65%	0.18%	3.15%	6.99%	883.78
76M30	Cumberland T.S.	27.6	335.9	330.9	332.7	16723	15267	6825	1%	91%	7725	10578	2.43%	0.04%	1.60%	4.08%	597.6
13M25	Bronte T.S.	27.6	110.8	104.1	107.1	5386	5279	1069	3%	98%	7658	14428	1.18%	0.17%	3.31%	4.65%	223.09

Load Flow - Summary Report (13M25)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI-aak.sxst
Date	Tue Apr 11 2023
Time	11h10m26s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	5198.54	893.42	5274.75	98.56
Load used (Adjusted)	5198.41	892.97	5274.55	98.56
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**5198.41**	**892.97**	**5274.55**	**98.56**
Cable Capacitance	0.00	-9.61	9.61	0.00
Line Capacitance	0.00	-22.23	22.23	0.00
Total Shunt Capacitance	**0.00**	**-31.84**	**31.84**	**0.00**
Line Losses	19.62	58.80	61.99	31.66
Cable Losses	7.70	4.15	8.75	88.03
Transformer Load Losses	26.11	145.14	147.47	17.70
Transformer No-Load Losses	27.00	0.00	27.00	100.00
Total Losses	**80.43**	**208.09**	**223.09**	**36.05**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (º)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
27004468	25219428-NODE	25219454-NODE	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	3.3	5279	1069	5386	97.98	107.3	-11.45	0.0	0.0	19.2
27004407	25219454-NODE	L13M25-PD	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	6.8	5279	1069	5386	97.98	107.3	-11.45	0.0	0.0	19.2
27004423	L13M25-PD	25753284-NODE	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	8.3	5279	1069	5386	97.98	107.3	-11.45	0.0	0.0	19.2
25028542	FG242-PD	G242-XFO	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	32.9	2414	661	2503	96.36	50.0	-15.71	0.0	0.0	12.5
25028597	G242-XFO	25028596-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.9	2410	599	2483	97.05	332.0	14.27	0.1	0.1	53.0
25028607	25028596-NODE	25028606-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.1	1096	274	1129	97.00	151.0	14.19	0.0	0.0	23.4
27064945	25028606-NODE	25028560-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.8	1096	274	1129	97.00	151.0	14.19	0.0	0.0	23.4
25746519	25028596-NODE	25028624-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.7	528	130	544	97.10	72.7	14.38	0.0	0.0	14.5
25028653	25028624-NODE	25028572-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.9	528	130	544	97.10	72.7	14.37	0.0	0.0	14.5
27064963	25028596-NODE	25028567-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.9	786	195	810	97.07	108.3	14.32	0.0	0.0	18.6
26685818	F4276-PD	S4444-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	22.1	2795	385	2821	99.06	56.4	-8.18	0.0	0.0	42.3
26675847	S4444-PD	F4300-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	41.7	2795	385	2821	99.06	56.4	-8.18	0.1	0.0	42.3
26675855	F4300-PD	26675922-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	5.0	2795	385	2821	99.06	56.4	-8.19	0.0	0.0	42.3
26675933	26675922-NODE	S4447-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	24.4	998	138	1008	99.06	20.1	-8.19	0.0	0.0	15.1
26675864	S4447-PD	FG968-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	25.6	998	138	1008	99.06	20.1	-8.20	0.0	0.0	15.1
26675872	FG968-PD	TO FG968-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	44.7	998	138	1008	99.05	20.1	-8.22	0.0	0.0	15.1
26675941	26675922-NODE	S4446-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	22.4	998	138	1008	99.06	20.1	-8.20	0.0	0.0	15.1
26675949	S4446-PD	FG708-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	9.8	998	138	1008	99.05	20.1	-8.22	0.0	0.0	15.1
26675957	FG708-PD	TO FG708-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	44.2	998	138	1008	99.05	20.1	-8.22	0.0	0.0	15.1
26675965	26675922-NODE	S4445-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	39.4	798	110	806	99.06	16.1	-8.20	0.0	0.0	12.1
26675973	S4445-PD	FG458-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	11.0	798	111	806	99.05	16.1	-8.23	0.0	0.0	12.1
26675981	FG458-PD	TO FG458-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	44.0	798	111	806	99.05	16.1	-8.24	0.0	0.0	12.1
25028759	25028560-NODE	25028681-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.7	1096	274	1129	97.00	151.0	14.19	0.0	0.0	23.4
22505648	25028681-NODE	24571047-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	209.8	1096	274	1129	97.00	151.0	14.19	0.9	0.9	46.7
22174264	JJ23285613-NODE	JJ23285623-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	243.5	92	22	95	97.24	38.1	14.55	0.1	0.0	21.2
22174362	JJ23285563-NODE	JJ23285565-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	211.7	140	35	144	97.03	57.9	13.87	0.2	0.0	32.2
21881795	JJ23283809-NODE	JJ23284209-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	274.0	104	26	108	97.06	43.5	13.84	0.1	0.0	24.2
22174191	S479-PD	JJ23285689-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	294.6	621	152	639	97.13	85.9	14.15	1.2	0.5	65.4
22217494	JJ23300423-NODE	JJ23300429-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	362.3	64	15	66	97.25	26.8	13.99	0.1	0.0	14.9
22217604	JJ23300275-NODE	25237179-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	617.5	51	12	53	97.03	7.1	14.13	0.1	0.0	11.9
22217681	JJ23300201-NODE	TO FG387-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	51.3	51	12	53	97.25	21.4	13.93	0.0	0.0	11.9
22217615	JJ23300265-NODE	TO FG397-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	191.3	51	12	53	97.26	21.4	13.95	0.0	0.0	11.9
22217787	JJ23300155-NODE	S464-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	271.6	193	47	198	97.21	26.8	14.09	0.1	0.1	27.4
22217908	JJ23300053-NODE	JJ23300061-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	270.4	92	22	95	97.24	38.4	13.91	0.1	0.0	21.4
24166421	JJ23299971-NODE	22244642-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	7.6	26	6	26	97.24	10.7	14.42	0.0	0.0	5.9
24166140	24166127-NODE	JJ23474219-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	69.4	26	6	27	97.24	10.9	13.97	0.0	0.0	6.1
24533579	JJ23285777-NODE	24165333-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	589.5	79	18	81	96.88	10.9	14.55	0.1	0.0	9.3
24164742	24165333-NODE	S911-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.9	79	19	81	97.08	10.9	14.36	0.0	0.0	9.3
24164768	S911-PD	24164761-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.8	79	19	81	97.08	10.9	14.36	0.0	0.0	9.3
24164762	24164761-NODE	24164753-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	15.4	79	19	81	97.21	10.9	14.23	0.0	0.0	9.3
24164754	24164753-NODE	24164752-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	3.1	79	19	81	97.22	10.9	14.22	0.0	0.0	9.3
24164863	24164752-NODE	F1034-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	3.8	0	0	0	0.01	0.0	117.86	0.0	0.0	0.0
24164652	F1034-PD	24165314-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	9.5	0	0	0	0.01	0.0	117.86	0.0	0.0	0.0
22174591	24165314-NODE	23177938-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	389.1	0	0	0	0.01	0.0	117.86	0.0	0.0	0.0
24164869	24164752-NODE	F1033-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	3.7	79	19	81	97.27	32.8	14.19	0.0	0.0	18.2
24164643	F1033-PD	24165289-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	10.5	79	19	81	97.27	32.8	14.19	0.0	0.0	18.2
24165290	24165289-NODE	TO F1033-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	259.3	79	19	81	97.27	32.8	14.19	0.1	0.0	18.2
24165104	TO F1033-PD	24165103-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	330.9	26	6	27	97.30	10.9	14.26	0.0	0.0	6.1

24165111	24165103-NODE	TO TX G182-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	11.4	26	6	27	97.27	10.9	14.19	0.0	0.0	6.1
24165127	TO TX G182-PD	24165119-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	13.9	0	0	0	0.01	0.0	117.62	0.0	0.0	0.0
24165140	24165119-NODE	24165139-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	347.4	0	0	0	0.01	0.0	117.62	0.0	0.0	0.0
24165147	24165139-NODE	23175512-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	8.9	0	0	0	0.01	0.0	117.62	0.0	0.0	0.0
24164829	24164753-NODE	FG178-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	3.1	0	0	0	0.01	0.0	117.81	0.0	0.0	0.0
24164855	FG178-PD	24165360-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	13.3	0	0	0	0.01	0.0	117.81	0.0	0.0	0.0
24164901	24164761-NODE	S910-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.7	0	0	0	0.01	0.0	117.81	0.0	0.0	0.0
24164945	S910-PD	24165378-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	11.1	0	0	0	0.01	0.0	117.81	0.0	0.0	0.0
21881736	24165378-NODE	24165501-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	363.8	0	0	0	0.01	0.0	117.81	0.0	0.0	0.0
24165573	24165501-NODE	24165548-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	11.0	0	0	0	0.01	0.0	117.81	0.0	0.0	0.0
22174146	JJ23285693-NODE	JJ23285705-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	218.9	53	13	54	97.24	21.8	14.44	0.0	0.0	12.1
25028751	25028567-NODE	25028687-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.9	786	195	810	97.07	108.3	14.32	0.0	0.0	18.6
25746700	25028687-NODE	24571302-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	132.2	786	195	810	97.07	108.3	14.32	0.3	0.3	37.2
24533732	24533720-NODE	24533731-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	458.3	548	130	564	97.29	75.9	14.25	0.6	0.5	28.6
24534340	24533731-NODE	S952-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	9.6	548	130	563	97.29	76.0	14.23	0.0	0.0	28.6
24534316	S952-PD	24534307-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.7	548	130	563	97.29	76.0	14.23	0.0	0.0	28.6
24534308	24534307-NODE	24534289-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	14.5	0	-1	1	0.01	0.1	117.71	0.0	0.0	0.0
24534290	24534289-NODE	S1280-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.6	0	-1	1	0.01	0.1	117.71	0.0	0.0	0.0
24534268	S1280-PD	JJ23311115-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	13.3	0	-1	1	0.01	0.1	117.71	0.0	0.0	0.0
24177811	JJ23311115-NODE	24177810-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	1202.1	0	-1	1	0.01	0.1	117.71	0.0	0.0	0.0
24177864	24177810-NODE	24177839-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	12.3	0	0	0	0.01	0.0	117.71	0.0	0.0	0.0
24534298	24534289-NODE	24534051-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	1.9	0	0	0	0.01	0.0	117.71	0.0	0.0	0.0
25406518	24534051-NODE	25406517-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	4.8	0	0	0	0.01	0.0	117.71	0.0	0.0	0.0
24534324	24534307-NODE	S1281-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	8.7	548	131	563	97.27	76.0	14.17	0.0	0.0	28.6
24534332	S1281-PD	S1283-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	47.0	548	131	563	97.27	76.0	14.17	0.1	0.1	28.6
24534356	S1283-PD	24534355-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	47.0	548	131	563	97.27	76.0	14.17	0.1	0.1	28.6
24534364	24534355-NODE	24534058-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	2.7	0	0	0	0.01	0.0	117.70	0.0	0.0	0.0
25406488	24534058-NODE	25406487-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	5.7	0	0	0	0.01	0.0	117.70	0.0	0.0	0.0
24534378	24534355-NODE	24534377-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	12.3	548	131	563	97.27	76.0	14.17	0.0	0.0	28.6
24534386	24534377-NODE	S1282-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.5	216	51	222	97.29	30.0	14.17	0.0	0.0	12.2
24534402	S1282-PD	24533742-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	9.9	216	51	222	97.29	30.0	14.17	0.0	0.0	12.2
24533744	24533742-NODE	24534123-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	238.2	216	51	222	97.29	30.0	14.17	0.1	0.0	12.2
21881823	24534123-NODE	JJ23283795-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	174.2	0	0	0	0.01	0.0	117.69	0.0	0.0	0.0
21881858	24534123-NODE	JJ23283725-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	140.6	216	51	222	97.28	30.0	14.13	0.1	0.0	23.9
24696471	JJ23545349-NODE	S4100-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	28.1	150	36	154	97.25	20.8	14.13	0.0	0.0	15.3
25327358	S4100-PD	JJ23307897-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	232.2	150	36	154	97.25	20.8	14.12	0.1	0.0	15.3
22253118	JJ23307983-NODE	JJ23307947-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	343.3	37	9	38	97.19	15.4	14.08	0.0	0.0	8.5
24534394	24534377-NODE	S1284-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	9.8	332	79	341	97.26	46.0	14.17	0.0	0.0	16.3
24534410	S1284-PD	24533753-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	10.1	332	79	341	97.26	46.0	14.16	0.0	0.0	16.3
24533754	24533753-NODE	24165468-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	420.7	332	79	341	97.26	46.0	14.16	0.2	0.2	16.3
24165701	24165468-NODE	S844-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	10.7	331	79	341	97.26	46.0	14.13	0.0	0.0	16.3
24165709	S844-PD	24165679-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	3.1	331	79	341	97.26	46.0	14.13	0.0	0.0	16.3
24165681	24165679-NODE	24165680-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	15.4	223	54	229	97.22	30.9	14.07	0.0	0.0	10.2
24165687	24165680-NODE	FG186-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.8	223	54	229	97.21	30.9	14.07	0.0	0.0	10.2
24165665	FG186-PD	24165455-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	7.9	223	54	229	97.21	30.9	14.07	0.0	0.0	19.9
24533593	24165455-NODE	TO FG186-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	57.0	223	54	229	97.21	30.9	14.07	0.0	0.0	19.9
24165693	24165680-NODE	24165548-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	3.1	0	0	0	0.01	0.0	117.68	0.0	0.0	0.0
24165723	24165679-NODE	24165722-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	3.2	109	26	112	97.34	15.1	14.25	0.0	0.0	6.1
24165813	24165722-NODE	F2321-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	3.8	52	12	53	97.49	21.6	14.28	0.0	0.0	12.0
24165898	F2321-PD	24165891-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	6.1	52	12	53	97.49	21.6	14.28	0.0	0.0	12.0

24165487	24165891-NODE	TO F2321-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	522.3	52	12	53	97.49	21.6	14.28	0.1	0.0	12.0
24166360	TO F2321-PD	TO TX G185-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	315.4	17	4	18	97.54	7.2	14.41	0.0	0.0	4.0
26948275	TO TX G185-PD	23177939-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	398.2	9	2	9	97.55	3.6	14.44	0.0	0.0	2.0
24165819	24165722-NODE	F2320-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	3.2	44	11	45	97.22	18.4	14.20	0.0	0.0	10.2
24165825	F2320-PD	JJ23283857-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	9.8	44	11	45	97.22	18.4	14.20	0.0	0.0	10.2
21881755	JJ23283857-NODE	TO F2320-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	347.1	44	11	45	97.22	18.4	14.19	0.0	0.0	10.2
24165176	TO F2320-PD	24165168-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	9.3	22	5	23	97.21	9.2	14.18	0.0	0.0	5.1
21881741	24165168-NODE	23175514-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	227.4	22	5	23	97.21	9.2	14.18	0.0	0.0	5.1
27255598	24165722-NODE	FG978-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	9.2	13	3	13	97.12	5.3	14.34	0.0	0.0	2.9
27255622	FG978-PD	27255597-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	7.0	13	3	13	97.12	5.3	14.34	0.0	0.0	2.9
27255659	27255597-NODE	TO FG978-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		4.160	251.0	13	3	13	97.12	5.3	14.33	0.0	0.0	3.8
21882062	JJ23283447-NODE	TO F666-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	412.3	82	20	84	97.14	33.9	14.06	0.1	0.0	18.9
24167498	TO F666-PD	TO TX G14-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	262.4	72	18	74	97.14	29.9	14.05	0.1	0.0	16.6
24167549	TO TX G14-PD	24167548-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	175.2	59	14	61	97.14	24.6	14.05	0.0	0.0	13.7
24167556	24167548-NODE	TO TX G15-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	5.0	59	14	61	97.13	24.6	14.04	0.0	0.0	13.7
24167582	TO TX G15-PD	24167581-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	286.6	38	9	40	97.14	16.0	14.05	0.0	0.0	8.9
24167589	24167581-NODE	TO TX G16-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	6.6	38	9	39	97.12	16.0	14.01	0.0	0.0	8.9
24167620	TO TX G16-PD	24167619-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	276.4	26	6	26	97.14	10.6	14.06	0.0	0.0	5.9
24167627	24167619-NODE	TO TX G17-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	4.8	26	6	26	97.12	10.6	13.99	0.0	0.0	5.9
24167671	TO TX G17-PD	24167670-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	191.1	13	3	13	97.16	5.3	14.09	0.0	0.0	3.0
24167734	24167670-NODE	TO TX G18-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	5.6	13	3	13	97.12	5.3	14.00	0.0	0.0	3.0
24556159	24273149-NODE	24556158-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	224.5	0	0	0	0.01	0.0	117.79	0.0	0.0	0.0
21882104	24556158-NODE	23175777-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	6.4	0	0	0	0.01	0.0	117.79	0.0	0.0	0.0
24571240	TO TX G15-PD	24571232-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	3.1	10	2	10	97.16	4.0	14.09	0.0	0.0	2.2
24571233	24571232-NODE	TO TX G16-PD-1	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	267.7	10	2	10	97.16	4.0	14.09	0.0	0.0	2.2
24533819	JJ23283999-NODE	JJ23312991-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	64.8	0	0	0	0.01	0.0	118.03	0.0	0.0	0.0
24175268	JJ23312991-NODE	24175246-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.2	0	0	0	0.01	0.0	118.03	0.0	0.0	0.0
21882051	JJ23283459-NODE	23175569-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	546.1	13	3	13	97.53	5.4	15.20	0.0	0.0	3.0
25028714	25028572-NODE	25028693-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.7	528	130	544	97.10	72.7	14.37	0.0	0.0	14.5
22505640	25028693-NODE	S512-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	111.0	528	130	544	97.10	72.7	14.37	0.1	0.1	29.1
23577866	JJ23285947-NODE	TO F715-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	209.6	43	10	44	97.37	17.7	14.48	0.0	0.0	9.8
23577877	TO F715-PD	TO TX G460-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	462.7	21	5	22	97.41	8.8	14.56	0.0	0.0	4.9
23577904	TO TX G460-PD	23577903-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	212.8	0	0	0	0.01	0.0	117.64	0.0	0.0	0.0
22173888	23577903-NODE	23178404-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	128.5	0	0	0	0.01	0.0	117.64	0.0	0.0	0.0
26813461	F755-PD	TO F755-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	944.2	107	25	110	97.35	44.4	14.43	0.4	0.1	24.7
22173944	TO F755-PD	TO TX G492-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	190.1	85	20	88	97.34	35.5	14.39	0.1	0.0	19.7
23577937	TO TX G492-PD	23577967-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	166.6	64	15	66	97.34	26.6	14.39	0.0	0.0	14.8
23577968	23577967-NODE	TO TX G491-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	46.4	64	15	66	97.33	26.6	14.37	0.0	0.0	14.8
23577947	TO TX G491-PD	23577957-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	78.7	43	10	44	97.34	17.8	14.39	0.0	0.0	9.9
23577958	23577957-NODE	TO TX G490-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	122.7	43	10	44	97.34	17.8	14.38	0.0	0.0	9.9
23577916	TO TX G490-PD	23577926-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	110.0	21	5	22	97.34	8.9	14.38	0.0	0.0	4.9
23577927	23178404-NODE	23577926-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	75.7	21	5	22	97.33	8.9	14.35	0.0	0.0	4.9
22222154	JJ23295255-NODE	TO FG105-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	254.5	16	4	16	97.34	2.2	14.76	0.0	0.0	1.2
22167464	JJ23295125-NODE	TO F752-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	435.9	129	32	133	97.12	53.4	14.28	0.3	0.1	29.7
22167453	TO F752-PD	TO TX G493-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	2409.7	108	26	111	97.12	44.6	14.28	1.0	0.3	24.8
22173671	TO TX G493-PD	TO TX G477-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	282.0	85	21	88	97.08	35.7	14.16	0.1	0.0	19.8
24205720	TO TX G477-PD	24205708-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	11.3	64	16	66	97.08	26.8	14.16	0.0	0.0	14.9
25212921	24205708-NODE	TO TX G476-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	234.5	64	16	66	97.08	26.8	14.16	0.0	0.0	14.9
24205638	TO TX G476-PD	24205633-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	195.9	43	11	44	97.08	17.9	14.16	0.0	0.0	9.9
24205645	24205633-NODE	TO TX G475-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	15.2	43	11	44	97.07	17.9	14.14	0.0	0.0	9.9

24205621	TO TX G475-PD	24205613-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	14.7	21	5	22	97.09	8.9	14.17	0.0	0.0	5.0
22250243	24205613-NODE	23180864-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	266.6	21	5	22	97.08	8.9	14.17	0.0	0.0	5.0
22167578	JJ23295035-NODE	FG463-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	41.7	31	7	32	97.20	4.3	14.41	0.0	0.0	2.5
23577635	FG463-PD	TO FG463-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	250.9	31	8	32	97.19	4.3	14.38	0.0	0.0	2.5
22167541	F753-PD	23577699-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	3.9	64	15	66	97.39	26.6	14.52	0.0	0.0	14.8
23577700	23577699-NODE	TO F753-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	1288.8	64	15	66	97.39	26.6	14.52	0.2	0.1	14.8
22173702	TO F753-PD	24056910-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	208.1	43	10	44	97.36	17.7	14.43	0.0	0.0	9.9
24056918	24056910-NODE	TO TX G499-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	8.5	43	10	44	97.35	17.7	14.41	0.0	0.0	9.9
22173689	TO TX G499-PD	24057009-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	256.8	21	5	22	97.38	8.9	14.48	0.0	0.0	4.9
24057017	24057009-NODE	TO TX G500-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	13.5	21	5	22	97.35	8.9	14.41	0.0	0.0	4.9
24057033	TO TX G500-PD	24057025-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	14.0	0	0	0	0.01	0.0	117.63	0.0	0.0	0.0
24057026	24057025-NODE	23177877-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	262.5	0	0	0	0.01	0.0	117.63	0.0	0.0	0.0
22167444	JJ23295073-NODE	TO F754-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	174.8	77	19	80	97.02	32.0	14.21	0.0	0.0	17.8
22167433	TO F754-PD	23578412-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	12.1	58	14	60	97.02	24.0	14.22	0.0	0.0	13.3
23578413	23578412-NODE	TO TX G494-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	243.3	58	14	60	97.02	24.0	14.22	0.0	0.0	13.3
22173746	TO TX G494-PD	TO TX G495-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	259.9	39	10	40	97.02	16.0	14.23	0.0	0.0	8.9
22173731	TO TX G495-PD	TO TX G496-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	198.0	19	5	20	97.03	8.0	14.25	0.0	0.0	4.4
22173717	TO TX G496-PD	23177892-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	200.1	0	0	0	0.01	0.0	118.25	0.0	0.0	0.0
25753301	25753284-NODE	S2220-B-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	6862.9	5279	1070	5386	97.98	107.3	-11.45	7.6	28.0	30.8
21796709	S2220-B-PD	S3866-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	818.6	5271	1049	5375	98.05	107.3	-11.53	0.9	3.3	30.8
21692634	S3866-PD	JJ23530723-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	37.9	5270	1047	5373	98.06	107.3	-11.54	0.0	0.2	30.8
21692599	JJ23530723-NODE	JJ23530945-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	37.7	5270	1047	5373	98.06	107.3	-11.54	0.0	0.2	30.8
21692597	JJ23530945-NODE	S3883-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	13.8	5270	1047	5373	98.06	107.3	-11.54	0.0	0.1	30.8
21692595	S3883-PD	PRIMETER_24865122-M	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	32.2	5270	1046	5373	98.06	107.3	-11.54	0.0	0.1	30.8
21692600	PRIMETER_24865122-M	S3882-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	37.0	5270	1046	5373	98.06	107.3	-11.54	0.0	0.2	30.8
21692601	S3882-PD	JJ23530921-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	12.9	5270	1046	5373	98.06	107.3	-11.55	0.0	0.1	30.8
21692602	JJ23530921-NODE	JJ23530909-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	33.1	5270	1046	5373	98.06	107.3	-11.55	0.0	0.1	30.8
21692605	JJ23530909-NODE	S81-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	603.0	2415	653	2502	96.45	50.0	-15.45	0.1	0.5	14.5
21692625	S81-PD	JJ23530761-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	2187.6	2415	653	2501	96.44	50.0	-15.46	0.5	1.9	14.5
21692627	JJ23530761-NODE	24865907-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	582.3	2414	653	2501	96.44	50.0	-15.52	0.1	0.5	14.5
24865908	24865907-NODE	24812191-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	656.9	0	-4	4	0.00	0.1	89.62	0.0	0.0	0.0
24646106	24812191-NODE	24646097-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	132.4	0	0	0	0.00	0.0	89.62	0.0	0.0	0.0
24646098	24646097-NODE	24646087-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	124.7	0	0	0	0.00	0.0	89.62	0.0	0.0	0.0
24646088	24646087-NODE	24646073-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	42.1	0	0	0	0.00	0.0	89.62	0.0	0.0	0.0
24646074	24646073-NODE	24812126-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	67.1	0	0	0	0.00	0.0	89.62	0.0	0.0	0.0
24646081	24646073-NODE	24646080-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	62.7	0	0	0	0.00	0.0	89.62	0.0	0.0	0.0
24812192	24812191-NODE	23255232-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	2390.1	0	-3	3	0.00	0.1	89.62	0.0	0.0	0.0
24865926	24865907-NODE	24865917-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	19.2	2414	657	2502	96.40	50.0	-15.61	0.0	0.0	14.5
21796897	24865917-NODE	23224260-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	3334.5	0	-4	4	0.00	0.1	89.62	0.0	0.0	0.0
24865918	24865917-NODE	JJ23267299-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	424.0	2414	661	2503	96.36	50.0	-15.70	0.1	0.4	14.5
21692628	JJ23267299-NODE	23224267-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	164.2	0	0	0	0.00	0.0	89.61	0.0	0.0	0.0
21719430	JJ23267299-NODE	S3945-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	22.9	2414	661	2503	96.36	50.0	-15.71	0.0	0.0	14.5
25028476	S3945-PD	S442-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	80.8	2414	661	2503	96.36	50.0	-15.71	0.1	0.1	39.5
25028522	S442-PD	FG242-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	45.9	2414	661	2503	96.36	50.0	-15.71	0.1	0.0	39.5
21775873	JJ23530909-NODE	JJ23544709-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	433.5	2855	393	2882	99.06	57.6	-8.16	0.1	0.5	16.7
21774922	JJ23544709-NODE	S4066-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	178.5	2795	385	2821	99.06	56.4	-8.17	0.1	0.2	16.4
21774930	S4066-PD	JJ23429949-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	126.5	2795	385	2821	99.06	56.4	-8.17	0.0	0.1	16.4
21774761	JJ23429949-NODE	23223120-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	29.6	0	0	0	0.00	0.0	89.67	0.0	0.0	0.0
26675651	JJ23429949-NODE	F4275-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	28.2	2795	385	2821	99.06	56.4	-8.17	0.0	0.0	44.7
26675689	F4275-PD	26675670-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	26.5	2795	385	2821	99.06	56.4	-8.17	0.0	0.0	44.7

26675671	26675670-NODE	26273853-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	5.1	0	0	0	0.00	0.0	89.67	0.0	0.0	0.0
26675724	26675670-NODE	26273779-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	34.0	2795	385	2821	99.06	56.4	-8.18	0.1	0.0	44.7
26675705	26273779-NODE	26675680-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	35.2	2795	385	2821	99.06	56.4	-8.18	0.1	0.0	44.7
26675627	26675680-NODE	26273853-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	18.3	0	0	0	0.00	0.0	89.66	0.0	0.0	0.0
26675681	26675680-NODE	S4473-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	30.9	2795	385	2821	99.06	56.4	-8.18	0.0	0.0	44.7
26675635	S4473-PD	F4276-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.9	27.600	62.4	2795	385	2821	99.06	56.4	-8.18	0.1	0.1	44.7
24239718	JJ23544709-NODE	24239675-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	12.8	60	8	61	99.03	1.2	-8.29	0.0	0.0	1.0
21692604	JJ23530921-NODE	JJ23530919-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	4.2	0	0	0	0.00	0.0	89.68	0.0	0.0	0.0
21692598	JJ23530945-NODE	JJ23530951-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_2	Overhead Line	28.9	27.600	5.6	0	0	0	0.00	0.0	89.69	0.0	0.0	0.0
24571048	24571047-NODE	S514-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41	Overhead Line	4.3	4.160	6.0	1095	274	1128	97.02	151.0	14.18	0.0	0.1	58.1
22173777	S514-PD	25419758-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41	Overhead Line	4.3	4.160	19.2	1095	274	1128	97.02	151.0	14.18	0.1	0.2	58.1
21773513	25419758-NODE	F4015-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	135.6	26	6	26	97.25	10.6	14.85	0.0	0.0	8.0
21773500	F4015-PD	24161348-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	155.2	26	6	26	97.25	10.6	14.85	0.0	0.0	8.0
22173761	24161348-NODE	JJ23286019-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	117.2	0	0	0	0.01	0.0	118.32	0.0	0.0	0.0
24161349	24161348-NODE	22205862-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	15.1	26	6	26	97.25	10.6	14.85	0.0	0.0	8.0
25419759	25419758-NODE	24161387-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41	Overhead Line	4.3	4.160	145.5	1069	267	1102	97.01	147.5	14.17	0.5	1.2	58.1
22174390	24161387-NODE	22206394-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24	Overhead Line		4.160	8.5	17	4	18	97.08	7.2	14.10	0.0	0.0	2.6
24161388	24161387-NODE	24161405-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41	Overhead Line	4.3	4.160	152.3	1051	262	1083	97.04	145.1	14.17	0.5	1.2	58.1
22174376	24161405-NODE	22206357-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24	Overhead Line		4.160	8.3	23	6	24	97.08	9.6	14.04	0.0	0.0	3.4
24161406	24161405-NODE	JJ23285549-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41	Overhead Line	4.3	4.160	147.3	1027	255	1059	97.06	141.9	14.17	0.5	1.1	58.1
22174295	JJ23285549-NODE	F1960-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	32.1	92	22	95	97.24	38.1	14.55	0.0	0.0	28.9
22174280	F1960-PD	JJ23285613-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	2.1	92	22	95	97.24	38.1	14.55	0.0	0.0	28.9
22174250	JJ23285623-NODE	JJ23285633-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	11.2	92	22	95	97.24	38.1	14.54	0.0	0.0	28.9
22173505	JJ23285633-NODE	24161492-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	109.9	39	9	41	97.24	16.4	14.54	0.0	0.0	12.4
22173495	24161492-NODE	22205817-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	7.9	20	5	20	97.24	8.2	14.54	0.0	0.0	6.2
24161493	24161492-NODE	22206257-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	112.1	20	5	20	97.24	8.2	14.54	0.0	0.0	6.2
22174237	JJ23285633-NODE	24161510-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	184.4	53	13	54	97.24	21.8	14.54	0.0	0.0	16.5
22174223	24161510-NODE	22206224-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	8.1	52	13	54	97.24	21.8	14.53	0.0	0.0	16.5
24161511	24161510-NODE	JJ23285661-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	340.5	0	0	0	0.01	0.0	118.03	0.0	0.0	0.0
22174323	JJ23285549-NODE	F481-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	25.9	140	35	144	97.02	57.9	13.87	0.0	0.0	43.9
22174307	F481-PD	JJ23285563-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	2.1	140	35	144	97.03	57.9	13.87	0.0	0.0	43.9
22174350	JJ23285565-NODE	24161600-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	110.3	139	35	144	97.02	57.9	13.86	0.1	0.1	43.9
22174332	24161600-NODE	22206290-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	8.4	17	4	18	97.08	7.2	13.97	0.0	0.0	5.5
24161601	24161600-NODE	24161624-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	304.1	122	30	126	97.03	50.7	13.85	0.2	0.2	38.4
22679027	24161624-NODE	22206323-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	10.9	17	4	18	97.08	7.2	13.91	0.0	0.0	5.5
24161625	24161624-NODE	F3582-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	126.1	104	26	108	97.05	43.5	13.84	0.0	0.1	32.9
22679024	F3582-PD	JJ23283809-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	31.2	104	26	108	97.06	43.5	13.84	0.0	0.0	32.9
21881417	JJ23284209-NODE	24161657-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	173.1	87	22	90	97.05	36.2	13.81	0.0	0.1	27.5
21881765	24161657-NODE	21909543-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	8.5	23	6	24	97.07	9.7	13.84	0.0	0.0	7.3
24161662	24161657-NODE	JJ23283847-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	271.9	64	16	66	97.06	26.6	13.80	0.0	0.0	20.1
22173464	JJ23283847-NODE	JJ23286431-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	293.2	41	10	42	97.07	16.9	13.79	0.0	0.0	12.8
22173460	JJ23286431-NODE	24161750-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	150.7	17	4	18	97.08	7.3	13.80	0.0	0.0	5.5
22173473	24161750-NODE	22205766-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	9.1	17	4	18	97.08	7.3	13.79	0.0	0.0	5.5
24161751	24161750-NODE	JJ23286425-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	90.9	0	0	0	0.01	0.0	117.69	0.0	0.0	0.0
24161715	JJ23286431-NODE	22205750-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	7.4	23	6	24	97.07	9.7	13.79	0.0	0.0	7.3
24161688	JJ23283847-NODE	21909532-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	9.6	23	6	24	97.07	9.7	13.81	0.0	0.0	7.3
21881781	JJ23284209-NODE	JJ23283827-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	98.3	17	4	18	97.08	7.2	13.88	0.0	0.0	5.5
21881775	JJ23283827-NODE	JJ23283833-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	202.2	0	0	0	0.01	0.0	117.76	0.0	0.0	0.0
26984739	JJ23283827-NODE	21909554-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	7.1	17	4	18	97.08	7.2	13.87	0.0	0.0	5.5
22632121	JJ23285549-NODE	JJ23484845-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41	Overhead Line	4.3	4.160	207.2	795	197	819	97.07	109.9	14.18	0.4	1.1	49.3

22632120	JJ23484845-NODE	24161871-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	86.9	769	190	792	97.09	106.3	14.16	0.2	0.4	45.5
24161872	24161871-NODE	25081716-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	122.4	716	177	738	97.10	99.1	14.14	0.2	0.5	45.5
22582431	25081716-NODE	22206116-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	8.0	26	6	26	97.25	10.6	14.56	0.0	0.0	3.8
25081717	25081716-NODE	JJ23466807-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	101.7	691	170	711	97.11	95.6	14.13	0.2	0.4	41.7
22582429	JJ23466807-NODE	F3249-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	30.4	69	17	72	97.05	28.8	13.93	0.0	0.0	21.9
22582425	F3249-PD	24161985-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	317.1	69	17	72	97.06	28.8	13.93	0.1	0.1	21.9
22173488	24161985-NODE	22205798-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	8.4	23	6	24	97.08	9.6	13.94	0.0	0.0	7.3
24161986	24161985-NODE	JJ23286411-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	205.3	46	11	48	97.07	19.2	13.92	0.0	0.0	14.6
22173480	JJ23286411-NODE	JJ23286413-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	299.0	23	6	24	97.07	9.6	13.91	0.0	0.0	7.3
21881760	JJ23286413-NODE	JJ23283853-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	192.0	0	0	0	0.01	0.0	117.80	0.0	0.0	0.0
24162065	JJ23286413-NODE	21909520-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	7.8	23	6	24	97.08	9.6	13.91	0.0	0.0	7.3
24162046	JJ23286411-NODE	22205783-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	28.7	23	6	24	97.08	9.6	13.92	0.0	0.0	7.3
22582432	JJ23466807-NODE	S479-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	49.1	621	152	639	97.12	85.9	14.15	0.1	0.2	41.7
22174121	JJ23285689-NODE	24162098-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	119.9	620	152	638	97.13	85.9	14.14	0.2	0.4	41.7
22173988	24162098-NODE	22206083-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	8.3	26	6	26	97.25	10.7	14.45	0.0	0.0	3.8
24162099	24162098-NODE	JJ23285825-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	58.9	594	145	611	97.15	82.4	14.13	0.1	0.2	38.0
22173957	JJ23285825-NODE	24162158-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	321.1	226	56	233	97.04	31.4	14.02	0.1	0.4	26.6
22559869	24162158-NODE	22205947-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	11.4	12	3	12	97.07	4.8	13.98	0.0	0.0	1.7
24162159	24162158-NODE	24162215-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	118.9	214	53	221	97.07	29.8	14.02	0.0	0.1	26.6
22648957	24162215-NODE	22580484-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	19.4	12	3	12	97.07	4.8	13.99	0.0	0.0	1.7
24162216	24162215-NODE	S3770-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	203.1	203	50	209	97.09	28.2	14.03	0.1	0.2	26.6
22648955	S3770-PD	24162252-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	175.1	203	49	209	97.11	28.2	14.02	0.1	0.2	26.6
22217568	24162252-NODE	JJ23300325-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	559.6	179	43	185	97.09	25.0	14.02	0.2	0.7	26.6
22217513	JJ23300325-NODE	F1795-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	22.5	64	15	66	97.25	26.8	13.99	0.0	0.0	20.3
22217502	F1795-PD	JJ23300423-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	0.6	64	15	66	97.25	26.8	13.99	0.0	0.0	20.3
22217484	JJ23300429-NODE	24162505-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	85.6	64	15	66	97.24	26.8	13.96	0.0	0.0	20.3
22217527	24162505-NODE	22244486-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	9.1	19	5	20	97.24	8.1	13.96	0.0	0.0	6.1
24162506	24162505-NODE	24162593-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	120.6	45	11	46	97.24	18.8	13.95	0.0	0.0	14.2
22217541	24162593-NODE	22244503-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	20.5	26	6	26	97.24	10.7	13.95	0.0	0.0	8.1
24162594	24162593-NODE	24162609-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	192.4	19	5	20	97.24	8.1	13.95	0.0	0.0	6.1
22217558	24162609-NODE	22244517-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	10.0	19	5	20	97.24	8.1	13.95	0.0	0.0	6.1
24162610	24162609-NODE	JJ23300359-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	61.6	0	0	0	0.01	0.0	117.44	0.0	0.0	0.0
24162632	JJ23300325-NODE	24162631-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	118.2	115	27	118	97.13	16.1	14.04	0.0	0.1	17.1
22217580	24162631-NODE	22244525-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	13.5	13	3	13	97.24	5.4	13.94	0.0	0.0	1.9
22562558	24162631-NODE	S3224-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	124.6	102	24	105	97.13	14.3	14.05	0.0	0.0	15.2
22217665	S3224-PD	S525-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	115.8	51	12	53	97.03	7.1	14.14	0.0	0.0	7.6
22217589	S525-PD	JJ23300275-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	10.2	51	12	53	97.03	7.1	14.13	0.0	0.0	7.6
22217713	25237179-NODE	JJ23300177-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	8.0	51	12	53	97.25	7.1	13.93	0.0	0.0	7.6
22217732	JJ23300177-NODE	FG387-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	13.0	51	12	53	97.25	21.4	13.93	0.0	0.0	16.2
22217699	FG387-PD	JJ23300201-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	19.3	51	12	53	97.25	21.4	13.93	0.0	0.0	16.2
22217749	JJ23300177-NODE	23245159-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	31.4	0	0	0	0.01	0.0	117.74	0.0	0.0	0.0
22562565	S3224-PD	JJ23300227-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	75.2	51	12	53	97.25	7.1	13.96	0.0	0.0	7.6
22217647	JJ23300227-NODE	FG397-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	34.1	51	12	53	97.26	21.4	13.95	0.0	0.0	16.2
22217631	FG397-PD	JJ23300265-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	22.4	51	12	53	97.26	21.4	13.95	0.0	0.0	16.2
24162253	24162252-NODE	22205981-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	11.5	23	6	24	97.08	9.6	14.03	0.0	0.0	3.4
22173973	JJ23285825-NODE	JJ23285765-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	260.3	368	89	378	97.20	51.0	14.19	0.2	0.5	36.9
22174010	JJ23285765-NODE	JJ23285801-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	107.6	289	70	297	97.18	40.0	14.09	0.0	0.1	25.3
22173999	JJ23285801-NODE	JJ23285805-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	135.8	263	64	271	97.18	36.5	14.06	0.0	0.1	25.3
24163923	JJ23285805-NODE	22206016-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	7.5	17	4	18	97.08	7.2	13.98	0.0	0.0	5.5
26247267	JJ23285805-NODE	S4440-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	130.1	246	59	253	97.19	34.1	14.06	0.0	0.1	25.3

22217853	S4440-PD	JJ23300103-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	105.6	246	59	253	97.20	34.1	14.06	0.0	0.1	25.3
22217778	JJ23300103-NODE	JJ23300155-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	4.9	193	47	198	97.21	26.8	14.09	0.0	0.0	17.5
22217811	S464-PD	JJ23300087-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	25.2	193	47	198	97.20	26.8	14.06	0.0	0.0	17.5
22217863	JJ23300087-NODE	JJ23300089-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	181.0	0	0	0	0.01	0.0	117.76	0.0	0.0	0.0
22217875	JJ23300087-NODE	JJ23300077-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	70.3	193	47	198	97.20	26.8	14.06	0.0	0.0	17.5
22217887	JJ23300077-NODE	JJ23299987-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	249.9	167	40	172	97.20	23.2	14.00	0.0	0.1	17.5
22217936	JJ23299987-NODE	F465-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	31.1	92	22	95	97.23	38.4	13.91	0.0	0.0	29.1
22217922	F465-PD	JJ23300053-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	0.2	92	22	95	97.24	38.4	13.91	0.0	0.0	29.1
22217898	JJ23300061-NODE	JJ23300007-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	14.3	92	22	95	97.23	38.4	13.89	0.0	0.0	29.1
22217964	JJ23300007-NODE	JJ23300021-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	60.6	39	9	41	97.23	16.5	13.90	0.0	0.0	12.5
22217949	JJ23300021-NODE	22244583-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	254.6	20	5	20	97.23	8.2	13.89	0.0	0.0	6.2
24163811	JJ23300021-NODE	22244567-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	13.7	20	5	20	97.24	8.2	13.90	0.0	0.0	6.2
22217978	JJ23300007-NODE	24163795-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	16.4	53	13	54	97.23	22.0	13.89	0.0	0.0	16.6
21774409	24163795-NODE	22244601-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	18.0	26	6	27	97.23	11.0	13.90	0.0	0.0	8.3
24163796	24163795-NODE	JJ23545461-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	523.7	26	6	27	97.23	11.0	13.88	0.0	0.0	8.3
24290135	JJ23545461-NODE	24290127-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	9.5	26	6	27	97.23	11.0	13.87	0.0	0.0	8.3
24163636	JJ23299987-NODE	24163635-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	175.7	75	18	77	97.19	10.4	14.11	0.0	0.0	3.9
22217990	24163635-NODE	22244628-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	12.2	26	6	27	97.24	11.0	13.90	0.0	0.0	3.9
24163613	24163635-NODE	24163612-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	218.6	49	12	50	97.16	6.8	14.22	0.0	0.0	3.8
22527764	24163612-NODE	22558976-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	12.7	23	6	24	97.08	9.6	13.96	0.0	0.0	3.4
22527783	24163612-NODE	JJ23299963-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	119.1	26	6	26	97.23	3.6	14.44	0.0	0.0	3.8
22218002	JJ23299963-NODE	FG151-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	44.8	26	6	26	97.24	10.7	14.43	0.0	0.0	8.1
26545931	FG151-PD	JJ23299971-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	379.4	26	6	26	97.24	10.7	14.43	0.0	0.0	8.1
22253091	JJ23299971-NODE	JJ23308107-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	360.1	0	0	0	0.01	0.0	117.91	0.0	0.0	0.0
22218014	JJ23299963-NODE	23245175-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	23.1	0	0	0	0.01	0.0	117.73	0.0	0.0	0.0
24163895	JJ23300077-NODE	22244550-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	7.6	26	6	26	97.24	10.7	14.45	0.0	0.0	8.1
22580667	JJ23300103-NODE	JJ23474197-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	125.0	53	13	54	97.22	7.3	13.97	0.0	0.0	7.8
22632141	JJ23474197-NODE	F3351-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	3.9	53	13	54	97.23	21.9	13.97	0.0	0.0	16.6
22632139	F3351-PD	24166127-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	127.9	53	13	54	97.23	21.9	13.97	0.0	0.0	16.6
24166128	24166127-NODE	22665786-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	8.3	26	6	27	97.24	10.9	13.97	0.0	0.0	8.3
22580657	JJ23474219-NODE	FG696-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	1.2	26	6	27	97.23	11.0	13.95	0.0	0.0	8.3
22217840	FG696-PD	26778660-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	24.6	26	6	27	97.23	11.0	13.95	0.0	0.0	8.3
26778661	26778660-NODE	27338739-NODE	1/0AWG_ACSR_HENDRIX_1PH_OH_PRIMARY_	Overhead Line		4.160	98.4	26	6	27	97.23	11.0	13.95	0.0	0.0	8.3
27338740	27338739-NODE	26778659-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	105.6	26	6	27	97.23	11.0	13.95	0.0	0.0	8.3
26778673	26778659-NODE	JJ23474151-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	152.2	26	6	27	97.23	11.0	13.95	0.0	0.0	8.3
22580671	JJ23474151-NODE	JJ23474167-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	104.2	0	0	0	0.01	0.0	117.46	0.0	0.0	0.0
24166201	JJ23474151-NODE	22610342-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	11.0	26	6	27	97.24	11.0	13.95	0.0	0.0	8.3
24163933	JJ23285801-NODE	22206048-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	7.8	26	6	26	97.24	10.7	14.44	0.0	0.0	8.1
22174108	JJ23285765-NODE	S617-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	10.5	79	18	81	96.88	10.9	14.55	0.0	0.0	11.6
22174096	S617-PD	JJ23285777-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	15.0	79	18	81	96.88	10.9	14.55	0.0	0.0	11.6
24161893	24161871-NODE	F480-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	3.4	53	13	54	97.24	21.8	14.44	0.0	0.0	16.5
22174163	F480-PD	JJ23285693-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	19.2	53	13	54	97.24	21.8	14.44	0.0	0.0	16.5
22174132	JJ23285705-NODE	24161947-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	93.8	53	13	54	97.23	21.8	14.41	0.0	0.0	16.5
21774250	24161947-NODE	22206153-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	7.7	26	6	27	97.24	10.9	14.42	0.0	0.0	8.2
24161948	24161947-NODE	JJ23545553-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	312.1	26	6	27	97.23	10.9	14.41	0.0	0.0	8.3
24161962	JJ23545553-NODE	JJ23545547-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	148.8	0	0	0	0.01	0.0	117.91	0.0	0.0	0.0
24290167	JJ23545553-NODE	24290159-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	8.8	26	6	27	97.24	10.9	14.40	0.0	0.0	8.3
24164162	JJ23484845-NODE	23672133-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	7.7	26	6	26	97.25	10.6	14.64	0.0	0.0	8.0
24571303	24571302-NODE	S511-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	6.8	786	194	809	97.07	108.3	14.32	0.0	0.0	46.3
22174451	S511-PD	JJ23285463-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	103.2	786	194	809	97.07	108.3	14.32	0.2	0.5	46.3

21776135	JJ23285463-NODE	JJ23544593-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	33.8	785	194	809	97.09	108.3	14.32	0.1	0.2	46.3
21776128	JJ23544593-NODE	24167124-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	733.4	623	154	642	97.08	85.9	14.27	0.9	2.3	38.1
22677524	24167124-NODE	S3835-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	329.7	605	148	623	97.14	83.5	14.26	0.4	1.0	35.5
24171006	S3835-PD	24171005-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	446.2	604	147	622	97.17	83.5	14.26	0.5	1.3	35.5
22677526	24171005-NODE	21909564-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	10.3	29	7	30	97.17	12.2	14.25	0.0	0.0	4.3
24171069	24171005-NODE	24171068-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	313.0	575	138	591	97.22	79.5	14.26	0.3	0.8	35.5
21881832	24171068-NODE	21909595-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	9.1	13	3	13	97.08	5.3	14.32	0.0	0.0	1.9
24171137	24171068-NODE	24171136-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	84.5	561	134	577	97.25	77.7	14.26	0.1	0.2	35.5
21881843	24171136-NODE	21909577-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	7.1	13	3	13	97.08	5.3	14.31	0.0	0.0	1.9
22504896	24171136-NODE	S521-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	288.1	549	131	564	97.26	75.9	14.25	0.3	0.7	35.5
24533721	S521-PD	24533720-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	8.4	548	130	564	97.29	75.9	14.25	0.0	0.0	35.5
21881817	JJ23283795-NODE	23231535-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	16.6	0	0	0	0.01	0.0	117.69	0.0	0.0	0.0
21881851	JJ23283725-NODE	S467-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	0.2	216	51	222	97.28	30.0	14.12	0.0	0.0	15.2
22527698	S467-PD	JJ23441457-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	15.1	216	51	222	97.28	30.0	14.12	0.0	0.0	15.2
21740485	JJ23441457-NODE	JJ23537163-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	5.5	216	51	222	97.28	30.0	14.12	0.0	0.0	15.2
21752181	JJ23537163-NODE	F3854-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	24.8	34	8	35	97.43	14.3	14.12	0.0	0.0	10.9
21740480	F3854-PD	JJ23537133-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	65.0	34	8	35	97.43	14.3	14.12	0.0	0.0	10.9
21740567	JJ23537133-NODE	JJ23537135-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	154.0	17	4	18	97.43	7.2	14.12	0.0	0.0	5.4
21740672	JJ23537135-NODE	JJ23537095-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	14.5	0	0	0	0.02	0.0	117.15	0.0	0.0	0.0
24240330	JJ23537135-NODE	24240318-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	8.8	17	4	18	97.43	7.2	14.12	0.0	0.0	5.4
24240357	JJ23537133-NODE	24240341-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	6.7	17	4	18	97.43	7.2	14.12	0.0	0.0	5.4
21774585	JJ23537163-NODE	JJ23545365-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	204.4	181	43	187	97.25	25.2	14.12	0.0	0.1	12.0
21774572	JJ23545365-NODE	JJ23545349-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	191.4	164	39	169	97.24	22.8	14.12	0.0	0.0	12.0
21774599	JJ23545349-NODE	JJ23545361-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	6.1	15	4	15	97.17	6.1	14.04	0.0	0.0	4.6
24696484	JJ23545361-NODE	FG930-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	27.8	15	4	15	97.17	6.1	14.04	0.0	0.0	4.6
22623004	FG930-PD	24290287-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	93.4	15	4	15	97.17	6.1	14.04	0.0	0.0	4.6
24173217	24290287-NODE	JJ23307865-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	130.1	0	0	0	0.01	0.0	117.71	0.0	0.0	0.0
24290303	24290287-NODE	24290295-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	8.0	15	4	15	97.17	6.1	14.03	0.0	0.0	4.6
21774702	JJ23307897-NODE	S4069-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	90.9	149	36	154	97.24	20.8	14.10	0.0	0.0	9.8
21774685	S4069-PD	JJ23307919-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	23.5	149	36	154	97.24	20.8	14.10	0.0	0.0	9.8
22253125	JJ23307919-NODE	F1798-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	31.5	37	9	38	97.19	15.4	14.09	0.0	0.0	11.6
22253121	F1798-PD	JJ23307983-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	2.1	37	9	38	97.19	15.4	14.08	0.0	0.0	11.6
22253131	JJ23307947-NODE	JJ23307955-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	136.6	15	4	15	97.17	6.1	14.02	0.0	0.0	4.6
22253128	JJ23307955-NODE	JJ23307965-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	61.9	0	0	0	0.01	0.0	117.69	0.0	0.0	0.0
26986381	JJ23307955-NODE	22275413-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	16.9	15	4	15	97.17	6.1	14.01	0.0	0.0	4.6
22253134	JJ23307947-NODE	24173012-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	138.7	22	5	23	97.18	9.2	14.04	0.0	0.0	7.0
22253137	24173012-NODE	22275420-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	12.2	11	3	11	97.18	4.6	14.04	0.0	0.0	3.5
24173013	24173012-NODE	24173060-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	335.3	11	3	11	97.18	4.6	14.04	0.0	0.0	3.5
22253142	24173060-NODE	22275426-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	13.5	11	3	11	97.18	4.6	14.03	0.0	0.0	3.5
24173061	24173060-NODE	JJ23307931-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	58.4	0	0	0	0.01	0.0	117.68	0.0	0.0	0.0
22253145	JJ23307919-NODE	24290327-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	236.9	106	25	109	97.27	14.8	14.09	0.0	0.0	7.6
22253113	24290327-NODE	S4462-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	253.7	89	21	92	97.24	12.4	14.09	0.0	0.0	5.1
26625231	S4462-PD	JJ23308011-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	37.9	89	21	92	97.24	12.4	14.09	0.0	0.0	5.1
22253103	JJ23308011-NODE	23246991-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	51.1	0	0	0	0.01	0.0	117.63	0.0	0.0	0.0
26321497	JJ23308011-NODE	FG357-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_41	Overhead Line	4.3	4.160	27.7	89	21	92	97.24	12.4	14.08	0.0	0.0	10.8
26321479	FG357-PD	25682021-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	31.3	89	21	92	97.24	12.4	14.08	0.0	0.0	5.1
24290346	24290327-NODE	24290337-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	6.6	17	4	18	97.43	7.2	14.06	0.0	0.0	5.4
22623015	JJ23307919-NODE	FG162-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	30.3	6	2	7	97.09	2.7	14.29	0.0	0.0	2.0
22623009	FG162-PD	JJ23545375-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	228.3	6	2	7	97.09	2.7	14.29	0.0	0.0	2.0
21774544	JJ23545375-NODE	JJ23545377-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	101.9	0	0	0	0.01	0.0	118.14	0.0	0.0	0.0

24290104	JJ23545375-NODE	24290095-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	12.0	6	2	7	97.09	2.7	14.27	0.0	0.0	2.0
24290071	JJ23545365-NODE	24290063-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	8.8	17	4	18	97.43	7.2	14.11	0.0	0.0	5.4
24167125	24167124-NODE	21909613-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	16.9	17	4	18	97.43	7.1	14.71	0.0	0.0	2.5
24167060	JJ23544593-NODE	S513-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	25.2	162	40	167	97.14	22.4	14.49	0.0	0.0	13.4
24167070	S513-PD	JJ23544589-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	35.6	162	40	167	97.14	22.4	14.49	0.0	0.0	13.4
21776143	JJ23544589-NODE	24167103-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	295.9	162	40	167	97.14	22.4	14.48	0.0	0.1	13.4
22677532	24167103-NODE	22558870-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	15.4	9	2	9	97.43	3.6	14.97	0.0	0.0	1.3
24167104	24167103-NODE	S3834-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	714.3	154	38	158	97.14	21.2	14.45	0.1	0.2	13.4
22677529	S3834-PD	24167201-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	459.3	154	37	158	97.17	21.2	14.45	0.1	0.1	13.4
24167202	24167201-NODE	21909506-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	27.1	10	2	10	97.09	4.0	14.24	0.0	0.0	1.4
25081770	24167201-NODE	25081769-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	639.5	144	35	148	97.19	19.9	14.46	0.1	0.2	12.0
21881615	25081769-NODE	21909494-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	29.4	17	4	18	97.43	7.1	14.91	0.0	0.0	2.5
24167292	25081769-NODE	24167291-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	622.2	127	31	130	97.18	17.5	14.39	0.1	0.1	12.0
21881607	24167291-NODE	21909482-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	12.9	17	4	18	97.43	7.1	14.91	0.0	0.0	2.5
22648506	24167291-NODE	S3792-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	106.5	109	27	113	97.16	15.1	14.30	0.0	0.0	12.0
22648331	S3792-PD	S3812-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	307.6	109	27	113	97.17	15.1	14.30	0.0	0.1	12.0
24167381	S3812-PD	24167380-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	129.1	109	27	113	97.18	15.1	14.30	0.0	0.0	12.0
22560197	24167380-NODE	JJ23284007-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	325.3	95	23	97	97.17	13.1	14.24	0.0	0.1	12.0
24198035	JJ23284007-NODE	F666-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	24.4	82	20	84	97.14	33.9	14.06	0.0	0.0	25.7
21881649	F666-PD	JJ23283447-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	1.0	82	20	84	97.14	33.9	14.06	0.0	0.0	25.7
24273157	TO TX G18-PD	24273149-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	3.6	0	0	0	0.01	0.0	117.79	0.0	0.0	0.0
25793895	JJ23284007-NODE	JJ23283961-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_41	Overhead Line	4.3	4.160	4.5	13	3	13	97.38	1.8	15.35	0.0	0.0	4.1
21881631	JJ23283961-NODE	S582-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	22.7	0	0	0	0.01	0.0	118.03	0.0	0.0	0.0
25793860	S582-PD	JJ23283999-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_41	Overhead Line	4.3	4.160	4.5	0	0	0	0.01	0.0	118.03	0.0	0.0	0.0
21881638	JJ23283961-NODE	F665-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	23.7	13	3	13	97.53	5.4	15.20	0.0	0.0	4.1
21881643	F665-PD	JJ23283459-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	0.4	13	3	13	97.53	5.4	15.20	0.0	0.0	4.1
22648334	24167380-NODE	21909470-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	23.3	15	4	15	97.17	6.0	14.63	0.0	0.0	2.1
21776150	JJ23544589-NODE	JJ23285477-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	39.9	0	0	0	0.01	0.0	118.19	0.0	0.0	0.0
22632116	JJ23285477-NODE	23256944-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	71.7	0	0	0	0.01	0.0	118.19	0.0	0.0	0.0
22174439	S512-PD	JJ23285501-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	20.2	528	130	544	97.10	72.7	14.37	0.0	0.0	36.2
22174423	JJ23285501-NODE	JJ23285503-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	169.1	528	130	544	97.10	72.7	14.37	0.2	0.4	36.2
21692801	JJ23285503-NODE	JJ23529895-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	454.2	508	125	524	97.12	70.1	14.38	0.4	1.0	36.2
21692799	JJ23529895-NODE	JJ23529899-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	210.1	489	119	503	97.17	67.4	14.38	0.2	0.5	36.2
21692677	JJ23529899-NODE	F3709-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	544.4	59	14	60	97.32	24.3	14.47	0.1	0.1	18.4
23577726	F3709-PD	23577725-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	124.5	59	14	60	97.34	24.3	14.46	0.0	0.0	18.4
21692678	23577725-NODE	22205878-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	7.6	5	1	5	97.33	2.2	14.42	0.0	0.0	1.7
23577810	23577725-NODE	23577809-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	153.6	53	13	55	97.34	22.1	14.47	0.0	0.0	16.8
23577834	23577809-NODE	23577833-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	443.1	48	11	49	97.35	19.9	14.47	0.0	0.0	15.1
22173815	23577833-NODE	22205910-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	9.3	5	1	5	97.33	2.2	14.37	0.0	0.0	1.7
22173830	23577833-NODE	F715-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	149.7	43	10	44	97.37	17.7	14.48	0.0	0.0	13.4
22173845	F715-PD	JJ23285947-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	5.3	43	10	44	97.37	17.7	14.48	0.0	0.0	13.4
25384501	23577809-NODE	22205895-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	11.0	5	1	5	97.33	2.2	14.41	0.0	0.0	1.7
21692798	JJ23529899-NODE	S3840-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	328.7	430	104	442	97.17	59.3	14.37	0.2	0.5	27.5
21692797	S3840-PD	JJ23295207-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	168.1	430	104	442	97.19	59.3	14.37	0.1	0.3	27.5
22167422	JJ23295207-NODE	F755-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	36.5	107	25	110	97.35	44.4	14.43	0.0	0.0	33.6
22222173	JJ23295207-NODE	JJ23295239-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	13.6	323	79	332	97.16	44.5	14.35	0.0	0.0	22.1
22222150	JJ23295239-NODE	FG105-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	12.7	16	4	16	97.34	2.2	14.77	0.0	0.0	0.8
22222147	FG105-PD	JJ23295255-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	27.1	16	4	16	97.34	2.2	14.77	0.0	0.0	0.8
22222162	JJ23295239-NODE	JJ23295241-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41(	Overhead Line	4.3	4.160	167.4	307	75	316	97.15	42.3	14.33	0.1	0.1	21.3
22167507	JJ23295241-NODE	F752-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	52.9	129	32	133	97.11	53.4	14.28	0.0	0.0	40.5

22167499	F752-PD	JJ23295125-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	2.0	129	32	133	97.12	53.4	14.28	0.0	0.0	40.5
22167554	JJ23295241-NODE	JJ23295085-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	16.5	178	43	183	97.19	24.5	14.37	0.0	0.0	12.8
22167515	JJ23295085-NODE	JJ23295111-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	18.0	100	24	103	97.32	13.9	14.49	0.0	0.0	11.0
22167490	JJ23295111-NODE	JJ23295147-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	126.9	36	9	37	97.21	5.0	14.43	0.0	0.0	2.3
22167482	JJ23295147-NODE	JJ23295035-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	6.0	36	9	37	97.21	5.0	14.43	0.0	0.0	2.3
21692802	JJ23295035-NODE	JJ23529887-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	1443.8	5	1	5	96.65	0.7	14.55	0.0	0.0	0.8
21692795	JJ23529887-NODE	26928268-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	100.9	5	1	5	97.00	0.7	14.21	0.0	0.0	0.8
22631323	26928268-NODE	22648169-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_24(	Overhead Line		4.160	9.3	5	1	6	97.07	2.2	14.15	0.0	0.0	0.8
26928269	26928268-NODE	JJ23529923-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	7.6	0	0	0	0.01	0.0	117.99	0.0	0.0	0.0
21692793	JJ23529923-NODE	23258028-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	16.9	0	0	0	0.01	0.0	117.99	0.0	0.0	0.0
21692796	JJ23529923-NODE	JJ23529933-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	33.1	0	0	0	0.01	0.0	117.99	0.0	0.0	0.0
21692791	JJ23529933-NODE	23258032-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	14.2	0	0	0	0.01	0.0	117.99	0.0	0.0	0.0
21692792	JJ23529933-NODE	JJ23529931-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	108.0	0	0	0	0.01	0.0	117.99	0.0	0.0	0.0
22167533	JJ23295111-NODE	F753-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	53.0	64	15	66	97.39	26.6	14.52	0.0	0.0	20.1
22167571	JJ23295085-NODE	F754-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	52.6	77	19	80	97.01	32.0	14.21	0.0	0.0	24.2
22167563	F754-PD	JJ23295073-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	2.9	77	19	80	97.02	32.0	14.21	0.0	0.0	24.2
24240580	JJ23529895-NODE	24240571-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	9.5	19	5	20	96.97	8.0	14.14	0.0	0.0	6.0
24239225	JJ23285503-NODE	24239215-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_24	Overhead Line		4.160	7.7	19	5	20	96.97	8.0	14.15	0.0	0.0	6.0
22632118	JJ23285501-NODE	23256944-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_41€	Overhead Line	4.3	4.160	54.7	0	0	0	0.01	0.0	118.24	0.0	0.0	0.0

Load Flow - Summary Report (39M32)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI-aak.sxst
Date	Mon Apr 10 2023
Time	13h18m07s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	13225.46	3341.72	13641.11	96.95
Load used (Adjusted)	13225.46	3341.72	13641.11	96.95
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**13225.46**	**3341.72**	**13641.11**	**96.95**
Cable Capacitance	0.00	-196.80	196.80	0.00
Line Capacitance	0.00	-43.36	43.36	0.00
Total Shunt Capacitance	**0.00**	**-240.17**	**240.17**	**0.00**
Line Losses	151.43	474.78	498.34	30.39
Cable Losses	19.97	14.72	24.81	80.49
Transformer Load Losses	74.73	325.31	333.78	22.39
Transformer No-Load Losses	96.15	0.00	96.15	100.00
Total Losses	**342.28**	**814.81**	**883.78**	**38.73**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (º)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
26932775	25220405-NODE	25220486-NODE	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	4.2	13568	3916	14122	96.06	281.4	-16.10	0.0	0.0	52.7
26932783	25220486-NODE	L39M32-PD	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	4.0	13568	3916	14122	96.06	281.4	-16.11	0.0	0.0	52.7
26932795	L39M32-PD	25220060-NODE	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	3.8	13568	3916	14122	96.06	281.4	-16.11	0.0	0.0	52.7
25220061	25220060-NODE	JJ23347921-NODE	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	212.4	13568	3917	14122	96.06	281.4	-16.11	1.8	1.8	52.7
22017758	JJ23381537-NODE	TO FL531-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	57.2	79	28	84	94.06	1.7	-20.24	0.0	0.0	1.4
22174055	FL596-PD	TO FL596-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	82.0	79	28	83	94.15	1.7	-20.23	0.0	0.0	1.4
22259128	JJ23445997-NODE	TO FK271-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	190.5	131	46	139	94.28	2.8	-20.15	0.0	0.0	2.3
26607941	FK285-PD	TO FK285-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	349.0	133	45	140	94.68	2.8	-19.53	0.0	0.0	2.3
22171678	FB227-PD	TO FB227-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	111.0	79	28	83	94.28	1.7	-20.28	0.0	0.0	1.4
26137103	F4269-PD	26074565-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	312.4	26	8	27	95.54	1.6	-18.10	0.0	0.0	1.2
22170640	JJ23423113-NODE	TO FK248-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	110.9	79	28	83	94.27	1.7	-20.31	0.0	0.0	1.4
22228344	JJ23434685-NODE	TO FB232-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	93.6	131	47	139	94.02	2.8	-20.76	0.0	0.0	2.3
22226822	JJ23439695-NODE	F3983-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	26.6	45	16	48	94.30	2.9	-20.18	0.0	0.0	2.1
27062051	F3983-PD	TO F3983-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	299.9	45	16	48	94.23	2.9	-20.30	0.0	0.0	2.1
22226817	TO F3983-PD	24284891-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	176.8	23	8	24	93.91	1.5	-20.84	0.0	0.0	1.0
22226834	JJ23439733-NODE	TO F3982-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	162.3	90	19	92	97.89	5.6	-12.55	0.0	0.0	4.0
22226830	TO F3982-PD	TO TX B243-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1040.4	68	11	69	98.81	4.1	-9.60	0.0	0.0	3.0
22226828	TO TX B243-PD	TO TX B244-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1040.4	45	6	46	99.22	2.7	-7.91	0.0	0.0	2.0
22226824	TO TX B244-PD	TO TX B245-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1040.4	23	1	23	99.94	1.4	-2.78	0.0	0.0	1.0
22226820	TO TX B245-PD	24284891-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1040.4	0	-4	4	0.00	0.2	89.24	0.0	0.0	0.2
22227302	24291559-NODE	JJ23437945-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	485.4	23	6	24	96.39	1.4	-16.41	0.0	0.0	1.0
25721984	FB58-PD	B58-XFO	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	84.2	2917	85	2918	99.87	58.8	-2.73	0.0	0.0	14.9
25722012	B58-XFO	25024840-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	3.2	2909	1	2909	100.00	389.9	27.24	0.1	0.0	59.6
25722022	25024840-NODE	25024891-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	11.3	2909	1	2909	100.00	389.9	27.24	0.2	0.2	59.6
25024908	25024891-NODE	25024657-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.2	876	0	876	100.00	117.4	27.26	0.0	0.0	17.8
25722030	25024891-NODE	25721809-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	10.5	952	1	952	100.00	127.6	27.23	0.0	0.0	21.1
25721810	25721809-NODE	25024663-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.8	952	1	952	100.00	127.6	27.23	0.0	0.0	21.1
25722038	25024891-NODE	25721819-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	9.1	1082	1	1082	100.00	145.0	27.22	0.0	0.0	25.3
25721820	25721819-NODE	25024650-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.0	1082	1	1082	100.00	145.0	27.22	0.0	0.0	25.3
22227267	JJ23422847-NODE	TO F3878-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	464.7	38	11	40	96.41	2.4	-16.56	0.0	0.0	1.7
22227265	TO F3878-PD	TO TX B241-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	18.8	19	6	20	96.06	1.2	-17.29	0.0	0.0	0.9
22227263	TO TX B241-PD	24790634-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	309.9	0	-1	1	0.00	0.1	88.85	0.0	0.0	0.1
25425777	FA206-PD	TO FA206-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	63.4	262	96	279	93.83	5.6	-21.47	0.0	0.0	4.7
22100794	JJ23394447-NODE	TO FH244-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	224.4	131	46	139	94.36	2.8	-20.58	0.0	0.0	2.3
22174198	JJ23413689-NODE	TO FH318-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	79.6	79	28	84	94.15	1.7	-21.01	0.0	0.0	1.4
24284506	TO F4055-PD	24284505-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	33.7	262	92	278	94.34	5.6	-20.70	0.0	0.0	4.7
24284514	24284430-NODE	TO F4055-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	401.6	131	44	138	94.81	2.8	-19.86	0.0	0.0	2.3
26762663	FA188-PD	TO FA188-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	30.1	131	48	140	93.84	2.8	-21.56	0.0	0.0	2.3
25442308	F4192-PD	TO F4192-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	226.6	51	16	53	95.64	3.2	-18.52	0.0	0.0	2.3
25442331	TO F4192-PD	TO TX H377-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	154.1	26	7	27	96.10	1.6	-17.60	0.0	0.0	1.2
25442338	TO TX H377-PD	25442236-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	303.9	0	-1	1	0.00	0.1	88.46	0.0	0.0	0.1
22023739	JJ23375149-NODE	TO FA149-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	242.3	131	46	139	94.40	2.8	-20.61	0.0	0.0	2.3
22174846	JJ23412709-NODE	TO F3734-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	753.7	38	10	40	97.04	2.4	-15.55	0.0	0.0	1.7
22174858	TO F3734-PD	23589077-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	313.4	19	6	20	95.96	1.2	-17.90	0.0	0.0	0.9
22226156	JJ23442259-NODE	TO F3733-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	235.9	68	19	71	96.28	4.3	-17.24	0.0	0.0	3.1
22227923	TO F3733-PD	JJ23435877-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	149.0	49	13	51	96.55	3.1	-16.66	0.0	0.0	2.2

22227916	JJ23435877-NODE	TO TX H312-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	376.0	49	14	51	96.26	3.1	-17.28	0.0	0.0	2.2
22227913	TO TX H346-PD	TO TX H312-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	296.9	26	7	26	96.57	1.6	-16.61	0.0	0.0	1.2
22227908	23589077-NODE	TO TX H346-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	287.8	0	-1	1	0.00	0.1	88.44	0.0	0.0	0.0
22169560	JJ23425549-NODE	TO FA193-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	389.7	23	7	24	94.98	1.4	-19.39	0.0	0.0	1.0
22169586	JJ23425439-NODE	TO FA192-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	69.1	261	96	278	93.81	5.6	-21.63	0.0	0.0	4.7
22099036	JJ23398913-NODE	TO F3539-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	364.9	45	13	47	96.28	2.8	-16.83	0.0	0.0	2.0
22098961	TO F3539-PD	23179579-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	983.4	23	5	23	97.51	1.4	-13.96	0.0	0.0	1.0
22099065	JJ23398899-NODE	TO F3538-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	421.9	77	21	79	96.51	4.8	-16.76	0.0	0.0	3.5
22099057	TO F3538-PD	TO TX H267-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	459.4	51	13	53	96.78	3.2	-16.17	0.0	0.0	2.3
22099028	TO TX H267-PD	TO TX H268-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	426.8	26	6	26	97.40	1.6	-14.68	0.0	0.0	1.1
22099022	TO TX H268-PD	23179629-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	397.4	0	-2	2	0.00	0.1	88.42	0.0	0.0	0.1
22178302	JJ23398863-NODE	TO F3537-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	98.4	292	66	300	97.55	6.1	-14.08	0.0	0.0	5.5
27086170	TO F3537-PD	27086139-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	10.2	292	67	300	97.47	6.1	-14.30	0.0	0.0	5.5
27086140	27086139-NODE	JJ23407267-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	6.5	292	67	300	97.46	6.1	-14.32	0.0	0.0	5.5
24789081	JJ23407267-NODE	TO S3838-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	8.7	292	67	300	97.46	6.1	-14.33	0.0	0.0	5.5
27086180	TO S3838-PD	24789080-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	1793.0	292	67	300	97.45	6.1	-14.35	0.0	0.0	5.5
24789323	24789080-NODE	S3838-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	43.3	292	88	305	95.76	6.2	-18.17	0.0	0.0	5.6
24789346	S3838-PD	24789345-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	4.8	292	88	305	95.71	6.2	-18.26	0.0	0.0	1.6
24789354	24789345-NODE	24789353-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	15.4	292	89	305	95.67	6.2	-18.34	0.0	0.0	1.6
24789371	24789353-NODE	24789370-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	3.2	213	62	222	96.01	4.5	-17.66	0.0	0.0	1.2
24789525	24789370-NODE	F3593-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	5.4	77	22	80	96.17	4.8	-17.49	0.0	0.0	3.5
24789531	F3593-PD	24789646-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	43.4	77	22	80	96.16	4.8	-17.51	0.0	0.0	3.5
24789647	24789646-NODE	TO F3593-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	685.9	77	22	80	96.11	4.9	-17.62	0.0	0.0	3.5
24789732	TO F3593-PD	TO TX H272-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	212.7	51	16	53	95.66	3.2	-18.52	0.0	0.0	2.3
22099050	TO TX H272-PD	23179629-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	484.4	26	7	27	96.20	1.6	-17.44	0.0	0.0	1.2
24789537	F3594-PD	24789370-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	5.4	45	13	47	96.14	2.8	-17.12	0.0	0.0	2.0
24789543	JJ23406981-NODE	F3594-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	33.3	45	13	47	96.13	2.8	-17.14	0.0	0.0	2.0
22178596	JJ23406973-NODE	JJ23406981-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	40.6	45	13	47	96.06	2.8	-17.29	0.0	0.0	2.0
22178605	JJ23406925-NODE	JJ23406973-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	43.0	45	13	47	95.97	2.9	-17.48	0.0	0.0	2.0
22178618	TO F3594-PD	JJ23406925-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	356.6	45	13	47	95.87	2.9	-17.67	0.0	0.0	2.0
22098996	JJ23399239-NODE	TO F3594-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	282.5	23	6	23	96.83	1.4	-15.61	0.0	0.0	1.0
22098967	TO TX H282-PD	JJ23399239-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	255.6	23	7	24	95.61	1.4	-18.19	0.0	0.0	1.0
22098955	23179579-NODE	TO TX H282-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	268.4	0	-1	1	0.00	0.1	88.85	0.0	0.0	0.0
24789564	24789370-NODE	F3595-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	4.6	92	27	96	95.80	5.8	-18.10	0.0	0.0	4.2
24789570	F3595-PD	24788474-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	28.7	92	27	96	95.79	5.8	-18.11	0.0	0.0	4.2
24788475	24788474-NODE	TO F3595-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	787.1	92	28	96	95.76	5.8	-18.18	0.0	0.0	4.2
24787742	TO F3595-PD	TO TX H281-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	283.4	61	20	64	95.20	3.9	-19.25	0.0	0.0	2.8
22098926	TO TX H281-PD	23179564-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	320.5	31	10	32	95.27	1.9	-19.13	0.0	0.0	1.4
24789416	24789353-NODE	FH283-PD	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	4.1	79	27	83	94.55	1.7	-20.38	0.0	0.0	0.4
24789422	FH283-PD	24789438-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	81.7	79	27	83	94.52	1.7	-20.44	0.0	0.0	1.4
24789439	24789438-NODE	TO FH283-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	84.1	79	28	84	94.16	1.7	-21.05	0.0	0.0	1.4
24789384	24789345-NODE	F3592-PD	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	8.8	0	0	0	0.00	0.0	88.61	0.0	0.0	0.0
24789393	F3592-PD	24789392-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	12.8	0	0	0	0.00	0.0	88.61	0.0	0.0	0.0
22099043	JJ23398943-NODE	TO F3540-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	872.0	92	25	95	96.51	5.8	-16.61	0.0	0.0	4.1
22098949	TO F3540-PD	TO TX H276-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	503.0	61	17	63	96.23	3.8	-17.21	0.0	0.0	2.8
22098939	TO TX H276-PD	TO TX H277-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	348.7	31	8	32	96.56	1.9	-16.50	0.0	0.0	1.4
22098933	TO TX H277-PD	23179564-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	363.9	0	-1	1	0.00	0.1	88.57	0.0	0.0	0.1
22708430	JJ23360473-NODE	JJ23360479-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	55.7	522	197	558	93.53	11.3	-22.12	0.0	0.0	9.4

22708425	JJ23360479-NODE	S336-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	21.0	522	198	558	93.49	11.3	-22.18	0.0	0.0	9.4
22684140	S336-PD	FH219-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	5.8	522	198	558	93.48	11.3	-22.21	0.0	0.0	9.4
25000360	FH219-PD	TO FH219-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	32.1	522	198	558	93.48	11.3	-22.21	0.0	0.0	9.4
22169809	JJ23424867-NODE	TO FH328-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	40.6	79	29	84	93.97	1.7	-21.40	0.0	0.0	1.4
22169836	JJ23424789-NODE	TO F3914-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	512.6	77	22	80	96.11	4.9	-17.66	0.0	0.0	3.5
22099424	TO F3914-PD	TO TX A177-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	208.9	58	17	60	95.81	3.7	-18.26	0.0	0.0	2.6
22099432	TO TX A177-PD	TO TX A175-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	388.2	38	11	40	96.01	2.4	-17.85	0.0	0.0	1.7
22099439	TO TX A175-PD	23179664-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	260.3	19	6	20	95.68	1.2	-18.53	0.0	0.0	0.9
22169844	JJ23424769-NODE	TO F3913-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	249.0	77	21	80	96.51	4.8	-16.80	0.0	0.0	3.5
22099459	TO F3913-PD	TO TX A148-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	614.6	58	15	60	96.79	3.6	-16.18	0.0	0.0	2.6
22099454	TO TX A148-PD	TO TX A169-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	386.1	38	10	40	96.47	2.4	-16.89	0.0	0.0	1.7
22099451	TO TX A169-PD	TO TX A171-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	127.1	19	5	20	96.61	1.2	-16.59	0.0	0.0	0.9
22099447	TO TX A171-PD	23179664-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	315.6	0	-1	1	0.00	0.1	88.38	0.0	0.0	0.1
22176071	JJ23410145-NODE	TO FA187-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	399.9	23	7	24	95.02	1.4	-19.30	0.0	0.0	1.0
22099244	JJ23398407-NODE	TO FH284-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	395.7	26	8	27	95.85	1.6	-18.11	0.0	0.0	1.2
22088319	JJ23404589-NODE	TO FA186-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	105.1	79	28	83	94.24	1.7	-20.90	0.0	0.0	1.4
22102069	JJ23391395-NODE	TO FA166-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	198.3	131	46	139	94.29	2.8	-20.82	0.0	0.0	2.3
26762715	FA189-PD	TO FA189-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	47.9	131	48	140	93.89	2.8	-21.51	0.0	0.0	2.3
24537938	24537923-NODE	24537937-NODE	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	202.8	4460	1451	4690	95.03	94.9	-19.42	0.3	0.3	23.9
25215038	24537937-NODE	S2949-PD	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	7.8	3252	1004	3404	95.55	68.9	-18.56	0.0	0.0	16.8
25215727	S2949-PD	FA29-PD	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	4.8	3252	1004	3404	95.54	68.9	-18.56	0.0	0.0	16.8
25215717	FA29-PD	A29-XFO	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	5.0	3252	1004	3404	95.54	68.9	-18.56	0.0	0.0	16.8
25215514	A29-XFO	S2403-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.0	3245	904	3368	96.33	456.8	11.44	0.1	0.1	44.4
25215533	S2403-PD	25215089-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.6	3245	904	3368	96.33	456.8	11.44	0.1	0.1	44.4
25215418	25215089-NODE	25215107-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.1	3245	903	3368	96.34	456.8	11.44	0.1	0.1	44.4
25215210	25215107-NODE	25216064-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.4	1380	402	1437	96.02	195.0	10.77	0.0	0.0	18.8
25215428	25215107-NODE	25215427-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.9	1864	502	1931	96.56	261.9	11.93	0.0	0.0	25.8
25215202	25215427-NODE	25216070-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.3	1018	292	1059	96.12	143.6	11.00	0.0	0.0	16.3
25215436	25215427-NODE	25215101-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.9	846	209	872	97.06	118.3	13.06	0.0	0.0	13.9
25215194	25215101-NODE	25216076-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.3	846	209	872	97.06	118.3	13.06	0.0	0.0	13.9
25215523	25215089-NODE	25215080-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	3.5	0	0	0	0.00	0.0	117.00	0.0	0.0	0.0
25215048	24537937-NODE	S532-PD	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	8.3	1208	450	1289	93.19	26.1	-21.86	0.0	0.0	7.1
25215749	S532-PD	FA130-PD	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	4.8	1208	450	1289	93.18	26.1	-21.87	0.0	0.0	7.1
25215739	FA130-PD	A130-XFO	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	5.3	1208	450	1289	93.18	26.1	-21.87	0.0	0.0	7.1
25215486	A130-XFO	S1264-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.0	1206	436	1283	94.04	173.0	8.13	0.0	0.0	19.0
25215496	S1264-PD	25215071-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.0	1206	436	1283	94.04	173.0	8.12	0.0	0.0	19.0
25215455	25215071-NODE	25215125-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.6	1206	436	1283	94.04	173.0	8.12	0.0	0.0	19.0
25215218	25215125-NODE	25216046-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.3	403	145	428	94.10	57.8	8.24	0.0	0.0	9.6
25215463	25215125-NODE	25215122-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.9	803	292	855	94.00	115.2	8.07	0.0	0.0	15.3
25215226	25215122-NODE	25216052-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.3	803	292	855	94.00	115.2	8.07	0.0	0.0	15.3
25215473	25215122-NODE	25215119-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.9	0	0	0	0.00	0.0	118.05	0.0	0.0	0.0
25215234	25215119-NODE	25216058-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.3	0	0	0	0.00	0.0	118.05	0.0	0.0	0.0
25215505	25215071-NODE	25215080-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.2	0	0	0	0.00	0.0	118.05	0.0	0.0	0.0
25044266	FA205-PD	TO FA205-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	60.2	79	28	84	94.04	1.7	-21.27	0.0	0.0	1.4
25044185	FA204-PD	TO FA204-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	78.2	79	28	84	94.12	1.7	-21.13	0.0	0.0	1.4
25442360	F4193-PD	TO F4193-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	314.6	77	25	80	95.19	4.9	-19.37	0.0	0.0	3.5
25442353	TO F4193-PD	TO TX H378-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	123.0	51	17	54	95.02	3.3	-19.69	0.0	0.0	2.3
25442346	TO TX H378-PD	25442236-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	259.4	26	8	27	95.30	1.6	-19.15	0.0	0.0	1.2

25849435	F4220-PD	TO F4220-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	13.3	131	44	138	94.84	2.8	-19.76	0.0	0.0	2.3
24284522	TO F4220-PD	24284430-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	399.4	0	-5	5	0.00	0.1	88.71	0.0	0.0	0.1
26075255	F4235-PD	TO F4235-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		27.600	317.6	68	25	72	93.91	4.4	-21.18	0.0	0.0	2.4
26075262	TO TX A207-PD	TO F4235-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		27.600	23.3	45	17	48	93.37	2.9	-22.07	0.0	0.0	1.6
26075268	25967785-NODE	TO TX A207-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		27.600	101.2	23	8	24	93.62	1.5	-21.66	0.0	0.0	0.8
26075337	F4236-PD	TO F4236-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		27.600	270.2	45	16	48	94.57	2.9	-20.03	0.0	0.0	1.6
26075286	TO F4236-PD	TO TX A211-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		27.600	80.2	23	8	24	94.47	1.4	-20.20	0.0	0.0	0.8
26297497	TO TX A211-PD	25967785-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		27.600	157.1	0	-1	1	0.00	0.0	88.94	0.0	0.0	0.0
26511325	FB265-PD	TO FB265-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	65.9	79	28	84	94.09	1.7	-20.98	0.0	0.0	1.4
22175207	JJ23410855-NODE	TO FK244-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	112.2	79	28	83	94.29	1.7	-20.63	0.0	0.0	1.4
22024893	JJ23373799-NODE	TO FK198-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	317.1	262	93	278	94.17	5.6	-20.84	0.0	0.0	4.7
22173923	JJ23414247-NODE	TO FK247-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	13.8	79	29	84	93.85	1.7	-21.37	0.0	0.0	1.4
21943254	JJ23284823-NODE	TO FK142-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	181.0	79	27	83	94.59	1.7	-20.11	0.0	0.0	1.4
22708262	JJ23360217-NODE	TO FK157-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	206.5	79	27	83	94.70	1.7	-19.92	0.0	0.0	1.4
22170745	JJ23422805-NODE	TO F3877-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	282.4	38	12	40	95.18	2.4	-19.03	0.0	0.0	1.8
24790648	TO F3877-PD	24790634-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	50.8	19	7	20	94.51	1.2	-20.23	0.0	0.0	0.9
22685444	JJ23350033-NODE	TO FK26-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	48.2	313	119	335	93.52	6.7	-21.74	0.0	0.0	5.6
22227298	JJ23437973-NODE	TO TX K262-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	423.3	23	3	23	99.03	1.4	-8.92	0.0	0.0	1.0
22227300	TO TX K262-PD	24291559-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	857.9	0	-3	3	0.00	0.2	89.06	0.0	0.0	0.1
26074708	F4257-PD	TO F4257-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	128.4	51	17	54	94.96	3.2	-19.18	0.0	0.0	2.3
26074714	TO F4257-PD	TO TX K281-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	178.2	26	8	27	95.17	1.6	-18.80	0.0	0.0	1.2
26074724	TO TX K281-PD	26074565-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	44.8	0	0	0	0.00	0.0	89.08	0.0	0.0	0.0
26747584	FK286-PD	TO FK286-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	37.8	131	48	140	93.87	2.8	-20.89	0.0	0.0	2.3
24961630	24574818-NODE	TO FB260-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	109.0	131	47	139	94.06	2.8	-20.48	0.0	0.0	2.3
26932827	25220060-NODE	25220687-NODE	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	5.2	0	0	0	0.00	0.0	90.00	0.0	0.0	0.0
25216011	25216046-NODE	25215135-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.3	403	145	428	94.10	57.8	8.23	0.0	0.0	9.6
25215002	25215135-NODE	JJ23347427-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	370.9	403	145	428	94.10	57.8	8.23	0.3	0.3	28.7
26009116	S4421-PD	26009093-NODE	1000KCMIL_AL_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	223.4	0	0	0	0.00	0.0	117.81	0.0	0.0	0.0
26246389	26009093-NODE	26009059-NODE	1000KCMIL_AL_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	13.8	0	0	0	0.00	0.0	117.81	0.0	0.0	0.0
26019063	JJ23434967-NODE	TO FK257-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	9.1	15	6	16	93.89	6.5	7.88	0.0	0.0	3.6
22228754	JJ23433767-NODE	TO FK251-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	301.6	84	29	89	94.42	12.1	8.20	0.0	0.0	8.2
21943198	JJ23284993-NODE	TO FK140-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	18.9	25	9	27	94.50	3.7	8.34	0.0	0.0	2.5
26948253	JJ23349551-NODE	TO FK133-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	11.3	11	4	12	93.95	4.9	7.96	0.0	0.0	2.7
23640779	23640778-NODE	TO FB199-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	307.5	11	4	12	94.75	4.9	9.32	0.0	0.0	2.7
23640748	JJ23286821-NODE	23640747-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	188.2	15	5	15	94.85	6.4	8.04	0.0	0.0	3.6
23640755	23640747-NODE	TO FK95-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	9.0	15	5	15	94.81	6.4	7.97	0.0	0.0	3.6
25216001	25216052-NODE	25215141-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.3	803	292	855	94.00	115.2	8.07	0.0	0.0	15.3
25214992	25215141-NODE	JJ23347487-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	359.3	803	292	855	94.00	115.2	8.06	1.1	1.0	46.0
21884965	JJ23279389-NODE	TO F2554-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	97.2	40	14	42	94.48	17.4	8.10	0.0	0.0	9.6
23631163	TO F2554-PD	23631155-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	17.1	20	7	21	94.51	8.7	8.15	0.0	0.0	4.8
23631156	23631155-NODE	TO TX H198-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	35.0	20	7	21	94.50	8.7	8.14	0.0	0.0	4.8
21884950	TO TX H198-PD	23174919-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	414.3	0	0	0	0.00	0.0	117.23	0.0	0.0	0.0
21884957	JJ23279367-NODE	TO F2555-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	141.2	60	21	64	94.45	26.1	7.95	0.0	0.0	14.5
23630981	TO F2555-PD	23630969-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	9.7	20	7	21	94.45	8.7	7.94	0.0	0.0	4.8
21884947	23630969-NODE	23174919-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	56.7	20	7	21	94.44	8.7	7.94	0.0	0.0	4.8
21884969	JJ23279335-NODE	TO F2556-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	455.8	60	21	64	94.47	26.1	7.99	0.1	0.0	14.5
23631072	TO F2556-PD	23631071-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	105.6	20	7	21	94.46	8.7	7.96	0.0	0.0	4.8
23631079	TO TX H201-PD	23631071-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	13.2	20	7	21	94.44	8.7	7.94	0.0	0.0	4.8

21884939	23174914-NODE	23631086-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	45.5	0	0	0	0.00	0.0	117.12	0.0	0.0	0.0
21884397	JJ23280167-NODE	TO F1716-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	316.8	66	24	70	94.21	28.7	8.34	0.1	0.0	15.9
21884391	TO F1716-PD	TO TX A11-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	498.5	40	14	42	94.23	17.2	8.37	0.0	0.0	9.6
25211804	TO TX A11-PD	23637674-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	650.0	13	5	14	94.29	5.7	8.47	0.0	0.0	3.2
24541316	23637674-NODE	23174844-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	7.0	13	5	14	94.14	5.7	8.21	0.0	0.0	3.2
22684308	JJ23279519-NODE	JJ23354251-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	289.4	324	113	343	94.40	46.8	7.90	0.5	0.2	47.2
22017653	JJ23381701-NODE	JJ23279555-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	202.3	139	48	147	94.47	60.5	7.85	0.2	0.0	33.6
21885112	JJ23279213-NODE	TO F2495-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	275.8	121	42	128	94.53	53.0	7.85	0.2	0.0	29.4
23638058	TO F2495-PD	23638050-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	13.5	95	33	101	94.53	41.7	7.84	0.0	0.0	23.1
21885098	23638050-NODE	TO TX A112-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	91.3	95	33	101	94.53	41.7	7.84	0.0	0.0	23.1
21885081	TO TX A112-PD	TO TX A111-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	155.4	69	24	73	94.53	30.3	7.85	0.0	0.0	16.8
21885075	TO TX A111-PD	TO TX A110-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	104.6	43	15	46	94.54	18.9	7.87	0.0	0.0	10.5
24539723	TO TX A110-PD	TO TX A109-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	517.9	17	6	18	94.58	7.6	7.94	0.0	0.0	4.2
24539717	TO TX A109-PD	23174958-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	132.5	0	0	0	0.00	0.0	116.89	0.0	0.0	0.0
22017707	JJ23381639-NODE	JJ23381641-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	206.4	43	15	46	94.49	18.8	7.89	0.0	0.0	10.5
24541234	JJ23280279-NODE	23174839-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	143.4	17	6	18	94.50	7.5	7.86	0.0	0.0	4.2
21885248	JJ23279139-NODE	TO F865-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	408.4	111	38	117	94.50	48.3	7.87	0.2	0.1	26.8
23629767	TO F865-PD	TO TX A2-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	174.5	91	31	96	94.49	39.6	7.87	0.1	0.0	22.0
23637896	TO TX A2-PD	TO TX A3-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	788.1	70	24	75	94.50	30.8	7.88	0.2	0.0	17.1
24539816	TO TX A3-PD	TO TX A4-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	254.0	50	17	53	94.48	22.0	7.85	0.0	0.0	12.2
26036253	TO TX A4-PD	23175004-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		4.160	317.0	30	10	32	94.48	13.2	7.86	0.0	0.0	9.5
23627930	JJ23349471-NODE	TO F1278-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	407.0	46	16	49	94.24	20.1	8.40	0.0	0.0	11.2
23627900	TO F1278-PD	TO TX A122-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	275.9	26	9	28	94.23	11.5	8.39	0.0	0.0	6.4
23627879	TO TX A122-PD	23191408-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		4.160	538.3	0	0	0	0.00	0.0	117.95	0.0	0.0	0.0
21884978	JJ23279351-NODE	TO F2553-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	382.3	60	21	64	94.47	26.1	8.09	0.1	0.0	14.5
21884943	TO F2553-PD	23631117-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	125.7	40	14	42	94.46	17.4	8.07	0.0	0.0	9.7
23631125	23631117-NODE	23174914-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	20.2	40	14	42	94.45	17.4	8.05	0.0	0.0	9.7
25215977	25216058-NODE	25215147-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.3	0	0	0	0.00	0.0	118.05	0.0	0.0	0.0
25214982	25215147-NODE	JJ23347603-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	3.6	0	0	0	0.00	0.0	118.05	0.0	0.0	0.0
25215915	25216064-NODE	25215153-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.2	1380	402	1437	96.02	195.0	10.77	0.0	0.0	18.8
22685923	25215153-NODE	JJ23348751-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	262.9	1380	402	1437	96.02	195.0	10.77	1.9	1.9	56.5
22685937	JJ23348725-NODE	23174959-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	241.7	20	5	20	96.74	8.3	12.18	0.0	0.0	4.6
24539732	24539731-NODE	TO F920-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	325.9	56	16	59	96.36	23.9	11.34	0.0	0.0	13.3
26036159	TO F920-PD	TO TX A10-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		4.160	522.3	42	12	44	96.37	17.9	11.35	0.1	0.0	12.8
26036189	TO TX A10-PD	TO TX A9-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		4.160	307.6	28	8	29	96.37	11.9	11.34	0.0	0.0	8.6
26036196	TO TX A9-PD	TO TX A8-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		4.160	292.9	14	4	15	96.40	6.0	11.40	0.0	0.0	4.3
26036212	TO TX A8-PD	23175002-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		4.160	398.0	0	0	0	0.00	0.0	116.83	0.0	0.0	0.0
22023138	JJ23376449-NODE	TO F3254-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	20.5	28	8	29	96.31	12.0	10.98	0.0	0.0	6.6
22023118	TO F3254-PD	23176464-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	132.2	0	0	0	0.00	0.0	116.59	0.0	0.0	0.0
22175116	JJ23410941-NODE	TO FB222-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	215.1	14	4	15	96.32	6.1	10.23	0.0	0.0	3.4
21942805	JJ23286065-NODE	TO FA117-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	33.3	83	22	86	96.57	11.9	10.94	0.0	0.0	7.7
21942813	JJ23286033-NODE	TO FA38-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	35.5	166	45	172	96.55	23.7	10.88	0.0	0.0	7.9
24981047	F4158-PD	24980931-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	643.9	28	8	29	96.35	12.0	10.77	0.0	0.0	6.7
24981021	F4157-PD	TO F4157-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	391.6	28	8	29	96.35	12.0	10.79	0.0	0.0	6.7
24981039	TO F4157-PD	24980931-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	239.3	0	0	0	0.00	0.0	116.31	0.0	0.0	0.0
24758734	FB258-PD	TO FB258-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	36.5	111	30	115	96.56	15.7	11.19	0.0	0.0	13.2
26246397	26009040-NODE	26009059-NODE	1000KCMIL_AL_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	10.7	0	0	0	0.00	0.0	116.27	0.0	0.0	0.0
27146719	F3253-PD	23176464-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	61.8	28	8	29	96.30	12.0	10.93	0.0	0.0	6.6

25215905	25216070-NODE	25215159-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.3	1018	292	1059	96.12	143.6	11.00	0.0	0.0	16.3
25214972	25215159-NODE	JJ23279305-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	231.0	1018	292	1059	96.12	143.6	11.00	0.9	0.9	49.0
24604424	JJ23354195-NODE	TO F1277-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	91.1	88	22	91	97.06	38.1	10.94	0.0	0.0	21.1
24604430	TO F1277-PD	JJ23372303-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	286.0	62	15	64	97.06	26.6	10.95	0.0	0.0	14.8
22027321	JJ23372303-NODE	TO TX A118-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	425.8	62	15	63	97.05	26.6	10.93	0.1	0.0	14.8
22685733	TO TX A118-PD	23191409-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	275.7	35	9	36	97.04	15.2	10.89	0.0	0.0	8.5
22708313	JJ23360911-NODE	TO FA49-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	131.7	16	4	17	96.77	6.9	11.26	0.0	0.0	3.8
22024450	JJ23374373-NODE	TO FH245-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	105.3	25	7	26	96.74	10.6	10.66	0.0	0.0	5.9
25215881	25216076-NODE	25215165-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.2	846	209	872	97.06	118.3	13.06	0.0	0.0	13.9
25214952	25215165-NODE	JJ23279259-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	801.1	846	209	872	97.06	118.3	13.06	2.5	2.2	41.7
24540651	24540532-NODE	24540650-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	1043.9	831	202	855	97.17	116.6	13.03	3.1	2.8	41.7
24540805	24540650-NODE	S2611-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	45.1	827	199	851	97.22	116.6	13.00	0.1	0.1	41.7
24540815	S2611-PD	24540814-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	6.5	827	199	851	97.22	116.6	13.00	0.0	0.0	41.7
24540825	24540814-NODE	24540824-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	18.2	675	165	694	97.13	95.3	12.74	0.0	0.0	41.7
24540833	24540824-NODE	S2612-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	8.2	454	106	466	97.39	64.0	13.34	0.0	0.0	32.1
24540841	S2612-PD	24540665-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	26.0	454	106	466	97.39	64.0	13.34	0.0	0.0	32.1
24540667	24540665-NODE	JJ23282085-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	363.1	454	106	466	97.39	64.0	13.34	0.5	0.4	32.1
22252144	JJ23444567-NODE	TO FA197-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	623.7	70	16	71	97.58	9.8	13.79	0.0	0.0	5.9
24541176	JJ23280207-NODE	TO F2423-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	1111.9	171	39	176	97.52	73.0	13.04	1.3	0.4	40.6
24541182	TO F2423-PD	TO TX A107-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	834.9	145	33	149	97.52	62.3	13.02	0.7	0.2	34.6
24541197	TO TX A107-PD	TO TX A106-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	468.3	119	27	122	97.52	51.5	13.00	0.3	0.1	28.6
24541203	TO TX A106-PD	TO TX A105-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	61.8	94	21	96	97.53	40.7	13.00	0.0	0.0	22.6
24541209	TO TX A105-PD	TO TX A104-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	405.6	75	17	77	97.53	32.5	13.02	0.1	0.0	18.1
24541215	TO TX A104-PD	TO TX A103-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	471.9	50	11	51	97.54	21.7	13.04	0.0	0.0	12.1
24541222	TO TX A103-PD	TO TX A102-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	890.3	25	6	26	97.57	10.8	13.10	0.0	0.0	6.0
24541228	TO TX A102-PD	23174837-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	153.6	0	0	0	0.00	0.0	115.76	0.0	0.0	0.0
23630273	TO F2424-PD	JJ23280195-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	1093.0	71	17	73	97.31	30.3	13.16	0.2	0.1	16.8
24541098	TO TX A115-PD	TO F2424-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	226.6	47	11	49	97.29	20.2	13.09	0.0	0.0	11.2
24541136	23174879-NODE	TO TX A115-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	121.5	24	6	24	97.28	10.1	13.07	0.0	0.0	5.6
24540851	24540824-NODE	F1816-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	8.6	221	59	228	96.56	31.3	11.53	0.0	0.0	9.6
24540859	F1816-PD	24540582-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	16.3	221	59	228	96.56	31.3	11.53	0.0	0.0	18.8
24540584	24540582-NODE	24540583-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	329.8	221	59	228	96.56	31.3	11.53	0.1	0.1	9.6
24540924	24540583-NODE	25700130-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	11.6	220	59	228	96.55	31.3	11.49	0.0	0.0	9.7
25700223	25700130-NODE	25700252-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	7.5	220	59	228	96.55	31.3	11.49	0.0	0.0	9.7
25700253	25700252-NODE	S2634-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	5.5	220	59	228	96.54	31.3	11.46	0.0	0.0	9.7
25700239	S2634-PD	25700262-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	5.2	220	60	228	96.54	31.3	11.46	0.0	0.0	9.7
25700263	25700262-NODE	25700160-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	7.7	105	24	107	97.53	14.7	13.81	0.0	0.0	8.8
25700161	25700160-NODE	JJ23362697-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	15.7	105	24	107	97.53	14.7	13.81	0.0	0.0	8.8
22707792	JJ23362697-NODE	TO TX A99-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	21.7	105	24	107	97.53	14.7	13.81	0.0	0.0	8.8
25700282	25700262-NODE	25700150-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	10.6	116	36	121	95.52	16.6	9.38	0.0	0.0	10.0
25700151	25700150-NODE	JJ23362711-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	10.7	116	36	121	95.52	16.6	9.37	0.0	0.0	10.0
22707785	JJ23362711-NODE	TO S2634-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	18.1	116	36	121	95.52	16.6	9.37	0.0	0.0	10.0
25700271	25700252-NODE	25700140-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	9.5	0	0	0	0.00	0.0	116.59	0.0	0.0	0.0
25700141	25700140-NODE	JJ23282193-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	10.1	0	0	0	0.00	0.0	116.59	0.0	0.0	0.0
21882411	JJ23282193-NODE	JJ23282191-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	235.8	0	0	0	0.00	0.0	116.59	0.0	0.0	0.0
24540867	24540814-NODE	24540749-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	5.3	0	0	0	0.00	0.0	116.33	0.0	0.0	0.0
24540882	24540814-NODE	F1941-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	45.1	64	13	65	97.98	26.5	15.38	0.0	0.0	14.7
24540888	F1941-PD	24540622-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	24.6	64	13	65	97.98	26.5	15.37	0.0	0.0	14.7

24540624	24540622-NODE	TO F1941-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	841.7	64	13	65	97.98	26.5	15.37	0.1	0.0	14.7
24541298	TO F1941-PD	TO TX A20-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	474.9	42	9	43	97.97	17.7	15.34	0.0	0.0	9.8
24541304	TO TX A20-PD	TO TX A19-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	294.9	21	4	22	97.97	8.8	15.36	0.0	0.0	4.9
24541310	TO TX A19-PD	23174842-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	300.1	0	0	0	0.00	0.0	116.91	0.0	0.0	0.0
24540894	24540814-NODE	F1943-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	11.2	89	21	92	97.33	37.7	13.28	0.0	0.0	20.9
24540900	F1943-PD	24540605-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	23.4	89	21	92	97.33	37.7	13.28	0.0	0.0	20.9
24540607	24540605-NODE	TO F1943-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	225.2	89	21	92	97.33	37.7	13.27	0.1	0.0	20.9
24541263	TO F1943-PD	TO TX A168-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	449.5	65	15	67	97.34	27.6	13.30	0.1	0.0	15.4
24541355	TO TX A168-PD	TO TX A16-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	267.5	42	10	43	97.36	17.6	13.34	0.0	0.0	9.8
24541361	TO TX A16-PD	TO TX A15-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	400.8	18	4	18	97.44	7.6	13.55	0.0	0.0	4.2
24541283	TO TX A15-PD	23174879-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	830.3	0	0	0	0.00	0.0	116.53	0.0	0.0	0.0
25024857	25024650-NODE	25024688-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.1	1082	1	1082	100.00	145.0	27.22	0.0	0.0	25.3
22686551	25024688-NODE	JJ23278815-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	23.6	1082	1	1082	100.00	145.0	27.22	0.1	0.1	50.5
21943210	JJ23284971-NODE	TO FK101-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	84.1	23	0	23	-99.99	9.1	26.88	0.0	0.0	5.1
22228154	FK258-PD	TO FK258-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	106.2	30	0	30	-99.99	12.1	26.85	0.0	0.0	6.7
21824862	JJ23278195-NODE	TO FK134-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	198.0	51	-1	51	-99.99	6.9	27.29	0.0	0.0	4.1
21824831	JJ23278237-NODE	TO FK137-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	122.0	51	-1	51	-99.99	6.9	27.21	0.0	0.0	4.1
21886139	JJ23278375-NODE	TO FK114-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	22.7	51	-1	51	-99.99	6.9	27.16	0.0	0.0	4.1
24556431	JJ23278299-NODE	TO F1872-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	515.7	53	-1	53	-99.99	21.5	26.92	0.1	0.0	12.0
24556437	TO F1872-PD	23175039-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	295.6	35	-1	35	-99.99	14.4	26.88	0.0	0.0	8.0
21886163	JJ23278307-NODE	TO F1871-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	724.7	37	0	37	-100.00	14.8	27.61	0.0	0.0	8.2
24556381	TO F1871-PD	TO TX K1-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	343.3	18	0	18	-100.00	7.4	27.60	0.0	0.0	4.1
24556390	TO TX K1-PD	23175978-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	303.9	0	0	0	0.00	0.0	117.25	0.0	0.0	0.0
25024874	25024657-NODE	25024814-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.7	876	0	876	100.00	117.4	27.26	0.0	0.0	17.8
24558591	25024814-NODE	JJ23278831-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	20.6	876	0	876	100.00	117.4	27.26	0.1	0.1	35.6
21826783	JJ23275799-NODE	TO FB23-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	385.4	22	-1	22	-99.96	8.9	27.62	0.0	0.0	4.9
24557118	FB181-PD	TO FB181-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	67.9	168	-3	168	-99.98	22.8	27.04	0.0	0.0	14.3
21826741	JJ23275819-NODE	TO FB73-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	323.7	1	0	1	-98.65	0.1	35.23	0.0	0.0	0.0
25024882	25024663-NODE	25024820-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.1	952	1	952	100.00	127.6	27.23	0.0	0.0	21.1
24558603	25024820-NODE	24558602-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	36.6	952	1	952	100.00	127.6	27.23	0.1	0.1	42.1
24558649	24558602-NODE	S1976-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	14.4	951	0	951	100.00	127.6	27.23	0.0	0.0	42.1
24558669	S1976-PD	JJ23278839-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	14.9	951	0	951	100.00	127.6	27.23	0.0	0.0	42.1
27103702	FB273-PD	TO FB273-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	386.3	37	-1	37	-99.99	15.0	27.43	0.0	0.0	8.4
21883074	JJ23281651-NODE	TO F1852-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	144.5	133	-2	133	-99.99	54.2	26.87	0.1	0.0	30.1
24557725	TO F1852-PD	TO TX B178-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	122.7	110	-2	110	-99.99	44.8	26.86	0.1	0.0	24.9
24557732	TO TX B178-PD	F1851-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	252.1	64	-1	64	-99.99	26.0	26.84	0.0	0.0	14.4
24558442	JJ23278839-NODE	24553789-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	49.2	0	0	0	0.00	0.0	117.26	0.0	0.0	0.0
22708646	JJ23347921-NODE	S3008-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	29.0	27.600	132.2	13566	3920	14121	96.05	281.4	-16.12	1.0	3.7	84.3
22708650	S3008-PD	JJ23359521-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.9	27.600	1651.2	13565	3916	14119	96.05	281.4	-16.13	12.6	46.6	84.3
22227283	JJ23359521-NODE	JJ23264461-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.9	27.600	692.7	13552	3871	14094	96.13	281.4	-16.13	5.3	19.5	84.3
21727354	JJ23264461-NODE	23261372-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.9	27.600	123.3	0	0	0	0.00	0.0	89.74	0.0	0.0	0.0
22017781	JJ23264461-NODE	25435312-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.9	27.600	101.0	13547	3853	14084	96.16	281.4	-16.14	0.8	2.8	84.3
25435313	25435312-NODE	JJ23381525-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.9	27.600	1253.0	13546	3850	14083	96.17	281.4	-16.14	9.6	35.4	84.3
22017744	JJ23381525-NODE	FL531-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.9	27.600	4.7	79	28	84	94.07	1.7	-20.22	0.0	0.0	0.5
22017733	FL531-PD	JJ23381537-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.9	27.600	22.8	79	28	84	94.07	1.7	-20.22	0.0	0.0	0.5
22017772	JJ23381525-NODE	JJ23264457-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.8	27.600	1099.0	13458	3788	13981	96.24	279.7	-16.12	8.3	30.6	83.8
25435135	JJ23264457-NODE	JJ23413969-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.8	27.600	371.1	13449	3758	13965	96.29	279.7	-16.12	2.8	10.3	83.8
22174040	JJ23413969-NODE	FL596-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.8	27.600	2.9	79	28	83	94.15	1.7	-20.23	0.0	0.0	0.5

22174068	JJ23413969-NODE	S314-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.8	27.600	45.0	13368	3720	13876	96.32	278.1	-16.10	0.3	1.2	83.4
21727506	S314-PD	JJ23264411-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.8	27.600	139.5	13368	3719	13875	96.32	278.1	-16.10	1.0	3.8	83.4
22259145	JJ23264411-NODE	24574409-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.8	27.600	827.4	13367	3716	13873	96.33	278.1	-16.10	6.2	22.8	83.4
24574410	24574409-NODE	JJ23445979-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.8	27.600	453.2	13229	3646	13723	96.38	275.3	-16.06	3.3	12.2	82.6
22259122	JJ23445979-NODE	FK271-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.8	27.600	27.2	131	46	139	94.29	2.8	-20.14	0.0	0.0	0.9
22259116	FK271-PD	JJ23445997-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.8	27.600	1.5	131	46	139	94.28	2.8	-20.15	0.0	0.0	0.9
22259136	JJ23445979-NODE	26867924-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.8	27.600	391.9	13095	3588	13578	96.42	272.5	-16.02	2.8	10.4	81.9
26867925	26867924-NODE	26532212-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	392.7	12961	3530	13433	96.46	269.7	-15.97	2.8	10.2	81.1
26097854	26532212-NODE	FK285-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.7	27.600	8.4	133	45	140	94.69	2.8	-19.52	0.0	0.0	2.5
26532213	26532212-NODE	JJ23418751-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	440.2	12826	3476	13289	96.50	266.9	-15.94	3.0	11.2	80.4
22171670	JJ23418751-NODE	FB227-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	14.9	79	28	83	94.28	1.7	-20.27	0.0	0.0	0.5
22228359	JJ23418751-NODE	JJ23434661-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	108.9	12744	3437	13200	96.53	265.3	-15.91	0.7	2.7	79.9
22228352	JJ23434661-NODE	26995899-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	74.4	12693	3418	13145	96.54	264.2	-15.90	0.5	1.8	79.0
26995829	26995899-NODE	F4269-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	33.0	26	8	27	95.55	1.6	-18.08	0.0	0.0	1.2
26995900	26995899-NODE	JJ23434671-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	60.6	12667	3408	13117	96.54	263.6	-15.89	0.4	1.5	78.6
22170631	JJ23434671-NODE	FK248-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	14.6	79	28	83	94.29	1.7	-20.28	0.0	0.0	0.5
22170621	FK248-PD	JJ23423113-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	19.2	79	28	83	94.28	1.7	-20.29	0.0	0.0	0.5
22226863	JJ23434671-NODE	24783092-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	91.7	12588	3379	13033	96.56	262.0	-15.87	0.6	2.2	78.1
22228338	24783092-NODE	FB232-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	15.5	131	47	139	94.03	2.8	-20.73	0.0	0.0	0.9
22228330	FB232-PD	JJ23434685-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	39.5	131	47	139	94.03	2.8	-20.74	0.0	0.0	0.9
24783093	24783092-NODE	JJ23439695-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	260.0	12456	3330	12893	96.58	259.2	-15.82	1.7	6.2	77.4
22226861	JJ23439695-NODE	JJ23439669-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	129.4	12409	3308	12842	96.60	258.2	-15.80	0.8	3.1	77.4
22226859	JJ23439669-NODE	F3982-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	20.8	90	19	92	97.89	5.6	-12.54	0.0	0.0	4.2
22226853	F3982-PD	JJ23439733-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	40.7	90	19	92	97.89	5.6	-12.55	0.0	0.0	4.2
22226865	JJ23439669-NODE	JJ23437903-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	398.5	12318	3286	12748	96.60	256.4	-15.82	2.5	9.4	77.4
22227315	JJ23437903-NODE	S317-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	254.8	12292	3274	12721	96.61	255.9	-15.84	1.6	6.0	77.4
22227323	S317-PD	JJ23437883-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	141.4	12291	3268	12718	96.62	255.9	-15.84	0.9	3.3	77.4
22227312	JJ23437883-NODE	F3975-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.1	23	6	24	96.41	1.4	-16.38	0.0	0.0	1.1
22227309	F3975-PD	JJ23437945-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	44.4	23	6	24	96.40	1.4	-16.39	0.0	0.0	1.1
22227318	JJ23437883-NODE	JJ23437889-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	550.5	12267	3259	12692	96.62	255.4	-15.84	3.5	12.8	77.4
22707459	JJ23437889-NODE	JJ23363891-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	37.3	12263	3246	12686	96.65	255.4	-15.84	0.2	0.9	77.4
22170180	JJ23363891-NODE	S3972-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	1748.6	2917	86	2919	99.87	58.8	-2.69	0.6	2.1	17.3
24783438	S3972-PD	S454-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.7	27.600	86.1	2917	85	2918	99.87	58.8	-2.73	0.1	0.1	47.1
25721960	S454-PD	FB58-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.7	27.600	6.7	2917	85	2918	99.87	58.8	-2.73	0.0	0.0	47.1
22170819	JJ23363891-NODE	JJ23422787-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	280.4	9032	3043	9531	94.75	191.9	-19.64	1.0	3.7	58.8
22170773	JJ23422787-NODE	F3878-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	16.3	38	11	40	96.41	2.4	-16.54	0.0	0.0	1.8
22170763	F3878-PD	JJ23422847-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	40.9	38	11	40	96.41	2.4	-16.55	0.0	0.0	1.8
22170801	JJ23422787-NODE	JJ23422773-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	161.1	8993	3029	9489	94.76	191.1	-19.65	0.6	2.1	58.1
22170809	JJ23422773-NODE	JJ23359855-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	910.3	8954	3015	9448	94.76	190.3	-19.66	3.2	11.8	57.5
22708606	JJ23359855-NODE	JJ23359847-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	364.9	8911	2989	9400	94.80	189.5	-19.65	1.3	4.7	57.2
22708610	JJ23359847-NODE	26135359-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	180.5	8910	2985	9397	94.81	189.5	-19.66	0.6	2.3	57.2
22707675	26135359-NODE	S3133-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	675.3	8870	2968	9354	94.82	188.6	-19.65	2.3	8.6	57.0
22707690	S3133-PD	JJ23362997-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	8.9	8868	2960	9349	94.84	188.6	-19.65	0.0	0.1	57.0
22100803	JJ23362997-NODE	26511308-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	85.3	8135	2704	8573	94.88	173.0	-19.58	0.2	0.9	53.0
26511309	26511308-NODE	26633193-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	274.7	8056	2675	8489	94.89	171.3	-19.57	0.8	2.9	52.5
26633194	26633193-NODE	25620049-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	614.0	8056	2672	8487	94.90	171.3	-19.57	1.7	6.4	52.5
25425765	25620049-NODE	FA206-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.6	27.600	43.9	262	96	279	93.83	5.6	-21.46	0.0	0.0	4.9
25620050	25620049-NODE	26075318-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	121.5	7792	2570	8205	94.95	165.7	-19.51	0.3	1.2	51.0

26075319	26075318-NODE	JJ23394435-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	135.3	7747	2554	8157	94.96	164.7	-19.51	0.4	1.3	51.0
22100782	JJ23394435-NODE	FH244-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	375.7	131	46	139	94.46	2.8	-20.42	0.0	0.0	0.9
22100775	FH244-PD	JJ23394447-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	22.4	131	46	139	94.37	2.8	-20.57	0.0	0.0	0.9
22229956	JJ23394435-NODE	S3999-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	152.8	7615	2507	8017	94.97	161.9	-19.49	0.4	1.4	50.3
22229971	S3999-PD	26075236-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	173.2	7615	2506	8017	94.97	161.9	-19.49	0.4	1.6	50.3
143	26075236-NODE	143	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	9.8	7547	2480	7944	94.98	160.5	-19.48	0.0	0.1	50.3
144	143	144	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	157.5	1	-1	2	-78.74	0.0	36.78	0.0	0.0	0.0
146	145	146	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	164.0	1	-1	1	-84.08	0.0	31.50	0.0	0.0	0.0
147	146	147	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	111.5	1	-1	1	-89.48	0.0	25.24	0.0	0.0	0.0
150	148	150	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.6	27.600	65.6	1	0	1	-92.84	0.0	20.54	0.0	0.0	0.0
151	150	151	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.6	27.600	98.4	1	0	1	-94.38	0.0	18.03	0.0	0.0	0.0
152	151	152	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.6	27.600	328.1	1	0	1	-96.41	0.0	14.11	0.0	0.0	0.0
153	152	153	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.6	27.600	32.8	1	0	1	-99.97	0.0	0.16	0.0	0.0	0.0
26075237	143	25849426-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	157.5	7545	2480	7943	94.98	160.4	-19.49	0.4	1.5	50.3
25849427	25849426-NODE	JJ23363977-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	499.5	7414	2435	7804	94.99	157.7	-19.48	1.2	4.5	49.5
22174226	JJ23363977-NODE	JJ23413665-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	319.6	79	28	83	94.33	1.7	-20.69	0.0	0.0	0.5
22174183	JJ23413665-NODE	FH318-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	12.3	79	28	84	94.16	1.7	-20.99	0.0	0.0	0.5
22174169	FH318-PD	JJ23413689-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	18.8	79	28	84	94.15	1.7	-21.00	0.0	0.0	0.5
22174210	JJ23413665-NODE	23260824-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	109.4	0	0	0	0.00	0.0	88.69	0.0	0.0	0.0
22707441	JJ23363977-NODE	S3092-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	157.5	7334	2404	7718	95.01	156.0	-19.48	0.4	1.4	49.1
25305390	S3092-PD	25305389-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	167.1	7334	2403	7717	95.01	156.0	-19.48	0.4	1.5	49.1
24819509	25305389-NODE	F4055-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.6	27.600	37.9	262	92	278	94.34	5.6	-20.69	0.0	0.0	4.9
24819517	F4055-PD	24284505-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.6	27.600	1.3	262	92	278	94.34	5.6	-20.70	0.0	0.0	4.9
25759263	25305389-NODE	25759262-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	223.3	7071	2309	7439	95.04	150.4	-19.43	0.5	1.8	47.5
22170533	25759262-NODE	JJ23423357-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	71.9	6994	2283	7358	95.04	148.7	-19.44	0.2	0.6	46.2
22170503	JJ23423357-NODE	FA188-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.6	27.600	31.3	131	48	140	93.85	2.8	-21.55	0.0	0.0	2.5
22170522	JJ23423357-NODE	JJ23389025-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	154.1	6863	2234	7218	95.06	145.9	-19.40	0.3	1.2	45.4
22103659	JJ23389025-NODE	JJ23349301-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	4.6	6863	2233	7217	95.07	145.9	-19.40	0.0	0.0	45.4
22171767	JJ23349301-NODE	25759250-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	80.2	1903	601	1996	95.34	40.4	-18.92	0.0	0.1	14.8
25442300	25759250-NODE	F4192-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	49.7	51	16	53	95.65	3.2	-18.51	0.0	0.0	2.5
25759251	25759250-NODE	S3937-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	32.5	1852	586	1943	95.33	39.3	-18.94	0.0	0.0	13.9
22171782	S3937-PD	JJ23375139-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	205.6	1852	586	1943	95.33	39.3	-18.94	0.0	0.1	13.9
22023767	JJ23375139-NODE	FA149-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	38.9	131	46	139	94.41	2.8	-20.60	0.0	0.0	0.9
22023754	FA149-PD	JJ23375149-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	3.5	131	46	139	94.40	2.8	-20.61	0.0	0.0	0.9
22178879	JJ23375139-NODE	JJ23406607-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	592.6	1721	540	1804	95.40	36.5	-18.82	0.1	0.3	13.1
22174890	JJ23406607-NODE	JJ23412693-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	281.8	1696	533	1777	95.39	36.0	-18.85	0.0	0.1	12.7
22174878	JJ23412693-NODE	F3734-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	44.5	38	10	40	97.04	2.4	-15.53	0.0	0.0	1.8
22174867	F3734-PD	JJ23412709-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	2.6	38	10	40	97.04	2.4	-15.55	0.0	0.0	1.8
22226140	JJ23412693-NODE	JJ23442265-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	104.1	1657	523	1738	95.35	35.2	-18.93	0.0	0.0	12.0
22226133	JJ23442265-NODE	F3733-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	41.7	68	19	71	96.28	4.3	-17.23	0.0	0.0	3.3
22226126	F3733-PD	JJ23442259-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	1.6	68	19	71	96.28	4.3	-17.24	0.0	0.0	3.3
22226147	JJ23442265-NODE	JJ23425545-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	149.0	1589	504	1667	95.30	33.7	-19.01	0.0	0.1	10.8
22169553	JJ23425545-NODE	FA193-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	33.6	23	7	24	94.99	1.4	-19.37	0.0	0.0	1.1
22169546	FA193-PD	JJ23425549-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	3.0	23	7	24	94.98	1.4	-19.38	0.0	0.0	1.1
22169567	JJ23425545-NODE	JJ23425425-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	175.5	1566	497	1643	95.31	33.2	-19.01	0.0	0.1	10.8
22169581	JJ23425425-NODE	FA192-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	15.1	261	96	278	93.82	5.6	-21.62	0.0	0.0	1.8
22169574	FA192-PD	JJ23425439-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	23.2	261	96	278	93.82	5.6	-21.62	0.0	0.0	1.8
22169592	JJ23425425-NODE	27140005-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	74.6	1305	401	1365	95.58	27.6	-18.48	0.0	0.0	9.3

27140006	27140005-NODE	JJ23410121-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	119.2	1283	392	1341	95.63	27.1	-18.41	0.0	0.0	9.3
22164926	JJ23410121-NODE	F3601-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	18.9	506	121	520	97.23	10.5	-14.92	0.0	0.0	3.7
22164905	F3601-PD	JJ23405423-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	2060.9	506	121	520	97.23	10.5	-14.92	0.0	0.1	3.7
22227973	JJ23405423-NODE	JJ23435503-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	106.7	506	124	521	97.14	10.5	-15.16	0.0	0.0	3.7
22227967	JJ23435503-NODE	JJ23398907-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	11.2	414	99	426	97.26	8.6	-14.85	0.0	0.0	3.1
22099089	JJ23398907-NODE	F3539-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	11.1	45	13	47	96.28	2.8	-16.82	0.0	0.0	2.2
22099080	F3539-PD	JJ23398913-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.5	45	13	47	96.28	2.8	-16.82	0.0	0.0	2.2
22227986	JJ23398907-NODE	JJ23398887-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	11.1	369	86	379	97.36	7.7	-14.61	0.0	0.0	3.1
22099104	JJ23398887-NODE	F3538-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	13.4	77	21	79	96.51	4.8	-16.75	0.0	0.0	3.7
22099096	F3538-PD	JJ23398899-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	18.9	77	21	79	96.51	4.8	-16.76	0.0	0.0	3.7
22227991	JJ23398887-NODE	JJ23398853-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	98.8	292	65	299	97.57	6.1	-14.04	0.0	0.0	2.1
22099118	JJ23398853-NODE	F3537-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	13.6	292	66	300	97.55	6.1	-14.08	0.0	0.0	2.1
22099111	F3537-PD	JJ23398863-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	19.2	292	66	300	97.55	6.1	-14.08	0.0	0.0	2.1
26260786	JJ23398853-NODE	26260785-NODE	556KCMIL_ACSR_DOVE_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	105.2	0	0	0	0.00	0.0	88.61	0.0	0.0	0.0
22227979	JJ23435503-NODE	F3540-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	13.6	92	25	95	96.51	5.8	-16.61	0.0	0.0	4.4
22099072	F3540-PD	JJ23398943-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.2	92	25	95	96.51	5.8	-16.61	0.0	0.0	4.4
22176112	JJ23410121-NODE	JJ23410119-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	668.8	777	271	823	94.41	16.6	-20.62	0.0	0.1	6.2
22171737	JJ23410119-NODE	S3942-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	380.6	754	264	799	94.36	16.2	-20.71	0.0	0.0	6.2
22169825	S3942-PD	JJ23424843-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	3494.9	754	264	799	94.34	16.2	-20.74	0.1	0.4	6.2
22169781	JJ23424843-NODE	JJ23424755-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	145.8	754	268	800	94.21	16.2	-20.99	0.0	0.0	6.2
22169771	JJ23424755-NODE	JJ23424917-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	128.3	677	247	721	93.93	14.6	-21.47	0.0	0.0	4.9
22169763	JJ23424917-NODE	JJ23424927-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	15.3	600	225	641	93.63	13.0	-21.96	0.0	0.0	4.2
21727431	JJ23424927-NODE	JJ23264435-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	431.4	522	196	558	93.57	11.3	-22.05	0.0	0.0	3.6
21727417	JJ23264435-NODE	JJ23264437-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	150.9	0	0	0	0.00	0.0	88.59	0.0	0.0	0.0
22685177	JJ23264435-NODE	L190-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	13.6	522	197	558	93.54	11.3	-22.11	0.0	0.0	3.6
22708570	L190-PD	F2949-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.5	27.600	54.7	522	197	558	93.54	11.3	-22.11	0.0	0.0	9.9
22708434	F2949-PD	JJ23360473-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	21.0	522	197	558	93.53	11.3	-22.12	0.0	0.0	9.9
22169754	JJ23424927-NODE	JJ23424857-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	75.9	79	29	84	94.01	1.7	-21.33	0.0	0.0	0.5
22169801	JJ23424857-NODE	FH328-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	3.3	79	29	84	93.98	1.7	-21.38	0.0	0.0	0.5
22169792	FH328-PD	JJ23424867-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	19.2	79	29	84	93.98	1.7	-21.38	0.0	0.0	0.5
22231228	JJ23424917-NODE	F3914-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	31.9	77	22	80	96.11	4.9	-17.65	0.0	0.0	3.7
22169858	F3914-PD	JJ23424789-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	3.9	77	22	80	96.11	4.9	-17.66	0.0	0.0	3.7
22169872	JJ23424755-NODE	F3913-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	6.1	77	21	80	96.51	4.8	-16.80	0.0	0.0	3.7
22169864	F3913-PD	JJ23424769-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.0	77	21	80	96.51	4.8	-16.80	0.0	0.0	3.7
22176099	JJ23410119-NODE	FA187-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	13.8	23	7	24	95.04	1.4	-19.28	0.0	0.0	1.1
22176086	FA187-PD	JJ23410145-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	30.8	23	7	24	95.03	1.4	-19.28	0.0	0.0	1.1
27140018	27140005-NODE	26818834-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	13.0	23	9	24	92.91	1.5	-22.85	0.0	0.0	1.1
22178870	JJ23406607-NODE	FH284-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.8	26	8	27	95.86	1.6	-18.10	0.0	0.0	1.2
22178861	FH284-PD	JJ23398407-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.2	26	8	27	95.86	1.6	-18.10	0.0	0.0	1.2
22685762	JJ23349301-NODE	S3087-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	92.9	4960	1632	5221	94.94	105.5	-19.58	0.1	0.4	30.6
22088354	S3087-PD	JJ23404567-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	135.2	4959	1632	5221	94.94	105.6	-19.58	0.1	0.5	30.6
22088299	JJ23404567-NODE	FA186-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	30.3	79	28	83	94.25	1.7	-20.88	0.0	0.0	0.5
22088279	FA186-PD	JJ23404589-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	0.7	79	28	83	94.24	1.7	-20.90	0.0	0.0	0.5
22088335	JJ23404567-NODE	JJ23391377-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	155.6	4881	1604	5137	94.95	103.9	-19.56	0.2	0.6	30.2
22102054	JJ23391377-NODE	FA166-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	22.1	131	46	139	94.29	2.8	-20.81	0.0	0.0	0.9
22102043	FA166-PD	JJ23391395-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	0.4	131	46	139	94.29	2.8	-20.82	0.0	0.0	0.9
22102083	JJ23391377-NODE	JJ23391379-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	133.5	4750	1557	4998	94.97	101.1	-19.53	0.1	0.5	29.4
22170478	JJ23391379-NODE	JJ23423443-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	249.6	4749	1557	4998	94.97	101.1	-19.53	0.2	0.9	29.4

22170437	JJ23423443-NODE	FA189-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	12.7	131	48	140	93.89	2.8	-21.51	0.0	0.0	0.9
22170468	JJ23423443-NODE	JJ23410007-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	145.0	4618	1508	4858	95.00	98.2	-19.47	0.1	0.5	28.7
22176180	JJ23410007-NODE	25044148-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	139.4	4618	1508	4858	95.00	98.2	-19.48	0.1	0.5	28.7
25044149	25044148-NODE	JJ23410009-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	160.8	4539	1479	4774	95.02	96.6	-19.45	0.1	0.5	28.2
22176151	JJ23410009-NODE	S3843-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	24.0	4461	1451	4691	95.03	94.9	-19.42	0.0	0.1	27.8
24537924	S3843-PD	24537923-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.5	27.600	37.1	4461	1451	4690	95.03	94.9	-19.42	0.2	0.1	75.7
22176165	JJ23410009-NODE	JJ23410019-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	20.2	79	28	83	94.14	1.7	-21.11	0.0	0.0	0.5
22708339	JJ23410019-NODE	JJ23360875-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	183.1	79	28	83	94.13	1.7	-21.12	0.0	0.0	0.5
25044205	JJ23360875-NODE	25044204-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.5	27.600	17.2	79	28	84	94.06	1.7	-21.25	0.0	0.0	1.5
25044258	25044204-NODE	FA205-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.5	27.600	22.8	79	28	84	94.05	1.7	-21.26	0.0	0.0	1.5
25263197	25044148-NODE	FA204-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	25.2	79	28	83	94.13	1.7	-21.11	0.0	0.0	0.5
25442368	25759262-NODE	F4193-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	36.2	77	25	80	95.19	4.9	-19.36	0.0	0.0	3.7
25849443	25849426-NODE	F4220-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.6	27.600	31.5	131	44	138	94.85	2.8	-19.75	0.0	0.0	2.5
26075249	26075236-NODE	F4235-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	21.3	68	25	72	93.91	4.4	-21.17	0.0	0.0	3.3
26075329	26075318-NODE	F4236-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	17.2	45	16	48	94.57	2.9	-20.02	0.0	0.0	2.2
27322408	26633193-NODE	27322333-NODE	DEFAULT	Overhead Line		27.600	20.3	0	0	0	0.00	0.0	88.76	0.0	0.0	0.0
26511317	26511308-NODE	FB265-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.6	27.600	44.0	79	28	84	94.10	1.7	-20.96	0.0	0.0	1.5
22683991	JJ23362997-NODE	F2951-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	121.6	733	256	776	94.39	15.7	-20.46	0.0	0.0	5.5
22708566	F2951-PD	24784100-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	28.1	733	256	776	94.39	15.7	-20.47	0.0	0.0	5.5
24784118	24784100-NODE	JJ23410829-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	122.7	720	252	763	94.39	15.4	-20.46	0.0	0.0	5.5
22175237	JJ23410829-NODE	FK244-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	3.2	79	28	83	94.30	1.7	-20.61	0.0	0.0	0.5
22175223	FK244-PD	JJ23410855-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	19.3	79	28	83	94.30	1.7	-20.62	0.0	0.0	0.5
22175253	JJ23410829-NODE	JJ23360193-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	303.7	641	224	679	94.39	13.7	-20.45	0.0	0.0	4.9
22708513	JJ23360193-NODE	JJ23283699-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	301.5	562	198	596	94.33	12.0	-20.56	0.0	0.0	4.4
21911191	JJ23283699-NODE	JJ23283701-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	292.2	484	171	513	94.27	10.3	-20.67	0.0	0.0	3.8
22024922	JJ23283701-NODE	24291807-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	158.0	269	96	286	94.21	5.8	-20.78	0.0	0.0	1.9
24291808	24291807-NODE	JJ23373783-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	145.3	262	93	278	94.19	5.6	-20.81	0.0	0.0	1.8
22024880	JJ23373783-NODE	FK198-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	11.5	262	93	278	94.17	5.6	-20.84	0.0	0.0	1.8
22024866	FK198-PD	JJ23373799-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	19.3	262	93	278	94.17	5.6	-20.84	0.0	0.0	1.8
24291825	24291807-NODE	24291817-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	8.3	8	3	8	94.13	0.5	-20.96	0.0	0.0	0.4
25674620	JJ23283701-NODE	JJ23414219-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	169.4	214	76	227	94.31	4.6	-20.60	0.0	0.0	1.9
22173910	JJ23414219-NODE	FK247-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	3.5	79	29	84	93.86	1.7	-21.36	0.0	0.0	0.5
22173895	FK247-PD	JJ23414247-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	19.3	79	29	84	93.86	1.7	-21.36	0.0	0.0	0.5
25674612	JJ23414219-NODE	24688324-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	181.1	136	47	143	94.52	2.9	-20.23	0.0	0.0	1.4
24688325	24688324-NODE	S4218-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	30.0	105	36	111	94.52	2.2	-20.22	0.0	0.0	0.8
24291200	S4218-PD	24291199-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	808.2	105	36	111	94.51	2.2	-20.24	0.0	0.0	0.8
24291126	24291199-NODE	24291125-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	138.5	94	33	99	94.42	2.0	-20.42	0.0	0.0	0.8
24291116	24291125-NODE	JJ23422639-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	152.3	15	4	16	88.71	0.3	-14.91	0.0	0.0	0.3
22170869	JJ23422639-NODE	24689789-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	109.2	15	4	16	89.19	0.3	-15.49	0.0	0.0	0.3
24689790	24689789-NODE	24690124-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	481.1	15	4	16	89.53	0.3	-15.91	0.0	0.0	0.3
24690072	24690124-NODE	S2920-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	731.7	0	-1	1	0.00	0.0	88.81	0.0	0.0	0.0
22684141	S2920-PD	24544186-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	168.0	0	0	0	0.00	0.0	88.81	0.0	0.0	0.0
24690133	24690124-NODE	24291355-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	14.7	15	5	16	94.11	1.0	-21.00	0.0	0.0	0.7
24291178	24291125-NODE	24291162-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.6	27.600	13.7	78	29	84	93.74	1.7	-21.55	0.0	0.0	1.5
24291218	24291199-NODE	24291209-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	8.0	11	4	12	92.97	0.7	-22.62	0.0	0.0	0.6
26012737	24688324-NODE	F4241-PD	556KCMIL_AAC_DAHLIA_1PH_OH_PRIMARY_16(	Overhead Line		27.600	144.7	31	11	32	94.35	2.0	-20.58	0.0	0.0	0.5
26010913	F4241-PD	26010836-NODE	556KCMIL_AAC_DAHLIA_1PH_OH_PRIMARY_16(	Overhead Line		27.600	357.8	31	11	32	94.31	2.0	-20.64	0.0	0.0	0.5
26010818	26010836-NODE	26010817-NODE	556KCMIL_AAC_DAHLIA_1PH_OH_PRIMARY_16(	Overhead Line		27.600	358.3	15	5	16	94.34	1.0	-20.59	0.0	0.0	0.3

26010809	26010817-NODE	27106231-NODE	556KCMIL_AAC_DAHLIA_1PH_OH_PRIMARY_16(	Overhead Line		27.600	101.2	0	0	0	0.00	0.0	88.77	0.0	0.0	0.0
27322420	27106231-NODE	27322378-NODE	DEFAULT	Overhead Line		27.600	23.1	0	0	0	0.00	0.0	88.77	0.0	0.0	0.0
26010967	26010817-NODE	26010935-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	9.0	15	5	16	94.11	1.0	-21.00	0.0	0.0	0.7
26010957	26010836-NODE	26010944-NODE	556KCMIL_AAC_DAHLIA_1PH_OH_PRIMARY_16(	Overhead Line		27.600	8.6	15	5	16	94.11	1.0	-21.00	0.0	0.0	0.3
21943248	JJ23283699-NODE	FK142-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	6.2	79	27	83	94.60	1.7	-20.09	0.0	0.0	0.5
21943251	FK142-PD	JJ23284823-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	19.4	79	27	83	94.60	1.7	-20.10	0.0	0.0	0.5
24784204	JJ23360193-NODE	FK157-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	4.5	79	27	83	94.71	1.7	-19.90	0.0	0.0	0.5
22708509	FK157-PD	JJ23360217-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	19.7	79	27	83	94.71	1.7	-19.90	0.0	0.0	0.5
24784126	24784100-NODE	22713788-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	7.9	13	5	14	94.19	0.8	-20.95	0.0	0.0	0.6
26135360	26135359-NODE	22713731-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	21.7	39	15	42	93.50	0.8	-21.90	0.0	0.0	0.3
22708624	JJ23359855-NODE	22713749-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	55.7	39	15	42	93.53	0.8	-21.82	0.0	0.0	0.3
24783496	JJ23422773-NODE	F3877-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	13.4	38	12	40	95.19	2.4	-19.01	0.0	0.0	1.9
22170793	F3877-PD	JJ23422805-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	34.4	38	12	40	95.19	2.4	-19.01	0.0	0.0	1.9
22707247	JJ23363891-NODE	F3147-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	114.7	313	117	334	93.71	6.7	-21.43	0.0	0.0	2.2
22707243	F3147-PD	JJ23353361-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	1526.2	313	117	334	93.70	6.7	-21.45	0.0	0.0	2.2
22684391	JJ23353361-NODE	S692-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	8.6	313	118	335	93.53	6.7	-21.73	0.0	0.0	2.2
22684392	S692-PD	S318-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	25.1	313	118	335	93.53	6.7	-21.73	0.0	0.0	2.2
22685454	S318-PD	FK26-PD	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	28.7	27.600	21.0	313	119	335	93.52	6.7	-21.74	0.0	0.0	2.0
22685450	FK26-PD	JJ23350033-NODE	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	28.7	27.600	19.4	313	119	335	93.52	6.7	-21.74	0.0	0.0	2.0
22707963	JJ23353361-NODE	JJ23362143-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	121.4	0	0	0	0.00	0.0	88.99	0.0	0.0	0.0
24783363	JJ23437903-NODE	F3976-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	17.5	23	3	23	99.04	1.4	-8.90	0.0	0.0	1.1
22227307	F3976-PD	JJ23437973-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.3	23	3	23	99.03	1.4	-8.91	0.0	0.0	1.1
26074702	JJ23434661-NODE	F4257-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	31.5	51	17	54	94.97	3.2	-19.17	0.0	0.0	2.5
26868043	26867924-NODE	FK286-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.8	27.600	80.8	131	48	140	93.88	2.8	-20.86	0.0	0.0	2.5
24574807	24574409-NODE	FB260-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.8	27.600	34.4	131	47	139	94.07	2.8	-20.47	0.0	0.0	2.5
24574819	FB260-PD	24574818-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.8	27.600	1.4	131	47	139	94.06	2.8	-20.48	0.0	0.0	2.5
22708410	JJ23264411-NODE	23221348-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.8	27.600	326.2	0	0	0	0.00	0.0	89.44	0.0	0.0	0.0
25435548	25435312-NODE	25395205-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.9	27.600	20.6	0	0	0	0.00	0.0	89.73	0.0	0.0	0.0
22685888	JJ23347427-NODE	S1234-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	8.1	402	145	428	94.10	57.8	8.21	0.0	0.0	35.7
22019036	S1234-PD	JJ23379843-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	271.2	402	145	428	94.10	57.8	8.21	0.2	0.5	35.7
22018981	JJ23379843-NODE	23237543-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	116.7	0	0	0	0.00	0.0	117.99	0.0	0.0	0.0
22019020	JJ23379843-NODE	JJ23349029-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	281.3	402	144	427	94.14	57.8	8.21	0.2	0.6	35.7
22685856	JJ23349029-NODE	S1232-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	20.7	0	0	0	0.00	0.0	117.96	0.0	0.0	0.0
22685845	S1232-PD	JJ23349037-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	462.7	0	0	0	0.00	0.0	117.96	0.0	0.0	0.0
22685835	JJ23349037-NODE	23261319-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	356.5	0	0	0	0.00	0.0	117.96	0.0	0.0	0.0
22685850	JJ23349037-NODE	JJ23349039-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	325.8	0	0	0	0.00	0.0	117.96	0.0	0.0	0.0
24115474	JJ23349039-NODE	24115473-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	398.4	0	0	0	0.00	0.0	117.96	0.0	0.0	0.0
22684117	24115473-NODE	23234107-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	268.0	0	0	0	0.00	0.0	117.96	0.0	0.0	0.0
22707266	JJ23349029-NODE	S1248-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	308.6	402	144	427	94.17	57.8	8.20	0.2	0.6	35.7
22684319	S1248-PD	26656075-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	307.5	402	143	426	94.21	57.8	8.20	0.2	0.6	35.7
26656076	26656075-NODE	JJ23354075-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	450.8	401	142	426	94.24	57.8	8.20	0.3	0.9	35.7
22684318	JJ23354075-NODE	26246323-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	11.3	401	142	425	94.30	57.8	8.20	0.0	0.0	35.7
26009195	26246323-NODE	S4421-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	24.4	0	0	0	0.00	0.0	117.81	0.0	0.0	0.0
26246324	26246323-NODE	JJ23354089-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	842.8	401	142	425	94.29	57.8	8.18	0.6	1.7	35.7
22707683	JJ23354089-NODE	23235400-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	62.3	0	0	0	0.00	0.0	118.04	0.0	0.0	0.0
22707829	JJ23354089-NODE	JJ23362493-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	669.8	400	140	424	94.39	57.8	8.18	0.5	1.3	35.7
22023776	JJ23362493-NODE	F3179-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	138.5	222	78	235	94.35	32.0	8.24	0.0	0.1	12.3
22023792	F3179-PD	JJ23286439-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	108.6	222	78	235	94.36	32.0	8.24	0.0	0.0	12.3

24064021	JJ23286439-NODE	24064020-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	98.1	171	60	182	94.35	24.7	8.23	0.0	0.0	9.9
21942701	24064020-NODE	21991862-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	9.6	6	2	6	93.92	2.5	7.94	0.0	0.0	0.9
22228313	24064020-NODE	JJ23434951-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	114.8	166	58	176	94.37	23.9	8.24	0.0	0.0	9.1
22228291	JJ23434951-NODE	FK257-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	29.6	15	6	16	93.89	6.5	7.88	0.0	0.0	4.9
22228282	FK257-PD	JJ23434967-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	18.8	15	6	16	93.89	6.5	7.88	0.0	0.0	4.9
22228322	JJ23434951-NODE	JJ23286419-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	86.0	151	53	160	94.42	21.7	8.28	0.0	0.0	9.1
21942707	JJ23286419-NODE	JJ23286421-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	479.5	151	53	160	94.42	21.7	8.28	0.0	0.1	9.1
22228622	JJ23286421-NODE	JJ23434087-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	448.9	139	48	148	94.47	20.1	8.30	0.0	0.1	9.1
22228613	JJ23434087-NODE	JJ23433747-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	269.7	129	45	137	94.47	18.6	8.32	0.0	0.0	7.6
22228743	JJ23433747-NODE	FK251-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	21.2	84	29	89	94.42	12.1	8.20	0.0	0.0	5.2
22228733	FK251-PD	JJ23433767-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	31.8	84	29	89	94.42	12.1	8.20	0.0	0.0	5.2
22228769	JJ23433747-NODE	JJ23433461-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	213.4	46	16	48	94.57	6.5	8.52	0.0	0.0	3.4
22229098	JJ23433461-NODE	JJ23433463-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	301.1	46	16	48	94.57	6.5	8.52	0.0	0.0	3.4
22229079	JJ23433463-NODE	24114046-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	134.3	30	10	32	94.55	4.4	8.30	0.0	0.0	2.4
21943204	24114046-NODE	21993246-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	17.8	5	2	5	94.77	2.2	8.05	0.0	0.0	0.8
24114047	24114046-NODE	FK140-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	124.2	25	9	27	94.50	3.7	8.34	0.0	0.0	1.6
21943202	FK140-PD	JJ23284993-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	5.6	25	9	27	94.50	3.7	8.34	0.0	0.0	1.6
24291453	JJ23433463-NODE	24291443-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.8	15	5	16	94.59	6.4	8.95	0.0	0.0	4.9
24539535	JJ23434087-NODE	24291515-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.1	10	3	11	94.75	4.4	8.03	0.0	0.0	3.3
22685692	JJ23286421-NODE	FK133-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.8	11	4	12	93.95	4.9	7.96	0.0	0.0	3.7
22685684	FK133-PD	JJ23349551-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	32.3	11	4	12	93.95	4.9	7.96	0.0	0.0	3.7
26783460	JJ23286439-NODE	24244263-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	43.4	50	18	53	94.41	7.2	8.27	0.0	0.0	3.1
22171723	JJ23362493-NODE	JJ23418619-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	9.1	178	61	188	94.62	25.8	8.10	0.0	0.0	23.5
22171713	JJ23418619-NODE	S3073-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	15.9	158	54	167	94.60	22.9	8.09	0.0	0.0	20.3
22708483	S3073-PD	JJ23360301-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	181.4	158	54	167	94.61	22.9	8.09	0.0	0.1	20.3
22027779	JJ23360301-NODE	26510218-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	220.4	143	49	151	94.63	20.7	7.99	0.0	0.2	20.3
22707646	26510218-NODE	FB199-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.8	11	4	12	94.75	4.9	9.33	0.0	0.0	3.7
23640787	FB199-PD	23640778-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.1	11	4	12	94.75	4.9	9.33	0.0	0.0	3.7
26510223	26510218-NODE	26510196-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	551.7	131	45	139	94.64	19.1	7.88	0.1	0.4	20.3
22014599	26510196-NODE	21991489-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.8	15	5	16	94.75	6.6	7.91	0.0	0.0	5.0
26510197	26510196-NODE	26510186-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	11.7	116	39	122	94.72	16.9	7.87	0.0	0.0	18.0
22708525	26510186-NODE	F1719-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	83.5	116	39	122	94.72	50.7	7.86	0.0	0.0	38.4
22708528	F1719-PD	JJ23286889-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	147.7	116	39	122	94.73	50.7	7.86	0.1	0.1	38.4
21942534	JJ23286889-NODE	FK95-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.9	15	5	15	94.85	6.4	8.04	0.0	0.0	4.9
21942539	FK95-PD	JJ23286821-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.0	15	5	15	94.85	6.4	8.04	0.0	0.0	4.9
21942548	JJ23286889-NODE	23640650-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	75.3	71	24	75	94.73	31.0	7.83	0.0	0.0	23.5
21942543	23640650-NODE	21991545-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.7	10	3	11	94.75	4.4	7.85	0.0	0.0	3.4
23640651	23640650-NODE	23640670-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	127.9	61	21	64	94.73	26.6	7.82	0.0	0.0	20.1
21942552	23640670-NODE	21991571-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.5	10	3	11	94.75	4.4	7.84	0.0	0.0	3.4
23640671	23640670-NODE	23640691-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	129.9	51	17	53	94.74	22.2	7.82	0.0	0.0	16.8
21942556	23640691-NODE	21991594-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.8	20	7	21	94.74	8.9	7.82	0.0	0.0	6.7
23640692	23640691-NODE	23640711-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	118.5	30	10	32	94.74	13.3	7.82	0.0	0.0	10.1
21942562	23640711-NODE	21991625-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.5	10	3	11	94.75	4.4	7.82	0.0	0.0	3.4
23640712	23640711-NODE	21991648-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	52.8	20	7	21	94.74	8.9	7.81	0.0	0.0	6.7
22707270	JJ23286889-NODE	JJ23364605-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	60.2	30	10	32	94.74	13.3	7.86	0.0	0.0	10.1
22707257	JJ23364605-NODE	JJ23364661-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.3	20	7	21	94.75	8.9	7.86	0.0	0.0	6.7
22707252	JJ23364661-NODE	21991517-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.4	10	3	11	94.75	4.4	7.86	0.0	0.0	3.4
23640629	JJ23364661-NODE	22713629-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.8	10	3	11	94.75	4.4	7.86	0.0	0.0	3.4

23640621	JJ23364605-NODE	22713636-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.1	10	3	11	94.75	4.4	7.86	0.0	0.0	3.4
26510187	26510186-NODE	23237667-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	432.8	0	0	0	0.00	0.0	117.56	0.0	0.0	0.0
23640803	JJ23360301-NODE	22713726-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	18.0	15	5	16	94.59	6.4	9.04	0.0	0.0	4.9
24221678	JJ23418619-NODE	24221665-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	20.4	20	7	21	94.74	8.8	8.13	0.0	0.0	6.7
22685883	JJ23347487-NODE	S1233-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	4.2	802	291	853	94.02	115.3	8.05	0.0	0.0	57.2
22252316	S1233-PD	JJ23444101-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	249.8	802	291	853	94.02	115.3	8.05	0.6	1.4	57.2
22252309	JJ23444101-NODE	JJ23444117-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	684.3	802	289	852	94.06	115.3	8.05	1.6	4.0	57.2
22102138	JJ23444117-NODE	S1235-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	22.1	800	285	849	94.19	115.3	8.05	0.1	0.1	57.2
22685758	S1235-PD	JJ23349251-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	200.6	800	285	849	94.19	115.3	8.05	0.5	1.2	57.2
22685777	JJ23349251-NODE	23636257-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	279.8	34	12	36	94.45	4.9	8.45	0.0	0.0	5.3
22685806	23636257-NODE	22707045-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	12.6	34	12	36	94.48	14.8	8.43	0.0	0.0	5.3
23636258	23636257-NODE	JJ23349093-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	153.0	0	0	0	0.00	0.0	117.70	0.0	0.0	0.0
22685825	JJ23349093-NODE	23261319-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	161.6	0	0	0	0.00	0.0	117.70	0.0	0.0	0.0
22685830	JJ23349093-NODE	23261311-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	50.1	0	0	0	0.00	0.0	117.70	0.0	0.0	0.0
22685782	JJ23349251-NODE	JJ23349215-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	131.8	765	272	812	94.22	110.3	8.03	0.3	0.7	57.2
22685791	JJ23349215-NODE	JJ23279381-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	19.1	705	251	748	94.22	101.6	8.03	0.0	0.1	48.0
21884986	JJ23279381-NODE	F2554-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	106.6	40	14	42	94.48	17.4	8.10	0.0	0.0	13.2
21884982	F2554-PD	JJ23279389-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.5	40	14	42	94.48	17.4	8.10	0.0	0.0	13.2
22685796	JJ23279381-NODE	JJ23279361-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	303.2	665	237	705	94.21	95.8	8.03	0.5	1.1	41.8
21884993	JJ23279361-NODE	F2555-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	65.2	60	21	64	94.45	26.1	7.95	0.0	0.0	19.8
21884998	F2555-PD	JJ23279367-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	42.9	60	21	64	94.45	26.1	7.95	0.0	0.0	19.8
21885002	JJ23279361-NODE	JJ23279327-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	19.6	604	215	641	94.23	87.1	8.03	0.0	0.1	32.6
21885010	JJ23279327-NODE	F2556-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	67.7	60	21	64	94.47	26.1	7.99	0.0	0.0	19.8
21885015	F2556-PD	JJ23279335-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.8	60	21	64	94.47	26.1	7.99	0.0	0.0	19.8
23631098	23631086-NODE	TO TX H201-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	13.8	0	0	0	0.00	0.0	117.12	0.0	0.0	0.0
21885019	JJ23279327-NODE	JJ23279329-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	311.5	544	194	577	94.21	78.4	8.04	0.3	0.7	30.1
21884868	JJ23279329-NODE	S148-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	31.8	451	159	478	94.27	65.1	7.98	0.0	0.1	30.1
21884864	S148-PD	23629485-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	369.4	451	159	478	94.27	65.1	7.98	0.3	0.7	30.1
21884908	23629485-NODE	JJ23279499-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	476.5	430	152	456	94.30	62.1	7.98	0.3	0.8	30.1
21884904	JJ23279499-NODE	23637464-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	87.7	106	38	113	94.19	15.3	8.22	0.0	0.0	13.2
21885276	23637464-NODE	F1718-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.7	86	31	91	94.15	37.3	8.32	0.0	0.0	28.2
21885290	F1718-PD	23637545-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	392.0	86	31	91	94.15	37.3	8.32	0.1	0.1	28.2
21884368	23637545-NODE	21905546-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	5.0	7	2	7	94.16	2.9	8.29	0.0	0.0	2.2
23637546	23637545-NODE	23637587-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	216.6	79	28	84	94.18	34.4	8.32	0.1	0.1	26.1
21884373	23637587-NODE	21905534-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.4	13	5	14	94.13	5.7	8.22	0.0	0.0	4.3
21884377	23637587-NODE	23233819-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	274.6	0	0	0	0.00	0.0	117.94	0.0	0.0	0.0
23637588	23637587-NODE	F1716-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	166.8	66	24	70	94.20	28.7	8.34	0.0	0.0	21.7
21884507	F1716-PD	JJ23280167-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.2	66	24	70	94.21	28.7	8.34	0.0	0.0	21.7
23637465	23637464-NODE	21906227-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	8.6	20	7	21	94.43	8.7	7.80	0.0	0.0	3.1
21884913	JJ23279499-NODE	F519-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	11.8	324	113	343	94.40	46.8	7.90	0.0	0.0	30.1
21884900	F519-PD	JJ23279519-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	19.1	324	113	343	94.40	46.8	7.90	0.0	0.0	30.1
22684306	JJ23354251-NODE	23629901-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	380.0	196	69	208	94.38	85.0	7.86	0.5	0.6	64.4
21884872	23629901-NODE	21906082-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	14.5	13	4	14	94.49	5.6	7.94	0.0	0.0	4.3
23629902	23629901-NODE	JJ23279567-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	201.5	182	63	193	94.44	79.4	7.86	0.3	0.3	60.1
22017642	JJ23279567-NODE	F1744-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	4.6	139	48	147	94.47	60.5	7.85	0.0	0.0	45.9
22017629	F1744-PD	JJ23381701-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	18.9	139	48	147	94.47	60.5	7.85	0.0	0.0	45.9
21884876	JJ23279555-NODE	23629968-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	318.9	139	48	147	94.46	60.5	7.84	0.2	0.3	45.9
21884882	23629968-NODE	F2495-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	218.8	121	42	128	94.51	53.0	7.85	0.1	0.1	40.2

21884887	F2495-PD	JJ23279213-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	5.0	121	42	128	94.53	53.0	7.85	0.0	0.0	40.2
23629969	23629968-NODE	21906091-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.7	17	6	18	94.47	7.5	7.78	0.0	0.0	5.7
22017684	JJ23279567-NODE	F1752-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.3	43	15	46	94.49	18.8	7.89	0.0	0.0	14.3
22017671	F1752-PD	JJ23381639-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.3	43	15	46	94.49	18.8	7.89	0.0	0.0	14.3
22017695	JJ23381641-NODE	23629945-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	130.5	43	15	46	94.48	18.8	7.87	0.0	0.0	14.3
21884401	23629945-NODE	21905581-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.6	13	4	14	94.49	5.6	7.87	0.0	0.0	4.3
23629946	23629945-NODE	23629986-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	522.2	30	10	32	94.48	13.2	7.86	0.0	0.0	10.0
21884407	23629986-NODE	21905592-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.0	13	4	14	94.49	5.7	7.85	0.0	0.0	4.3
23629987	23629986-NODE	F1717-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	49.4	17	6	18	94.50	7.5	7.86	0.0	0.0	5.7
21884411	F1717-PD	JJ23280279-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	24.1	17	6	18	94.50	7.5	7.86	0.0	0.0	5.7
22684309	JJ23354251-NODE	JJ23279529-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	207.6	111	38	117	94.47	48.3	7.87	0.1	0.1	36.6
21884891	JJ23279529-NODE	JJ23279535-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	242.8	0	0	0	0.00	0.0	116.97	0.0	0.0	0.0
21884896	JJ23279529-NODE	F865-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	40.9	111	38	117	94.49	48.3	7.87	0.0	0.0	36.6
21885262	F865-PD	JJ23279139-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	4.0	111	38	117	94.50	48.3	7.87	0.0	0.0	36.6
23629656	JJ23354251-NODE	JJ23354265-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.3	17	6	18	94.16	7.2	8.35	0.0	0.0	5.4
23637815	JJ23354265-NODE	23629670-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	212.7	17	6	18	94.16	7.2	8.35	0.0	0.0	5.4
21884386	23629670-NODE	21905568-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.4	7	2	7	94.16	2.9	8.34	0.0	0.0	2.2
23629671	23629670-NODE	23629704-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	557.9	10	4	11	94.17	4.3	8.35	0.0	0.0	3.3
21884382	23629704-NODE	21905557-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.7	10	4	11	94.16	4.3	8.33	0.0	0.0	3.3
23629705	23629704-NODE	JJ23280323-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	115.7	0	0	0	0.00	0.0	118.01	0.0	0.0	0.0
23629486	23629485-NODE	21906212-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	8.9	20	7	21	94.43	8.7	7.84	0.0	0.0	3.1
21885303	JJ23279329-NODE	JJ23279097-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	287.0	93	33	99	94.10	13.4	8.32	0.0	0.1	14.2
21885318	JJ23279097-NODE	F1932-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	37.5	93	33	99	94.13	40.1	8.32	0.0	0.0	30.4
22017512	F1932-PD	23629268-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	367.0	93	33	99	94.13	40.1	8.32	0.1	0.1	30.4
22017500	23629268-NODE	22085419-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.8	13	5	14	94.13	5.7	8.27	0.0	0.0	4.3
23629269	23629268-NODE	JJ23349485-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	372.1	79	28	84	94.17	34.4	8.33	0.1	0.1	26.1
22685708	JJ23349485-NODE	F1278-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.1	46	16	49	94.23	20.1	8.40	0.0	0.0	15.2
22685703	F1278-PD	JJ23349471-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	22.6	46	16	49	94.23	20.1	8.40	0.0	0.0	15.2
22685713	JJ23349485-NODE	23629237-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	99.6	33	12	35	94.13	14.3	8.22	0.0	0.0	10.9
21884515	23629237-NODE	21906242-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.7	13	5	14	94.13	5.7	8.22	0.0	0.0	4.3
23629238	23629237-NODE	23630879-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	488.8	20	7	21	94.13	8.6	8.22	0.0	0.0	6.5
21884511	23630879-NODE	21905628-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.9	20	7	21	94.14	8.6	8.21	0.0	0.0	6.5
23630880	23630879-NODE	23233819-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	211.5	0	0	0	0.00	0.0	117.93	0.0	0.0	0.0
22685799	JJ23349215-NODE	F2553-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	95.0	60	21	64	94.47	26.1	8.09	0.0	0.0	19.7
21885006	F2553-PD	JJ23279351-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.3	60	21	64	94.47	26.1	8.09	0.0	0.0	19.7
24539739	JJ23348751-NODE	S411-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	8.2	1378	400	1435	96.04	195.0	10.76	0.0	0.1	70.3
24539749	S411-PD	24539748-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	27.0	1378	400	1435	96.04	195.0	10.76	0.2	0.4	70.3
24539757	24539748-NODE	F921-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	48.0	20	5	20	96.74	8.3	12.18	0.0	0.0	6.3
24539763	F921-PD	JJ23348725-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.2	20	5	20	96.74	8.3	12.18	0.0	0.0	6.3
24539769	24539748-NODE	F920-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	47.7	56	16	59	96.36	23.9	11.34	0.0	0.0	18.1
24539775	F920-PD	24539731-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	12.0	56	16	59	96.36	23.9	11.34	0.0	0.0	18.1
24539781	24539748-NODE	JJ23348833-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	329.6	1302	379	1356	96.02	184.3	10.72	1.8	4.2	68.9
22019008	JJ23348833-NODE	JJ23379855-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	264.8	1300	374	1353	96.09	184.3	10.72	1.4	3.4	68.9
22018967	JJ23379855-NODE	23237543-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	37.2	0	0	0	0.00	0.0	116.66	0.0	0.0	0.0
22018996	JJ23379855-NODE	JJ23376375-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	108.8	1299	371	1351	96.15	184.3	10.72	0.6	1.4	68.9
22023179	JJ23376375-NODE	F3254-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	5.8	28	8	29	96.31	12.0	10.98	0.0	0.0	9.1
22023160	F3254-PD	JJ23376449-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.1	28	8	29	96.31	12.0	10.98	0.0	0.0	9.1
22023252	JJ23376375-NODE	JJ23376377-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	109.2	1270	362	1320	96.17	180.3	10.71	0.6	1.3	68.9

22019047	JJ23376377-NODE	JJ23379833-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	349.8	1241	353	1290	96.19	176.3	10.71	1.8	4.2	68.9
21942731	JJ23379833-NODE	24115228-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	103.7	1218	343	1265	96.26	173.2	10.69	0.5	1.2	67.4
21942738	24115228-NODE	21992089-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.8	11	3	11	96.65	4.6	11.54	0.0	0.0	3.5
24115229	24115228-NODE	S2067-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	194.3	1206	339	1253	96.28	171.7	10.68	0.9	2.2	67.4
21942741	S2067-PD	JJ23286273-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	21.5	1205	336	1251	96.32	171.7	10.68	0.1	0.2	67.4
21942744	JJ23286273-NODE	24115177-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	136.5	1095	306	1137	96.30	155.9	10.63	0.5	1.3	61.4
21942757	24115177-NODE	21992169-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.0	43	12	45	96.65	18.4	11.37	0.0	0.0	14.0
24115178	24115177-NODE	25438247-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	125.8	1051	294	1091	96.31	149.8	10.60	0.5	1.1	61.4
25438248	25438247-NODE	JJ23286219-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	121.5	1022	285	1061	96.33	145.8	10.60	0.4	1.0	61.4
21942754	JJ23286219-NODE	24115156-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	150.9	993	276	1031	96.35	141.8	10.59	0.5	1.2	61.4
21942760	24115156-NODE	21992195-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.6	14	4	15	96.29	6.0	10.60	0.0	0.0	4.6
24115157	24115156-NODE	JJ23375991-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	100.3	979	271	1016	96.38	139.8	10.59	0.3	0.8	61.4
21942765	JJ23375991-NODE	23235411-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	14.1	0	0	0	0.00	0.0	116.05	0.0	0.0	0.0
22023677	JJ23375991-NODE	S312-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	30.5	690	192	716	96.35	98.6	10.47	0.1	0.1	45.6
24115061	S312-PD	24115060-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	253.4	690	192	716	96.35	98.6	10.47	0.4	1.1	45.6
21942432	24115060-NODE	JJ23287275-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	396.4	669	185	695	96.37	95.8	10.45	0.6	1.5	42.6
21942437	JJ23287275-NODE	JJ23286569-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	100.2	658	181	682	96.42	94.2	10.44	0.2	0.4	42.6
21942668	JJ23286569-NODE	23235375-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	89.6	0	0	0	0.00	0.0	115.86	0.0	0.0	0.0
21942672	JJ23286569-NODE	JJ23286553-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	225.8	658	181	682	96.43	94.2	10.44	0.3	0.8	42.6
21942675	JJ23286553-NODE	F2136-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	3.6	87	23	90	96.61	37.1	10.76	0.0	0.0	28.1
23640960	F2136-PD	23640959-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	477.5	87	23	90	96.61	37.1	10.76	0.1	0.2	28.1
21942649	23640959-NODE	21991764-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.4	33	9	34	96.65	13.9	10.78	0.0	0.0	10.5
21942653	23640959-NODE	JJ23286325-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	117.7	54	14	56	96.63	23.2	10.74	0.0	0.0	17.6
21942726	JJ23286325-NODE	JJ23286327-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	252.6	54	14	56	96.64	23.2	10.74	0.0	0.0	17.6
21942725	JJ23286327-NODE	21992030-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	234.8	22	6	22	96.64	9.3	10.73	0.0	0.0	7.0
24114949	JJ23286327-NODE	21992005-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.0	33	9	34	96.65	13.9	10.75	0.0	0.0	10.5
22708544	JJ23286325-NODE	23235400-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	371.9	0	0	0	0.00	0.0	115.65	0.0	0.0	0.0
23640927	JJ23286553-NODE	23640926-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	114.4	571	157	592	96.44	81.8	10.40	0.1	0.4	42.6
21942679	23640926-NODE	21991816-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	5.4	11	3	11	96.30	4.5	10.56	0.0	0.0	3.4
21942682	23640926-NODE	JJ23286485-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	273.0	560	153	580	96.45	80.3	10.39	0.3	0.8	42.6
21942689	JJ23286485-NODE	F211-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	182.5	189	51	195	96.54	81.8	10.20	0.2	0.3	62.0
21942685	F211-PD	24062639-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	128.1	188	51	195	96.57	81.8	10.20	0.2	0.2	62.0
21913174	24062639-NODE	JJ23282235-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	284.9	169	45	174	96.57	73.2	10.17	0.3	0.4	55.5
21913167	JJ23282235-NODE	27233536-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	257.5	148	40	154	96.60	64.7	10.15	0.2	0.2	49.0
27185485	27233536-NODE	27112123-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.3	39	10	41	96.69	17.2	10.29	0.0	0.0	13.0
27233537	27233536-NODE	24062696-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	95.4	109	29	113	96.61	47.5	10.10	0.0	0.0	36.0
24062697	24062696-NODE	JJ23282251-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	397.1	109	29	113	96.62	47.5	10.10	0.2	0.2	36.0
21913151	JJ23282251-NODE	24062742-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	225.3	89	24	92	96.64	38.9	10.07	0.1	0.1	29.5
21913142	24062742-NODE	21926111-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.1	20	5	20	96.69	8.6	10.15	0.0	0.0	6.5
24062743	24062742-NODE	F2227-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	399.4	69	18	72	96.65	30.3	10.05	0.1	0.1	22.9
21913136	F2227-PD	JJ23282271-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	31.7	69	18	71	96.67	30.3	10.05	0.0	0.0	22.9
21913121	JJ23282271-NODE	JJ23282277-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	109.2	69	18	71	96.67	30.3	10.05	0.0	0.0	22.9
21913113	JJ23282277-NODE	JJ23282273-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	375.3	49	13	51	96.67	21.6	10.04	0.0	0.0	16.4
21913129	JJ23282273-NODE	24466144-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	211.1	39	10	41	96.68	17.3	10.03	0.0	0.0	13.1
24957464	24466144-NODE	24957455-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.9	39	10	41	96.69	17.3	10.03	0.0	0.0	13.1
22164486	JJ23282273-NODE	22169257-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	49.3	10	3	10	96.69	4.3	10.05	0.0	0.0	3.3
24062838	JJ23282277-NODE	21926086-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.2	20	5	20	96.69	8.6	10.08	0.0	0.0	6.5
24062719	JJ23282251-NODE	21926123-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.4	20	5	20	96.69	8.6	10.19	0.0	0.0	6.5

24062656	JJ23282235-NODE	21926147-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.2	20	5	20	96.69	8.6	10.36	0.0	0.0	6.5
24062640	24062639-NODE	21926157-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.5	20	5	20	96.69	8.6	10.44	0.0	0.0	6.5
21942697	JJ23286485-NODE	F2137-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	91.4	49	13	51	96.68	21.4	10.52	0.0	0.0	16.2
23640889	F2137-PD	23640888-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	109.8	49	13	51	96.68	21.4	10.52	0.0	0.0	16.2
21942693	23640888-NODE	21991838-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.2	10	3	10	96.70	4.3	10.53	0.0	0.0	3.2
23640874	23640888-NODE	23640873-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	404.9	39	10	41	96.69	17.1	10.51	0.0	0.0	12.9
21942414	23640873-NODE	23235336-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	351.8	0	0	0	0.00	0.0	115.28	0.0	0.0	0.0
21942428	23640873-NODE	21991278-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.0	39	10	41	96.70	17.1	10.51	0.0	0.0	12.9
24062881	JJ23286485-NODE	24062880-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	370.7	322	88	333	96.42	45.9	10.49	0.2	0.4	21.5
21942641	24062880-NODE	JJ23286631-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	195.5	307	84	319	96.46	43.9	10.49	0.1	0.2	21.4
21942632	JJ23286631-NODE	JJ23286657-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	223.1	196	54	204	96.41	28.1	10.44	0.0	0.1	15.0
21942619	JJ23286657-NODE	JJ23286699-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	4.6	189	52	196	96.43	27.1	10.44	0.0	0.0	14.8
21942601	JJ23286699-NODE	JJ23286725-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	142.2	146	40	151	96.37	20.9	10.38	0.0	0.1	14.0
24063293	JJ23286725-NODE	24063292-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	117.4	61	16	63	96.59	8.8	10.61	0.0	0.0	8.2
21942582	24063292-NODE	JJ23286811-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	120.7	54	14	56	96.62	7.7	10.64	0.0	0.0	8.2
21942578	JJ23286811-NODE	FB10-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	5.6	33	9	34	96.64	13.9	10.63	0.0	0.0	10.6
21942573	FB10-PD	21991673-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	480.2	33	9	34	96.64	13.9	10.63	0.0	0.0	10.6
24063377	JJ23286811-NODE	24063376-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	250.8	22	6	22	96.61	3.1	10.66	0.0	0.0	3.3
21885523	24063376-NODE	JJ23278969-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	204.2	0	0	0	0.00	0.0	115.63	0.0	0.0	0.0
21885537	JJ23278969-NODE	23233967-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	10.0	0	0	0	0.00	0.0	115.63	0.0	0.0	0.0
21885551	JJ23278969-NODE	23233971-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	33.9	0	0	0	0.00	0.0	115.63	0.0	0.0	0.0
21942586	24063376-NODE	21906321-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.2	22	6	22	96.64	9.3	10.63	0.0	0.0	7.0
21942590	24063292-NODE	21991695-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.7	7	2	7	96.30	3.0	10.35	0.0	0.0	2.3
25001298	JJ23286725-NODE	F207-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	103.6	85	24	88	96.23	36.4	10.21	0.0	0.0	27.5
21942596	F207-PD	24063140-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	263.7	85	24	88	96.24	36.4	10.21	0.1	0.1	27.5
21913105	24063140-NODE	21926060-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.2	14	4	15	96.28	6.0	10.27	0.0	0.0	4.6
25153532	24063140-NODE	24063171-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	244.7	71	20	73	96.25	30.3	10.20	0.0	0.1	23.0
21913095	24063171-NODE	21926047-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.8	14	4	15	96.28	6.1	10.24	0.0	0.0	4.6
24063172	24063171-NODE	24063199-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	703.6	56	16	59	96.26	24.3	10.19	0.1	0.1	18.4
21911527	24063199-NODE	21926036-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.6	14	4	15	96.28	6.1	10.17	0.0	0.0	4.6
24063200	24063199-NODE	JJ23283377-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	253.5	42	12	44	96.29	18.2	10.19	0.0	0.0	13.8
21911516	JJ23283377-NODE	JJ23283379-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	399.1	14	4	15	96.32	6.1	10.24	0.0	0.0	4.6
21911782	JJ23283379-NODE	JJ23283127-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	231.1	0	0	0	0.00	0.0	115.82	0.0	0.0	0.0
22175145	JJ23283379-NODE	FB222-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	3.1	14	4	15	96.32	6.1	10.23	0.0	0.0	4.6
22175132	FB222-PD	JJ23410941-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.1	14	4	15	96.32	6.1	10.23	0.0	0.0	4.6
24063220	JJ23283377-NODE	21925049-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.0	28	8	29	96.28	12.1	10.16	0.0	0.0	9.2
21942611	JJ23286699-NODE	FB9-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	22.6	43	12	45	96.63	18.6	10.64	0.0	0.0	14.1
21942605	FB9-PD	24063932-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	454.2	43	12	45	96.63	18.6	10.64	0.0	0.0	14.1
21942614	24063932-NODE	21991720-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.9	43	12	45	96.65	18.6	10.64	0.0	0.0	14.1
24063933	24063932-NODE	JJ23286707-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	104.4	0	0	0	0.00	0.0	115.52	0.0	0.0	0.0
21942628	JJ23286657-NODE	FB11-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	24.0	7	2	7	96.30	3.0	10.38	0.0	0.0	2.3
21942623	FB11-PD	21926072-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	329.3	7	2	7	96.30	3.0	10.38	0.0	0.0	2.3
21942636	JJ23286631-NODE	24160155-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	200.9	111	30	115	96.57	15.9	10.57	0.0	0.0	6.6
21942645	24062880-NODE	21991740-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.8	14	4	15	96.29	6.0	10.43	0.0	0.0	4.6
24274565	JJ23287275-NODE	21991304-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.3	11	3	11	96.65	4.6	10.94	0.0	0.0	3.5
21942747	24115060-NODE	21992114-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.0	20	5	20	96.70	8.5	10.97	0.0	0.0	6.4
22171633	JJ23375991-NODE	F3835-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	48.6	289	78	299	96.52	41.2	10.88	0.0	0.0	15.8
22171623	F3835-PD	JJ23286127-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	218.6	289	78	299	96.52	41.2	10.88	0.1	0.1	15.8

21942780	JJ23286127-NODE	F2346-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.4	11	3	11	96.30	4.5	10.61	0.0	0.0	3.4
21942775	F2346-PD	24217515-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	124.7	11	3	11	96.30	4.5	10.61	0.0	0.0	3.4
21942782	24217515-NODE	21992277-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.9	11	3	11	96.30	4.5	10.60	0.0	0.0	3.4
27133643	24217515-NODE	27133642-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	229.6	0	0	0	0.00	0.0	116.23	0.0	0.0	0.0
21942791	JJ23286127-NODE	FA1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.7	14	4	15	96.29	6.0	10.57	0.0	0.0	4.6
21942787	FA1-PD	21904583-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	309.4	14	4	15	96.29	6.0	10.57	0.0	0.0	4.6
21942794	JJ23286127-NODE	24217537-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	61.8	264	71	274	96.55	37.7	10.91	0.0	0.0	15.8
21942797	24217537-NODE	21992298-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.8	15	4	15	96.71	6.4	11.06	0.0	0.0	4.8
24217538	24217537-NODE	JJ23286123-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	61.2	249	67	258	96.55	35.6	10.90	0.0	0.0	14.7
21942802	JJ23286123-NODE	FA117-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	21.1	83	22	86	96.57	11.9	10.94	0.0	0.0	4.9
21942800	FA117-PD	JJ23286065-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	44.4	83	22	86	96.57	11.9	10.94	0.0	0.0	4.9
21942808	JJ23286123-NODE	FA38-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	175.9	166	45	172	96.54	23.7	10.88	0.0	0.0	9.8
21942811	FA38-PD	JJ23286033-NODE	336KCMIL_AAC_TULIP_CUST_OH_PRIMARY	Overhead Line	4.2	4.160	21.9	166	45	172	96.55	23.7	10.88	0.0	0.0	9.8
24981060	JJ23286219-NODE	F4158-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	31.4	28	8	29	96.35	12.0	10.77	0.0	0.0	9.1
25674043	25438247-NODE	F4157-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	20.9	28	8	29	96.35	12.0	10.79	0.0	0.0	9.1
22684721	JJ23286273-NODE	26009040-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	118.8	111	30	115	96.56	15.7	11.20	0.0	0.0	6.5
26009041	26009040-NODE	JJ23352429-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_416	Overhead Line	4.2	4.160	69.3	111	30	115	96.56	15.7	11.19	0.0	0.0	13.9
25298944	JJ23352429-NODE	FB258-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	13.6	111	30	115	96.56	15.7	11.19	0.0	0.0	6.5
21942734	JJ23379833-NODE	21992059-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	55.4	22	6	22	96.65	9.2	11.59	0.0	0.0	7.0
22023233	JJ23376377-NODE	F3253-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.7	28	8	29	96.30	12.0	10.93	0.0	0.0	9.1
21885024	JJ23279305-NODE	S1893-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	4.7	1017	291	1058	96.13	143.6	11.00	0.0	0.0	61.0
22685747	S1893-PD	26650410-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	1019.1	1017	291	1058	96.13	143.6	11.00	3.4	8.1	61.0
23625724	26650410-NODE	22163751-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.3	8	2	8	96.77	3.4	12.07	0.0	0.0	2.6
26650411	26650410-NODE	S633-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	143.6	1006	281	1044	96.31	142.5	10.99	0.5	1.1	61.0
22685753	S633-PD	JJ23349275-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	104.1	1005	280	1043	96.33	142.5	10.99	0.3	0.8	61.0
22685767	JJ23349275-NODE	23261303-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	288.8	0	0	0	0.00	0.0	116.52	0.0	0.0	0.0
23625822	JJ23349275-NODE	23625821-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	610.2	1005	279	1043	96.35	142.5	10.99	2.0	4.8	61.0
22169599	23625821-NODE	24218186-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	708.3	987	270	1023	96.45	140.2	10.97	2.3	5.5	61.1
24218196	24218186-NODE	24218177-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.5	32	8	33	96.76	13.6	11.75	0.0	0.0	10.3
25070876	24218186-NODE	S98-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	413.1	952	256	986	96.56	135.7	10.94	1.3	3.1	61.1
21885344	S98-PD	JJ23279061-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	86.8	951	253	984	96.63	135.7	10.94	0.3	0.7	61.1
21885359	JJ23279061-NODE	23627467-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	147.3	618	163	639	96.68	88.4	11.02	0.3	0.9	60.2
21885372	23627467-NODE	S157-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	260.7	601	158	622	96.71	86.1	11.00	0.5	1.5	60.2
21825398	S157-PD	JJ23277289-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	142.7	601	157	621	96.77	86.1	11.00	0.3	0.8	60.2
21825209	JJ23277289-NODE	F133-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	252.5	333	87	344	96.74	47.8	11.06	0.1	0.4	25.6
21825204	F133-PD	23627673-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	205.9	333	87	344	96.76	47.8	11.06	0.1	0.3	25.6
21825189	23627673-NODE	21879102-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	9.7	26	7	27	97.02	11.3	11.04	0.0	0.0	4.0
23627674	23627673-NODE	JJ23277645-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	312.8	306	80	317	96.76	44.0	11.06	0.2	0.4	23.4
21825179	JJ23277645-NODE	F1984-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	27.8	97	24	100	97.01	41.9	10.94	0.0	0.0	31.7
21825173	F1984-PD	23627815-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	182.7	97	24	100	97.02	41.9	10.94	0.1	0.1	31.7
22684312	23627815-NODE	F1277-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	393.9	88	22	91	97.03	38.1	10.94	0.1	0.1	28.8
22684311	F1277-PD	JJ23354195-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	21.7	88	22	91	97.06	38.1	10.94	0.0	0.0	28.8
23627816	23627815-NODE	21879095-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.1	9	2	9	97.02	3.8	10.92	0.0	0.0	2.9
21825183	JJ23277645-NODE	JJ23277633-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	171.5	209	55	216	96.68	30.0	11.11	0.1	0.1	23.4
21825194	JJ23277633-NODE	23627702-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	82.6	209	55	216	96.70	30.0	11.11	0.0	0.1	23.4
21825214	23627702-NODE	21879116-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	7.4	12	3	13	96.72	5.3	11.19	0.0	0.0	1.9
23627703	23627702-NODE	23627719-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	311.9	197	52	203	96.70	28.3	11.11	0.1	0.3	23.4
22018449	23627719-NODE	21879123-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	7.6	12	3	12	96.76	5.2	11.41	0.0	0.0	1.8

23627720	23627719-NODE	JJ23277499-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	199.2	185	48	191	96.73	26.5	11.08	0.1	0.2	21.5
21825288	JJ23277499-NODE	JJ23277493-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	318.0	141	37	145	96.68	60.7	11.18	0.2	0.3	46.0
21825252	JJ23277493-NODE	F339-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	99.3	92	24	95	96.70	39.9	11.14	0.0	0.0	30.2
21825247	F339-PD	23628525-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	115.3	92	24	95	96.71	39.9	11.14	0.0	0.0	30.2
21825257	23628525-NODE	23628567-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	192.6	76	20	79	96.71	33.0	11.12	0.0	0.0	25.0
21825263	23628567-NODE	21879151-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.9	12	3	12	96.76	5.2	11.22	0.0	0.0	3.9
23628568	23628567-NODE	JJ23277537-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	207.6	64	17	66	96.71	27.8	11.10	0.0	0.0	21.1
21825268	JJ23277537-NODE	23628966-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	258.3	56	15	58	96.74	24.3	11.13	0.0	0.0	18.4
21825275	23628966-NODE	21879161-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	14.1	12	3	12	96.76	5.2	11.17	0.0	0.0	4.0
23628967	23628966-NODE	23629026-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	210.3	44	12	46	96.74	19.1	11.12	0.0	0.0	14.5
21825282	23629026-NODE	21879168-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	15.5	12	3	12	96.76	5.2	11.15	0.0	0.0	4.0
23629027	23629026-NODE	JJ23277507-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	309.6	32	8	33	96.75	13.9	11.11	0.0	0.0	10.5
24516693	JJ23277507-NODE	24516686-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	13.7	32	8	33	96.75	13.9	11.11	0.0	0.0	10.5
24351187	JJ23277537-NODE	24351038-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	13.7	8	2	8	96.61	3.5	10.85	0.0	0.0	2.6
23628526	23628525-NODE	21879144-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.8	16	4	17	96.75	6.9	11.22	0.0	0.0	5.2
23628898	JJ23277493-NODE	23628769-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	140.3	48	13	50	96.75	20.8	11.25	0.0	0.0	15.7
21884536	23628769-NODE	F819-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	133.3	32	8	33	96.75	13.9	11.25	0.0	0.0	10.5
21884519	F819-PD	23628808-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	239.4	32	8	33	96.76	13.9	11.25	0.0	0.0	10.5
22708327	23628808-NODE	JJ23360885-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	102.3	16	4	17	96.77	6.9	11.27	0.0	0.0	5.2
22708322	JJ23360885-NODE	FA49-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	2.0	16	4	17	96.77	6.9	11.26	0.0	0.0	5.2
22708317	FA49-PD	JJ23360911-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	21.2	16	4	17	96.77	6.9	11.26	0.0	0.0	5.2
23628809	23628808-NODE	21905640-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.4	16	4	17	96.75	6.9	11.22	0.0	0.0	5.2
23628770	23628769-NODE	21879176-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.7	16	4	17	96.75	6.9	11.25	0.0	0.0	5.2
21825316	JJ23277499-NODE	JJ23277453-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	5.0	44	11	45	96.97	6.3	10.78	0.0	0.0	6.7
21825225	JJ23277453-NODE	23223659-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	102.1	0	0	0	0.00	0.0	114.92	0.0	0.0	0.0
21825310	JJ23277453-NODE	JJ23277467-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	321.3	44	11	45	96.97	18.9	10.78	0.0	0.0	14.3
21825304	JJ23277467-NODE	F2144-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	91.9	9	2	9	96.88	3.8	10.54	0.0	0.0	2.9
21825299	F2144-PD	25358746-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	520.7	9	2	9	96.88	3.8	10.54	0.0	0.0	2.9
24351144	25358746-NODE	24351038-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.1	9	2	9	96.88	3.8	10.53	0.0	0.0	2.9
21884531	JJ23277467-NODE	JJ23280127-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	543.8	35	9	36	97.01	15.1	10.84	0.0	0.0	11.5
21884527	JJ23280127-NODE	JJ23280131-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	95.7	18	4	18	97.02	7.6	10.83	0.0	0.0	5.7
23628846	JJ23280131-NODE	21905650-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.0	18	4	18	97.02	7.6	10.83	0.0	0.0	5.7
23628837	JJ23280127-NODE	21905662-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.5	18	4	18	97.02	7.6	10.84	0.0	0.0	5.7
21825198	JJ23277633-NODE	23223688-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	163.1	0	0	0	0.00	0.0	114.96	0.0	0.0	0.0
21825393	JJ23277289-NODE	23223704-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	108.1	0	0	0	0.00	0.0	115.79	0.0	0.0	0.0
23627507	JJ23277289-NODE	23627506-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	6.9	267	69	276	96.87	38.4	10.93	0.0	0.0	34.7
22708163	23627506-NODE	22713683-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	7.6	16	4	17	96.76	6.9	11.68	0.0	0.0	2.4
22708166	23627506-NODE	JJ23277683-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	375.9	251	64	260	96.87	36.1	10.88	0.2	0.7	34.7
21825150	JJ23277683-NODE	F146-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	51.7	110	28	113	96.97	47.5	10.89	0.0	0.0	36.0
22230647	F146-PD	JJ23432071-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	255.5	110	28	113	96.98	47.5	10.89	0.1	0.1	36.0
22230663	JJ23432071-NODE	JJ23277713-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	101.6	92	23	95	96.99	39.9	10.88	0.0	0.0	30.2
23629107	JJ23277713-NODE	23629106-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	327.8	66	17	68	96.99	28.5	10.86	0.1	0.1	21.6
21825136	23629106-NODE	21879078-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.3	18	4	18	97.02	7.6	10.88	0.0	0.0	5.8
21825144	23629106-NODE	JJ23277671-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	185.3	48	12	50	97.00	20.9	10.85	0.0	0.0	15.9
21825161	JJ23277671-NODE	23223688-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	252.7	0	0	0	0.00	0.0	114.90	0.0	0.0	0.0
21825168	JJ23277671-NODE	JJ23277569-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.7	48	12	50	97.01	20.9	10.85	0.0	0.0	15.9
21824989	JJ23277569-NODE	23223623-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	118.7	0	0	0	0.00	0.0	114.89	0.0	0.0	0.0
21825242	JJ23277569-NODE	F341-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	49.0	48	12	50	97.01	20.9	10.85	0.0	0.0	15.9

23628451	F341-PD	23628450-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	229.2	48	12	50	97.01	20.9	10.85	0.0	0.0	15.9
21825230	23628450-NODE	23628470-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	574.6	13	3	14	97.02	5.7	10.86	0.0	0.0	4.3
21825220	23628470-NODE	23223659-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	134.7	0	0	0	0.00	0.0	114.86	0.0	0.0	0.0
23628471	23628470-NODE	21879130-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	12.5	13	3	14	97.02	5.7	10.84	0.0	0.0	4.3
21825235	23628450-NODE	21879137-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.3	35	9	36	97.02	15.2	10.84	0.0	0.0	11.5
23629127	JJ23277713-NODE	21879087-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	14.2	26	7	27	97.02	11.4	10.93	0.0	0.0	8.6
25084025	JJ23432071-NODE	25084016-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	16.0	18	4	18	97.02	7.6	10.94	0.0	0.0	5.8
21825156	JJ23277683-NODE	JJ23277391-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	237.8	141	36	146	96.90	20.3	10.88	0.0	0.1	17.8
21825342	JJ23277391-NODE	21879201-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	15.6	18	4	18	97.02	7.6	10.95	0.0	0.0	5.7
23627565	JJ23277391-NODE	F145-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	40.8	99	25	102	96.96	42.7	10.81	0.0	0.0	32.3
21825335	F145-PD	26263551-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	497.4	99	25	102	96.96	42.7	10.81	0.2	0.2	32.3
21825325	26263551-NODE	JJ23277437-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	342.8	63	16	65	96.99	27.5	10.78	0.1	0.1	20.8
21824981	JJ23277437-NODE	23628386-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	144.1	18	4	18	97.02	7.6	10.81	0.0	0.0	5.8
21824976	23628386-NODE	21878985-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.4	18	4	18	97.02	7.6	10.81	0.0	0.0	5.8
23628387	23628386-NODE	23223623-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.2	0	0	0	0.00	0.0	114.84	0.0	0.0	0.0
21825320	JJ23277437-NODE	21879185-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	121.1	9	2	9	97.02	3.8	10.82	0.0	0.0	2.9
21825330	JJ23277437-NODE	21879109-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	565.9	37	9	38	96.99	16.1	10.75	0.0	0.0	12.2
26263552	26263551-NODE	21879192-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	13.6	35	9	36	97.02	15.2	10.86	0.0	0.0	11.5
23627584	JJ23277391-NODE	23627583-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	296.7	25	7	26	96.67	3.5	11.08	0.0	0.0	3.7
21825351	23627583-NODE	21879209-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	11.6	25	7	26	96.72	10.5	11.04	0.0	0.0	3.7
21825357	23627583-NODE	23223692-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	581.8	0	0	0	0.00	0.0	115.71	0.0	0.0	0.0
23627468	23627467-NODE	21906268-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	8.9	16	4	17	96.76	6.8	11.69	0.0	0.0	2.4
21885399	JJ23279061-NODE	23625877-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	306.1	333	89	345	96.58	47.3	10.80	0.3	0.9	42.7
21885412	23625877-NODE	21906280-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	9.2	16	4	17	96.76	6.8	11.68	0.0	0.0	2.4
23625878	23625877-NODE	S104-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	35.7	317	84	328	96.64	45.0	10.75	0.0	0.1	42.7
26766735	S104-PD	JJ23277241-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	114.3	317	84	328	96.64	45.0	10.75	0.1	0.3	42.7
21825420	JJ23277241-NODE	F203-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	85.5	108	29	112	96.66	46.0	10.66	0.0	0.0	34.8
21825414	F203-PD	23627302-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	109.4	108	29	112	96.67	46.0	10.66	0.0	0.1	34.8
23627303	23627302-NODE	21879273-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.4	17	4	17	96.71	7.1	10.74	0.0	0.0	5.3
23627436	23627302-NODE	23627435-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	196.3	91	24	94	96.67	38.9	10.65	0.1	0.1	29.5
21825404	23627435-NODE	JJ23277315-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	99.5	91	24	94	96.68	38.9	10.65	0.0	0.0	29.5
22226227	JJ23277315-NODE	JJ23442209-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	112.6	17	4	17	96.71	7.1	10.70	0.0	0.0	5.3
22226220	JJ23442209-NODE	23223704-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	244.4	0	0	0	0.00	0.0	115.43	0.0	0.0	0.0
24290895	JJ23442209-NODE	24804739-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.6	17	4	17	96.71	7.1	10.69	0.0	0.0	5.3
23627781	JJ23277315-NODE	23627780-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	517.8	75	20	77	96.69	31.9	10.64	0.1	0.1	24.1
21825387	23627780-NODE	21879243-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	14.1	33	9	34	96.71	14.1	10.63	0.0	0.0	10.7
23627795	23627780-NODE	23627794-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	361.1	41	11	43	96.72	17.7	10.64	0.0	0.0	13.4
21825383	23627794-NODE	21879231-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	18.1	17	4	17	96.71	7.1	10.60	0.0	0.0	5.4
22024483	23627794-NODE	FH245-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	135.2	25	7	26	96.74	10.6	10.67	0.0	0.0	8.1
22024462	FH245-PD	JJ23374373-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	41.1	25	7	26	96.74	10.6	10.66	0.0	0.0	8.1
21884935	JJ23277241-NODE	JJ23279457-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	203.8	209	55	216	96.67	29.7	10.80	0.1	0.2	26.4
21884927	JJ23279457-NODE	F2129-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	15.8	54	14	56	96.70	23.0	10.68	0.0	0.0	17.4
21884923	F2129-PD	23627123-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	187.2	54	14	56	96.70	23.0	10.68	0.0	0.0	17.4
21884918	23627123-NODE	21906097-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	5.9	8	2	9	96.72	3.5	10.71	0.0	0.0	2.7
23627124	23627123-NODE	23627140-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	448.2	46	12	47	96.70	19.4	10.67	0.0	0.0	14.7
21884931	23627140-NODE	21906109-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	5.2	25	7	26	96.71	10.6	10.67	0.0	0.0	8.0
23627141	23627140-NODE	23627158-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	225.6	21	5	21	96.72	8.8	10.67	0.0	0.0	6.7
21910466	23627158-NODE	21906121-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.3	8	2	9	96.72	3.5	10.66	0.0	0.0	2.7

23627159	23627158-NODE	21924196-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	332.9	12	3	13	96.72	5.3	10.67	0.0	0.0	4.0
22164867	JJ23279457-NODE	JJ23405437-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	140.3	155	41	160	96.69	22.0	10.84	0.0	0.1	18.3
22164939	JJ23405437-NODE	JJ23284579-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	222.0	147	39	152	96.70	20.9	10.79	0.0	0.1	18.3
21910506	JJ23284579-NODE	25178877-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	37.1	15	4	16	96.84	2.1	11.35	0.0	0.0	0.8
21910517	JJ23284579-NODE	F2130-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	33.5	50	13	51	96.69	21.2	10.60	0.0	0.0	16.0
21910526	F2130-PD	23627198-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	187.8	50	13	51	96.70	21.2	10.60	0.0	0.0	16.0
23627199	23627198-NODE	21924268-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.0	17	4	17	96.71	7.1	10.62	0.0	0.0	5.3
23627216	23627198-NODE	23627215-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	638.9	33	9	34	96.70	14.1	10.59	0.0	0.0	10.7
21910485	23627215-NODE	21924215-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.8	33	9	34	96.71	14.1	10.58	0.0	0.0	10.7
21910494	23627215-NODE	JJ23284621-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	90.6	0	0	0	0.00	0.0	115.32	0.0	0.0	0.0
25235468	JJ23284579-NODE	25235402-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	367.3	82	22	85	96.69	11.7	10.80	0.0	0.1	10.0
25235430	25235402-NODE	JJ23285057-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	7.1	49	13	51	96.71	7.0	10.93	0.0	0.0	5.0
21943175	JJ23285057-NODE	FH168-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	31.1	16	4	17	96.76	6.8	11.64	0.0	0.0	5.2
21943179	FH168-PD	21924233-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	191.8	16	4	17	96.76	6.8	11.64	0.0	0.0	5.2
23626006	JJ23285057-NODE	23626005-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	672.5	33	9	34	96.66	4.7	10.58	0.0	0.0	5.0
22087867	23626005-NODE	22163589-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	16.9	33	9	34	96.71	14.1	10.55	0.0	0.0	5.0
22087909	23626005-NODE	23239267-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	130.5	0	0	0	0.00	0.0	115.78	0.0	0.0	0.0
25235447	25235402-NODE	22169274-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	14.7	33	9	34	96.71	14.1	10.60	0.0	0.0	10.7
23625922	JJ23405437-NODE	22169290-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.4	8	2	8	96.77	3.4	11.67	0.0	0.0	2.6
22685786	23625821-NODE	21906254-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.3	16	4	17	96.76	6.8	11.88	0.0	0.0	5.2
21885061	JJ23279259-NODE	S2596-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	8.8	844	208	869	97.10	118.3	13.04	0.0	0.1	51.9
21885032	S2596-PD	23659272-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	119.1	844	208	869	97.10	118.3	13.04	0.3	0.7	51.9
21885028	23659272-NODE	S2595-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	356.7	832	204	856	97.11	116.6	13.03	0.9	2.1	51.9
21885056	S2595-PD	24540532-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	65.8	831	202	855	97.16	116.6	13.03	0.2	0.4	51.9
21882572	JJ23282085-NODE	S2599-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	18.6	453	106	466	97.39	64.0	13.32	0.0	0.0	39.9
21882584	S2599-PD	JJ23282077-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	113.2	453	105	466	97.40	64.0	13.32	0.1	0.3	39.9
21882520	JJ23282077-NODE	JJ23282099-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	142.6	396	92	407	97.41	56.0	13.32	0.1	0.3	34.8
22708200	JJ23282099-NODE	JJ23361387-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	191.1	396	92	407	97.42	56.0	13.32	0.1	0.4	34.8
22708195	JJ23361387-NODE	JJ23282183-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	134.1	354	82	364	97.43	50.1	13.27	0.1	0.2	32.5
21882429	JJ23282183-NODE	S2419-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	341.9	354	82	363	97.44	50.1	13.27	0.2	0.6	32.5
22252160	S2419-PD	JJ23444551-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	101.7	354	81	363	97.47	50.1	13.27	0.1	0.2	32.5
22252136	JJ23444551-NODE	FA197-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_416	Overhead Line	4.2	4.160	20.8	70	16	71	97.58	9.8	13.79	0.0	0.0	8.1
22252128	FA197-PD	JJ23444567-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_416	Overhead Line	4.2	4.160	3.4	70	16	71	97.58	9.8	13.79	0.0	0.0	8.1
22252152	JJ23444551-NODE	JJ23282127-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	36.5	284	65	292	97.46	40.2	13.14	0.0	0.0	28.7
21882478	JJ23282127-NODE	JJ23282141-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	48.7	213	48	218	97.51	30.1	13.14	0.0	0.1	28.7
21882472	JJ23282141-NODE	JJ23282153-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	193.5	41	9	42	97.53	5.8	13.55	0.0	0.0	2.8
21882512	JJ23282153-NODE	21904573-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	233.3	6	1	6	97.49	2.7	12.98	0.0	0.0	2.0
24218430	JJ23282153-NODE	24218404-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	11.9	35	8	36	97.54	4.9	13.65	0.0	0.0	1.9
21882484	JJ23282141-NODE	F2423-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.7	172	39	176	97.52	73.0	13.04	0.0	0.0	55.3
21882491	F2423-PD	JJ23280207-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	42.7	172	39	176	97.52	73.0	13.04	0.0	0.1	55.3
21882496	F2424-PD	JJ23282127-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	29.1	71	17	73	97.31	30.3	13.16	0.0	0.0	23.0
21882505	JJ23280195-NODE	F2424-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	26.6	71	17	73	97.31	30.3	13.16	0.0	0.0	23.0
21882437	JJ23282183-NODE	23233551-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	10.5	0	0	0	0.00	0.0	116.48	0.0	0.0	0.0
22708206	JJ23361387-NODE	JJ23361335-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	280.7	7	2	7	97.57	1.0	13.83	0.0	0.0	0.4
21882393	JJ23361335-NODE	24222306-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	14.8	7	2	7	97.55	1.0	13.78	0.0	0.0	0.4
24221582	JJ23361387-NODE	24221568-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	16.7	35	8	36	97.54	4.9	13.76	0.0	0.0	1.9
21882578	JJ23282077-NODE	JJ23282047-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	244.3	57	13	58	97.38	8.1	13.27	0.0	0.0	5.2
21882598	JJ23282047-NODE	JJ23282055-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	104.2	44	10	46	97.36	6.3	13.23	0.0	0.0	3.4

21882589	JJ23282055-NODE	24115011-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	305.3	35	8	36	97.33	4.9	13.20	0.0	0.0	3.4
21882605	24115011-NODE	21904602-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.7	13	3	13	97.49	5.3	13.32	0.0	0.0	4.0
24115012	24115011-NODE	JJ23286593-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	86.3	23	5	23	97.22	3.2	13.11	0.0	0.0	3.4
21942659	JJ23286593-NODE	24114978-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	555.4	12	3	12	97.19	1.7	13.13	0.0	0.0	1.8
21942664	24114978-NODE	23235375-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	123.3	0	0	0	0.00	0.0	116.53	0.0	0.0	0.0
24114979	24114978-NODE	21991790-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	10.7	12	3	12	97.27	5.0	13.06	0.0	0.0	1.8
24114996	JJ23286593-NODE	21904613-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.0	11	3	11	97.27	4.5	13.09	0.0	0.0	3.4
24115036	JJ23282055-NODE	21904593-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.5	9	2	10	97.50	4.0	13.35	0.0	0.0	3.0
21882610	JJ23282047-NODE	24115117-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	300.8	13	3	13	97.44	1.8	13.37	0.0	0.0	1.9
21942762	24115117-NODE	23235411-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	154.1	0	0	0	0.00	0.0	116.54	0.0	0.0	0.0
24115118	24115117-NODE	21904626-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	9.1	13	3	13	97.49	5.3	13.32	0.0	0.0	1.9
21882419	JJ23282191-NODE	23233551-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.2	4.160	18.5	0	0	0	0.00	0.0	116.59	0.0	0.0	0.0
23659273	23659272-NODE	21906169-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	5.0	12	3	12	97.27	5.0	13.37	0.0	0.0	1.8
21885846	JJ23278815-NODE	S1974-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	14.5	1082	0	1082	100.00	145.0	27.22	0.1	0.1	62.9
24555013	S1974-PD	JJ23278801-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	19.7	1081	0	1081	100.00	145.0	27.22	0.1	0.2	62.9
21885877	JJ23278801-NODE	24553789-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	6.5	0	0	0	0.00	0.0	117.25	0.0	0.0	0.0
26742348	JJ23278801-NODE	JJ23278843-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	34.4	1081	0	1081	100.00	145.0	27.22	0.1	0.3	62.9
22016977	JJ23278843-NODE	JJ23384077-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	85.7	1063	0	1063	-100.00	142.5	27.21	0.3	0.7	62.9
22016963	JJ23384077-NODE	S3509-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	94.3	67	-1	67	-99.98	9.0	27.79	0.0	0.0	5.2
22016950	S3509-PD	24555350-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	412.7	67	-1	67	-99.98	9.0	27.79	0.0	0.0	5.2
22016625	24555350-NODE	JJ23384477-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	100.2	52	0	52	-99.99	6.9	27.72	0.0	0.0	5.2
24217856	JJ23384477-NODE	24217855-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	104.1	52	0	52	-99.99	6.9	27.72	0.0	0.0	5.2
22016639	24217855-NODE	22085224-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	7.4	15	0	15	-99.99	6.1	27.96	0.0	0.0	2.1
22016784	24217855-NODE	24217834-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	134.2	37	0	37	-99.98	4.9	27.62	0.0	0.0	5.2
24217835	24217834-NODE	22085272-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	8.0	37	0	37	-100.00	14.8	27.60	0.0	0.0	5.2
26950033	24217834-NODE	TO54-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	28.9	0	0	0	0.00	0.0	117.19	0.0	0.0	0.0
22016804	TO54-PD	23237479-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	328.4	0	0	0	0.00	0.0	117.19	0.0	0.0	0.0
24555351	24555350-NODE	22085322-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	12.0	15	0	15	-99.99	6.1	27.97	0.0	0.0	2.1
22016988	JJ23384077-NODE	JJ23384057-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	9.3	996	0	996	100.00	133.6	27.17	0.0	0.1	62.9
21885691	JJ23384057-NODE	S201-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	216.7	871	1	871	100.00	116.9	27.11	0.5	1.2	47.7
21885677	S201-PD	24114538-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	129.6	871	0	871	-100.00	116.9	27.11	0.3	0.7	47.7
21885662	24114538-NODE	21906412-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	12.8	18	0	18	-100.00	7.4	27.58	0.0	0.0	5.6
22708110	24114538-NODE	F237-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	24.7	18	0	18	-100.00	7.4	27.58	0.0	0.0	5.6
21885911	F237-PD	24555311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	230.2	18	0	18	-100.00	7.4	27.58	0.0	0.0	5.6
24555300	24555311-NODE	23234019-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	288.7	0	0	0	0.00	0.0	117.43	0.0	0.0	0.0
24555312	24555311-NODE	21906482-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	5.9	18	0	18	-100.00	7.4	27.57	0.0	0.0	5.6
24114539	24114538-NODE	JJ23278113-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	271.9	834	-1	834	-100.00	111.9	27.09	0.6	1.4	47.7
21824888	JJ23278113-NODE	JJ23278115-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	86.0	0	0	0	0.00	0.0	117.00	0.0	0.0	0.0
21885496	JJ23278113-NODE	24114388-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	630.9	833	-2	833	-100.00	111.9	27.09	1.3	3.3	47.7
21885510	24114388-NODE	S310-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	267.8	823	-6	823	-100.00	110.7	27.08	0.6	1.4	47.7
21824883	S310-PD	JJ23278133-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	122.0	822	-7	822	-100.00	110.7	27.08	0.3	0.6	47.7
22018926	JJ23278133-NODE	JJ23379921-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	85.6	419	-4	420	-100.00	56.5	27.05	0.0	0.1	24.7
22018941	JJ23379921-NODE	JJ23331189-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	218.3	117	-1	117	-99.99	15.7	27.24	0.0	0.0	6.4
23640322	JJ23331189-NODE	23640321-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	115.9	15	0	15	-99.98	2.0	27.27	0.0	0.0	2.1
22176316	23640321-NODE	22224925-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.4	15	0	15	-99.99	6.1	27.26	0.0	0.0	4.6
24244803	JJ23331189-NODE	24244792-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	11.2	102	-1	102	-99.99	13.7	27.24	0.0	0.0	5.2
22018954	JJ23379921-NODE	JJ23379901-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	16.1	303	-3	303	-100.00	40.8	26.97	0.0	0.0	18.3
22018911	JJ23379901-NODE	F3180-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	342.0	303	-3	303	-100.00	40.8	26.97	0.1	0.3	18.3

22023807	F3180-PD	23640356-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	318.5	302	-3	302	-100.00	40.8	26.97	0.1	0.2	18.3
21942850	23640356-NODE	21992413-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	17.9	18	0	18	-99.99	7.2	26.92	0.0	0.0	5.4
23640361	23640356-NODE	JJ23285945-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	200.6	285	-3	285	-99.99	38.4	26.97	0.1	0.1	18.3
21942845	JJ23285945-NODE	JJ23285951-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	380.2	234	-2	234	-99.99	31.5	26.93	0.1	0.2	16.1
21942841	JJ23285951-NODE	S4596-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	24.3	225	-2	225	-99.99	30.3	26.93	0.0	0.0	16.1
27186013	S4596-PD	JJ23285957-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	246.9	225	-2	225	-99.99	30.3	26.93	0.0	0.1	16.1
21942832	JJ23285957-NODE	JJ23285987-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	148.8	38	-1	38	-99.99	15.2	26.98	0.0	0.0	11.5
21942828	JJ23285987-NODE	23640540-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	400.0	15	0	15	-99.99	6.1	26.97	0.0	0.0	4.6
21942835	23640540-NODE	21992371-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.2	15	0	15	-99.99	6.1	26.96	0.0	0.0	4.6
23640541	23640540-NODE	JJ23285967-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	180.9	0	0	0	0.00	0.0	116.08	0.0	0.0	0.0
23640529	JJ23285987-NODE	21992331-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.1	23	0	23	-99.99	9.1	26.98	0.0	0.0	6.9
21942838	JJ23285957-NODE	JJ23285959-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	289.5	187	-2	187	-99.99	25.2	26.91	0.0	0.1	11.5
22684048	JJ23285959-NODE	F2176-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.2	66	-1	66	-99.99	27.0	26.73	0.0	0.0	20.4
23640417	F2176-PD	23640416-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	113.5	66	-1	66	-99.99	27.0	26.73	0.0	0.0	20.4
21943241	23640416-NODE	21993370-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.7	13	0	13	-99.99	5.4	26.76	0.0	0.0	4.1
21943244	23640416-NODE	23640433-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	267.2	53	-1	53	-99.99	21.6	26.72	0.0	0.0	16.3
21942527	23640433-NODE	21993407-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.3	18	0	18	-99.99	7.2	26.74	0.0	0.0	5.4
23640434	23640433-NODE	23640456-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	696.1	35	0	35	-99.99	14.4	26.71	0.0	0.0	10.9
21942522	23640456-NODE	21991464-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	12.4	35	0	35	-99.99	14.4	26.70	0.0	0.0	10.9
23640457	23640456-NODE	JJ23286957-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	175.5	0	0	0	0.00	0.0	115.93	0.0	0.0	0.0
23640476	JJ23285959-NODE	23640475-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	242.2	121	-1	121	-99.99	16.3	27.01	0.0	0.0	10.8
21943233	23640475-NODE	21993334-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.3	14	0	14	-100.00	5.6	27.44	0.0	0.0	4.2
21943237	23640475-NODE	JJ23284881-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	119.8	107	-1	107	-99.99	14.4	26.95	0.0	0.0	10.8
21943218	JJ23284881-NODE	24160683-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	124.7	89	-1	89	-99.99	11.9	26.85	0.0	0.0	10.8
21943213	24160683-NODE	F2174-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	140.9	75	-1	75	-99.99	10.1	26.86	0.0	0.0	10.8
21943215	F2174-PD	JJ23285083-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	83.8	75	-1	75	-99.99	30.4	26.85	0.0	0.0	23.0
21943152	JJ23285083-NODE	FK101-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	4.6	23	0	23	-99.99	9.1	26.88	0.0	0.0	6.9
21943207	FK101-PD	JJ23284971-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.0	23	0	23	-99.99	9.1	26.88	0.0	0.0	6.9
21943157	JJ23285083-NODE	24160757-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	265.5	53	-1	53	-99.99	21.3	26.84	0.0	0.0	16.1
22228141	24160757-NODE	FK258-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	111.0	30	0	30	-99.99	12.1	26.85	0.0	0.0	9.2
24160758	24160757-NODE	21991442-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.6	23	0	23	-99.99	9.1	26.83	0.0	0.0	6.9
24160684	24160683-NODE	21993277-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	8.7	13	0	13	-99.99	5.4	26.78	0.0	0.0	1.9
21943229	JJ23284881-NODE	F2175-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	62.2	18	0	18	-100.00	7.4	27.45	0.0	0.0	5.6
23640509	F2175-PD	23640508-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	231.1	18	0	18	-100.00	7.4	27.45	0.0	0.0	5.6
21943222	23640508-NODE	21993304-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	12.0	18	0	18	-100.00	7.4	27.44	0.0	0.0	5.6
21943224	23640508-NODE	JJ23284919-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	259.1	0	0	0	0.00	0.0	117.30	0.0	0.0	0.0
21942842	JJ23285951-NODE	JJ23285953-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	168.6	9	0	9	-99.92	1.2	26.88	0.0	0.0	1.3
22707968	JJ23285953-NODE	JJ23362135-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	262.1	0	0	0	0.00	0.0	116.52	0.0	0.0	0.0
23640379	JJ23285953-NODE	21992455-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.3	9	0	9	-99.99	3.6	26.82	0.0	0.0	2.7
24244730	JJ23285945-NODE	24244719-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	18.0	51	-1	51	-99.99	6.9	27.17	0.0	0.0	2.6
22708157	JJ23379901-NODE	24114329-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	189.7	0	0	0	0.00	0.0	116.66	0.0	0.0	0.0
22707450	JJ23278133-NODE	JJ23363911-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	44.6	402	-4	402	-99.99	54.2	27.12	0.0	0.1	24.8
22707453	JJ23363911-NODE	S19-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	180.0	402	-4	402	-99.99	54.2	27.12	0.1	0.2	24.8
21824868	S19-PD	JJ23278183-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	116.9	402	-4	402	-99.99	54.2	27.12	0.1	0.1	24.8
21824857	JJ23278183-NODE	FK134-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	53.4	51	-1	51	-99.99	6.9	27.29	0.0	0.0	2.6
21824851	FK134-PD	JJ23278195-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	24.1	51	-1	51	-99.99	6.9	27.29	0.0	0.0	2.6
23640251	JJ23278183-NODE	23640250-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	133.0	351	-4	351	-99.99	47.3	27.09	0.1	0.1	22.3
21824873	23640250-NODE	21878911-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.3	17	0	17	-99.99	6.9	27.16	0.0	0.0	5.2

22017057	23640250-NODE	JJ23383999-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	240.6	334	-4	334	-99.99	45.0	27.09	0.1	0.2	22.3
22017069	JJ23383999-NODE	JJ23278223-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	24.6	334	-4	334	-99.99	45.0	27.08	0.0	0.0	22.3
21824847	JJ23278223-NODE	JJ23278225-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	73.5	192	-2	192	-99.99	25.9	27.20	0.0	0.0	12.7
21824841	JJ23278225-NODE	FK137-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	2.9	51	-1	51	-99.99	6.9	27.21	0.0	0.0	2.6
21824836	FK137-PD	JJ23278237-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	18.8	51	-1	51	-99.99	6.9	27.21	0.0	0.0	2.6
21886184	JJ23278225-NODE	JJ23278263-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	143.5	141	-1	141	-99.99	19.0	27.19	0.0	0.0	10.2
21886178	JJ23278263-NODE	JJ23278277-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	10.0	104	-1	104	-99.99	14.1	27.04	0.0	0.0	10.2
21886149	JJ23278277-NODE	JJ23278365-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	290.2	51	-1	51	-99.99	6.9	27.17	0.0	0.0	2.6
21886136	JJ23278365-NODE	FK114-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	7.4	51	-1	51	-99.99	6.9	27.16	0.0	0.0	2.6
21886131	FK114-PD	JJ23278375-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	19.7	51	-1	51	-99.99	6.9	27.16	0.0	0.0	2.6
21886175	JJ23278277-NODE	F1872-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.3	53	-1	53	-99.99	21.5	26.92	0.0	0.0	16.3
21886172	F1872-PD	JJ23278299-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.4	53	-1	53	-99.99	21.5	26.92	0.0	0.0	16.3
21886181	JJ23278263-NODE	F1871-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	14.6	37	0	37	-100.00	14.8	27.61	0.0	0.0	11.2
21886169	F1871-PD	JJ23278307-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	23.5	37	0	37	-100.00	14.8	27.61	0.0	0.0	11.2
22707207	JJ23278223-NODE	S3288-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	149.5	141	-2	141	-99.99	19.1	26.93	0.0	0.0	10.7
22707211	S3288-PD	24556074-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	154.5	141	-2	141	-99.99	19.1	26.93	0.0	0.0	10.7
24556075	24556074-NODE	21878900-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.9	30	0	30	-99.99	12.1	27.16	0.0	0.0	9.2
24556275	24556074-NODE	24556274-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	353.1	111	-1	111	-99.99	15.0	26.86	0.0	0.1	9.6
21886126	24556274-NODE	JJ23434643-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	125.7	96	-1	96	-99.99	13.0	26.82	0.0	0.0	9.6
22170565	JJ23434643-NODE	F3894-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	5.5	66	-1	66	-99.99	27.0	26.68	0.0	0.0	20.4
22170542	F3894-PD	JJ23360879-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	606.0	66	-1	66	-99.99	27.0	26.68	0.1	0.1	20.4
22170552	JJ23360879-NODE	F3469-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	16.6	31	0	31	-99.99	12.6	26.67	0.0	0.0	9.5
22102094	F3469-PD	24556547-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	305.0	31	0	31	-99.99	12.6	26.67	0.0	0.0	9.5
21942968	24556547-NODE	21992887-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	337.3	18	0	18	-99.99	7.2	26.67	0.0	0.0	5.4
24556548	24556547-NODE	21991419-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.0	13	0	13	-99.99	5.4	26.66	0.0	0.0	4.1
22708335	JJ23360879-NODE	24556509-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	35.7	35	0	35	-99.99	14.4	26.69	0.0	0.0	10.9
21942485	24556509-NODE	21992927-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	429.9	18	0	18	-99.99	7.2	26.68	0.0	0.0	5.4
24556510	24556509-NODE	21991395-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	18.0	18	0	18	-99.99	7.2	26.69	0.0	0.0	5.4
24284776	JJ23434643-NODE	JJ23434631-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	347.9	30	0	30	-99.97	4.0	27.12	0.0	0.0	4.3
21886122	JJ23434631-NODE	23234055-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	43.8	0	0	0	0.00	0.0	116.53	0.0	0.0	0.0
22228373	JJ23434631-NODE	21906845-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.0	30	0	30	-99.99	12.1	27.11	0.0	0.0	9.2
22707612	24556274-NODE	21906858-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.2	15	0	15	-99.99	6.1	27.12	0.0	0.0	4.6
22017082	JJ23383999-NODE	JJ23384001-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	32.4	0	0	0	0.00	0.0	116.57	0.0	0.0	0.0
22017029	JJ23384001-NODE	23237491-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	27.4	0	0	0	0.00	0.0	116.57	0.0	0.0	0.0
22017041	JJ23384001-NODE	23237667-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	938.9	0	0	0	0.00	0.0	116.57	0.0	0.0	0.0
22708500	JJ23278133-NODE	JJ23360147-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	52.5	0	0	0	0.00	0.0	116.67	0.0	0.0	0.0
22014589	JJ23360147-NODE	23640587-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	429.9	0	0	0	0.00	0.0	116.67	0.0	0.0	0.0
22707642	23640587-NODE	23260852-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	830.8	0	0	0	0.00	0.0	116.67	0.0	0.0	0.0
24114389	24114388-NODE	21906308-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	8.3	9	0	9	-100.00	3.7	27.46	0.0	0.0	1.3
21885574	JJ23278113-NODE	23233971-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	100.8	0	0	0	0.00	0.0	117.00	0.0	0.0	0.0
21885731	JJ23384057-NODE	F2326-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	77.9	106	-1	106	-99.99	42.7	27.59	0.0	0.0	32.4
21885717	F2326-PD	24555600-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	285.9	106	-1	106	-99.99	42.7	27.59	0.1	0.1	32.4
21885705	24555600-NODE	24555610-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	285.4	88	-1	88	-99.99	35.6	27.57	0.1	0.1	27.0
21911442	24555610-NODE	21906429-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.1	18	0	18	-99.99	7.1	27.63	0.0	0.0	5.4
24555611	24555610-NODE	24556578-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	472.5	71	-1	71	-99.99	28.5	27.56	0.1	0.1	21.6
21911432	24556578-NODE	JJ23283449-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	379.3	35	0	35	-99.99	14.3	27.53	0.0	0.0	10.8
21911422	JJ23283449-NODE	JJ23283461-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	293.1	35	0	35	-99.99	14.3	27.53	0.0	0.0	10.8
21911406	JJ23283461-NODE	JJ23283467-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	277.9	0	0	0	0.00	0.0	116.74	0.0	0.0	0.0

24262837	JJ23283461-NODE	21924944-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.6	35	0	35	-99.99	14.3	27.52	0.0	0.0	10.8
21911469	JJ23283449-NODE	23232224-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	31.8	0	0	0	0.00	0.0	116.76	0.0	0.0	0.0
24556627	24556578-NODE	21924961-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.4	35	0	35	-99.99	14.2	27.58	0.0	0.0	10.8
24555601	24555600-NODE	21906447-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.4	18	0	18	-99.99	7.1	27.69	0.0	0.0	5.4
22016935	JJ23384057-NODE	JJ23278749-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	613.0	18	0	18	-100.00	7.4	27.62	0.0	0.0	5.6
21885923	JJ23278749-NODE	JJ23278751-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	285.1	18	0	18	-100.00	7.4	27.61	0.0	0.0	5.6
21824894	JJ23278751-NODE	JJ23278103-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	88.9	0	0	0	0.00	0.0	117.47	0.0	0.0	0.0
22016856	JJ23278751-NODE	F3342-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	38.4	18	0	18	-100.00	7.4	27.60	0.0	0.0	5.6
22016869	F3342-PD	24555276-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	212.3	18	0	18	-100.00	7.4	27.60	0.0	0.0	5.6
24555277	24555276-NODE	21906498-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.8	18	0	18	-100.00	7.4	27.59	0.0	0.0	5.6
25634098	24555276-NODE	23234019-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	382.4	0	0	0	0.00	0.0	117.46	0.0	0.0	0.0
24555122	JJ23278843-NODE	22085368-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.3	18	0	18	-100.00	7.4	27.66	0.0	0.0	5.6
21885817	JJ23278831-NODE	S1975-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	14.5	875	0	875	100.00	117.4	27.26	0.0	0.1	44.3
21885832	S1975-PD	JJ23278789-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	29.3	875	0	875	100.00	117.4	27.26	0.1	0.2	44.3
21885889	JJ23278789-NODE	23234007-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	7.7	0	0	0	0.00	0.0	117.26	0.0	0.0	0.0
22708094	JJ23278789-NODE	JJ23361693-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	531.8	875	0	875	100.00	117.4	27.26	1.2	2.8	44.3
22708100	JJ23361693-NODE	JJ23287395-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	270.7	792	-2	792	-100.00	106.4	27.22	0.5	1.2	43.3
21942372	JJ23287395-NODE	23233967-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	136.7	0	0	0	0.00	0.0	117.00	0.0	0.0	0.0
21942375	JJ23287395-NODE	S311-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	78.0	754	-2	754	-100.00	101.3	27.17	0.1	0.3	37.8
24063569	S311-PD	24063568-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	74.7	754	-3	754	-100.00	101.3	27.17	0.1	0.3	37.8
21885602	24063568-NODE	25072785-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	62.6	754	-3	754	-100.00	101.3	27.17	0.1	0.2	37.8
25072760	25072785-NODE	21906336-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.2	7	0	7	-99.97	2.9	28.69	0.0	0.0	2.2
25072786	25072785-NODE	JJ23278935-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	351.2	746	-3	746	-100.00	100.3	27.16	0.6	1.3	37.8
21885615	JJ23278935-NODE	27227049-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	192.2	17	0	17	-99.99	6.9	27.56	0.0	0.0	5.3
21911497	JJ23278935-NODE	JJ23283397-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	221.4	729	-4	729	-100.00	98.0	27.15	0.3	0.8	37.8
21911489	JJ23283397-NODE	24063659-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	459.1	709	-4	709	-100.00	95.4	27.13	0.7	1.6	36.2
21911507	24063659-NODE	21925030-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	7.4	38	-1	38	-99.98	15.3	27.72	0.0	0.0	5.4
24063660	24063659-NODE	24063678-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	505.2	671	-5	671	-100.00	90.3	27.10	0.7	1.6	36.2
21911538	24063678-NODE	21925065-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	7.4	19	0	19	-99.98	7.7	27.59	0.0	0.0	2.7
24063679	24063678-NODE	S42-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	374.6	651	-6	651	-100.00	87.8	27.08	0.5	1.1	36.2
21911547	S42-PD	24063772-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	253.0	651	-7	651	-99.99	87.8	27.08	0.3	0.7	36.2
21911559	24063772-NODE	26695682-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	134.8	622	-7	622	-99.99	83.9	27.03	0.2	0.4	32.1
26695656	26695682-NODE	26682093-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.5	17	0	17	-99.99	7.0	27.12	0.0	0.0	5.3
26695683	26695682-NODE	24063804-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	196.6	604	-7	604	-99.99	81.6	27.03	0.2	0.5	32.1
21911568	24063804-NODE	21925102-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.4	17	0	17	-99.99	7.0	27.08	0.0	0.0	5.3
24063805	24063804-NODE	24063823-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	286.6	587	-8	587	-99.99	79.2	27.03	0.3	0.7	32.1
21911576	24063823-NODE	21925119-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.5	29	-1	29	-99.97	11.8	27.85	0.0	0.0	8.9
24063824	24063823-NODE	24063845-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	332.6	557	-8	557	-99.99	75.3	26.99	0.3	0.7	27.9
21911584	24063845-NODE	S1730-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	363.1	543	-8	543	-99.99	73.3	26.97	0.3	0.7	27.0
24063969	S1730-PD	JJ23283277-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_416	Overhead Line	4.3	4.160	103.6	542	-9	542	-99.99	73.3	26.97	0.3	0.2	57.7
21911601	JJ23283277-NODE	F165-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	26.6	101	-1	101	-99.99	40.9	26.77	0.0	0.0	31.0
23642644	F165-PD	23642643-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	301.0	101	-1	101	-99.99	40.9	26.77	0.1	0.1	31.0
21911611	23642643-NODE	21925154-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.2	34	-1	34	-99.99	13.9	26.81	0.0	0.0	10.6
21911620	23642643-NODE	JJ23283289-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	429.4	67	-1	67	-99.99	27.0	26.75	0.1	0.1	20.4
22174288	JJ23283289-NODE	JJ23283275-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	253.5	34	-1	34	-99.99	14.0	26.73	0.0	0.0	10.6
21911639	JJ23283275-NODE	23232240-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	251.1	0	0	0	0.00	0.0	115.85	0.0	0.0	0.0
24222464	JJ23283275-NODE	24222454-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.8	34	-1	34	-99.99	14.0	26.72	0.0	0.0	10.6
22174318	JJ23283289-NODE	JJ23413577-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	145.4	32	-1	32	-99.99	13.0	26.77	0.0	0.0	9.9

22174301	JJ23413577-NODE	JJ23413587-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	104.2	0	0	0	0.00	0.0	115.86	0.0	0.0	0.0
24222438	JJ23413577-NODE	24222431-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.2	32	-1	32	-99.99	13.0	26.76	0.0	0.0	9.9
21911632	JJ23283277-NODE	23642720-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	142.8	441	-7	441	-99.99	59.7	27.01	0.1	0.2	27.0
21826836	23642720-NODE	21880407-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.7	9	0	9	-99.99	3.5	26.84	0.0	0.0	2.6
23642721	23642720-NODE	23642740-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	234.1	432	-8	432	-99.98	58.5	27.01	0.2	0.4	27.0
21826831	23642740-NODE	21880389-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.8	19	0	19	-99.98	7.7	27.06	0.0	0.0	5.8
23642741	23642740-NODE	JJ23275791-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	135.3	413	-8	413	-99.98	56.0	27.01	0.1	0.2	25.8
21826811	JJ23275791-NODE	FB23-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.3	22	-1	22	-99.96	8.9	27.62	0.0	0.0	6.7
21826796	FB23-PD	JJ23275799-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	21.4	22	-1	22	-99.96	8.9	27.62	0.0	0.0	6.7
21826827	JJ23275791-NODE	24557083-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	115.0	391	-7	391	-99.98	53.0	26.98	0.1	0.2	24.3
21826768	24557083-NODE	23642772-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	196.8	366	-7	366	-99.98	49.6	26.97	0.1	0.2	22.9
22227294	23642772-NODE	FB181-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	2.3	168	-3	168	-99.98	22.8	27.04	0.0	0.0	9.1
23642773	23642772-NODE	S1731-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	15.7	197	-4	197	-99.98	26.8	26.90	0.0	0.0	14.7
21826756	S1731-PD	JJ23275817-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	1047.3	197	-4	197	-99.98	26.8	26.90	0.2	0.6	14.7
21826695	JJ23275817-NODE	JJ23275847-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	264.2	196	-4	197	-99.97	26.7	26.87	0.1	0.1	14.6
21826679	JJ23275847-NODE	23642906-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	239.2	138	-3	138	-99.97	18.8	26.74	0.0	0.1	13.8
21942362	23642906-NODE	21880353-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	24.5	15	0	15	-99.97	5.9	27.19	0.0	0.0	2.1
23642907	23642906-NODE	23642946-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	696.7	124	-2	124	-99.97	16.8	26.69	0.1	0.2	13.8
23642947	23642946-NODE	24990132-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	115.1	124	-3	124	-99.97	16.8	26.68	0.0	0.0	13.8
24765648	24990132-NODE	24765595-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.1	29	-1	29	-99.97	11.8	27.18	0.0	0.0	8.9
24990133	24990132-NODE	JJ23275869-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	159.8	95	-2	95	-99.97	12.9	26.53	0.0	0.1	13.8
21826618	JJ23275869-NODE	23643046-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	197.1	19	0	19	-99.95	2.6	26.56	0.0	0.0	2.8
21826602	23643046-NODE	21880254-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.8	19	0	19	-99.98	7.8	26.54	0.0	0.0	5.9
23643047	23643046-NODE	23223876-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	104.2	0	0	0	0.00	0.0	115.74	0.0	0.0	0.0
22171397	JJ23275869-NODE	F3859-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.5	76	-2	76	-99.98	31.0	26.51	0.0	0.0	23.5
22225970	F3859-PD	JJ23442545-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.8	76	-2	76	-99.98	31.0	26.51	0.0	0.0	23.5
22225962	JJ23442545-NODE	JJ23442561-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	261.3	76	-2	76	-99.98	31.0	26.51	0.1	0.1	23.5
22225978	JJ23442561-NODE	24285030-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	145.3	38	-1	38	-99.98	15.5	26.51	0.0	0.0	11.8
24285031	24285030-NODE	JJ23442547-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	29.6	0	0	0	0.00	0.0	115.26	0.0	0.0	0.0
24285037	24285030-NODE	24285021-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.2	38	-1	38	-99.98	15.5	26.51	0.0	0.0	11.8
24221841	JJ23442561-NODE	24221829-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	5.8	38	-1	38	-99.98	15.5	26.52	0.0	0.0	11.7
22024852	JJ23275847-NODE	F4427-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	20.2	58	-1	58	-99.97	23.6	27.16	0.0	0.0	17.9
22024832	F4427-PD	27251883-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	392.6	58	-1	58	-99.97	23.6	27.16	0.0	0.1	17.9
27251884	27251883-NODE	JJ23374029-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	110.0	29	-1	29	-99.97	11.8	27.16	0.0	0.0	8.9
22024744	JJ23374029-NODE	22086174-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.5	29	-1	29	-99.97	11.8	27.16	0.0	0.0	8.9
27251890	27251883-NODE	27188619-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.7	29	-1	29	-99.97	11.8	27.17	0.0	0.0	8.9
21826727	JJ23275817-NODE	FB73-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	5.1	1	0	1	-98.64	0.1	35.29	0.0	0.0	0.0
21826711	FB73-PD	JJ23275819-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	23.1	1	0	1	-98.64	0.1	35.28	0.0	0.0	0.0
24557084	24557083-NODE	21880373-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	9.9	25	-1	25	-99.98	3.4	27.11	0.0	0.0	1.4
24063846	24063845-NODE	21925137-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	10.4	15	0	15	-99.97	5.9	27.75	0.0	0.0	2.1
24063777	24063772-NODE	21925082-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	9.6	29	-1	29	-99.97	11.8	28.03	0.0	0.0	4.2
24063587	JJ23283397-NODE	21925014-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.1	19	0	19	-99.98	7.6	27.84	0.0	0.0	5.8
22024581	JJ23287395-NODE	24114404-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	221.5	38	-1	38	-99.94	5.1	28.13	0.0	0.0	5.4
22024564	24114404-NODE	22086077-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2400	Overhead Line		4.160	11.9	38	-1	38	-99.98	15.3	28.09	0.0	0.0	5.4
24114405	24114404-NODE	24114329-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	682.3	0	0	0	0.00	0.0	116.99	0.0	0.0	0.0
22708105	JJ23361693-NODE	F277-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	139.1	82	-1	82	-99.99	33.0	27.63	0.0	0.0	25.0
21885650	F277-PD	24272099-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	232.2	82	-1	82	-99.99	33.0	27.63	0.1	0.1	25.0
21885634	24272099-NODE	JJ23278929-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	284.7	69	-1	69	-99.99	27.8	27.62	0.0	0.1	21.0

21911480	JJ23278929-NODE	JJ23283417-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	480.2	52	-1	52	-99.99	20.8	27.60	0.0	0.0	15.8
21911462	JJ23283417-NODE	JJ23283431-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	223.6	17	0	17	-99.99	6.9	27.59	0.0	0.0	5.3
21911451	JJ23283431-NODE	23232224-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	36.1	0	0	0	0.00	0.0	116.72	0.0	0.0	0.0
24556932	JJ23283431-NODE	21924979-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.4	17	0	17	-99.99	6.9	27.58	0.0	0.0	5.3
24262827	JJ23283417-NODE	21924996-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.7	34	-1	34	-99.99	13.9	27.61	0.0	0.0	10.5
24272113	JJ23278929-NODE	21906378-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	16.7	17	0	17	-99.99	6.9	27.65	0.0	0.0	5.3
24272100	24272099-NODE	21906395-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	14.2	13	0	13	-99.99	5.2	27.67	0.0	0.0	3.9
21942391	JJ23278839-NODE	JJ23278851-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	81.0	951	0	951	100.00	127.6	27.23	0.2	0.5	52.5
21885760	JJ23278851-NODE	F239-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	114.3	83	0	83	-100.00	33.5	27.17	0.0	0.0	25.4
21885745	F239-PD	23642216-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	119.5	83	0	83	-100.00	33.5	27.17	0.0	0.0	25.4
21911772	23642216-NODE	JJ23283159-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	499.2	56	0	56	-100.00	22.4	27.13	0.0	0.1	16.9
21911719	JJ23283159-NODE	23232251-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	164.7	0	0	0	0.00	0.0	116.97	0.0	0.0	0.0
22225343	JJ23283159-NODE	JJ23443575-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	327.3	56	0	56	-100.00	22.4	27.12	0.0	0.0	16.9
22225334	JJ23443575-NODE	24063907-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	219.8	37	0	37	-100.00	14.9	27.12	0.0	0.0	11.3
21911396	24063907-NODE	21924931-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.8	18	0	18	-100.00	7.5	27.12	0.0	0.0	5.6
24063908	24063907-NODE	JJ23283479-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	529.1	18	0	18	-100.00	7.5	27.11	0.0	0.0	5.6
21911386	JJ23283479-NODE	JJ23283481-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	116.4	0	0	0	0.00	0.0	116.90	0.0	0.0	0.0
24063918	JJ23283479-NODE	21924921-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.2	18	0	18	-100.00	7.5	27.10	0.0	0.0	5.6
24557879	JJ23443575-NODE	24557871-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.4	18	0	18	-100.00	7.4	27.14	0.0	0.0	5.6
23642217	23642216-NODE	21906466-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.9	28	0	28	-100.00	11.2	27.25	0.0	0.0	8.5
21885775	JJ23278851-NODE	S327-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	13.2	868	0	868	100.00	116.4	27.24	0.0	0.1	52.5
21885901	S327-PD	JJ23278741-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	254.2	868	0	868	-100.00	116.4	27.24	0.6	1.4	52.5
21885927	JJ23278741-NODE	JJ23278737-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	132.4	867	-1	867	-100.00	116.4	27.24	0.3	0.7	52.5
21885931	JJ23278737-NODE	JJ23278705-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	313.8	821	-2	821	-100.00	110.2	27.21	0.6	1.5	45.8
21885943	JJ23278705-NODE	JJ23278713-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	202.8	99	-1	99	-100.00	13.4	27.48	0.0	0.0	5.5
21885939	JJ23278713-NODE	JJ23278717-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	120.8	76	0	76	-100.00	10.2	27.44	0.0	0.0	5.5
21911703	JJ23278717-NODE	F241-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	124.2	38	0	38	-100.00	15.3	27.03	0.0	0.0	11.6
21911677	F241-PD	23642522-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	984.1	38	0	38	-100.00	15.3	27.03	0.0	0.1	11.6
21911668	23642522-NODE	JJ23283247-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	58.2	19	0	19	-100.00	7.8	26.97	0.0	0.0	5.9
21911648	JJ23283247-NODE	23232240-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	79.8	0	0	0	0.00	0.0	116.87	0.0	0.0	0.0
21911658	JJ23283247-NODE	JJ23283263-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	384.4	19	0	19	-100.00	7.8	26.97	0.0	0.0	5.9
22172347	JJ23283263-NODE	JJ23417033-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	114.9	6	0	6	100.00	2.2	26.76	0.0	0.0	1.7
22172331	JJ23417033-NODE	24557561-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	13.1	6	0	6	100.00	2.2	26.75	0.0	0.0	1.7
23642581	JJ23283263-NODE	21925170-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	12.2	14	0	14	-100.00	5.6	27.04	0.0	0.0	4.2
23642523	23642522-NODE	21925186-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.5	18	0	18	-100.00	7.5	27.07	0.0	0.0	5.6
21911710	JJ23278717-NODE	F1754-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	31.5	38	0	38	-99.99	15.4	27.85	0.0	0.0	11.7
21911693	F1754-PD	23642423-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	436.3	38	0	38	-99.99	15.4	27.85	0.0	0.0	11.7
21911684	23642423-NODE	JJ23283227-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	207.3	20	0	20	-99.99	7.9	27.80	0.0	0.0	6.0
22172356	JJ23283227-NODE	JJ23417017-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	976.4	6	0	6	-100.00	2.3	27.62	0.0	0.0	1.7
22172339	JJ23417017-NODE	24557561-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	13.8	6	0	6	-100.00	2.3	27.57	0.0	0.0	1.7
23642498	JJ23283227-NODE	21925203-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	5.9	14	0	14	-99.99	5.7	27.87	0.0	0.0	4.3
23642424	23642423-NODE	21925220-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.6	19	0	19	-99.99	7.5	27.89	0.0	0.0	5.7
21911729	JJ23278713-NODE	23232251-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	100.1	0	0	0	0.00	0.0	116.97	0.0	0.0	0.0
23642325	JJ23278713-NODE	21906548-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.7	23	0	23	-99.99	9.3	27.59	0.0	0.0	7.1
21885947	JJ23278705-NODE	S240-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	121.9	721	-2	721	-100.00	96.8	27.17	0.2	0.5	42.5
21885961	S240-PD	JJ23278653-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	181.8	720	-3	720	-100.00	96.8	27.17	0.3	0.7	42.5
21885957	JJ23278653-NODE	JJ23278693-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	384.7	23	0	23	-99.99	9.4	27.46	0.0	0.0	7.1
21885952	JJ23278693-NODE	JJ23278697-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	130.5	0	0	0	0.00	0.0	116.64	0.0	0.0	0.0

23641911	JJ23278693-NODE	21906565-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.2	23	0	23	-99.99	9.4	27.45	0.0	0.0	7.1
21885970	JJ23278653-NODE	JJ23278673-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	227.1	23	0	23	-99.99	9.4	27.47	0.0	0.0	7.1
21885966	JJ23278673-NODE	JJ23278677-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	210.9	0	0	0	0.00	0.0	116.65	0.0	0.0	0.0
23641900	JJ23278673-NODE	21906582-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.5	23	0	23	-99.99	9.4	27.46	0.0	0.0	7.1
21885984	JJ23278653-NODE	JJ23278649-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	305.7	674	-3	674	-100.00	90.6	27.15	0.4	1.0	36.7
21885980	JJ23278649-NODE	F2023-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	96.6	102	0	102	-100.00	41.0	27.02	0.0	0.0	31.1
21885975	F2023-PD	23643292-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	127.0	102	0	102	-100.00	41.0	27.02	0.0	0.0	31.1
21911746	23643292-NODE	JJ23283181-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	254.5	74	0	74	-100.00	29.9	27.00	0.0	0.1	22.6
21911737	JJ23283181-NODE	23643397-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	210.6	55	0	55	-100.00	22.4	26.99	0.0	0.0	17.0
21911755	23643397-NODE	21925247-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.3	18	0	18	-100.00	7.5	27.00	0.0	0.0	5.7
23643398	23643397-NODE	23643424-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	433.7	37	0	37	-100.00	14.9	26.99	0.0	0.0	11.3
21911764	23643424-NODE	21925261-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	5.7	37	0	37	-100.00	14.9	26.98	0.0	0.0	11.3
23643425	23643424-NODE	JJ23283173-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	198.7	0	0	0	0.00	0.0	116.77	0.0	0.0	0.0
22231164	JJ23283181-NODE	FB231-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.5	18	0	18	-100.00	7.5	27.02	0.0	0.0	5.7
22231148	FB231-PD	JJ23431393-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	196.0	18	0	18	-100.00	7.5	27.02	0.0	0.0	5.7
24284748	JJ23431393-NODE	24284735-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.4	18	0	18	-100.00	7.5	27.02	0.0	0.0	5.7
23643293	23643292-NODE	21906600-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	13.0	28	0	28	-100.00	11.2	27.08	0.0	0.0	8.5
21885988	JJ23278649-NODE	JJ23278643-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	220.9	572	-4	572	-100.00	76.9	27.17	0.3	0.7	36.7
21885992	JJ23278643-NODE	JJ23278573-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	323.0	548	-4	548	-100.00	73.8	27.16	0.4	0.9	36.7
21886035	JJ23278573-NODE	F271-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	134.6	117	-1	117	-100.00	47.1	27.37	0.1	0.1	35.7
21886030	F271-PD	JJ23278585-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	163.4	117	-1	117	-99.99	47.1	27.37	0.1	0.1	35.7
21886018	JJ23278585-NODE	JJ23278611-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	123.4	103	-1	103	-99.99	41.4	27.36	0.0	0.0	31.4
21886014	JJ23278611-NODE	JJ23278615-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	170.3	84	-1	84	-99.99	33.9	27.35	0.0	0.0	25.7
21886008	JJ23278615-NODE	23622762-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	335.8	65	-1	65	-99.99	26.4	27.34	0.0	0.1	20.0
21886001	23622762-NODE	21906648-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.4	37	0	37	-99.99	15.1	27.35	0.0	0.0	11.4
23622763	23622762-NODE	JJ23278631-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	578.0	28	0	28	-99.99	11.3	27.32	0.0	0.0	8.6
21885997	JJ23278631-NODE	JJ23278635-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	207.1	0	0	0	0.00	0.0	116.59	0.0	0.0	0.0
23622775	JJ23278631-NODE	21906632-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.2	28	0	28	-99.99	11.3	27.31	0.0	0.0	8.6
21886070	JJ23278615-NODE	JJ23278527-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	237.4	19	0	19	-99.99	7.5	27.38	0.0	0.0	5.7
21886063	JJ23278527-NODE	JJ23278503-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	92.6	0	0	0	0.00	0.0	116.66	0.0	0.0	0.0
21886079	JJ23278503-NODE	23234044-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	153.3	0	0	0	0.00	0.0	116.66	0.0	0.0	0.0
23622785	JJ23278527-NODE	21906771-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.9	19	0	19	-99.99	7.5	27.38	0.0	0.0	5.7
23622729	JJ23278611-NODE	21906667-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.0	19	0	19	-99.99	7.5	27.42	0.0	0.0	5.7
21886026	JJ23278585-NODE	JJ23278597-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	164.3	14	0	14	-99.99	5.7	27.43	0.0	0.0	4.3
21886022	JJ23278597-NODE	JJ23278601-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	224.6	0	0	0	0.00	0.0	116.73	0.0	0.0	0.0
23622746	JJ23278597-NODE	21906683-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.3	14	0	14	-99.99	5.7	27.42	0.0	0.0	4.3
21886040	JJ23278573-NODE	JJ23278569-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	141.6	431	-4	431	-100.00	58.1	27.10	0.1	0.3	32.6
21886045	JJ23278569-NODE	24558543-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	137.8	408	-4	408	-100.00	55.0	27.10	0.1	0.2	29.2
24558731	24558543-NODE	F1258-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	26.4	28	0	28	-100.00	11.2	27.13	0.0	0.0	8.5
24558269	F1258-PD	24558260-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	517.2	28	0	28	-100.00	11.2	27.13	0.0	0.0	8.5
24558514	24558260-NODE	21906744-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.8	18	0	18	-100.00	7.5	27.14	0.0	0.0	5.6
24558837	24558260-NODE	21906788-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	215.6	9	0	9	-100.00	3.7	27.11	0.0	0.0	2.8
24558739	24558543-NODE	S3305-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	133.9	380	-4	380	-99.99	51.2	27.10	0.1	0.2	29.2
24558747	S3305-PD	23622611-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	147.4	380	-4	380	-99.99	51.2	27.10	0.1	0.2	29.2
21883135	23622611-NODE	27219865-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	326.0	361	-4	361	-99.99	48.7	27.08	0.2	0.5	29.2
27103696	27219865-NODE	FB273-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.4	37	-1	37	-99.99	15.0	27.43	0.0	0.0	11.4
27219866	27219865-NODE	JJ23281599-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	52.2	323	-4	323	-99.99	43.7	27.04	0.0	0.1	29.2
21883067	JJ23281599-NODE	F1852-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	23.4	133	-2	133	-99.99	54.2	26.87	0.0	0.0	41.1

21883060	F1852-PD	JJ23281651-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	0.4	133	-2	133	-99.99	54.2	26.87	0.0	0.0	41.1
21883101	F1851-PD	23622568-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	30.3	64	-1	64	-99.99	26.0	26.82	0.0	0.0	19.7
21883108	23622568-NODE	21904845-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	13.3	23	0	23	-99.99	9.4	26.84	0.0	0.0	7.1
23622569	23622568-NODE	23622588-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	97.5	41	-1	41	-99.99	16.5	26.81	0.0	0.0	12.5
21883121	23622588-NODE	21904858-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	429.9	23	0	23	-99.99	9.4	26.81	0.0	0.0	7.2
21883128	23622588-NODE	21904872-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	20.6	17	0	17	-99.99	7.1	26.81	0.0	0.0	5.4
22016565	JJ23281599-NODE	JJ23384537-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	138.5	190	-2	190	-99.99	25.6	27.16	0.0	0.0	12.0
22259041	JJ23384537-NODE	F4310-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	28.5	28	0	28	-99.98	3.8	27.33	0.0	0.0	4.0
26554868	F4310-PD	23622483-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	90.3	28	0	28	-99.99	3.8	27.32	0.0	0.0	4.0
23622471	23622483-NODE	FB114-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	24.0	19	0	19	-99.99	2.5	27.33	0.0	0.0	2.7
26554984	FB114-PD	21904815-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	276.8	19	0	19	-99.99	7.5	27.33	0.0	0.0	5.7
26554826	23622483-NODE	27219833-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	196.9	9	0	9	-99.99	3.8	27.31	0.0	0.0	2.9
27104151	27219833-NODE	27104138-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	13.2	9	0	9	-99.99	3.8	27.30	0.0	0.0	2.9
23622443	JJ23384537-NODE	26653790-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	9.3	162	-2	162	-99.99	21.9	27.13	0.0	0.0	10.0
24285181	26653790-NODE	24285168-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.8	23	0	23	-99.99	9.4	26.87	0.0	0.0	7.1
26653791	26653790-NODE	26608104-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	210.7	139	-2	139	-99.99	18.7	27.17	0.0	0.0	8.0
26608105	26608104-NODE	JJ23281659-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	161.7	19	0	19	-99.98	2.5	27.32	0.0	0.0	2.7
21883028	JJ23281659-NODE	23233619-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	12.5	0	0	0	0.00	0.0	116.56	0.0	0.0	0.0
22017329	JJ23281659-NODE	FB113-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	27.0	19	0	19	-99.99	7.5	27.31	0.0	0.0	5.7
22017317	FB113-PD	23622422-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	298.8	19	0	19	-99.99	7.5	27.31	0.0	0.0	5.7
21883037	23622422-NODE	21904777-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.8	19	0	19	-99.99	7.5	27.30	0.0	0.0	5.7
23622423	23622422-NODE	JJ23281669-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	4.5	0	0	0	0.00	0.0	116.59	0.0	0.0	0.0
26608208	26608104-NODE	26608181-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_416	Overhead Line	4.3	4.160	10.8	120	-1	120	-99.99	16.2	27.15	0.0	0.0	14.2
22027542	23622611-NODE	21906719-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.2	19	0	19	-99.99	7.5	27.41	0.0	0.0	5.7
23622692	JJ23278569-NODE	21906699-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.1	23	0	23	-99.99	9.4	27.15	0.0	0.0	7.1
23641885	JJ23278643-NODE	21906618-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.2	23	0	23	-99.99	9.4	27.30	0.0	0.0	7.1
23641941	JJ23278737-NODE	21906515-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.3	46	-1	46	-99.99	18.6	27.75	0.0	0.0	14.1
25722090	JJ23278839-NODE	25722089-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4160	Overhead Line	4.3	4.160	29.9	0	0	0	0.00	0.0	117.26	0.0	0.0	0.0

Load Flow - Summary Report (76M30)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK.sxst
Date	Tue Feb 07 2023
Time	16h26m49s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	15019.78	6497.85	16365.08	91.78
Load used (Adjusted)	15019.59	6497.14	16364.63	91.78
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**15019.59**	**6497.14**	**16364.63**	**91.78**
Cable Capacitance	0.00	-179.43	179.43	0.00
Line Capacitance	0.00	-36.88	36.88	0.00
Total Shunt Capacitance	**0.00**	**-216.31**	**216.31**	**0.00**
Line Losses	104.40	384.05	397.99	26.23
Cable Losses	3.12	6.15	6.90	45.21
Transformer Load Losses	35.96	153.63	157.78	22.79
Transformer No-Load Losses	104.26	0.00	104.26	100.00
Total Losses	**247.74**	**543.83**	**597.60**	**41.46**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (º)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
26858749	25218550-NODE	25218689-NODE	1250KCMIL_CU_28KV_CN_TR-XLPEI_PVCJ	Cable	29.0	27.600	4.9	15267	6825	16723	91.29	333.2	-24.09	0.0	0.1	58.3
26858802	25218689-NODE	L76M30-PD	1250KCMIL_CU_28KV_CN_TR-XLPEI_PVCJ	Cable	29.0	27.600	4.4	15267	6825	16723	91.29	333.2	-24.09	0.0	0.1	58.3
26858810	L76M30-PD	25218440-NODE	1250KCMIL_CU_28KV_CN_TR-XLPEI_PVCJ	Cable	29.0	27.600	4.6	15267	6825	16723	91.29	333.2	-24.09	0.0	0.1	58.3
26858828	25218440-NODE	25218808-NODE	1250KCMIL_CU_28KV_CN_TR-XLPEI_PVCJ	Cable	29.0	27.600	4.5	0	0	0	0.00	0.0	90.00	0.0	0.0	0.0
26862865	25218440-NODE	25754949-NODE	1250KCMIL_CU_28KV_CN_TR-XLPEI_PVCJ	Cable	29.0	27.600	9.0	15267	6825	16723	91.29	333.2	-24.09	0.1	0.2	58.3
25754950	25754949-NODE	24776856-NODE	1250KCMIL_CU_28KV_CN_TR-XLPEI_PVCJ	Cable	29.0	27.600	268.5	15267	6825	16723	91.29	333.2	-24.09	1.8	5.3	58.3
22036799	JJ23551503-NODE	TO FE810-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	192.9	312	136	340	91.71	6.8	-23.68	0.0	0.0	4.9
26660937	FE909-PD	TO FE909-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	408.6	63	22	67	94.21	1.3	-19.86	0.0	0.0	1.0
22585700	JJ23508281-NODE	TO FE692-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	112.4	104	44	113	92.17	2.3	-23.11	0.0	0.0	1.6
22702231	JJ23537145-NODE	TO FE738-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	112.5	63	26	68	92.49	1.4	-22.68	0.0	0.0	1.0
177	175	JJ23268087-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	26.2	2	-1	2	-74.67	0.0	41.29	0.0	0.0	0.0
22587102	175	178	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	88.6	2	-1	2	-82.42	0.0	34.09	0.0	0.0	0.0
26019280	JJ23539837-NODE	TO FE834-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	400.0	32	9	33	96.33	0.7	-16.06	0.0	0.0	0.5
21752943	JJ23542893-NODE	TO FF771-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	171.9	104	43	113	92.39	2.3	-23.15	0.0	0.0	1.6
22677978	JJ23518943-NODE	TO FF709-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	489.2	208	85	225	92.62	4.5	-22.96	0.0	0.0	3.3
21773583	JJ23545715-NODE	TO FF803-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	567.1	21	7	22	95.01	1.3	-19.03	0.0	0.0	1.0
21719893	JJ23534201-NODE	TO FF752-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	33.2	63	27	68	91.99	1.4	-24.14	0.0	0.0	1.0
21796810	JJ23267363-NODE	S107-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	9.3	208	88	226	92.12	4.6	-23.97	0.0	0.0	3.3
22536550	S107-PD	FF338-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	163.6	208	88	226	92.11	4.6	-23.99	0.0	0.0	3.3
24847647	FF338-PD	TO FF338-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	49.5	208	90	227	91.80	4.6	-24.43	0.0	0.0	3.3
21721330	JJ23299667-NODE	TO FQ270-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	48.3	104	45	114	91.92	2.3	-24.37	0.0	0.0	1.7
22510064	JJ23485961-NODE	TO FQ397-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	197.1	208	88	226	92.08	4.6	-24.15	0.0	0.0	3.3
22602824	JJ23531619-NODE	24227167-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	157.1	208	89	227	92.00	4.6	-24.29	0.0	0.0	3.3
21720550	JJ23308429-NODE	TO FQ295-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	110.0	208	89	227	91.92	4.6	-24.44	0.0	0.0	3.3
22589310	JJ23527003-NODE	TO FQ468-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	96.8	104	44	113	92.10	2.3	-24.19	0.0	0.0	1.7
21720759	JJ23307073-NODE	TO FQ287-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	152.5	312	136	341	91.64	6.9	-24.86	0.0	0.0	5.0
22602781	JJ23531725-NODE	TO FQ483-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	33.8	63	27	68	91.99	1.4	-24.37	0.0	0.0	1.0
22589286	JJ23527521-NODE	TO FQ469-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	118.5	63	26	68	92.50	1.4	-23.62	0.0	0.0	1.0
21928284	JJ23385735-NODE	TO FQ322-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	67.9	63	26	68	92.19	1.4	-24.08	0.0	0.0	1.0
22638662	JJ23271323-NODE	TO FQ24-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	15.0	104	45	114	91.80	2.3	-24.69	0.0	0.0	1.7
22589256	JJ23528135-NODE	TO FQ470-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	415.6	208	86	225	92.47	4.6	-23.73	0.0	0.0	3.3
24851037	24293865-NODE	24851036-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	345.3	21	8	22	93.81	1.4	-21.60	0.0	0.0	1.0
26948430	JJ23273459-NODE	TO F2768-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	907.4	168	61	179	93.94	10.9	-21.39	0.0	0.0	7.8
22666360	TO F2768-PD	TO TX Q135-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	423.2	147	56	157	93.51	9.6	-22.10	0.0	0.0	6.9
25217809	TO TX Q135-PD	TO TX Q136-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	431.9	126	48	135	93.39	8.2	-22.30	0.0	0.0	5.9
22666459	TO TX Q136-PD	TO TX Q112-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	220.9	105	41	113	93.20	6.9	-22.59	0.0	0.0	4.9
22666455	TO TX Q112-PD	24851708-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	142.7	84	33	90	93.22	5.5	-22.56	0.0	0.0	3.9
24851729	24851708-NODE	TO TX Q113-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	12.3	84	33	90	93.02	5.5	-22.88	0.0	0.0	3.9
24851737	TO TX Q113-PD	24851716-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	11.6	63	24	67	93.39	4.1	-22.29	0.0	0.0	2.9
24851717	24851716-NODE	TO TX Q114-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	143.6	63	24	67	93.37	4.1	-22.33	0.0	0.0	2.9
24851782	TO TX Q114-PD	24851754-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	10.4	42	16	45	93.71	2.7	-21.77	0.0	0.0	2.0
24851755	24851754-NODE	TO TX Q115-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	487.5	42	16	45	93.68	2.7	-21.82	0.0	0.0	2.0
24851825	TO TX Q115-PD	24851813-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	11.3	21	8	23	92.73	1.4	-23.32	0.0	0.0	1.0
24851814	24851813-NODE	23189304-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	145.4	21	9	23	92.66	1.4	-23.43	0.0	0.0	1.0
22006063	JJ23276173-NODE	TO F2769-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	644.0	196	68	207	94.52	12.6	-20.38	0.0	0.0	9.0
22006016	TO F2769-PD	TO TX Q334-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	230.9	180	63	191	94.34	11.6	-20.69	0.0	0.0	8.3

22006025	TO TX Q334-PD	TO TX Q335-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	173.9	164	57	174	94.41	10.6	-20.57	0.0	0.0	7.6
22006038	TO TX Q335-PD	TO TX Q336-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	140.2	148	51	157	94.53	9.5	-20.35	0.0	0.0	6.8
22006051	TO TX Q336-PD	24851481-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	114.1	132	45	140	94.72	8.5	-20.03	0.0	0.0	6.1
24851499	24851481-NODE	TO TX Q337-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	15.6	132	45	140	94.62	8.5	-20.20	0.0	0.0	6.1
24851511	TO TX Q337-PD	24851489-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	11.4	116	38	123	94.96	7.5	-19.59	0.0	0.0	5.4
24851490	24851489-NODE	TO TX Q338-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	641.3	116	38	123	94.95	7.5	-19.61	0.0	0.0	5.4
22665517	TO TX Q338-PD	TO Q111-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	701.0	95	32	100	94.86	6.1	-19.78	0.0	0.0	4.4
26746149	TO Q111-PD	TO Q330-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	12.3	95	34	101	94.03	6.2	-21.22	0.0	0.0	4.4
21974182	TO Q330-PD	TO TO Q330-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	569.7	95	35	101	94.01	6.2	-21.24	0.0	0.0	4.4
21974170	TO TO Q330-PD	TO TX Q330-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	137.0	79	30	85	93.60	5.2	-21.93	0.0	0.0	3.7
21974160	TO TX Q330-PD	TO TX Q331-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	137.5	63	24	68	93.77	4.1	-21.65	0.0	0.0	3.0
21974149	TO TX Q331-PD	TO TX Q332-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	233.8	48	17	51	94.05	3.1	-21.18	0.0	0.0	2.2
24851588	TO TX Q332-PD	TO TX Q333-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	482.1	32	11	34	94.25	2.1	-20.83	0.0	0.0	1.5
24851617	TO TX Q333-PD	24327351-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	9.5	16	6	17	93.05	1.0	-22.81	0.0	0.0	0.7
24327352	24327351-NODE	23175094-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	147.6	16	6	17	92.97	1.0	-22.92	0.0	0.0	0.7
22666416	JJ23273355-NODE	TO F2770-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	695.7	361	135	386	93.69	23.5	-21.87	0.1	0.0	16.9
24328379	TO F2770-PD	TO TX Q108-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	127.7	346	131	370	93.54	22.5	-22.13	0.0	0.0	16.2
21695049	TO TX Q108-PD	TO TX Q109-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	453.8	330	125	353	93.57	21.5	-22.08	0.1	0.0	15.4
21695059	TO TX Q109-PD	TO TX Q219-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	226.9	310	117	331	93.51	20.2	-22.18	0.0	0.0	14.5
21695056	TO TX Q219-PD	24851318-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	241.4	289	109	309	93.53	18.8	-22.13	0.0	0.0	13.5
24851335	24851318-NODE	TO TX Q225-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	5.4	289	110	309	93.43	18.9	-22.29	0.0	0.0	13.5
24851343	TO TX Q225-PD	24851326-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	8.5	268	101	287	93.55	17.5	-22.10	0.0	0.0	12.5
24851327	24851326-NODE	TO TX Q224-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	184.0	268	101	287	93.55	17.5	-22.11	0.0	0.0	12.5
21695067	TO TX Q224-PD	TO TX Q223-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	194.2	248	93	264	93.60	16.1	-22.02	0.0	0.0	11.6
21695070	TO TX Q223-PD	TO TX Q222-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	128.5	227	85	242	93.66	14.8	-21.92	0.0	0.0	10.6
21695073	TO TX Q222-PD	TO TX Q221-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	143.1	206	76	220	93.77	13.4	-21.75	0.0	0.0	9.6
21695044	TO TX Q221-PD	TO TX Q220-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	426.0	186	68	198	93.89	12.1	-21.55	0.0	0.0	8.7
24851381	TO TX Q220-PD	JJ23273467-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	9.0	165	61	176	93.84	10.7	-21.63	0.0	0.0	7.7
22666353	JJ23273467-NODE	TO TX Q110-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	377.5	165	61	176	93.83	10.7	-21.64	0.0	0.0	7.7
22666357	TO TX Q110-PD	TO TX Q137-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	147.3	144	53	154	93.81	9.4	-21.68	0.0	0.0	6.7
22666379	TO TX Q137-PD	24851404-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	296.2	124	45	132	93.99	8.0	-21.38	0.0	0.0	5.8
24851421	24851404-NODE	TO TX Q130-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	9.7	124	46	132	93.71	8.1	-21.84	0.0	0.0	5.8
24851429	TO TX Q130-PD	24851412-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	8.5	103	37	110	94.07	6.7	-21.25	0.0	0.0	4.8
24851413	24851412-NODE	TO TX Q131-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	209.9	103	37	110	94.06	6.7	-21.26	0.0	0.0	4.8
22666373	TO TX Q131-PD	TO TX Q132-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	407.1	82	29	87	94.30	5.3	-20.85	0.0	0.0	3.8
22666367	TO TX Q132-PD	TO TX Q133-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	221.9	62	22	66	94.35	4.0	-20.77	0.0	0.0	2.9
22666370	TO TX Q133-PD	TO TX Q134-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	155.2	41	14	43	94.93	2.7	-19.73	0.0	0.0	1.9
22666022	TO TX Q134-PD	TO TX Q173-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	279.3	21	5	21	96.83	1.3	-15.89	0.0	0.0	0.9
22665653	TO TX Q173-PD	TO Q174-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	367.8	0	-3	3	0.00	0.2	88.59	0.0	0.0	0.1
26746139	TO Q174-PD	TO Q325-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	12.6	0	-1	1	0.00	0.1	88.59	0.0	0.0	0.0
21974230	TO Q325-PD	24327798-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	281.8	0	-1	1	0.00	0.1	88.59	0.0	0.0	0.0
22575970	JJ23524175-NODE	TO F3899-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	696.9	21	4	21	98.47	1.3	-11.38	0.0	0.0	0.9
22575974	TO F3899-PD	24293865-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	696.9	0	-3	3	0.00	0.2	88.66	0.0	0.0	0.1
22577133	JJ23521917-NODE	FQ450-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	5.6	830	367	908	91.45	18.4	-25.22	0.0	0.0	13.3
24850759	FQ450-PD	TO FQ450-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	50.9	830	367	908	91.45	18.4	-25.22	0.0	0.0	13.3
22577173	JJ23521861-NODE	S3956-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	36.5	208	89	227	91.99	4.6	-24.44	0.0	0.0	3.3
22577165	S3956-PD	S2906-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	19.6	208	89	227	91.93	4.6	-24.53	0.0	0.0	3.3
22577182	S2906-PD	JJ23521827-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	3.0	208	89	227	91.89	4.6	-24.59	0.0	0.0	3.3

22577199	JJ23521827-NODE	FQ125-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	65.3	0	-1	1	0.00	0.0	88.65	0.0	0.0	0.0
22577190	FQ125-PD	JJ23521847-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	7.4	0	0	0	0.00	0.0	88.65	0.0	0.0	0.0
22577203	JJ23521827-NODE	FQ126-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	10.8	208	90	227	91.75	4.6	-24.79	0.0	0.0	3.3
22666093	FQ126-PD	TO FQ126-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	11.3	208	90	227	91.73	4.6	-24.82	0.0	0.0	3.3
24852901	JJ23274063-NODE	24849775-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	197.1	2078	912	2269	91.58	46.1	-25.03	0.3	0.1	33.3
24852914	24849775-NODE	JJ23274073-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	36.3	2078	914	2270	91.54	46.1	-25.08	0.1	0.0	33.3
24852923	JJ23274073-NODE	JJ23274077-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	30.8	1662	731	1816	91.53	36.9	-25.09	0.0	0.0	26.7
24852932	JJ23274077-NODE	JJ23274083-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	32.1	1143	503	1248	91.54	25.3	-25.08	0.0	0.0	18.3
24852941	JJ23274083-NODE	JJ23274085-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	10.1	0	0	0	0.00	0.0	88.66	0.0	0.0	0.0
24852950	JJ23274083-NODE	S3059-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	16.2	1143	503	1249	91.52	25.4	-25.10	0.0	0.0	18.3
22076488	S3059-PD	F3625-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	31.1	1143	503	1249	91.52	25.4	-25.11	0.0	0.0	18.3
22076476	F3625-PD	JJ23425755-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	8.3	1143	504	1249	91.51	25.4	-25.12	0.0	0.0	18.3
22076414	JJ23425755-NODE	S3825-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	89.7	623	274	681	91.53	13.8	-25.10	0.0	0.0	10.0
22076401	S3825-PD	FQ386-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	15.0	623	275	681	91.47	13.8	-25.18	0.0	0.0	10.0
24850275	FQ386-PD	TO FQ386-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	28.1	623	276	682	91.46	13.8	-25.19	0.0	0.0	10.0
22076437	JJ23425755-NODE	S3824-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	24.8	519	229	568	91.48	11.5	-25.16	0.0	0.0	8.3
22076426	S3824-PD	FQ161-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	6.8	519	230	568	91.46	11.5	-25.19	0.0	0.0	8.3
22666112	FQ161-PD	JJ23274129-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	5.5	519	230	568	91.46	11.5	-25.20	0.0	0.0	8.3
22666109	JJ23274129-NODE	TO FQ161-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	13.6	519	230	568	91.45	11.5	-25.20	0.0	0.0	8.3
24852959	JJ23274077-NODE	S3058-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	23.9	519	229	568	91.50	11.5	-25.14	0.0	0.0	8.3
22666121	S3058-PD	FQ160-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	28.8	519	229	568	91.48	11.5	-25.17	0.0	0.0	8.3
22666118	FQ160-PD	JJ23274115-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	7.1	519	230	568	91.46	11.5	-25.20	0.0	0.0	8.3
22666106	JJ23274115-NODE	TO FQ160-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	12.0	519	230	568	91.45	11.5	-25.20	0.0	0.0	8.3
24852968	JJ23274073-NODE	S3057-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	13.0	416	183	454	91.53	9.2	-25.10	0.0	0.0	6.7
22666127	S3057-PD	FQ21-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	18.5	416	183	454	91.51	9.2	-25.11	0.0	0.0	6.7
24849983	FQ21-PD	TO FQ21-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	62.8	416	183	454	91.50	9.2	-25.14	0.0	0.0	6.7
22618491	JJ23263819-NODE	TO FQ13-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	13.8	63	27	68	91.86	1.4	-24.60	0.0	0.0	1.0
27304502	27311295-NODE	FQ542-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	27.3	63	24	67	93.61	1.4	-21.92	0.0	0.0	1.0
27241631	FQ542-PD	TO FQ542-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	281.5	63	24	67	93.45	1.4	-22.17	0.0	0.0	1.0
22666072	JJ23274273-NODE	TO FQ169-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	104.3	104	44	113	92.13	2.3	-24.21	0.0	0.0	1.7
24848824	24848823-NODE	TO FQ284-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	72.5	63	26	68	92.22	1.4	-24.06	0.0	0.0	1.0
22602871	JJ23531535-NODE	TO FQ482-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	247.7	104	42	113	92.64	2.3	-23.42	0.0	0.0	1.7
22541444	JJ23498301-NODE	TO FQ401-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	87.8	208	90	227	91.87	4.6	-24.56	0.0	0.0	3.3
22551373	24808450-NODE	TO FQ446-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	52.5	63	27	68	92.10	1.4	-24.23	0.0	0.0	1.0
21694918	JJ23295355-NODE	TO FQ211-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	37.9	63	27	68	92.01	1.4	-24.37	0.0	0.0	1.0
21695113	FQ217-PD	TO FQ217-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	88.7	208	90	227	91.88	4.6	-24.57	0.0	0.0	3.3
21695537	JJ23291795-NODE	TO FQ207-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	16.6	104	45	114	91.80	2.3	-24.67	0.0	0.0	1.7
22666841	JJ23272463-NODE	TO FQ89-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	17.9	208	90	227	91.74	4.6	-24.76	0.0	0.0	3.3
25060492	FQ516-PD	TO FQ516-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	99.3	208	89	227	91.89	4.6	-24.53	0.0	0.0	3.3
21695201	JJ23292595-NODE	TO FQ208-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	27.6	104	45	114	91.84	2.3	-24.61	0.0	0.0	1.7
22665075	JJ23276799-NODE	TO FQ197-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	175.4	63	25	68	92.84	1.4	-23.12	0.0	0.0	1.0
22665218	JJ23276425-NODE	FQ191-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	29.8	63	27	68	92.10	1.4	-24.22	0.0	0.0	1.0
22665216	FQ191-PD	TO FQ191-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	23.4	63	27	68	91.92	1.4	-24.49	0.0	0.0	1.0
24774545	24774544-NODE	TO FQ495-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	86.5	208	90	227	91.87	4.6	-24.50	0.0	0.0	3.3
22602831	JJ23531607-NODE	TO F3968-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	140.0	208	88	226	92.12	4.6	-24.14	0.0	0.0	3.3
22602818	24227167-NODE	TO F3968-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	78.8	0	-1	1	0.00	0.0	88.77	0.0	0.0	0.0
24848299	FQ60-PD	TO FQ60-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	32.6	415	184	454	91.45	9.2	-25.08	0.0	0.0	6.7
24848276	FQ66-PD	TO FQ66-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	34.5	416	184	454	91.47	9.2	-25.04	0.0	0.0	6.7

21886082	JJ23275907-NODE	JJ23363863-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	38.5	1247	548	1362	91.56	27.6	-24.88	0.0	0.0	20.0
21886060	JJ23363863-NODE	S3738-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	44.5	624	274	681	91.55	13.8	-24.89	0.0	0.0	10.0
21886055	S3738-PD	FQ180-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	79.2	624	275	681	91.52	13.8	-24.93	0.0	0.0	10.0
24848128	FQ180-PD	TO FQ180-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	35.0	624	275	682	91.47	13.8	-25.00	0.0	0.0	10.0
21886069	JJ23363863-NODE	S3737-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	49.9	624	274	681	91.54	13.8	-24.90	0.0	0.0	10.0
21886064	S3737-PD	FQ310-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	71.1	624	275	681	91.51	13.8	-24.95	0.0	0.0	10.0
21886078	FQ310-PD	TO FQ310-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	19.2	624	276	682	91.46	13.8	-25.01	0.0	0.0	10.0
22665320	JJ23275971-NODE	TO FQ51-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	155.8	312	136	341	91.65	6.9	-24.74	0.0	0.0	5.0
24811802	24811801-NODE	TO FF808-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	513.1	208	85	225	92.65	4.6	-23.20	0.0	0.0	3.3
22536553	JJ23429365-NODE	TO FF335-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	48.1	312	137	341	91.51	6.9	-24.87	0.0	0.0	5.0
22622792	JJ23479441-NODE	TO FF651-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	101.3	312	137	341	91.58	6.9	-24.70	0.0	0.0	5.0
22536508	JJ23429613-NODE	TO FF561-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	245.4	624	273	681	91.61	13.7	-24.61	0.0	0.0	9.9
22536538	JJ23429445-NODE	S634-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	207.3	208	87	226	92.23	4.6	-23.68	0.0	0.0	3.3
22536535	S634-PD	FF353-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	20.7	208	90	227	91.85	4.6	-24.24	0.0	0.0	3.3
24847220	FF353-PD	TO FF353-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	51.7	208	90	227	91.81	4.6	-24.30	0.0	0.0	3.3
21719403	JJ23535813-NODE	TO F3904-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	374.3	417	179	453	91.90	9.1	-24.14	0.0	0.0	6.6
21754414	TO F3904-PD	TO TX F755-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	21.8	104	45	114	91.83	2.3	-24.24	0.0	0.0	1.7
21775979	JJ23544677-NODE	TO FF788-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	58.9	312	137	341	91.53	6.9	-24.58	0.0	0.0	5.0
24320457	24320416-NODE	FF817-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	12.1	104	42	112	92.93	2.3	-22.39	0.0	0.0	1.6
24320425	FF817-PD	TO FF817-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	309.0	104	42	112	92.88	2.3	-22.46	0.0	0.0	1.6
22735269	JJ23548523-NODE	TO FE765-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	516.4	208	84	225	92.68	4.5	-22.48	0.0	0.0	3.3
24846229	24846228-NODE	TO FE784-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	55.7	104	45	114	91.96	2.3	-23.54	0.0	0.0	1.6
22721978	JJ23542495-NODE	TO FE749-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	21.4	312	138	341	91.49	6.8	-24.17	0.0	0.0	4.9
22518105	JJ23474539-NODE	TO FE590-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	23.9	208	92	227	91.51	4.6	-24.14	0.0	0.0	3.3
22517691	JJ23475897-NODE	TO FE440-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	88.6	312	137	341	91.58	6.8	-24.05	0.0	0.0	4.9
22541145	JJ23489337-NODE	TO FE572-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	121.0	104	44	113	92.21	2.3	-22.94	0.0	0.0	1.6
26696111	FE913-PD	TO FE913-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	56.3	63	26	68	92.14	1.4	-22.99	0.0	0.0	1.0
22037393	FE806-PD	TO FE806-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	63.8	63	26	68	92.19	1.4	-22.89	0.0	0.0	1.0
24778168	24776856-NODE	S3100-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	29.0	27.600	284.7	15265	6826	16722	91.29	333.2	-24.11	3.0	11.2	93.3
24778206	S3100-PD	JJ23551387-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	269.0	15262	6815	16715	91.31	333.2	-24.11	2.9	10.6	93.3
22037404	JJ23551387-NODE	JJ23551385-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	156.8	15197	6778	16640	91.33	331.9	-24.11	1.7	6.1	92.9
26681490	JJ23551385-NODE	26681489-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	338.2	15133	6745	16568	91.34	330.5	-24.12	3.5	13.1	92.6
22218500	26681489-NODE	JJ23489351-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	381.5	15066	6706	16491	91.36	329.2	-24.12	4.0	14.6	92.2
22036808	JJ23489351-NODE	JJ23551499-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	184.7	14958	6648	16369	91.38	326.9	-24.13	1.9	7.0	91.6
22036791	JJ23551499-NODE	FE810-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	2.7	312	136	340	91.72	6.8	-23.68	0.0	0.0	1.9
22036780	FE810-PD	JJ23551503-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	6.7	312	136	340	91.71	6.8	-23.68	0.0	0.0	1.9
22036818	JJ23551499-NODE	JJ23547101-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	130.1	14644	6506	16024	91.39	320.1	-24.14	1.3	4.7	89.7
22705647	JJ23547101-NODE	JJ23547039-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	97.8	14643	6501	16021	91.40	320.1	-24.14	1.0	3.5	89.7
22735685	JJ23547039-NODE	S3820-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	552.3	14642	6499	16019	91.40	320.1	-24.15	5.4	20.0	89.7
22735678	S3820-PD	26660991-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	21.5	14636	6479	16006	91.44	320.1	-24.15	0.2	0.8	89.7
26660923	26660991-NODE	FE909-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	29.5	63	22	67	94.23	1.3	-19.84	0.0	0.0	1.0
26660992	26660991-NODE	JJ23508275-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	137.1	14573	6456	15939	91.43	318.8	-24.17	1.3	4.9	89.4
22585723	JJ23508275-NODE	FE692-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	22.1	104	44	113	92.18	2.3	-23.09	0.0	0.0	0.6
22585712	FE692-PD	JJ23508281-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	0.8	104	44	113	92.17	2.3	-23.10	0.0	0.0	0.6
22702244	JJ23508275-NODE	JJ23537129-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	416.8	14467	6407	15823	91.43	316.5	-24.18	4.0	14.8	88.7
22702237	JJ23537129-NODE	FE738-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	23.7	63	26	68	92.50	1.4	-22.66	0.0	0.0	0.4
22702234	FE738-PD	JJ23537145-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	1.0	63	26	68	92.49	1.4	-22.68	0.0	0.0	0.4
22702240	JJ23537129-NODE	JJ23537131-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	261.2	14401	6367	15746	91.46	315.2	-24.18	2.5	9.2	88.4

22183882	JJ23537131-NODE	S3997-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	19.2	13566	5994	14831	91.47	297.0	-24.20	0.2	0.6	83.4
22183891	S3997-PD	JJ23268085-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	120.7	13566	5993	14831	91.47	297.0	-24.20	1.0	3.8	83.4
21912603	JJ23268085-NODE	JJ23268087-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	311.4	13565	5990	14828	91.48	297.0	-24.20	2.6	9.7	83.4
22734616	JJ23268087-NODE	JJ23548727-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	100.3	13560	5982	14821	91.49	297.0	-24.21	0.8	3.1	83.4
22734612	JJ23548727-NODE	JJ23519371-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	126.3	13455	5935	14706	91.49	294.7	-24.21	1.1	3.9	82.8
22677925	JJ23519371-NODE	24846317-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	724.9	13246	5847	14479	91.48	290.2	-24.24	5.9	21.6	81.5
22184124	24846317-NODE	FE834-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	5.1	32	9	33	96.35	0.7	-16.01	0.0	0.0	0.2
22184116	FE834-PD	JJ23539837-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	19.4	32	9	33	96.35	0.7	-16.02	0.0	0.0	0.2
24846318	24846317-NODE	24846380-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	293.0	13208	5817	14432	91.52	289.5	-24.26	2.4	8.7	81.3
21912028	24846380-NODE	S109-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	412.1	13206	5809	14427	91.54	289.6	-24.26	3.3	12.2	81.3
22632243	S109-PD	JJ23483789-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	989.3	13202	5797	14419	91.56	289.6	-24.27	8.0	29.4	81.3
21752930	JJ23483789-NODE	FF771-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	32.2	104	43	113	92.41	2.3	-23.12	0.0	0.0	0.6
21752916	FF771-PD	JJ23542893-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	32.2	104	43	113	92.40	2.3	-23.14	0.0	0.0	0.6
21775986	JJ23483789-NODE	24320416-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	591.3	13090	5726	14287	91.62	287.3	-24.28	4.7	17.3	80.7
24320417	24320416-NODE	24846994-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	1018.9	12981	5667	14164	91.65	285.0	-24.30	8.0	29.3	80.1
22677975	24846994-NODE	FF709-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	35.1	208	85	225	92.63	4.5	-22.95	0.0	0.0	1.3
22677972	FF709-PD	JJ23518943-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	4.4	208	85	225	92.62	4.5	-22.96	0.0	0.0	1.3
24846995	24846994-NODE	JJ23544661-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	306.8	12764	5554	13920	91.69	280.5	-24.32	2.3	8.5	78.9
21773608	JJ23544661-NODE	JJ23545711-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	321.4	12450	5409	13574	91.72	273.6	-24.32	2.3	8.5	77.0
21773571	JJ23545711-NODE	FF803-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	13.2	21	7	22	95.02	1.3	-19.01	0.0	0.0	1.0
21773555	FF803-PD	JJ23545715-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	19.2	21	7	22	95.02	1.3	-19.02	0.0	0.0	1.0
21773597	JJ23545711-NODE	JJ23535805-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	619.1	12426	5394	13547	91.73	273.2	-24.33	4.4	16.4	77.0
21719417	JJ23535805-NODE	JJ23267365-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	303.3	12005	5199	13083	91.76	264.1	-24.34	2.0	7.5	74.5
21796802	JJ23267365-NODE	JJ23267367-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	289.1	11795	5105	12852	91.77	259.5	-24.35	1.9	6.9	73.2
22505696	JJ23267367-NODE	S3112-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	291.4	11169	4826	12168	91.80	245.8	-24.34	1.7	6.2	69.5
22648514	S3112-PD	24847474-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	169.4	11168	4820	12164	91.81	245.8	-24.34	1.0	3.6	69.5
24847475	24847474-NODE	JJ23479463-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	149.1	11156	4813	12150	91.82	245.5	-24.34	0.9	3.2	69.3
21719901	JJ23479463-NODE	JJ23534197-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	373.5	10843	4673	11807	91.84	238.6	-24.33	2.0	7.5	67.4
21719889	JJ23534197-NODE	FF752-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	2.5	63	27	68	91.99	1.4	-24.14	0.0	0.0	0.4
21719886	FF752-PD	JJ23534201-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	3.8	63	27	68	91.99	1.4	-24.14	0.0	0.0	0.4
21719897	JJ23534197-NODE	24852224-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	225.2	10779	4639	11734	91.85	237.3	-24.34	1.2	4.5	67.0
24852225	24852224-NODE	JJ23267471-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	113.7	10777	4635	11732	91.87	237.3	-24.34	0.6	2.3	67.0
21719824	JJ23267471-NODE	L64-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	43.5	208	88	226	92.13	4.6	-23.96	0.0	0.0	1.3
21719829	L64-PD	JJ23267363-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	0.7	208	88	226	92.13	4.6	-23.97	0.0	0.0	1.3
21796667	JJ23267471-NODE	JJ23267473-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	288.1	10568	4544	11504	91.87	232.7	-24.34	1.5	5.5	65.8
21796635	JJ23267473-NODE	S49-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	300.0	10046	4318	10935	91.87	221.3	-24.36	1.4	5.2	62.6
22622740	S49-PD	24847859-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	406.4	10045	4314	10932	91.89	221.3	-24.36	1.9	7.0	62.6
24847860	24847859-NODE	24852329-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	42.1	10043	4307	10927	91.90	221.3	-24.36	0.2	0.7	62.6
24852330	24852329-NODE	JJ23275923-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	108.9	10043	4306	10927	91.91	221.3	-24.36	0.5	1.9	62.6
22665318	JJ23275923-NODE	JJ23275993-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	17.9	9730	4168	10585	91.92	214.4	-24.35	0.1	0.3	60.7
21721334	JJ23275993-NODE	JJ23299661-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	328.3	8483	3621	9223	91.97	186.8	-24.28	1.1	4.1	53.2
21721325	JJ23299661-NODE	FQ270-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	35.5	104	45	114	91.94	2.3	-24.35	0.0	0.0	0.6
21721321	FQ270-PD	JJ23299667-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	9.1	104	45	114	91.93	2.3	-24.37	0.0	0.0	0.6
22510073	JJ23299661-NODE	JJ23485957-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	142.1	8377	3572	9107	91.99	184.5	-24.28	0.5	1.7	52.5
22510059	JJ23485957-NODE	FQ397-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	40.7	208	88	226	92.08	4.6	-24.14	0.0	0.0	1.3
22510054	FQ397-PD	JJ23485961-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	9.3	208	88	226	92.08	4.6	-24.15	0.0	0.0	1.3
22510069	JJ23485957-NODE	JJ23485959-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	253.3	8168	3482	8880	91.99	179.9	-24.28	0.8	2.9	51.3
22602846	JJ23485959-NODE	JJ23531589-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	196.2	7337	3113	7970	92.06	161.5	-24.20	0.5	1.8	46.2

22602664	JJ23531589-NODE	F3969-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	49.5	208	89	227	92.01	4.6	-24.28	0.0	0.0	1.3
22602657	F3969-PD	JJ23531619-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	2.5	208	89	227	92.00	4.6	-24.29	0.0	0.0	1.3
22602839	JJ23531589-NODE	JJ23531595-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	298.0	7128	3022	7742	92.07	156.9	-24.20	0.7	2.6	45.0
22601721	JJ23531595-NODE	JJ23532693-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	89.9	6919	2932	7514	92.07	152.3	-24.20	0.2	0.7	43.7
22601713	JJ23532693-NODE	JJ23308445-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	167.4	6710	2842	7287	92.08	147.7	-24.19	0.4	1.3	42.5
21720548	JJ23308445-NODE	FQ295-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	39.0	208	89	227	91.92	4.6	-24.43	0.0	0.0	1.3
21720545	FQ295-PD	JJ23308429-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	8.3	208	89	227	91.92	4.6	-24.44	0.0	0.0	1.3
22589314	JJ23308445-NODE	JJ23526979-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	321.0	6501	2751	7060	92.09	143.1	-24.19	0.6	2.3	41.2
22589307	JJ23526979-NODE	FQ468-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	34.3	104	44	113	92.11	2.3	-24.17	0.0	0.0	0.6
22589305	FQ468-PD	JJ23527003-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	2.0	104	44	113	92.10	2.3	-24.19	0.0	0.0	0.6
22589312	JJ23526979-NODE	JJ23307051-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	145.6	6396	2705	6945	92.10	140.8	-24.19	0.3	1.0	40.6
21720765	JJ23307051-NODE	FQ287-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	41.3	312	136	341	91.65	6.9	-24.85	0.0	0.0	1.9
21720762	FQ287-PD	JJ23307073-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	2.6	312	136	341	91.64	6.9	-24.86	0.0	0.0	1.9
22602796	JJ23307051-NODE	JJ23531713-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	98.2	6084	2568	6604	92.13	133.9	-24.16	0.2	0.6	38.7
22602774	JJ23531713-NODE	FQ483-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	34.8	63	27	68	92.01	1.4	-24.33	0.0	0.0	1.1
22602767	FQ483-PD	JJ23531725-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	9.4	63	27	68	91.99	1.4	-24.36	0.0	0.0	1.1
22602788	JJ23531713-NODE	JJ23527489-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	201.0	6021	2541	6535	92.13	132.5	-24.16	0.3	1.3	38.3
22589284	JJ23527489-NODE	FQ469-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	17.9	63	26	68	92.51	1.4	-23.60	0.0	0.0	1.1
22589282	FQ469-PD	JJ23527521-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	5.2	63	26	68	92.50	1.4	-23.61	0.0	0.0	1.1
22589290	JJ23527489-NODE	JJ23385725-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	122.8	5958	2514	6467	92.13	131.2	-24.16	0.2	0.7	37.9
21928267	JJ23385725-NODE	FQ322-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	30.9	63	26	68	92.21	1.4	-24.05	0.0	0.0	0.4
21928260	FQ322-PD	JJ23385735-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	0.7	63	26	68	92.20	1.4	-24.07	0.0	0.0	0.4
21928290	JJ23385725-NODE	JJ23270181-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	265.1	5895	2487	6398	92.13	129.8	-24.17	0.4	1.6	37.5
21720745	JJ23270181-NODE	24852432-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	12.8	4496	1896	4879	92.15	99.0	-24.16	0.0	0.0	29.1
24852443	24852432-NODE	24848766-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	406.6	4496	1896	4879	92.15	99.0	-24.16	0.4	1.4	29.1
21720746	24848766-NODE	JJ23271307-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	143.8	4433	1868	4811	92.15	97.6	-24.17	0.1	0.5	28.7
22638664	JJ23271307-NODE	FQ24-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	23.5	104	45	114	91.81	2.3	-24.67	0.0	0.0	0.6
22638663	FQ24-PD	JJ23271323-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	5.1	104	45	114	91.80	2.3	-24.68	0.0	0.0	0.6
22638665	JJ23271307-NODE	JJ23271305-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	166.5	4328	1823	4697	92.16	95.3	-24.16	0.1	0.5	28.1
21720552	JJ23271305-NODE	S3659-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	244.4	4093	1727	4442	92.14	90.2	-24.20	0.2	0.7	26.7
21720554	S3659-PD	JJ23274043-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	312.1	4093	1726	4442	92.14	90.2	-24.20	0.2	0.9	26.7
21720852	JJ23274043-NODE	24852528-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	311.5	2014	814	2173	92.71	44.1	-23.35	0.1	0.2	14.1
24852529	24852528-NODE	24850339-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	477.6	2014	814	2173	92.71	44.1	-23.36	0.1	0.3	14.1
22589247	24850339-NODE	JJ23528209-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	178.6	976	359	1040	93.85	21.1	-21.55	0.0	0.0	7.8
22589245	JJ23528209-NODE	F3912-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	39.8	208	85	225	92.53	4.6	-23.64	0.0	0.0	1.3
22589243	F3912-PD	JJ23528099-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	329.3	208	85	225	92.52	4.6	-23.65	0.0	0.0	3.5
22589254	JJ23528099-NODE	FQ470-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	26.9	208	86	225	92.47	4.6	-23.72	0.0	0.0	1.3
22589252	FQ470-PD	JJ23528135-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	2.1	208	86	225	92.47	4.6	-23.73	0.0	0.0	1.3
22589258	JJ23528099-NODE	JJ23528101-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	3.0	0	0	0	0.00	0.0	88.65	0.0	0.0	0.0
22589249	JJ23528209-NODE	JJ23524185-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	691.6	767	273	815	94.19	16.5	-20.98	0.0	0.1	6.5
22575982	JJ23524185-NODE	24852504-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	130.1	746	270	794	94.01	16.1	-21.29	0.0	0.0	6.5
24852505	24852504-NODE	JJ23505045-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	13.4	746	271	794	94.01	16.1	-21.30	0.0	0.0	6.5
22555248	JJ23505045-NODE	JJ23276163-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	22.4	385	136	408	94.21	8.3	-20.76	0.0	0.0	3.5
22665257	JJ23276163-NODE	JJ23276183-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	22.0	189	68	201	93.70	4.1	-21.17	0.0	0.0	3.4
22575986	JJ23276183-NODE	JJ23524161-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	148.8	21	7	22	91.86	0.4	-19.47	0.0	0.0	0.4
22575989	JJ23524161-NODE	23222212-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	664.4	0	-1	1	0.00	0.0	88.64	0.0	0.0	0.0
22576005	JJ23524161-NODE	F3898-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	39.2	21	8	22	93.83	1.4	-21.58	0.0	0.0	1.0
24851016	24851036-NODE	F3898-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	1.5	21	8	22	93.82	1.4	-21.60	0.0	0.0	1.0

22665266	JJ23276183-NODE	F2768-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16(	Overhead Line		27.600	29.9	168	61	179	93.94	10.9	-21.38	0.0	0.0	8.2
22665264	F2768-PD	JJ23273459-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16(	Overhead Line		27.600	11.5	168	61	179	93.94	10.9	-21.39	0.0	0.0	8.2
22665272	JJ23276163-NODE	F2769-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16(	Overhead Line		27.600	20.5	196	68	207	94.52	12.6	-20.38	0.0	0.0	9.6
22665270	F2769-PD	JJ23276173-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16(	Overhead Line		27.600	9.8	196	68	207	94.52	12.6	-20.38	0.0	0.0	9.6
22555266	JJ23505045-NODE	F2770-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16(	Overhead Line		27.600	31.7	361	135	386	93.69	23.5	-21.87	0.0	0.0	17.8
22555257	F2770-PD	JJ23273355-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16(	Overhead Line		27.600	10.4	361	135	386	93.69	23.5	-21.87	0.0	0.0	17.8
22575993	JJ23524185-NODE	F3899-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16(	Overhead Line		27.600	36.1	21	4	21	98.48	1.3	-11.34	0.0	0.0	1.0
22575997	F3899-PD	JJ23524175-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16(	Overhead Line		27.600	19.1	21	4	21	98.47	1.3	-11.36	0.0	0.0	1.0
22666096	24850339-NODE	S2765-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	20.8	1039	456	1134	91.57	23.0	-25.04	0.0	0.0	6.5
21720905	S2765-PD	JJ23306085-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	57.3	1039	456	1134	91.57	23.0	-25.04	0.0	0.0	6.5
22577159	JJ23306085-NODE	S3957-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	15.4	1039	456	1134	91.57	23.0	-25.05	0.0	0.0	17.6
22577142	S3957-PD	F3875-PD	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	34.7	1039	456	1134	91.57	23.0	-25.05	0.0	0.0	6.0
22577150	F3875-PD	JJ23521861-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	57.9	1039	456	1134	91.57	23.0	-25.05	0.0	0.0	17.6
22577119	JJ23521861-NODE	S3958-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	9.8	830	367	908	91.46	18.4	-25.20	0.0	0.0	14.1
22576165	S3958-PD	S3968-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	184.7	830	367	908	91.46	18.4	-25.20	0.0	0.0	14.1
22576157	S3968-PD	JJ23521917-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	29.4	830	367	908	91.45	18.4	-25.21	0.0	0.0	14.1
22666155	JJ23274043-NODE	S2702-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	24.0	2078	912	2269	91.58	46.1	-25.03	0.0	0.0	12.9
24852828	S2702-PD	S45-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	32.3	2078	912	2269	91.58	46.1	-25.03	0.0	0.0	35.2
24852855	S45-PD	F2979-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	26.8	2078	912	2269	91.58	46.1	-25.03	0.0	0.0	35.2
24852863	F2979-PD	JJ23274063-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	4.7	2078	912	2269	91.58	46.1	-25.03	0.0	0.0	35.2
22681221	JJ23271305-NODE	F4452-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	22.3	235	96	254	92.63	5.2	-23.46	0.0	0.0	1.5
22681217	F4452-PD	26785597-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	84.6	235	96	254	92.63	5.2	-23.46	0.0	0.0	1.5
22618496	26785597-NODE	FQ13-PD	556KCMIL_ACSR_DOVE_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	23.8	63	27	68	91.88	1.4	-24.57	0.0	0.0	0.4
22618494	FQ13-PD	JJ23263819-NODE	556KCMIL_ACSR_DOVE_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	2.5	63	27	68	91.87	1.4	-24.59	0.0	0.0	0.4
26785598	26785597-NODE	27311295-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	118.1	172	69	186	92.88	3.8	-23.08	0.0	0.0	1.1
27311296	27311295-NODE	27223100-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	100.0	110	45	119	92.41	2.4	-23.79	0.0	0.0	0.7
27223101	27223100-NODE	JJ23274307-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	295.3	110	45	119	92.38	2.4	-23.84	0.0	0.0	0.7
25299757	JJ23274307-NODE	JJ23274267-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	414.8	110	46	119	92.28	2.4	-23.98	0.0	0.0	0.7
22666078	JJ23274267-NODE	JJ23274265-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	95.7	104	44	113	92.16	2.3	-24.16	0.0	0.0	0.6
22666069	JJ23274265-NODE	FQ169-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	2.3	104	44	113	92.13	2.3	-24.20	0.0	0.0	0.6
22666049	FQ169-PD	JJ23274273-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	19.4	104	44	113	92.13	2.3	-24.20	0.0	0.0	0.6
27133659	JJ23274267-NODE	22676348-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16(	Overhead Line		27.600	9.1	5	2	6	91.86	0.3	-24.58	0.0	0.0	0.3
21720792	24848766-NODE	FQ284-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	22.0	63	26	68	92.23	1.4	-24.04	0.0	0.0	0.4
24848863	FQ284-PD	24848823-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	1.1	63	26	68	92.22	1.4	-24.06	0.0	0.0	1.1
22602884	JJ23270181-NODE	JJ23531529-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1004.3	376	157	407	92.29	8.3	-23.94	0.0	0.0	2.3
22602864	JJ23531529-NODE	FQ482-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	4.2	104	42	113	92.65	2.3	-23.40	0.0	0.0	0.6
22602859	FQ482-PD	JJ23531535-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	22.5	104	42	113	92.65	2.3	-23.41	0.0	0.0	0.6
22602877	JJ23531529-NODE	JJ23498287-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	141.7	271	115	295	92.03	6.0	-24.34	0.0	0.0	1.7
22541441	JJ23498287-NODE	FQ401-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	10.9	208	90	227	91.88	4.6	-24.56	0.0	0.0	1.3
22541438	FQ401-PD	JJ23498301-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.9	208	90	227	91.87	4.6	-24.56	0.0	0.0	1.3
22541447	JJ23498287-NODE	24808414-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	465.7	63	26	68	92.45	1.4	-23.72	0.0	0.0	0.4
24808415	24808414-NODE	23258408-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	130.1	0	0	0	0.00	0.0	88.70	0.0	0.0	0.0
24808441	24808414-NODE	FQ446-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	3.3	63	27	68	92.11	1.4	-24.21	0.0	0.0	0.4
24808451	FQ446-PD	24808450-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	19.2	63	27	68	92.11	1.4	-24.21	0.0	0.0	0.4
22640354	JJ23270181-NODE	JJ23270179-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	110.6	1023	434	1111	92.06	22.5	-24.28	0.0	0.0	6.3
22640357	JJ23270179-NODE	JJ23270177-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	151.9	1023	434	1111	92.06	22.5	-24.28	0.0	0.0	6.3
22665185	JJ23270177-NODE	S167-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	169.3	1023	434	1111	92.06	22.5	-24.29	0.0	0.0	6.3
22665189	S167-PD	JJ23276425-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	64.1	1023	434	1111	92.05	22.5	-24.30	0.0	0.0	6.3

22665077	JJ23276425-NODE	JJ23276789-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	288.0	960	408	1043	92.05	21.2	-24.31	0.0	0.0	5.9
21695275	JJ23276789-NODE	JJ23292573-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	160.0	897	383	975	91.98	19.8	-24.41	0.0	0.0	5.5
21695237	JJ23292573-NODE	25060463-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	174.9	793	338	862	91.99	17.5	-24.40	0.0	0.0	4.9
25060464	25060463-NODE	JJ23295327-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	744.2	584	249	635	92.01	12.9	-24.37	0.0	0.0	3.6
21694921	JJ23295327-NODE	FQ211-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	31.0	63	27	68	92.03	1.4	-24.34	0.0	0.0	0.4
21694920	FQ211-PD	JJ23295355-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.4	63	27	68	92.01	1.4	-24.37	0.0	0.0	0.4
21694922	JJ23295327-NODE	JJ23295321-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	33.1	521	223	567	91.96	11.5	-24.45	0.0	0.0	3.2
21694923	JJ23295321-NODE	JJ23294321-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	313.1	313	133	340	92.06	6.9	-24.30	0.0	0.0	1.9
21695116	JJ23294321-NODE	JJ23294317-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	482.6	313	133	340	92.01	6.9	-24.38	0.0	0.0	1.9
21695109	JJ23294317-NODE	FQ217-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	26.0	208	90	227	91.88	4.6	-24.56	0.0	0.0	1.3
21695121	JJ23294317-NODE	JJ23291775-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	140.3	104	44	113	92.10	2.3	-24.24	0.0	0.0	0.6
21695549	JJ23291775-NODE	FQ207-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	24.3	104	45	114	91.81	2.3	-24.66	0.0	0.0	0.6
21695543	FQ207-PD	JJ23291795-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.8	104	45	114	91.80	2.3	-24.67	0.0	0.0	0.6
21695555	JJ23291775-NODE	23258524-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	697.4	0	-1	1	0.00	0.0	88.69	0.0	0.0	0.0
24632936	JJ23294321-NODE	24632958-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	149.0	0	0	0	0.00	0.0	88.69	0.0	0.0	0.0
24774315	JJ23295321-NODE	S4171-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	305.6	208	90	227	91.80	4.6	-24.67	0.0	0.0	3.5
21779713	S4171-PD	S32-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	55.6	208	90	227	91.76	4.6	-24.74	0.0	0.0	1.3
22666846	S32-PD	FQ89-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	6.5	208	90	227	91.75	4.6	-24.75	0.0	0.0	3.5
22666843	FQ89-PD	JJ23272463-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	19.3	208	90	227	91.75	4.6	-24.75	0.0	0.0	3.5
25060472	25060463-NODE	FQ516-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	37.6	208	89	227	91.90	4.6	-24.53	0.0	0.0	3.5
21695273	JJ23292573-NODE	FQ208-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	37.3	104	45	114	91.87	2.3	-24.56	0.0	0.0	0.6
21695272	FQ208-PD	JJ23292595-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	51.8	104	45	114	91.86	2.3	-24.58	0.0	0.0	0.6
22665071	JJ23276789-NODE	FQ197-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	9.7	63	25	68	92.84	1.4	-23.11	0.0	0.0	0.4
24849046	FQ197-PD	JJ23276799-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	3.2	63	25	68	92.84	1.4	-23.12	0.0	0.0	1.0
24774568	JJ23532693-NODE	FQ495-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	29.4	208	90	227	91.88	4.6	-24.49	0.0	0.0	3.5
24774555	FQ495-PD	24774544-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.2	208	90	227	91.87	4.6	-24.50	0.0	0.0	3.5
22602680	JJ23531595-NODE	F3968-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	33.9	208	88	226	92.12	4.6	-24.13	0.0	0.0	1.3
22602672	F3968-PD	JJ23531607-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	2.0	208	88	226	92.12	4.6	-24.14	0.0	0.0	1.3
24848330	JJ23485959-NODE	S3043-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	66.6	831	367	908	91.47	18.4	-25.04	0.0	0.0	5.2
22666170	S3043-PD	S50-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	133.7	831	367	908	91.47	18.4	-25.05	0.0	0.0	5.2
21779624	S50-PD	26977957-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	24.0	831	367	908	91.46	18.4	-25.06	0.0	0.0	14.1
26977964	26977957-NODE	JJ23263261-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	23.1	831	367	908	91.46	18.4	-25.06	0.0	0.0	14.1
22666214	JJ23263261-NODE	FQ60-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	5.8	415	184	454	91.45	9.2	-25.08	0.0	0.0	7.0
22666216	JJ23263261-NODE	FQ66-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	23.2	416	184	454	91.47	9.2	-25.04	0.0	0.0	7.0
22665316	JJ23275993-NODE	S3192-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	26.6	1247	548	1362	91.56	27.6	-24.87	0.0	0.0	7.7
22665314	S3192-PD	JJ23275879-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	3.8	1247	548	1362	91.56	27.6	-24.87	0.0	0.0	7.7
22665362	JJ23275879-NODE	S3102-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	52.5	1247	548	1362	91.56	27.6	-24.87	0.0	0.0	21.1
22665358	S3102-PD	F3489-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	57.7	1247	548	1362	91.56	27.6	-24.87	0.0	0.0	21.1
22665353	F3489-PD	JJ23275907-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	85.4	1247	548	1362	91.56	27.6	-24.87	0.0	0.0	21.1
22665346	JJ23275923-NODE	S655-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	52.2	312	136	340	91.67	6.9	-24.72	0.0	0.0	1.9
22665337	S655-PD	JJ23275933-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.7	312	136	341	91.66	6.9	-24.73	0.0	0.0	1.9
22665328	JJ23275933-NODE	S3191-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	26.7	312	136	341	91.66	6.9	-24.73	0.0	0.0	5.3
22665324	S3191-PD	FQ51-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	37.8	312	136	341	91.66	6.9	-24.73	0.0	0.0	5.3
22665322	FQ51-PD	JJ23275971-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	62.6	312	136	341	91.65	6.9	-24.74	0.0	0.0	5.3
21796829	JJ23267473-NODE	JJ23267347-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	307.8	521	221	565	92.07	11.4	-24.07	0.0	0.0	3.2
21796820	JJ23267347-NODE	JJ23267353-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	151.7	208	84	225	92.81	4.5	-22.95	0.0	0.0	1.3
22533354	JJ23267353-NODE	24811906-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	451.6	208	84	225	92.79	4.5	-22.99	0.0	0.0	1.3
24701511	24811906-NODE	FF808-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	7.2	208	85	225	92.66	4.6	-23.20	0.0	0.0	3.5

24811815	FF808-PD	24811801-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	19.3	208	85	225	92.66	4.6	-23.20	0.0	0.0	3.5
24811907	24811906-NODE	JJ23435597-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	347.8	0	0	0	0.00	0.0	88.90	0.0	0.0	0.0
22621645	JJ23267347-NODE	S3630-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	19.2	312	137	341	91.52	6.9	-24.86	0.0	0.0	1.9
22621641	S3630-PD	JJ23267359-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.5	312	137	341	91.52	6.9	-24.87	0.0	0.0	1.9
21796816	JJ23267359-NODE	S629-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	23.8	312	137	341	91.52	6.9	-24.87	0.0	0.0	5.3
22536559	S629-PD	FF335-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	21.1	312	137	341	91.52	6.9	-24.87	0.0	0.0	5.3
22536556	FF335-PD	JJ23429365-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	1.7	312	137	341	91.52	6.9	-24.87	0.0	0.0	5.3
22622788	JJ23479463-NODE	FF651-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	4.7	312	137	341	91.58	6.9	-24.70	0.0	0.0	1.9
22622783	FF651-PD	JJ23479441-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	1.4	312	137	341	91.58	6.9	-24.70	0.0	0.0	1.9
24847504	24847474-NODE	22665800-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16(	Overhead Line		27.600	9.2	10	4	11	91.80	0.7	-24.40	0.0	0.0	0.5
22536520	JJ23267367-NODE	JJ23429565-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	301.8	624	272	680	91.65	13.7	-24.54	0.0	0.0	3.9
22536517	JJ23429565-NODE	23224219-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	271.4	0	0	0	0.00	0.0	89.03	0.0	0.0	0.0
22536523	JJ23429565-NODE	23252671-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	4.8	624	273	681	91.62	13.7	-24.59	0.0	0.0	3.9
21775211	23252671-NODE	S4044-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	5.8	624	273	681	91.62	13.7	-24.59	0.0	0.0	3.9
21775218	S4044-PD	S652-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.6	27.600	204.8	624	273	681	91.62	13.7	-24.59	0.0	0.0	10.5
22536514	S652-PD	FF561-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.6	27.600	23.0	624	273	681	91.61	13.7	-24.61	0.0	0.0	10.5
22536511	FF561-PD	JJ23429613-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.6	27.600	21.0	624	273	681	91.61	13.7	-24.61	0.0	0.0	10.5
22536482	JJ23267365-NODE	JJ23429769-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	7.3	208	87	226	92.24	4.6	-23.66	0.0	0.0	1.3
22559593	JJ23429769-NODE	S3285-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	7.1	208	87	226	92.24	4.6	-23.66	0.0	0.0	1.3
22559603	S3285-PD	F19-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	21.5	208	87	226	92.24	4.6	-23.67	0.0	0.0	1.3
22536541	F19-PD	JJ23429445-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	24.0	208	87	226	92.24	4.6	-23.67	0.0	0.0	1.3
21754174	JJ23535805-NODE	F3904-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	12.4	417	179	453	91.90	9.1	-24.13	0.0	0.0	2.6
21754169	F3904-PD	JJ23535813-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	19.1	417	179	453	91.90	9.1	-24.13	0.0	0.0	2.6
21775971	JJ23544661-NODE	FF788-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	3.6	312	137	341	91.54	6.9	-24.58	0.0	0.0	1.9
24784631	FF788-PD	JJ23544677-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	19.0	312	137	341	91.53	6.9	-24.58	0.0	0.0	1.9
22735262	JJ23519371-NODE	FE765-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	42.8	208	84	225	92.69	4.5	-22.47	0.0	0.0	1.3
22735257	FE765-PD	JJ23548523-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	2.8	208	84	225	92.68	4.5	-22.48	0.0	0.0	1.3
22735241	JJ23548727-NODE	JJ23548533-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	808.9	104	44	113	92.25	2.3	-23.12	0.0	0.0	0.6
22735228	JJ23548533-NODE	FE784-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	2.5	104	45	114	91.97	2.3	-23.53	0.0	0.0	0.6
22735222	FE784-PD	24846228-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	18.9	104	45	114	91.97	2.3	-23.54	0.0	0.0	0.6
22721980	JJ23537131-NODE	JJ23542487-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	253.8	832	364	909	91.61	18.2	-24.00	0.0	0.0	5.1
22721975	JJ23542487-NODE	FE749-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	30.8	312	138	341	91.50	6.8	-24.16	0.0	0.0	1.9
22721973	FE749-PD	JJ23542495-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	22.1	312	138	341	91.49	6.8	-24.16	0.0	0.0	1.9
22721982	JJ23542487-NODE	JJ23475827-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	313.3	520	227	568	91.66	11.4	-23.93	0.0	0.0	3.2
22517676	JJ23475827-NODE	L110-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	55.0	208	91	227	91.56	4.6	-24.06	0.0	0.0	1.3
21912613	L110-PD	S193-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	169.5	208	91	227	91.55	4.6	-24.08	0.0	0.0	1.3
22518118	S193-PD	FE590-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.8	27.600	41.8	208	92	227	91.52	4.6	-24.12	0.0	0.0	3.5
22518111	FE590-PD	JJ23474539-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.8	27.600	23.7	208	92	227	91.52	4.6	-24.13	0.0	0.0	3.5
22517706	JJ23475827-NODE	JJ23475805-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	156.3	312	136	340	91.69	6.8	-23.89	0.0	0.0	1.9
22517712	JJ23475805-NODE	JJ23475807-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	587.4	312	136	341	91.67	6.8	-23.91	0.0	0.0	1.9
22517703	JJ23475807-NODE	L254-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	104.9	312	137	341	91.60	6.8	-24.01	0.0	0.0	1.9
22517700	L254-PD	S651-PD	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	28.8	27.600	48.9	312	137	341	91.59	6.8	-24.03	0.0	0.0	1.8
22517697	S651-PD	FE440-PD	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	28.8	27.600	21.4	312	137	341	91.58	6.8	-24.04	0.0	0.0	1.8
22517694	FE440-PD	JJ23475897-NODE	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	28.8	27.600	24.8	312	137	341	91.58	6.8	-24.04	0.0	0.0	1.8
24777896	JJ23547039-NODE	23234551-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	631.0	0	-1	1	0.00	0.0	89.79	0.0	0.0	0.0
22705654	JJ23547101-NODE	23249199-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	208.3	0	0	0	0.00	0.0	89.80	0.0	0.0	0.0
22541142	JJ23489351-NODE	FE572-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	64.3	104	44	113	92.23	2.3	-22.90	0.0	0.0	0.6
22541139	FE572-PD	JJ23489337-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	3.4	104	44	113	92.21	2.3	-22.93	0.0	0.0	0.6

26329741	26681489-NODE	FE913-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27(	Overhead Line	28.9	27.600	27.4	63	26	68	92.16	1.4	-22.97	0.0	0.0	1.0
26948938	JJ23551385-NODE	FE806-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	15.1	63	26	68	92.20	1.4	-22.87	0.0	0.0	0.4
24230647	JJ23551387-NODE	24230632-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27(	Overhead Line	28.9	27.600	10.5	62	27	68	91.71	1.4	-23.57	0.0	0.0	1.0

Load Flow - Summary Report (280M6)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI-aak.sxst
Date	Mon Apr 03 2023
Time	14h58m02s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	20385.09	5851.40	21208.27	96.12
Load used (Adjusted)	20383.00	5850.76	21206.09	96.12
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**20383.00**	**5850.76**	**21206.09**	**96.12**
Cable Capacitance	0.00	-603.42	603.42	0.00
Line Capacitance	0.00	-111.76	111.76	0.00
Total Shunt Capacitance	**0.00**	**-715.18**	**715.18**	**0.00**
Line Losses	371.85	1306.11	1358.01	27.38
Cable Losses	26.11	17.98	31.71	82.36
Transformer Load Losses	115.64	536.90	549.22	21.06
Transformer No-Load Losses	170.78	0.00	170.78	100.00
Total Losses	**684.38**	**1861.00**	**1982.85**	**34.52**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (º)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25018353	25018130-NODE	25018167-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	6.5	1123	331	1170	95.91	49.3	7.99	0.0	0.0	9.9
24579468	25018167-NODE	JJ23307803-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	56.2	1123	331	1170	95.91	49.3	7.99	0.0	0.0	19.8
24577851	JJ23307803-NODE	S3363-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	6.8	1123	331	1170	95.91	49.3	7.97	0.0	0.0	19.8
24577881	S3363-PD	24577880-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	8.2	1123	331	1171	95.90	49.3	7.97	0.0	0.0	19.8
24577901	24577880-NODE	S3366-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	6.6	1123	331	1171	95.90	49.3	7.96	0.0	0.0	19.8
24577909	S3366-PD	24578009-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	7.8	1123	331	1171	95.90	49.3	7.96	0.0	0.0	19.8
22056645	24578009-NODE	S1330-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	179.0	1123	331	1171	95.90	49.3	7.96	0.1	0.1	19.8
25369765	FAG43-PD	TO FAG43-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	122.8	12	3	13	96.41	1.7	8.04	0.0	0.0	0.9
23594446	FAG33-PD	TO FAG33-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	90.1	12	3	13	96.34	1.7	7.89	0.0	0.0	0.9
23594359	FAG45-PD	TO FAG45-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	236.7	12	3	13	96.64	1.7	8.53	0.0	0.0	0.9
21988698	JJ23292841-NODE	TO FAG47-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	63.4	12	3	13	96.29	1.7	7.75	0.0	0.0	0.9
21988012	JJ23293149-NODE	FAG46-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	26.8	12	3	13	96.71	1.7	8.66	0.0	0.0	0.9
26714740	FAG46-PD	TO FAG46-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	245.6	12	3	13	96.65	1.7	8.54	0.0	0.0	0.9
21990903	FAG41-PD	TO FAG41-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	367.4	12	3	13	96.89	1.7	9.08	0.0	0.0	0.9
26308689	FAG38-PD	TO FAG38-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	344.4	12	3	13	96.73	1.7	8.72	0.0	0.0	1.2
21881602	JJ23271399-NODE	TO FAC39-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.6	13.800	180.8	76	22	79	96.06	3.4	7.81	0.0	0.0	2.3
23607595	FAD8-PD	23607582-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1.2	12	2	13	98.26	1.6	13.19	0.0	0.0	0.9
23607583	23607582-NODE	23607619-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1140.9	12	2	13	98.26	1.6	13.18	0.0	0.0	0.9
23607631	23607619-NODE	TO FAD8-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.2	12	4	13	96.18	1.7	7.99	0.0	0.0	0.9
23609314	FAD2-PD	23609279-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.5	11	3	12	96.63	1.5	7.82	0.0	0.0	0.8
23609280	23609279-NODE	TO FAD2-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	277.4	11	3	12	96.60	1.5	7.76	0.0	0.0	0.8
21755128	JJ23504837-NODE	TO FAD76-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	707.1	15	4	16	97.12	2.0	8.51	0.0	0.0	1.1
26539680	FAK73-PD	TO FAK73-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	395.4	8	2	8	97.04	1.0	8.21	0.0	0.0	0.7
22373904	JJ23432741-NODE	TO FAE38-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	360.5	11	3	12	96.76	1.5	7.58	0.0	0.0	0.8
26876032	FAD80-PD	TO FAD80-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	457.1	15	4	16	96.74	2.0	7.68	0.0	0.0	1.1
23607146	FX7-PD	23607137-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	19.2	14	4	15	96.35	1.9	7.29	0.0	0.0	1.1
23607138	23607137-NODE	TO FX7-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	339.2	14	4	15	96.32	1.9	7.21	0.0	0.0	1.1
22200253	FX68-PD	TO FX68-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	748.6	12	3	13	97.60	1.6	11.39	0.0	0.0	0.9
21987075	FY25-PD	TO FY25-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.6	13.800	62.0	21	6	22	96.44	0.9	8.52	0.0	0.0	0.9
21990059	JJ23291885-NODE	TO F1109-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	277.1	12	3	13	97.84	1.6	11.89	0.0	0.0	0.9
23618861	TO F1109-PD	23176989-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	601.2	0	-1	1	0.00	0.1	113.82	0.0	0.0	0.0
23618951	FAK53-PD	23618942-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	47.5	12	3	13	96.31	1.7	8.21	0.0	0.0	0.9
23618933	23618942-NODE	TO FAK53-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	25.6	12	4	13	96.21	1.7	8.00	0.0	0.0	0.9
22352550	FAK79-PD	TO FAK79-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	241.9	12	3	13	96.58	1.7	8.78	0.0	0.0	1.2
21990071	JJ23291879-NODE	23176989-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	864.2	12	3	13	97.82	1.6	11.82	0.0	0.0	0.9
24577919	24577880-NODE	24577918-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	16.2	0	0	0	0.00	0.0	114.47	0.0	0.0	0.0
24577929	24577918-NODE	25694964-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	14.2	0	0	0	0.00	0.0	114.47	0.0	0.0	0.0
25694965	25694964-NODE	24577928-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	7.3	0	0	0	0.00	0.0	114.47	0.0	0.0	0.0
24577949	24577918-NODE	24577939-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	8.2	0	0	0	0.00	0.0	114.47	0.0	0.0	0.0
25018361	25018136-NODE	25018177-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	6.6	1597	448	1658	96.27	69.9	8.82	0.0	0.0	14.0
25712126	25018177-NODE	S3362-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	96.5	1597	449	1658	96.27	69.9	8.82	0.1	0.1	27.9
22054284	JJ23316685-NODE	JJ23314097-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.7	13.800	114.9	1589	446	1651	96.28	69.6	8.80	0.3	0.1	54.5
22205984	JJ23346093-NODE	TO FAH112-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	755.2	13	3	14	97.18	1.7	10.66	0.0	0.0	0.9
25452491	25452472-NODE	FAK86-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	28.8	13	3	14	97.25	1.7	10.83	0.0	0.0	1.2
25452499	FAK86-PD	TO FAK86-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	925.7	13	3	14	97.21	1.7	10.72	0.0	0.0	1.2
24579818	24579817-NODE	TO F3144-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	345.2	31	9	32	96.39	4.1	8.86	0.0	0.0	2.3
22055857	TO F3144-PD	TO AQ68-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	276.2	22	6	23	96.29	2.9	8.65	0.0	0.0	1.6

27084059	TO AQ68-PD	JJ23310015-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.2	22	7	23	95.96	2.9	7.95	0.0	0.0	1.6
24761538	JJ23310015-NODE	27083995-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.3	22	7	23	95.94	2.9	7.92	0.0	0.0	1.6
22055876	27083995-NODE	TO AQ67-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.9	13	4	14	95.91	1.8	7.85	0.0	0.0	1.0
27084051	TO AQ67-PD	23177249-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	147.2	13	4	14	95.89	1.8	7.81	0.0	0.0	1.0
27083996	27083995-NODE	JJ23310003-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.5	9	3	9	95.97	1.2	7.98	0.0	0.0	0.7
24761545	JJ23310003-NODE	TO AQ44-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.7	9	3	9	95.95	1.2	7.93	0.0	0.0	0.7
27084043	TO AQ44-PD	JJ23309977-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	80.6	9	3	9	95.92	1.2	7.87	0.0	0.0	0.7
21983432	JJ23298309-NODE	TO F3152-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	159.4	16	4	17	96.46	2.1	9.01	0.0	0.0	1.2
22050280	TO F3152-PD	JJ23298291-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	282.7	7	2	7	96.95	0.9	10.12	0.0	0.0	0.5
21878292	JJ23273751-NODE	TO F209-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	470.0	82	20	84	97.16	10.8	9.79	0.0	0.0	6.0
25212024	TO F209-PD	JJ23292477-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	453.5	65	16	67	97.23	8.5	9.97	0.0	0.0	4.7
21987178	JJ23292477-NODE	TO TX AP96-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	331.3	65	16	67	97.07	8.5	9.58	0.0	0.0	4.7
21989189	TO TX AP96-PD	JJ23292485-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	324.3	48	12	49	97.21	6.3	9.91	0.0	0.0	3.5
22056013	JJ23292485-NODE	TO AP95-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	74.4	48	12	49	97.05	6.3	9.53	0.0	0.0	3.5
26734154	TO AP95-PD	26733583-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.2	48	12	49	97.01	6.3	9.44	0.0	0.0	3.5
26733584	26733583-NODE	26734140-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.2	48	12	49	97.01	6.3	9.43	0.0	0.0	3.5
22056051	26734140-NODE	TO F1598-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.3	22	6	23	96.54	3.0	8.36	0.0	0.0	1.6
26734193	TO F1598-PD	JJ23293621-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.7	22	6	23	96.53	3.0	8.35	0.0	0.0	1.6
21987159	JJ23293621-NODE	F1598-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	94.4	22	6	23	96.51	3.0	8.30	0.0	0.0	1.6
21987143	F1598-PD	JJ23292395-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	25.9	22	6	23	96.40	3.0	8.06	0.0	0.0	1.6
26734141	26734140-NODE	26733582-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.3	25	6	26	97.39	3.4	10.36	0.0	0.0	1.9
21989359	26733582-NODE	TO AP9-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.4	25	6	26	97.38	3.4	10.34	0.0	0.0	1.9
26734176	TO AP9-PD	TO TO AP9-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	191.9	25	6	26	97.37	3.4	10.32	0.0	0.0	1.9
25217788	TO TO AP9-PD	23176934-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1066.5	17	4	17	97.67	2.2	11.09	0.0	0.0	1.2
21990265	JJ23291697-NODE	TO F1053-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	311.7	53	14	54	96.47	6.9	9.00	0.0	0.0	3.8
21990238	TO F1053-PD	24761035-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	475.6	39	11	41	96.52	5.1	9.11	0.0	0.0	2.9
24761043	24761035-NODE	TO TX AN103-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.6	39	11	41	96.19	5.2	8.41	0.0	0.0	2.9
24761063	TO TX AN103-PD	24761055-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.7	26	7	27	96.43	3.4	8.92	0.0	0.0	1.9
24761056	24761055-NODE	TO TX AN102-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	152.1	26	7	27	96.42	3.4	8.88	0.0	0.0	1.9
21990205	TO TX AN102-PD	23177184-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	558.2	13	3	14	96.82	1.7	9.78	0.0	0.0	0.9
22352532	JJ23407121-NODE	TO FAN143-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	377.3	17	4	18	96.73	2.3	8.68	0.0	0.0	1.3
21990140	F1052-PD	TO F1052-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	398.2	53	14	54	96.80	6.8	9.77	0.0	0.0	3.8
21990152	TO F1052-PD	24762937-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	469.6	39	10	41	96.90	5.1	9.99	0.0	0.0	2.8
24762945	24762937-NODE	TO TX AN96-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	27.7	39	11	41	96.59	5.1	9.29	0.0	0.0	2.9
24762962	TO TX AN96-PD	24762954-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	24.6	26	7	27	97.00	3.4	10.21	0.0	0.0	1.9
24762955	24762954-NODE	24762972-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	201.5	26	7	27	96.97	3.4	10.16	0.0	0.0	1.9
24762980	24762972-NODE	TO TX AN97-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	16.8	26	7	27	96.78	3.4	9.71	0.0	0.0	1.9
21990178	TO TX AN97-PD	24763006-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	628.6	13	3	13	97.72	1.7	12.03	0.0	0.0	0.9
24763014	TO TX AN98-PD	24763006-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	28.2	13	4	14	96.56	1.7	9.21	0.0	0.0	1.0
24763030	24763022-NODE	TO TX AN98-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	25.1	0	0	0	0.00	0.1	114.29	0.0	0.0	0.0
21990193	23177184-NODE	24763022-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	369.8	0	0	0	0.00	0.1	114.29	0.0	0.0	0.0
25895845	FAN43-PD	TO FAN43-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	13.6	13.800	19.2	1	0	1	-99.82	0.0	27.28	0.0	0.0	0.0
21989343	JJ23292377-NODE	TO TX AP106-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	271.7	94	22	96	97.34	12.3	9.97	0.0	0.0	6.8
24763508	24763507-NODE	TO TX AP106-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	590.3	85	20	87	97.37	11.2	10.06	0.0	0.0	6.2
24763515	TO TX AP105-PD	24763507-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	18.7	85	20	87	97.22	11.2	9.66	0.0	0.0	6.2
24763499	24763487-NODE	TO TX AP105-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.3	68	16	70	97.45	9.0	10.25	0.0	0.0	5.0
21989223	TO TX AP104-PD	24763487-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1551.7	68	16	70	97.45	9.0	10.24	0.0	0.0	5.0
21989241	JJ23292461-NODE	TO TX AP104-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	411.2	51	12	52	97.15	6.7	9.52	0.0	0.0	3.7

24763439	TO TX AP103-PD	JJ23292461-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.5	51	13	53	96.96	6.7	9.06	0.0	0.0	3.7
24763429	24763420-NODE	TO TX AP103-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.5	34	8	35	97.33	4.5	9.95	0.0	0.0	2.5
21989253	TO TX AP102-PD	24763420-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	679.5	34	8	35	97.32	4.5	9.92	0.0	0.0	2.5
24763406	24763386-NODE	TO TX AP102-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.3	17	4	17	97.48	2.2	10.34	0.0	0.0	1.2
21989268	TO TX AP101-PD	24763386-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	472.4	17	4	17	97.47	2.2	10.29	0.0	0.0	1.2
24763372	24763364-NODE	TO TX AP101-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	24.3	0	0	0	0.00	0.1	113.22	0.0	0.0	0.0
21989281	23176934-NODE	24763364-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	418.7	0	0	0	0.00	0.1	113.22	0.0	0.0	0.0
24867577	JJ23292287-NODE	24867401-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	188.6	10	3	10	96.39	1.3	8.88	0.0	0.0	0.7
24867402	24867401-NODE	TO FAN92-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	69.2	10	3	10	95.86	1.3	7.77	0.0	0.0	0.7
26966031	JJ23292175-NODE	TO FAN88-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	289.3	10	3	10	96.48	1.3	9.06	0.0	0.0	0.7
21989529	21906886-NODE	TO FAN20-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	133.0	13	4	13	96.42	1.7	7.76	0.0	0.0	0.9
26746990	F164-PD	TO F164-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	309.1	17	4	17	97.24	2.2	9.64	0.0	0.0	1.2
21989721	23176974-NODE	TO F164-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	430.7	0	0	0	0.00	0.1	113.14	0.0	0.0	0.0
21989753	F163-PD	23176974-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	684.1	17	4	17	97.16	2.2	9.45	0.0	0.0	1.2
22292916	JJ23378379-NODE	TO FAN142-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	440.7	18	5	18	96.25	2.4	8.24	0.0	0.0	1.3
24511965	JJ23277971-NODE	21909996-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.6	4	1	5	95.72	0.6	7.13	0.0	0.0	0.3
22200332	JJ23353191-NODE	TO FAN140-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	121.6	9	3	9	95.95	1.2	7.58	0.0	0.0	0.7
22200340	FAN87-PD	TO FAN87-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	491.5	13	4	14	96.55	1.8	8.84	0.0	0.0	1.0
24510801	JJ23273793-NODE	21909295-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.2	4	1	5	95.71	0.6	7.12	0.0	0.0	0.3
26093942	JJ23290227-NODE	F603-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	20.8	35	9	37	96.79	4.7	9.43	0.0	0.0	3.4
26093901	F603-PD	TO F603-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	927.1	35	9	37	96.78	4.7	9.40	0.0	0.0	2.6
22057991	TO F603-PD	23179379-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	696.3	18	5	18	96.61	2.4	9.04	0.0	0.0	1.3
26093923	JJ23290187-NODE	F1201-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	25.5	18	4	18	97.58	2.3	11.37	0.0	0.0	1.7
22058007	F1201-PD	TO F1201-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	1361.4	18	4	18	97.56	2.3	11.30	0.0	0.0	1.7
22057970	TO F1201-PD	23179379-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	285.9	0	0	0	0.00	0.0	113.99	0.0	0.0	0.0
21879166	JJ23272633-NODE	TO FAP99-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	302.3	17	5	18	96.61	2.3	8.36	0.0	0.0	1.3
25382003	FAP98-PD	TO FAP98-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	55.3	17	5	18	96.24	2.3	7.58	0.0	0.0	1.3
21879150	JJ23272649-NODE	24763197-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	22.2	17	5	18	96.21	2.3	7.60	0.0	0.0	1.3
24763206	24763197-NODE	TO FAP97-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.9	17	5	18	96.17	2.3	7.53	0.0	0.0	1.3
22206305	JJ23345337-NODE	TO F3550-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.6	13.800	1020.7	96	17	98	98.38	4.1	13.84	0.0	0.0	1.3
27085029	TO F3550-PD	27084994-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.6	13.800	12.5	96	22	99	97.43	4.2	11.12	0.0	0.0	1.3
27084995	27084994-NODE	JJ23345339-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.6	13.800	6.1	96	22	99	97.41	4.2	11.09	0.0	0.0	1.3
25369953	JJ23345339-NODE	27085004-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.6	13.800	6.9	48	8	49	98.49	2.1	14.21	0.0	0.0	1.3
27085005	27085004-NODE	TO AQ86-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.6	13.800	10.9	48	8	49	98.48	2.1	14.18	0.0	0.0	1.3
27085039	TO AQ86-PD	TO TO AQ86-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.6	13.800	1826.9	48	8	49	98.47	2.1	14.14	0.0	0.0	1.3
25830519	JJ23345339-NODE	TO AQ87-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.6	13.800	13.6	48	14	50	96.06	2.1	8.01	0.0	0.0	0.7
27085049	TO AQ87-PD	TO TO AQ87-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.6	13.800	73.4	48	14	50	96.03	2.1	7.94	0.0	0.0	0.7
22055976	F3145-PD	TO F3145-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	868.0	18	4	18	97.26	2.3	10.87	0.0	0.0	1.3
27084162	TO F3145-PD	JJ23309935-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	4.1	18	5	18	96.02	2.4	8.08	0.0	0.0	1.3
24761569	JJ23309935-NODE	27084113-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.8	18	5	18	96.01	2.4	8.07	0.0	0.0	1.3
22055955	27084113-NODE	TO F1959-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.1	18	5	19	95.81	2.4	7.65	0.0	0.0	1.3
27084171	TO F1959-PD	JJ23309953-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	86.3	18	5	19	95.78	2.4	7.60	0.0	0.0	1.3
27084114	27084113-NODE	JJ23309923-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.1	0	0	0	0.00	0.0	114.30	0.0	0.0	0.0
22055994	JJ23309923-NODE	TO AQ67_2-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	4.1	0	0	0	0.00	0.0	114.30	0.0	0.0	0.0
27084154	TO AQ67_2-PD	23177249-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	115.9	0	0	0	0.00	0.0	114.30	0.0	0.0	0.0
25018280	25018142-NODE	25018183-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	6.6	1460	413	1517	96.21	63.9	8.66	0.0	0.0	10.0
22373793	25018183-NODE	S3621-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	114.2	1460	414	1517	96.21	63.9	8.66	0.1	0.1	19.9
22056666	S3561-PD	JJ23307829-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	146.0	0	-1	1	0.00	0.0	114.46	0.0	0.0	0.0

24577969	JJ23307829-NODE	24577939-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	6.3	0	0	0	0.00	0.0	114.46	0.0	0.0	0.0
23614282	FAQ79-PD	23614273-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	19.4	9	2	10	97.29	1.2	10.94	0.0	0.0	0.9
23614274	23614273-NODE	TO FAQ79-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	495.6	9	2	10	97.25	1.2	10.83	0.0	0.0	0.7
22352041	FAE37-PD	TO FAE37-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	313.2	19	5	19	96.31	2.4	7.89	0.0	0.0	1.4
23634482	FAE23-PD	23634469-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	55.1	14	4	14	96.95	1.8	9.29	0.0	0.0	1.0
23634470	23634469-NODE	TO FAE23-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	528.5	14	4	14	96.85	1.8	9.06	0.0	0.0	1.0
23634434	FAE33-PD	23634425-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	23.1	19	5	19	96.35	2.4	7.94	0.0	0.0	1.4
23634426	23634425-NODE	TO FAE33-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	315.9	19	5	19	96.32	2.4	7.87	0.0	0.0	1.4
21881967	JJ23271185-NODE	TO FAL75-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	454.5	9	2	10	97.13	1.2	9.89	0.0	0.0	0.7
21721784	FAL103-PD	TO FAL103-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	409.7	0	0	0	-41.17	0.1	89.40	0.0	0.0	0.0
21989143	JJ23292503-NODE	JJ23292515-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	361.8	7	0	7	99.93	0.9	21.98	0.0	0.0	0.5
21989105	JJ23292515-NODE	JJ23292533-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	186.4	7	1	7	99.27	0.9	17.16	0.0	0.0	0.5
21989068	JJ23292533-NODE	JJ23292539-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	349.2	7	1	7	98.71	0.9	14.87	0.0	0.0	0.5
21989024	JJ23292539-NODE	TO TX AL50-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	422.1	7	2	7	97.23	0.9	10.55	0.0	0.0	0.5
21989046	JJ23292539-NODE	TO TX AL49-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	169.7	0	0	0	0.00	0.0	114.07	0.0	0.0	0.0
21989088	JJ23292533-NODE	TO TX AL49-PD-1	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	83.2	0	0	0	0.00	0.0	114.07	0.0	0.0	0.0
24584379	JJ23292515-NODE	TO F1991-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	197.6	0	0	0	0.00	0.0	114.07	0.0	0.0	0.0
26539195	26539187-NODE	JJ23271495-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	433.8	27	6	28	97.33	3.6	10.80	0.0	0.0	2.6
21986134	F2367-PD	JJ23271183-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1122.2	10	2	11	98.39	1.4	13.77	0.0	0.0	0.8
22311498	JJ23394111-NODE	TO FAM46-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.6	13.800	176.2	158	47	165	95.89	7.0	7.61	0.0	0.0	4.5
21880832	FAL80-PD	TO FAL80-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	704.6	14	3	14	97.17	1.8	10.43	0.0	0.0	1.0
23656513	F3806-PD	27016069-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	257.0	78	19	81	97.21	10.3	10.53	0.0	0.0	5.7
22352389	27016069-NODE	TO F3806-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	345.8	78	19	81	97.14	10.3	10.34	0.0	0.0	5.7
22288368	TO F3806-PD	TO TX AR43-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	404.9	53	12	54	97.48	6.9	11.19	0.0	0.0	3.9
22288358	TO TX AR43-PD	TO TX AR44-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	524.2	45	10	47	97.50	5.9	11.25	0.0	0.0	3.3
22288350	TO TX AR44-PD	TO TX AR45-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	783.6	38	9	39	97.46	5.0	11.15	0.0	0.0	2.8
22352487	TO TX AR45-PD	TO TX AR46-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	643.0	30	7	31	97.21	4.0	10.51	0.0	0.0	2.2
22352483	TO TX AR46-PD	TO TX AR50-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	815.7	15	4	16	97.34	2.0	10.84	0.0	0.0	1.1
23656184	23656183-NODE	TO FAQ84-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	510.9	15	4	16	96.86	2.0	9.67	0.0	0.0	1.1
22374725	FAL100-PD	TO FAL100-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	435.6	19	5	19	96.49	2.4	8.92	0.0	0.0	1.3
21723703	FAL102-PD	TO FAL102-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	574.6	19	5	19	96.69	2.4	9.32	0.0	0.0	1.3
23613050	F3929-PD	JJ23271751-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	19.0	18	3	18	98.14	2.3	13.36	0.0	0.0	1.3
21880946	JJ23271751-NODE	TO F3929-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	507.8	18	3	18	98.11	2.3	13.30	0.0	0.0	1.3
22373926	TO F3929-PD	23613165-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1195.4	7	1	7	99.35	0.9	17.90	0.0	0.0	0.5
23613166	23613165-NODE	TO TX AL68-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.1	7	2	7	95.89	0.9	7.96	0.0	0.0	0.5
25018268	25018148-NODE	25018189-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	6.6	964	281	1004	96.01	42.3	8.23	0.0	0.0	6.5
21987470	25018189-NODE	S1308-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	82.3	964	281	1004	96.00	42.3	8.22	0.0	0.0	13.0
22053820	JJ23315369-NODE	S3693-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	574.1	957	279	997	96.00	42.0	8.21	0.2	0.2	13.0
21779549	JJ23523463-NODE	TO F4021-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	425.6	16	4	16	96.35	2.1	8.82	0.0	0.0	1.2
21779913	TO F4021-PD	24284056-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	107.4	0	0	0	0.00	0.0	114.35	0.0	0.0	0.0
21779901	JJ23523335-NODE	TO F4022-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1974.0	15	2	15	98.75	1.9	15.26	0.0	0.0	1.1
21779905	TO F4022-PD	24284087-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	106.5	0	0	0	0.00	0.0	114.32	0.0	0.0	0.0
21779881	JJ23523393-NODE	TO F4023-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	2082.1	14	2	14	99.31	1.7	17.88	0.0	0.0	1.0
21779885	TO F4023-PD	JJ23523363-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	191.6	0	0	0	0.00	0.1	114.62	0.0	0.0	0.0
21779891	JJ23523363-NODE	24284127-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	226.5	0	0	0	0.00	0.0	114.62	0.0	0.0	0.0
24971999	24971990-NODE	24284127-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1659.1	14	3	14	98.33	1.7	14.13	0.0	0.0	1.0
21779948	26655685-NODE	JJ23523183-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1352.8	15	3	15	98.33	1.9	13.82	0.0	0.0	1.1
26655686	24284087-NODE	26655685-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	370.5	15	4	16	96.24	2.0	8.53	0.0	0.0	1.1

21779917	24284056-NODE	JJ23523235-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	255.5	16	5	17	95.87	2.1	7.82	0.0	0.0	1.2
23591685	F1850-PD	24586429-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1435.5	48	12	49	96.91	6.3	9.85	0.0	0.0	3.5
24761137	24586429-NODE	TO F1850-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.3	48	14	50	96.13	6.3	8.13	0.0	0.0	3.5
24761143	TO F1850-PD	24586420-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.0	32	9	33	96.46	4.2	8.84	0.0	0.0	2.3
24586421	24586420-NODE	TO TX AN81-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	796.3	32	9	33	96.45	4.2	8.81	0.0	0.0	2.3
23592657	TO TX AN81-PD	TO TX AN82-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	403.2	16	5	17	96.12	2.1	8.11	0.0	0.0	1.2
21779405	JJ23524275-NODE	TO FAH123-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	467.9	15	4	16	96.40	2.0	8.48	0.0	0.0	1.1
25698890	FAP166-PD	25662453-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	278.5	0	0	0	0.00	0.0	114.51	0.0	0.0	0.0
23592493	FAH23-PD	TO FAH23-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	285.4	7	2	7	96.50	0.9	9.23	0.0	0.0	0.5
22200391	JJ23353129-NODE	TO FAH117-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	373.1	10	3	11	96.35	1.3	8.94	0.0	0.0	0.7
25039902	25039875-NODE	25039753-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	3.6	4011	1298	4216	95.14	175.6	7.65	0.0	0.0	20.4
21698554	25039753-NODE	JJ23309127-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	501.8	4011	1298	4216	95.14	175.6	7.65	3.1	2.9	61.1
22399175	JJ23309039-NODE	TO F2492-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	936.1	94	30	99	95.39	12.5	7.54	0.0	0.0	6.9
22399160	TO F2492-PD	TO TX U102-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	102.2	80	26	84	95.16	10.6	7.10	0.0	0.0	5.9
24154307	TO TX U102-PD	TO TX U101-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	269.5	65	21	69	95.20	8.6	7.18	0.0	0.0	4.8
24154267	TO TX U101-PD	TO TX U100-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	166.9	44	14	46	95.25	5.8	7.27	0.0	0.0	3.2
22399062	TO TX U100-PD	TO TX U99-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	73.7	22	7	23	95.52	2.9	7.79	0.0	0.0	1.6
24154199	TO TX U99-PD	24154191-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	68.2	0	-1	1	0.00	0.1	115.00	0.0	0.0	0.0
22399075	24154191-NODE	23187689-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	428.2	0	0	0	0.00	0.1	115.00	0.0	0.0	0.0
22399143	JJ23309045-NODE	TO F2493-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	536.4	145	47	153	95.09	19.2	6.98	0.0	0.0	10.7
22399131	TO F2493-PD	24154127-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	290.6	116	38	122	95.04	15.4	6.88	0.0	0.0	8.5
24154135	24154127-NODE	TO TX U194-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.6	116	38	122	94.97	15.4	6.74	0.0	0.0	8.6
22399118	TO TX U194-PD	24154172-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	200.4	87	29	92	95.04	11.5	6.88	0.0	0.0	6.4
24154180	24154172-NODE	TO TX U193-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.9	87	29	92	94.97	11.6	6.75	0.0	0.0	6.4
22399104	TO TX U193-PD	24154211-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	159.4	58	19	61	95.08	7.7	6.95	0.0	0.0	4.3
24154219	24154211-NODE	TO TX U192-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.5	58	19	61	94.99	7.7	6.79	0.0	0.0	4.3
24154235	TO TX U192-PD	24154227-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.2	29	9	30	95.23	3.8	7.23	0.0	0.0	2.1
24154228	23187689-NODE	24154227-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	453.8	29	9	30	95.21	3.8	7.20	0.0	0.0	2.1
24646651	S1964-PD	S1963-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	357.5	1777	547	1859	95.57	77.7	8.23	0.4	0.4	24.0
24646945	S1963-PD	24646944-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	7.6	1776	549	1859	95.55	77.8	8.18	0.0	0.0	24.0
24646963	24646944-NODE	24646954-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	17.5	1487	457	1556	95.59	65.1	8.25	0.0	0.0	21.5
24646971	24646954-NODE	S1962-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	6.4	1340	406	1400	95.70	58.6	8.45	0.0	0.0	19.7
24646492	S1962-PD	24647663-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	557.3	1340	406	1400	95.69	58.6	8.45	0.4	0.4	19.7
24647689	24647663-NODE	24647677-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.8	13.800	385.8	1339	409	1400	95.65	58.6	8.34	0.6	0.3	38.4
24647678	24647677-NODE	S1961-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.8	13.800	354.7	1339	410	1400	95.62	58.6	8.29	0.6	0.3	38.4
24648001	S1961-PD	24647992-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	6.4	1338	410	1400	95.60	58.6	8.25	0.0	0.0	19.7
24648013	24647992-NODE	FT225-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	7.9	67	23	71	94.78	3.0	6.76	0.0	0.0	0.9
22363517	FT225-PD	TO FT225-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.8	13.800	101.2	67	23	71	94.77	3.0	6.73	0.0	0.0	1.7
24648039	24647992-NODE	24648038-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	17.5	1271	388	1329	95.64	55.7	8.32	0.0	0.0	18.9
24648047	24648038-NODE	S1924-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	6.0	864	257	902	95.85	37.8	8.72	0.0	0.0	13.4
22363617	S1924-PD	S1917-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	477.8	864	257	902	95.85	37.8	8.72	0.1	0.1	13.4
24649573	S1917-PD	24649556-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	6.3	864	259	902	95.78	37.8	8.58	0.0	0.0	13.4
24649583	24649556-NODE	24649582-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	3.6	428	138	450	95.16	18.9	7.36	0.0	0.0	7.4
24649651	24649582-NODE	F1908-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.0	96	31	101	95.19	12.7	7.66	0.0	0.0	7.1
24649426	F1908-PD	TO F1908-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	547.5	96	31	101	95.18	12.7	7.65	0.0	0.0	7.1
21752732	TO F1908-PD	TO TX T159-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	154.3	67	22	70	95.18	8.8	7.65	0.0	0.0	4.9
21751551	TO TX T159-PD	TO TX T160-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	501.3	37	12	39	95.49	4.9	8.24	0.0	0.0	2.7
25212382	TO TX T160-PD	TO TX T161-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	279.4	15	4	16	95.76	1.9	8.76	0.0	0.0	1.1

26813495	TO TX T161-PD	23183959-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	277.5	0	0	0	0.00	0.0	115.51	0.0	0.0	0.0
24649681	24649582-NODE	F1910-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	4.8	196	63	206	95.15	26.0	6.97	0.0	0.0	14.5
24650941	F1910-PD	24649348-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	61.2	196	63	206	95.15	26.0	6.97	0.0	0.0	14.5
24649393	24649348-NODE	TO F1910-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	110.8	196	63	206	95.14	26.0	6.95	0.0	0.0	14.5
24968002	TO F1910-PD	24651029-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	432.4	174	56	183	95.18	23.1	7.01	0.1	0.0	12.8
24651047	24651029-NODE	TO TX T145-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	6.0	174	57	183	95.10	23.1	6.87	0.0	0.0	12.9
24654326	TO TX T145-PD	24651037-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.6	160	52	168	95.13	21.2	6.93	0.0	0.0	11.8
24621796	24651037-NODE	TO TX T144-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	276.1	160	52	168	95.13	21.2	6.92	0.0	0.0	11.8
22352560	TO TX T144-PD	24968071-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	382.8	138	45	145	95.13	18.3	6.93	0.0	0.0	10.2
24968072	24968071-NODE	TO TX T143-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.5	138	45	145	95.05	18.3	6.77	0.0	0.0	10.2
24621735	TO TX T143-PD	24621727-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	27.6	109	35	114	95.13	14.5	6.92	0.0	0.0	8.0
24651080	24621727-NODE	24651079-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	125.5	109	35	114	95.12	14.5	6.91	0.0	0.0	8.0
24651167	24651079-NODE	TO TX T142-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.0	109	35	114	95.09	14.5	6.84	0.0	0.0	8.0
24621688	TO TX T142-PD	24621680-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.9	94	31	99	95.14	12.5	6.94	0.0	0.0	7.0
22352551	24621680-NODE	TO TX T141-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	196.2	94	31	99	95.13	12.5	6.93	0.0	0.0	7.0
24968205	TO TX T141-PD	TO TX T140-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	324.5	73	23	76	95.17	9.6	7.00	0.0	0.0	5.4
24968285	TO TX T140-PD	TO TX T139-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	342.9	44	14	46	95.23	5.8	7.12	0.0	0.0	3.2
24968291	TO TX T139-PD	23183854-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	378.3	22	7	23	95.26	2.9	7.16	0.0	0.0	1.6
24649687	24649582-NODE	F1912-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	6.5	135	44	142	95.15	17.9	7.71	0.0	0.0	9.9
24649332	F1912-PD	TO F1912-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	591.1	135	44	142	95.15	17.9	7.70	0.0	0.0	9.9
22363662	TO F1912-PD	24650518-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	407.4	120	39	127	95.09	15.9	7.60	0.0	0.0	8.8
24650536	24650518-NODE	TO TX T147-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.3	120	40	127	94.99	15.9	7.41	0.0	0.0	8.8
24650528	TO TX T147-PD	24650550-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	423.5	105	34	111	95.07	13.9	7.56	0.0	0.0	7.7
24650568	24650550-NODE	TO TX T149-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.4	105	35	111	94.95	13.9	7.33	0.0	0.0	7.7
24650577	TO TX T149-PD	24650559-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.9	90	30	95	95.03	11.9	7.50	0.0	0.0	6.6
24650560	24650559-NODE	TO TX T151-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	532.2	90	30	95	95.03	11.9	7.49	0.0	0.0	6.6
22398144	TO TX T151-PD	24650593-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	570.8	75	25	79	94.94	9.9	7.33	0.0	0.0	5.5
24650611	24650593-NODE	TO TX T153-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.8	75	25	79	94.71	10.0	6.90	0.0	0.0	5.5
24650619	TO TX T153-PD	24650602-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.0	53	18	55	94.84	7.0	7.15	0.0	0.0	3.9
24650603	24650602-NODE	TO TX T95-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	232.5	53	18	56	94.84	7.0	7.13	0.0	0.0	3.9
24152517	TO TX T95-PD	24152509-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	25.0	30	10	32	94.94	4.0	7.32	0.0	0.0	2.2
22398173	24152509-NODE	TO TX T94-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	199.3	30	10	32	94.91	4.0	7.28	0.0	0.0	2.2
22398192	TO TX T94-PD	24650638-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	303.0	15	5	16	95.03	2.0	7.50	0.0	0.0	1.1
24650646	24650638-NODE	23187299-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.3	15	5	16	94.40	2.0	6.37	0.0	0.0	1.1
24649593	24649556-NODE	24649592-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	20.5	436	121	453	96.35	19.0	9.79	0.0	0.0	6.1
24649601	24649592-NODE	S1916-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	5.3	0	-18	18	0.00	0.8	115.34	0.0	0.0	0.2
24582534	S1916-PD	24583982-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	3746.7	0	-18	18	0.00	0.7	115.34	0.0	0.0	0.2
24649615	24649592-NODE	24649614-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	4.3	436	139	458	95.27	19.2	7.62	0.0	0.0	6.1
24649693	24649614-NODE	F1906-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	6.6	113	37	119	94.95	14.9	7.34	0.0	0.0	8.3
24650398	F1906-PD	24649292-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	26.6	113	37	119	94.95	14.9	7.34	0.0	0.0	8.3
22363802	24649292-NODE	TO F1906-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1058.6	113	37	119	94.94	14.9	7.32	0.1	0.0	8.3
24621478	TO F1906-PD	24621470-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	23.5	90	31	95	94.72	12.0	6.92	0.0	0.0	6.6
22363806	24621470-NODE	TO TX T120-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	209.9	90	31	95	94.71	12.0	6.91	0.0	0.0	6.6
24621060	TO TX T120-PD	24621059-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	119.8	68	23	71	94.72	9.0	6.93	0.0	0.0	5.0
24621067	24621059-NODE	TO TX T121-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	23.5	68	23	71	94.67	9.0	6.83	0.0	0.0	5.0
24621011	TO TX T121-PD	24620999-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	22.9	45	15	48	94.80	6.0	7.07	0.0	0.0	3.3
22363817	24620999-NODE	TO TX T122-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	174.5	45	15	48	94.78	6.0	7.04	0.0	0.0	3.3
22363823	TO TX T122-PD	TO TX T123-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	147.0	30	10	32	94.80	4.0	7.08	0.0	0.0	2.2

24620873	TO TX T123-PD	24620865-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	22.0	15	5	16	94.92	2.0	7.29	0.0	0.0	1.1
22396733	24620865-NODE	23187354-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	240.9	15	5	16	94.88	2.0	7.21	0.0	0.0	1.1
24649699	24649614-NODE	F1904-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	4.6	160	49	167	95.54	21.1	7.70	0.0	0.0	11.7
24650713	F1904-PD	24649260-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	24.8	160	49	167	95.54	21.1	7.70	0.0	0.0	11.7
24649270	24649260-NODE	TO F1904-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	404.2	160	49	167	95.53	21.1	7.69	0.0	0.0	11.7
22363741	TO F1904-PD	TO TX T146-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	405.8	138	43	144	95.57	18.2	7.76	0.0	0.0	10.1
22363757	TO TX T146-PD	24650742-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	389.9	123	38	129	95.57	16.3	7.76	0.0	0.0	9.1
24650762	24650742-NODE	TO TX T148-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.9	123	38	129	95.48	16.3	7.58	0.0	0.0	9.1
24650770	TO TX T148-PD	24650753-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.8	109	34	114	95.57	14.4	7.76	0.0	0.0	8.0
24650754	24650753-NODE	TO TX T150-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1165.3	109	34	114	95.57	14.4	7.76	0.1	0.0	8.0
22363789	TO TX T150-PD	24650829-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	417.1	87	27	91	95.38	11.5	7.40	0.0	0.0	6.4
24650870	24650829-NODE	TO TX T156-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.8	87	28	91	95.24	11.6	7.13	0.0	0.0	6.4
24650878	TO TX T156-PD	24650840-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.1	58	18	61	95.48	7.7	7.58	0.0	0.0	4.3
24650845	24650840-NODE	TO TX T155-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	298.5	58	18	61	95.47	7.7	7.58	0.0	0.0	4.3
22363771	TO TX T155-PD	TO TX T154-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	558.9	44	14	46	95.51	5.8	7.65	0.0	0.0	3.2
24587534	TO TX T154-PD	23183064-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	575.2	15	4	15	95.90	1.9	8.42	0.0	0.0	1.1
24649705	24649614-NODE	F1902-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.7	163	52	172	95.22	21.5	7.73	0.0	0.0	11.9
24649724	F1902-PD	24649247-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	32.6	163	52	172	95.22	21.5	7.72	0.0	0.0	11.9
24649227	24649247-NODE	TO F1902-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1124.7	163	52	172	95.22	21.5	7.71	0.1	0.0	11.9
24649799	TO F1902-PD	24649790-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.8	148	49	156	95.04	19.6	7.39	0.0	0.0	10.9
24649791	24649790-NODE	TO TX T119-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	245.4	148	49	156	95.04	19.6	7.39	0.0	0.0	10.9
22363844	TO TX T119-PD	TO TX T118-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	288.6	126	41	133	95.06	16.6	7.41	0.0	0.0	9.2
22363849	TO TX T118-PD	TO TX T117-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	280.8	96	31	101	95.10	12.7	7.49	0.0	0.0	7.1
22363856	TO TX T117-PD	24649847-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	182.1	82	27	86	95.08	10.8	7.45	0.0	0.0	6.0
24649868	24649847-NODE	TO TX T116-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	21.1	82	27	86	95.01	10.8	7.33	0.0	0.0	6.0
24649894	TO TX T116-PD	24649855-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	20.5	67	22	70	95.08	8.8	7.47	0.0	0.0	4.9
24649856	24649855-NODE	24649905-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	154.3	67	22	70	95.07	8.8	7.45	0.0	0.0	4.9
24649930	24649905-NODE	TO TX T115-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.7	67	22	70	95.00	8.8	7.32	0.0	0.0	4.9
24649936	TO TX T115-PD	24649913-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	23.5	52	17	55	95.10	6.8	7.50	0.0	0.0	3.8
24649914	24649913-NODE	TO TX T114-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	406.3	52	17	55	95.09	6.8	7.48	0.0	0.0	3.8
24650126	TO TX T114-PD	TO TX T113-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	155.0	30	10	31	95.02	3.9	7.35	0.0	0.0	2.2
24650163	TO TX T113-PD	23183148-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	230.9	0	0	0	0.00	0.0	115.51	0.0	0.0	0.0
24648057	24648038-NODE	24648056-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	2.4	407	131	427	95.19	17.9	7.48	0.0	0.0	5.5
24648086	24648056-NODE	F1921-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.7	126	40	132	95.41	16.6	8.09	0.0	0.0	9.2
24647782	F1921-PD	TO F1921-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	629.5	126	40	132	95.41	16.6	8.08	0.0	0.0	9.2
22363370	TO F1921-PD	TO TX T184-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	660.6	104	33	109	95.39	13.7	8.05	0.0	0.0	7.6
22363356	TO TX T184-PD	24153703-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	129.1	89	28	94	95.30	11.7	7.87	0.0	0.0	6.5
24153720	24153703-NODE	TO TX T185-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.8	89	28	94	95.25	11.7	7.79	0.0	0.0	6.5
24153726	TO TX T185-PD	24153712-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.2	74	23	78	95.37	9.8	8.01	0.0	0.0	5.4
24153713	24153712-NODE	TO TX T186-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	470.9	74	23	78	95.36	9.8	8.00	0.0	0.0	5.4
24648462	TO TX T186-PD	TO TX T187-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	255.5	59	19	62	95.31	7.8	7.89	0.0	0.0	4.3
24648522	TO TX T187-PD	24648510-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	18.2	45	14	47	95.36	5.9	7.98	0.0	0.0	3.3
24648511	24648510-NODE	TO TX T188-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	463.5	45	14	47	95.35	5.9	7.96	0.0	0.0	3.3
24648548	TO TX T188-PD	24648540-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.7	30	10	31	95.23	3.9	7.74	0.0	0.0	2.2
24648541	24648540-NODE	TO TX T189-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	162.6	30	10	31	95.21	3.9	7.71	0.0	0.0	2.2
24153668	TO TX T189-PD	24153660-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.2	15	5	16	95.46	1.9	8.18	0.0	0.0	1.1
24153661	24153660-NODE	TO TX T190-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	231.3	15	5	16	95.43	2.0	8.13	0.0	0.0	1.1
22363266	TO TX T190-PD	23182624-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	161.9	0	0	0	0.00	0.0	115.51	0.0	0.0	0.0

24648102	24648056-NODE	F1922-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.2	145	47	153	95.17	19.3	7.01	0.0	0.0	10.7
26018256	F1922-PD	TO F1922-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	828.8	145	47	153	95.17	19.3	7.01	0.1	0.0	10.7
26018271	TO F1922-PD	TO TX T218-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	357.6	116	38	122	95.07	15.4	6.81	0.0	0.0	8.6
22347545	TO TX T218-PD	24649122-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	478.0	87	28	92	95.05	11.6	6.79	0.0	0.0	6.4
24649131	24649122-NODE	TO TX T271-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.5	87	29	92	94.88	11.6	6.48	0.0	0.0	6.4
24649151	TO TX T271-PD	24649143-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.5	58	19	61	94.95	7.7	6.61	0.0	0.0	4.3
24649164	24649143-NODE	24649163-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	235.6	58	19	61	94.95	7.7	6.59	0.0	0.0	4.3
24649182	24649163-NODE	TO TX T272-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.0	58	19	61	94.82	7.7	6.37	0.0	0.0	4.3
24649188	TO TX T272-PD	24649173-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.7	29	10	31	94.90	3.9	6.51	0.0	0.0	2.1
22347536	24649173-NODE	23182844-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	144.7	29	10	31	94.89	3.9	6.48	0.0	0.0	2.1
24648108	24648056-NODE	F1923-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.1	135	45	142	94.99	17.9	7.42	0.0	0.0	9.9
24647803	F1923-PD	TO F1923-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	315.6	135	45	142	94.99	17.9	7.42	0.0	0.0	9.9
24648629	TO F1923-PD	TO TX T183-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	71.0	113	37	119	95.02	14.9	7.48	0.0	0.0	8.3
24648666	TO TX T183-PD	24648644-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	92.1	83	27	87	95.23	10.9	7.86	0.0	0.0	6.1
24648645	24648644-NODE	TO TX T182-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	474.6	83	27	87	95.19	10.9	7.79	0.0	0.0	6.1
24648692	TO TX T182-PD	24648684-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	182.7	53	17	55	95.37	6.9	8.13	0.0	0.0	3.8
24648685	24648684-NODE	24621243-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	125.4	53	17	55	95.27	6.9	7.93	0.0	0.0	3.9
24621251	24621243-NODE	TO TX T179-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	23.2	53	17	55	95.20	6.9	7.80	0.0	0.0	3.9
24621226	TO TX T179-PD	24621218-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.6	0	0	0	0.00	0.0	115.63	0.0	0.0	0.0
22352727	24621218-NODE	23183979-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	164.9	0	0	0	0.00	0.0	115.63	0.0	0.0	0.0
25213032	TO TX T179-PD	24648731-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	373.6	38	12	39	95.35	4.9	8.09	0.0	0.0	2.7
24648739	24648731-NODE	TO TX T180-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	18.8	38	12	40	95.05	5.0	7.53	0.0	0.0	2.8
24648723	TO TX T180-PD	24648715-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	22.7	15	4	16	95.97	2.0	9.31	0.0	0.0	1.1
24648716	24648715-NODE	TO TX T175-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	226.0	15	4	16	95.92	2.0	9.22	0.0	0.0	1.1
21928185	TO TX T175-PD	24623156-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	526.2	0	-1	1	0.00	0.1	115.63	0.0	0.0	0.0
24623212	23186679-NODE	24623156-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.0	0	0	0	0.00	0.0	115.63	0.0	0.0	0.0
25213047	23186679-NODE	24623173-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	2.7	90	31	95	94.69	12.0	6.68	0.0	0.0	6.7
24623174	24623173-NODE	TO TX T173-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	224.4	90	31	95	94.68	12.0	6.68	0.0	0.0	6.7
25008458	TO TX T173-PD	27309038-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	20.1	75	26	79	94.65	10.0	6.62	0.0	0.0	5.6
27309039	TO TX T176-PD	27309038-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	214.7	75	26	79	94.64	10.0	6.61	0.0	0.0	5.6
22352753	24621149-NODE	TO TX T176-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	131.5	45	15	48	94.68	6.0	6.66	0.0	0.0	3.3
24621161	TO TX T177-PD	24621149-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	21.4	45	15	48	94.58	6.0	6.50	0.0	0.0	3.3
24621177	24621169-NODE	TO TX T177-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	24.3	15	5	16	94.96	2.0	7.17	0.0	0.0	1.1
24621170	23183979-NODE	24621169-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	256.8	15	5	16	94.91	2.0	7.08	0.0	0.0	1.1
24646979	24646954-NODE	FT280-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	8.4	148	51	156	94.62	6.5	6.48	0.0	0.0	1.9
24646519	FT280-PD	TO FT280-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.8	13.800	113.9	148	51	156	94.61	6.5	6.47	0.0	0.0	3.7
24229565	TO FT280-PD	JJ23308659-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	4.8	0	0	0	0.00	0.0	115.36	0.0	0.0	0.0
24646993	24646944-NODE	24646992-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	3.0	289	92	303	95.30	12.7	7.78	0.0	0.0	6.9
24647027	24646992-NODE	F571-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.2	45	14	47	95.58	5.9	8.56	0.0	0.0	3.3
24646546	F571-PD	TO F571-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	344.1	45	14	47	95.58	5.9	8.55	0.0	0.0	3.3
22362796	TO F571-PD	24647176-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	257.5	30	9	31	95.81	3.9	9.01	0.0	0.0	2.2
24647219	24647176-NODE	TO TX T213-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.7	30	9	31	95.56	3.9	8.51	0.0	0.0	2.2
24647230	24647186-NODE	TO TX T213-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.9	15	4	16	96.61	2.0	10.70	0.0	0.0	1.1
22362803	TO TX T212-PD	24647186-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	951.5	15	4	16	96.59	2.0	10.66	0.0	0.0	1.1
24153798	24153797-NODE	TO TX T212-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	162.1	0	0	0	0.00	0.0	115.65	0.0	0.0	0.0
24153805	23182574-NODE	24153797-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	19.6	0	0	0	0.00	0.0	115.65	0.0	0.0	0.0
24647033	24646992-NODE	F2503-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	4.8	58	18	61	95.28	7.7	7.23	0.0	0.0	4.3
24646585	F2503-PD	TO F2503-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	397.6	58	19	61	95.28	7.7	7.23	0.0	0.0	4.3

24153879	TO F2503-PD	24153878-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	220.5	44	14	46	95.18	5.8	7.05	0.0	0.0	3.2
24153886	24153878-NODE	TO TX T214-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	14.9	44	14	46	95.03	5.8	6.76	0.0	0.0	3.2
24153895	TO TX T214-PD	24153894-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	162.3	22	7	23	95.30	2.9	7.28	0.0	0.0	1.6
24153902	24153894-NODE	TO TX T208-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	12.8	22	7	23	95.08	2.9	6.86	0.0	0.0	1.6
24153918	TO TX T208-PD	24153910-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	14.2	0	0	0	0.00	0.0	114.90	0.0	0.0	0.0
22362923	24153910-NODE	23182594-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	221.6	0	0	0	0.00	0.0	114.90	0.0	0.0	0.0
24647051	24646992-NODE	F1918-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	7.7	186	59	195	95.23	24.4	7.76	0.0	0.0	13.6
24647385	F1918-PD	JJ23308491-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	8.2	186	60	195	95.23	24.4	7.75	0.0	0.0	13.6
22363141	JJ23308491-NODE	TO F1918-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	457.5	186	60	195	95.23	24.4	7.75	0.1	0.0	13.6
24153760	TO F1918-PD	24153759-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	506.4	163	52	172	95.22	21.5	7.74	0.1	0.0	11.9
24153767	24153759-NODE	TO TX T197-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	9.1	163	53	172	95.13	21.5	7.57	0.0	0.0	11.9
24153751	TO TX T197-PD	24153743-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	19.8	134	43	140	95.24	17.6	7.77	0.0	0.0	9.8
22363175	24153743-NODE	TO TX T196-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	359.8	134	43	140	95.23	17.6	7.76	0.0	0.0	9.8
24153686	TO TX T196-PD	24153678-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	12.6	104	33	109	95.30	13.7	7.89	0.0	0.0	7.6
22363189	24153678-NODE	TO TX T195-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	269.2	104	33	109	95.29	13.7	7.88	0.0	0.0	7.6
24153648	TO TX T195-PD	24153640-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	12.8	89	28	93	95.31	11.7	7.91	0.0	0.0	6.5
22363205	24153640-NODE	TO TX T194-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	13.800	404.7	89	28	93	95.31	11.7	7.91	0.0	0.0	8.4
24153623	TO TX T194-PD	24153615-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	21.5	74	24	78	95.31	9.8	7.90	0.0	0.0	5.4
22363223	24153615-NODE	TO TX T193-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	13.800	1287.6	74	24	78	95.30	9.8	7.89	0.0	0.0	7.0
22363236	TO TX T193-PD	24647529-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	239.8	52	17	55	94.96	6.9	7.26	0.0	0.0	3.8
24647565	24647529-NODE	TO TX T157-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	16.4	52	17	55	94.82	6.9	7.00	0.0	0.0	3.8
24647599	TO TX T157-PD	24647538-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	8.8	30	10	31	94.95	3.9	7.24	0.0	0.0	2.2
24647547	24647538-NODE	23182624-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	304.3	30	10	31	94.94	3.9	7.22	0.0	0.0	2.2
22347572	JJ23297407-NODE	TO F316-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	607.3	119	39	125	94.92	15.7	7.16	0.0	0.0	8.7
24651877	TO F316-PD	24651900-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	239.5	89	30	94	94.80	11.8	6.96	0.0	0.0	6.5
24651946	24651900-NODE	TO TX T269-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	11.4	89	30	94	94.72	11.8	6.80	0.0	0.0	6.5
24651954	TO TX T269-PD	24651933-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	11.8	59	20	63	94.77	7.8	6.89	0.0	0.0	4.4
24651934	24651933-NODE	TO TX T279-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	158.3	59	20	63	94.76	7.8	6.87	0.0	0.0	4.4
24652012	TO TX T279-PD	24651987-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	11.7	30	10	31	94.73	3.9	6.83	0.0	0.0	2.2
24651988	24651987-NODE	23182664-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	96.9	30	10	31	94.72	3.9	6.80	0.0	0.0	2.2
25210834	F1876-PD	TO F1876-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	891.3	196	63	206	95.19	26.0	7.01	0.1	0.0	14.4
25213521	TO F1876-PD	TO TX U1-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	325.7	182	59	191	95.08	24.1	6.80	0.0	0.0	13.4
25213484	TO TX U1-PD	TO TX U2-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	361.9	153	50	160	95.08	20.2	6.80	0.0	0.0	11.2
25213472	TO TX U2-PD	TO TX U3-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	136.1	138	45	145	95.03	18.3	6.72	0.0	0.0	10.2
25213441	TO TX U3-PD	TO TX U4-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	354.9	123	40	130	95.03	16.4	6.72	0.0	0.0	9.1
25213416	TO TX U4-PD	TO TX U5-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	228.4	102	33	107	94.99	13.5	6.65	0.0	0.0	7.5
25213402	TO TX U5-PD	TO TX U6-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	326.5	87	29	92	94.96	11.6	6.58	0.0	0.0	6.4
25213351	TO TX U6-PD	TO TX U18-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	193.1	58	19	61	94.90	7.7	6.47	0.0	0.0	4.3
25213340	TO TX U18-PD	23173464-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	114.8	29	10	31	94.85	3.9	6.40	0.0	0.0	2.1
25210733	JJ23297349-NODE	TO F1875-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	539.0	233	74	244	95.26	30.8	7.14	0.1	0.0	17.1
25211443	TO F1875-PD	TO TX U14-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	477.3	218	70	229	95.22	28.9	7.06	0.1	0.0	16.0
25211587	TO TX U14-PD	TO TX U130-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	135.7	189	61	198	95.22	25.0	7.06	0.0	0.0	13.9
25211451	TO TX U130-PD	TO TX U131-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	271.2	160	51	168	95.28	21.2	7.18	0.0	0.0	11.8
25212627	TO TX U131-PD	TO TX U13-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	397.3	131	41	137	95.34	17.3	7.29	0.0	0.0	9.6
25212914	TO TX U13-PD	TO TX U12-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	251.6	116	37	122	95.31	15.4	7.23	0.0	0.0	8.6
25212956	TO TX U12-PD	TO TX U132-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	72.0	94	30	99	95.37	12.5	7.33	0.0	0.0	6.9
25212991	TO TX U132-PD	TO TX U133-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	358.7	73	23	76	95.52	9.6	7.63	0.0	0.0	5.3
25213076	TO TX U133-PD	TO TX U11-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	246.3	58	18	61	95.53	7.7	7.65	0.0	0.0	4.3

25213150	TO TX U11-PD	TO TX U10-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	247.0	44	13	46	95.62	5.8	7.84	0.0	0.0	3.2
25213272	TO TX U10-PD	TO TX U9-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	48.3	29	9	30	95.81	3.8	8.20	0.0	0.0	2.1
25213281	TO TX U9-PD	TO TX U8-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	480.1	15	4	15	96.70	1.9	10.08	0.0	0.0	1.1
25213320	TO TX U8-PD	23173464-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	523.0	0	-1	1	0.00	0.1	114.85	0.0	0.0	0.0
22347559	JJ23297313-NODE	TO FU28-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.8	13.800	470.2	89	29	94	95.09	3.9	7.30	0.0	0.0	2.2
21686743	JJ23263425-NODE	TO F1219-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	115.8	44	15	47	94.95	5.9	7.19	0.0	0.0	3.3
21686744	TO F1219-PD	TO TX T217-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.3	22	7	23	95.13	2.9	7.51	0.0	0.0	1.6
24622639	TO TX T217-PD	24622638-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	340.7	0	0	0	0.00	0.0	115.47	0.0	0.0	0.0
24622647	23182664-NODE	24622638-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.7	0	0	0	0.00	0.0	115.47	0.0	0.0	0.0
21686739	JJ23263419-NODE	TO F1218-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	182.8	102	33	107	95.17	13.5	6.96	0.0	0.0	7.5
21686738	TO F1218-PD	TO TX T253-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	175.5	80	26	84	95.22	10.6	7.05	0.0	0.0	5.9
21686740	TO TX T253-PD	24652844-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	192.0	58	18	61	95.31	7.7	7.22	0.0	0.0	4.3
24652878	24652844-NODE	TO TX T305-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.8	58	19	61	95.21	7.7	7.03	0.0	0.0	4.3
24652870	TO TX T305-PD	24652922-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	276.0	29	9	30	95.65	3.8	7.89	0.0	0.0	2.1
24652937	24652922-NODE	TO TX T276-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.9	29	9	30	95.37	3.8	7.35	0.0	0.0	2.1
24652968	TO TX T276-PD	24652946-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.6	0	-1	1	0.00	0.1	114.84	0.0	0.0	0.0
24652947	24652946-NODE	23182844-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	593.9	0	-1	1	0.00	0.1	114.84	0.0	0.0	0.0
21686736	JJ23263385-NODE	TO F1987-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	481.6	158	54	167	94.71	21.0	6.73	0.0	0.0	11.7
21686735	TO F1987-PD	TO TX T171-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	184.4	143	49	151	94.64	19.0	6.60	0.0	0.0	10.6
21928178	TO TX T171-PD	23186679-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	142.7	120	41	127	94.65	16.0	6.61	0.0	0.0	8.9
26947920	JJ23263381-NODE	TO F1986-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	328.5	67	22	70	95.15	8.8	7.40	0.0	0.0	4.9
22352647	TO F1986-PD	TO TX T170-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	239.8	37	12	39	95.29	4.9	7.67	0.0	0.0	2.7
22352655	TO TX T170-PD	TO TX T169-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	203.4	22	7	23	95.40	2.9	7.87	0.0	0.0	1.6
22352659	TO TX T169-PD	24595053-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	349.9	0	0	0	0.00	0.0	115.33	0.0	0.0	0.0
24595132	24595053-NODE	23183918-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.8	0	0	0	0.00	0.0	115.33	0.0	0.0	0.0
22347634	JJ23263405-NODE	TO FT258-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.8	13.800	328.6	89	29	94	94.94	3.9	6.90	0.0	0.0	2.2
22352685	JJ23263449-NODE	TO F275-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1853.3	113	36	119	95.28	14.9	7.68	0.1	0.0	8.3
22352679	TO F275-PD	TO TX T64-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	519.5	98	33	103	94.84	13.0	6.87	0.0	0.0	7.2
22352450	TO TX T64-PD	TO TX T65-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	367.5	83	28	87	94.72	11.0	6.67	0.0	0.0	6.1
24053608	TO TX T65-PD	TO TX T66-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	69.3	60	20	64	94.67	8.0	6.57	0.0	0.0	4.5
22352442	TO TX T66-PD	TO TX T67-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	318.6	45	15	48	94.72	6.0	6.66	0.0	0.0	3.3
22397636	TO TX T67-PD	23187259-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	175.0	15	5	16	94.74	2.0	6.70	0.0	0.0	1.1
22352459	JJ23263455-NODE	TO F276-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	634.6	98	30	102	95.50	12.9	8.11	0.0	0.0	7.2
22352454	TO F276-PD	TO TX T82-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1926.6	75	23	79	95.57	9.9	8.26	0.0	0.0	5.5
22398412	TO TX T82-PD	TO TX T130-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	143.9	60	20	63	94.91	8.0	7.01	0.0	0.0	4.4
24620838	TO TX T130-PD	TO TX T129-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	388.4	45	15	48	94.99	6.0	7.15	0.0	0.0	3.3
22398383	TO TX T129-PD	24620404-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	181.3	30	10	32	94.90	4.0	6.98	0.0	0.0	2.2
24620412	24620404-NODE	TO TX T128-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	22.6	30	10	32	94.71	4.0	6.65	0.0	0.0	2.2
24620444	TO TX T128-PD	24620432-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	22.4	15	5	16	95.00	2.0	7.17	0.0	0.0	1.1
24620433	24620432-NODE	TO TX T127-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	98.6	15	5	16	94.95	2.0	7.08	0.0	0.0	1.1
22398352	TO TX T127-PD	23187354-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	180.3	0	0	0	0.00	0.0	115.37	0.0	0.0	0.0
22352722	JJ23263393-NODE	TO F1989-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1362.5	89	28	93	95.37	11.7	7.83	0.0	0.0	6.5
22352715	TO F1989-PD	24621876-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	200.9	67	22	70	95.00	8.8	7.14	0.0	0.0	4.9
24621884	24621876-NODE	TO TX T166-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	26.7	67	22	70	94.91	8.8	6.96	0.0	0.0	4.9
22352709	24653309-NODE	TO TX T166-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	269.4	52	17	55	94.97	6.8	7.09	0.0	0.0	3.8
24653326	TO TX T165-PD	24653309-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.0	52	17	55	94.81	6.9	6.79	0.0	0.0	3.8
24653334	24653318-NODE	TO TX T165-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.7	30	10	31	94.95	3.9	7.04	0.0	0.0	2.2
24653319	23183959-NODE	24653318-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	308.1	30	10	31	94.94	3.9	7.03	0.0	0.0	2.2

22055624	JJ23310225-NODE	TO FX65-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.8	13.800	108.1	148	51	156	94.60	6.5	6.37	0.0	0.0	3.7
21983035	JJ23298747-NODE	TO FY34-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	480.4	15	5	16	95.61	1.9	8.38	0.0	0.0	1.1
22362966	JJ23308721-NODE	TO F541-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	199.3	51	16	53	95.34	6.7	7.41	0.0	0.0	3.7
22362939	TO F541-PD	24153961-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	793.7	22	6	23	95.84	2.9	8.39	0.0	0.0	1.6
24153969	24153961-NODE	23182594-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.6	22	7	23	94.75	2.9	6.33	0.0	0.0	1.6
22362824	JJ23308889-NODE	TO F555-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	391.4	90	31	95	94.69	11.9	6.95	0.0	0.0	6.6
24153842	TO F555-PD	24153834-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	33.6	60	21	64	94.64	8.0	6.86	0.0	0.0	4.4
24153835	24153834-NODE	TO TX T299-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	174.4	60	21	64	94.62	8.0	6.83	0.0	0.0	4.4
24153822	TO TX T299-PD	24153814-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.7	30	10	32	94.69	4.0	6.94	0.0	0.0	2.2
24153815	24153814-NODE	23182574-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	279.2	30	10	32	94.67	4.0	6.91	0.0	0.0	2.2
25039932	25039869-NODE	25039759-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	3.5	2204	700	2312	95.31	96.3	8.00	0.0	0.0	9.9
21698546	25039759-NODE	S2597-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	256.9	2204	700	2313	95.31	96.3	8.00	0.5	0.4	29.8
24673714	S2597-PD	24673713-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	9.1	2204	701	2312	95.30	96.3	7.97	0.0	0.0	29.8
24673722	24673713-NODE	S2598-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	7.8	1349	424	1415	95.39	59.0	8.13	0.0	0.0	20.2
22362699	S2598-PD	S1955-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	522.3	1349	425	1415	95.39	59.0	8.12	0.4	0.3	20.2
24154896	F1647-PD	24154883-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	38.0	150	48	157	95.28	19.7	7.57	0.0	0.0	11.0
24154888	24154883-NODE	TO F1647-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	195.3	150	48	157	95.27	19.7	7.56	0.0	0.0	11.0
24154808	TO F1647-PD	24154800-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.7	125	40	131	95.30	16.5	7.62	0.0	0.0	9.1
24154801	24154800-NODE	TO TX T43-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	333.6	125	40	131	95.30	16.5	7.61	0.0	0.0	9.1
22362614	TO TX T43-PD	24154823-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	406.8	92	29	96	95.35	12.1	7.70	0.0	0.0	6.7
24154831	24154823-NODE	TO TX T44-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.1	92	29	96	95.21	12.1	7.45	0.0	0.0	6.7
24154847	TO TX T44-PD	24154839-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.6	75	24	79	95.29	9.9	7.59	0.0	0.0	5.5
24154840	24154839-NODE	TO TX T51-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	313.2	75	24	79	95.28	9.9	7.57	0.0	0.0	5.5
22394496	TO TX T51-PD	TO TX T52-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	361.4	58	19	61	95.23	7.7	7.49	0.0	0.0	4.3
22394486	TO TX T52-PD	23184704-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	344.6	33	11	35	95.18	4.4	7.39	0.0	0.0	2.4
22376440	F2527-PD	TO F2527-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	859.3	142	45	149	95.38	18.7	8.31	0.1	0.0	10.4
24150957	TO F2527-PD	24150956-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	395.6	128	41	134	95.26	16.8	8.10	0.0	0.0	9.3
24150973	24150956-NODE	TO TX U77-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	18.7	128	41	135	95.17	16.8	7.92	0.0	0.0	9.4
24151009	TO TX U77-PD	24151008-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	127.8	114	36	120	95.24	15.0	8.05	0.0	0.0	8.3
24151016	24151008-NODE	TO TX U76-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	265.2	114	37	120	95.20	15.0	7.99	0.0	0.0	8.3
24151043	TO TX U76-PD	TO TX U295-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	136.7	85	27	90	95.32	11.2	8.20	0.0	0.0	6.2
22376470	TO TX U295-PD	TO TX U296-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	240.6	57	17	60	95.61	7.5	8.77	0.0	0.0	4.1
24150997	TO TX U296-PD	24150989-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	165.0	28	8	30	96.34	3.7	10.26	0.0	0.0	2.1
22376483	24150989-NODE	TO TX U294-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	623.2	28	8	30	96.18	3.7	9.93	0.0	0.0	2.1
22376495	TO TX U294-PD	TO TX U78-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	528.1	14	4	15	96.47	1.8	10.54	0.0	0.0	1.0
22376511	TO TX U78-PD	23185023-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	395.0	0	0	0	0.00	0.1	115.81	0.0	0.0	0.0
24674704	F996-PD	24674776-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	87.0	322	103	338	95.27	14.1	7.88	0.0	0.0	5.8
24674778	24674776-NODE	S4536-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	7.1	322	103	338	95.23	14.1	7.81	0.0	0.0	5.8
26782906	S4536-PD	24674777-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	6.5	322	103	338	95.23	14.1	7.81	0.0	0.0	5.8
24674788	24674777-NODE	24674787-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	17.9	173	54	181	95.43	7.5	8.23	0.0	0.0	4.1
24674841	24674787-NODE	FU365-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	6.6	90	30	95	94.95	3.9	7.25	0.0	0.0	1.3
24674850	FU365-PD	24674548-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.8	13.800	6.6	90	30	95	94.94	3.9	7.23	0.0	0.0	2.5
24674549	24674548-NODE	TO FU365-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.8	13.800	72.2	90	30	95	94.93	3.9	7.22	0.0	0.0	2.5
24674984	24674787-NODE	26782924-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	3.6	83	25	87	95.85	3.6	9.24	0.0	0.0	3.1
26782925	26782924-NODE	F2508-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable		13.800	8.0	83	25	87	95.90	10.8	9.21	0.0	0.0	3.1
24675025	F2508-PD	24674603-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.1	83	25	87	95.90	10.8	9.20	0.0	0.0	6.0
24674615	24674603-NODE	TO F2508-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	458.8	83	25	87	95.89	10.8	9.19	0.0	0.0	6.0
22375912	TO F2508-PD	TO TX U74-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	158.3	69	21	72	95.86	9.0	9.12	0.0	0.0	5.0

22375925	TO TX U74-PD	TO TX U73-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	128.5	56	16	58	95.96	7.2	9.33	0.0	0.0	4.0
22375938	TO TX U73-PD	TO TX U72-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	562.0	42	12	43	96.15	5.4	9.72	0.0	0.0	3.0
22375949	TO TX U72-PD	TO TX U71-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	190.7	28	8	29	96.09	3.6	9.59	0.0	0.0	2.0
24150397	TO TX U71-PD	24150389-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	20.2	14	4	14	96.64	1.8	10.77	0.0	0.0	1.0
22375959	24150389-NODE	TO TX U70-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	394.6	14	4	14	96.60	1.8	10.69	0.0	0.0	1.0
24150378	TO TX U70-PD	24150370-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.7	0	0	0	0.00	0.0	115.67	0.0	0.0	0.0
22375976	24150370-NODE	23184633-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	319.3	0	0	0	0.00	0.0	115.67	0.0	0.0	0.0
26782967	26782924-NODE	F3102-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable		13.800	4.4	0	0	0	0.00	0.0	115.21	0.0	0.0	0.0
26783013	F3102-PD	26783012-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable		13.800	7.5	0	0	0	0.00	0.0	115.21	0.0	0.0	0.0
26782973	26782924-NODE	F3101-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable		13.800	6.6	0	0	0	0.00	0.0	115.78	0.0	0.0	0.0
26783021	F3101-PD	26783020-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable		13.800	4.8	0	0	0	0.00	0.0	115.78	0.0	0.0	0.0
24674812	24674777-NODE	FU366-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.8	13.800	6.5	149	49	157	94.98	6.5	7.31	0.0	0.0	2.1
24674821	FU366-PD	24674590-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.8	13.800	6.6	149	49	157	94.98	6.5	7.30	0.0	0.0	4.1
24674591	24674590-NODE	TO FU366-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.8	13.800	273.5	149	49	157	94.97	6.5	7.29	0.0	0.0	4.1
22393983	JJ23327959-NODE	TO F1581-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	261.0	29	9	31	95.40	3.8	7.75	0.0	0.0	2.1
22393992	TO F1581-PD	23184679-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	244.1	17	5	17	95.31	2.2	7.59	0.0	0.0	1.2
22394021	F1582-PD	TO F1582-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	212.8	46	15	48	95.29	6.0	7.54	0.0	0.0	3.4
22394010	TO F1582-PD	24149920-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	141.6	13	4	13	95.88	1.6	8.70	0.0	0.0	0.9
24149928	24149920-NODE	TO TX T244-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.6	13	4	13	95.55	1.6	8.05	0.0	0.0	0.9
24149944	TO TX T244-PD	24149936-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.9	0	0	0	0.00	0.0	115.20	0.0	0.0	0.0
24149937	24149936-NODE	23184679-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	251.3	0	0	0	0.00	0.0	115.20	0.0	0.0	0.0
22394070	JJ23327703-NODE	TO F1690-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	667.7	111	34	116	95.58	14.5	8.59	0.0	0.0	8.0
24150749	TO F1690-PD	24150748-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	448.9	83	26	87	95.51	10.9	8.44	0.0	0.0	6.0
24150756	24150748-NODE	TO TX T233-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	16.5	83	26	87	95.35	10.9	8.13	0.0	0.0	6.0
24150740	TO TX T233-PD	24150732-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.4	55	17	58	95.47	7.2	8.35	0.0	0.0	4.0
22058750	24150732-NODE	TO TX T232-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	432.3	55	17	58	95.46	7.2	8.34	0.0	0.0	4.0
24294974	TO TX T232-PD	24294973-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	237.8	28	9	29	95.36	3.6	8.14	0.0	0.0	2.6
24674505	24294973-NODE	TO TX T231-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.8	28	9	29	95.14	3.6	7.73	0.0	0.0	2.0
22030355	TO TX T231-PD	24294927-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	47.9	0	0	0	0.00	0.0	115.68	0.0	0.0	0.0
22394156	JJ23327643-NODE	TO F1405-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	764.8	149	48	157	95.26	19.6	8.07	0.1	0.0	10.9
22394170	TO F1405-PD	24150072-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	148.1	128	41	135	95.19	16.8	7.94	0.0	0.0	9.4
24150080	24150072-NODE	TO TX T234-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.9	128	41	135	95.15	16.8	7.87	0.0	0.0	9.4
24150093	TO TX T234-PD	24150092-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	392.3	107	34	112	95.27	14.0	8.09	0.0	0.0	7.8
24150100	24150092-NODE	TO TX T235-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.1	107	34	112	95.16	14.0	7.88	0.0	0.0	7.8
24150116	TO TX T235-PD	24150108-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.4	85	27	90	95.30	11.2	8.14	0.0	0.0	6.2
22394194	24150108-NODE	TO TX T236-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	256.3	85	27	90	95.29	11.2	8.13	0.0	0.0	6.2
22394204	TO TX T236-PD	TO TX T237-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	568.9	64	20	67	95.41	8.4	8.36	0.0	0.0	4.7
24150132	TO TX T237-PD	TO TX T238-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	323.2	43	13	45	95.43	5.6	8.39	0.0	0.0	3.1
24150151	TO TX T238-PD	TO TX T239-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	260.9	21	6	22	95.81	2.8	9.14	0.0	0.0	1.5
22394239	TO TX T239-PD	23186608-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	621.6	0	-1	1	0.00	0.1	115.78	0.0	0.0	0.0
22394261	JJ23327437-NODE	TO FT250-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.8	13.800	155.1	90	29	95	95.02	3.9	7.39	0.0	0.0	2.5
24150818	FT251-PD	24150807-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.9	13.800	2.7	45	14	48	95.48	2.0	8.27	0.0	0.0	1.2
24150808	24150807-NODE	TO FT251-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.9	13.800	251.1	45	14	48	95.48	2.0	8.26	0.0	0.0	1.2
25774401	F1646-PD	TO F1646-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	601.5	142	44	148	95.48	18.6	7.94	0.0	0.0	10.3
24152837	TO F1646-PD	24152829-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.2	117	36	122	95.46	15.3	7.90	0.0	0.0	8.5
21862894	24152829-NODE	TO TX T54-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	348.7	117	36	122	95.46	15.3	7.90	0.0	0.0	8.5
24152810	TO TX T54-PD	24152809-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	460.9	83	26	87	95.57	10.9	8.11	0.0	0.0	6.1
24152817	24152809-NODE	TO TX T53-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	34.4	83	26	87	95.40	11.0	7.79	0.0	0.0	6.1

24152788	TO TX T53-PD	24152787-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	371.9	50	15	52	95.73	6.6	8.43	0.0	0.0	3.6
24152795	24152787-NODE	TO TX T45-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.5	50	16	52	95.51	6.6	8.00	0.0	0.0	3.7
24152779	TO TX T45-PD	24152771-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.4	33	10	35	95.81	4.4	8.59	0.0	0.0	2.4
22394452	24152771-NODE	TO TX T46-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	388.8	33	10	35	95.80	4.4	8.56	0.0	0.0	2.4
22394461	TO TX T47-PD	TO TX T46-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	240.5	17	5	17	96.02	2.2	9.02	0.0	0.0	1.2
24152750	24152749-NODE	TO TX T47-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	397.8	0	0	0	0.00	0.1	115.23	0.0	0.0	0.0
24152757	23184704-NODE	24152749-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.7	0	0	0	0.00	0.0	115.23	0.0	0.0	0.0
24150914	JJ23315029-NODE	24150913-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	411.1	57	17	59	96.00	7.4	9.55	0.0	0.0	4.1
24150921	24150913-NODE	TO F2526-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.8	57	17	59	95.79	7.4	9.13	0.0	0.0	4.1
22376408	TO F2526-PD	TO TX U81-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	386.7	43	12	44	96.16	5.6	9.89	0.0	0.0	3.1
22376393	TO TX U81-PD	24150935-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	377.4	28	8	30	96.52	3.7	10.65	0.0	0.0	2.1
24150943	24150935-NODE	TO TX U80-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.9	28	8	30	96.16	3.7	9.88	0.0	0.0	2.1
22376380	TO TX U80-PD	24151064-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	897.8	14	3	15	97.50	1.8	12.97	0.0	0.0	1.0
24151072	24151064-NODE	TO TX U79-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.4	14	4	15	95.85	1.9	9.25	0.0	0.0	1.0
22376367	TO TX U79-PD	23184978-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	587.9	0	-1	1	0.00	0.1	115.82	0.0	0.0	0.0
24673744	24673713-NODE	24673743-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	18.9	854	276	898	95.15	37.4	7.72	0.0	0.0	11.4
24673760	24673743-NODE	FU25-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	8.4	148	50	156	94.73	6.5	6.91	0.0	0.0	2.1
24673387	FU25-PD	TO FU25-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.9	13.800	133.4	148	50	156	94.72	6.5	6.90	0.0	0.0	4.0
24673774	24673743-NODE	24673773-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	3.0	707	226	742	95.23	30.9	7.88	0.0	0.0	9.6
24673844	24673773-NODE	F2587-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.5	257	84	270	95.01	33.8	7.68	0.0	0.0	18.8
24673367	F2587-PD	TO F2587-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1725.0	257	84	270	95.01	33.8	7.68	0.4	0.1	18.8
24673961	TO F2587-PD	24673950-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.4	228	76	240	94.83	30.1	7.35	0.0	0.0	16.7
24673951	24673950-NODE	TO TX U211-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	127.2	228	76	240	94.83	30.1	7.35	0.0	0.0	16.7
24673928	TO TX U211-PD	24673971-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	103.3	199	67	210	94.84	26.3	7.38	0.0	0.0	14.6
24673989	24673971-NODE	TO TX U210-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.1	199	67	210	94.83	26.3	7.35	0.0	0.0	14.6
24673995	TO TX U210-PD	24673979-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.5	171	57	180	94.87	22.5	7.43	0.0	0.0	12.5
24673980	24673979-NODE	TO TX U209-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	167.0	171	57	180	94.87	22.5	7.42	0.0	0.0	12.5
24674014	TO TX U209-PD	24674038-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	237.6	142	47	150	94.89	18.8	7.47	0.0	0.0	10.4
24674056	24674038-NODE	TO TX U208-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.2	142	48	150	94.84	18.8	7.37	0.0	0.0	10.4
24674062	TO TX U208-PD	24674046-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.0	114	38	120	94.91	15.0	7.50	0.0	0.0	8.3
24674047	24674046-NODE	24674075-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	141.2	114	38	120	94.90	15.0	7.49	0.0	0.0	8.3
24674096	24674075-NODE	TO TX U207-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.0	114	38	120	94.87	15.0	7.42	0.0	0.0	8.3
24674102	TO TX U207-PD	24674083-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.6	85	28	90	94.96	11.3	7.60	0.0	0.0	6.3
24674084	24674083-NODE	24674114-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	679.6	85	28	90	94.96	11.3	7.59	0.0	0.0	6.3
24674138	24674114-NODE	TO TX U206-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.3	85	29	90	94.71	11.3	7.14	0.0	0.0	6.3
24674144	TO TX U206-PD	24674130-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.8	57	19	60	94.78	7.5	7.27	0.0	0.0	4.2
24674131	24674130-NODE	24674151-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	164.0	57	19	60	94.77	7.5	7.25	0.0	0.0	4.2
24674172	24674151-NODE	TO TX U24-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.3	57	19	60	94.68	7.5	7.09	0.0	0.0	4.2
24674178	TO TX U24-PD	24674159-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.4	28	10	30	94.80	3.8	7.29	0.0	0.0	2.1
24674164	24674159-NODE	23184669-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	195.8	28	10	30	94.78	3.8	7.27	0.0	0.0	2.1
24673850	24673773-NODE	F2594-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.2	200	64	210	95.19	26.3	7.42	0.0	0.0	14.6
24673356	F2594-PD	TO F2594-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	657.9	200	64	210	95.19	26.3	7.42	0.1	0.0	14.6
24674227	TO F2594-PD	24154992-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	240.6	167	54	175	95.13	22.0	7.31	0.0	0.0	12.2
24155000	24154992-NODE	TO TX U83-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.5	167	54	175	95.09	22.0	7.23	0.0	0.0	12.2
22374567	TO TX U83-PD	24155008-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.9	133	43	140	95.14	17.6	7.33	0.0	0.0	9.8
24155009	24155008-NODE	TO TX U89-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	256.3	133	43	140	95.14	17.6	7.33	0.0	0.0	9.8
24155030	TO TX U89-PD	24155022-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.6	100	32	105	95.15	13.2	7.35	0.0	0.0	7.3
24155023	24155022-NODE	TO TX U88-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	284.2	100	32	105	95.15	13.2	7.34	0.0	0.0	7.3

22374559	TO TX U88-PD	TO TX U87-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	474.6	67	22	70	95.16	8.8	7.37	0.0	0.0	4.9
22400446	TO TX U87-PD	23184194-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	171.5	33	11	35	95.02	4.4	7.11	0.0	0.0	2.4
24673860	24673773-NODE	F456-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	6.9	250	78	262	95.49	32.6	8.46	0.0	0.0	18.1
24674305	F456-PD	24673342-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	35.9	250	78	262	95.49	32.6	8.46	0.0	0.0	18.1
24673343	24673342-NODE	TO F456-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	301.9	250	78	262	95.49	32.6	8.45	0.1	0.0	18.1
24154944	TO F456-PD	24154936-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.0	222	69	233	95.49	29.0	8.47	0.0	0.0	16.1
24154937	24154936-NODE	24674313-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	249.8	222	69	233	95.49	29.0	8.46	0.0	0.0	16.1
24674321	24674313-NODE	TO TX U82-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	75.3	222	69	233	95.46	29.0	8.40	0.0	0.0	16.1
22375683	TO TX U82-PD	24154957-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	313.5	194	60	203	95.50	25.3	8.48	0.0	0.0	14.1
24154965	24154957-NODE	TO TX U85-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.9	194	61	203	95.45	25.4	8.38	0.0	0.0	14.1
24154981	TO TX U85-PD	24154973-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	21.6	167	52	174	95.51	21.7	8.50	0.0	0.0	12.1
24154974	24154973-NODE	TO TX U86-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	356.7	167	52	174	95.50	21.7	8.49	0.0	0.0	12.1
22375654	TO TX U86-PD	24151654-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	305.3	139	43	145	95.51	18.1	8.50	0.0	0.0	10.1
24151662	24151654-NODE	TO TX U90-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.6	139	43	145	95.44	18.1	8.37	0.0	0.0	10.1
24151677	TO TX U90-PD	24151669-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.2	111	34	116	95.53	14.5	8.53	0.0	0.0	8.0
24151670	24151669-NODE	TO TX U91-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	668.4	111	34	116	95.53	14.5	8.53	0.0	0.0	8.0
22400080	TO TX U91-PD	TO TX U84-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	296.9	83	26	87	95.43	10.9	8.34	0.0	0.0	6.0
22400114	TO TX U84-PD	24155041-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	285.1	55	17	58	95.44	7.2	8.36	0.0	0.0	4.0
24155049	24155041-NODE	TO TX U92-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.2	55	18	58	95.28	7.3	8.06	0.0	0.0	4.0
22400135	TO TX U92-PD	23187814-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	344.2	28	9	29	95.46	3.6	8.41	0.0	0.0	2.0
25660316	25660192-NODE	25660198-NODE	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	3.7	21067	6997	22199	94.88	442.3	-18.37	0.1	0.1	77.2
25660324	25660198-NODE	NA280M6-PD	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	4.8	21067	6997	22199	94.88	442.3	-18.38	0.1	0.1	77.2
25660334	NA280M6-PD	25660343-NODE	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	5.0	21067	6997	22199	94.87	442.3	-18.38	0.1	0.1	77.2
25413412	25660343-NODE	S4332-PD	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	320.6	21067	6997	22199	94.87	442.3	-18.38	6.8	6.5	77.2
25970650	S4332-PD	25622740-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	10.4	21060	6997	22192	94.87	442.3	-18.39	0.3	0.3	94.1
21779509	JJ23524043-NODE	TO FZ386-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	55.0	621	167	643	96.53	13.0	-16.43	0.0	0.0	10.1
21729515	JJ23441273-NODE	TO F3944-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	766.1	449	99	459	97.66	28.0	-13.95	0.2	0.1	20.1
22402529	TO F3944-PD	TO TX Z86-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	842.9	404	90	414	97.61	25.2	-14.07	0.2	0.1	18.1
22402522	TO TX Z86-PD	TO TX Z91-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	293.5	359	81	368	97.54	22.4	-14.26	0.0	0.0	16.1
21700847	TO TX Z91-PD	TO TX Z92-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	237.4	314	70	322	97.58	19.6	-14.15	0.0	0.0	14.1
22402517	TO TX Z92-PD	TO TX Z93-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	602.4	269	59	275	97.66	16.8	-13.95	0.1	0.0	12.0
22402511	TO TX Z93-PD	TO TX Z95-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	262.7	224	50	230	97.63	14.0	-14.02	0.0	0.0	10.0
22402485	TO TX Z95-PD	TO TX Z94-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	654.1	179	39	183	97.75	11.2	-13.72	0.0	0.0	8.0
22402479	TO TX Z94-PD	TO TX Z99-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	144.1	134	29	138	97.70	8.4	-13.83	0.0	0.0	6.0
22402473	TO TX Z99-PD	TO TX Z100-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	569.1	90	18	91	98.05	5.6	-12.86	0.0	0.0	4.0
22402429	TO TX Z100-PD	TO TX Z101-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	426.3	45	8	46	98.36	2.8	-11.94	0.0	0.0	2.0
22402376	TO TX Z101-PD	24233855-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	535.8	0	-2	2	0.00	0.1	88.47	0.0	0.0	0.1
21729530	JJ23441303-NODE	TO F3945-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1014.6	312	53	316	98.61	19.2	-11.22	0.1	0.0	13.8
22402535	TO F3945-PD	TO TX Z87-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	555.4	273	48	277	98.51	16.8	-11.55	0.1	0.0	12.1
22402498	TO TX Z87-PD	TO TX Z89-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	664.5	234	41	237	98.50	14.4	-11.58	0.0	0.0	10.3
24758883	TO TX Z89-PD	JJ23450579-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	16.5	195	35	198	98.45	12.0	-11.74	0.0	0.0	8.6
22435387	JJ23450579-NODE	TO TX Z97-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	514.2	195	35	198	98.45	12.0	-11.76	0.0	0.0	8.6
22435383	TO TX Z97-PD	TO TX Z230-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	330.5	156	28	158	98.44	9.6	-11.79	0.0	0.0	6.9
22435396	TO TX Z230-PD	TO TX Z228-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	478.3	117	20	119	98.52	7.2	-11.51	0.0	0.0	5.2
22402467	TO TX Z228-PD	TO TX Z98-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	339.4	78	13	79	98.57	4.8	-11.36	0.0	0.0	3.4
22402447	TO TX Z98-PD	TO TX Z102-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	637.1	39	6	39	98.91	2.4	-10.13	0.0	0.0	1.7
22402443	TO TX Z102-PD	24233669-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	147.1	0	-1	1	0.00	0.0	88.35	0.0	0.0	0.0
22353193	JJ23404079-NODE	TO F3837-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	228.6	62	14	63	97.51	3.8	-14.50	0.0	0.0	2.8

22353197	TO F3837-PD	TO TX V552-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	346.2	31	6	31	97.85	1.9	-13.58	0.0	0.0	1.4
22353202	TO TX V552-PD	24426600-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	153.2	0	-1	1	0.00	0.0	88.32	0.0	0.0	0.0
22353209	JJ23404049-NODE	TO F3836-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	611.9	62	13	63	97.89	3.8	-13.51	0.0	0.0	2.7
22353205	TO F3836-PD	24426600-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	416.1	31	7	32	97.64	1.9	-14.18	0.0	0.0	1.4
21729568	F3943-PD	JJ23490575-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1.3	404	88	413	97.69	25.2	-14.00	0.0	0.0	18.1
21729565	JJ23490575-NODE	JJ23490585-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	466.7	404	88	413	97.69	25.2	-14.00	0.1	0.0	18.1
21729560	JJ23490585-NODE	TO F3943-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	373.5	404	90	414	97.60	25.3	-14.24	0.1	0.0	18.1
22401621	TO F3943-PD	TO TX Z85-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1596.5	359	80	368	97.62	22.5	-14.17	0.3	0.1	16.1
22401609	TO TX Z85-PD	TO TX Z165-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	254.2	314	74	322	97.35	19.7	-14.89	0.0	0.0	14.1
22401597	TO TX Z165-PD	TO TX Z166-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	424.4	269	63	276	97.38	16.9	-14.81	0.0	0.0	12.1
22401512	TO TX Z166-PD	TO TX Z167-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	804.7	224	53	230	97.36	14.1	-14.85	0.1	0.0	10.1
22401499	TO TX Z167-PD	TO TX Z172-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	391.5	179	44	185	97.16	11.3	-15.35	0.0	0.0	8.1
22401383	TO TX Z172-PD	TO TX Z179-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	293.8	134	33	139	97.08	8.5	-15.55	0.0	0.0	6.1
22401370	TO TX Z179-PD	TO TX Z180-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	226.1	90	22	92	97.00	5.7	-15.73	0.0	0.0	4.1
22401355	TO TX Z180-PD	24234123-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	131.9	45	11	46	96.91	2.8	-15.94	0.0	0.0	2.0
21729579	F3952-PD	JJ23490545-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1.6	328	68	335	97.95	20.4	-13.41	0.0	0.0	14.7
21729576	JJ23490545-NODE	JJ23490557-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	477.7	328	68	335	97.95	20.4	-13.41	0.1	0.0	14.7
21729572	JJ23490557-NODE	TO F3952-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	698.0	328	69	335	97.84	20.5	-13.72	0.1	0.0	14.7
21700840	TO F3952-PD	TO TX Z134-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	894.1	287	61	293	97.83	17.9	-13.74	0.1	0.0	12.8
22401677	TO TX Z134-PD	TO TX Z160-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	273.8	246	53	252	97.76	15.4	-13.94	0.0	0.0	11.0
22401661	TO TX Z160-PD	TO TX Z161-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	220.8	205	43	209	97.89	12.8	-13.58	0.0	0.0	9.2
22401650	TO TX Z161-PD	TO TX Z162-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	525.5	164	32	167	98.10	10.2	-12.98	0.0	0.0	7.3
22401583	TO TX Z162-PD	TO TX Z163-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1067.4	123	23	125	98.26	7.6	-12.49	0.0	0.0	5.5
22401569	TO TX Z163-PD	TO TX Z168-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	218.6	82	16	84	98.12	5.1	-12.91	0.0	0.0	3.7
22401555	TO TX Z168-PD	TO TX Z169-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	492.7	41	6	41	99.03	2.5	-9.77	0.0	0.0	1.8
22401541	TO TX Z169-PD	JJ23446447-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	571.5	0	-4	4	0.00	0.2	88.21	0.0	0.0	0.2
25232052	JJ23446447-NODE	24233093-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	364.9	0	-1	1	0.00	0.1	88.21	0.0	0.0	0.1
21729591	F3953-PD	JJ23490499-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1.4	312	54	316	98.53	19.2	-11.62	0.0	0.0	13.8
21729582	JJ23490499-NODE	JJ23490513-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	477.3	312	54	316	98.53	19.2	-11.62	0.1	0.0	13.8
21729587	JJ23490513-NODE	TO F3953-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	833.7	312	56	317	98.43	19.3	-11.95	0.1	0.0	13.8
22401636	TO F3953-PD	TO TX Z159-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	548.6	273	50	277	98.35	16.9	-12.23	0.1	0.0	12.1
22401526	TO TX Z159-PD	TO TX Z164-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	618.8	234	43	238	98.31	14.5	-12.33	0.0	0.0	10.4
22401486	TO TX Z164-PD	TO TX Z171-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	605.9	195	37	198	98.24	12.1	-12.56	0.0	0.0	8.7
22401471	TO TX Z171-PD	TO TX Z173-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	351.7	156	31	159	98.13	9.7	-12.88	0.0	0.0	6.9
22401457	TO TX Z173-PD	TO TX Z174-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	203.0	117	23	119	98.11	7.3	-12.95	0.0	0.0	5.2
22401446	TO TX Z174-PD	TO TX Z175-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	191.7	78	15	79	98.20	4.8	-12.68	0.0	0.0	3.5
22401431	TO TX Z175-PD	TO TX Z176-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	468.9	39	7	40	98.47	2.4	-11.81	0.0	0.0	1.7
25232493	TO TX Z176-PD	24234006-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	39.3	0	0	0	0.00	0.0	88.20	0.0	0.0	0.0
21779786	JJ23523637-NODE	S4170-PD	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	962.0	2158	453	2205	97.85	44.9	-13.68	0.3	0.3	9.9
24975925	S4170-PD	24975924-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	3.7	2158	474	2209	97.66	44.9	-14.22	0.0	0.0	9.9
24975935	24975924-NODE	24975934-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	6.9	2158	474	2209	97.65	44.9	-14.22	0.0	0.0	9.9
24975943	24975934-NODE	F4224-PD	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	2.2	332	65	339	98.11	6.9	-12.93	0.0	0.0	1.6
24975971	F4224-PD	24975970-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	5.1	332	65	339	98.11	6.9	-12.93	0.0	0.0	5.3
25319975	24975970-NODE	TO F4224-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	75.3	332	65	339	98.10	6.9	-12.94	0.0	0.0	5.3
25845585	TO F4224-PD	TO TX Z397-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	1686.3	208	34	210	98.65	4.3	-11.17	0.0	0.0	3.3
24975953	24975934-NODE	24975952-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	3.7	1825	409	1871	97.56	38.1	-14.46	0.0	0.0	8.3
24975961	24975952-NODE	FZ400-PD	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	2.8	621	160	641	96.83	13.1	-16.24	0.0	0.0	3.0
25320008	FZ400-PD	TO FZ400-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	750.2	621	160	641	96.83	13.1	-16.25	0.1	0.0	10.1

24975981	24975952-NODE	24975980-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	9.0	1204	249	1230	97.90	25.0	-13.53	0.0	0.0	5.5
24975989	24975980-NODE	F4063-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	6.1	410	99	422	97.22	25.8	-15.41	0.0	0.0	18.5
21754705	F4063-PD	JJ23447675-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	420.4	410	99	422	97.22	25.8	-15.41	0.1	0.0	18.5
22414224	JJ23447675-NODE	TO F4063-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	163.1	410	100	422	97.13	25.8	-15.62	0.0	0.0	18.5
22414225	TO F4063-PD	TO TX Z211-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	653.2	369	90	380	97.17	23.2	-15.54	0.1	0.0	16.6
22414227	TO TX Z211-PD	TO TX Z210-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	335.2	328	81	338	97.08	20.6	-15.75	0.0	0.0	14.8
22414229	TO TX Z210-PD	JJ23447615-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	178.8	287	71	296	97.07	18.1	-15.79	0.0	0.0	13.0
25418059	JJ23447615-NODE	TO TX Z209-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	97.4	287	72	296	97.01	18.1	-15.92	0.0	0.0	13.0
21766930	TO TX Z209-PD	TO TX Z296-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	75.3	246	61	253	97.07	15.5	-15.79	0.0	0.0	11.1
21766901	TO TX Z296-PD	TO TX Z297-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	322.3	205	50	211	97.15	12.9	-15.59	0.0	0.0	9.2
21766893	TO TX Z297-PD	TO TX Z298-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	162.0	164	40	169	97.15	10.3	-15.59	0.0	0.0	7.4
21766885	TO TX Z298-PD	TO TX Z299-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	204.7	123	29	126	97.25	7.7	-15.34	0.0	0.0	5.5
21766879	TO TX Z299-PD	TO TX Z300-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	165.9	82	19	84	97.42	5.1	-14.93	0.0	0.0	3.7
21766872	TO TX Z300-PD	JJ23509453-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	161.9	41	8	42	97.95	2.6	-13.50	0.0	0.0	1.8
21766802	JJ23509453-NODE	24237498-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	565.8	41	9	42	97.65	2.6	-14.33	0.0	0.0	1.8
24975995	24975980-NODE	F4064-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	4.8	390	75	397	98.17	24.2	-12.85	0.0	0.0	17.3
21779795	F4064-PD	TO F4064-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	39.0	390	76	397	98.17	24.2	-12.86	0.0	0.0	17.3
21766946	TO F4064-PD	TO TX Z384-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1016.8	351	67	357	98.23	21.7	-12.68	0.2	0.1	15.6
21766953	TO TX Z384-PD	TO TX Z274-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	278.2	312	62	318	98.09	19.4	-13.12	0.0	0.0	13.9
21766995	TO TX Z274-PD	TO TX Z275-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	260.0	273	54	278	98.09	16.9	-13.11	0.0	0.0	12.1
25230150	TO TX Z275-PD	TO TX Z276-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	326.2	234	46	238	98.10	14.5	-13.09	0.0	0.0	10.4
25230175	TO TX Z276-PD	TO TX Z277-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	164.0	195	39	198	98.09	12.1	-13.12	0.0	0.0	8.7
21766974	TO TX Z277-PD	TO TX Z278-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	136.7	156	30	159	98.14	9.7	-12.95	0.0	0.0	6.9
21766908	TO TX Z278-PD	TO TX Z279-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	694.0	117	22	119	98.25	7.2	-12.62	0.0	0.0	5.2
25230250	TO TX Z279-PD	TO TX Z280-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	187.5	78	16	79	97.96	4.8	-13.48	0.0	0.0	3.5
25230277	TO TX Z280-PD	24237365-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	255.6	39	8	40	98.03	2.4	-13.30	0.0	0.0	1.7
24976001	24975980-NODE	F4065-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	6.4	404	75	411	98.31	25.1	-12.29	0.0	0.0	18.0
24835711	F4065-PD	JJ23447775-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	195.8	404	75	411	98.31	25.1	-12.29	0.0	0.0	18.0
22414214	JJ23447775-NODE	TO TX Z214-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1745.7	404	76	411	98.28	25.1	-12.39	0.4	0.1	18.0
22414216	TO TX Z214-PD	TO TX Z213-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1745.7	359	71	366	98.12	22.4	-12.88	0.3	0.1	16.1
22414218	TO TX Z213-PD	TO TX Z212-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	285.4	314	65	321	97.91	19.6	-13.50	0.0	0.0	14.1
22414220	TO TX Z212-PD	TO TX Z208-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1745.7	269	54	275	98.02	16.8	-13.19	0.2	0.1	12.1
22414222	TO TX Z208-PD	TO TX Z207-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	304.3	224	49	229	97.69	14.1	-14.12	0.0	0.0	10.1
22414233	TO TX Z207-PD	TO TX Z206-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1316.6	179	38	183	97.79	11.2	-13.83	0.1	0.0	8.1
26019449	TO TX Z206-PD	TO TX Z320-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	172.7	134	31	138	97.38	8.5	-14.91	0.0	0.0	6.1
26019443	TO TX Z320-PD	TO TX Z319-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	597.5	90	20	92	97.57	5.6	-14.43	0.0	0.0	4.0
21766719	TO TX Z319-PD	TO TX Z318-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	202.9	45	10	46	97.37	2.8	-14.94	0.0	0.0	2.0
21766712	TO TX Z318-PD	24238002-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	172.7	0	-1	1	0.00	0.0	88.23	0.0	0.0	0.0
22373713	JJ23436169-NODE	24295656-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	317.5	29	5	30	98.33	1.8	-12.49	0.0	0.0	1.3
22373725	JJ23436145-NODE	TO F3936-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	112.5	88	11	88	99.22	5.4	-9.19	0.0	0.0	3.9
22373723	TO F3936-PD	TO TX V623-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1508.5	59	5	59	99.66	3.6	-6.74	0.0	0.0	2.6
22373720	TO TX V623-PD	TO TX V624-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	346.4	29	4	30	99.09	1.8	-9.76	0.0	0.0	1.3
22373718	TO TX V624-PD	24295656-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	348.1	0	-1	1	0.00	0.1	87.96	0.0	0.0	0.1
22123748	JJ23330999-NODE	TO FV435-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	16.2	125	32	129	96.87	2.6	-16.36	0.0	0.0	2.0
22247967	JJ23361083-NODE	TO FV487-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	369.4	208	49	213	97.28	4.4	-15.44	0.0	0.0	3.4
22292526	JJ23378721-NODE	TO FV518-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	80.6	125	31	129	97.01	2.6	-16.12	0.0	0.0	2.0
21984687	JJ23296711-NODE	FU518-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	7.9	415	106	428	96.88	8.8	-16.53	0.0	0.0	6.8
21984676	FU518-PD	TO FU518-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	90.6	415	106	428	96.87	8.8	-16.54	0.0	0.0	6.8

26562847	27269913-NODE	S4533-PD	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.2	27.600	11.0	0	-11	11	0.00	0.2	87.70	0.0	0.0	0.0
26757328	S4533-PD	27097326-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.2	27.600	463.6	0	-11	11	0.00	0.2	87.70	0.0	0.0	0.0
27097327	27097326-NODE	27097316-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.2	27.600	17.2	0	0	0	0.00	0.0	87.70	0.0	0.0	0.0
22211418	JJ23339729-NODE	TO FU549-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.2	27.600	9.3	63	16	65	96.92	1.3	-16.69	0.0	0.0	1.0
21912237	JJ23558327-NODE	TO FU548-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.0	27.600	47.2	63	15	65	97.07	1.3	-16.79	0.0	0.0	1.0
25039121	JJ23557491-NODE	25369440-NODE	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	28.0	27.600	203.0	6225	2164	6590	94.26	135.9	-22.15	0.4	0.4	24.8
25369431	25369440-NODE	S509-PD	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	28.0	27.600	248.5	6224	2167	6591	94.25	135.9	-22.18	0.7	0.7	34.2
25039364	S509-PD	25039363-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	28.0	27.600	9.0	6224	2171	6591	94.23	135.9	-22.22	0.1	0.0	79.5
25039372	25039363-NODE	25039272-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	28.0	27.600	12.0	0	0	0	0.00	0.0	87.02	0.0	0.0	0.0
25039488	25039363-NODE	S506-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	28.0	27.600	3.8	6224	2171	6591	94.23	135.9	-22.22	0.0	0.0	79.5
25039524	S506-PD	FU32-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	28.0	27.600	3.3	6223	2171	6591	94.23	135.9	-22.22	0.0	0.0	79.5
25039554	FU32-PD	U32-XFO	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	28.0	27.600	5.8	6223	2171	6591	94.23	135.9	-22.22	0.1	0.0	79.5
25039587	U32-XFO	S2412-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	4.1	6215	1997	6528	95.20	271.9	7.78	0.0	0.0	30.3
25747613	S2412-PD	25747565-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	4.3	6215	1997	6528	95.20	271.9	7.78	0.0	0.0	30.3
25039940	25747565-NODE	25039911-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	3.5	6215	1997	6528	95.20	271.9	7.78	0.0	0.0	30.3
25039912	25039911-NODE	25039609-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	4.1	4011	1298	4216	95.14	175.6	7.65	0.0	0.0	20.4
25039894	25039609-NODE	25039875-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	5.3	4011	1298	4216	95.14	175.6	7.65	0.0	0.0	20.4
25039924	25039911-NODE	25039869-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	5.4	2204	700	2312	95.31	96.3	8.00	0.0	0.0	9.9
25747566	25747565-NODE	25039282-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.9	13.800	12.0	0	0	0	0.00	0.0	115.62	0.0	0.0	0.0
22211780	JJ23338683-NODE	TO F3444-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	408.7	309	50	313	98.73	19.4	-12.88	0.1	0.0	13.9
22211765	TO F3444-PD	TO TX AD41-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	350.5	279	44	283	98.76	17.6	-12.79	0.0	0.0	12.6
22211744	TO TX AD41-PD	TO TX AD55-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	385.6	250	39	253	98.80	15.7	-12.64	0.0	0.0	11.3
22211727	TO TX AD55-PD	TO TX AD42-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	324.8	221	34	223	98.84	13.9	-12.48	0.0	0.0	9.9
22211708	TO TX AD42-PD	TO TX AD43-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	414.1	192	28	194	98.92	12.0	-12.20	0.0	0.0	8.6
22211686	TO TX AD43-PD	TO TX AD44-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	1118.4	162	23	164	98.98	10.2	-11.94	0.0	0.0	7.3
26696572	TO TX AD44-PD	TO TX AD45-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	339.1	133	21	135	98.80	8.4	-12.65	0.0	0.0	6.0
26696584	TO TX AD45-PD	TO TX AD79-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	749.3	94	13	95	99.03	5.9	-11.75	0.0	0.0	4.2
22211634	TO TX AD79-PD	TO TX AD46-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	956.3	65	9	66	98.98	4.1	-11.96	0.0	0.0	2.9
22211613	TO TX AD46-PD	27113464-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	519.1	0	-2	2	0.00	0.1	86.24	0.0	0.0	0.1
25711985	S4023-PD	S458-PD	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	27.7	27.600	108.2	5155	1630	5407	95.35	112.7	-21.48	0.2	0.2	27.1
25016849	S458-PD	S456-PD	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	27.7	27.600	20.4	5155	1632	5407	95.34	112.7	-21.51	0.0	0.0	27.1
25017070	S456-PD	FAK52-PD	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	27.7	27.600	11.9	5155	1632	5407	95.33	112.7	-21.51	0.0	0.0	27.1
25017732	FAK52-PD	AK52-XFO	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	27.7	27.600	3.6	5155	1632	5407	95.33	112.7	-21.51	0.0	0.0	27.1
25018046	AK52-XFO	S3367-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	5.3	5143	1473	5350	96.13	225.4	8.49	0.0	0.0	32.5
25018068	S3367-PD	25018059-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	5.2	5143	1473	5350	96.13	225.4	8.49	0.0	0.0	32.5
25018441	25018059-NODE	25018440-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	2.2	5143	1473	5350	96.13	225.4	8.49	0.0	0.0	32.5
25018449	25018440-NODE	25018148-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	6.6	964	281	1004	96.01	42.3	8.23	0.0	0.0	6.5
25018459	25018440-NODE	25018458-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	5.7	4179	1192	4346	96.16	183.1	8.55	0.0	0.0	26.8
25018467	25018458-NODE	S2384-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	4.6	2719	779	2829	96.13	119.2	8.48	0.0	0.0	19.0
25018410	S2384-PD	25018390-NODE	500KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	4.3	2719	779	2829	96.13	119.2	8.48	0.0	0.0	21.2
25018391	25018390-NODE	25018077-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	5.2	1123	330	1170	95.92	49.3	8.00	0.0	0.0	9.9
25018372	25018077-NODE	25018130-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	6.5	1123	331	1170	95.91	49.3	7.99	0.0	0.0	9.9
25711975	25018077-NODE	25711974-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	1.9	0	0	0	0.00	0.0	114.47	0.0	0.0	0.0
25018078	25711974-NODE	25017743-NODE	500KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	8.0	0	0	0	0.00	0.0	114.47	0.0	0.0	0.0
25018399	25018390-NODE	25018136-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	6.6	1597	448	1658	96.27	69.9	8.82	0.0	0.0	14.0
25018485	25018458-NODE	25018142-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.7	13.800	6.6	1460	413	1517	96.21	63.9	8.66	0.0	0.0	10.0
25016866	S458-PD	S459-PD	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	27.7	27.600	15.9	0	-1	1	0.00	0.0	86.06	0.0	0.0	0.0
25017026	S459-PD	S460-PD	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	27.7	27.600	4.7	0	0	0	0.00	0.0	86.06	0.0	0.0	0.0

25017090	S460-PD	FAK55-PD	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	27.7	27.600	5.4	0	0	0	0.00	0.0	86.06	0.0	0.0	0.0
25017724	FAK55-PD	AK55-XFO	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	27.7	27.600	4.1	0	0	0	0.00	0.0	86.06	0.0	0.0	0.0
25018009	AK55-XFO	25017743-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	13.9	13.800	4.7	0	0	0	0.00	0.0	116.06	0.0	0.0	0.0
22211473	JJ23338597-NODE	TO F3445-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	283.3	240	42	244	98.52	15.2	-13.86	0.0	0.0	10.9
27103743	TO F3445-PD	TO TX AD54-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	555.0	211	36	214	98.57	13.3	-13.72	0.0	0.0	9.6
27103787	TO TX AD54-PD	TO TX AD53-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	953.5	182	32	185	98.53	11.5	-13.85	0.0	0.0	8.2
27103804	TO TX AD53-PD	TO TX AD52-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	381.8	153	28	155	98.31	9.7	-14.55	0.0	0.0	6.9
27103858	27103664-NODE	TO TX AD51-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	385.3	123	23	126	98.28	7.8	-14.65	0.0	0.0	5.6
27103895	TO TX AD51-PD	TO TX AD50-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	280.3	59	10	59	98.62	3.7	-13.52	0.0	0.0	2.6
27103914	TO TX AD50-PD	27113464-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	664.6	29	4	30	98.99	1.8	-12.17	0.0	0.0	1.3
21755071	FAK85-PD	TO FAK85-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	36.6	45	12	46	96.71	2.9	-18.04	0.0	0.0	2.1
21820884	JJ23525995-NODE	23173827-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.9	27.600	96.5	0	-1	1	0.00	0.0	86.58	0.0	0.0	0.0
24801558	24801504-NODE	F1 IN PT AH76-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.9	27.600	119.0	0	-1	1	0.00	0.0	86.58	0.0	0.0	0.0
21990820	JJ23290859-NODE	23177197-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.9	27.600	74.2	0	-1	1	0.00	0.0	86.58	0.0	0.0	0.0
21990800	JJ23290893-NODE	23176312-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.9	27.600	76.8	0	-1	1	0.00	0.0	86.58	0.0	0.0	0.0
22246607	JJ23368077-NODE	26142674-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	640.7	0	-2	2	0.00	0.1	87.14	0.0	0.0	0.1
27146945	FU557-PD	TO FU557-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	24.1	312	82	323	96.69	6.6	-16.91	0.0	0.0	5.1
25038963	24384071-NODE	TO F4130-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	163.8	41	9	42	97.62	2.6	-14.62	0.0	0.0	1.8
25038972	TO F4130-PD	24377969-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	387.6	0	-1	1	0.00	0.1	87.92	0.0	0.0	0.1
25038992	24384291-NODE	24377969-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	189.0	41	10	42	96.88	2.6	-16.43	0.0	0.0	1.9
22373886	JJ23419151-NODE	JJ23435237-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	466.7	1534	355	1575	97.40	32.1	-15.02	0.1	0.1	8.4
24978577	JJ23435237-NODE	S3995-PD	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	31.5	1534	366	1577	97.26	32.1	-15.39	0.0	0.0	8.4
24978636	S3995-PD	24978635-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	9.9	1534	366	1577	97.25	32.2	-15.41	0.0	0.0	8.4
24978641	24978635-NODE	FZ268-PD	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	7.0	627	160	647	96.89	13.2	-16.27	0.0	0.0	3.0
24978651	FZ268-PD	24809089-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	32.9	627	160	647	96.88	13.2	-16.29	0.0	0.0	10.2
24978478	24809089-NODE	24978477-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	147.8	627	160	647	96.87	13.2	-16.32	0.0	0.0	10.2
24978467	24978477-NODE	TO FZ268-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	720.8	627	162	647	96.81	13.2	-16.46	0.1	0.0	10.2
24978675	24978635-NODE	24978674-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	10.4	907	207	931	97.48	19.0	-14.82	0.0	0.0	5.4
24978682	24978674-NODE	24978681-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	6.1	0	0	0	0.00	0.0	88.01	0.0	0.0	0.0
24978691	24978674-NODE	24978690-NODE	1000KCMIL_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.3	27.600	10.4	907	207	931	97.47	19.0	-14.85	0.0	0.0	5.4
24978696	24978690-NODE	F3933-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	8.4	328	81	338	97.08	20.7	-15.89	0.0	0.0	14.8
24978720	F3933-PD	JJ23435269-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	10.4	328	81	338	97.08	20.7	-15.90	0.0	0.0	14.8
22373875	JJ23435269-NODE	TO F3933-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	190.8	328	81	338	97.08	20.7	-15.90	0.0	0.0	14.8
22366744	TO F3933-PD	TO TX Z43-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	699.5	287	71	296	97.10	18.1	-15.84	0.1	0.0	13.0
22366741	TO TX Z43-PD	TO TX Z44-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	309.0	246	62	254	96.96	15.5	-16.18	0.0	0.0	11.1
22366738	TO TX Z44-PD	TO TX Z45-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	106.8	205	52	211	96.93	12.9	-16.26	0.0	0.0	9.3
22366734	TO TX Z45-PD	TO TX Z46-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	468.1	164	41	169	96.98	10.3	-16.13	0.0	0.0	7.4
22366731	TO TX Z46-PD	TO TX Z47-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	247.0	123	32	127	96.82	7.8	-16.51	0.0	0.0	5.6
22366728	TO TX Z47-PD	TO TX Z48-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	168.0	82	22	85	96.72	5.2	-16.72	0.0	0.0	3.7
22366726	TO TX Z48-PD	24236562-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	68.6	41	11	42	96.61	2.6	-16.97	0.0	0.0	1.9
24978702	24978690-NODE	F3931-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	6.2	176	34	179	98.22	10.9	-12.88	0.0	0.0	7.8
24978727	F3931-PD	JJ23502071-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	38.5	176	34	179	98.22	10.9	-12.89	0.0	0.0	7.8
21720819	JJ23502071-NODE	TO F3931-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	375.6	176	34	179	98.21	10.9	-12.94	0.0	0.0	7.8
21720815	TO F3931-PD	TO TX Z253-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	271.6	146	29	149	98.15	9.1	-13.10	0.0	0.0	6.5
21720812	TO TX Z253-PD	TO TX Z254-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	347.2	117	23	119	98.13	7.3	-13.15	0.0	0.0	5.2
21720808	TO TX Z254-PD	TO TX Z255-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	282.8	88	18	90	98.04	5.5	-13.43	0.0	0.0	3.9
24236260	TO TX Z255-PD	TO TX Z256-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	235.8	59	12	60	97.93	3.6	-13.74	0.0	0.0	2.6
21720805	TO TX Z256-PD	24236245-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	69.4	29	6	30	97.72	1.8	-14.34	0.0	0.0	1.3

24978708	24978690-NODE	F3932-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	8.0	404	93	414	97.45	25.4	-14.87	0.0	0.0	18.2
24978714	F3932-PD	JJ23435253-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	14.3	404	93	414	97.45	25.4	-14.87	0.0	0.0	18.2
22373879	JJ23435253-NODE	TO F3932-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	870.4	404	93	414	97.45	25.4	-14.88	0.2	0.1	18.2
22366695	TO F3932-PD	TO TX Z59-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	274.2	359	84	368	97.34	22.6	-15.14	0.0	0.0	16.2
22366692	TO TX Z59-PD	TO TX Z60-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	87.4	314	73	322	97.37	19.7	-15.09	0.0	0.0	14.2
22366689	TO TX Z60-PD	TO TX Z61-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	433.2	269	62	276	97.45	16.9	-14.87	0.0	0.0	12.1
22366686	TO TX Z61-PD	TO TX Z62-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	408.1	224	52	230	97.45	14.1	-14.88	0.0	0.0	10.1
22366683	TO TX Z62-PD	TO TX Z63-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	496.9	179	41	184	97.45	11.3	-14.87	0.0	0.0	8.1
22366680	TO TX Z63-PD	TO TX Z64-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	178.7	134	31	138	97.41	8.5	-14.98	0.0	0.0	6.1
22366677	TO TX Z64-PD	TO TX Z65-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	311.9	90	20	92	97.60	5.6	-14.48	0.0	0.0	4.0
22366674	TO TX Z65-PD	24237001-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	697.1	45	9	46	97.93	2.8	-13.59	0.0	0.0	2.0
22373769	JJ23435745-NODE	TO F3934-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	295.5	123	30	127	97.20	7.7	-15.49	0.0	0.0	5.6
22373764	TO F3934-PD	TO TX V615-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	290.3	92	22	95	97.16	5.8	-15.59	0.0	0.0	4.2
22373762	TO TX V615-PD	TO TX V616-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	203.8	62	15	63	97.09	3.9	-15.76	0.0	0.0	2.8
22373758	24295527-NODE	TO TX V616-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	220.0	31	8	32	97.11	1.9	-15.71	0.0	0.0	1.4
22373744	F3935-PD	TO F3935-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	201.9	123	30	127	97.21	7.7	-15.44	0.0	0.0	5.5
22373746	TO F3935-PD	TO TX V622-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	311.7	92	22	95	97.26	5.8	-15.31	0.0	0.0	4.2
22373748	TO TX V622-PD	TO TX V621-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	195.2	62	15	63	97.22	3.9	-15.44	0.0	0.0	2.8
22373750	TO TX V621-PD	TO TX V620-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	213.3	31	7	32	97.38	1.9	-15.02	0.0	0.0	1.4
22373754	TO TX V620-PD	24295527-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	106.2	0	0	0	0.00	0.0	88.12	0.0	0.0	0.0
21729545	JJ23441333-NODE	TO F3946-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	1322.5	493	114	506	97.42	30.8	-14.70	0.4	0.1	22.1
22435426	TO F3946-PD	TO TX Z88-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	322.2	451	108	464	97.26	28.3	-15.10	0.1	0.0	20.3
24232577	TO TX Z88-PD	TO TX Z224-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	304.5	410	98	422	97.27	25.7	-15.08	0.1	0.0	18.4
22435431	TO TX Z224-PD	TO TX Z223-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	253.0	369	88	379	97.28	23.1	-15.04	0.0	0.0	16.6
22435436	TO TX Z223-PD	TO TX Z222-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	218.5	328	78	337	97.31	20.6	-14.96	0.0	0.0	14.7
22435441	TO TX Z222-PD	TO TX Z221-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	333.6	287	67	295	97.36	18.0	-14.84	0.0	0.0	12.9
22435446	TO TX Z221-PD	TO TX Z220-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	233.3	246	57	253	97.39	15.4	-14.76	0.0	0.0	11.0
22402504	TO TX Z220-PD	TO TX Z90-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	436.3	205	47	210	97.47	12.8	-14.56	0.0	0.0	9.2
25231795	TO TX Z90-PD	TO TX Z96-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	240.2	164	37	168	97.49	10.3	-14.51	0.0	0.0	7.4
22435379	TO TX Z96-PD	TO TX Z231-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	510.4	123	27	126	97.65	7.7	-14.10	0.0	0.0	5.5
22435392	TO TX Z231-PD	TO TX Z229-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	249.0	82	18	84	97.70	5.1	-13.96	0.0	0.0	3.7
25231869	TO TX Z229-PD	TO TX Z227-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	713.9	41	8	42	98.31	2.5	-12.20	0.0	0.0	1.8
22402454	TO TX Z227-PD	24233557-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	27.600	220.7	0	-1	1	0.00	0.1	88.34	0.0	0.0	0.0
22247542	JJ23364219-NODE	TO FZ29-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	40.2	208	53	214	96.88	4.3	-15.51	0.0	0.0	3.4
25660437	25660343-NODE	25660420-NODE	1000KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	29.0	27.600	3.5	0	0	0	0.00	0.0	90.00	0.0	0.0	0.0
24577479	S1330-PD	23618532-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	129.9	1123	332	1171	95.88	49.3	7.92	0.1	0.2	24.7
22211286	23618532-NODE	JJ23277161-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	4172.8	1115	330	1163	95.88	49.0	7.91	2.2	5.8	24.7
21938624	JJ23277161-NODE	FAK26-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	453.1	5	1	5	95.94	0.6	7.63	0.0	0.0	0.5
21938630	FAK26-PD	21872319-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	279.5	5	1	5	95.81	0.6	7.38	0.0	0.0	0.5
22211334	JJ23277161-NODE	S3774-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	3870.1	1108	323	1155	95.98	48.8	7.87	2.0	5.3	24.5
22211318	S3774-PD	23618608-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	31.1	1106	319	1151	96.08	48.8	7.83	0.0	0.0	24.5
21986462	23618608-NODE	26562286-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	397.2	1100	317	1145	96.08	48.6	7.82	0.2	0.5	24.5
26562287	26562286-NODE	JJ23294767-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	953.5	1054	303	1097	96.10	46.5	7.84	0.5	1.2	23.6
22274739	JJ23294767-NODE	S3865-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	1283.8	1044	299	1086	96.12	46.1	7.84	0.6	1.6	23.1
22274738	S3865-PD	JJ23276367-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	103.8	1043	298	1085	96.15	46.1	7.82	0.0	0.1	23.1
21936185	JJ23276367-NODE	JJ23278537-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	70.7	972	279	1011	96.10	43.0	7.69	0.0	0.1	23.1
21985573	JJ23278537-NODE	JJ23295593-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	454.1	968	278	1007	96.10	42.8	7.69	0.2	0.5	23.1
21985651	JJ23295593-NODE	23618714-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	116.5	958	275	997	96.11	42.4	7.69	0.0	0.1	22.7

23618715	23618714-NODE	23618742-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	392.2	951	273	989	96.12	42.1	7.69	0.2	0.4	22.7
23618743	23618742-NODE	S1331-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	35.7	944	270	982	96.13	41.8	7.67	0.0	0.0	22.7
21936129	S1331-PD	JJ23271393-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	159.2	944	270	982	96.13	41.8	7.67	0.1	0.2	22.7
21881609	JJ23271393-NODE	21873055-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	317.6	4	1	4	96.09	0.5	8.83	0.0	0.0	0.4
21936114	JJ23271393-NODE	F1326-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	459.3	328	93	341	96.25	43.7	8.04	0.2	0.2	33.1
21878685	F1326-PD	JJ23273259-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	135.7	328	92	341	96.26	43.7	8.04	0.1	0.1	33.1
21878678	JJ23273259-NODE	21872951-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.1	3	1	3	96.23	0.4	7.97	0.0	0.0	0.3
23607816	JJ23273259-NODE	JJ23273263-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	424.1	325	91	338	96.26	43.3	8.04	0.2	0.2	32.8
21878671	JJ23273263-NODE	21872943-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.0	6	2	6	96.16	0.8	7.80	0.0	0.0	0.6
23607875	JJ23273263-NODE	23607893-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	356.3	319	90	331	96.27	42.4	8.04	0.1	0.1	32.1
23607894	23607893-NODE	JJ23273253-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	169.3	319	89	331	96.28	42.4	8.04	0.1	0.1	32.1
21878699	JJ23273253-NODE	23607945-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1131.2	312	88	324	96.29	41.6	8.04	0.4	0.4	31.5
21878706	23607945-NODE	JJ23278679-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	201.4	311	87	322	96.31	41.4	8.03	0.1	0.1	31.4
21935660	JJ23278679-NODE	JJ23276825-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	208.2	307	86	319	96.31	41.0	8.03	0.1	0.1	31.1
21935670	JJ23276825-NODE	JJ23273243-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	286.5	304	85	316	96.32	40.6	8.03	0.1	0.1	30.7
21878713	JJ23273243-NODE	JJ23278671-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	450.8	303	84	314	96.32	40.4	8.02	0.1	0.2	30.6
21935685	JJ23278671-NODE	JJ23276837-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	540.4	299	83	311	96.33	40.0	8.02	0.2	0.2	30.3
21935694	JJ23276837-NODE	JJ23276809-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	502.8	298	83	309	96.34	39.8	8.01	0.2	0.2	30.2
21935707	JJ23276809-NODE	JJ23273217-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	193.8	291	81	303	96.35	39.0	8.01	0.1	0.1	29.5
21878736	JJ23273217-NODE	JJ23273215-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	198.9	287	80	298	96.36	38.4	8.01	0.1	0.1	29.1
21935721	JJ23273215-NODE	JJ23276697-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	441.7	280	78	291	96.36	37.5	8.02	0.1	0.1	28.4
21935737	JJ23276697-NODE	JJ23278543-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	569.0	266	74	276	96.38	35.6	8.03	0.1	0.2	27.0
21936157	JJ23278543-NODE	JJ23276719-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	135.6	260	72	270	96.39	34.8	8.03	0.0	0.0	26.4
21939041	JJ23276719-NODE	F1346-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	412.0	260	72	269	96.39	34.8	8.03	0.1	0.1	26.4
21988792	F1346-PD	JJ23276711-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	82.8	260	72	269	96.40	34.8	8.02	0.0	0.0	26.4
21939047	JJ23276711-NODE	23594536-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	470.8	100	28	104	96.33	13.5	7.88	0.0	0.0	10.2
21935934	23594536-NODE	JJ23276723-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	166.5	94	26	98	96.34	12.6	7.89	0.0	0.0	9.6
21935897	JJ23276723-NODE	JJ23278619-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	158.8	88	24	91	96.34	11.8	7.90	0.0	0.0	8.9
21935910	JJ23278619-NODE	JJ23278617-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	326.1	85	24	88	96.34	11.4	7.88	0.0	0.0	8.6
21935922	JJ23278617-NODE	JJ23273229-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	132.3	79	22	82	96.34	10.5	7.87	0.0	0.0	8.0
21878729	JJ23273229-NODE	21873106-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	5.1	3	1	3	96.23	0.4	7.63	0.0	0.0	0.3
23594677	JJ23273229-NODE	23594699-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	374.4	75	21	78	96.34	10.1	7.87	0.0	0.0	7.7
21935870	23594699-NODE	25212788-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	152.6	72	20	75	96.34	9.7	7.87	0.0	0.0	7.3
21935884	25212788-NODE	JJ23278625-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	251.4	66	18	69	96.35	8.9	7.88	0.0	0.0	6.7
23594765	JJ23278625-NODE	23594773-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	134.5	66	18	69	96.34	8.9	7.87	0.0	0.0	6.7
21935757	23594773-NODE	JJ23276777-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	215.9	65	18	67	96.34	8.7	7.86	0.0	0.0	6.6
21935770	JJ23276777-NODE	JJ23277217-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	657.1	63	18	66	96.33	8.5	7.84	0.0	0.0	6.4
23594817	JJ23277217-NODE	JJ23278633-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	453.5	63	18	66	96.32	8.5	7.81	0.0	0.0	6.4
21935783	JJ23278633-NODE	21873897-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.1	1	0	1	96.49	0.2	8.18	0.0	0.0	0.1
21935860	JJ23278633-NODE	JJ23276315-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	225.3	62	17	64	96.31	8.3	7.78	0.0	0.0	6.3
21935796	JJ23276315-NODE	JJ23278645-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	457.2	51	14	53	96.31	6.9	7.78	0.0	0.0	5.2
21935807	JJ23278645-NODE	JJ23278641-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	262.7	36	10	37	96.33	4.8	7.82	0.0	0.0	3.6
21935822	JJ23278641-NODE	JJ23276027-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	435.8	34	10	36	96.31	4.6	7.78	0.0	0.0	3.5
21935837	JJ23276027-NODE	JJ23278637-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	166.5	31	9	32	96.28	4.2	7.71	0.0	0.0	3.2
21935848	JJ23278637-NODE	JJ23313707-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	263.8	19	5	20	96.31	2.5	7.77	0.0	0.0	1.9
22054545	JJ23313707-NODE	JJ23313703-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	223.5	13	3	13	96.36	1.7	7.87	0.0	0.0	1.3
22054520	JJ23313703-NODE	FAC46-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	73.7	6	2	6	96.21	0.8	7.57	0.0	0.0	0.6
22054497	FAC46-PD	22114578-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	199.2	6	2	6	96.20	0.8	7.54	0.0	0.0	0.6

23597833	JJ23313703-NODE	JJ23272917-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	711.5	6	2	7	96.45	0.8	8.08	0.0	0.0	0.6
22054558	JJ23272917-NODE	21874764-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	9.1	3	1	3	96.23	0.4	7.60	0.0	0.0	0.3
23597848	JJ23272917-NODE	JJ23272915-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	278.2	3	1	3	96.40	0.4	7.96	0.0	0.0	0.3
21878884	JJ23272915-NODE	21874779-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.2	3	1	3	96.23	0.4	7.60	0.0	0.0	0.3
21939713	JJ23272915-NODE	23225219-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	152.9	0	0	0	0.00	0.0	113.39	0.0	0.0	0.0
23595055	JJ23313707-NODE	21874750-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	9.2	6	2	6	96.16	0.8	7.46	0.0	0.0	0.6
21939707	JJ23278637-NODE	FAC27-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	31.0	12	4	13	96.22	1.7	7.59	0.0	0.0	1.3
21939699	FAC27-PD	23595022-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	3.2	12	4	13	96.22	1.7	7.58	0.0	0.0	1.3
23595023	23595022-NODE	21874722-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	535.7	12	4	13	96.22	1.7	7.58	0.0	0.0	1.3
21939694	JJ23276027-NODE	FAC28-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	29.3	3	1	3	96.48	0.4	8.13	0.0	0.0	0.3
21939684	FAC28-PD	21874735-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	609.4	3	1	3	96.46	0.4	8.11	0.0	0.0	0.3
23594948	JJ23278641-NODE	21874706-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	22.4	1	0	1	96.50	0.2	8.20	0.0	0.0	0.1
21939416	JJ23278645-NODE	F2155-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	36.6	16	4	16	96.23	2.1	7.62	0.0	0.0	1.6
21939410	F2155-PD	23594894-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	231.4	16	4	16	96.23	2.1	7.61	0.0	0.0	1.6
23594895	23594894-NODE	JJ23271109-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	136.4	9	3	10	96.25	1.3	7.65	0.0	0.0	1.0
21878807	JJ23271109-NODE	23594935-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	56.4	6	2	6	96.21	0.8	7.56	0.0	0.0	0.6
23594936	23594935-NODE	21873920-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	195.3	6	2	6	96.20	0.8	7.54	0.0	0.0	0.6
21882131	JJ23271109-NODE	23594921-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	126.0	3	1	3	96.28	0.4	7.71	0.0	0.0	0.3
23594922	23594921-NODE	21873928-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	11.8	3	1	3	96.23	0.4	7.61	0.0	0.0	0.3
23594903	23594894-NODE	21873939-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	7.8	6	2	6	96.16	0.8	7.46	0.0	0.0	0.6
21939405	JJ23276315-NODE	F2154-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	36.3	11	3	11	96.28	1.4	7.72	0.0	0.0	1.1
21939399	F2154-PD	JJ23273075-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	221.5	11	3	11	96.28	1.4	7.71	0.0	0.0	1.1
21878804	JJ23273075-NODE	21873913-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	13.0	1	0	1	96.49	0.2	8.18	0.0	0.0	0.1
23594846	JJ23273075-NODE	21873905-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	392.0	9	3	10	96.21	1.3	7.58	0.0	0.0	1.0
21938992	JJ23276777-NODE	FAC32-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	33.3	1	0	1	96.63	0.2	8.50	0.0	0.0	0.1
21938987	FAC32-PD	21873073-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	127.2	1	0	1	96.60	0.2	8.43	0.0	0.0	0.1
23594774	23594773-NODE	21873081-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	13.8	1	0	1	96.50	0.2	8.20	0.0	0.0	0.1
25212789	25212788-NODE	FAB19-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	21.0	6	2	6	96.26	0.8	7.69	0.0	0.0	0.6
21939004	FAB19-PD	21873090-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	472.9	6	2	6	96.25	0.8	7.68	0.0	0.0	0.6
23594700	23594699-NODE	21873098-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	6.6	3	1	3	96.23	0.4	7.63	0.0	0.0	0.3
21939014	JJ23278617-NODE	FAB16-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	25.7	6	2	6	96.32	0.8	7.83	0.0	0.0	0.6
21939010	FAB16-PD	21873124-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	772.3	6	2	6	96.31	0.8	7.82	0.0	0.0	0.6
21939026	JJ23278619-NODE	FAB17-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	30.4	3	1	3	96.53	0.4	8.30	0.0	0.0	0.3
23594592	FAB17-PD	21873115-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	752.2	3	1	3	96.52	0.4	8.27	0.0	0.0	0.3
21939035	JJ23276723-NODE	FAB18-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	25.6	6	2	6	96.28	0.8	7.76	0.0	0.0	0.6
21939029	FAB18-PD	21873132-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	580.4	6	2	6	96.27	0.8	7.74	0.0	0.0	0.6
23594537	23594536-NODE	21873140-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.5	6	2	6	96.16	0.8	7.51	0.0	0.0	0.6
21988773	JJ23276711-NODE	FAG43-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	757.2	12	3	13	96.48	1.7	8.20	0.0	0.0	1.3
22206770	JJ23276711-NODE	F1311-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	119.3	147	40	152	96.44	19.6	8.11	0.0	0.0	14.9
22206751	F1311-PD	JJ23292759-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	158.1	147	40	152	96.44	19.6	8.10	0.0	0.0	14.9
21988839	JJ23292759-NODE	FAG33-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	24.7	12	3	13	96.34	1.7	7.90	0.0	0.0	1.3
21988852	JJ23292759-NODE	23594416-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	188.2	134	37	139	96.45	18.0	8.12	0.0	0.0	13.6
21988931	23594416-NODE	21873155-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.6	6	2	6	96.16	0.8	7.50	0.0	0.0	0.6
23594417	23594416-NODE	JJ23292717-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	279.6	128	35	133	96.46	17.1	8.15	0.0	0.0	13.0
21988899	JJ23292717-NODE	FAG45-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	78.0	12	3	13	96.64	1.7	8.54	0.0	0.0	1.3
21988916	JJ23292717-NODE	JJ23292725-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	311.2	115	32	120	96.44	15.5	8.10	0.0	0.0	11.7
21988966	JJ23292725-NODE	JJ23292713-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	68.1	3	1	3	96.26	0.4	7.69	0.0	0.0	0.3
21988028	JJ23292713-NODE	21873148-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.9	3	1	3	96.23	0.4	7.64	0.0	0.0	0.3

26633545	JJ23292725-NODE	26633544-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	64.3	112	31	116	96.45	15.0	8.10	0.0	0.0	11.4
21988308	26633544-NODE	23597802-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	186.6	84	23	87	96.51	11.3	8.25	0.0	0.0	8.5
22206818	23597802-NODE	23597781-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	356.5	81	22	84	96.52	10.8	8.27	0.0	0.0	8.2
22206787	23597781-NODE	JJ23293859-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	42.8	78	21	81	96.53	10.4	8.28	0.0	0.0	7.9
21986832	JJ23293859-NODE	JJ23293857-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	26.0	12	3	13	96.29	1.7	7.76	0.0	0.0	1.3
23593824	JJ23293857-NODE	FAG47-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	6.0	12	3	13	96.29	1.7	7.76	0.0	0.0	1.3
21986845	FAG47-PD	JJ23292841-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	41.9	12	3	13	96.29	1.7	7.76	0.0	0.0	1.3
22206804	JJ23293859-NODE	23597752-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	426.0	65	18	68	96.58	8.7	8.38	0.0	0.0	6.6
21986789	23597752-NODE	JJ23293125-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	166.3	62	17	64	96.59	8.3	8.40	0.0	0.0	6.3
21988046	JJ23293125-NODE	F2712-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	67.7	39	10	40	96.78	5.2	8.83	0.0	0.0	3.9
21987997	F2712-PD	JJ23293149-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	51.6	12	3	13	96.71	1.7	8.67	0.0	0.0	1.3
22206458	F2712-PD	23597765-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	68.5	26	7	27	96.81	3.5	8.90	0.0	0.0	2.7
21878759	23597765-NODE	21873316-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	11.3	1	0	1	96.49	0.2	8.19	0.0	0.0	0.1
23597766	23597765-NODE	JJ23271417-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	266.9	25	6	26	96.83	3.3	8.93	0.0	0.0	2.5
21881563	JJ23271417-NODE	FAG41-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	33.5	12	3	13	96.89	1.7	9.09	0.0	0.0	1.3
21881570	JJ23271417-NODE	FAG38-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	25.7	12	3	13	96.73	1.7	8.72	0.0	0.0	1.3
21988087	JJ23293125-NODE	22048269-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	8.3	3	1	3	96.23	0.4	7.62	0.0	0.0	0.3
23597731	JJ23293125-NODE	23597730-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	614.4	20	6	21	96.25	2.7	7.68	0.0	0.0	2.1
21986488	23597730-NODE	22048363-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	6.1	9	3	10	96.16	1.3	7.48	0.0	0.0	1.0
21988717	23597730-NODE	23597712-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	354.0	11	3	11	96.26	1.5	7.69	0.0	0.0	1.1
21988730	23597712-NODE	JJ23271361-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	192.6	6	2	6	96.25	0.8	7.65	0.0	0.0	0.6
21881646	JJ23271361-NODE	21873178-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	245.2	6	2	6	96.21	0.8	7.57	0.0	0.0	0.6
21936142	JJ23271361-NODE	23225204-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	4.4	0	0	0	0.00	0.0	113.40	0.0	0.0	0.0
23597713	23597712-NODE	21873170-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	6.6	5	1	5	96.19	0.6	7.55	0.0	0.0	0.5
23597753	23597752-NODE	22048111-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	8.8	3	1	3	96.23	0.4	7.62	0.0	0.0	0.3
23597782	23597781-NODE	22245861-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	13.1	3	1	3	96.23	0.4	7.63	0.0	0.0	0.3
23597803	23597802-NODE	22048296-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	6.6	3	1	3	96.23	0.4	7.63	0.0	0.0	0.3
21988948	26633544-NODE	23594122-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	328.6	28	8	29	96.24	3.8	7.66	0.0	0.0	2.9
21935634	23594122-NODE	JJ23271313-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	214.3	25	7	26	96.22	3.4	7.63	0.0	0.0	2.5
21881708	JJ23271313-NODE	FAG6-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	38.8	6	2	6	96.23	0.8	7.63	0.0	0.0	0.6
27018605	FAG6-PD	21873301-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	301.1	6	2	6	96.22	0.8	7.61	0.0	0.0	0.6
23594204	JJ23271313-NODE	23594203-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	281.6	19	5	19	96.21	2.5	7.59	0.0	0.0	1.9
21878753	23594203-NODE	JJ23273181-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	285.7	12	4	13	96.21	1.7	7.59	0.0	0.0	1.3
21878756	JJ23273181-NODE	21873277-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	152.7	12	4	13	96.18	1.7	7.53	0.0	0.0	1.3
21935646	23594203-NODE	21873293-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	8.7	6	2	6	96.16	0.8	7.48	0.0	0.0	0.6
23594131	23594122-NODE	21873308-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.6	3	1	3	96.23	0.4	7.63	0.0	0.0	0.3
23619441	JJ23278543-NODE	FAH5-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	25.3	6	2	6	96.25	0.8	7.73	0.0	0.0	0.6
21939064	FAH5-PD	21873163-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	429.4	6	2	6	96.24	0.8	7.72	0.0	0.0	0.6
21939058	JJ23276697-NODE	F1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	26.6	14	4	15	96.25	1.9	7.76	0.0	0.0	1.4
21939053	F1-PD	25686997-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	68.7	14	4	15	96.25	1.9	7.76	0.0	0.0	1.4
25686998	25686997-NODE	23608743-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	251.3	11	3	11	96.25	1.5	7.75	0.0	0.0	1.1
23608744	23608743-NODE	JJ23273207-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	9.9	5	1	5	96.30	0.6	7.85	0.0	0.0	0.5
21878743	JJ23273207-NODE	21873214-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	370.5	5	1	5	96.29	0.6	7.85	0.0	0.0	0.5
23608750	23608743-NODE	21873205-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	18.1	6	2	6	96.16	0.8	7.57	0.0	0.0	0.6
25687004	25686997-NODE	25619231-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	7.9	3	1	3	96.23	0.4	7.71	0.0	0.0	0.3
23608686	JJ23273215-NODE	21873196-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.7	6	2	6	96.16	0.8	7.59	0.0	0.0	0.6
23608649	JJ23273217-NODE	21873187-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.5	5	1	5	96.20	0.6	7.68	0.0	0.0	0.5
21938965	JJ23276809-NODE	FAC8-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	27.5	6	2	6	96.26	0.8	7.82	0.0	0.0	0.6

21938959	FAC8-PD	23608640-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	483.3	6	2	6	96.26	0.8	7.81	0.0	0.0	0.6
23608641	23608640-NODE	21873029-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.9	6	2	6	96.16	0.8	7.61	0.0	0.0	0.6
21938942	JJ23276837-NODE	FAC15-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.1	1	0	1	97.02	0.2	9.53	0.0	0.0	0.1
21938938	FAC15-PD	23608510-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	543.0	1	0	1	96.99	0.2	9.47	0.0	0.0	0.1
23608511	23608510-NODE	21873011-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.5	1	0	1	96.50	0.2	8.35	0.0	0.0	0.1
23608089	JJ23278671-NODE	21873001-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.6	3	1	3	96.23	0.4	7.80	0.0	0.0	0.3
23608041	JJ23273243-NODE	21872994-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.5	1	0	1	96.50	0.2	8.40	0.0	0.0	0.1
21938953	JJ23276825-NODE	FAC24-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.0	3	1	3	96.39	0.4	8.19	0.0	0.0	0.3
21938947	FAC24-PD	21873020-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	387.2	3	1	3	96.38	0.4	8.17	0.0	0.0	0.3
23608019	JJ23278679-NODE	21872985-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.5	3	1	3	96.23	0.4	7.86	0.0	0.0	0.3
23607946	23607945-NODE	21872977-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.2	1	0	1	96.50	0.2	8.43	0.0	0.0	0.1
23607920	JJ23273253-NODE	21872968-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.0	6	2	6	96.16	0.8	7.78	0.0	0.0	0.6
21938976	JJ23271393-NODE	F1327-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	106.7	612	177	637	96.06	27.0	7.47	0.0	0.1	22.7
21938981	F1327-PD	23607753-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	398.0	612	177	637	96.06	27.0	7.46	0.1	0.3	22.7
21936105	23607753-NODE	JJ23278559-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	197.8	601	173	625	96.07	26.6	7.44	0.1	0.2	22.7
21991172	JJ23278559-NODE	FAC39-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	81.6	76	22	79	96.06	3.4	7.82	0.0	0.0	1.5
21991162	FAC39-PD	JJ23271399-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	18.8	76	22	79	96.06	3.4	7.81	0.0	0.0	1.5
22402055	JJ23278559-NODE	JJ23445747-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	339.9	525	151	546	96.07	23.2	7.38	0.1	0.2	21.2
22402067	JJ23445747-NODE	JJ23278609-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	227.5	517	149	538	96.08	22.9	7.35	0.1	0.2	21.2
21991135	JJ23278609-NODE	FAC21-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	98.1	7	2	7	96.04	0.9	8.72	0.0	0.0	0.7
21991148	FAC21-PD	22048607-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	591.0	7	2	7	96.02	0.9	8.68	0.0	0.0	0.7
23607664	JJ23278609-NODE	23607663-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	865.3	510	147	531	96.08	22.6	7.33	0.2	0.6	21.2
21935947	23607663-NODE	21873037-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	8.1	5	1	5	95.73	0.6	6.41	0.0	0.0	0.2
22288395	23607663-NODE	JJ23382721-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	1270.6	505	145	525	96.11	22.4	7.32	0.3	0.9	21.0
22288400	JJ23382721-NODE	JJ23293545-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	876.0	500	143	520	96.14	22.2	7.30	0.2	0.6	20.7
21939393	JJ23293545-NODE	FAD8-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.6	12	2	13	98.26	1.6	13.20	0.0	0.0	1.2
23607524	JJ23293545-NODE	23607523-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	205.0	487	140	507	96.11	21.6	7.13	0.0	0.1	20.7
21987270	23607523-NODE	22048173-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	15.6	14	4	15	95.69	1.9	6.14	0.0	0.0	0.7
21987283	23607523-NODE	JJ23275989-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	611.8	473	135	492	96.12	21.0	7.15	0.1	0.4	20.1
21939736	JJ23275989-NODE	S1365-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	401.4	463	132	482	96.15	20.6	7.16	0.1	0.3	19.6
21936093	S1365-PD	JJ23276057-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	209.4	463	132	482	96.15	20.6	7.15	0.0	0.1	19.6
21939656	JJ23276057-NODE	FAD28-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.7	6	2	6	96.21	0.8	8.09	0.0	0.0	0.6
23607467	FAD28-PD	23607466-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	182.5	6	2	6	96.20	0.8	8.08	0.0	0.0	0.6
21939660	23607466-NODE	21874622-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.2	6	2	6	96.16	0.8	8.00	0.0	0.0	0.6
22401808	JJ23276057-NODE	JJ23446299-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	328.7	457	130	475	96.16	20.3	7.13	0.1	0.2	19.6
21936069	JJ23446299-NODE	JJ23278567-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	839.7	451	128	469	96.16	20.0	7.11	0.2	0.5	19.6
21936046	JJ23278567-NODE	23225215-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	146.0	342	99	356	96.08	45.7	6.75	0.1	0.1	34.6
21933270	JJ23276047-NODE	23225215-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1832.3	342	99	356	96.08	45.7	6.75	0.8	0.9	34.6
21939671	JJ23276047-NODE	FAD2-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	50.3	11	3	12	96.64	1.5	7.83	0.0	0.0	1.1
21985450	JJ23295913-NODE	JJ23276047-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1876.9	330	95	343	96.11	44.2	6.70	0.7	0.8	33.5
21985412	JJ23295913-NODE	FAD19-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	35.1	8	2	8	96.10	1.0	6.58	0.0	0.0	0.8
21985394	FAD19-PD	22047428-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	676.0	8	2	8	96.09	1.0	6.56	0.0	0.0	0.8
21985427	23609336-NODE	JJ23295913-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	695.4	322	92	335	96.15	43.2	6.68	0.3	0.3	32.7
21986692	23609336-NODE	21874678-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	13.8	4	1	4	96.04	0.5	6.42	0.0	0.0	0.4
23609337	23609361-NODE	23609336-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	571.9	318	91	330	96.17	42.6	6.68	0.2	0.2	32.3
21986676	JJ23294525-NODE	23609361-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	106.9	314	89	327	96.18	42.2	6.68	0.0	0.0	32.0
21939839	JJ23294525-NODE	FAD20-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	60.3	2	0	2	96.71	0.2	7.82	0.0	0.0	0.2
21939847	FAD20-PD	21875148-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	515.3	2	0	2	96.66	0.2	7.71	0.0	0.0	0.2

21984335	JJ23296957-NODE	JJ23294525-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	318.6	313	89	325	96.18	42.0	6.67	0.1	0.1	31.8
21984324	JJ23275871-NODE	JJ23296957-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.3	309	88	321	96.19	41.5	6.67	0.0	0.0	31.4
21939836	F1385-PD	JJ23275871-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	931.7	309	88	321	96.19	41.5	6.67	0.3	0.4	31.4
21933279	JJ23279119-NODE	F1385-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	169.7	308	87	321	96.21	41.5	6.67	0.1	0.1	31.5
21934254	F1371-PD	JJ23279119-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	81.0	275	78	286	96.21	37.0	6.66	0.0	0.0	28.0
21933297	JJ23275887-NODE	F1371-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	615.9	275	78	286	96.21	37.0	6.66	0.2	0.2	28.0
21933289	23609559-NODE	JJ23275887-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	754.8	267	76	278	96.22	36.0	6.66	0.2	0.2	27.3
21933314	23609559-NODE	21875106-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.5	2	1	2	96.14	0.3	6.45	0.0	0.0	0.2
23609560	JJ23275909-NODE	23609559-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	242.8	265	75	275	96.24	35.7	6.66	0.1	0.1	27.0
21933306	JJ23279491-NODE	JJ23275909-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	757.0	259	73	269	96.24	34.9	6.66	0.2	0.2	26.4
21933332	23609800-NODE	JJ23279491-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	242.4	249	70	258	96.26	33.6	6.67	0.1	0.1	25.4
21933349	23609800-NODE	21875077-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.2	8	2	8	95.98	1.0	6.06	0.0	0.0	0.8
23609801	JJ23276567-NODE	23609800-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	192.4	241	68	250	96.27	32.5	6.68	0.0	0.0	24.6
21939176	JJ23276567-NODE	FAE6-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.3	8	2	8	96.12	1.0	6.34	0.0	0.0	0.8
21939170	FAE6-PD	21873465-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	826.8	8	2	8	96.11	1.0	6.33	0.0	0.0	0.8
27054269	27054268-NODE	JJ23276567-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	174.9	233	65	242	96.28	31.5	6.69	0.0	0.0	23.9
21933341	JJ23276585-NODE	27054268-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	139.7	218	61	227	96.25	29.5	6.62	0.0	0.0	22.3
22352520	JJ23407215-NODE	JJ23276585-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	227.0	218	61	227	96.25	29.5	6.62	0.0	0.0	22.3
22352505	JJ23407215-NODE	F2165-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.3	4	1	4	96.52	0.5	7.17	0.0	0.0	0.4
22352500	F2165-PD	JJ23407227-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1316.8	4	1	4	96.51	0.5	7.15	0.0	0.0	0.4
22352512	JJ23407227-NODE	21873481-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	154.3	4	1	4	96.08	0.5	6.25	0.0	0.0	0.4
22352516	JJ23279469-NODE	JJ23407215-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.4	214	60	223	96.25	29.0	6.61	0.0	0.0	21.9
21933357	JJ23279469-NODE	21873456-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.0	2	0	2	96.26	0.2	6.63	0.0	0.0	0.2
23610113	JJ23279471-NODE	JJ23279469-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	933.6	213	60	221	96.25	28.7	6.61	0.2	0.2	21.8
21755141	JJ23504823-NODE	JJ23279471-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	491.9	213	60	221	96.26	28.7	6.60	0.1	0.1	21.8
21755116	JJ23504823-NODE	FAD76-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	36.2	15	4	16	97.12	2.0	8.51	0.0	0.0	1.5
21755110	FAD76-PD	JJ23504837-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1.3	15	4	16	97.12	2.0	8.51	0.0	0.0	1.5
21755136	23610311-NODE	JJ23504823-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	298.4	197	56	205	96.20	26.7	6.44	0.0	0.0	20.2
21933375	JJ23276653-NODE	23610311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	530.2	190	54	197	96.21	25.7	6.46	0.1	0.1	19.5
21933367	23610383-NODE	JJ23276653-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	110.7	186	53	193	96.22	25.2	6.45	0.0	0.0	19.1
21878761	23610383-NODE	21873333-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.9	2	0	2	96.26	0.2	6.54	0.0	0.0	0.2
23610384	23610414-NODE	23610383-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	626.2	184	52	192	96.22	25.0	6.45	0.1	0.1	18.9
21878764	23610414-NODE	21873350-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.1	4	1	4	96.03	0.5	6.04	0.0	0.0	0.4
23610415	23610471-NODE	23610414-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	324.1	180	51	188	96.23	24.4	6.45	0.0	0.0	18.5
21878767	JJ23273165-NODE	23610471-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	82.8	179	51	186	96.23	24.2	6.45	0.0	0.0	18.4
21933384	JJ23271219-NODE	JJ23273165-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	264.7	132	37	137	96.19	17.9	6.37	0.0	0.0	13.5
21881902	JJ23271219-NODE	21873368-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	62.9	4	1	4	96.05	0.5	6.06	0.0	0.0	0.4
21933391	JJ23276639-NODE	JJ23271219-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	419.7	128	36	133	96.20	17.3	6.37	0.0	0.0	13.1
21933399	F1317-PD	JJ23276639-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	31.2	120	34	125	96.21	16.3	6.39	0.0	0.0	12.4
22055299	JJ23276625-NODE	F1317-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	185.2	120	34	125	96.21	16.3	6.39	0.0	0.0	12.4
21933406	JJ23279447-NODE	JJ23276625-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	61.6	119	34	123	96.20	16.1	6.37	0.0	0.0	12.2
21933414	23610694-NODE	JJ23279447-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	196.9	115	33	119	96.20	15.6	6.37	0.0	0.0	11.8
21881891	23610694-NODE	21873403-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	360.7	2	0	2	96.53	0.2	7.06	0.0	0.0	0.2
21933430	JJ23279441-NODE	23610694-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	207.4	106	30	110	96.22	14.3	6.39	0.0	0.0	10.9
21933438	JJ23279439-NODE	JJ23279441-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	275.5	98	28	102	96.23	13.3	6.42	0.0	0.0	10.1
21933447	JJ23311151-NODE	JJ23279439-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	290.2	96	27	100	96.22	13.0	6.40	0.0	0.0	9.8
22054998	JJ23276359-NODE	JJ23311151-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.3	88	25	92	96.15	12.0	6.23	0.0	0.0	9.1
21933466	JJ23276345-NODE	JJ23276359-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	255.5	79	23	82	96.16	10.7	6.25	0.0	0.0	8.1

21933476	JJ23279427-NODE	JJ23276345-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	153.1	75	22	78	96.15	10.2	6.24	0.0	0.0	7.7
21933482	JJ23279423-NODE	JJ23279427-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.2	71	20	74	96.16	9.7	6.25	0.0	0.0	7.4
21933489	JJ23279421-NODE	JJ23279423-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	422.0	70	20	73	96.15	9.5	6.23	0.0	0.0	7.2
21933496	JJ23276897-NODE	JJ23279421-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	143.8	62	18	65	96.15	8.5	6.24	0.0	0.0	6.4
21933502	JJ23279415-NODE	JJ23276897-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	177.3	58	17	61	96.15	7.9	6.24	0.0	0.0	6.0
21933509	JJ23276883-NODE	JJ23279415-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	273.3	51	14	53	96.18	6.9	6.28	0.0	0.0	5.2
21933515	JJ23279411-NODE	JJ23276883-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	355.2	21	6	21	96.15	2.8	6.22	0.0	0.0	2.1
21933522	JJ23276865-NODE	JJ23279411-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	244.4	17	5	17	96.12	2.3	6.17	0.0	0.0	1.7
21933531	JJ23276857-NODE	JJ23276865-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	257.5	9	3	10	96.18	1.2	6.28	0.0	0.0	0.9
21933540	JJ23273275-NODE	JJ23276857-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	400.9	2	0	2	96.70	0.2	7.42	0.0	0.0	0.2
21878666	F18-PD	JJ23273275-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	184.6	0	0	0	0.00	0.0	112.17	0.0	0.0	0.0
23611753	JJ23273275-NODE	21872933-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.6	2	0	2	96.26	0.2	6.45	0.0	0.0	0.2
21938929	JJ23276857-NODE	FAK38-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.0	8	2	8	96.02	1.0	5.96	0.0	0.0	0.8
21938933	FAK38-PD	21872925-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	268.7	8	2	8	96.02	1.0	5.95	0.0	0.0	0.8
21938918	JJ23276865-NODE	FAK37-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	113.5	8	2	8	96.02	1.0	5.95	0.0	0.0	0.8
21938923	FAK37-PD	21872917-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	172.8	8	2	8	96.00	1.0	5.92	0.0	0.0	0.8
21938907	JJ23279411-NODE	FAK36-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	31.7	4	1	4	96.13	0.5	6.19	0.0	0.0	0.4
21938913	FAK36-PD	21872908-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	285.0	4	1	4	96.12	0.5	6.16	0.0	0.0	0.4
21938897	JJ23276883-NODE	FAK35-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.2	4	1	4	96.15	0.5	6.22	0.0	0.0	0.4
21938902	FAK35-PD	21872899-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	336.8	4	1	4	96.14	0.5	6.20	0.0	0.0	0.4
21987399	JJ23276883-NODE	F1558-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.5	27	8	28	96.19	3.6	6.31	0.0	0.0	2.7
21987411	F1558-PD	JJ23271437-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	132.8	27	8	28	96.19	3.6	6.31	0.0	0.0	2.7
21881533	JJ23271437-NODE	JJ23271439-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1036.8	27	8	28	96.19	3.6	6.30	0.0	0.0	2.7
21881500	JJ23271439-NODE	JJ23271461-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	202.0	27	8	28	96.14	3.6	6.20	0.0	0.0	2.7
21932889	JJ23271461-NODE	JJ23279669-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	838.0	27	8	28	96.13	3.6	6.18	0.0	0.0	2.7
21932864	JJ23279669-NODE	FAL76-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	63.6	8	2	8	96.09	1.0	6.09	0.0	0.0	0.8
21938881	FAL76-PD	21872873-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	657.1	8	2	8	96.08	1.0	6.07	0.0	0.0	0.8
21932871	JJ23279669-NODE	FAL54-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	44.1	8	2	8	96.06	1.0	6.02	0.0	0.0	0.8
21938875	FAL54-PD	21872865-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	458.9	8	2	8	96.05	1.0	6.00	0.0	0.0	0.8
21932879	JJ23279669-NODE	JJ23271477-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	366.8	11	3	12	96.12	1.5	6.15	0.0	0.0	1.2
21881466	JJ23271477-NODE	21872839-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	187.3	4	1	4	96.09	0.5	6.09	0.0	0.0	0.4
21932898	JJ23271477-NODE	FAL53-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	31.8	8	2	8	96.07	1.0	6.05	0.0	0.0	0.8
21938869	FAL53-PD	21872848-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	561.2	8	2	8	96.07	1.0	6.04	0.0	0.0	0.8
23611094	JJ23279415-NODE	21872891-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.0	8	2	8	95.97	1.0	5.86	0.0	0.0	0.8
21938888	JJ23276897-NODE	FAK34-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.9	4	1	4	96.14	0.5	6.21	0.0	0.0	0.4
21938892	FAK34-PD	21872883-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	310.5	4	1	4	96.13	0.5	6.19	0.0	0.0	0.4
21939382	JJ23279421-NODE	FAK7-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.4	8	2	8	96.04	1.0	6.00	0.0	0.0	0.8
21939388	FAK7-PD	JJ23271127-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	50.6	8	2	8	96.03	1.0	5.99	0.0	0.0	0.8
21882091	JJ23271127-NODE	21873871-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	307.1	8	2	8	96.02	1.0	5.97	0.0	0.0	0.8
23610981	JJ23279423-NODE	FAK33-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.0	2	0	2	96.52	0.2	7.02	0.0	0.0	0.2
21939376	FAK33-PD	21873853-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	318.9	2	0	2	96.50	0.2	6.97	0.0	0.0	0.2
23611017	JJ23279427-NODE	21873863-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.4	4	1	4	96.03	0.5	5.99	0.0	0.0	0.4
21939360	JJ23276345-NODE	FAK32-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.2	4	1	4	96.20	0.5	6.34	0.0	0.0	0.4
21939365	FAK32-PD	21873844-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	504.2	4	1	4	96.19	0.5	6.33	0.0	0.0	0.4
21939350	JJ23276359-NODE	FAK31-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.4	8	2	8	96.02	1.0	5.97	0.0	0.0	0.8
21939356	FAK31-PD	21873836-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	239.9	8	2	8	96.01	1.0	5.96	0.0	0.0	0.8
23610869	JJ23276359-NODE	21873431-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.2	2	0	2	96.26	0.2	6.46	0.0	0.0	0.2
23610829	JJ23311151-NODE	FAK73-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	99.0	8	2	8	97.05	1.0	8.24	0.0	0.0	0.8

21939135	JJ23279439-NODE	FAK28-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.2	2	1	2	96.44	0.3	6.86	0.0	0.0	0.2
21939141	FAK28-PD	21873421-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	579.8	2	1	2	96.44	0.3	6.85	0.0	0.0	0.2
21939129	JJ23279441-NODE	FAL65-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	32.3	8	2	8	96.04	1.0	6.02	0.0	0.0	0.8
21939124	FAL65-PD	21873412-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	376.7	8	2	8	96.04	1.0	6.01	0.0	0.0	0.8
23610701	23610694-NODE	21873385-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.7	8	2	8	95.97	1.0	5.89	0.0	0.0	0.8
22055288	JJ23279447-NODE	FAL96-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	33.8	4	1	4	96.08	0.5	6.11	0.0	0.0	0.4
22055273	FAL96-PD	22114610-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	114.7	4	1	4	96.07	0.5	6.08	0.0	0.0	0.4
21939112	JJ23276625-NODE	FAK27-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	37.2	2	0	2	96.88	0.2	7.86	0.0	0.0	0.2
21939118	FAK27-PD	JJ23271257-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	638.9	2	0	2	96.85	0.2	7.79	0.0	0.0	0.2
21881783	JJ23271257-NODE	21873394-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	156.1	2	0	2	96.37	0.2	6.73	0.0	0.0	0.2
21939101	JJ23276639-NODE	FAK2-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	36.3	8	2	8	96.02	1.0	5.99	0.0	0.0	0.8
21939106	FAK2-PD	21873376-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	226.4	8	2	8	96.01	1.0	5.98	0.0	0.0	0.8
22374761	JJ23273165-NODE	F3923-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	32.7	47	13	49	96.33	6.4	6.66	0.0	0.0	4.8
22374756	F3923-PD	JJ23425677-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	2310.2	47	13	49	96.33	6.4	6.65	0.0	0.0	4.8
22374770	JJ23425677-NODE	JJ23276517-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	366.0	32	9	33	96.41	4.3	6.82	0.0	0.0	3.3
21934080	JJ23276517-NODE	JJ23271215-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	221.7	24	7	25	96.47	3.3	6.94	0.0	0.0	2.5
21881921	JJ23271215-NODE	FAL15-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	31.5	4	1	4	96.34	0.5	6.65	0.0	0.0	0.4
25672608	FAL15-PD	21873504-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	920.4	4	1	4	96.33	0.5	6.63	0.0	0.0	0.4
21934087	JJ23271215-NODE	JJ23276531-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	195.2	20	6	21	96.48	2.8	6.97	0.0	0.0	2.1
21934095	JJ23276531-NODE	JJ23279173-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	221.1	19	5	20	96.48	2.6	6.96	0.0	0.0	1.9
22373893	JJ23279173-NODE	FAE38-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	53.4	11	3	12	96.77	1.5	7.60	0.0	0.0	1.2
22373889	FAE38-PD	JJ23432741-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	19.1	11	3	12	96.76	1.5	7.59	0.0	0.0	1.2
22374767	JJ23279173-NODE	21873513-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	153.2	8	2	8	96.00	1.0	5.94	0.0	0.0	0.8
21939199	JJ23276531-NODE	FAE13-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	5.0	2	0	2	96.36	0.2	6.70	0.0	0.0	0.2
21939194	FAE13-PD	21873521-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	136.2	2	0	2	96.36	0.2	6.69	0.0	0.0	0.2
21939207	JJ23276517-NODE	FAE9-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.1	8	2	8	96.17	1.0	6.30	0.0	0.0	0.8
21939204	FAE9-PD	21873540-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1192.6	8	2	8	96.17	1.0	6.30	0.0	0.0	0.8
23633718	JJ23425677-NODE	21873530-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.9	15	4	16	95.98	2.1	5.91	0.0	0.0	1.6
23610472	23610471-NODE	21873360-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.8	2	0	2	96.26	0.2	6.51	0.0	0.0	0.2
23610356	JJ23276653-NODE	FAE15-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.2	4	1	4	96.12	0.5	6.24	0.0	0.0	0.4
21939096	FAE15-PD	21873324-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	232.7	4	1	4	96.11	0.5	6.22	0.0	0.0	0.4
23610312	23610311-NODE	21873343-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.8	8	2	8	95.97	1.0	5.97	0.0	0.0	0.8
26876026	27054268-NODE	FAD80-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.3	15	4	16	96.74	2.0	7.68	0.0	0.0	1.5
21939790	JJ23279491-NODE	FAE17-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	41.9	8	2	8	96.02	1.0	6.17	0.0	0.0	0.8
21939783	FAE17-PD	21875062-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	244.1	8	2	8	96.02	1.0	6.15	0.0	0.0	0.8
23609733	JJ23279491-NODE	FAD22-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.5	2	1	2	96.37	0.3	6.90	0.0	0.0	0.2
21939777	FAD22-PD	21875051-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	423.7	2	1	2	96.36	0.3	6.87	0.0	0.0	0.2
21939801	JJ23275909-NODE	FAE16-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.9	6	2	6	96.06	0.8	6.28	0.0	0.0	0.6
21939795	FAE16-PD	21875090-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	227.3	6	2	6	96.06	0.8	6.27	0.0	0.0	0.6
21939813	JJ23275887-NODE	FAD1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	32.4	8	2	8	96.02	1.0	6.24	0.0	0.0	0.8
21939807	FAD1-PD	21875120-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	243.2	8	2	8	96.02	1.0	6.23	0.0	0.0	0.8
22054818	JJ23279119-NODE	F1386-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	146.3	15	4	16	96.32	2.0	6.90	0.0	0.0	1.5
21939830	F1386-PD	JJ23272861-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	2341.2	15	4	16	96.31	2.0	6.88	0.0	0.0	1.6
21878917	JJ23272861-NODE	JJ23272863-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	223.0	11	3	12	96.15	1.5	6.53	0.0	0.0	1.2
21878913	JJ23272863-NODE	JJ23272865-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	230.8	4	1	4	96.40	0.5	7.07	0.0	0.0	0.4
21939858	JJ23272865-NODE	23225157-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	887.5	0	0	0	0.00	0.0	112.48	0.0	0.0	0.0
23634843	JJ23272865-NODE	21875163-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.9	4	1	4	96.04	0.5	6.30	0.0	0.0	0.4
23634867	JJ23272863-NODE	21875177-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	14.5	8	2	8	95.98	1.0	6.18	0.0	0.0	0.8

23634874	JJ23272861-NODE	21875189-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	16.6	4	1	4	96.04	0.5	6.30	0.0	0.0	0.4
23633758	JJ23279119-NODE	23633757-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	251.8	18	5	19	96.17	2.5	6.58	0.0	0.0	1.9
21934262	23633757-NODE	F1384-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.5	11	3	11	96.27	1.5	6.80	0.0	0.0	1.1
21939825	F1384-PD	JJ23272875-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	210.1	11	3	11	96.27	1.5	6.79	0.0	0.0	1.1
21878905	JJ23272875-NODE	JJ23272873-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	424.7	10	3	10	96.22	1.3	6.68	0.0	0.0	1.0
21878909	JJ23272873-NODE	JJ23272871-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	428.8	6	2	6	96.24	0.8	6.73	0.0	0.0	0.6
21878863	JJ23272871-NODE	JJ23272975-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	388.6	4	1	4	96.16	0.5	6.57	0.0	0.0	0.4
23633820	JJ23272975-NODE	21874356-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.1	4	1	4	96.03	0.5	6.30	0.0	0.0	0.4
23633808	JJ23272871-NODE	21875217-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.6	2	1	2	96.14	0.3	6.51	0.0	0.0	0.2
23633789	JJ23272873-NODE	21875037-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.3	4	1	4	96.03	0.5	6.30	0.0	0.0	0.4
23633781	JJ23272875-NODE	21875024-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.0	1	0	1	96.60	0.1	7.51	0.0	0.0	0.1
23633764	23633757-NODE	21875135-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.9	8	2	8	95.98	1.0	6.18	0.0	0.0	0.8
23609408	JJ23296957-NODE	22047283-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	13.4	4	1	4	96.04	0.5	6.36	0.0	0.0	0.4
23609362	23609361-NODE	22048044-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	13.1	3	1	3	96.08	0.4	6.47	0.0	0.0	0.3
21936058	JJ23278567-NODE	23225212-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	160.2	0	0	0	0.00	0.0	112.85	0.0	0.0	0.0
21936082	JJ23278567-NODE	23606890-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	395.1	108	29	112	96.49	4.8	8.14	0.0	0.0	3.4
21936034	23606890-NODE	JJ23276075-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	496.8	105	29	109	96.49	4.7	8.15	0.0	0.0	3.3
21939650	JJ23276075-NODE	FX38-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	38.2	5	1	5	95.75	0.6	6.07	0.0	0.0	0.5
22292561	FX38-PD	21874579-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	45.3	5	1	5	95.74	0.6	6.05	0.0	0.0	0.5
22246615	JJ23276075-NODE	JJ23293685-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	328.0	101	27	104	96.50	4.4	8.19	0.0	0.0	3.1
21987088	JJ23293685-NODE	JJ23276135-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	526.8	101	27	104	96.49	4.4	8.15	0.0	0.0	3.1
21939593	JJ23276135-NODE	FX37-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	46.9	10	3	10	95.78	1.3	6.12	0.0	0.0	1.0
21939583	FX37-PD	21874266-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	670.9	10	3	10	95.77	1.3	6.11	0.0	0.0	1.0
23606966	JJ23276135-NODE	23606965-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	315.5	91	25	94	96.53	4.0	8.29	0.0	0.0	2.6
21936023	23606965-NODE	21874272-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	10.3	5	1	5	95.73	0.6	6.02	0.0	0.0	0.2
25077069	23606965-NODE	25077068-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	490.5	86	23	89	96.56	3.8	8.38	0.0	0.0	2.4
21935995	25077068-NODE	JJ23276145-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	346.0	65	17	67	96.53	2.9	8.24	0.0	0.0	2.1
21939578	JJ23276145-NODE	FX7-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	103.4	14	4	15	96.36	1.9	7.31	0.0	0.0	1.4
23607007	JJ23276145-NODE	23606992-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	7.2	51	14	52	96.54	2.2	8.42	0.0	0.0	3.1
22200265	23606992-NODE	JJ23353235-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	271.8	43	11	45	96.68	1.9	8.82	0.0	0.0	1.1
22200244	JJ23353235-NODE	FX68-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	97.5	12	3	13	97.61	1.6	11.41	0.0	0.0	1.2
22200282	JJ23353235-NODE	JJ23278605-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	138.7	31	9	32	95.49	1.4	7.68	0.0	0.0	1.1
21935961	JJ23278605-NODE	23607226-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	655.9	24	7	25	94.36	1.1	7.33	0.0	0.0	1.1
21878856	23607226-NODE	23607272-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	1667.3	19	5	20	94.43	0.8	7.24	0.0	0.0	0.9
21935972	23607272-NODE	JJ23276169-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	194.3	10	3	10	95.28	0.4	6.46	0.0	0.0	0.5
21935983	JJ23276169-NODE	23225207-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	164.3	0	0	0	0.00	0.0	113.90	0.0	0.0	0.0
21939548	JJ23276169-NODE	FY3-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	35.9	10	3	10	95.73	1.3	6.01	0.0	0.0	1.0
21939552	FY3-PD	21874279-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	344.3	10	3	10	95.73	1.3	6.00	0.0	0.0	1.0
23607273	23607272-NODE	21874231-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	23.0	10	3	10	95.68	1.3	5.91	0.0	0.0	0.5
23607231	23607226-NODE	21874241-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	18.1	5	1	5	95.73	0.6	6.01	0.0	0.0	0.2
23607194	JJ23278605-NODE	FX51-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	41.2	7	2	7	95.98	0.9	8.62	0.0	0.0	0.7
21939563	FX51-PD	21874248-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	349.0	7	2	7	95.98	0.9	8.60	0.0	0.0	0.7
23606993	23606992-NODE	21874257-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	20.1	7	2	7	95.71	1.0	5.97	0.0	0.0	0.3
25077057	25077068-NODE	FY25-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	10.2	21	6	22	96.44	0.9	8.52	0.0	0.0	0.6
23606891	23606890-NODE	21874593-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	7.9	3	1	3	95.82	0.4	6.22	0.0	0.0	0.1
22401820	JJ23446299-NODE	21874608-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	20.5	6	2	6	96.16	0.8	8.01	0.0	0.0	0.3
23607496	JJ23275989-NODE	21874637-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.5	10	3	10	95.68	1.3	6.08	0.0	0.0	1.0
24283417	JJ23382721-NODE	24283407-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.5	5	1	5	95.73	0.6	6.31	0.0	0.0	0.5

24219234	JJ23445747-NODE	24219226-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	19.6	7	2	7	95.91	0.9	8.46	0.0	0.0	0.7
23607754	23607753-NODE	21873048-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	13.7	11	3	11	95.91	1.4	8.47	0.0	0.0	0.5
23618751	23618742-NODE	21873064-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.4	7	2	7	95.91	0.9	8.46	0.0	0.0	0.7
23618723	23618714-NODE	21873808-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.9	7	2	7	95.91	0.9	8.45	0.0	0.0	0.7
23618702	JJ23295593-NODE	22047751-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.9	10	3	10	95.69	1.3	6.54	0.0	0.0	1.0
23618684	JJ23278537-NODE	21873818-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	20.5	4	1	4	95.98	0.5	8.58	0.0	0.0	0.4
21939343	JJ23276367-NODE	F1333-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	47.4	72	18	74	96.92	9.5	9.57	0.0	0.0	7.2
21729642	F1333-PD	JJ23295067-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	539.5	72	18	74	96.92	9.5	9.57	0.0	0.0	7.2
21986163	JJ23295067-NODE	JJ23291897-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	219.9	59	15	61	97.06	7.8	9.90	0.0	0.0	5.9
21989989	JJ23291897-NODE	F1109-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.8	12	3	13	97.84	1.6	11.90	0.0	0.0	1.2
21990009	F1109-PD	JJ23291885-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	51.0	12	3	13	97.84	1.6	11.90	0.0	0.0	1.2
21990048	JJ23291897-NODE	JJ23291899-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.8	47	12	48	96.83	6.2	9.36	0.0	0.0	4.7
21989974	JJ23291899-NODE	JJ23291947-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	245.6	34	9	36	96.43	4.6	8.47	0.0	0.0	3.5
21989930	JJ23291947-NODE	FAK54-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.9	3	1	3	96.31	0.4	8.21	0.0	0.0	0.3
21989945	FAK54-PD	22048543-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	179.8	3	1	3	96.30	0.4	8.19	0.0	0.0	0.3
21989956	JJ23291947-NODE	JJ23291861-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	332.4	31	9	32	96.43	4.1	8.47	0.0	0.0	3.1
21990100	JJ23291861-NODE	FAK53-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.0	12	3	13	96.32	1.7	8.22	0.0	0.0	1.3
22352554	JJ23291861-NODE	JJ23406939-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	71.5	19	5	19	96.49	2.5	8.59	0.0	0.0	1.9
22352547	JJ23406939-NODE	FAK79-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	33.1	12	3	13	96.58	1.7	8.79	0.0	0.0	1.3
22352558	JJ23406939-NODE	JJ23295063-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	366.9	6	2	6	96.29	0.8	8.17	0.0	0.0	0.6
21986176	JJ23295063-NODE	JJ23277219-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	172.3	0	0	0	0.00	0.0	113.82	0.0	0.0	0.0
21938554	JJ23277219-NODE	23224589-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	98.6	0	0	0	0.00	0.0	113.82	0.0	0.0	0.0
23619020	JJ23295063-NODE	22047813-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.2	6	2	6	96.16	0.8	7.89	0.0	0.0	0.6
21990021	JJ23291899-NODE	F1106-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.6	12	3	13	97.82	1.6	11.84	0.0	0.0	1.2
21990036	F1106-PD	JJ23291879-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	51.0	12	3	13	97.82	1.6	11.83	0.0	0.0	1.2
24245365	JJ23295067-NODE	24245358-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.0	12	4	13	96.17	1.7	7.91	0.0	0.0	1.3
23618624	JJ23294767-NODE	21873828-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.5	10	3	10	95.69	1.3	6.70	0.0	0.0	1.0
26662142	26562286-NODE	26562143-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	18.5	46	14	48	95.79	2.0	7.42	0.0	0.0	0.9
23618609	23618608-NODE	22047875-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	9.8	6	2	6	96.16	0.8	8.04	0.0	0.0	0.3
23618533	23618532-NODE	22245889-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	10.2	7	2	7	95.91	0.9	8.22	0.0	0.0	0.3
22056810	S3362-PD	JJ23307537-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	43.0	1597	449	1658	96.26	69.9	8.80	0.0	0.1	34.8
22053454	JJ23307537-NODE	JJ23279693-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	88.1	1597	449	1658	96.27	69.9	8.80	0.1	0.2	34.8
21932823	JJ23279693-NODE	JJ23273489-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	171.1	1596	449	1658	96.27	69.9	8.80	0.1	0.4	34.8
23609056	JJ23273489-NODE	F2152-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	16.6	7	2	7	95.86	0.9	7.81	0.0	0.0	0.7
22054244	F2152-PD	23608989-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	126.2	7	2	7	95.86	0.9	7.81	0.0	0.0	0.7
21878485	23608989-NODE	21871870-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	16.4	3	1	3	95.75	0.4	7.59	0.0	0.0	0.3
23608990	23608989-NODE	21871861-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	415.3	3	1	3	95.91	0.4	7.92	0.0	0.0	0.3
25381533	JJ23273489-NODE	S3274-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	137.7	1590	446	1651	96.27	69.6	8.80	0.1	0.3	34.8
22053418	S3274-PD	JJ23316685-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	130.6	1590	446	1651	96.28	69.6	8.80	0.1	0.3	34.8
22053438	JJ23316685-NODE	23237820-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	107.0	0	0	0	0.00	0.0	114.44	0.0	0.0	0.0
22054270	JJ23314097-NODE	JJ23297853-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	12.2	1589	446	1651	96.28	69.6	8.79	0.0	0.0	34.8
21983853	JJ23297853-NODE	JJ23297855-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	261.5	74	20	76	96.40	3.2	9.12	0.0	0.0	3.4
21983842	JJ23297855-NODE	JJ23297861-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	98.2	70	19	73	96.48	3.1	9.14	0.0	0.0	3.3
22054309	JJ23297861-NODE	F1368-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	5.6	70	19	73	96.49	9.2	9.13	0.0	0.0	7.0
22054294	F1368-PD	JJ23314053-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	603.8	70	19	73	96.49	9.2	9.13	0.0	0.0	7.0
22054323	JJ23314053-NODE	23619247-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	507.2	70	19	73	96.49	9.2	9.10	0.0	0.0	7.0
22401836	23619247-NODE	21871377-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.6	2	0	2	96.01	0.2	8.08	0.0	0.0	0.2
23619248	23619247-NODE	JJ23446253-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1649.9	69	19	71	96.49	9.0	9.10	0.0	0.0	6.8

23619229	JJ23446253-NODE	JJ23273399-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	93.5	65	18	68	96.50	8.5	9.11	0.0	0.0	6.5
21878527	JJ23273399-NODE	JJ23273393-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	215.9	62	17	64	96.54	8.1	9.19	0.0	0.0	6.1
21878530	JJ23273393-NODE	JJ23273395-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	683.8	55	15	57	96.63	7.2	9.40	0.0	0.0	5.5
21878524	JJ23273395-NODE	25452472-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	153.3	54	14	56	96.64	7.1	9.40	0.0	0.0	5.4
25452473	25452472-NODE	JJ23273407-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	553.9	41	11	42	96.42	5.4	8.93	0.0	0.0	4.1
21936235	JJ23273407-NODE	JJ23277079-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1246.0	34	9	36	96.54	4.5	9.19	0.0	0.0	3.4
21936221	JJ23277079-NODE	JJ23278529-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	760.8	8	2	8	96.25	1.1	8.55	0.0	0.0	0.8
21938713	JJ23278529-NODE	F2150-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	34.5	5	1	5	96.03	0.6	8.09	0.0	0.0	0.5
21938707	F2150-PD	JJ23273323-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	314.3	5	1	5	96.02	0.6	8.07	0.0	0.0	0.5
21878597	JJ23273323-NODE	21872560-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	343.1	1	0	1	96.36	0.2	8.78	0.0	0.0	0.1
23619130	JJ23273323-NODE	21872551-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	19.3	3	1	3	95.75	0.4	7.52	0.0	0.0	0.3
26678045	JJ23278529-NODE	26678037-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	243.3	3	1	3	96.25	0.4	8.55	0.0	0.0	0.3
21936208	26678037-NODE	JJ23278533-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	468.4	3	1	3	96.16	0.4	8.35	0.0	0.0	0.3
21878588	JJ23278533-NODE	23224589-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	526.0	0	0	0	0.00	0.0	114.29	0.0	0.0	0.0
23619094	JJ23278533-NODE	21872543-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	19.1	3	1	3	95.75	0.4	7.52	0.0	0.0	0.3
25883384	JJ23277079-NODE	F2514-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.0	26	7	27	96.57	3.4	9.25	0.0	0.0	2.6
21938718	F2514-PD	JJ23277081-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	204.1	26	7	27	96.57	3.4	9.25	0.0	0.0	2.6
21728503	JJ23277081-NODE	JJ23291981-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	255.1	20	5	20	96.84	2.6	9.85	0.0	0.0	2.0
21989896	JJ23291981-NODE	25883214-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	382.1	16	4	17	97.02	2.1	10.26	0.0	0.0	1.6
21989863	25883214-NODE	JJ23291993-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	183.2	13	3	14	97.25	1.7	10.82	0.0	0.0	1.3
22206868	JJ23291993-NODE	JJ23344559-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	380.5	13	3	14	97.24	1.7	10.78	0.0	0.0	1.3
22206852	JJ23344559-NODE	FAH112-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	23.8	13	3	14	97.20	1.7	10.70	0.0	0.0	1.3
22206001	FAH112-PD	JJ23346093-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	174.3	13	3	14	97.20	1.7	10.69	0.0	0.0	1.3
25883215	25883214-NODE	FAH22-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.2	3	1	3	95.85	0.4	7.73	0.0	0.0	0.3
21989879	FAH22-PD	22048481-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	244.8	3	1	3	95.84	0.4	7.71	0.0	0.0	0.3
25883341	JJ23291981-NODE	FAH29-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.4	3	1	3	95.82	0.4	7.66	0.0	0.0	0.3
21989913	FAH29-PD	22048513-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	157.3	3	1	3	95.81	0.4	7.64	0.0	0.0	0.3
24219284	JJ23277081-NODE	24219274-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.0	7	2	7	95.67	0.9	7.36	0.0	0.0	0.7
23619153	JJ23273407-NODE	21872284-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	15.8	7	2	7	95.67	0.9	7.37	0.0	0.0	0.7
23619171	JJ23273395-NODE	21872311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	19.6	1	0	1	96.05	0.2	8.14	0.0	0.0	0.1
23619189	JJ23273393-NODE	21872302-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.5	7	2	7	95.67	0.9	7.38	0.0	0.0	0.7
23619210	JJ23273399-NODE	21872292-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.9	3	1	3	95.75	0.4	7.54	0.0	0.0	0.3
24283712	JJ23446253-NODE	24283699-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.0	3	1	3	95.74	0.4	7.54	0.0	0.0	0.3
23619287	JJ23297855-NODE	22047081-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.6	3	1	3	95.75	0.4	7.57	0.0	0.0	0.3
22054381	JJ23297853-NODE	S3149-PD	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	89.3	1515	426	1574	96.27	66.4	8.77	0.1	0.2	34.8
23619363	S3149-PD	23619362-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	123.2	1515	426	1574	96.27	66.4	8.77	0.1	0.3	34.8
21983717	23619362-NODE	JJ23278497-NODE	1/0AWG_ACSR_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	156.8	1511	424	1569	96.27	66.2	8.77	0.4	0.4	73.9
24579569	JJ23278497-NODE	24579568-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	586.6	1511	424	1569	96.28	66.2	8.77	0.5	1.2	34.6
21936322	24579568-NODE	FAP29-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	31.0	1	0	1	96.28	0.2	8.66	0.0	0.0	0.1
22053683	FAP29-PD	21911312-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	227.8	1	0	1	96.25	0.2	8.60	0.0	0.0	0.1
22054232	24579568-NODE	FAQ7-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.5	3	1	3	95.87	0.4	7.82	0.0	0.0	0.3
24596510	FAQ7-PD	22048202-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	291.5	3	1	3	95.86	0.4	7.80	0.0	0.0	0.3
24579656	24579568-NODE	24579655-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	129.0	1505	422	1563	96.29	66.0	8.77	0.1	0.3	34.6
21936308	24579655-NODE	JJ23277801-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	415.7	1496	419	1554	96.30	65.6	8.77	0.3	0.9	34.6
21937644	JJ23277801-NODE	FAQ96-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.0	7	2	7	95.77	0.9	7.60	0.0	0.0	0.7
24579688	FAQ96-PD	JJ23435481-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	323.9	7	2	7	95.76	0.9	7.59	0.0	0.0	0.7
22373816	JJ23435481-NODE	JJ23435565-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	129.5	7	2	7	95.70	0.9	7.46	0.0	0.0	0.7
24284204	JJ23435565-NODE	24284195-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.0	7	2	7	95.67	0.9	7.40	0.0	0.0	0.7

24579727	JJ23277801-NODE	24579726-NODE	1/0AWG_ACSR_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	372.3	1490	416	1546	96.31	65.3	8.78	0.9	0.9	73.9
21983340	24579726-NODE	JJ23298379-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	251.6	1482	413	1539	96.33	65.0	8.78	0.2	0.5	34.6
21983355	JJ23298379-NODE	JJ23298361-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	155.7	1464	408	1520	96.32	64.3	8.75	0.1	0.3	34.6
21983378	JJ23298361-NODE	F3144-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.8	31	9	32	96.39	4.1	8.87	0.0	0.0	3.1
24579837	F3144-PD	24579817-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1.8	31	9	32	96.39	4.1	8.86	0.0	0.0	3.1
22055897	JJ23309977-NODE	FAQ44-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.3	9	3	9	95.66	1.2	7.36	0.0	0.0	0.9
21937630	FAQ44-PD	21910908-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	479.3	9	3	9	95.66	1.2	7.36	0.0	0.0	0.9
21983388	JJ23298361-NODE	JJ23298351-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	116.9	1433	400	1488	96.32	62.9	8.75	0.1	0.2	34.6
21983396	JJ23298351-NODE	JJ23278501-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	82.1	1424	397	1478	96.33	62.5	8.76	0.1	0.2	34.6
21987538	JJ23278501-NODE	F2157-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	46.3	17	5	18	96.32	2.3	8.74	0.0	0.0	1.7
22056496	F2157-PD	JJ23308007-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	393.3	17	5	18	96.32	2.3	8.73	0.0	0.0	1.7
22056478	JJ23308007-NODE	24579904-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.7	17	5	18	96.29	2.3	8.67	0.0	0.0	1.7
21878370	24579904-NODE	22114653-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.3	4	1	4	96.21	0.6	8.50	0.0	0.0	0.4
24579905	24579904-NODE	24579933-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	404.1	13	4	13	96.31	1.7	8.72	0.0	0.0	1.3
21878376	24579933-NODE	21910978-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.7	9	2	9	96.16	1.1	8.40	0.0	0.0	0.9
24579934	24579933-NODE	21911294-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	930.0	4	1	4	96.49	0.6	9.10	0.0	0.0	0.4
24594876	JJ23278501-NODE	26895219-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	155.5	1407	392	1460	96.33	61.8	8.76	0.1	0.3	33.8
26895220	26895219-NODE	24594875-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	261.9	1407	391	1460	96.34	61.8	8.75	0.2	0.5	33.8
21936295	24594875-NODE	21910891-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.0	4	1	4	96.21	0.6	8.46	0.0	0.0	0.4
22054065	24594875-NODE	26021657-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	300.9	1402	390	1455	96.34	61.6	8.75	0.2	0.6	33.6
26021668	26021657-NODE	JJ23297745-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	257.3	1402	389	1455	96.35	61.6	8.75	0.2	0.5	33.6
21983406	JJ23297745-NODE	F3152-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	34.5	16	4	17	96.46	2.1	9.02	0.0	0.0	1.6
21983420	F3152-PD	JJ23298309-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	4.1	16	4	17	96.46	2.1	9.01	0.0	0.0	1.6
21983453	JJ23298291-NODE	FAP165-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	19.0	7	2	7	95.79	0.9	7.63	0.0	0.0	0.7
21983444	FAP165-PD	24585406-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	581.2	7	2	7	95.79	0.9	7.63	0.0	0.0	0.7
24585413	24585406-NODE	24585274-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.3	7	2	7	95.67	0.9	7.38	0.0	0.0	0.7
26021676	JJ23297745-NODE	S3243-PD	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	32.2	1385	384	1438	96.36	60.9	8.75	0.0	0.1	33.6
26021684	S3243-PD	JJ23297677-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	134.6	1385	384	1438	96.36	60.9	8.74	0.1	0.3	33.6
21984088	JJ23297677-NODE	JJ23278853-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.7	13.800	408.2	1377	382	1429	96.36	60.5	8.75	0.3	0.8	33.2
21935074	JJ23278853-NODE	JJ23278847-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	259.6	1373	380	1425	96.37	60.3	8.75	0.2	0.5	33.2
21935087	JJ23278847-NODE	JJ23277817-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	1058.5	1370	379	1422	96.38	60.2	8.74	0.8	2.0	33.1
21937601	JJ23277817-NODE	FAQ47-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.0	6	2	7	96.25	0.8	8.28	0.0	0.0	0.6
21937591	FAQ47-PD	21910806-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	308.2	6	2	7	96.25	0.8	8.27	0.0	0.0	0.6
21984142	JJ23277817-NODE	24761667-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	289.0	1363	375	1414	96.41	59.9	8.74	0.2	0.5	32.8
21821325	24761667-NODE	JJ23524959-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	285.7	1359	374	1409	96.42	59.8	8.73	0.2	0.5	32.6
21821322	JJ23524959-NODE	S4120-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	226.5	1120	314	1163	96.27	49.3	8.40	0.1	0.3	28.0
21821191	S4120-PD	JJ23525299-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	269.2	1119	314	1163	96.28	49.3	8.40	0.1	0.4	28.0
21821196	JJ23525299-NODE	JJ23525261-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	928.1	1116	313	1159	96.28	49.2	8.40	0.5	1.2	28.0
21821211	JJ23525261-NODE	JJ23525257-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	378.6	1109	310	1151	96.31	48.9	8.39	0.2	0.5	28.0
25362541	JJ23525257-NODE	25362494-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	2.4	1109	310	1151	96.31	48.9	8.39	0.0	0.0	28.0
25362495	25362494-NODE	JJ23525235-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	378.0	1102	308	1144	96.32	48.6	8.40	0.2	0.5	28.0
21821230	JJ23525235-NODE	JJ23525233-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	296.8	1095	305	1137	96.33	48.3	8.40	0.1	0.4	28.0
21821144	JJ23525233-NODE	JJ23525413-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	308.1	1089	303	1130	96.34	48.0	8.40	0.2	0.4	28.0
21821109	JJ23525413-NODE	JJ23525471-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	833.3	1085	301	1126	96.35	47.9	8.40	0.4	1.1	28.0
21821028	JJ23525471-NODE	JJ23525641-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	1079.9	1078	299	1119	96.37	47.6	8.40	0.5	1.4	28.0
21821013	JJ23525641-NODE	FAP167-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.9	9	2	9	96.21	1.1	7.69	0.0	0.0	0.9
26155695	FAP167-PD	26624271-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	314.2	9	2	9	96.20	1.1	7.68	0.0	0.0	0.9
26624272	26624271-NODE	26624257-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.7	9	2	9	96.16	1.1	7.58	0.0	0.0	0.9

21821032	JJ23525641-NODE	JJ23525577-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	212.7	1069	295	1109	96.39	47.2	8.39	0.1	0.3	27.6
21821069	JJ23525577-NODE	24763140-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	113.3	1065	294	1104	96.40	47.0	8.39	0.1	0.1	27.4
21821309	24763140-NODE	F209-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.2	82	20	84	97.16	10.8	9.79	0.0	0.0	8.2
21821304	F209-PD	JJ23273751-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	33.3	82	20	84	97.16	10.8	9.79	0.0	0.0	8.2
21989392	JJ23292395-NODE	JJ23292385-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	16.0	22	6	23	96.37	3.0	8.00	0.0	0.0	2.2
21989378	JJ23292385-NODE	JJ23278913-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	108.8	10	3	11	96.24	1.4	7.73	0.0	0.0	1.0
21934835	JJ23278913-NODE	JJ23278911-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	96.6	2	0	2	96.48	0.2	8.24	0.0	0.0	0.2
24763269	JJ23278911-NODE	21910132-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	16.4	2	0	2	96.41	0.2	8.09	0.0	0.0	0.2
24763286	JJ23278913-NODE	FAP157-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	5.8	9	2	9	96.18	1.1	7.59	0.0	0.0	0.9
21721803	FAP157-PD	JJ23500401-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	121.4	9	2	9	96.18	1.1	7.59	0.0	0.0	0.9
21721822	JJ23500401-NODE	24219852-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.6	9	2	9	96.16	1.1	7.55	0.0	0.0	0.9
21989407	JJ23292385-NODE	JJ23292357-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.3	12	3	12	96.48	1.6	8.23	0.0	0.0	1.2
21989461	JJ23292357-NODE	JJ23292359-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	435.2	12	3	12	96.47	1.6	8.22	0.0	0.0	1.2
21878276	JJ23292359-NODE	JJ23272293-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	479.8	10	3	11	96.43	1.4	8.13	0.0	0.0	1.0
21879931	JJ23272293-NODE	JJ23272295-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	143.8	10	3	11	96.37	1.4	8.00	0.0	0.0	1.0
21934822	JJ23272295-NODE	JJ23272425-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	108.1	10	3	11	96.35	1.4	7.96	0.0	0.0	1.0
21879583	JJ23272425-NODE	JJ23272427-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	265.1	2	0	2	96.60	0.2	8.49	0.0	0.0	0.2
26985293	JJ23272427-NODE	21910183-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.3	2	0	2	96.41	0.2	8.08	0.0	0.0	0.2
21934808	JJ23272425-NODE	JJ23272299-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	577.7	9	2	9	96.29	1.1	7.82	0.0	0.0	0.9
21879909	JJ23272299-NODE	JJ23272301-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	286.9	9	2	9	96.20	1.1	7.63	0.0	0.0	0.9
24763347	JJ23272301-NODE	21910167-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	15.5	9	2	9	96.16	1.1	7.54	0.0	0.0	0.9
24763323	JJ23292359-NODE	21909397-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.0	2	0	2	96.42	0.2	8.10	0.0	0.0	0.2
24763141	24763140-NODE	JJ23525703-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	609.5	983	274	1020	96.33	43.5	8.27	0.2	0.6	23.6
21820997	JJ23525703-NODE	S4121-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	421.9	966	268	1002	96.35	42.7	8.28	0.2	0.4	22.8
21821319	S4121-PD	JJ23278337-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	203.6	965	268	1002	96.35	42.7	8.27	0.1	0.2	22.8
21934876	JJ23278337-NODE	JJ23278057-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	19.8	143	39	149	96.43	6.3	8.45	0.0	0.0	3.4
21934756	JJ23278057-NODE	JJ23278925-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	442.0	131	36	135	96.44	5.7	8.52	0.0	0.0	2.8
21755712	JJ23278925-NODE	F3986-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	42.9	11	3	12	96.09	0.5	7.65	0.0	0.0	0.3
21755709	F3986-PD	JJ23503363-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	84.4	11	3	12	96.07	0.5	7.60	0.0	0.0	0.3
21755717	JJ23503363-NODE	JJ23503365-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	17.2	4	1	4	96.19	0.2	7.67	0.0	0.0	0.2
21755715	JJ23503365-NODE	21909481-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	114.7	4	1	4	96.24	0.6	7.62	0.0	0.0	0.4
24219585	JJ23503363-NODE	24219570-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	80.3	7	2	8	95.89	0.3	7.42	0.0	0.0	0.1
21934769	JJ23278925-NODE	JJ23278921-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	146.6	119	33	124	96.45	5.2	8.56	0.0	0.0	2.7
21934782	JJ23278921-NODE	JJ23273753-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	121.1	115	31	119	96.45	5.0	8.58	0.0	0.0	2.7
21878289	JJ23273753-NODE	JJ23273755-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.0	4	1	5	95.69	0.6	7.24	0.0	0.0	0.5
21937260	JJ23273755-NODE	FAP58-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.6	4	1	5	95.69	0.6	7.24	0.0	0.0	0.5
25837252	FAP58-PD	21909505-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	181.7	4	1	5	95.69	0.6	7.23	0.0	0.0	0.5
23586137	JJ23273753-NODE	23586136-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	187.9	110	30	114	96.48	4.8	8.62	0.0	0.0	2.7
21934795	23586136-NODE	25381487-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	263.7	108	29	112	96.35	4.7	8.63	0.0	0.0	2.7
21990391	25381487-NODE	JJ23291665-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	146.7	91	25	94	96.40	4.0	8.82	0.0	0.0	2.7
21990374	JJ23291665-NODE	F1053-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.3	53	14	54	96.47	6.9	9.00	0.0	0.0	5.2
21990351	F1053-PD	JJ23291697-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1.5	53	14	54	96.47	6.9	9.00	0.0	0.0	5.2
21990402	JJ23291665-NODE	JJ23278095-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	234.4	38	10	39	96.30	1.7	8.52	0.0	0.0	1.5
21937125	JJ23278095-NODE	F2161-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.1	15	4	15	96.35	1.9	7.85	0.0	0.0	1.5
21937116	F2161-PD	JJ23273781-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	2.3	15	4	15	96.35	1.9	7.85	0.0	0.0	1.5
21878263	JJ23273781-NODE	JJ23273783-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	492.8	15	4	15	96.35	1.9	7.85	0.0	0.0	1.5
21878260	JJ23273783-NODE	JJ23273785-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	728.4	13	4	13	96.29	1.7	7.72	0.0	0.0	1.3
21878267	JJ23273785-NODE	JJ23273779-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	308.4	9	2	9	96.22	1.1	7.58	0.0	0.0	0.9

26023332	JJ23273779-NODE	21909347-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	147.8	9	2	9	96.18	1.1	7.48	0.0	0.0	0.9
26985271	JJ23273785-NODE	21909336-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.9	4	1	4	96.21	0.6	7.54	0.0	0.0	0.4
26985284	JJ23273783-NODE	21909321-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	13.3	2	0	2	96.41	0.2	7.98	0.0	0.0	0.2
22352536	JJ23278095-NODE	JJ23407095-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	761.7	24	6	24	96.30	1.0	8.81	0.0	0.0	0.8
22352528	JJ23407095-NODE	FAN143-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.1	17	4	18	96.73	2.3	8.68	0.0	0.0	1.7
22352524	FAN143-PD	JJ23407121-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	19.1	17	4	18	96.73	2.3	8.68	0.0	0.0	1.7
24764906	JJ23407095-NODE	JJ23446351-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	171.2	7	2	7	95.33	0.3	7.69	0.0	0.0	0.3
22401779	JJ23446351-NODE	23228871-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	17.2	0	0	0	0.00	0.0	113.92	0.0	0.0	0.0
24584144	JJ23446351-NODE	22047309-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.9	7	2	7	95.67	0.9	7.34	0.0	0.0	0.7
25381488	25381487-NODE	21909528-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.5	17	5	18	96.16	2.3	7.46	0.0	0.0	1.7
23586123	23586136-NODE	21909517-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	12.6	3	1	3	95.74	0.4	7.33	0.0	0.0	0.1
21937230	JJ23278921-NODE	FAN15-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	34.8	4	1	4	96.27	0.6	7.69	0.0	0.0	0.4
21937237	FAN15-PD	JJ23278047-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	183.6	4	1	4	96.26	0.6	7.67	0.0	0.0	0.4
26912796	JJ23278047-NODE	21909493-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.4	4	1	4	96.21	0.6	7.55	0.0	0.0	0.4
21937222	JJ23278057-NODE	F2162-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.5	13	4	13	96.28	1.7	7.72	0.0	0.0	1.3
21937215	F2162-PD	24585116-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	239.1	13	4	13	96.28	1.7	7.71	0.0	0.0	1.3
21878283	24585116-NODE	JJ23273757-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	626.0	9	2	9	96.28	1.1	7.72	0.0	0.0	0.9
21879942	JJ23273757-NODE	25723391-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	221.3	9	2	9	96.19	1.1	7.52	0.0	0.0	0.9
26712703	25723391-NODE	21909443-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	5.2	9	2	9	96.16	1.1	7.45	0.0	0.0	0.9
24585117	24585116-NODE	21909434-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.0	4	1	4	96.21	0.6	7.55	0.0	0.0	0.4
24407469	JJ23278337-NODE	24407468-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	72.3	822	228	853	96.34	36.4	8.24	0.0	0.1	19.4
21821316	24407468-NODE	S4122-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	17.3	822	228	853	96.34	36.4	8.24	0.0	0.0	19.4
21821312	S4122-PD	24407410-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	20.4	822	228	853	96.35	36.4	8.24	0.0	0.0	19.4
24407435	24407410-NODE	23586081-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	249.6	822	228	853	96.35	36.4	8.24	0.1	0.2	19.4
23586082	23586081-NODE	JJ23504949-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	155.0	822	228	853	96.35	36.4	8.23	0.0	0.1	19.4
21755078	JJ23504949-NODE	JJ23278085-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	134.8	805	223	835	96.35	35.6	8.25	0.0	0.1	18.6
21934892	JJ23278085-NODE	23586057-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	180.4	788	218	817	96.36	34.9	8.26	0.0	0.1	17.8
21878278	23586057-NODE	21909408-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	6.2	2	0	2	96.41	0.2	7.93	0.0	0.0	0.1
23586058	23586057-NODE	JJ23273767-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	296.6	786	218	816	96.36	34.8	8.26	0.1	0.2	17.7
21934918	JJ23273767-NODE	JJ23278891-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	158.4	777	215	806	96.37	34.4	8.27	0.0	0.1	17.7
21934905	JJ23278891-NODE	JJ23278893-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	149.6	760	210	789	96.37	33.7	8.26	0.0	0.1	16.9
21990285	JJ23278893-NODE	F1052-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.8	53	14	54	96.80	6.8	9.77	0.0	0.0	5.2
21990329	JJ23278893-NODE	JJ23272827-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	153.4	707	197	734	96.34	31.4	8.15	0.0	0.1	16.9
21878943	JJ23272827-NODE	21910100-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	216.3	24	7	25	95.86	1.1	7.33	0.0	0.0	0.4
21934931	JJ23272827-NODE	23586019-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	108.3	683	190	709	96.36	30.3	8.18	0.0	0.1	16.5
21878310	23586019-NODE	23586005-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	226.2	679	188	704	96.36	30.1	8.18	0.1	0.1	16.5
21937274	23586005-NODE	S2571-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	282.3	670	186	696	96.37	29.8	8.19	0.1	0.2	16.1
21937267	S2571-PD	JJ23277995-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	119.5	670	186	695	96.37	29.8	8.18	0.0	0.1	16.1
21936347	JJ23277995-NODE	JJ23278491-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	184.1	39	11	41	96.34	1.7	7.95	0.0	0.0	1.8
21936335	JJ23278491-NODE	JJ23278029-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	69.1	26	7	27	96.35	1.2	8.03	0.0	0.0	1.2
21936737	JJ23278029-NODE	JJ23277987-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	77.9	26	7	27	96.14	1.1	7.39	0.0	0.0	1.2
21937353	JJ23277987-NODE	F2163-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.0	26	7	27	96.18	3.4	7.35	0.0	0.0	2.6
21937347	F2163-PD	JJ23273719-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	184.6	26	7	27	96.18	3.4	7.35	0.0	0.0	2.6
21878312	JJ23273719-NODE	26985566-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	199.7	17	5	18	96.18	2.3	7.35	0.0	0.0	1.7
26985567	26985566-NODE	21909762-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.5	17	5	18	96.16	2.3	7.32	0.0	0.0	1.7
26985551	JJ23273719-NODE	21909779-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.1	9	2	9	96.16	1.1	7.30	0.0	0.0	0.9
25895867	JJ23278029-NODE	FAN43-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	21.4	1	0	1	-99.79	0.0	27.58	0.0	0.0	0.0
21987129	JJ23278491-NODE	F602-PD	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	11.6	13	4	13	96.30	1.7	7.62	0.0	0.0	0.6

22115123	F602-PD	JJ23335163-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	305.7	13	4	13	96.30	1.7	7.61	0.0	0.0	0.6
22115130	JJ23335163-NODE	JJ23296643-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	311.0	9	2	9	96.30	1.1	7.61	0.0	0.0	0.4
21984740	JJ23296643-NODE	21909743-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	643.8	9	2	9	96.25	1.1	7.50	0.0	0.0	0.9
24763719	JJ23335163-NODE	22198681-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.5	4	1	4	96.21	0.6	7.41	0.0	0.0	0.4
21937339	JJ23277995-NODE	F1363-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	163.8	136	34	140	97.00	18.0	9.18	0.0	0.0	13.6
21937332	F1363-PD	JJ23273743-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	243.5	136	34	140	97.00	18.0	9.18	0.0	0.0	13.6
21878297	JJ23273743-NODE	JJ23273745-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	387.8	128	32	132	97.06	16.9	9.30	0.0	0.0	12.8
22294863	JJ23273745-NODE	JJ23376073-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	405.2	119	29	123	97.12	15.7	9.43	0.0	0.0	11.9
22294873	JJ23376073-NODE	JJ23376085-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	274.3	9	2	9	96.33	1.1	7.65	0.0	0.0	0.9
21878345	JJ23376085-NODE	JJ23273683-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	553.1	4	1	4	96.37	0.6	7.73	0.0	0.0	0.4
24763760	JJ23273683-NODE	21910338-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	13.5	4	1	4	96.21	0.6	7.39	0.0	0.0	0.4
26985979	JJ23376085-NODE	21910352-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	16.7	4	1	4	96.21	0.6	7.39	0.0	0.0	0.4
22294879	JJ23376073-NODE	F1597-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	3.7	94	22	96	97.34	12.3	9.97	0.0	0.0	9.3
21989427	F1597-PD	JJ23292377-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.0	94	22	96	97.34	12.3	9.97	0.0	0.0	9.3
22294885	JJ23376073-NODE	22048420-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	18.8	9	2	9	96.16	1.1	7.28	0.0	0.0	0.9
24763638	JJ23376073-NODE	JJ23292367-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.6	9	2	9	96.22	1.1	7.40	0.0	0.0	0.9
21989439	JJ23292367-NODE	22048443-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	376.9	9	2	9	96.21	1.1	7.40	0.0	0.0	0.9
26985970	JJ23273745-NODE	21909555-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	21.1	9	2	9	96.16	1.1	7.29	0.0	0.0	0.9
26985541	JJ23273743-NODE	21910116-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.0	9	2	9	96.16	1.1	7.30	0.0	0.0	0.9
23585963	JJ23277995-NODE	JJ23278403-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	91.0	495	141	515	96.19	22.0	7.93	0.0	0.0	14.1
21934947	JJ23278403-NODE	JJ23272453-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	249.7	486	138	506	96.19	21.6	7.94	0.0	0.1	14.1
21879527	JJ23272453-NODE	26986110-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	354.0	9	3	9	95.64	1.2	7.05	0.0	0.0	0.9
26986111	26986110-NODE	21909688-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	21.5	9	3	9	95.58	1.2	6.94	0.0	0.0	0.9
21934960	JJ23272453-NODE	JJ23294753-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	521.7	478	135	496	96.20	21.2	7.95	0.1	0.2	13.7
21878317	JJ23294753-NODE	JJ23273715-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	183.8	4	1	4	96.37	0.6	7.73	0.0	0.0	0.4
21878315	JJ23273715-NODE	JJ23273717-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	353.2	0	0	0	0.00	0.0	113.22	0.0	0.0	0.0
26985513	JJ23273715-NODE	21909813-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.4	4	1	4	96.21	0.6	7.39	0.0	0.0	0.4
21986473	JJ23294753-NODE	JJ23296337-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	242.8	473	134	492	96.20	21.1	7.93	0.0	0.1	13.7
21878319	JJ23296337-NODE	23585916-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	123.0	205	57	213	96.39	9.1	8.02	0.0	0.0	7.3
21937302	23585916-NODE	23231727-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	261.8	196	54	204	96.40	8.7	8.05	0.0	0.0	6.9
21937295	23231727-NODE	JJ23278023-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	260.3	196	54	204	96.40	8.7	8.03	0.0	0.0	6.9
21934985	JJ23278023-NODE	JJ23278007-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	8.9	188	52	195	96.43	8.3	8.07	0.0	0.0	6.9
21934974	JJ23278007-NODE	JJ23273739-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	381.9	183	50	190	96.43	8.1	8.08	0.0	0.0	6.7
21878300	JJ23273739-NODE	JJ23272445-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	117.1	177	48	183	96.45	7.8	8.09	0.0	0.0	6.7
21879540	JJ23272445-NODE	JJ23272447-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	136.1	177	48	183	96.45	7.8	8.09	0.0	0.0	6.7
21878350	JJ23272447-NODE	23585839-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	141.4	177	48	183	96.45	7.8	8.08	0.0	0.0	6.7
21989625	23585839-NODE	21910371-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	7.6	9	2	9	96.16	1.1	7.24	0.0	0.0	0.4
23585840	23585839-NODE	JJ23292271-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	307.7	168	46	174	96.46	7.4	8.11	0.0	0.0	6.3
21989600	JJ23292271-NODE	FAN92-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.7	10	3	10	96.40	1.3	8.89	0.0	0.0	1.0
21989589	FAN92-PD	JJ23292287-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.1	10	3	10	96.39	1.3	8.88	0.0	0.0	1.0
21989611	JJ23292271-NODE	JJ23292151-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	385.3	158	43	164	96.45	7.0	8.04	0.0	0.0	6.3
21989653	JJ23292151-NODE	FAN88-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.7	10	3	10	96.48	1.3	9.07	0.0	0.0	1.0
21989640	FAN88-PD	JJ23292175-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.9	10	3	10	96.48	1.3	9.07	0.0	0.0	1.0
21989683	JJ23292151-NODE	23585742-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	148.9	148	41	154	96.44	6.6	7.94	0.0	0.0	6.3
21878340	23585742-NODE	JJ23273687-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	175.4	145	40	150	96.45	6.4	7.93	0.0	0.0	6.3
21936671	JJ23273687-NODE	JJ23272323-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	8.3	141	38	146	96.46	6.2	7.95	0.0	0.0	6.3
21879836	JJ23272323-NODE	23585768-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	232.4	7	2	7	95.72	0.9	7.49	0.0	0.0	0.7
23585769	23585768-NODE	21910305-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.5	7	2	7	95.67	0.9	7.40	0.0	0.0	0.7

21936666	JJ23272323-NODE	JJ23278391-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	122.2	134	36	139	96.48	5.9	7.97	0.0	0.0	6.3
21936658	JJ23278391-NODE	24414291-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	16.3	0	0	0	0.00	0.0	113.84	0.0	0.0	0.0
24414292	24414291-NODE	24414265-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	19.2	0	0	0	0.00	0.0	113.84	0.0	0.0	0.0
24414604	24414291-NODE	24414454-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	30.2	0	0	0	0.00	0.0	113.84	0.0	0.0	0.0
21937428	JJ23278391-NODE	F1957-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	73.0	134	36	139	96.50	17.8	7.95	0.0	0.0	13.5
21937436	F1957-PD	JJ23277935-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	82.0	134	36	139	96.50	17.8	7.95	0.0	0.0	13.5
22056526	JJ23277935-NODE	JJ23307859-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	184.7	134	36	139	96.50	17.8	7.95	0.0	0.0	13.5
22056548	JJ23307859-NODE	JJ23292029-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	167.4	130	35	134	96.51	17.2	7.97	0.0	0.0	13.1
21989799	JJ23292029-NODE	JJ23292045-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	19.7	113	31	117	96.41	15.0	7.74	0.0	0.0	11.4
21989814	JJ23292045-NODE	JJ23278871-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	172.4	96	27	99	96.25	12.8	7.40	0.0	0.0	9.7
21934995	JJ23278871-NODE	JJ23292309-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	415.0	89	25	93	96.25	11.9	7.40	0.0	0.0	9.0
21989550	JJ23292309-NODE	JJ23292307-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.9	81	23	84	96.26	10.8	7.41	0.0	0.0	8.2
21989498	JJ23292307-NODE	FAN20-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.0	13	3	13	96.43	1.7	7.77	0.0	0.0	1.3
21989481	FAN20-PD	21906886-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	35.9	13	4	13	96.42	1.7	7.77	0.0	0.0	1.3
21989566	JJ23292307-NODE	F1658-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	259.7	68	19	71	96.22	9.1	7.34	0.0	0.0	6.9
22057330	F1658-PD	JJ23306091-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	18.6	68	19	71	96.22	9.1	7.33	0.0	0.0	6.9
22057277	JJ23306091-NODE	FAN131-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	56.7	9	2	9	96.25	1.1	7.39	0.0	0.0	0.9
22057258	FAN131-PD	22114691-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	564.4	9	2	9	96.24	1.1	7.37	0.0	0.0	0.9
22057344	JJ23306091-NODE	JJ23277959-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	409.2	60	17	62	96.22	7.9	7.32	0.0	0.0	6.0
21937396	JJ23277959-NODE	F212-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	42.3	51	14	53	96.22	6.8	7.32	0.0	0.0	5.2
21937404	F212-PD	JJ23273749-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	901.5	51	14	53	96.22	6.8	7.31	0.0	0.0	5.2
21878294	JJ23273749-NODE	JJ23273865-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	324.4	43	12	44	96.20	5.7	7.28	0.0	0.0	4.3
21917666	JJ23273865-NODE	JJ23273863-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	492.3	34	10	35	96.21	4.5	7.28	0.0	0.0	3.4
21917682	JJ23273863-NODE	JJ23273857-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	394.3	26	7	27	96.20	3.4	7.27	0.0	0.0	2.6
21917699	JJ23273857-NODE	26985960-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	408.6	9	2	9	96.22	1.1	7.30	0.0	0.0	0.9
26985961	26985960-NODE	21908879-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.8	9	2	9	96.16	1.1	7.17	0.0	0.0	0.9
26985936	JJ23273857-NODE	21908866-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	19.2	17	5	18	96.16	2.3	7.19	0.0	0.0	1.7
26985927	JJ23273863-NODE	21908856-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	20.7	9	2	9	96.16	1.1	7.18	0.0	0.0	0.9
26985917	JJ23273865-NODE	21909542-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.5	9	2	9	96.16	1.1	7.18	0.0	0.0	0.9
26985908	JJ23273749-NODE	21910201-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	15.6	9	2	9	96.16	1.1	7.18	0.0	0.0	0.9
26985251	JJ23277959-NODE	21910219-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.8	9	2	9	96.16	1.1	7.19	0.0	0.0	0.9
26985261	JJ23292309-NODE	21910252-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.9	9	2	9	96.16	1.1	7.20	0.0	0.0	0.9
21989693	JJ23278871-NODE	FAN57-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.9	6	2	7	96.24	0.9	7.37	0.0	0.0	0.6
21989706	FAN57-PD	21910271-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	269.0	6	2	7	96.23	0.9	7.37	0.0	0.0	0.6
26746996	JJ23292045-NODE	F164-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	43.3	17	4	17	97.24	2.2	9.65	0.0	0.0	1.7
21989845	JJ23292029-NODE	F163-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	43.8	17	4	17	97.16	2.2	9.46	0.0	0.0	1.7
24764004	JJ23307859-NODE	22114666-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	21.6	4	1	4	96.21	0.6	7.32	0.0	0.0	0.4
23585707	JJ23273687-NODE	21910287-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	12.7	4	1	5	95.64	0.6	7.04	0.0	0.0	0.2
23585747	23585742-NODE	21910323-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	9.4	3	1	3	95.75	0.4	7.55	0.0	0.0	0.2
24512852	JJ23273739-NODE	21909597-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.0	7	2	7	95.61	0.9	6.97	0.0	0.0	0.7
21937318	JJ23278007-NODE	FAN91-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.2	4	1	4	96.31	0.6	7.59	0.0	0.0	0.4
21937309	FAN91-PD	21909579-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	330.7	4	1	4	96.30	0.6	7.57	0.0	0.0	0.4
24512817	JJ23278023-NODE	21909565-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.4	9	3	9	95.58	1.2	6.91	0.0	0.0	0.9
23585917	23585916-NODE	21909850-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	6.9	9	2	9	96.16	1.1	7.27	0.0	0.0	0.4
21985128	JJ23296337-NODE	JJ23296329-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	107.8	268	78	279	96.05	12.0	7.86	0.0	0.0	12.8
21985145	JJ23296329-NODE	JJ23290647-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	4.4	259	75	270	96.07	11.6	7.89	0.0	0.0	12.3
21991061	JJ23290647-NODE	F1383-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.2	259	75	270	96.07	34.8	7.89	0.0	0.0	26.4
21991051	F1383-PD	JJ23290187-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	82.0	259	75	270	96.07	34.8	7.89	0.0	0.0	26.4

21991551	JJ23290187-NODE	JJ23290227-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	14.8	242	71	252	95.95	32.5	7.63	0.0	0.0	24.6
22292926	JJ23290227-NODE	JJ23378363-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	153.1	206	62	215	95.80	27.7	7.33	0.0	0.0	21.0
22292902	JJ23378363-NODE	FAN142-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	25.5	18	5	18	96.27	2.4	8.29	0.0	0.0	1.8
22292889	FAN142-PD	JJ23378379-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	311.4	18	5	18	96.27	2.4	8.29	0.0	0.0	1.8
22292938	JJ23378363-NODE	JJ23278933-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	467.6	188	57	197	95.76	25.4	7.23	0.1	0.1	19.2
21934729	JJ23278933-NODE	JJ23278931-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	423.4	179	54	187	95.77	24.2	7.24	0.0	0.1	18.3
21878325	JJ23278931-NODE	TO28-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	177.3	32	10	33	95.70	4.3	7.10	0.0	0.0	3.2
26734964	TO28-PD	JJ23273703-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	19.0	32	10	33	95.69	4.3	7.09	0.0	0.0	3.2
21928285	JJ23273703-NODE	JJ23281163-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	299.9	27	8	28	95.70	3.7	7.10	0.0	0.0	2.8
21928279	JJ23281163-NODE	JJ23281165-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	175.8	23	7	24	95.68	3.1	7.05	0.0	0.0	2.3
21878327	JJ23281165-NODE	JJ23273699-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	229.5	16	5	17	95.69	2.2	7.08	0.0	0.0	1.6
21878331	JJ23273699-NODE	JJ23273695-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	120.2	12	4	12	95.69	1.6	7.07	0.0	0.0	1.2
21878336	JJ23273695-NODE	26015922-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	248.1	9	3	9	95.65	1.2	7.00	0.0	0.0	0.9
26015923	26015922-NODE	26985870-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	228.1	9	3	9	95.62	1.2	6.93	0.0	0.0	0.9
26985871	26985870-NODE	21908846-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	17.8	9	3	9	95.58	1.2	6.86	0.0	0.0	0.9
26985858	JJ23273695-NODE	21910082-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	16.2	3	1	3	95.74	0.4	7.17	0.0	0.0	0.3
26985587	JJ23273699-NODE	21910064-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	20.0	4	1	5	95.64	0.6	6.97	0.0	0.0	0.5
26985578	JJ23281165-NODE	21910047-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	22.2	7	2	7	95.61	0.9	6.92	0.0	0.0	0.7
21937389	JJ23281163-NODE	FAN86-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	9.5	4	1	5	95.75	0.6	7.19	0.0	0.0	0.5
21937381	FAN86-PD	JJ23277971-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	97.9	4	1	5	95.74	0.6	7.18	0.0	0.0	0.5
26985532	JJ23273703-NODE	21910030-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	8.0	4	1	5	95.63	0.6	6.97	0.0	0.0	0.5
21934743	JJ23278931-NODE	JJ23273729-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	199.4	109	33	114	95.79	14.7	7.27	0.0	0.0	11.2
24764881	JJ23273729-NODE	24764888-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	199.0	105	31	109	95.79	14.1	7.28	0.0	0.0	10.7
24663658	24764888-NODE	JJ23273733-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	7.4	105	31	109	95.79	14.1	7.28	0.0	0.0	10.7
24663676	JJ23273733-NODE	JJ23273731-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	180.9	96	29	100	95.81	12.9	7.32	0.0	0.0	9.8
21936645	JJ23273731-NODE	25465424-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	511.0	87	26	91	95.84	11.7	7.36	0.0	0.0	8.9
25009588	25465424-NODE	24283880-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	9.1	9	3	9	95.58	1.2	6.85	0.0	0.0	0.9
25465425	25465424-NODE	JJ23278395-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	5.7	78	23	81	95.86	10.5	7.40	0.0	0.0	8.0
21878301	JJ23278395-NODE	JJ23296145-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	236.4	43	12	44	96.02	5.7	7.72	0.0	0.0	4.3
21985347	JJ23296145-NODE	JJ23296141-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	204.5	34	10	35	96.12	4.5	7.94	0.0	0.0	3.4
21985299	JJ23296141-NODE	FAN121-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	30.3	3	1	3	95.90	0.4	7.48	0.0	0.0	0.3
21985281	FAN121-PD	22047397-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	325.7	3	1	3	95.89	0.4	7.45	0.0	0.0	0.3
21985363	JJ23296141-NODE	JJ23277953-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	238.9	31	9	32	96.14	4.2	7.96	0.0	0.0	3.2
25883460	JJ23277953-NODE	JJ23353173-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	212.7	22	6	23	96.34	3.0	8.38	0.0	0.0	2.3
22200311	JJ23353173-NODE	FAN140-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	130.1	9	3	9	95.98	1.2	7.63	0.0	0.0	0.9
22200296	FAN140-PD	JJ23353191-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	27.9	9	3	9	95.96	1.2	7.59	0.0	0.0	0.9
25883466	JJ23353173-NODE	FAN87-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	29.2	13	4	14	96.55	1.8	8.85	0.0	0.0	1.3
26985505	JJ23277953-NODE	21910386-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	12.1	9	3	9	95.58	1.2	6.84	0.0	0.0	0.9
25009613	JJ23296145-NODE	24283915-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	7.1	9	3	9	95.58	1.2	6.84	0.0	0.0	0.9
21937325	JJ23278395-NODE	F2347-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	56.6	35	11	37	95.66	4.8	7.01	0.0	0.0	3.6
21988453	F2347-PD	JJ23292935-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	288.7	35	11	37	95.66	4.8	7.00	0.0	0.0	3.6
21988467	JJ23292935-NODE	JJ23272785-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	1095.8	27	8	28	95.67	3.6	7.02	0.0	0.0	2.7
21878996	JJ23272785-NODE	26985899-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	290.5	9	3	9	95.63	1.2	6.93	0.0	0.0	0.9
26985900	26985899-NODE	21908835-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	14.4	9	3	9	95.58	1.2	6.84	0.0	0.0	0.9
21928292	JJ23272785-NODE	26985884-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	297.4	18	5	19	95.61	2.4	6.90	0.0	0.0	1.8
26985885	26985884-NODE	21908824-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	22.9	18	5	19	95.59	2.4	6.85	0.0	0.0	1.8
21988485	JJ23292935-NODE	22048328-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	143.9	9	3	9	95.60	1.2	6.88	0.0	0.0	0.9
25009560	JJ23273731-NODE	24283979-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	7.8	9	3	9	95.58	1.2	6.85	0.0	0.0	0.9

25009534	JJ23273733-NODE	24283947-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.1	9	3	9	95.58	1.2	6.86	0.0	0.0	0.9
26985987	JJ23273729-NODE	21909669-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.6	4	1	5	95.63	0.6	6.96	0.0	0.0	0.5
24764525	JJ23278931-NODE	F2139-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	132.5	34	10	35	95.80	4.6	7.29	0.0	0.0	3.5
22054345	F2139-PD	JJ23311675-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	276.2	34	10	35	95.79	4.6	7.28	0.0	0.0	3.5
22054360	JJ23311675-NODE	JJ23278949-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	281.2	29	9	31	95.76	4.0	7.22	0.0	0.0	3.0
21934642	JJ23278949-NODE	JJ23278947-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	161.1	28	8	29	95.75	3.7	7.18	0.0	0.0	2.8
21934655	JJ23278947-NODE	JJ23273707-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	136.9	19	6	20	95.80	2.5	7.29	0.0	0.0	1.9
24426901	JJ23273707-NODE	24426900-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	162.9	19	6	20	95.79	2.5	7.28	0.0	0.0	1.9
21878322	24426900-NODE	JJ23273705-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	84.6	10	3	10	95.96	1.3	7.61	0.0	0.0	1.0
21934668	JJ23273705-NODE	JJ23277973-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	146.5	10	3	10	95.95	1.3	7.58	0.0	0.0	1.0
21934686	JJ23277973-NODE	JJ23273789-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	202.7	5	2	6	96.08	0.7	7.87	0.0	0.0	0.6
21917948	JJ23273789-NODE	JJ23273793-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	220.0	5	2	6	96.04	0.7	7.77	0.0	0.0	0.6
21917914	JJ23273793-NODE	JJ23273791-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	480.0	1	0	1	97.15	0.1	10.24	0.0	0.0	0.1
21917931	JJ23273791-NODE	JJ23272709-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	242.4	0	0	0	0.00	0.0	113.95	0.0	0.0	0.0
21879072	JJ23272709-NODE	JJ23272711-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	49.2	0	0	0	0.00	0.0	113.95	0.0	0.0	0.0
26985208	JJ23273791-NODE	21909284-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	14.7	1	0	1	96.19	0.1	8.08	0.0	0.0	0.1
21937374	JJ23277973-NODE	21909960-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	334.7	4	1	5	95.73	0.6	7.15	0.0	0.0	0.5
24426909	24426900-NODE	24444700-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.9	9	3	9	95.58	1.2	6.86	0.0	0.0	0.9
21937368	JJ23278947-NODE	FAN40-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.3	9	3	9	95.60	1.2	6.90	0.0	0.0	0.9
21937360	FAN40-PD	21909922-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	125.7	9	3	9	95.60	1.2	6.89	0.0	0.0	0.9
24989911	JJ23278949-NODE	21909941-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.0	2	1	2	95.85	0.2	7.40	0.0	0.0	0.2
22054594	JJ23311675-NODE	FAN136-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.5	4	1	5	95.90	0.6	7.49	0.0	0.0	0.5
22054572	FAN136-PD	22114587-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	873.4	4	1	5	95.89	0.6	7.48	0.0	0.0	0.5
26985523	JJ23278931-NODE	21910015-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.0	4	1	5	95.63	0.6	6.97	0.0	0.0	0.5
26093726	JJ23278933-NODE	21909868-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.1	9	3	9	95.58	1.2	6.88	0.0	0.0	0.9
24512474	JJ23296329-NODE	22047367-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.2	9	3	9	95.58	1.2	6.90	0.0	0.0	0.9
21936639	JJ23278403-NODE	21909831-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	6.0	9	2	9	96.16	1.1	7.30	0.0	0.0	0.4
23586006	23586005-NODE	21909724-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	5.0	9	2	9	96.16	1.1	7.33	0.0	0.0	0.4
23586020	23586019-NODE	21909705-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	9.7	4	1	5	95.64	0.6	7.08	0.0	0.0	0.2
21937166	JJ23278891-NODE	FAP99-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.7	17	5	18	96.62	2.3	8.36	0.0	0.0	1.7
21937158	FAP99-PD	JJ23272633-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1.8	17	5	18	96.61	2.3	8.36	0.0	0.0	1.7
26895122	JJ23273767-NODE	21909420-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	8.6	9	3	9	95.58	1.2	6.99	0.0	0.0	0.4
21937152	JJ23278085-NODE	FAP98-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.5	17	5	18	96.24	2.3	7.59	0.0	0.0	1.7
24283857	JJ23504949-NODE	24283847-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.9	17	5	18	96.16	2.3	7.43	0.0	0.0	1.7
24407477	24407410-NODE	24407388-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	24.0	0	0	0	0.00	0.0	113.93	0.0	0.0	0.0
24407518	24407468-NODE	24407388-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	35.6	0	0	0	0.00	0.0	113.93	0.0	0.0	0.0
21937202	JJ23525703-NODE	FAP97-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	51.5	17	5	18	96.21	2.3	7.62	0.0	0.0	1.7
21937209	FAP97-PD	JJ23272649-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.6	17	5	18	96.21	2.3	7.61	0.0	0.0	1.7
24220115	JJ23525577-NODE	24220095-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.7	4	1	4	96.21	0.6	7.68	0.0	0.0	0.4
24763095	JJ23525471-NODE	21909384-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.0	7	2	7	95.67	0.9	7.35	0.0	0.0	0.7
24220061	JJ23525413-NODE	24220029-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.9	3	1	3	95.75	0.4	7.50	0.0	0.0	0.3
21878274	JJ23525233-NODE	21909372-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.7	7	2	7	95.67	0.9	7.35	0.0	0.0	0.7
21878269	JJ23525235-NODE	21909360-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.9	7	2	7	95.67	0.9	7.35	0.0	0.0	0.7
25362501	25362494-NODE	21910425-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.2	7	2	7	95.67	0.9	7.35	0.0	0.0	0.7
24220567	JJ23525261-NODE	24220536-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.6	7	2	7	95.67	0.9	7.35	0.0	0.0	0.7
24220018	JJ23525299-NODE	24220000-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.9	3	1	3	95.75	0.4	7.51	0.0	0.0	0.3
21821328	JJ23524959-NODE	JJ23278855-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	98.0	239	59	246	97.10	10.4	10.30	0.0	0.0	4.5
21935062	JJ23278855-NODE	JJ23278207-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	269.5	235	58	242	97.11	10.2	10.33	0.0	0.0	4.3

21936962	JJ23278207-NODE	FAP15-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.2	3	1	3	96.41	0.3	8.55	0.0	0.0	0.3
21936949	FAP15-PD	21909036-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	199.9	3	1	3	96.39	0.3	8.52	0.0	0.0	0.3
22206885	JJ23278207-NODE	JJ23344503-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	683.5	232	57	239	97.11	10.1	10.34	0.0	0.0	4.2
22206249	JJ23344503-NODE	F3550-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	61.2	96	17	98	98.38	4.1	13.85	0.0	0.0	1.6
22206228	F3550-PD	JJ23345337-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	23.9	96	17	98	98.38	4.1	13.84	0.0	0.0	1.6
22366799	JJ23344503-NODE	JJ23416877-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	165.6	136	40	141	95.99	6.0	7.85	0.0	0.0	2.7
22366802	JJ23416877-NODE	JJ23297475-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	883.6	127	37	133	95.97	5.6	7.82	0.0	0.0	2.3
21984290	JJ23297475-NODE	JJ23314411-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	668.0	124	36	129	95.94	5.5	7.75	0.0	0.0	2.3
22054048	JJ23314411-NODE	JJ23314399-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	345.8	115	34	120	95.89	5.1	7.66	0.0	0.0	2.2
22054055	JJ23314399-NODE	JJ23299439-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	277.0	91	27	95	95.83	4.0	7.53	0.0	0.0	1.8
24580633	JJ23299439-NODE	24580632-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	430.0	88	26	92	95.80	3.9	7.47	0.0	0.0	1.8
22050298	24580632-NODE	22047188-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	8.4	9	3	9	95.59	1.2	7.11	0.0	0.0	0.4
22204478	24580632-NODE	24580599-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	81.9	80	24	83	95.79	3.5	7.45	0.0	0.0	1.4
22204499	24580599-NODE	23228860-NODE	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_1	Overhead Line	13.6	13.800	114.4	0	0	0	0.00	0.0	114.14	0.0	0.0	0.0
24580600	24580599-NODE	22245816-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	12.2	80	24	83	95.77	3.5	7.42	0.0	0.0	1.4
24762127	JJ23299439-NODE	22047253-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.5	3	1	3	96.30	0.3	8.30	0.0	0.0	0.3
24219780	JJ23314399-NODE	24219763-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	11.6	24	7	25	96.03	1.1	7.94	0.0	0.0	0.4
24762110	JJ23314411-NODE	22047214-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.1	9	2	9	96.16	1.1	8.00	0.0	0.0	0.9
24513411	JJ23297475-NODE	22114600-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.5	3	1	3	95.75	0.4	7.51	0.0	0.0	0.3
24219804	JJ23416877-NODE	24219794-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.0	9	2	9	96.16	1.1	8.01	0.0	0.0	0.9
22054098	JJ23278855-NODE	FAQ48-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.3	4	1	4	96.23	0.6	8.18	0.0	0.0	0.4
24761855	FAQ48-PD	21910822-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	85.6	4	1	4	96.23	0.6	8.18	0.0	0.0	0.4
24761682	24761667-NODE	22047161-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.0	4	1	4	96.21	0.6	8.16	0.0	0.0	0.4
21937652	JJ23278847-NODE	FAP36-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	31.0	3	1	3	96.47	0.3	8.87	0.0	0.0	0.3
22401795	FAP36-PD	21910998-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	327.2	3	1	3	96.46	0.3	8.84	0.0	0.0	0.3
24513283	JJ23278853-NODE	22047133-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.2	3	1	3	95.75	0.4	7.53	0.0	0.0	0.3
24255066	JJ23297677-NODE	22047104-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.0	9	2	9	96.16	1.1	8.27	0.0	0.0	0.9
24579876	JJ23298351-NODE	22046979-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.0	9	3	9	95.59	1.2	7.21	0.0	0.0	0.9
21983367	JJ23298379-NODE	F3145-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	36.1	18	4	18	97.27	2.3	10.87	0.0	0.0	1.8
22055935	JJ23309953-NODE	F1959-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.1	18	5	19	95.65	2.4	7.33	0.0	0.0	1.8
21935102	F1959-PD	24761606-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	363.5	18	5	19	95.64	2.4	7.33	0.0	0.0	1.8
21878374	24761606-NODE	21910944-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	381.0	9	3	9	95.64	1.2	7.33	0.0	0.0	0.9
24761607	24761606-NODE	21910927-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	18.5	9	3	9	95.59	1.2	7.22	0.0	0.0	0.9
21983473	24579726-NODE	22047004-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	9.5	7	2	7	95.67	0.9	7.40	0.0	0.0	0.3
21983587	24579655-NODE	22047025-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	9.1	9	3	9	95.59	1.2	7.24	0.0	0.0	0.4
22054395	23619362-NODE	22047048-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	8.9	4	1	4	96.21	0.6	8.76	0.0	0.0	0.2
22056844	JJ23307537-NODE	23225184-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	53.9	0	0	0	0.00	0.0	114.47	0.0	0.0	0.0
22053524	S3621-PD	JJ23316363-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	11.2	1460	414	1517	96.20	63.9	8.64	0.0	0.0	24.8
22053531	JJ23316363-NODE	23225176-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	48.3	0	0	0	0.00	0.0	114.47	0.0	0.0	0.0
22053540	JJ23316363-NODE	JJ23277433-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	83.5	1460	414	1517	96.20	63.9	8.64	0.1	0.1	24.8
21938266	JJ23277433-NODE	S3561-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	19.0	0	-1	1	0.00	0.0	114.46	0.0	0.0	0.0
25862585	JJ23277433-NODE	25862575-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	7.0	1460	415	1517	96.19	63.9	8.61	0.0	0.0	24.8
25862593	25862575-NODE	S1055-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	53.9	1460	415	1517	96.19	63.9	8.61	0.0	0.1	24.8
21938272	S1055-PD	JJ23421117-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	238.5	1460	415	1517	96.19	63.9	8.61	0.2	0.4	24.8
22382266	JJ23421117-NODE	FAK81-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.8	9	3	10	95.88	1.2	7.83	0.0	0.0	0.9
22382262	FAK81-PD	23631718-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	152.4	9	3	10	95.88	1.2	7.83	0.0	0.0	0.9
22382281	JJ23421117-NODE	JJ23293409-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	11.7	1450	411	1507	96.20	63.5	8.61	0.0	0.0	24.4
21987513	JJ23293409-NODE	FAQ51-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	67.0	5	1	5	95.99	0.6	8.05	0.0	0.0	0.5

21987494	FAQ51-PD	22245893-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	221.2	5	1	5	95.97	0.6	8.01	0.0	0.0	0.5
21987526	JJ23293409-NODE	26893500-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	232.0	1445	410	1502	96.20	63.3	8.61	0.1	0.4	24.1
23614332	26893500-NODE	21871955-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	8.5	2	1	2	95.87	0.3	8.11	0.0	0.0	0.1
26893501	26893500-NODE	26894803-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	249.0	1443	409	1500	96.21	63.2	8.61	0.2	0.4	24.1
21938385	26894803-NODE	FAQ33-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	5.5	4	1	4	96.12	0.5	8.34	0.0	0.0	0.4
21938393	FAQ33-PD	21871932-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	230.5	4	1	4	96.12	0.5	8.34	0.0	0.0	0.4
26894804	26894803-NODE	JJ23331491-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	135.6	1439	408	1496	96.21	63.0	8.61	0.1	0.2	24.1
22123220	JJ23331491-NODE	FAQ79-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.6	9	2	10	97.29	1.2	10.94	0.0	0.0	0.9
22123247	JJ23331491-NODE	JJ23277369-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	118.0	1430	405	1486	96.21	62.6	8.60	0.1	0.2	23.8
21933227	JJ23277369-NODE	JJ23277379-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	242.7	1424	404	1480	96.21	62.4	8.60	0.2	0.4	23.8
21933220	JJ23277379-NODE	21871915-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	8.5	4	1	4	95.75	0.5	7.82	0.0	0.0	0.2
22140408	JJ23277379-NODE	JJ23317887-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	14.5	1420	402	1476	96.21	62.2	8.60	0.0	0.0	23.7
22140320	JJ23317887-NODE	FAQ30-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.2	9	3	10	95.95	1.2	7.92	0.0	0.0	0.9
22140302	FAQ30-PD	24984428-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	294.4	9	3	10	95.95	1.2	7.91	0.0	0.0	0.9
24984429	24984428-NODE	JJ23317925-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	162.8	9	3	10	95.90	1.2	7.82	0.0	0.0	0.9
22140356	JJ23317925-NODE	21911017-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	174.0	9	3	10	95.88	1.2	7.77	0.0	0.0	0.9
22140394	JJ23317887-NODE	23613817-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	211.4	1411	399	1466	96.22	61.8	8.60	0.1	0.3	23.6
21933212	23613817-NODE	21871906-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	8.0	5	1	5	95.90	0.6	7.81	0.0	0.0	0.2
23613818	23613817-NODE	JJ23277385-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	530.5	1406	398	1461	96.22	61.6	8.60	0.3	0.8	23.6
21933205	JJ23277385-NODE	JJ23277387-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	286.0	1399	395	1454	96.23	61.3	8.60	0.2	0.4	23.3
21933197	JJ23277387-NODE	JJ23279539-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	1214.7	1371	386	1424	96.25	60.1	8.62	0.7	1.7	23.3
21933614	JJ23279539-NODE	S1645-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	185.7	1368	385	1421	96.27	60.0	8.61	0.1	0.3	23.3
21938280	S1645-PD	JJ23279371-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	235.2	1368	384	1421	96.27	60.0	8.61	0.1	0.3	23.3
21933621	JJ23279371-NODE	JJ23273483-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	156.8	1231	348	1279	96.23	54.0	8.51	0.1	0.2	21.3
21878487	JJ23273483-NODE	JJ23273481-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	11.0	987	282	1027	96.14	43.4	8.33	0.0	0.0	21.0
21938287	JJ23273481-NODE	S1329-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	230.2	987	282	1027	96.14	43.4	8.33	0.1	0.2	21.0
21938296	S1329-PD	JJ23277415-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	440.9	987	282	1026	96.14	43.4	8.32	0.2	0.4	21.0
21933630	JJ23277415-NODE	JJ23277407-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	242.8	982	281	1021	96.15	43.2	8.32	0.1	0.2	21.0
21933637	JJ23277407-NODE	JJ23279357-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	365.8	968	277	1007	96.14	42.5	8.29	0.1	0.3	21.0
21933645	JJ23279357-NODE	JJ23277341-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	415.6	963	275	1001	96.15	42.3	8.29	0.1	0.4	20.7
21933653	JJ23277341-NODE	JJ23279353-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	839.6	959	274	997	96.15	42.2	8.28	0.3	0.7	20.7
21933664	JJ23279353-NODE	JJ23279347-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	379.4	954	272	992	96.17	41.9	8.27	0.1	0.3	20.7
21933672	JJ23279347-NODE	JJ23279345-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	486.0	923	263	959	96.18	40.6	8.30	0.2	0.4	20.7
21933680	JJ23279345-NODE	JJ23277877-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	582.6	919	261	956	96.19	40.4	8.29	0.2	0.5	20.6
21933688	JJ23277877-NODE	JJ23273669-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	380.2	915	260	952	96.20	40.3	8.29	0.1	0.3	20.4
23615002	JJ23273669-NODE	21910653-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.9	4	1	4	95.74	0.5	7.44	0.0	0.0	0.4
24457733	JJ23273669-NODE	24457732-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	202.3	912	259	948	96.20	40.1	8.29	0.1	0.2	20.2
24457743	24457732-NODE	24457742-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	8.4	0	0	0	0.00	0.0	114.13	0.0	0.0	0.0
25667221	24457732-NODE	24458482-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	60.8	912	259	948	96.21	40.1	8.28	0.0	0.0	20.2
24457953	24458482-NODE	S4238-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	12.2	912	258	948	96.21	40.1	8.28	0.0	0.0	20.2
24458465	S4238-PD	24458464-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	9.0	912	258	948	96.21	40.1	8.28	0.0	0.0	20.2
21933694	24458464-NODE	JJ23279331-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	131.9	912	258	948	96.21	40.1	8.28	0.0	0.1	20.2
21933705	JJ23279331-NODE	JJ23277317-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	1051.4	560	159	582	96.19	24.6	8.25	0.1	0.3	12.9
21933713	JJ23277317-NODE	JJ23279325-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	560.8	559	159	581	96.20	24.6	8.22	0.1	0.2	12.9
21933727	JJ23279325-NODE	JJ23277329-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	8.6	555	158	577	96.20	24.5	8.21	0.0	0.0	12.9
21933720	JJ23277329-NODE	JJ23277333-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	163.3	552	157	574	96.20	24.3	8.21	0.0	0.0	12.7
21933736	JJ23277333-NODE	JJ23273471-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	206.7	545	155	566	96.21	24.0	8.22	0.0	0.1	12.4
21878489	JJ23273471-NODE	JJ23273473-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	204.4	541	153	562	96.21	23.8	8.22	0.0	0.1	12.4

21938479	JJ23273473-NODE	S1449-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	697.1	537	152	558	96.21	23.7	8.22	0.1	0.2	12.4
21933815	S1449-PD	JJ23277293-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	245.8	537	152	558	96.21	23.7	8.20	0.0	0.1	12.4
21933807	JJ23277293-NODE	JJ23277305-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	11.7	488	140	508	96.14	21.5	8.05	0.0	0.0	10.1
21933825	JJ23277305-NODE	JJ23273463-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	402.5	487	139	506	96.14	21.5	8.04	0.0	0.1	10.1
21878492	JJ23273463-NODE	JJ23273465-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	335.3	485	139	505	96.14	21.4	8.03	0.0	0.1	10.1
22055813	JJ23273465-NODE	JJ23310071-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	5.6	9	3	10	95.97	1.2	7.47	0.0	0.0	0.9
22055774	JJ23310071-NODE	FAM42-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	65.4	5	1	5	96.04	0.6	7.61	0.0	0.0	0.5
22055750	FAM42-PD	22114626-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	382.6	5	1	5	96.02	0.6	7.57	0.0	0.0	0.5
22055794	22114626-NODE	JJ23310099-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	20.6	0	0	0	0.00	0.0	113.80	0.0	0.0	0.0
23617835	JJ23310071-NODE	23671584-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.8	5	1	5	95.90	0.6	7.34	0.0	0.0	0.5
22055836	JJ23273465-NODE	JJ23279267-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	370.0	476	136	495	96.14	21.0	8.03	0.0	0.1	10.1
21933841	JJ23279267-NODE	JJ23279269-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	379.9	474	136	493	96.14	20.9	8.02	0.0	0.1	10.1
21933833	JJ23279269-NODE	JJ23273303-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	210.8	457	130	475	96.16	20.1	8.04	0.0	0.0	9.3
21878616	JJ23273303-NODE	JJ23273305-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	738.3	457	130	475	96.15	20.1	8.03	0.1	0.1	9.3
21933858	JJ23273305-NODE	JJ23279263-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	494.7	455	130	473	96.15	20.1	8.01	0.0	0.1	9.3
21933850	JJ23279263-NODE	JJ23279265-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	117.7	455	130	473	96.15	20.1	8.00	0.0	0.0	9.3
21933866	JJ23279265-NODE	JJ23276981-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	529.1	453	129	471	96.15	20.0	7.99	0.0	0.1	9.3
21933873	JJ23276981-NODE	JJ23279255-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	234.1	441	127	459	96.12	19.5	7.93	0.0	0.0	9.3
22123795	JJ23279255-NODE	FAM44-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	36.6	4	1	4	95.91	0.5	7.56	0.0	0.0	0.4
22123779	FAM44-PD	22198733-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	420.5	4	1	4	95.90	0.5	7.53	0.0	0.0	0.4
22123833	JJ23279255-NODE	JJ23279239-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	436.7	438	125	455	96.12	19.3	7.93	0.0	0.1	9.1
21933907	JJ23279239-NODE	JJ23279241-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	416.6	435	125	453	96.12	19.2	7.91	0.0	0.1	9.1
21933882	JJ23279241-NODE	FAM26-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	124.0	2	0	2	97.01	0.2	10.25	0.0	0.0	0.2
21938853	FAM26-PD	21872795-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	816.0	2	0	2	96.92	0.2	10.03	0.0	0.0	0.2
21933890	JJ23279241-NODE	FAL29-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	40.8	4	1	4	95.81	0.5	7.33	0.0	0.0	0.4
21938847	FAL29-PD	21872785-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	143.5	4	1	4	95.79	0.5	7.30	0.0	0.0	0.4
21933898	JJ23279241-NODE	JJ23279243-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	14.6	430	123	447	96.12	19.0	7.90	0.0	0.0	9.0
21933915	JJ23279243-NODE	JJ23276927-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	462.3	430	123	447	96.12	19.0	7.90	0.0	0.1	9.0
21933925	JJ23276927-NODE	JJ23279233-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	210.6	429	123	446	96.12	18.9	7.88	0.0	0.0	8.9
21933933	JJ23279233-NODE	JJ23277229-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	441.1	427	122	444	96.12	18.8	7.88	0.0	0.1	8.9
21932848	JJ23277229-NODE	23632383-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	773.7	372	106	386	96.15	16.4	7.93	0.0	0.1	8.2
23632384	23632383-NODE	JJ23276507-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	7.8	368	105	382	96.14	16.2	7.90	0.0	0.0	8.2
21932856	JJ23276507-NODE	JJ23279187-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	21.9	358	103	373	96.12	15.8	7.85	0.0	0.0	7.7
21934055	JJ23279187-NODE	JJ23276487-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	673.9	358	103	373	96.12	15.8	7.85	0.0	0.1	7.7
21934047	JJ23276487-NODE	JJ23279185-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	233.8	343	98	357	96.12	15.1	7.84	0.0	0.0	7.7
21934061	JJ23279185-NODE	JJ23279183-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	218.8	334	96	347	96.12	14.7	7.85	0.0	0.0	7.3
21934073	JJ23279183-NODE	JJ23276461-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	204.0	332	95	345	96.12	14.7	7.84	0.0	0.0	7.3
21939257	JJ23276461-NODE	FAL71-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	60.3	23	7	24	95.67	3.1	7.02	0.0	0.0	2.4
21939263	FAL71-PD	21873687-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	527.1	23	7	24	95.67	3.1	7.01	0.0	0.0	2.4
22288327	JJ23276461-NODE	JJ23279167-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	1191.6	309	88	321	96.15	13.6	7.89	0.0	0.1	7.3
21932831	JJ23279167-NODE	F1398-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.1	21	6	22	95.91	2.8	7.50	0.0	0.0	2.1
21932839	F1398-PD	JJ23273093-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1023.3	21	6	22	95.91	2.8	7.49	0.0	0.0	2.1
21878797	JJ23273093-NODE	JJ23273091-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	299.0	17	5	18	95.87	2.3	7.41	0.0	0.0	1.8
21934113	JJ23273091-NODE	JJ23276375-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	791.1	10	3	11	95.97	1.4	7.60	0.0	0.0	1.1
21934104	JJ23276375-NODE	JJ23276559-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	399.6	4	1	4	96.07	0.5	7.80	0.0	0.0	0.4
21939188	JJ23276559-NODE	FAE12-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.1	4	1	4	95.92	0.5	7.50	0.0	0.0	0.4
21939182	FAE12-PD	21873499-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	470.8	4	1	4	95.91	0.5	7.49	0.0	0.0	0.4
21939333	JJ23276375-NODE	FAE20-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.0	7	2	7	95.76	0.9	7.19	0.0	0.0	0.7

21939339	FAE20-PD	21873696-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	495.8	7	2	7	95.76	0.9	7.19	0.0	0.0	0.7
23633387	JJ23273091-NODE	21873782-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.5	7	2	7	95.67	0.9	7.00	0.0	0.0	0.7
23633368	JJ23273093-NODE	21873792-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.4	4	1	4	95.74	0.5	7.14	0.0	0.0	0.4
21934122	JJ23279167-NODE	23632516-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	262.9	288	82	299	96.15	12.7	7.87	0.0	0.0	7.3
21939269	23632516-NODE	S1552-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	98.6	269	77	280	96.17	11.9	7.92	0.0	0.0	6.4
21934157	S1552-PD	S1551-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	845.6	269	77	280	96.17	11.9	7.91	0.0	0.1	6.4
25079652	S1551-PD	JJ23273103-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	376.3	269	77	280	96.15	11.9	7.88	0.0	0.0	6.4
21939274	JJ23273103-NODE	JJ23276437-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	370.4	247	70	257	96.17	10.9	7.89	0.0	0.0	6.4
21934173	JJ23276437-NODE	JJ23276413-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	179.3	237	68	247	96.18	10.5	7.91	0.0	0.0	6.0
21934182	JJ23276413-NODE	JJ23276421-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	177.8	231	66	240	96.19	10.2	7.93	0.0	0.0	6.0
21939284	JJ23276421-NODE	FAF4-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.3	8	2	8	96.02	1.0	8.05	0.0	0.0	0.8
21939279	FAF4-PD	21873721-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	154.9	8	2	8	96.01	1.0	8.04	0.0	0.0	0.8
25882143	JJ23276421-NODE	25882142-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	736.8	223	63	232	96.19	9.8	7.91	0.0	0.0	6.0
21934189	25882142-NODE	21873712-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	8.3	1	0	2	96.01	0.2	7.69	0.0	0.0	0.1
25882174	25882142-NODE	25882161-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	842.9	221	63	230	96.17	9.8	7.87	0.0	0.0	6.0
21934212	25882161-NODE	JJ23275839-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	279.7	216	62	225	96.17	9.5	7.85	0.0	0.0	6.0
21934222	JJ23275839-NODE	S1550-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	62.9	147	42	153	96.11	6.5	7.85	0.0	0.0	2.7
22352045	S1550-PD	JJ23408625-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	147.1	147	42	153	96.11	6.5	7.84	0.0	0.0	2.7
22351647	JJ23408625-NODE	JJ23410439-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	141.2	128	37	133	96.07	5.7	7.82	0.0	0.0	2.4
22351651	JJ23410439-NODE	JJ23279123-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	376.2	121	35	126	96.09	5.3	7.85	0.0	0.0	2.4
23634153	JJ23279123-NODE	21875340-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.2	8	2	8	95.98	1.0	7.98	0.0	0.0	0.8
23634226	JJ23279123-NODE	JJ23275841-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	120.8	114	33	118	96.08	5.0	7.80	0.0	0.0	2.0
21939873	JJ23275841-NODE	F2193-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	33.0	3	1	3	96.55	0.4	9.17	0.0	0.0	0.3
21939864	F2193-PD	JJ23272837-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	299.3	3	1	3	96.54	0.4	9.14	0.0	0.0	0.3
21878936	JJ23272837-NODE	JJ23270751-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	214.3	2	0	2	96.55	0.2	9.16	0.0	0.0	0.2
21882842	JJ23270751-NODE	JJ23270753-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	113.9	2	0	2	96.37	0.2	8.79	0.0	0.0	0.2
23634788	JJ23270753-NODE	21875326-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.8	2	0	2	96.28	0.2	8.59	0.0	0.0	0.2
23634758	JJ23272837-NODE	21875311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.4	2	0	2	96.28	0.2	8.60	0.0	0.0	0.2
22054407	JJ23275841-NODE	F3377-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	182.6	110	32	115	96.05	4.9	7.74	0.0	0.0	1.9
22054417	F3377-PD	JJ23272847-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	206.2	110	32	115	96.04	4.9	7.72	0.0	0.0	1.9
21878932	JJ23272847-NODE	JJ23272845-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	405.5	101	29	105	96.05	4.5	7.77	0.0	0.0	1.9
21878928	JJ23272845-NODE	JJ23272849-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	450.0	100	29	104	96.02	4.4	7.71	0.0	0.0	1.8
21878924	JJ23272849-NODE	JJ23272853-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	261.5	92	27	96	96.00	4.1	7.63	0.0	0.0	1.5
21878921	JJ23272853-NODE	JJ23272857-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	827.6	85	25	88	96.00	3.8	7.64	0.0	0.0	1.5
21934228	JJ23272857-NODE	JJ23275857-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	158.7	79	23	83	95.94	3.5	7.48	0.0	0.0	1.4
21934238	JJ23275857-NODE	23225157-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	295.8	0	0	0	0.00	0.0	114.26	0.0	0.0	0.0
21939852	JJ23275857-NODE	F2192-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	36.0	79	23	83	95.93	3.5	7.45	0.0	0.0	1.4
22123964	F2192-PD	JJ23330413-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	526.0	79	23	83	95.92	3.5	7.44	0.0	0.0	1.4
22123951	JJ23330413-NODE	23671520-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	924.7	79	23	83	95.87	3.5	7.34	0.0	0.0	1.4
22215652	JJ23330413-NODE	FAE36-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.5	0	0	0	-99.61	0.0	29.33	0.0	0.0	0.0
22215632	FAE36-PD	22198754-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	136.4	0	0	0	-99.64	0.0	29.10	0.0	0.0	0.0
23634692	JJ23272857-NODE	21875203-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.0	6	2	6	96.02	0.8	8.03	0.0	0.0	0.6
23634680	JJ23272853-NODE	21875257-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.5	7	2	7	95.67	0.9	7.00	0.0	0.0	0.7
23634669	JJ23272849-NODE	21875265-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.8	8	2	8	95.98	1.0	7.97	0.0	0.0	0.8
23634652	JJ23272845-NODE	21875281-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	14.0	2	0	2	96.29	0.2	8.60	0.0	0.0	0.2
23634616	JJ23272847-NODE	21875297-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	15.6	9	3	10	95.85	1.2	6.93	0.0	0.0	0.9
24984041	JJ23275841-NODE	24984040-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	48.6	0	0	0	0.00	0.0	113.90	0.0	0.0	0.0
24983996	24984040-NODE	24983943-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	18.0	0	0	0	0.00	0.0	113.90	0.0	0.0	0.0

24984071	24984040-NODE	24983964-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	19.3	0	0	0	0.00	0.0	113.90	0.0	0.0	0.0
24219262	JJ23410439-NODE	24219255-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.8	7	2	7	95.67	0.9	7.01	0.0	0.0	0.7
22352036	JJ23408625-NODE	FAE37-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.6	19	5	19	96.31	2.4	7.89	0.0	0.0	1.8
21939879	JJ23275839-NODE	F712-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.1	70	20	72	96.27	9.2	7.79	0.0	0.0	6.9
21939885	F712-PD	JJ23279137-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1320.9	70	20	72	96.27	9.2	7.79	0.0	0.0	6.9
21934198	JJ23279137-NODE	JJ23270801-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.4	60	17	63	96.31	7.9	7.87	0.0	0.0	6.0
21882753	JJ23270801-NODE	21875011-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	376.6	9	3	10	95.91	1.2	7.03	0.0	0.0	0.9
21934205	JJ23270801-NODE	JJ23279133-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	651.1	51	14	53	96.38	6.7	8.02	0.0	0.0	5.1
23634390	JJ23279133-NODE	21873705-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.4	9	3	10	95.85	1.2	6.92	0.0	0.0	0.9
23634407	JJ23279133-NODE	23634406-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	624.0	42	11	43	96.48	5.5	8.22	0.0	0.0	4.2
22139664	23634406-NODE	22198875-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	15.8	9	3	10	95.85	1.2	6.91	0.0	0.0	0.9
22139685	23634406-NODE	JJ23273109-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	97.3	32	9	34	96.62	4.3	8.54	0.0	0.0	3.2
21878791	JJ23273109-NODE	FAE23-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	195.9	14	4	14	96.97	1.8	9.33	0.0	0.0	1.4
22139737	JJ23273109-NODE	FAE33-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	39.1	19	5	19	96.35	2.4	7.95	0.0	0.0	1.8
23634355	JJ23279137-NODE	21875234-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	23.4	9	3	10	95.85	1.2	6.93	0.0	0.0	0.9
25882162	25882161-NODE	21875356-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	6.7	5	2	5	95.71	0.7	7.08	0.0	0.0	0.2
21939296	JJ23276413-NODE	FAL11-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.1	7	2	7	95.70	0.9	7.07	0.0	0.0	0.7
21939290	FAL11-PD	21873731-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	161.3	7	2	7	95.70	0.9	7.06	0.0	0.0	0.7
23632549	JJ23276437-NODE	21873764-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.2	9	3	10	95.85	1.2	6.98	0.0	0.0	0.9
21939323	JJ23273103-NODE	23633197-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	104.2	22	7	23	95.90	3.0	7.46	0.0	0.0	2.3
23633198	23633197-NODE	F1345-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	165.5	19	6	20	95.92	2.5	7.51	0.0	0.0	1.9
21934149	F1345-PD	JJ23276391-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	808.8	19	6	20	95.91	2.5	7.49	0.0	0.0	1.9
21934141	JJ23276391-NODE	JJ23279159-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	542.5	8	2	9	96.02	1.1	7.70	0.0	0.0	0.9
21934132	JJ23279159-NODE	21873738-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	994.9	1	0	2	96.85	0.2	9.52	0.0	0.0	0.1
21939307	JJ23279159-NODE	FAF2-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.6	7	2	7	95.73	0.9	7.12	0.0	0.0	0.7
21939302	FAF2-PD	21873747-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	303.4	7	2	7	95.73	0.9	7.11	0.0	0.0	0.7
21939318	JJ23276391-NODE	FAM30-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	18.6	10	3	11	95.72	1.4	7.11	0.0	0.0	1.1
21939313	FAM30-PD	21873756-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	378.1	10	3	11	95.72	1.4	7.10	0.0	0.0	1.1
23633204	23633197-NODE	21873775-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.8	4	1	4	95.74	0.5	7.14	0.0	0.0	0.4
23632517	23632516-NODE	21873800-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	7.2	19	6	19	95.86	2.5	7.03	0.0	0.0	0.9
21939251	JJ23279183-NODE	FAM23-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	22.8	2	0	2	96.50	0.2	9.08	0.0	0.0	0.2
21939246	FAM23-PD	21873679-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	251.2	2	0	2	96.48	0.2	9.04	0.0	0.0	0.2
23632469	JJ23279185-NODE	21873669-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	15.6	9	3	10	95.85	1.2	7.06	0.0	0.0	0.9
21939232	JJ23276487-NODE	FAM24-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.4	4	1	4	95.88	0.5	7.43	0.0	0.0	0.4
21939226	FAM24-PD	21873576-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	340.6	4	1	4	95.87	0.5	7.41	0.0	0.0	0.4
21939236	JJ23276487-NODE	F1378-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	38.8	12	4	12	95.88	1.6	7.44	0.0	0.0	1.2
21939241	F1378-PD	JJ23273119-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	68.8	12	4	12	95.87	1.6	7.43	0.0	0.0	1.2
21878789	JJ23273119-NODE	JJ23279195-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	808.9	10	3	11	95.84	1.4	7.37	0.0	0.0	1.1
21934024	JJ23279195-NODE	JJ23279193-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	178.2	7	2	7	95.74	0.9	7.17	0.0	0.0	0.7
21934030	JJ23279193-NODE	JJ23271199-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.4	7	2	7	95.70	0.9	7.09	0.0	0.0	0.7
21881952	JJ23271199-NODE	21873643-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	187.0	7	2	7	95.70	0.9	7.09	0.0	0.0	0.7
21991114	JJ23279193-NODE	23236588-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	16.9	0	0	0	0.00	0.0	113.94	0.0	0.0	0.0
23635027	JJ23279195-NODE	21873653-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	13.5	4	1	4	95.74	0.5	7.16	0.0	0.0	0.4
23633105	JJ23273119-NODE	21873661-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	14.7	1	0	2	96.01	0.2	7.72	0.0	0.0	0.1
21939220	JJ23276507-NODE	FAL75-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	33.0	9	2	10	97.14	1.2	9.90	0.0	0.0	0.9
21939214	FAL75-PD	JJ23271185-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.4	9	2	10	97.13	1.2	9.89	0.0	0.0	0.9
23632392	23632383-NODE	21873566-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.4	4	1	4	96.04	0.5	8.13	0.0	0.0	0.4
21938543	JJ23277229-NODE	F797-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.5	55	16	57	95.88	7.4	7.46	0.0	0.0	5.6

23635114	F797-PD	23635105-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	27.3	55	16	57	95.88	7.4	7.46	0.0	0.0	5.6
23635106	23635105-NODE	JJ23273081-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	744.6	55	16	57	95.88	7.4	7.46	0.0	0.0	5.6
21878802	JJ23273081-NODE	JJ23273079-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	13.2	55	16	57	95.86	7.4	7.42	0.0	0.0	5.6
21938535	JJ23273079-NODE	F1259-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	171.2	48	14	50	95.89	6.4	7.47	0.0	0.0	4.9
21938538	F1259-PD	JJ23273285-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	13.0	48	14	50	95.89	6.4	7.47	0.0	0.0	4.9
21878650	JJ23273285-NODE	JJ23273279-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	444.1	48	14	50	95.89	6.4	7.46	0.0	0.0	4.9
21878659	JJ23273279-NODE	JJ23279229-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	14.2	47	14	49	95.87	6.2	7.43	0.0	0.0	4.7
21933941	JJ23279229-NODE	JJ23279223-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	149.9	40	12	41	95.90	5.3	7.49	0.0	0.0	4.0
21933958	JJ23279223-NODE	JJ23279217-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	505.7	33	10	34	95.92	4.4	7.53	0.0	0.0	3.3
21933975	JJ23279217-NODE	JJ23279219-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	403.1	31	9	33	95.89	4.2	7.47	0.0	0.0	3.2
21881961	JJ23279219-NODE	21873584-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	265.5	4	1	4	95.84	0.5	7.35	0.0	0.0	0.4
21933967	JJ23279219-NODE	JJ23271209-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	187.0	28	8	29	95.88	3.7	7.45	0.0	0.0	2.8
21881926	JJ23271209-NODE	21873491-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	189.4	4	1	4	95.81	0.5	7.30	0.0	0.0	0.4
21933984	JJ23271209-NODE	JJ23279215-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	172.5	24	7	25	95.88	3.3	7.45	0.0	0.0	2.5
21878778	JJ23279215-NODE	JJ23273131-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	227.2	18	5	19	95.93	2.4	7.55	0.0	0.0	1.9
21878780	JJ23273131-NODE	23618285-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	465.5	18	5	19	95.92	2.4	7.51	0.0	0.0	1.9
23618286	23618285-NODE	JJ23273133-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	26.8	15	4	15	95.92	2.0	7.51	0.0	0.0	1.5
21933999	JJ23273133-NODE	JJ23271193-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	484.0	15	4	15	95.92	2.0	7.51	0.0	0.0	1.5
21881957	JJ23271193-NODE	21873610-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	354.0	2	1	2	96.07	0.3	7.83	0.0	0.0	0.2
21933990	JJ23271193-NODE	JJ23279197-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	128.0	13	4	13	95.84	1.7	7.35	0.0	0.0	1.3
21934017	JJ23279197-NODE	JJ23273121-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	101.6	10	3	11	95.82	1.4	7.31	0.0	0.0	1.1
21878786	JJ23273121-NODE	JJ23273123-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	455.2	7	2	7	95.78	0.9	7.23	0.0	0.0	0.7
21878783	JJ23273123-NODE	JJ23273125-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	104.9	0	0	0	0.00	0.0	113.94	0.0	0.0	0.0
23635083	JJ23273123-NODE	21873627-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	15.4	7	2	7	95.67	0.9	7.02	0.0	0.0	0.7
21934008	JJ23273121-NODE	23635064-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	196.2	4	1	4	95.85	0.5	7.38	0.0	0.0	0.4
23635065	23635064-NODE	JJ23279205-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	24.2	0	0	0	0.00	0.0	113.94	0.0	0.0	0.0
21991125	JJ23279205-NODE	23236588-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	73.6	0	0	0	0.00	0.0	113.94	0.0	0.0	0.0
23635071	23635064-NODE	21873637-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	14.0	4	1	4	95.74	0.5	7.16	0.0	0.0	0.4
23618319	JJ23279197-NODE	21873620-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	11.3	2	1	2	95.86	0.3	7.40	0.0	0.0	0.2
23618292	23618285-NODE	21873601-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	11.5	4	1	4	95.74	0.5	7.16	0.0	0.0	0.4
23618272	JJ23279215-NODE	21873593-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	19.5	6	2	6	95.70	0.8	7.08	0.0	0.0	0.6
23618234	JJ23279217-NODE	21873889-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.4	1	0	1	96.15	0.2	8.00	0.0	0.0	0.1
22294807	JJ23279223-NODE	JJ23376621-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	535.4	7	2	7	95.77	0.9	7.23	0.0	0.0	0.7
22294814	JJ23376621-NODE	24219318-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	21.9	7	2	7	95.67	0.9	7.03	0.0	0.0	0.7
21933950	JJ23279229-NODE	21872823-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	187.0	7	2	7	95.70	0.9	7.09	0.0	0.0	0.7
23618202	JJ23273279-NODE	21872832-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.5	1	0	2	96.01	0.2	7.71	0.0	0.0	0.1
23618177	JJ23273079-NODE	21873881-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	19.7	7	2	7	95.67	0.9	7.04	0.0	0.0	0.7
23618113	JJ23279233-NODE	21872813-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	12.9	2	1	2	96.11	0.3	7.63	0.0	0.0	0.2
21938858	JJ23276927-NODE	FAL28-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	39.3	1	0	2	96.27	0.2	8.28	0.0	0.0	0.1
21938863	FAL28-PD	21872804-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	263.6	1	0	2	96.24	0.2	8.21	0.0	0.0	0.1
23618031	JJ23279239-NODE	21872776-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	14.6	2	1	2	96.16	0.3	8.35	0.0	0.0	0.2
21938815	JJ23276981-NODE	F72-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.0	12	3	12	97.08	1.5	9.82	0.0	0.0	1.2
21938821	F72-PD	26936774-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	542.4	12	3	12	97.07	1.5	9.82	0.0	0.0	1.2
26936779	26936774-NODE	JJ23276975-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	142.6	12	3	12	95.95	1.5	7.35	0.0	0.0	1.2
21723625	JJ23276975-NODE	JJ23497783-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	173.9	2	1	2	96.24	0.3	7.94	0.0	0.0	0.2
21723638	JJ23497783-NODE	21872725-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	85.1	2	1	2	96.14	0.3	7.74	0.0	0.0	0.2
23617988	JJ23276975-NODE	21872716-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	8.7	9	3	10	95.85	1.2	7.16	0.0	0.0	0.9
26936787	26936774-NODE	FAL103-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	411.3	0	0	1	-39.57	0.1	90.41	0.0	0.0	0.0

21938827	JJ23279265-NODE	FAL33-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	40.9	2	1	2	96.24	0.3	7.96	0.0	0.0	0.2
21938832	FAL33-PD	21872750-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	156.0	2	1	2	96.21	0.3	7.90	0.0	0.0	0.2
27141669	JJ23279263-NODE	27125144-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.1	0	0	0	0.00	0.0	114.02	0.0	0.0	0.0
23617906	JJ23273305-NODE	21872664-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	12.5	2	0	2	96.28	0.2	8.62	0.0	0.0	0.2
21938799	JJ23279269-NODE	FAM27-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	59.9	14	4	15	95.74	1.9	7.28	0.0	0.0	1.4
21938793	FAM27-PD	21872336-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	647.0	14	4	15	95.74	1.9	7.27	0.0	0.0	1.4
23617882	JJ23279269-NODE	21872674-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	16.3	4	1	4	95.74	0.5	7.28	0.0	0.0	0.4
23617864	JJ23279267-NODE	21872076-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	16.3	2	0	2	96.29	0.2	8.62	0.0	0.0	0.2
23617817	JJ23273463-NODE	21872025-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.9	2	0	2	96.28	0.2	8.61	0.0	0.0	0.2
21938458	JJ23277305-NODE	FAM1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	76.3	2	0	2	96.54	0.2	9.17	0.0	0.0	0.2
21938450	FAM1-PD	21872018-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	257.1	2	0	2	96.48	0.2	9.04	0.0	0.0	0.2
21938472	JJ23277293-NODE	F1379-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	27.7	49	13	50	96.85	6.4	9.68	0.0	0.0	4.9
21938465	F1379-PD	JJ23273455-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	432.3	49	13	50	96.85	6.4	9.68	0.0	0.0	4.9
21878494	JJ23273455-NODE	23617451-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	19.8	49	13	50	96.84	6.4	9.65	0.0	0.0	4.9
23617452	23617451-NODE	JJ23271769-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	165.9	45	12	47	96.92	6.0	9.84	0.0	0.0	4.5
21880919	JJ23271769-NODE	JJ23271771-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	328.4	45	12	47	96.92	6.0	9.83	0.0	0.0	4.5
21878501	JJ23271771-NODE	23617497-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	7.9	45	12	47	96.91	6.0	9.81	0.0	0.0	4.5
23617498	23617497-NODE	23617542-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	512.0	42	10	43	97.00	5.5	10.02	0.0	0.0	4.2
23617543	JJ23273447-NODE	23617542-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	15.0	38	9	39	97.10	5.0	10.24	0.0	0.0	3.8
21933798	JJ23273447-NODE	JJ23279293-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	3.0	33	8	34	97.29	4.3	10.70	0.0	0.0	3.3
21933790	JJ23279293-NODE	JJ23279297-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	168.7	33	8	34	97.29	4.3	10.70	0.0	0.0	3.3
21933783	JJ23279297-NODE	JJ23277033-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	296.8	29	7	30	97.44	3.9	11.09	0.0	0.0	2.9
21933776	JJ23277033-NODE	JJ23279303-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	346.8	26	6	27	97.63	3.4	11.57	0.0	0.0	2.6
21933767	JJ23279303-NODE	JJ23277047-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	91.7	26	6	27	97.61	3.4	11.53	0.0	0.0	2.6
21933760	JJ23277047-NODE	JJ23279311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	267.0	22	5	23	97.85	2.9	12.16	0.0	0.0	2.2
22351568	JJ23279311-NODE	F3891-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	40.9	19	4	19	98.15	2.5	13.05	0.0	0.0	1.9
22351564	F3891-PD	JJ23277007-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	746.5	19	4	19	98.15	2.5	13.04	0.0	0.0	1.9
21933751	JJ23277007-NODE	26784556-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	203.3	8	2	9	96.04	1.1	7.89	0.0	0.0	0.8
21938770	26784556-NODE	FAL48-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	44.3	7	2	7	95.84	0.9	7.48	0.0	0.0	0.7
21938776	FAL48-PD	21872646-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	816.5	7	2	7	95.83	0.9	7.46	0.0	0.0	0.7
26784557	26784556-NODE	FAL47-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.5	1	0	2	96.79	0.2	9.52	0.0	0.0	0.1
25700855	FAL47-PD	21872856-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	897.9	1	0	2	96.78	0.2	9.50	0.0	0.0	0.1
21938787	JJ23277007-NODE	FAL46-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	25.3	4	1	4	95.91	0.5	7.63	0.0	0.0	0.4
21938781	FAL46-PD	21872655-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	435.3	4	1	4	95.90	0.5	7.61	0.0	0.0	0.4
21989174	JJ23277007-NODE	F1991-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	231.5	7	0	7	99.94	0.9	22.09	0.0	0.0	0.7
21989160	F1991-PD	JJ23292503-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	33.7	7	0	7	99.93	0.9	21.99	0.0	0.0	0.7
23617680	JJ23279311-NODE	21872620-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	6.2	4	1	4	95.74	0.5	7.29	0.0	0.0	0.4
21938754	JJ23277047-NODE	FAL44-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	23.8	4	1	4	95.86	0.5	7.53	0.0	0.0	0.4
21938748	FAL44-PD	21872629-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	303.5	4	1	4	95.85	0.5	7.52	0.0	0.0	0.4
21938765	JJ23277033-NODE	FAL43-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	17.9	4	1	4	95.80	0.5	7.41	0.0	0.0	0.4
21938759	FAL43-PD	21872638-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	146.5	4	1	4	95.79	0.5	7.40	0.0	0.0	0.4
23617613	JJ23279297-NODE	21872345-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	19.2	4	1	4	95.74	0.5	7.30	0.0	0.0	0.4
21938493	JJ23273447-NODE	FAL40-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	18.1	5	2	5	95.78	0.7	7.37	0.0	0.0	0.5
21938487	FAL40-PD	21872084-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	267.0	5	2	5	95.77	0.7	7.36	0.0	0.0	0.5
23617549	23617542-NODE	21872093-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	12.9	4	1	4	95.74	0.5	7.30	0.0	0.0	0.4
23617515	23617497-NODE	21872033-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	7.3	4	1	4	95.74	0.5	7.30	0.0	0.0	0.4
23617458	23617451-NODE	21872039-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	16.7	4	1	4	95.74	0.5	7.31	0.0	0.0	0.4
23617249	JJ23273473-NODE	21871963-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	9.4	4	1	4	96.04	0.5	8.10	0.0	0.0	0.4

23617216	JJ23273471-NODE	21871970-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.3	4	1	4	96.04	0.5	8.10	0.0	0.0	0.4
21938422	JJ23277333-NODE	FAM13-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.3	7	2	7	95.71	0.9	7.29	0.0	0.0	0.7
21938414	FAM13-PD	21871990-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	179.1	7	2	7	95.70	0.9	7.28	0.0	0.0	0.7
21938429	JJ23277329-NODE	FAL6-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.9	4	1	4	95.88	0.5	7.64	0.0	0.0	0.4
22274766	FAL6-PD	JJ23372807-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	339.4	4	1	4	95.87	0.5	7.62	0.0	0.0	0.4
23617136	JJ23372807-NODE	21871997-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	5.6	4	1	4	95.74	0.5	7.36	0.0	0.0	0.4
23616876	JJ23279325-NODE	21872005-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.7	4	1	4	96.04	0.5	8.10	0.0	0.0	0.4
22311483	JJ23279331-NODE	F3826-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.6	13.800	161.4	267	77	278	96.10	11.8	8.08	0.0	0.0	6.4
22311480	F3826-PD	JJ23394293-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	25.0	267	77	278	96.10	11.8	8.07	0.0	0.0	13.7
22351353	JJ23394293-NODE	JJ23412685-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	1099.5	260	75	271	96.11	11.5	8.09	0.1	0.1	13.0
22311470	JJ23412685-NODE	FAT4-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	22.8	19	5	19	95.89	2.4	7.40	0.0	0.0	1.9
21937583	FAT4-PD	21910790-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	355.1	19	5	19	95.88	2.4	7.40	0.0	0.0	1.9
22351349	JJ23412685-NODE	JJ23412691-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	824.7	242	69	252	96.11	10.7	8.09	0.1	0.1	13.0
22311477	JJ23412691-NODE	JJ23394323-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	325.0	235	67	244	96.11	10.4	8.08	0.0	0.0	12.3
22311227	JJ23394323-NODE	F3830-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	31.9	77	21	79	96.51	3.4	9.00	0.0	0.0	7.7
25171019	F3830-PD	JJ23277827-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	153.4	77	21	79	96.52	10.1	8.99	0.0	0.0	7.7
21932974	JJ23277827-NODE	23615288-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	268.7	73	20	76	96.54	9.6	9.05	0.0	0.0	7.3
21933031	23615288-NODE	JJ23277845-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	566.8	72	19	74	96.55	9.5	9.06	0.0	0.0	7.2
21933021	JJ23277845-NODE	23615406-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	217.3	68	18	70	96.58	9.0	9.11	0.0	0.0	6.8
21878366	23615406-NODE	JJ23273665-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	506.2	64	17	67	96.62	8.5	9.20	0.0	0.0	6.5
21937549	JJ23273665-NODE	F1381-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	264.7	63	17	65	96.63	8.3	9.21	0.0	0.0	6.3
21754892	F1381-PD	25382144-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	743.3	63	17	65	96.62	8.3	9.20	0.0	0.0	6.3
21754890	25382144-NODE	21763407-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.6	1	0	2	96.01	0.2	7.89	0.0	0.0	0.1
25382145	25382144-NODE	JJ23279611-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1184.5	62	16	64	96.62	8.1	9.20	0.0	0.0	6.2
21933013	JJ23279611-NODE	JJ23271787-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	268.2	60	16	62	96.62	7.9	9.17	0.0	0.0	6.0
21880900	JJ23271787-NODE	21871975-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	417.1	1	0	2	96.38	0.2	8.64	0.0	0.0	0.1
21983316	JJ23271787-NODE	JJ23298435-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	830.6	59	16	61	96.62	7.7	9.18	0.0	0.0	5.9
21983293	JJ23298435-NODE	FAM41-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	23.1	4	1	4	95.94	0.5	7.72	0.0	0.0	0.4
21983274	FAM41-PD	22046954-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	513.5	4	1	4	95.93	0.5	7.71	0.0	0.0	0.4
21983305	JJ23298435-NODE	25064837-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	167.5	55	15	57	96.65	7.3	9.23	0.0	0.0	5.5
25064838	25064837-NODE	JJ23279615-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	294.1	48	13	50	96.78	6.3	9.52	0.0	0.0	4.8
21933005	JJ23279615-NODE	JJ23279617-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	487.6	48	13	50	96.77	6.4	9.50	0.0	0.0	4.8
21878504	JJ23279617-NODE	JJ23273445-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	739.9	47	12	48	96.78	6.2	9.52	0.0	0.0	4.7
21878533	JJ23273445-NODE	JJ23273389-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	223.4	43	11	45	96.85	5.7	9.66	0.0	0.0	4.3
23615693	JJ23273389-NODE	21872708-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	15.3	4	1	4	95.74	0.5	7.31	0.0	0.0	0.4
23615701	JJ23273389-NODE	JJ23273291-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	123.7	40	10	41	96.93	5.2	9.86	0.0	0.0	4.0
21878633	JJ23273291-NODE	JJ23273293-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	67.7	40	10	41	96.93	5.2	9.85	0.0	0.0	4.0
21932998	JJ23273293-NODE	JJ23279623-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	467.4	34	8	35	97.10	4.5	10.25	0.0	0.0	3.4
21932989	JJ23279623-NODE	F2255-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	32.8	27	6	28	97.33	3.6	10.81	0.0	0.0	2.7
21881405	F2255-PD	26539187-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1.5	27	6	28	97.33	3.6	10.80	0.0	0.0	2.7
21881425	JJ23271495-NODE	JJ23271497-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	383.2	26	6	26	97.07	3.4	10.17	0.0	0.0	2.6
21878642	JJ23271497-NODE	JJ23273287-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	245.9	26	6	26	97.05	3.4	10.13	0.0	0.0	2.6
21932980	JJ23273287-NODE	JJ23276961-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	252.1	22	5	23	97.23	2.9	10.56	0.0	0.0	2.2
21938838	JJ23276961-NODE	FAM5-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	37.6	5	1	5	95.94	0.6	7.70	0.0	0.0	0.5
21938842	FAM5-PD	24773224-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	168.1	5	1	5	95.93	0.6	7.68	0.0	0.0	0.5
24773225	24773224-NODE	24773255-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	200.7	5	1	5	95.88	0.6	7.58	0.0	0.0	0.5
24773256	24773255-NODE	24773265-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	190.3	5	1	5	95.83	0.6	7.47	0.0	0.0	0.5
24773266	24773265-NODE	21872759-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	128.7	5	1	5	95.77	0.6	7.36	0.0	0.0	0.5

22274813	JJ23276961-NODE	JJ23372613-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	292.6	17	4	18	97.52	2.3	11.30	0.0	0.0	1.7
22274810	JJ23372613-NODE	F2367-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1030.5	10	2	11	98.47	1.4	14.05	0.0	0.0	1.0
21881973	JJ23271183-NODE	JJ23271181-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	456.6	10	3	11	95.93	1.4	7.67	0.0	0.0	1.1
21878773	JJ23271181-NODE	23616106-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	427.4	10	3	11	95.87	1.4	7.55	0.0	0.0	1.1
23616119	23616106-NODE	JJ23273145-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.5	7	2	7	95.85	0.9	7.52	0.0	0.0	0.7
25630559	JJ23273145-NODE	21873549-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	954.7	7	2	7	95.85	0.9	7.52	0.0	0.0	0.7
23616125	23616106-NODE	21873557-NODE	DEFAULT	Overhead Line		13.800	10.7	4	1	4	95.74	0.5	7.29	0.0	0.0	0.3
24219521	JJ23372613-NODE	24219512-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.2	7	2	7	95.67	0.9	7.16	0.0	0.0	0.7
23615880	JJ23273287-NODE	21872768-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	15.1	4	1	4	95.74	0.5	7.30	0.0	0.0	0.4
23615856	JJ23271495-NODE	21872732-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.4	1	0	2	96.01	0.2	7.85	0.0	0.0	0.1
23615767	JJ23279623-NODE	F1933-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.8	7	2	7	96.08	1.0	7.98	0.0	0.0	0.7
21938808	F1933-PD	JJ23273299-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	319.6	7	2	7	96.07	1.0	7.97	0.0	0.0	0.7
21878624	JJ23273299-NODE	24773530-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	164.5	4	1	4	96.19	0.5	8.21	0.0	0.0	0.4
25414527	24773530-NODE	21872691-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	111.5	4	1	4	96.13	0.5	8.09	0.0	0.0	0.4
23615831	JJ23273299-NODE	21872683-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.8	4	1	4	95.83	0.5	7.48	0.0	0.0	0.4
23615727	JJ23273293-NODE	21872699-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.8	5	2	5	95.71	0.7	7.24	0.0	0.0	0.5
23615671	JJ23273445-NODE	21872328-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	15.5	4	1	4	95.74	0.5	7.31	0.0	0.0	0.4
23615645	JJ23279617-NODE	21872111-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.3	1	0	2	96.01	0.2	7.86	0.0	0.0	0.1
25064846	25064837-NODE	25027926-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.0	7	2	7	95.67	0.9	7.18	0.0	0.0	0.7
23615445	JJ23279611-NODE	21871983-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.2	1	0	2	96.01	0.2	7.88	0.0	0.0	0.1
23615418	JJ23273665-NODE	21910719-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.7	1	0	2	96.02	0.2	7.91	0.0	0.0	0.1
23615407	23615406-NODE	21910737-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	14.7	4	1	4	95.74	0.5	7.36	0.0	0.0	0.4
21937556	JJ23277845-NODE	FAT11-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.5	4	1	4	95.84	0.5	7.56	0.0	0.0	0.4
21937563	FAT11-PD	21910479-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	237.7	4	1	4	95.83	0.5	7.54	0.0	0.0	0.4
23615289	23615288-NODE	21910755-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.5	1	0	2	96.02	0.2	7.92	0.0	0.0	0.1
21937577	JJ23277827-NODE	FAT10-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.8	4	1	4	95.93	0.5	7.76	0.0	0.0	0.4
21937569	FAT10-PD	21910771-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	486.2	4	1	4	95.92	0.5	7.74	0.0	0.0	0.4
22311496	JJ23394323-NODE	FAM46-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	30.3	158	47	165	95.89	7.0	7.61	0.0	0.0	6.2
25171007	FAM46-PD	JJ23394111-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_138	Overhead Line	13.6	13.800	2.1	158	47	165	95.89	7.0	7.61	0.0	0.0	6.2
24219474	JJ23412691-NODE	24219462-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.9	7	2	7	95.67	0.9	7.24	0.0	0.0	0.7
24219442	JJ23394293-NODE	24219432-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.3	7	2	7	95.67	0.9	7.27	0.0	0.0	0.7
22311487	JJ23279331-NODE	F1321-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	244.5	85	23	88	96.62	3.7	9.14	0.0	0.0	2.0
21937541	F1321-PD	JJ23279637-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	726.3	85	23	88	96.60	3.7	9.10	0.0	0.0	2.0
21932959	JJ23279637-NODE	JJ23277909-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	557.1	75	20	78	96.64	3.3	9.20	0.0	0.0	1.6
21932966	JJ23277909-NODE	JJ23279631-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	485.1	62	16	64	96.76	2.7	9.49	0.0	0.0	1.6
21932951	JJ23279631-NODE	JJ23279639-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	626.4	52	13	54	96.87	2.3	9.76	0.0	0.0	1.2
21932944	JJ23279639-NODE	JJ23277897-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	506.2	43	11	44	96.92	1.9	9.84	0.0	0.0	1.2
21937485	JJ23277897-NODE	FAT12-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.7	5	1	5	95.98	0.6	7.58	0.0	0.0	0.5
21937477	FAT12-PD	21910617-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	239.4	5	1	5	95.97	0.6	7.57	0.0	0.0	0.5
22056088	JJ23277897-NODE	JJ23309775-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	785.9	38	10	40	96.97	1.7	9.96	0.0	0.0	1.0
22056111	JJ23309775-NODE	JJ23277889-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	1332.5	35	9	36	96.94	1.5	9.88	0.0	0.0	1.0
21932936	JJ23277889-NODE	26097030-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	619.2	25	6	26	97.04	1.1	10.11	0.0	0.0	0.5
26097031	26097030-NODE	JJ23279645-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	2009.4	16	4	16	97.36	0.7	11.25	0.0	0.0	0.4
21932920	JJ23279645-NODE	JJ23279653-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	1051.2	11	3	11	95.46	0.5	10.82	0.0	0.0	0.4
21932928	JJ23279653-NODE	JJ23273817-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	225.4	9	2	9	94.56	0.4	9.79	0.0	0.0	0.4
21917799	JJ23273817-NODE	JJ23296951-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	192.5	7	2	8	94.57	0.3	9.67	0.0	0.0	0.3
21984345	JJ23296951-NODE	JJ23278177-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	435.2	2	0	2	90.95	0.1	14.24	0.0	0.0	0.1
23616604	JJ23278177-NODE	21909271-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.6	2	0	2	96.28	0.2	8.57	0.0	0.0	0.2

23616778	JJ23278177-NODE	23228867-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	272.2	0	0	0	0.00	0.0	114.11	0.0	0.0	0.0
23616569	JJ23296951-NODE	21909260-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.2	6	2	6	96.02	0.8	8.02	0.0	0.0	0.6
23616561	JJ23273817-NODE	21909083-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.1	2	0	2	96.28	0.2	8.57	0.0	0.0	0.2
21936984	JJ23279653-NODE	FAT5-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	32.5	2	1	2	96.52	0.3	8.73	0.0	0.0	0.2
21936976	FAT5-PD	21909073-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	587.5	2	1	2	96.50	0.3	8.68	0.0	0.0	0.2
23616495	JJ23279645-NODE	21909066-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.3	5	2	5	95.71	0.7	7.35	0.0	0.0	0.5
26097039	26097030-NODE	26034678-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	14.2	9	3	10	95.85	1.2	7.33	0.0	0.0	0.9
21937498	JJ23277889-NODE	FAT6-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.3	9	3	10	95.93	1.2	7.47	0.0	0.0	0.9
21937491	FAT6-PD	21909045-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	483.8	9	3	10	95.92	1.2	7.47	0.0	0.0	0.9
23616406	JJ23309775-NODE	22114641-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.2	4	1	4	96.05	0.5	8.08	0.0	0.0	0.4
22352441	JJ23279639-NODE	F3860-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	31.3	9	3	10	96.26	1.2	8.54	0.0	0.0	0.9
22352437	F3860-PD	JJ23406463-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1345.6	9	3	10	96.26	1.2	8.53	0.0	0.0	0.9
22352586	JJ23406463-NODE	21910602-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	210.1	2	0	2	96.44	0.2	8.93	0.0	0.0	0.2
24221050	JJ23406463-NODE	24221026-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.8	8	2	8	95.98	1.0	7.96	0.0	0.0	0.8
23616271	JJ23279631-NODE	21910584-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.6	9	3	10	95.85	1.2	7.34	0.0	0.0	0.9
21937470	JJ23277909-NODE	FAR14-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.4	14	4	15	95.74	1.9	7.42	0.0	0.0	1.4
21937463	FAR14-PD	21910567-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	645.8	14	4	15	95.74	1.9	7.41	0.0	0.0	1.4
23616230	JJ23279637-NODE	21910442-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.3	9	3	10	95.85	1.2	7.34	0.0	0.0	0.9
24458874	24458464-NODE	24458528-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	20.1	0	0	0	0.00	0.0	114.12	0.0	0.0	0.0
24458910	24458482-NODE	24458528-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.6	13.800	33.5	0	0	0	0.00	0.0	114.12	0.0	0.0	0.0
21937514	JJ23277877-NODE	FAL3-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	78.9	4	1	4	95.78	0.5	7.54	0.0	0.0	0.4
21937506	FAL3-PD	21910670-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	33.8	4	1	4	95.75	0.5	7.48	0.0	0.0	0.4
23614973	JJ23279345-NODE	21910685-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.5	4	1	4	95.74	0.5	7.49	0.0	0.0	0.4
21937528	JJ23279347-NODE	FAR12-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.7	31	9	32	95.89	4.1	7.49	0.0	0.0	3.1
21937520	FAR12-PD	21910461-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1300.5	31	9	32	95.88	4.1	7.49	0.0	0.0	3.1
23614936	JJ23279353-NODE	21910703-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.3	5	1	5	95.90	0.6	7.55	0.0	0.0	0.5
21938408	JJ23277341-NODE	FAR29-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.2	4	1	4	96.15	0.5	8.29	0.0	0.0	0.4
21938401	FAR29-PD	21910857-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	288.1	4	1	4	96.14	0.5	8.27	0.0	0.0	0.4
23614859	JJ23279357-NODE	21871948-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.5	5	2	5	95.71	0.7	7.54	0.0	0.0	0.5
21938310	JJ23277407-NODE	FAL80-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.8	14	3	14	97.18	1.8	10.44	0.0	0.0	1.4
23614711	JJ23277415-NODE	21871941-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.8	5	1	5	96.02	0.6	8.01	0.0	0.0	0.5
23614624	JJ23273483-NODE	23614623-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	16.5	244	65	253	96.59	10.7	9.22	0.0	0.0	10.1
22123883	23614623-NODE	F3462-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	273.0	243	65	252	96.59	10.7	9.22	0.0	0.0	10.1
22123898	F3462-PD	JJ23277783-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	226.9	243	65	252	96.58	10.7	9.20	0.0	0.0	10.1
22311279	JJ23277783-NODE	JJ23395475-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	121.8	243	65	252	96.58	10.7	9.19	0.0	0.0	10.1
23631891	JJ23395475-NODE	23631890-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	375.2	236	63	244	96.60	10.3	9.23	0.0	0.1	9.8
21933179	23631890-NODE	JJ23277737-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	679.2	232	62	240	96.60	10.2	9.23	0.0	0.1	9.6
21933164	JJ23277737-NODE	JJ23279549-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	273.3	200	53	207	96.64	8.8	9.33	0.0	0.0	8.9
21933171	JJ23279549-NODE	JJ23279547-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	157.7	192	51	199	96.65	8.4	9.33	0.0	0.0	8.5
21933149	JJ23279547-NODE	JJ23277743-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	154.4	183	48	189	96.69	8.0	9.41	0.0	0.0	8.5
21933156	JJ23277743-NODE	F1636-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.2	175	46	181	96.72	23.0	9.43	0.0	0.0	17.4
21984893	F1636-PD	JJ23279569-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	106.9	175	46	181	96.72	23.0	9.43	0.0	0.0	17.4
21933131	JJ23279569-NODE	JJ23277753-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	124.6	171	45	177	96.73	22.5	9.46	0.0	0.0	17.1
21933140	JJ23277753-NODE	JJ23279563-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	347.4	171	45	177	96.73	22.5	9.45	0.0	0.0	17.1
21933118	JJ23279563-NODE	JJ23277773-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	486.3	164	43	169	96.76	21.5	9.52	0.0	0.1	16.3
21933104	JJ23277773-NODE	JJ23279573-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	245.7	160	42	165	96.78	21.0	9.54	0.0	0.0	15.9
21933110	JJ23279573-NODE	JJ23273655-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	253.5	154	40	159	96.80	20.3	9.57	0.0	0.0	15.3
23655427	JJ23273655-NODE	21911122-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.5	1	0	1	96.63	0.1	9.20	0.0	0.0	0.1

23655467	JJ23273655-NODE	23655466-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	251.7	153	40	158	96.80	20.1	9.57	0.0	0.0	15.3
21721825	23655466-NODE	JJ23279583-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	273.6	152	39	157	96.80	19.9	9.58	0.0	0.0	15.1
21933096	JJ23279583-NODE	JJ23382741-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	392.1	148	38	153	96.82	19.4	9.61	0.0	0.0	14.7
22288343	JJ23382741-NODE	F3806-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	3.8	78	19	81	97.21	10.3	10.53	0.0	0.0	7.8
22288382	JJ23382741-NODE	JJ23345171-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	399.7	69	19	72	96.36	9.2	8.58	0.0	0.0	6.9
21937622	JJ23345171-NODE	FAQ16-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	30.2	8	2	8	96.02	1.0	7.86	0.0	0.0	0.8
21937611	FAQ16-PD	21910839-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	172.8	8	2	8	96.01	1.0	7.84	0.0	0.0	0.8
22206399	JJ23345171-NODE	JJ23345161-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	985.5	62	17	64	96.39	8.2	8.65	0.0	0.0	6.2
22206341	JJ23345161-NODE	FAQ84-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	16.6	15	4	16	96.86	2.0	9.68	0.0	0.0	1.5
23656200	FAQ84-PD	23656183-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	20.9	15	4	16	96.86	2.0	9.68	0.0	0.0	1.5
22206417	JJ23345161-NODE	JJ23279587-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	226.7	47	13	48	96.22	6.2	8.26	0.0	0.0	4.7
21933074	JJ23279587-NODE	JJ23278251-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	959.0	43	12	44	96.20	5.7	8.23	0.0	0.0	4.3
21933083	JJ23278251-NODE	JJ23273839-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	281.1	35	10	37	96.20	4.7	8.22	0.0	0.0	3.5
21917730	JJ23273839-NODE	JJ23273835-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	242.8	33	9	34	96.20	4.3	8.21	0.0	0.0	3.3
21917746	JJ23273835-NODE	JJ23272759-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	178.7	29	8	30	96.21	3.8	8.22	0.0	0.0	2.9
21879014	JJ23272759-NODE	JJ23272757-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	287.4	29	8	30	96.20	3.8	8.21	0.0	0.0	2.9
21933060	JJ23272757-NODE	JJ23278259-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	63.0	29	8	30	96.19	3.8	8.18	0.0	0.0	2.9
21933068	JJ23278259-NODE	JJ23279591-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	145.6	10	3	10	96.41	1.3	8.66	0.0	0.0	1.0
21933040	JJ23279591-NODE	JJ23278271-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	701.3	9	3	10	96.37	1.2	8.57	0.0	0.0	0.9
21933052	JJ23278271-NODE	JJ23273849-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	267.3	5	2	6	96.30	0.7	8.41	0.0	0.0	0.5
21917715	JJ23273849-NODE	JJ23273847-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	224.1	4	1	4	96.21	0.5	8.24	0.0	0.0	0.4
22123999	JJ23273847-NODE	23632803-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	261.2	0	0	0	0.00	0.0	114.06	0.0	0.0	0.0
23632812	23632803-NODE	23243696-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	14.0	0	0	0	0.00	0.0	114.06	0.0	0.0	0.0
23656504	JJ23273847-NODE	21908890-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.1	4	1	4	96.04	0.5	7.88	0.0	0.0	0.4
23656498	JJ23273849-NODE	21908900-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	8.0	2	0	2	96.28	0.2	8.37	0.0	0.0	0.2
21936849	JJ23278271-NODE	FAQ11-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	28.7	4	1	4	96.24	0.5	8.29	0.0	0.0	0.4
21936857	FAQ11-PD	21908911-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	548.1	4	1	4	96.23	0.5	8.27	0.0	0.0	0.4
23656456	JJ23279591-NODE	21908933-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	9.0	1	0	1	96.63	0.1	9.14	0.0	0.0	0.1
21936868	JJ23278259-NODE	F2967-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	27.2	19	5	20	96.06	2.5	7.92	0.0	0.0	1.9
21986501	F2967-PD	23656418-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	453.0	19	5	20	96.06	2.5	7.92	0.0	0.0	1.9
21986529	23656418-NODE	26484719-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	593.4	11	3	12	96.06	1.5	7.91	0.0	0.0	1.1
26313498	26484719-NODE	26313481-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	9.6	11	3	12	95.99	1.5	7.77	0.0	0.0	1.1
23656419	23656418-NODE	22047907-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.4	8	2	8	95.98	1.0	7.76	0.0	0.0	0.8
23656257	JJ23273835-NODE	21908944-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	7.3	4	1	4	96.04	0.5	7.89	0.0	0.0	0.4
23656250	JJ23273839-NODE	21908954-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	6.8	2	1	2	96.15	0.3	8.11	0.0	0.0	0.2
21936885	JJ23278251-NODE	FAR22-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	26.3	8	2	8	96.07	1.0	7.94	0.0	0.0	0.8
21936875	FAR22-PD	21908964-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	474.3	8	2	8	96.06	1.0	7.93	0.0	0.0	0.8
21936934	JJ23279587-NODE	FAR1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	26.5	4	1	4	96.26	0.5	8.36	0.0	0.0	0.4
21936924	FAR1-PD	21909025-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	626.7	4	1	4	96.25	0.5	8.34	0.0	0.0	0.4
23656105	JJ23279583-NODE	21911086-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	12.8	4	1	4	96.05	0.5	7.93	0.0	0.0	0.4
21878379	23655466-NODE	21911103-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.2	2	0	2	96.28	0.2	8.43	0.0	0.0	0.2
21937684	JJ23279573-NODE	FAQ22-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	27.4	6	2	6	96.32	0.8	8.51	0.0	0.0	0.6
21937692	FAQ22-PD	21911140-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	1291.6	6	2	6	96.31	0.8	8.50	0.0	0.0	0.6
21937704	JJ23277773-NODE	FAQ21-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	26.6	4	1	4	96.20	0.5	8.27	0.0	0.0	0.4
21937711	FAQ21-PD	21911161-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	430.3	4	1	4	96.19	0.5	8.25	0.0	0.0	0.4
23655293	JJ23279563-NODE	21911177-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.4	8	2	8	95.98	1.0	7.84	0.0	0.0	0.8
21937733	JJ23277753-NODE	FAQ19-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	27.8	0	0	0	-96.92	0.0	38.40	0.0	0.0	0.0
21937723	FAQ19-PD	21911211-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	381.1	0	0	0	-97.31	0.0	37.47	0.0	0.0	0.0

23654930	JJ23279569-NODE	21911193-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.5	4	1	4	96.04	0.5	7.98	0.0	0.0	0.4
21937748	JJ23277743-NODE	F2140-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.5	8	2	8	96.37	1.0	8.66	0.0	0.0	0.8
21937741	F2140-PD	JJ23273651-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	519.9	8	2	8	96.36	1.0	8.65	0.0	0.0	0.8
21878382	JJ23273651-NODE	24245693-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1367.3	4	1	4	96.50	0.5	8.96	0.0	0.0	0.4
23632127	JJ23273651-NODE	21911227-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.8	4	1	4	96.04	0.5	7.98	0.0	0.0	0.4
23632053	JJ23279547-NODE	21911244-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	13.4	9	3	10	95.85	1.2	7.60	0.0	0.0	0.9
22311209	JJ23279549-NODE	F3833-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.4	8	2	8	96.39	1.0	8.72	0.0	0.0	0.8
22311202	F3833-PD	JJ23396129-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	992.6	8	2	8	96.38	1.0	8.71	0.0	0.0	0.8
22311206	JJ23396129-NODE	21911261-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1013.0	4	1	4	96.39	0.5	8.71	0.0	0.0	0.4
24220846	JJ23396129-NODE	24220828-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.2	4	1	4	96.05	0.5	7.99	0.0	0.0	0.4
21937756	JJ23277737-NODE	F2158-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	33.9	32	9	33	96.18	1.4	8.33	0.0	0.0	0.7
21932914	F2158-PD	JJ23272177-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	512.2	32	9	33	96.17	1.4	8.32	0.0	0.0	0.7
21880184	JJ23272177-NODE	21911280-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	386.6	8	2	8	96.05	1.0	8.01	0.0	0.0	0.8
21932907	JJ23272177-NODE	23632296-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	88.5	24	7	25	96.08	1.1	8.15	0.0	0.0	0.4
23631899	23631890-NODE	21911068-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.3	4	1	4	96.05	0.5	8.03	0.0	0.0	0.4
24220977	JJ23395475-NODE	24220938-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.9	8	2	8	95.99	1.0	7.92	0.0	0.0	0.8
23614632	23614623-NODE	21871889-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.4	1	0	1	96.42	0.1	9.08	0.0	0.0	0.1
22123867	JJ23279371-NODE	F3463-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	104.8	137	36	142	96.69	6.0	9.50	0.0	0.0	3.4
22123848	F3463-PD	JJ23330503-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	25.1	137	36	142	96.69	6.0	9.49	0.0	0.0	3.4
22374746	JJ23330503-NODE	JJ23425735-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	141.9	137	36	142	96.69	6.0	9.49	0.0	0.0	3.4
22374735	JJ23425735-NODE	F3924-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.9	28	8	29	96.29	3.6	8.48	0.0	0.0	2.8
22374739	F3924-PD	JJ23425751-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.3	28	8	29	96.29	3.6	8.48	0.0	0.0	2.8
22374720	JJ23425751-NODE	FAL100-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	92.0	19	5	19	96.50	2.4	8.93	0.0	0.0	1.8
26984778	JJ23425751-NODE	24219352-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.7	9	3	10	95.85	1.2	7.58	0.0	0.0	0.9
22374743	JJ23425735-NODE	JJ23273449-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	1702.9	109	28	113	96.78	4.8	9.73	0.0	0.0	2.1
21878497	JJ23273449-NODE	JJ23273453-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	188.3	100	26	103	96.78	4.4	9.71	0.0	0.0	2.0
21933605	JJ23273453-NODE	23612993-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	5.7	100	26	103	96.77	4.4	9.69	0.0	0.0	2.0
23612994	23612993-NODE	JJ23279377-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	186.4	95	25	98	96.81	4.2	9.79	0.0	0.0	1.9
21933597	JJ23279377-NODE	JJ23279379-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	447.4	78	21	81	96.46	3.4	8.96	0.0	0.0	1.6
21933589	JJ23279379-NODE	JJ23279385-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	575.1	78	21	81	96.43	3.4	8.89	0.0	0.0	1.6
21933581	JJ23279385-NODE	23612771-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	356.5	71	19	73	96.44	3.1	8.89	0.0	0.0	1.6
23612745	23612771-NODE	23612744-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	227.8	67	18	70	96.44	2.9	8.89	0.0	0.0	1.6
21933571	23612744-NODE	JJ23277065-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	95.2	64	17	66	96.46	2.8	8.91	0.0	0.0	1.6
21723649	JJ23277065-NODE	F3963-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	51.6	30	8	32	96.58	1.3	9.14	0.0	0.0	1.1
21723660	F3963-PD	JJ23497711-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	157.9	30	8	32	96.57	1.3	9.12	0.0	0.0	1.1
21723672	JJ23497711-NODE	JJ23493737-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	702.5	30	8	32	96.54	1.3	9.06	0.0	0.0	1.1
21723692	JJ23493737-NODE	FAL102-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.5	19	5	19	96.69	2.4	9.33	0.0	0.0	1.8
21728551	JJ23493737-NODE	24219302-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	171.8	12	4	12	95.96	0.5	7.92	0.0	0.0	0.2
21938737	JJ23277065-NODE	FAK4-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	35.3	4	1	4	96.35	0.5	8.70	0.0	0.0	0.4
21938742	FAK4-PD	21872602-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	861.1	4	1	4	96.34	0.5	8.68	0.0	0.0	0.4
21986664	JJ23277065-NODE	JJ23294545-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	989.9	29	8	31	96.33	1.3	8.65	0.0	0.0	0.6
21986647	JJ23294545-NODE	23612373-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	196.3	25	7	26	96.15	1.1	8.28	0.0	0.0	0.5
21878604	23612373-NODE	JJ23271569-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	262.6	21	6	22	96.11	0.9	8.20	0.0	0.0	0.5
21933548	JJ23271569-NODE	JJ23277071-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	116.2	12	3	12	96.14	0.5	8.28	0.0	0.0	0.2
21938730	JJ23277071-NODE	FAL56-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	27.6	12	3	12	96.08	0.5	8.15	0.0	0.0	0.2
21938724	FAL56-PD	23611920-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	370.8	12	3	12	96.06	0.5	8.12	0.0	0.0	0.2
21984971	JJ23277071-NODE	F18-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.9	0	0	0	0.00	0.0	114.23	0.0	0.0	0.0
23612108	JJ23271569-NODE	21872577-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	14.2	2	1	2	95.87	0.3	7.93	0.0	0.0	0.2

25815104	JJ23271569-NODE	FAK39-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	79.9	7	2	7	95.92	0.9	7.69	0.0	0.0	0.7
25815110	FAK39-PD	21872586-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	143.5	7	2	7	95.91	0.9	7.66	0.0	0.0	0.7
23612384	23612373-NODE	21872567-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.8	4	1	4	96.04	0.5	8.06	0.0	0.0	0.4
23612408	JJ23294545-NODE	22048009-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.4	5	1	5	96.02	0.6	8.01	0.0	0.0	0.5
23612753	23612744-NODE	21872594-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.1	4	1	4	95.74	0.5	7.67	0.0	0.0	0.4
23612772	23612771-NODE	21872354-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	12.0	4	1	4	95.75	0.5	7.67	0.0	0.0	0.2
21938501	JJ23279385-NODE	FAK43-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	38.8	7	2	7	95.88	0.9	7.93	0.0	0.0	0.7
21938509	FAK43-PD	21872101-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1005.7	7	2	7	95.87	0.9	7.92	0.0	0.0	0.7
22373920	JJ23279377-NODE	F3929-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	99.5	18	3	18	98.14	2.3	13.38	0.0	0.0	1.7
23613002	23612993-NODE	21872058-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	11.0	5	1	5	95.86	0.2	7.71	0.0	0.0	0.2
21878498	JJ23273449-NODE	21872067-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	17.7	9	3	10	95.85	1.2	7.57	0.0	0.0	0.4
21938318	JJ23279539-NODE	FAQ27-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.7	2	1	2	96.47	0.3	8.89	0.0	0.0	0.2
21938325	FAQ27-PD	21911052-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	509.0	2	1	2	96.45	0.3	8.85	0.0	0.0	0.2
21938339	JJ23277387-NODE	FAQ1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	31.6	28	8	29	95.80	3.7	7.56	0.0	0.0	2.8
21938332	FAQ1-PD	21911035-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	524.1	28	8	29	95.80	3.7	7.55	0.0	0.0	2.8
21938346	JJ23277385-NODE	FAQ28-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.2	7	2	7	95.73	0.9	7.76	0.0	0.0	0.7
22373935	FAQ28-PD	21871896-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	291.5	7	2	7	95.73	0.9	7.75	0.0	0.0	0.7
21938369	JJ23277369-NODE	FAQ32-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	39.5	6	2	6	96.05	0.8	8.19	0.0	0.0	0.6
21938377	FAQ32-PD	21871924-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	125.5	6	2	6	96.05	0.8	8.17	0.0	0.0	0.6
25862601	25862575-NODE	23225184-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	20.0	0	0	0	0.00	0.0	114.46	0.0	0.0	0.0
23580770	S1308-PD	JJ23278351-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	29.3	964	281	1004	95.99	42.3	8.20	0.0	0.0	16.2
21936745	JJ23278351-NODE	23225176-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	36.1	0	0	0	0.00	0.0	114.47	0.0	0.0	0.0
22053829	JJ23278351-NODE	25862468-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	175.8	964	281	1004	95.99	42.3	8.20	0.1	0.1	16.2
25381541	25862468-NODE	21871852-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.0	7	2	7	95.34	0.9	7.09	0.0	0.0	0.7
25862469	25862468-NODE	JJ23315369-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	131.6	957	279	997	96.00	42.0	8.21	0.0	0.1	16.2
22053445	JJ23315369-NODE	23237820-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	22.1	0	0	0	0.00	0.0	114.46	0.0	0.0	0.0
22123912	S3693-PD	JJ23318457-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	21.2	957	282	997	95.93	42.0	8.06	0.0	0.0	16.2
22139595	JJ23318457-NODE	23586768-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	71.2	22	7	23	95.46	1.0	7.11	0.0	0.0	0.4
22139580	23586768-NODE	23671590-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	12.2	22	7	23	95.44	1.0	7.07	0.0	0.0	0.4
22139609	JJ23318457-NODE	JJ23318459-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	123.4	934	275	974	95.94	41.0	8.08	0.0	0.1	15.8
22139566	JJ23318459-NODE	JJ23318557-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	110.8	928	272	967	95.95	40.7	8.08	0.0	0.1	15.8
21779957	JJ23318557-NODE	JJ23523167-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	435.6	928	272	967	95.95	40.7	8.08	0.1	0.3	15.8
21779842	JJ23523167-NODE	F4021-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	78.5	16	4	16	96.36	2.1	8.84	0.0	0.0	1.6
21779849	F4021-PD	JJ23523463-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.6	16	4	16	96.35	2.1	8.83	0.0	0.0	1.6
21779943	JJ23523167-NODE	JJ23523191-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	5.3	912	268	950	95.95	40.0	8.06	0.0	0.0	15.8
21779834	JJ23523191-NODE	F4022-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	61.4	15	2	15	98.76	1.9	15.28	0.0	0.0	1.5
21779837	F4022-PD	JJ23523335-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	19.3	15	2	15	98.76	1.9	15.27	0.0	0.0	1.5
21779927	JJ23523191-NODE	JJ23523215-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	4.9	897	265	935	95.89	39.4	7.95	0.0	0.0	15.2
21779826	JJ23523215-NODE	F4023-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	72.8	14	2	14	99.31	1.7	17.90	0.0	0.0	1.3
21779830	F4023-PD	JJ23523393-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.1	14	2	14	99.31	1.7	17.88	0.0	0.0	1.3
21779923	JJ23523215-NODE	JJ23409967-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	175.0	883	264	922	95.82	38.8	7.80	0.0	0.1	15.2
21779939	JJ23409967-NODE	JJ23523195-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	170.8	883	264	922	95.82	38.8	7.80	0.0	0.1	15.2
21779856	JJ23523195-NODE	F4020-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.7	14	3	14	98.33	1.7	14.14	0.0	0.0	1.3
24972006	F4020-PD	24971990-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.1	14	3	14	98.33	1.7	14.13	0.0	0.0	1.3
21779934	JJ23523195-NODE	JJ23523175-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	6.5	869	261	908	95.77	38.3	7.70	0.0	0.0	15.2
21779865	JJ23523175-NODE	F4019-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	33.2	15	3	15	98.33	1.9	13.83	0.0	0.0	1.5
21779861	F4019-PD	JJ23523183-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	46.6	15	3	15	98.33	1.9	13.83	0.0	0.0	1.5
21779952	JJ23523175-NODE	JJ23523157-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138	Overhead Line	13.7	13.800	6.3	854	258	893	95.72	37.6	7.59	0.0	0.0	14.5

21779874	JJ23523157-NODE	F4018-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	61.9	16	5	17	95.88	2.1	7.84	0.0	0.0	1.6
21779870	JJ23523235-NODE	F4018-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	44.3	16	5	17	95.88	2.1	7.83	0.0	0.0	1.6
21779961	JJ23523157-NODE	24586605-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	142.9	839	254	876	95.71	36.9	7.59	0.0	0.1	14.5
24586614	24586605-NODE	JJ23273497-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	242.9	838	254	876	95.71	36.9	7.59	0.1	0.1	14.5
21878475	JJ23273497-NODE	JJ23273495-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	4.6	838	254	876	95.72	36.9	7.58	0.0	0.0	14.5
21878478	JJ23273495-NODE	JJ23273543-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	266.3	794	240	829	95.74	35.0	7.62	0.1	0.1	13.8
26309880	JJ23273543-NODE	JJ23273541-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	531.6	790	238	825	95.74	34.8	7.62	0.1	0.2	13.6
21878451	JJ23273541-NODE	23581767-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	389.4	787	237	821	95.74	34.6	7.62	0.1	0.2	13.6
21935110	23581767-NODE	JJ23271935-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	137.3	779	235	814	95.75	34.3	7.62	0.0	0.1	13.2
21880656	JJ23271935-NODE	21871543-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	172.8	7	2	7	95.61	0.3	7.33	0.0	0.0	0.1
22124536	JJ23271935-NODE	S3681-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	26.4	772	233	806	95.75	34.0	7.62	0.0	0.0	13.1
23582176	S3681-PD	23582175-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	38.7	772	233	806	95.75	34.0	7.62	0.0	0.0	13.1
21936714	23582175-NODE	JJ23278363-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	146.4	768	231	802	95.75	33.8	7.62	0.0	0.1	13.1
21936722	JJ23278363-NODE	JJ23278373-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	125.6	760	229	794	95.75	33.5	7.62	0.0	0.1	13.1
21936700	JJ23278373-NODE	S4602-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	32.7	752	226	786	95.76	33.1	7.62	0.0	0.0	13.1
27231072	S4602-PD	JJ23278371-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	115.0	752	226	786	95.76	33.1	7.62	0.0	0.0	13.1
21878454	JJ23278371-NODE	JJ23273531-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	357.7	747	225	780	95.76	32.9	7.62	0.1	0.2	13.1
21878456	JJ23273531-NODE	JJ23273529-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	220.6	730	220	763	95.77	32.2	7.63	0.0	0.1	12.7
21878459	JJ23273529-NODE	23582343-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	148.2	726	218	759	95.77	32.0	7.63	0.0	0.1	12.6
21936384	23582343-NODE	JJ23278477-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	177.3	723	217	755	95.77	31.8	7.63	0.0	0.1	12.6
21880747	JJ23278477-NODE	21911329-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	203.6	8	2	8	95.58	1.0	7.10	0.0	0.0	0.8
23582387	JJ23278477-NODE	JJ23278409-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	141.8	715	215	747	95.77	31.5	7.63	0.0	0.1	12.6
21936395	JJ23278409-NODE	21871656-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	13.3	2	0	2	95.74	0.2	7.51	0.0	0.0	0.1
21936624	JJ23278409-NODE	JJ23277523-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	467.0	713	214	745	95.77	31.4	7.63	0.1	0.2	12.6
21936632	JJ23277523-NODE	S1631-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	166.3	560	167	585	95.82	24.7	7.66	0.0	0.0	12.0
23586915	S1631-PD	JJ23278379-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	25.8	560	167	584	95.82	24.7	7.66	0.0	0.0	12.0
21936693	JJ23278379-NODE	21871638-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	11.4	2	1	3	95.60	0.3	7.22	0.0	0.0	0.1
21938087	JJ23278379-NODE	FAP16-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	241.1	4	1	4	95.83	0.5	7.56	0.0	0.0	0.4
21938094	FAP16-PD	21911363-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	352.0	4	1	4	95.74	0.5	7.39	0.0	0.0	0.4
23582580	JJ23278379-NODE	JJ23278687-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	228.6	554	165	578	95.82	24.4	7.66	0.0	0.1	11.8
21935621	JJ23278687-NODE	21871648-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	9.8	2	1	3	95.60	0.3	7.22	0.0	0.0	0.1
23582608	JJ23278687-NODE	JJ23277529-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	151.1	551	165	575	95.82	24.3	7.66	0.0	0.0	11.8
21935592	JJ23277529-NODE	23587915-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	138.8	550	164	574	95.82	24.2	7.65	0.0	0.0	11.7
23587916	23587915-NODE	JJ23278689-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	131.5	538	160	561	95.83	23.7	7.66	0.0	0.0	11.7
21935578	JJ23278689-NODE	JJ23277469-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	136.1	534	159	558	95.83	23.5	7.66	0.0	0.0	11.7
23582686	JJ23277469-NODE	21871773-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	8.5	7	2	7	95.33	0.9	6.94	0.0	0.0	0.3
23582740	JJ23277469-NODE	23582739-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	175.2	528	157	551	95.84	23.2	7.67	0.0	0.0	11.7
21935537	23582739-NODE	23588080-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	10.9	524	156	546	95.84	23.1	7.67	0.0	0.0	11.7
21878471	23588080-NODE	FAH3-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.5	7	2	7	95.39	0.9	7.05	0.0	0.0	0.7
21938204	FAH3-PD	21871746-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	275.2	7	2	7	95.39	0.9	7.04	0.0	0.0	0.7
23588081	23588080-NODE	JJ23277559-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	220.4	517	154	539	95.84	22.8	7.68	0.0	0.1	11.7
21935553	JJ23277559-NODE	JJ23273561-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	176.5	510	152	532	95.85	22.5	7.68	0.0	0.0	11.7
23582772	JJ23273561-NODE	21871473-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	9.3	8	2	8	95.55	1.0	6.96	0.0	0.0	0.4
23582802	JJ23273561-NODE	23582801-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	308.7	502	149	524	95.85	22.1	7.68	0.0	0.1	11.4
21878436	23582801-NODE	21871482-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	9.7	8	2	8	95.42	1.1	6.83	0.0	0.0	0.4
21935511	23582801-NODE	JJ23277625-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	122.2	494	147	516	95.86	21.8	7.69	0.0	0.0	11.4
23582942	JJ23277625-NODE	23582941-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	193.4	488	145	509	95.86	21.5	7.69	0.0	0.0	11.4
21935486	23582941-NODE	23588284-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	311.2	473	140	493	95.87	20.8	7.71	0.0	0.1	10.7

21935499	23588284-NODE	JJ23278725-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	182.8	469	139	489	95.87	20.6	7.70	0.0	0.0	10.5
21935477	JJ23278725-NODE	21871517-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	7.6	6	2	6	95.58	0.8	7.00	0.0	0.0	0.3
23583038	JJ23278725-NODE	JJ23278731-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	132.5	463	137	483	95.87	20.4	7.71	0.0	0.0	10.2
21935449	JJ23278731-NODE	JJ23278729-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	206.9	461	137	481	95.87	20.3	7.70	0.0	0.0	10.2
21935463	JJ23278729-NODE	JJ23273583-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	237.5	458	136	478	95.87	20.2	7.69	0.0	0.0	10.2
21878423	JJ23273583-NODE	23583155-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	195.0	451	134	471	95.88	19.9	7.70	0.0	0.0	10.2
21878420	23583155-NODE	24407644-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	155.8	443	131	462	95.89	19.5	7.71	0.0	0.0	10.2
24407645	24407644-NODE	S4206-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	18.8	443	131	462	95.89	19.5	7.70	0.0	0.0	10.2
23586956	S4206-PD	24407622-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	20.6	443	131	462	95.89	19.5	7.70	0.0	0.0	10.2
24407635	24407622-NODE	23583334-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	195.7	443	131	462	95.89	19.5	7.70	0.0	0.0	10.2
21937926	23583334-NODE	23224407-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	599.4	441	131	460	95.89	19.4	7.70	0.0	0.1	10.2
21936359	23224407-NODE	26132238-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	229.4	441	131	460	95.88	19.4	7.68	0.0	0.0	10.2
21880540	26132238-NODE	23597916-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	146.4	109	31	113	96.18	4.8	8.35	0.0	0.0	5.1
21937890	23597916-NODE	F1376-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.6	101	28	105	96.26	13.4	8.46	0.0	0.0	10.1
21937883	F1376-PD	23597895-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	175.7	101	28	105	96.26	13.4	8.46	0.0	0.0	10.1
23597896	23597895-NODE	23590507-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	297.6	101	28	105	96.26	13.4	8.46	0.0	0.0	10.1
21935424	23590507-NODE	JJ23278735-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	74.4	97	27	101	96.28	12.8	8.49	0.0	0.0	9.7
21878431	JJ23278735-NODE	21871456-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.9	4	1	4	95.48	0.5	6.88	0.0	0.0	0.4
23590568	JJ23278735-NODE	JJ23273571-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	216.9	93	26	97	96.31	12.3	8.56	0.0	0.0	9.3
21878473	JJ23273571-NODE	21871808-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.3	4	1	4	95.48	0.5	6.88	0.0	0.0	0.4
23590633	JJ23273571-NODE	JJ23273501-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	204.4	89	25	93	96.34	11.8	8.63	0.0	0.0	8.9
21935411	JJ23273501-NODE	21871816-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.0	4	1	4	95.48	0.5	6.88	0.0	0.0	0.4
23590658	JJ23273501-NODE	JJ23277455-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	132.0	85	24	88	96.38	11.2	8.71	0.0	0.0	8.5
21935397	JJ23277455-NODE	23590815-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	67.9	77	21	80	96.46	10.2	8.88	0.0	0.0	7.7
21878417	23590815-NODE	21871325-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.2	4	1	4	95.48	0.5	6.87	0.0	0.0	0.4
23590816	23590815-NODE	23590897-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	263.3	73	20	76	96.51	9.6	8.99	0.0	0.0	7.3
21935382	23590897-NODE	21871334-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.9	8	2	8	95.42	1.1	6.75	0.0	0.0	0.8
23590898	23590897-NODE	JJ23278745-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	373.2	65	17	68	96.63	8.6	9.25	0.0	0.0	6.5
21935368	JJ23278745-NODE	JJ23278747-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	213.4	61	16	63	96.70	8.1	9.39	0.0	0.0	6.1
21935355	JJ23278747-NODE	21871352-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.8	2	0	2	95.74	0.2	7.37	0.0	0.0	0.2
23591081	JJ23278747-NODE	JJ23277673-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	663.4	60	16	62	96.72	7.8	9.43	0.0	0.0	5.9
21935342	JJ23277673-NODE	F1849-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	15.5	52	13	53	96.88	6.8	9.80	0.0	0.0	5.1
21937859	F1849-PD	JJ23277669-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	3373.3	52	13	53	96.88	6.8	9.80	0.0	0.0	5.1
21990467	JJ23277669-NODE	F1850-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	200.0	48	12	49	96.92	6.2	9.86	0.0	0.0	4.7
23591214	JJ23277669-NODE	21871290-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.0	4	1	4	95.48	0.5	6.83	0.0	0.0	0.4
21937851	JJ23277673-NODE	FAN75-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	32.8	8	2	8	95.47	1.1	6.83	0.0	0.0	0.8
21937844	FAN75-PD	21871360-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	274.4	8	2	8	95.46	1.1	6.82	0.0	0.0	0.8
21937837	JJ23278745-NODE	FAN73-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.2	4	1	4	95.55	0.5	6.99	0.0	0.0	0.4
21937830	FAN73-PD	23591038-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	152.7	4	1	4	95.53	0.5	6.97	0.0	0.0	0.4
23591043	23591038-NODE	21871343-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.1	4	1	4	95.48	0.5	6.87	0.0	0.0	0.4
21938238	JJ23277455-NODE	FAN70-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.7	8	2	8	95.54	1.1	7.00	0.0	0.0	0.8
21938231	FAN70-PD	21871826-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	709.8	8	2	8	95.54	1.1	6.99	0.0	0.0	0.8
23590508	23590507-NODE	FAG26-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.5	4	1	4	95.71	0.5	7.33	0.0	0.0	0.4
21937919	FAG26-PD	21871448-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	638.0	4	1	4	95.70	0.5	7.31	0.0	0.0	0.4
23597917	23597916-NODE	24219729-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	8.6	8	2	8	95.42	1.1	6.77	0.0	0.0	0.4
21937906	26132238-NODE	F1361-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	329.3	203	62	212	95.68	26.9	7.14	0.0	0.1	20.4
21937898	F1361-PD	23597514-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	178.2	203	62	212	95.68	26.9	7.13	0.0	0.0	20.4
21878425	23597514-NODE	23597524-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	457.5	196	59	204	95.69	25.9	7.14	0.1	0.1	19.6

21986306	23597524-NODE	23597539-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	438.2	188	57	196	95.70	24.9	7.15	0.1	0.1	18.9
22311183	23597539-NODE	23597559-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	258.7	184	56	192	95.70	24.4	7.14	0.0	0.0	18.5
21880521	23597559-NODE	JJ23271709-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	160.0	177	53	184	95.71	23.4	7.15	0.0	0.0	17.7
21881065	JJ23271709-NODE	JJ23271707-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	275.4	177	53	184	95.71	23.4	7.15	0.0	0.0	17.7
21878513	JJ23271707-NODE	JJ23273433-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	237.1	176	53	184	95.71	23.4	7.15	0.0	0.0	17.7
21878510	JJ23273433-NODE	JJ23273425-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	180.0	169	51	176	95.72	22.4	7.16	0.0	0.0	17.0
21878516	JJ23273425-NODE	21872154-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	6.7	8	2	8	95.54	1.0	6.80	0.0	0.0	0.8
23588525	JJ23273425-NODE	JJ23277189-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	149.7	161	49	169	95.73	21.4	7.17	0.0	0.0	16.2
21935261	JJ23277189-NODE	JJ23273421-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	170.4	158	48	165	95.73	20.9	7.16	0.0	0.0	15.8
21878519	JJ23273421-NODE	JJ23278781-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	99.2	158	48	165	95.73	20.9	7.16	0.0	0.0	15.8
21935235	JJ23278781-NODE	JJ23271705-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	179.1	150	45	157	95.74	19.9	7.18	0.0	0.0	15.1
21881082	JJ23271705-NODE	FAG23-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	99.1	4	1	4	95.72	0.5	7.12	0.0	0.0	0.4
21938587	FAG23-PD	21872188-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	199.1	4	1	4	95.68	0.5	7.05	0.0	0.0	0.4
21935224	JJ23271705-NODE	FAG24-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	67.7	2	1	2	95.91	0.3	7.51	0.0	0.0	0.2
21935211	FAG24-PD	21872179-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	245.1	2	1	2	95.87	0.3	7.43	0.0	0.0	0.2
21935247	JJ23271705-NODE	JJ23278795-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	333.0	142	43	149	95.74	18.9	7.16	0.0	0.0	14.3
21935185	JJ23278795-NODE	JJ23278793-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	232.2	139	42	145	95.74	18.4	7.16	0.0	0.0	13.9
21935166	JJ23278793-NODE	FAH17-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	31.8	4	1	4	95.73	0.5	7.13	0.0	0.0	0.4
21938602	FAH17-PD	21872223-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	293.3	4	1	4	95.71	0.5	7.11	0.0	0.0	0.4
23589169	JJ23278793-NODE	FAG22-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	26.4	4	1	4	95.66	0.5	7.01	0.0	0.0	0.4
21938575	FAG22-PD	21872163-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	127.5	4	1	4	95.65	0.5	6.99	0.0	0.0	0.4
23589250	JJ23278793-NODE	23589249-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	118.1	131	39	137	95.74	17.4	7.16	0.0	0.0	13.2
21935198	23589249-NODE	21872406-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	8.2	2	0	2	95.87	0.2	7.42	0.0	0.0	0.2
23589301	23589249-NODE	JJ23273359-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	181.4	129	39	135	95.74	17.2	7.16	0.0	0.0	13.0
21878556	JJ23273359-NODE	21872398-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	9.0	8	2	8	95.54	1.0	6.77	0.0	0.0	0.8
21935160	JJ23273359-NODE	JJ23277153-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	176.1	122	37	127	95.75	16.2	7.18	0.0	0.0	12.2
21723567	JJ23277153-NODE	23597610-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	146.5	103	31	107	95.77	13.6	7.21	0.0	0.0	10.3
23597611	23597610-NODE	21872381-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	13.7	8	2	8	95.54	1.0	6.76	0.0	0.0	0.8
25853354	23597610-NODE	S4017-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	132.3	95	29	100	95.79	12.6	7.24	0.0	0.0	9.6
25853348	S4017-PD	25853338-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	15.5	95	29	100	95.79	12.6	7.24	0.0	0.0	9.6
25853339	25853338-NODE	JJ23273349-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	601.5	95	29	100	95.78	12.6	7.23	0.0	0.0	9.6
21878564	JJ23273349-NODE	21872509-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	6.7	4	1	4	95.61	0.5	6.88	0.0	0.0	0.4
21878572	JJ23273349-NODE	JJ23278811-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	432.6	92	27	96	95.79	12.1	7.23	0.0	0.0	9.2
21779477	JJ23278811-NODE	21872500-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	7.2	8	2	8	95.54	1.0	6.74	0.0	0.0	0.8
21935152	JJ23278811-NODE	JJ23524261-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	342.9	84	25	88	95.81	11.1	7.26	0.0	0.0	8.4
21779420	JJ23524261-NODE	FAH123-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	35.6	15	4	16	96.40	2.0	8.49	0.0	0.0	1.5
21779382	FAH123-PD	JJ23524275-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	3.9	15	4	16	96.40	2.0	8.48	0.0	0.0	1.5
23589798	JJ23524261-NODE	23589893-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	254.5	69	21	72	95.67	9.2	6.98	0.0	0.0	6.9
21935140	23589893-NODE	JJ23277133-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.3	65	20	68	95.67	8.7	6.98	0.0	0.0	6.6
21935146	JJ23277133-NODE	JJ23278817-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	240.6	58	18	60	95.62	7.7	6.89	0.0	0.0	5.8
22124897	JJ23278817-NODE	21872483-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	9.8	4	1	4	95.61	0.5	6.87	0.0	0.0	0.4
23590009	JJ23278817-NODE	23597684-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	282.8	54	16	56	95.62	7.2	6.88	0.0	0.0	5.4
22124919	23597684-NODE	JJ23278823-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	461.6	43	13	45	95.63	5.7	6.90	0.0	0.0	4.3
21935134	JJ23278823-NODE	JJ23277105-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	122.8	31	10	33	95.64	4.2	6.92	0.0	0.0	3.1
21938684	JJ23277105-NODE	FAH127-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	33.1	25	8	26	95.57	3.3	6.78	0.0	0.0	2.5
21938680	FAH127-PD	25980104-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	976.5	25	8	26	95.57	3.3	6.77	0.0	0.0	2.5
25980118	25980104-NODE	24283619-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.4	25	8	26	95.51	3.3	6.67	0.0	0.0	2.5
22124481	JJ23277105-NODE	JJ23296807-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	282.6	6	2	6	95.90	0.8	7.44	0.0	0.0	0.6

21984544	JJ23296807-NODE	JJ23271429-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	305.5	3	1	3	96.03	0.4	7.69	0.0	0.0	0.3
21881547	JJ23271429-NODE	FAG15-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	37.1	3	1	3	95.88	0.4	7.40	0.0	0.0	0.3
21986747	FAG15-PD	JJ23294481-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	470.3	3	1	3	95.87	0.4	7.37	0.0	0.0	0.3
21986734	JJ23294481-NODE	22048079-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.3	3	1	3	95.66	0.4	6.95	0.0	0.0	0.3
21984554	JJ23271429-NODE	23225204-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	23.6	0	0	0	0.00	0.0	113.90	0.0	0.0	0.0
23590214	JJ23296807-NODE	21872467-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.9	3	1	3	95.66	0.4	6.96	0.0	0.0	0.3
23590092	JJ23278823-NODE	21872449-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.9	11	3	12	95.55	1.5	6.74	0.0	0.0	1.1
23597685	23597684-NODE	22198814-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.4	11	3	12	95.55	1.5	6.74	0.0	0.0	1.1
21938658	JJ23277133-NODE	FAG37-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.5	8	2	8	96.00	1.0	7.64	0.0	0.0	0.8
21938663	FAG37-PD	24602539-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	311.1	8	2	8	95.99	1.0	7.63	0.0	0.0	0.8
24602540	24602539-NODE	23589987-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	2184.5	8	2	8	95.94	1.0	7.52	0.0	0.0	0.8
23589988	23589987-NODE	21872423-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	5.2	8	2	8	95.54	1.0	6.73	0.0	0.0	0.8
23589894	23589893-NODE	21872475-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.0	4	1	4	95.61	0.5	6.87	0.0	0.0	0.4
21938636	JJ23277153-NODE	F2354-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	23.2	19	6	20	95.66	2.5	6.99	0.0	0.0	1.9
21987572	F2354-PD	JJ23293381-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	53.6	19	6	20	95.66	2.5	6.99	0.0	0.0	1.9
21987564	JJ23293381-NODE	25387169-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	799.8	15	5	16	95.62	2.0	6.92	0.0	0.0	1.5
25004870	25387169-NODE	25004845-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	5.9	15	5	16	95.55	2.0	6.78	0.0	0.0	1.5
21987582	JJ23293381-NODE	FAG21-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	454.4	4	1	4	95.78	0.5	7.24	0.0	0.0	0.4
21938642	FAG21-PD	21872390-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	33.1	4	1	4	95.62	0.5	6.91	0.0	0.0	0.4
23589098	JJ23278795-NODE	21872170-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.6	4	1	4	95.61	0.5	6.91	0.0	0.0	0.4
21938606	JJ23271705-NODE	FAH20-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.2	2	0	2	96.03	0.2	7.75	0.0	0.0	0.2
23589021	FAH20-PD	23589020-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	147.8	2	0	2	96.00	0.2	7.70	0.0	0.0	0.2
21938613	23589020-NODE	21872233-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.4	2	0	2	95.87	0.2	7.44	0.0	0.0	0.2
23588914	JJ23278781-NODE	21872196-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.7	8	2	8	95.54	1.0	6.79	0.0	0.0	0.8
21938592	JJ23277189-NODE	FAG27-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.4	4	1	4	95.86	0.5	7.41	0.0	0.0	0.4
21938598	FAG27-PD	JJ23271689-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	44.8	4	1	4	95.84	0.5	7.39	0.0	0.0	0.4
21881120	JJ23271689-NODE	21872206-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	609.6	4	1	4	95.83	0.5	7.36	0.0	0.0	0.4
23588505	JJ23273433-NODE	21872137-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.4	8	2	8	95.54	1.0	6.81	0.0	0.0	0.8
23597560	23597559-NODE	21871317-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	10.3	8	2	8	95.54	1.0	6.83	0.0	0.0	0.8
23597540	23597539-NODE	21871833-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.6	4	1	4	95.61	0.5	6.96	0.0	0.0	0.4
23597525	23597524-NODE	22047842-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.9	8	2	8	95.54	1.0	6.85	0.0	0.0	0.8
23597515	23597514-NODE	21871430-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.7	8	2	8	95.54	1.0	6.86	0.0	0.0	0.8
23583252	26132238-NODE	23583251-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	412.1	129	38	134	95.92	5.7	7.95	0.0	0.0	3.4
21936372	23583251-NODE	21871387-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	11.5	4	1	4	95.48	0.5	6.90	0.0	0.0	0.2
21936677	23583251-NODE	JJ23277657-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	581.6	125	37	130	95.92	5.5	7.95	0.0	0.0	3.4
21821337	JJ23277657-NODE	JJ23524685-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	9.1	118	35	123	95.92	5.2	7.94	0.0	0.0	3.1
21821339	JJ23524685-NODE	25662443-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	126.4	111	33	116	95.96	4.9	8.00	0.0	0.0	2.8
25662444	25662443-NODE	23583452-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	166.1	111	33	116	95.88	4.9	7.84	0.0	0.0	2.8
21937771	23583452-NODE	S1310-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	924.1	107	32	112	95.88	4.7	7.86	0.0	0.0	2.8
21937777	S1310-PD	23584089-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	9.7	107	32	112	95.84	4.7	7.75	0.0	0.0	2.8
21991094	23584089-NODE	23584152-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	247.0	100	30	104	95.85	4.4	7.82	0.0	0.0	2.8
21991105	23584152-NODE	25456662-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	608.3	15	4	15	96.65	0.7	9.34	0.0	0.0	0.4
25456663	25456662-NODE	21911502-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	146.7	11	3	12	96.69	0.5	9.45	0.0	0.0	0.2
21878401	21911502-NODE	JJ23273629-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	11.2	11	3	12	96.62	0.5	9.29	0.0	0.0	0.2
22205033	JJ23273629-NODE	S3822-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	208.3	0	0	0	0.00	0.0	114.24	0.0	0.0	0.0
23585630	S3822-PD	24414301-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	1859.5	0	0	0	0.00	0.0	114.24	0.0	0.0	0.0
24414246	24414301-NODE	24414265-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	15.5	0	0	0	0.00	0.0	114.24	0.0	0.0	0.0
24414580	24414301-NODE	24414454-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	31.2	0	0	0	0.00	0.0	114.24	0.0	0.0	0.0

23587047	JJ23273629-NODE	21911515-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	10.3	11	3	12	95.48	0.5	6.94	0.0	0.0	0.2
26057519	25456662-NODE	25456652-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	16.0	4	1	4	95.62	0.5	7.01	0.0	0.0	0.4
23584153	23584152-NODE	F1375-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	34.7	85	26	88	95.33	3.7	7.52	0.0	0.0	2.6
21991082	F1375-PD	24629793-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	16.7	85	26	88	95.33	3.7	7.51	0.0	0.0	2.6
24629798	24629793-NODE	24629807-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	136.4	85	26	88	95.33	3.7	7.51	0.0	0.0	2.6
24629808	24629807-NODE	24629817-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	103.6	85	26	88	95.34	3.7	7.49	0.0	0.0	2.6
24629818	24629817-NODE	JJ23277733-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	201.2	85	26	88	95.34	3.7	7.47	0.0	0.0	2.6
21935048	JJ23277733-NODE	23585313-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	93.1	74	23	78	95.34	3.3	7.50	0.0	0.0	2.2
21935033	23585313-NODE	JJ23278861-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	463.0	68	20	71	95.35	3.0	7.54	0.0	0.0	1.8
23598123	JJ23278861-NODE	23585339-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	552.3	68	21	71	95.37	3.0	7.45	0.0	0.0	1.8
21878412	23585339-NODE	23585370-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	227.0	64	20	67	95.39	2.8	7.37	0.0	0.0	1.7
21878407	23585370-NODE	21871199-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	9.4	8	2	8	95.42	1.1	6.76	0.0	0.0	0.4
23585371	23585370-NODE	JJ23273625-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	680.8	56	17	59	95.40	2.5	7.41	0.0	0.0	1.7
21878404	JJ23273625-NODE	23585445-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	527.1	44	14	46	95.44	2.0	7.39	0.0	0.0	1.7
21878398	23585445-NODE	26095722-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	304.6	36	11	37	95.42	1.6	7.37	0.0	0.0	1.7
26095723	26095722-NODE	F4245-PD	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	10.8	36	11	37	95.53	4.7	7.27	0.0	0.0	1.7
26025058	F4245-PD	JJ23273633-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	220.1	36	11	37	95.52	4.7	7.27	0.0	0.0	1.7
21935019	JJ23273633-NODE	21911484-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	7.1	3	1	4	95.41	0.5	7.05	0.0	0.0	0.2
23585504	JJ23273633-NODE	JJ23278865-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	400.2	32	10	34	95.53	4.3	7.27	0.0	0.0	1.5
21878392	JJ23278865-NODE	F4256-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	31.0	12	4	12	95.43	1.6	7.08	0.0	0.0	1.2
26095688	F4256-PD	23593187-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	308.2	12	4	12	95.42	1.6	7.07	0.0	0.0	1.2
21878389	23593187-NODE	21911450-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	305.6	7	2	7	95.40	0.9	7.01	0.0	0.0	0.7
23593188	23593187-NODE	21911433-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.1	5	2	5	95.38	0.7	6.98	0.0	0.0	0.5
21935006	JJ23278865-NODE	23585529-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line		13.800	188.0	20	6	21	95.56	0.9	7.32	0.0	0.0	1.0
21878395	23585529-NODE	JJ23273637-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line		13.800	128.0	20	6	21	95.54	0.9	7.29	0.0	0.0	1.0
21991197	JJ23273637-NODE	F1555-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	114.2	14	4	14	95.63	1.8	7.46	0.0	0.0	1.4
21991211	F1555-PD	23593329-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	713.0	14	4	14	95.62	1.8	7.44	0.0	0.0	1.4
23593318	23593329-NODE	JJ23273617-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	27.9	10	3	11	95.59	1.4	7.38	0.0	0.0	1.0
21878410	JJ23273617-NODE	23593353-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	985.5	10	3	11	95.58	1.4	7.37	0.0	0.0	1.0
22200427	23593353-NODE	21871181-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.5	3	1	4	95.41	0.5	7.04	0.0	0.0	0.3
23593354	23593353-NODE	JJ23353095-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	571.7	7	2	7	95.47	0.9	7.14	0.0	0.0	0.7
25857402	JJ23353095-NODE	25724825-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	77.0	7	2	7	95.35	0.9	6.92	0.0	0.0	0.7
23593330	23593329-NODE	21871209-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.7	3	1	4	95.42	0.5	7.06	0.0	0.0	0.3
23585530	JJ23273637-NODE	21911468-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	10.0	7	2	7	95.33	0.9	6.89	0.0	0.0	0.3
23585446	23585445-NODE	21911550-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	13.8	9	3	9	95.40	1.2	6.73	0.0	0.0	0.4
23585393	JJ23273625-NODE	21911533-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	6.6	12	4	12	95.42	1.6	6.77	0.0	0.0	0.6
23585340	23585339-NODE	21871190-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	9.0	3	1	4	95.41	0.5	7.06	0.0	0.0	0.2
23585314	23585313-NODE	21871217-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	11.9	7	2	7	95.33	0.9	6.92	0.0	0.0	0.3
21937763	JJ23277733-NODE	F2145-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	16.5	10	3	11	95.41	1.4	7.06	0.0	0.0	1.0
22214621	F2145-PD	JJ23336895-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	225.3	10	3	11	95.41	1.4	7.06	0.0	0.0	0.5
22214629	JJ23336895-NODE	23593138-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	228.0	10	3	11	95.37	1.4	6.99	0.0	0.0	0.5
23593143	23593138-NODE	21871236-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	7.9	10	3	11	95.34	1.4	6.93	0.0	0.0	0.5
23584090	23584089-NODE	21871227-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	6.4	8	2	8	95.54	1.0	6.88	0.0	0.0	0.4
23583453	23583452-NODE	21871254-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	10.1	4	1	4	95.48	0.5	6.90	0.0	0.0	0.2
25698884	25662443-NODE	FAP166-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.3	0	0	0	0.00	0.0	114.51	0.0	0.0	0.0
25662460	25662453-NODE	25661464-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.2	0	0	0	0.00	0.0	114.51	0.0	0.0	0.0
23587020	JJ23524685-NODE	23587009-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.9	7	2	7	95.33	0.9	6.94	0.0	0.0	0.7
21937875	JJ23277657-NODE	FAP81-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	18.7	7	2	7	95.39	0.9	7.04	0.0	0.0	0.7

21937866	FAP81-PD	21871395-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	263.8	7	2	7	95.39	0.9	7.04	0.0	0.0	0.7
23583335	23583334-NODE	21871404-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	9.8	2	1	2	95.55	0.3	7.36	0.0	0.0	0.1
24412581	24407622-NODE	24412572-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	21.5	0	0	0	0.00	0.0	114.27	0.0	0.0	0.0
24412606	24407644-NODE	24412572-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.7	13.800	44.2	0	0	0	0.00	0.0	114.27	0.0	0.0	0.0
23583156	23583155-NODE	21871413-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	6.1	8	2	8	95.42	1.1	6.80	0.0	0.0	0.4
23583112	JJ23273583-NODE	21871422-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	11.8	7	2	7	95.33	0.9	6.94	0.0	0.0	0.3
21937986	JJ23278729-NODE	FAP83-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	31.0	3	1	4	95.51	0.5	7.29	0.0	0.0	0.3
21937978	FAP83-PD	21871535-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	222.8	3	1	4	95.50	0.5	7.26	0.0	0.0	0.3
21937972	JJ23278731-NODE	FAH65-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.0	2	0	2	96.56	0.2	9.16	0.0	0.0	0.2
21937965	FAH65-PD	21871526-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1017.2	2	0	2	96.54	0.2	9.11	0.0	0.0	0.2
23588285	23588284-NODE	FAP82-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.1	4	1	4	95.72	0.5	7.27	0.0	0.0	0.4
21937956	FAP82-PD	21871508-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	263.8	4	1	4	95.71	0.5	7.25	0.0	0.0	0.4
21935524	23582941-NODE	21871500-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	9.0	15	5	16	95.55	2.0	6.96	0.0	0.0	0.7
23588193	JJ23277625-NODE	F912-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.7	7	2	7	95.71	0.9	7.66	0.0	0.0	0.7
21937941	F912-PD	JJ23273557-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	579.8	7	2	7	95.70	0.9	7.65	0.0	0.0	0.7
21878441	JJ23273557-NODE	21871791-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	841.5	3	1	4	95.75	0.5	7.75	0.0	0.0	0.3
23588230	JJ23273557-NODE	21871491-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.6	3	1	4	95.41	0.5	7.09	0.0	0.0	0.3
21938073	JJ23277559-NODE	FAP94-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.9	7	2	7	95.45	0.9	7.16	0.0	0.0	0.7
21880665	FAP94-PD	JJ23271929-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	196.8	7	2	7	95.44	0.9	7.15	0.0	0.0	0.7
21880605	JJ23271929-NODE	21871465-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	337.8	7	2	7	95.40	0.9	7.07	0.0	0.0	0.7
21935566	23582739-NODE	21871754-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	11.3	4	1	4	95.48	0.5	6.97	0.0	0.0	0.2
23587982	JJ23278689-NODE	FAP89-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.9	3	1	4	95.73	0.5	7.71	0.0	0.0	0.3
21938225	FAP89-PD	24789172-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	181.1	3	1	4	95.72	0.5	7.68	0.0	0.0	0.3
24789173	24789172-NODE	24789163-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	180.0	3	1	4	95.64	0.5	7.54	0.0	0.0	0.3
24789164	24789163-NODE	24789151-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	180.8	3	1	4	95.57	0.5	7.39	0.0	0.0	0.3
24789152	24789151-NODE	21871764-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	213.5	3	1	4	95.50	0.5	7.25	0.0	0.0	0.3
23587937	23587915-NODE	F2151-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	38.7	12	4	13	95.49	1.6	7.00	0.0	0.0	1.2
23587957	F2151-PD	23587956-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	215.4	12	4	13	95.49	1.6	6.99	0.0	0.0	1.2
21878462	23587956-NODE	21911346-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	196.0	4	1	4	95.55	0.5	7.11	0.0	0.0	0.4
21938109	23587956-NODE	21871621-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	13.0	8	2	8	95.42	1.1	6.86	0.0	0.0	0.8
21938121	JJ23277529-NODE	FAH12-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.0	2	0	2	96.00	0.2	7.90	0.0	0.0	0.2
21938115	FAH12-PD	21871631-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	119.0	2	0	2	95.97	0.2	7.85	0.0	0.0	0.2
21938129	JJ23277523-NODE	25908377-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	300.6	153	47	160	95.60	20.3	7.45	0.0	0.0	15.4
25908378	25908377-NODE	F1306-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	32.5	146	45	153	95.61	19.4	7.47	0.0	0.0	14.7
25908384	F1306-PD	JJ23277489-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	220.1	146	45	153	95.61	19.4	7.47	0.0	0.0	14.7
21936453	JJ23277489-NODE	JJ23273513-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	137.7	144	44	150	95.61	19.0	7.46	0.0	0.0	14.4
21878468	JJ23273513-NODE	JJ23273515-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.5	3	1	4	95.61	0.5	7.46	0.0	0.0	0.3
21938195	JJ23273515-NODE	FAH48-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	23.6	3	1	4	95.61	0.5	7.45	0.0	0.0	0.3
21938189	FAH48-PD	23592061-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	453.1	3	1	4	95.60	0.5	7.43	0.0	0.0	0.3
23592062	23592061-NODE	21871690-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.0	3	1	4	95.41	0.5	7.07	0.0	0.0	0.3
23592012	JJ23273513-NODE	23591997-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.8	140	43	147	95.61	18.6	7.45	0.0	0.0	14.1
21936439	23591997-NODE	JJ23277509-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	209.9	137	42	143	95.61	18.1	7.46	0.0	0.0	13.7
21936409	JJ23277509-NODE	JJ23271913-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	207.2	130	40	136	95.63	17.2	7.48	0.0	0.0	13.1
21880694	JJ23271913-NODE	21871718-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	51.8	14	4	14	95.35	1.8	6.94	0.0	0.0	1.4
21936422	JJ23271913-NODE	JJ23278461-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	457.6	115	35	120	95.65	15.2	7.53	0.0	0.0	11.5
21936465	JJ23278461-NODE	JJ23277235-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	199.7	110	33	115	95.66	14.6	7.54	0.0	0.0	11.0
21935127	JJ23277235-NODE	JJ23277243-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	162.8	100	31	104	95.59	13.2	7.39	0.0	0.0	10.0
21935116	JJ23277243-NODE	JJ23278833-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	393.3	93	29	97	95.60	12.3	7.41	0.0	0.0	9.3

21935122	JJ23278833-NODE	23592291-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	434.6	78	24	81	95.61	10.3	7.43	0.0	0.0	7.8
21878522	23592291-NODE	23592305-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	379.3	71	22	74	95.63	9.4	7.46	0.0	0.0	7.1
21936479	23592305-NODE	23597412-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	552.0	68	21	71	95.64	9.0	7.47	0.0	0.0	6.8
23597404	23597412-NODE	JJ23278423-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	340.0	61	19	64	95.66	8.1	7.51	0.0	0.0	6.1
21936585	JJ23278423-NODE	JJ23277165-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	22.7	57	17	60	95.67	7.6	7.52	0.0	0.0	5.8
21936591	JJ23277165-NODE	JJ23278419-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	218.1	51	15	53	95.66	6.7	7.52	0.0	0.0	5.1
23592394	JJ23278419-NODE	23592393-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	422.9	51	15	53	95.66	6.7	7.50	0.0	0.0	5.1
21936598	23592393-NODE	21872370-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	8.8	1	0	1	95.71	0.2	7.61	0.0	0.0	0.1
23592410	23592393-NODE	23592409-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	249.8	49	15	51	95.65	6.5	7.48	0.0	0.0	4.9
21878543	23592409-NODE	21872362-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	9.5	7	2	7	95.33	0.9	6.87	0.0	0.0	0.7
22205369	23592409-NODE	23597442-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	125.2	42	13	44	95.69	5.6	7.56	0.0	0.0	4.3
23597426	23597442-NODE	23597461-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	196.7	42	13	44	95.69	5.6	7.55	0.0	0.0	4.3
22205379	23597461-NODE	JJ23278441-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	234.4	36	11	37	95.75	4.7	7.67	0.0	0.0	3.6
21936532	JJ23278441-NODE	FAH23-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	13.6	7	2	7	96.50	0.9	9.24	0.0	0.0	0.7
21936556	JJ23278441-NODE	JJ23273339-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	186.3	22	7	23	95.60	2.9	7.37	0.0	0.0	2.2
23592784	JJ23273339-NODE	JJ23278437-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	147.7	22	7	23	95.59	2.9	7.35	0.0	0.0	2.2
21878581	JJ23278437-NODE	21872525-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	8.4	3	1	4	95.41	0.5	7.01	0.0	0.0	0.3
21936562	JJ23278437-NODE	JJ23278427-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	281.9	19	6	20	95.61	2.5	7.39	0.0	0.0	1.9
21936572	JJ23278427-NODE	JJ23277097-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	540.0	5	2	5	95.57	0.7	7.32	0.0	0.0	0.5
21938695	JJ23277097-NODE	FAH30-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	6.7	5	2	5	95.42	0.7	7.03	0.0	0.0	0.5
21938701	FAH30-PD	21872534-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	172.0	5	2	5	95.42	0.7	7.03	0.0	0.0	0.5
21936579	JJ23278427-NODE	F2195-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	31.3	14	4	14	95.59	1.8	7.36	0.0	0.0	1.4
23597489	F2195-PD	JJ23526095-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	1862.3	14	4	14	95.59	1.8	7.36	0.0	0.0	1.4
21820852	JJ23526095-NODE	23597478-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	17.0	7	2	7	95.33	0.9	6.86	0.0	0.0	0.7
21820859	JJ23526095-NODE	24610340-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	209.1	7	2	7	95.46	0.9	7.11	0.0	0.0	0.7
24610341	24610340-NODE	24610329-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	213.1	7	2	7	95.42	0.9	7.02	0.0	0.0	0.7
24610330	24610329-NODE	21872119-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	217.4	7	2	7	95.38	0.9	6.94	0.0	0.0	0.7
23592451	JJ23278441-NODE	FAH32-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	5.8	7	2	7	95.39	0.9	6.98	0.0	0.0	0.7
21938689	FAH32-PD	21872517-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	294.5	7	2	7	95.39	0.9	6.98	0.0	0.0	0.7
23597462	23597461-NODE	22245834-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	13.9	7	2	7	95.33	0.9	6.87	0.0	0.0	0.7
21938619	JJ23277165-NODE	F2037-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	27.9	7	2	7	95.69	0.9	7.57	0.0	0.0	0.7
21936517	F2037-PD	JJ23271661-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	302.1	7	2	7	95.68	0.9	7.56	0.0	0.0	0.7
21881190	JJ23271661-NODE	21872267-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	812.5	3	1	4	95.74	0.5	7.66	0.0	0.0	0.3
21936506	JJ23271661-NODE	21872241-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	244.0	3	1	4	95.51	0.5	7.21	0.0	0.0	0.3
23592336	JJ23278423-NODE	21872250-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	8.4	3	1	4	95.41	0.5	7.02	0.0	0.0	0.3
23597413	23597412-NODE	21872275-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	11.1	7	2	7	95.33	0.9	6.88	0.0	0.0	0.7
23592306	23592305-NODE	21872258-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	8.9	3	1	4	95.41	0.5	7.03	0.0	0.0	0.3
23592292	23592291-NODE	21872214-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.3	7	2	7	95.33	0.9	6.89	0.0	0.0	0.7
22274822	JJ23278833-NODE	F3710-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	30.3	15	5	16	95.51	2.0	7.23	0.0	0.0	1.5
22274817	F3710-PD	25414555-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	531.6	15	5	16	95.50	2.0	7.22	0.0	0.0	1.5
22274829	25414555-NODE	FAH118-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	208.0	14	4	14	95.43	1.8	7.07	0.0	0.0	1.4
23597353	FAH118-PD	23597393-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	636.5	14	4	14	95.41	1.8	7.03	0.0	0.0	1.4
25414556	25414555-NODE	21871298-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	10.5	1	0	1	95.72	0.2	7.64	0.0	0.0	0.1
21938523	JJ23277243-NODE	FAH42-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	30.3	7	2	7	95.42	0.9	7.07	0.0	0.0	0.7
21938515	FAH42-PD	21871799-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	407.1	7	2	7	95.42	0.9	7.06	0.0	0.0	0.7
21938530	JJ23277235-NODE	FAH117-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	31.2	10	3	11	96.39	1.3	9.03	0.0	0.0	1.0
22200403	FAH117-PD	JJ23353129-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	266.2	10	3	11	96.38	1.3	9.02	0.0	0.0	1.0
23592194	JJ23278461-NODE	21871782-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line	13.800	11.3	5	2	5	95.38	0.7	6.99	0.0	0.0	0.5

21938158	JJ23271913-NODE	FAH45-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.7	1	0	1	96.08	0.2	8.39	0.0	0.0	0.1
21938166	FAH45-PD	21871709-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	364.7	1	0	1	96.06	0.2	8.34	0.0	0.0	0.1
21938151	JJ23277509-NODE	FAH46-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.4	7	2	7	95.41	0.9	7.06	0.0	0.0	0.7
21938145	FAH46-PD	JJ23273519-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	315.8	7	2	7	95.40	0.9	7.04	0.0	0.0	0.7
21878464	JJ23273519-NODE	21871699-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.9	7	2	7	95.33	0.9	6.92	0.0	0.0	0.7
23591998	23591997-NODE	21871736-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.8	3	1	4	95.41	0.5	7.07	0.0	0.0	0.3
21938182	JJ23277489-NODE	FAH50-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	29.4	1	0	1	96.09	0.2	8.43	0.0	0.0	0.1
21938175	FAH50-PD	21871682-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	373.3	1	0	1	96.06	0.2	8.37	0.0	0.0	0.1
23591942	JJ23277489-NODE	21871727-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.9	1	0	1	95.72	0.2	7.68	0.0	0.0	0.1
25908391	25908377-NODE	21871673-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.7	7	2	7	95.33	0.9	6.93	0.0	0.0	0.7
23582344	23582343-NODE	21871666-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	16.0	4	1	4	95.62	0.5	7.18	0.0	0.0	0.2
23582267	JJ23273529-NODE	21871612-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	8.5	4	1	4	95.61	0.5	7.18	0.0	0.0	0.2
21938028	JJ23273531-NODE	FAH58-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	34.7	7	2	7	95.39	0.9	7.07	0.0	0.0	0.7
21938022	FAH58-PD	JJ23272035-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	85.7	7	2	7	95.38	0.9	7.06	0.0	0.0	0.7
21880499	JJ23272035-NODE	21871569-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	137.2	7	2	7	95.36	0.9	7.02	0.0	0.0	0.7
23587431	JJ23273531-NODE	F1028-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	36.9	9	3	10	95.70	1.2	7.35	0.0	0.0	0.9
21938013	F1028-PD	23587495-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	319.7	9	3	10	95.69	1.2	7.34	0.0	0.0	0.9
21878386	23587495-NODE	21911381-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	361.4	6	2	6	95.67	0.7	7.29	0.0	0.0	0.6
23587496	23587495-NODE	21911415-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.9	4	1	4	95.61	0.5	7.18	0.0	0.0	0.4
21938043	JJ23278371-NODE	FAH59-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	93.4	4	1	4	95.59	0.5	7.23	0.0	0.0	0.4
21938034	FAH59-PD	JJ23272039-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	26.7	4	1	4	95.56	0.5	7.17	0.0	0.0	0.4
21880493	JJ23272039-NODE	JJ23272041-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	92.8	4	1	4	95.55	0.5	7.15	0.0	0.0	0.4
21880484	JJ23272041-NODE	21871595-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	112.2	4	1	4	95.52	0.5	7.09	0.0	0.0	0.4
23582009	JJ23278371-NODE	21871578-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	15.3	2	0	2	95.75	0.2	7.53	0.0	0.0	0.1
21938000	JJ23278373-NODE	FAP91-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.6	8	2	8	95.51	1.1	7.07	0.0	0.0	0.8
21937993	FAP91-PD	21911398-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	516.7	8	2	8	95.51	1.1	7.07	0.0	0.0	0.8
21938059	JJ23278363-NODE	FAH1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	139.3	8	2	8	95.53	1.1	7.11	0.0	0.0	0.8
23587271	FAH1-PD	JJ23272045-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	92.7	8	2	8	95.50	1.1	7.06	0.0	0.0	0.8
21880477	JJ23272045-NODE	21871604-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	397.4	8	2	8	95.49	1.1	7.03	0.0	0.0	0.8
22124565	23582175-NODE	21871586-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	10.9	4	1	4	95.48	0.5	7.02	0.0	0.0	0.2
23581768	23581767-NODE	21871560-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	8.4	8	2	8	95.55	1.0	7.08	0.0	0.0	0.4
24150690	JJ23273541-NODE	21871552-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.5	3	1	4	95.41	0.5	7.16	0.0	0.0	0.3
26309893	JJ23273543-NODE	21871843-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.7	4	1	4	95.61	0.5	7.25	0.0	0.0	0.4
24513545	JJ23273495-NODE	24584772-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	10.1	45	14	47	95.34	2.0	6.84	0.0	0.0	0.7
24150565	JJ23409967-NODE	JJ23523223-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.7	13.800	18.3	0	0	0	0.00	0.0	114.42	0.0	0.0	0.0
23580952	JJ23318459-NODE	22198848-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	7.3	7	2	7	95.33	0.9	7.07	0.0	0.0	0.7
22362717	JJ23309127-NODE	S1355-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.9	13.800	14.6	4008	1297	4212	95.14	175.6	7.62	0.1	0.2	76.0
22362731	S1355-PD	JJ23309085-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.9	13.800	7.3	4008	1297	4212	95.14	175.6	7.62	0.0	0.1	76.0
22362656	JJ23309085-NODE	23232456-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.9	13.800	65.6	0	0	0	0.00	0.0	115.60	0.0	0.0	0.0
22362725	JJ23309085-NODE	JJ23309055-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	139.5	4008	1297	4212	95.14	175.6	7.62	0.7	1.7	76.0
22362738	JJ23309055-NODE	JJ23308999-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	1064.2	3992	1291	4196	95.15	175.0	7.62	5.3	12.7	75.3
22362763	JJ23308999-NODE	JJ23309011-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	121.1	240	77	252	95.21	31.7	7.20	0.0	0.0	24.0
22362758	JJ23309011-NODE	F2492-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	20.4	94	30	99	95.39	12.5	7.54	0.0	0.0	9.4
22362751	F2492-PD	JJ23309039-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	46.6	94	30	99	95.39	12.5	7.54	0.0	0.0	9.4
22362775	JJ23309011-NODE	F2493-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.8	145	47	153	95.09	19.2	6.98	0.0	0.0	14.6
22362743	F2493-PD	JJ23309045-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	43.5	145	47	153	95.09	19.2	6.98	0.0	0.0	14.6
22362780	JJ23308999-NODE	JJ23308861-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	136.7	3747	1201	3935	95.23	164.4	7.65	0.6	1.4	64.1
22362847	JJ23308861-NODE	JJ23308681-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	23.0	3657	1169	3839	95.25	160.4	7.66	0.1	0.2	64.1

21745772	JJ23308681-NODE	S3294-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	413.1	3606	1153	3786	95.25	158.2	7.67	1.7	3.9	61.7
21745781	S3294-PD	JJ23297415-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	35.0	3604	1149	3783	95.28	158.2	7.67	0.1	0.3	61.7
22363037	JJ23297415-NODE	S1964-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	31.4	1777	547	1859	95.57	77.7	8.23	0.0	0.1	29.9
24268664	JJ23297415-NODE	24268663-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	570.9	1827	601	1924	94.99	80.5	7.12	0.6	1.4	32.3
22347577	24268663-NODE	22350679-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	8.9	8	3	8	94.41	1.0	6.39	0.0	0.0	0.4
22347589	24268663-NODE	JJ23297395-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	18.9	1819	597	1915	95.01	80.1	7.12	0.0	0.0	32.3
22347585	JJ23297395-NODE	F316-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	45.2	119	39	125	94.92	15.7	7.16	0.0	0.0	11.9
22347581	F316-PD	JJ23297407-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	2.4	119	39	125	94.92	15.7	7.16	0.0	0.0	11.9
22347593	JJ23297395-NODE	JJ23297363-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	175.3	1700	558	1790	95.01	74.9	7.12	0.2	0.4	32.3
22347601	JJ23297363-NODE	F1876-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	38.0	196	63	206	95.19	26.0	7.01	0.0	0.0	19.7
22347605	JJ23297363-NODE	JJ23297327-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	194.7	1504	495	1583	95.00	66.2	7.13	0.1	0.3	24.8
22347613	JJ23297327-NODE	F1875-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	36.1	233	74	244	95.26	30.8	7.14	0.0	0.0	23.3
24652393	F1875-PD	JJ23297349-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1.6	233	74	244	95.26	30.8	7.14	0.0	0.0	23.3
22347617	JJ23297327-NODE	JJ23297305-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	13.2	1271	420	1339	94.95	56.0	7.13	0.0	0.0	24.8
22347623	JJ23297305-NODE	FU28-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	63.5	89	29	94	95.10	3.9	7.30	0.0	0.0	1.4
22347621	FU28-PD	JJ23297313-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	1.7	89	29	94	95.09	3.9	7.30	0.0	0.0	1.4
24652617	JJ23297305-NODE	JJ23263427-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	196.4	1182	391	1245	94.94	52.1	7.12	0.1	0.2	23.4
22347630	JJ23263427-NODE	JJ23263413-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	185.2	1175	388	1237	94.95	51.7	7.12	0.1	0.2	23.4
21686749	JJ23263413-NODE	F1219-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	44.5	44	15	47	94.96	5.9	7.19	0.0	0.0	4.4
21686748	F1219-PD	JJ23263425-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	4.4	44	15	47	94.96	5.9	7.19	0.0	0.0	4.4
21686752	JJ23263413-NODE	JJ23263411-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	15.6	1130	373	1190	94.95	49.8	7.11	0.0	0.0	23.4
21686751	JJ23263411-NODE	F1218-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	39.2	102	33	107	95.17	13.5	6.96	0.0	0.0	10.2
21686750	F1218-PD	JJ23263419-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	4.5	102	33	107	95.17	13.5	6.96	0.0	0.0	10.2
21686753	JJ23263411-NODE	S1391-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	279.6	1028	341	1083	94.93	45.3	7.13	0.1	0.3	23.4
21686690	S1391-PD	JJ23263537-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	136.4	1028	340	1083	94.93	45.3	7.12	0.1	0.1	23.4
21686689	JJ23263537-NODE	23219791-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	22.3	0	0	0	0.00	0.0	115.29	0.0	0.0	0.0
21686691	JJ23263537-NODE	JJ23296725-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	214.6	1028	340	1083	94.94	45.3	7.12	0.1	0.2	23.4
21686714	JJ23296725-NODE	JJ23263471-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	161.4	855	282	900	94.98	37.7	7.22	0.1	0.1	21.0
24055214	JJ23263471-NODE	24055213-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	489.3	848	279	893	94.98	37.3	7.22	0.2	0.4	21.0
21686718	24055213-NODE	21778423-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	13.3	9	3	9	94.58	0.4	6.32	0.0	0.0	0.1
24055145	24055213-NODE	24055144-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	294.6	839	276	883	95.00	36.9	7.22	0.1	0.2	20.9
21686787	24055144-NODE	24055103-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	261.9	831	273	875	95.01	36.6	7.22	0.1	0.2	20.9
21686786	24055103-NODE	S1390-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	706.1	816	268	859	95.02	36.0	7.23	0.2	0.6	20.9
24055041	S1390-PD	24055040-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	175.2	816	267	859	95.03	36.0	7.22	0.1	0.1	20.9
21686784	24055040-NODE	JJ23263333-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	48.1	813	266	855	95.03	35.8	7.22	0.0	0.0	20.9
21686715	JJ23263333-NODE	F1987-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	32.8	158	54	167	94.71	21.0	6.73	0.0	0.0	15.9
21686762	F1987-PD	JJ23263385-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	24.9	158	54	167	94.71	21.0	6.73	0.0	0.0	15.9
21686758	JJ23263333-NODE	JJ23263387-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	24.0	655	213	689	95.11	28.8	7.34	0.0	0.0	14.2
21686757	JJ23263387-NODE	FX21-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	37.9	15	5	16	94.66	2.0	6.51	0.0	0.0	1.5
21934270	FX21-PD	21874215-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	369.0	15	5	16	94.65	2.0	6.51	0.0	0.0	1.5
21686759	JJ23263387-NODE	JJ23263375-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	40.3	551	180	580	95.08	24.3	7.28	0.0	0.0	13.4
21686764	JJ23263375-NODE	F1986-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	47.3	67	22	70	95.15	8.8	7.40	0.0	0.0	6.7
21686763	F1986-PD	JJ23263381-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	22.6	67	22	70	95.15	8.8	7.40	0.0	0.0	6.7
24054940	JJ23263375-NODE	24054939-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	274.3	484	158	509	95.07	21.3	7.26	0.0	0.1	13.4
21928194	24054939-NODE	21982282-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	16.2	3	1	3	94.83	0.4	6.81	0.0	0.0	0.1
21928202	24054939-NODE	JJ23263369-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	511.5	481	157	506	95.07	21.2	7.26	0.1	0.1	13.4
21686766	JJ23263369-NODE	FX49-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	37.4	8	3	8	94.48	1.0	6.29	0.0	0.0	0.8
21939541	FX49-PD	21874207-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	332.1	8	3	8	94.47	1.0	6.27	0.0	0.0	0.8

21686767	JJ23263369-NODE	JJ23263367-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	418.1	474	154	498	95.08	20.9	7.26	0.0	0.1	13.1
21686765	JJ23263367-NODE	F2149-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	29.0	67	23	70	94.66	3.0	6.40	0.0	0.0	1.1
21939535	F2149-PD	JJ23272997-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	356.8	67	23	70	94.66	3.0	6.40	0.0	0.0	1.1
21878854	JJ23272997-NODE	23671508-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	309.0	44	15	47	94.62	2.0	6.33	0.0	0.0	0.7
24054911	JJ23272997-NODE	21874196-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	18.1	22	8	24	94.63	1.0	6.34	0.0	0.0	0.4
21686768	JJ23263367-NODE	JJ23263359-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	407.5	407	132	428	95.14	17.9	7.39	0.0	0.1	12.0
21686772	JJ23263359-NODE	JJ23263361-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	16.6	89	29	94	94.94	3.9	6.91	0.0	0.0	1.4
21686756	JJ23263361-NODE	FT258-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	19.4	89	29	94	94.94	3.9	6.91	0.0	0.0	1.4
21686755	FT258-PD	JJ23263405-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	1.2	89	29	94	94.94	3.9	6.90	0.0	0.0	1.4
21686773	JJ23263359-NODE	JJ23263355-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	163.6	318	102	334	95.20	14.0	7.51	0.0	0.0	10.6
21686729	JJ23263355-NODE	JJ23263441-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	171.1	263	84	276	95.22	11.6	7.73	0.0	0.0	9.9
21686730	JJ23263441-NODE	JJ23263439-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	18.2	165	53	173	95.07	7.3	7.48	0.0	0.0	5.3
21686731	JJ23263439-NODE	JJ23263351-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	162.6	52	17	55	94.29	2.3	7.05	0.0	0.0	2.4
21686775	JJ23263351-NODE	F876-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	28.8	19	7	20	94.73	2.6	6.62	0.0	0.0	1.9
24620533	F876-PD	24620532-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	318.2	19	7	20	94.73	2.6	6.62	0.0	0.0	1.9
21939520	24620532-NODE	21874182-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.1	15	5	16	94.62	2.0	6.41	0.0	0.0	1.5
21939525	24620532-NODE	FX25-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.7	5	1	5	95.00	0.6	7.10	0.0	0.0	0.5
21939529	FX25-PD	21874174-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	803.2	5	1	5	95.00	0.6	7.09	0.0	0.0	0.5
21686776	JJ23263351-NODE	27106173-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	217.3	33	11	35	94.09	1.4	7.24	0.0	0.0	1.5
27012951	27106173-NODE	26934989-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.2	7	3	8	94.65	1.0	6.47	0.0	0.0	0.7
27106174	27106173-NODE	JJ23263345-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	271.2	25	8	27	94.03	1.1	7.36	0.0	0.0	1.2
21686778	JJ23263345-NODE	F368-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	25.5	3	1	3	95.23	0.4	7.52	0.0	0.0	0.3
21686777	F368-PD	24054810-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	125.7	3	1	3	95.22	0.4	7.50	0.0	0.0	0.3
24410052	24054810-NODE	21874165-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	680.9	3	1	3	95.15	0.4	7.38	0.0	0.0	0.3
24054790	JJ23263345-NODE	JJ23263339-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	530.4	22	7	23	94.01	1.0	7.18	0.0	0.0	1.0
21686781	JJ23263339-NODE	FX41-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	30.2	7	3	8	94.77	1.0	6.67	0.0	0.0	0.7
21939515	FX41-PD	JJ23276201-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	509.4	7	3	8	94.76	1.0	6.66	0.0	0.0	0.7
26985185	JJ23276201-NODE	21874157-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.2	7	3	8	94.65	1.0	6.47	0.0	0.0	0.7
24054738	JJ23263339-NODE	24054737-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	588.1	15	5	16	94.05	0.7	7.00	0.0	0.0	0.7
22347645	24054737-NODE	22350704-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	7.2	15	5	16	94.62	2.0	6.40	0.0	0.0	0.7
24054746	24054737-NODE	24054717-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	4.0	0	0	0	0.00	0.0	115.19	0.0	0.0	0.0
21686783	24054717-NODE	23219711-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	128.1	0	0	0	0.00	0.0	115.19	0.0	0.0	0.0
26786327	JJ23263439-NODE	F275-PD	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	25.4	113	36	119	95.28	14.9	7.69	0.0	0.0	5.3
26786351	F275-PD	JJ23263449-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	2.3	113	36	119	95.28	14.9	7.68	0.0	0.0	5.3
26786498	JJ23263441-NODE	F276-PD	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	25.2	98	30	102	95.50	12.9	8.11	0.0	0.0	4.6
26786504	F276-PD	JJ23263455-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	3.2	98	30	102	95.50	12.9	8.11	0.0	0.0	4.6
21686774	JJ23263355-NODE	F2344-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	24.9	55	19	58	94.69	2.4	6.46	0.0	0.0	1.2
21983463	F2344-PD	JJ23296291-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	0.6	55	19	58	94.68	2.4	6.46	0.0	0.0	1.2
21985206	JJ23296291-NODE	JJ23296293-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1380	Overhead Line	13.8	13.800	121.9	55	19	58	94.68	2.4	6.45	0.0	0.0	1.2
21985189	JJ23296293-NODE	JJ23296303-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	13.6	10	3	11	95.07	1.4	7.22	0.0	0.0	1.0
22055239	JJ23296303-NODE	F3299-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	22.8	10	3	11	95.06	1.4	7.22	0.0	0.0	1.0
24054847	F3299-PD	24054846-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	33.0	10	3	11	95.06	1.4	7.21	0.0	0.0	1.0
21985031	24054846-NODE	21874191-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	2457.9	7	2	8	95.15	1.0	7.38	0.0	0.0	0.7
22055251	24054846-NODE	22047337-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.7	3	1	3	94.83	0.4	6.79	0.0	0.0	0.3
24349773	JJ23296293-NODE	23671533-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_138	Overhead Line	13.8	13.800	15.6	44	15	47	94.57	2.0	6.24	0.0	0.0	1.5
21686761	JJ23263387-NODE	F1989-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	36.4	89	28	93	95.37	11.7	7.83	0.0	0.0	8.9
21686760	F1989-PD	JJ23263393-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	22.4	89	28	93	95.37	11.7	7.83	0.0	0.0	8.9
21686785	24055040-NODE	21778391-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_8000	Overhead Line		13.800	9.6	3	1	3	94.94	0.4	6.59	0.0	0.0	0.1

24055104	24055103-NODE	21778401-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	10.8	15	5	16	94.62	2.0	6.49	0.0	0.0	0.7
21686788	24055144-NODE	21778412-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	8.5	7	3	8	94.65	1.0	6.56	0.0	0.0	0.3
24055234	JJ23263471-NODE	21778444-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.2	7	3	8	94.65	1.0	6.60	0.0	0.0	0.7
21984658	JJ23296725-NODE	FY1-PD	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	29.6	7	2	8	94.79	1.0	6.27	0.0	0.0	0.3
21686716	FY1-PD	21778221-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	61.2	7	2	8	94.78	1.0	6.26	0.0	0.0	0.7
22055704	JJ23296725-NODE	JJ23310181-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	249.8	166	56	175	94.75	7.3	6.66	0.0	0.0	3.1
22055660	JJ23310181-NODE	F3185-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	187.1	148	51	156	94.62	6.5	6.41	0.0	0.0	2.4
22055638	F3185-PD	JJ23310213-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	265.7	148	51	156	94.61	6.5	6.39	0.0	0.0	2.4
22055612	JJ23310213-NODE	FX65-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	3.2	148	51	156	94.60	6.5	6.37	0.0	0.0	2.4
22055600	FX65-PD	JJ23310225-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	6.2	148	51	156	94.60	6.5	6.37	0.0	0.0	2.4
22055681	JJ23310181-NODE	JJ23310185-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	207.8	18	5	19	95.05	0.8	8.58	0.0	0.0	0.8
21983065	JJ23310185-NODE	JJ23298731-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	404.3	15	4	15	95.26	0.6	8.75	0.0	0.0	0.7
21983023	JJ23298731-NODE	FY34-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	6.9	15	5	16	95.61	1.9	8.39	0.0	0.0	1.5
21983005	FY34-PD	JJ23298747-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	19.1	15	5	16	95.61	1.9	8.39	0.0	0.0	1.5
21985222	JJ23298731-NODE	23225207-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	23.3	0	0	0	0.00	0.0	115.28	0.0	0.0	0.0
24507816	JJ23310185-NODE	21874222-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	9.1	3	1	3	94.82	0.4	6.91	0.0	0.0	0.3
24652636	JJ23263427-NODE	22350687-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	8.2	7	3	8	94.65	1.0	6.66	0.0	0.0	0.7
22362982	JJ23308681-NODE	F541-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	36.1	51	16	53	95.34	6.7	7.42	0.0	0.0	5.1
22362977	F541-PD	JJ23308721-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	0.9	51	16	53	95.34	6.7	7.41	0.0	0.0	5.1
22362862	JJ23308861-NODE	F555-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	34.2	90	31	95	94.69	11.9	6.95	0.0	0.0	9.0
22362831	F555-PD	JJ23308889-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1.5	90	31	95	94.69	11.9	6.95	0.0	0.0	9.0
24646283	JJ23309055-NODE	22373947-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	11.0	15	5	15	94.74	1.9	6.54	0.0	0.0	1.5
22362712	S1955-PD	JJ23309135-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.9	13.800	45.4	1349	427	1415	95.34	59.0	8.03	0.0	0.1	25.2
22362639	JJ23309135-NODE	JJ23309281-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.9	13.800	99.2	150	48	157	95.26	6.6	7.59	0.0	0.0	7.0
22362644	JJ23309281-NODE	23232456-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.9	13.800	129.5	0	0	0	0.00	0.0	115.61	0.0	0.0	0.0
22362651	JJ23309281-NODE	F1647-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	17.2	150	48	157	95.28	19.7	7.57	0.0	0.0	15.0
22362662	JJ23309135-NODE	24154757-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.9	13.800	197.7	1199	379	1257	95.35	52.4	8.08	0.1	0.2	22.9
22394411	24154757-NODE	22373941-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	23.8	3	1	3	94.78	0.4	7.24	0.0	0.0	0.1
24154758	24154757-NODE	JJ23327227-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.9	13.800	199.4	1196	378	1254	95.36	52.3	8.08	0.1	0.2	22.8
22394380	JJ23327227-NODE	JJ23327255-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.9	13.800	197.9	1139	361	1195	95.33	49.8	8.01	0.1	0.2	20.1
22394347	JJ23327255-NODE	F2527-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	50.7	142	45	149	95.38	18.7	8.32	0.0	0.0	14.1
22394369	JJ23327255-NODE	JJ23327259-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.9	13.800	17.1	996	316	1045	95.32	43.6	7.96	0.0	0.0	18.2
22394337	JJ23327259-NODE	JJ23327329-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.9	13.800	379.2	855	272	897	95.29	37.4	7.96	0.1	0.2	14.7
22394293	JJ23327329-NODE	JJ23327407-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	391.6	809	258	849	95.29	35.4	7.94	0.1	0.2	14.0
22394143	JJ23327407-NODE	JJ23327655-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	148.8	719	228	755	95.32	31.4	8.00	0.0	0.1	12.7
22394114	JJ23327655-NODE	JJ23327697-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	14.5	570	180	598	95.34	24.9	7.98	0.0	0.0	12.7
21869535	JJ23327697-NODE	24149990-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	113.4	459	146	482	95.28	20.1	7.83	0.0	0.0	9.2
21869529	24149990-NODE	21907629-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	6.4	14	5	15	94.56	1.9	6.79	0.0	0.0	0.7
24149991	24149990-NODE	JJ23328015-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	160.2	445	141	467	95.30	19.5	7.86	0.0	0.0	9.2
22393891	JJ23328015-NODE	F996-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	39.6	322	103	338	95.27	14.1	7.88	0.0	0.0	7.3
22393959	JJ23328015-NODE	F1581-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	40.9	29	9	31	95.40	3.8	7.76	0.0	0.0	2.9
22393968	F1581-PD	JJ23327959-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1.6	29	9	31	95.40	3.8	7.75	0.0	0.0	2.9
22393976	JJ23328015-NODE	JJ23328017-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	325.4	93	29	98	95.37	4.1	7.80	0.0	0.0	3.7
22393874	JJ23328017-NODE	JJ23328125-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	163.7	79	26	83	95.03	3.5	7.30	0.0	0.0	3.7
22393866	JJ23328125-NODE	JJ23327825-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	350.5	46	15	48	95.20	2.0	7.65	0.0	0.0	2.1
22394045	JJ23327825-NODE	F1582-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	133.7	46	15	48	95.29	6.0	7.55	0.0	0.0	4.6
24149888	JJ23328125-NODE	22411962-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.8	33	11	35	94.87	4.4	6.77	0.0	0.0	3.3
22394064	JJ23328017-NODE	S1403-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	766.2	14	4	15	94.16	0.6	10.38	0.0	0.0	0.3

22351601	S1403-PD	JJ23295445-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	208.5	14	4	15	94.33	0.6	9.69	0.0	0.0	0.3
21815078	JJ23295445-NODE	24149849-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	665.7	7	2	7	91.47	0.3	10.23	0.0	0.0	0.3
22351605	24149849-NODE	23248096-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	1251.5	0	0	0	0.00	0.0	115.55	0.0	0.0	0.0
24149850	24149849-NODE	22360415-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	16.7	7	2	8	94.60	0.9	6.86	0.0	0.0	0.3
22311358	JJ23295445-NODE	26791288-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	570.3	7	2	7	94.11	0.3	8.76	0.0	0.0	0.3
23653268	26791288-NODE	21907664-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_800(	Overhead Line		13.800	17.6	7	2	7	95.12	0.9	7.71	0.0	0.0	0.3
26791345	26791288-NODE	23247579-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	13.7	0	0	0	0.00	0.0	115.55	0.0	0.0	0.0
22394094	JJ23327697-NODE	F1690-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	43.1	111	34	116	95.58	14.5	8.59	0.0	0.0	11.0
22394103	F1690-PD	JJ23327703-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.9	111	34	116	95.58	14.5	8.59	0.0	0.0	11.0
22394123	JJ23327655-NODE	F1405-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	44.3	149	48	157	95.26	19.6	8.07	0.0	0.0	14.9
22394133	F1405-PD	JJ23327643-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	12.0	149	48	157	95.26	19.6	8.07	0.0	0.0	14.9
22394284	JJ23327407-NODE	FT250-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	36.4	90	29	95	95.02	3.9	7.39	0.0	0.0	1.6
22394271	FT250-PD	JJ23327437-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.8	13.800	1.0	90	29	95	95.02	3.9	7.39	0.0	0.0	1.6
22394326	JJ23327329-NODE	FT251-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_138(	Overhead Line	13.9	13.800	45.8	45	14	48	95.49	2.0	8.28	0.0	0.0	0.8
22394422	JJ23327259-NODE	F1646-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	44.8	142	44	148	95.48	18.6	7.95	0.0	0.0	14.1
22394391	JJ23327227-NODE	F2526-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	42.4	57	17	59	96.00	7.4	9.55	0.0	0.0	5.6
22394402	F2526-PD	JJ23315029-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_800	Overhead Line		13.800	1.3	57	17	59	96.00	7.4	9.55	0.0	0.0	5.6
25484066	25622740-NODE	25484064-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.9	27.600	486.5	21060	6998	22192	94.87	442.3	-18.40	9.2	33.7	123.6
25948938	25484064-NODE	25948903-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.9	27.600	1000.6	21051	6965	22173	94.91	442.3	-18.40	18.8	69.4	123.6
25948904	25948903-NODE	S3304-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	2863.2	21032	6897	22134	94.99	442.3	-18.40	53.9	198.5	123.6
21686796	S3304-PD	JJ23263297-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.7	27.600	1507.4	20978	6701	22023	95.23	442.4	-18.41	28.4	104.5	123.6
22058097	JJ23263297-NODE	S3328-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	1514.1	20950	6598	21964	95.35	442.4	-18.41	28.5	105.0	123.6
22058092	S3328-PD	JJ23305719-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	41.5	20921	6495	21906	95.47	442.4	-18.42	0.8	2.9	123.6
22351341	JJ23305719-NODE	JJ23364209-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	160.7	20921	6492	21905	95.48	442.4	-18.42	3.0	11.1	123.6
21723427	JJ23364209-NODE	S3975-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	359.2	20710	6428	21685	95.48	438.1	-18.45	6.6	24.4	122.3
22288387	S3975-PD	JJ23524017-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	553.7	20703	6404	21671	95.50	438.1	-18.45	10.2	37.6	122.3
21779501	JJ23524017-NODE	FZ386-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	31.7	621	167	643	96.54	13.0	-16.43	0.0	0.0	3.9
21779493	FZ386-PD	JJ23524043-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	10.5	621	167	643	96.53	13.0	-16.43	0.0	0.0	3.9
21779525	JJ23524017-NODE	JJ23403605-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	172.2	20072	6200	21008	95.52	425.0	-18.51	3.0	11.0	118.4
22353240	JJ23403605-NODE	JJ23403611-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	1438.3	20069	6189	21002	95.53	425.1	-18.51	25.0	92.1	118.4
22353249	JJ23403611-NODE	24871209-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	9.4	20044	6098	20951	95.64	425.1	-18.51	0.2	0.6	118.4
25231552	24871209-NODE	25231551-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	62.7	20044	6098	20951	95.64	425.1	-18.51	1.1	4.0	118.4
22402591	25231551-NODE	F3944-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	12.5	449	99	459	97.66	28.0	-13.95	0.0	0.0	21.2
22402584	F3944-PD	JJ23441273-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.2	449	99	459	97.66	28.0	-13.95	0.0	0.0	21.2
25231541	25231551-NODE	25231540-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	9.4	19594	5995	20491	95.59	415.8	-18.62	0.2	0.6	118.4
22402576	25231540-NODE	F3945-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	8.4	312	53	316	98.61	19.2	-11.22	0.0	0.0	14.5
22402569	F3945-PD	JJ23441303-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.2	312	53	316	98.61	19.2	-11.22	0.0	0.0	14.5
25231525	25231540-NODE	25231524-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.5	27.600	12.8	19282	5942	20177	95.53	409.4	-18.73	0.2	0.8	117.5
22353230	25231524-NODE	JJ23404013-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	254.4	18789	5827	19672	95.48	399.2	-18.84	3.9	14.4	113.1
22353214	JJ23404013-NODE	F3837-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	18.8	62	14	63	97.51	3.8	-14.49	0.0	0.0	2.9
22353219	F3837-PD	JJ23404079-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.1	62	14	63	97.51	3.8	-14.50	0.0	0.0	2.9
22353235	JJ23404013-NODE	JJ23404011-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	188.7	18724	5799	19601	95.49	397.9	-18.85	2.9	10.6	113.1
22353227	JJ23404011-NODE	F3836-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	28.4	62	13	63	97.89	3.8	-13.50	0.0	0.0	2.9
22353223	F3836-PD	JJ23404049-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	1.9	62	13	63	97.89	3.8	-13.51	0.0	0.0	2.9
22366764	JJ23404011-NODE	25232804-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	481.3	18659	5776	19533	95.49	396.6	-18.87	7.3	26.8	113.1
22402616	25232804-NODE	F3943-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	42.2	404	88	413	97.69	25.2	-14.00	0.0	0.0	19.1
25232805	25232804-NODE	25232781-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	16.7	18248	5661	19106	95.47	388.2	-18.98	0.2	0.9	113.1
22401747	25232781-NODE	F3952-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	52.0	328	68	335	97.95	20.4	-13.41	0.0	0.0	15.5

25232782	25232781-NODE	25232753-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	15.0	17920	5592	18772	95.41	381.5	-19.07	0.2	0.8	113.1
22401705	25232753-NODE	F3953-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	69.6	312	54	316	98.53	19.2	-11.62	0.0	0.0	14.6
25232754	25232753-NODE	JJ23417357-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	6.9	17608	5538	18458	95.36	375.1	-19.20	0.1	0.3	107.8
25025928	JJ23417357-NODE	S4273-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	123.7	17608	5537	18458	95.36	375.1	-19.20	1.7	6.2	107.8
22366767	S4273-PD	JJ23523655-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	318.5	17606	5531	18454	95.36	375.1	-19.20	4.3	15.9	107.8
21779779	JJ23523655-NODE	JJ23523649-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	199.1	17539	5500	18381	95.38	373.8	-19.21	2.7	9.9	107.4
21779771	JJ23523649-NODE	S4101-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	14.9	2158	453	2205	97.85	44.9	-13.68	0.0	0.0	12.9
21779775	S4101-PD	JJ23523637-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	14.5	2158	453	2205	97.85	44.9	-13.68	0.0	0.0	12.9
21779783	JJ23523649-NODE	JJ23435761-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	165.2	15379	5037	16183	94.98	329.2	-19.97	1.7	6.4	95.7
22373779	JJ23435761-NODE	JJ23435729-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.4	27.600	182.0	15254	5001	16053	94.97	326.6	-20.00	1.9	6.9	95.7
22373738	JJ23435729-NODE	JJ23436111-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	692.3	15129	4965	15922	94.96	324.0	-20.04	7.0	25.9	95.7
22373728	JJ23436111-NODE	F3937-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	18.3	29	5	30	98.34	1.8	-12.48	0.0	0.0	1.4
22373731	F3937-PD	JJ23436169-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.2	29	5	30	98.34	1.8	-12.48	0.0	0.0	1.4
22373740	JJ23436111-NODE	JJ23436101-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	174.2	15092	4934	15879	95.00	323.4	-20.06	1.8	6.5	95.2
22373736	JJ23436101-NODE	F3936-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	18.7	88	11	88	99.22	5.4	-9.18	0.0	0.0	4.1
22373733	F3936-PD	JJ23436145-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	22.3	88	11	88	99.22	5.4	-9.19	0.0	0.0	4.1
22374704	JJ23436101-NODE	JJ23338453-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	189.9	15003	4917	15788	94.98	321.7	-20.12	1.9	7.0	93.7
22211977	JJ23338453-NODE	JJ23330985-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	392.4	13467	4555	14216	94.67	289.7	-20.68	3.2	11.7	87.3
22123732	JJ23330985-NODE	FV435-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	7.3	125	32	129	96.88	2.6	-16.35	0.0	0.0	0.8
22123719	FV435-PD	JJ23330999-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	19.3	125	32	129	96.88	2.6	-16.35	0.0	0.0	0.8
22123764	JJ23330985-NODE	S3303-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	179.4	13339	4512	14082	94.67	287.1	-20.72	1.4	5.3	86.6
24378827	S3303-PD	24378782-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	130.2	13338	4507	14079	94.68	287.1	-20.73	1.0	3.8	86.6
24378773	24378782-NODE	24378772-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	108.3	13296	4493	14034	94.68	286.2	-20.74	0.9	3.2	86.6
22247988	24378772-NODE	JJ23361045-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	165.6	13254	4480	13991	94.67	285.4	-20.76	1.3	4.8	86.6
22248001	JJ23361045-NODE	FV487-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	35.4	208	49	213	97.28	4.4	-15.43	0.0	0.0	1.3
22247979	FV487-PD	JJ23361083-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	2.9	208	49	213	97.28	4.4	-15.44	0.0	0.0	1.3
22292536	JJ23361045-NODE	JJ23378711-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	357.3	13045	4427	13775	94.63	281.1	-20.84	2.7	10.1	85.5
22292516	JJ23378711-NODE	FV518-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	31.0	125	31	129	97.02	2.6	-16.11	0.0	0.0	0.8
22292506	FV518-PD	JJ23378721-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	6.0	125	31	129	97.01	2.6	-16.12	0.0	0.0	0.8
22292547	JJ23378711-NODE	JJ23298685-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	317.0	12917	4386	13642	94.63	278.4	-20.89	2.4	8.8	84.8
24693203	JJ23298685-NODE	24693202-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	115.6	12915	4377	13637	94.64	278.4	-20.89	0.9	3.2	84.8
21983128	24693202-NODE	JJ23296711-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	465.7	12602	4292	13313	94.59	271.9	-20.99	3.3	12.3	83.1
22206566	JJ23296711-NODE	27269913-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.2	27.600	875.9	12184	4174	12879	94.53	263.1	-21.14	5.9	21.7	80.9
27269914	27269913-NODE	S3809-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.2	27.600	1335.6	12178	4164	12870	94.55	263.2	-21.18	9.0	33.1	80.9
22206587	S3809-PD	JJ23339709-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.2	27.600	661.6	12169	4133	12851	94.61	263.2	-21.19	4.4	16.4	80.9
22211382	JJ23339709-NODE	FU549-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.2	27.600	21.1	63	16	65	96.93	1.3	-16.66	0.0	0.0	0.4
22211366	FU549-PD	JJ23339729-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.2	27.600	4.0	63	16	65	96.93	1.3	-16.68	0.0	0.0	0.4
22211435	JJ23339709-NODE	S9-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.1	27.600	3027.6	12102	4101	12778	94.63	261.9	-21.22	20.2	74.4	80.6
21686794	S9-PD	JJ23263303-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.1	27.600	253.9	12081	4030	12736	94.78	261.9	-21.23	1.7	6.2	80.6
21686795	JJ23263303-NODE	S6-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.1	27.600	270.5	6294	2196	6666	94.23	137.2	-22.04	0.5	1.8	40.1
22140283	S6-PD	JJ23317991-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	1559.0	6294	2195	6665	94.23	137.2	-22.04	2.8	10.5	40.1
21912245	JJ23317991-NODE	JJ23558311-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	1249.6	6291	2186	6660	94.27	137.2	-22.05	2.3	8.4	40.1
21912231	JJ23558311-NODE	FU548-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	35.5	63	15	65	97.09	1.3	-16.74	0.0	0.0	0.4
24836753	FU548-PD	JJ23558327-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	19.2	63	15	65	97.08	1.3	-16.77	0.0	0.0	0.4
21912253	JJ23558311-NODE	L213-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	523.6	6226	2164	6591	94.27	135.9	-22.12	0.9	3.4	39.7
21914097	L213-PD	S3639-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	28.9	6225	2161	6589	94.28	135.9	-22.12	0.1	0.2	39.7
25370206	S3639-PD	25370205-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	26.1	6225	2161	6589	94.28	135.9	-22.12	0.0	0.2	39.7
21898709	25370205-NODE	S357-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	87.7	0	-3	3	0.00	0.1	87.03	0.0	0.0	0.0

21869430	S357-PD	JJ23554861-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	15.6	0	-3	3	0.00	0.1	87.03	0.0	0.0	0.0
21869445	JJ23554861-NODE	JJ23554907-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	21.3	0	0	0	0.00	0.0	87.03	0.0	0.0	0.0
21869436	JJ23554907-NODE	JJ23554913-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	76.4	0	0	0	0.00	0.0	87.03	0.0	0.0	0.0
21869439	JJ23554907-NODE	24836545-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	21.9	0	0	0	0.00	0.0	87.03	0.0	0.0	0.0
21869525	JJ23554861-NODE	23232464-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	2933.1	0	-3	3	0.00	0.1	87.03	0.0	0.0	0.0
25370221	25370205-NODE	S3635-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	10.1	6225	2164	6590	94.26	135.9	-22.15	0.0	0.1	39.7
25039136	S3635-PD	JJ23557491-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	14.9	6225	2164	6590	94.26	135.9	-22.15	0.0	0.1	39.7
22246602	JJ23263303-NODE	JJ23368063-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	5868.8	5786	1827	6067	95.35	124.8	-20.34	9.0	33.5	40.9
21721870	JJ23368063-NODE	S4031-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.0	27.600	1186.0	5777	1802	6051	95.45	124.9	-20.42	1.8	6.8	41.0
21721867	S4031-PD	JJ23338613-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.9	27.600	3873.0	5775	1797	6048	95.47	124.9	-20.43	6.0	22.1	41.0
22211847	JJ23338613-NODE	F3444-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	26.3	309	50	313	98.73	19.4	-12.88	0.0	0.0	14.7
24836887	F3444-PD	JJ23338683-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	21.7	309	50	313	98.73	19.4	-12.88	0.0	0.0	14.7
22211861	JJ23338613-NODE	S4587-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.9	27.600	2997.3	5460	1729	5727	95.33	118.5	-20.88	4.1	15.0	35.6
27134546	S4587-PD	JJ23263307-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.9	27.600	27.7	5456	1717	5720	95.38	118.5	-20.91	0.0	0.1	35.6
21686793	JJ23263307-NODE	24837104-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.8	27.600	1839.4	5456	1727	5723	95.33	118.6	-21.01	2.5	9.2	35.6
24837153	24837104-NODE	S4090-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.8	27.600	28.6	5168	1666	5430	95.17	112.6	-21.37	0.0	0.1	31.5
21754725	S4090-PD	S4023-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.7	27.600	10518.8	5168	1666	5430	95.17	112.6	-21.37	12.8	47.2	31.5
24837177	24837104-NODE	F3445-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	30.5	240	42	244	98.53	15.2	-13.85	0.0	0.0	11.5
22211878	F3445-PD	JJ23338597-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.3	240	42	244	98.53	15.2	-13.86	0.0	0.0	11.5
24837237	24837104-NODE	FAK85-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	38.9	45	12	46	96.71	2.9	-18.03	0.0	0.0	2.2
22124772	JJ23263307-NODE	S3669-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.9	27.600	1197.1	0	-10	10	0.00	0.2	86.58	0.0	0.0	0.1
24801064	S3669-PD	JJ23338481-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.9	27.600	27.8	0	-9	9	0.00	0.2	86.58	0.0	0.0	0.1
22211946	JJ23338481-NODE	23238696-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.9	27.600	19.3	0	0	0	0.00	0.0	86.58	0.0	0.0	0.0
24801137	JJ23338481-NODE	24801185-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.9	27.600	32.2	0	-9	9	0.00	0.2	86.58	0.0	0.0	0.1
22211920	24801185-NODE	JJ23338513-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.9	27.600	30.6	0	-9	9	0.00	0.2	86.58	0.0	0.0	0.1
22211891	JJ23338513-NODE	23238696-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.9	27.600	7.9	0	0	0	0.00	0.0	86.58	0.0	0.0	0.0
22211906	JJ23338513-NODE	JJ23263295-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	27.9	27.600	4.2	0	-9	9	0.00	0.2	86.58	0.0	0.0	0.1
21686797	JJ23263295-NODE	S17-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	20.5	0	-9	9	0.00	0.2	86.58	0.0	0.0	0.1
21990891	S17-PD	F13-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	9.3	0	-9	9	0.00	0.2	86.58	0.0	0.0	0.1
21820902	F13-PD	JJ23525939-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	74.9	0	-9	9	0.00	0.2	86.58	0.0	0.0	0.1
21820889	JJ23525939-NODE	S4141-PD	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	88.4	0	-3	3	0.00	0.1	86.58	0.0	0.0	0.0
21820878	S4141-PD	S4156-PD	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	390.4	0	-3	3	0.00	0.1	86.58	0.0	0.0	0.0
21820872	S4156-PD	FAH124-PD	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	39.0	0	-3	3	0.00	0.1	86.58	0.0	0.0	0.0
21820864	FAH124-PD	JJ23525995-NODE	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	1685.0	0	-3	3	0.00	0.1	86.58	0.0	0.0	0.0
21820897	JJ23525939-NODE	JJ23290961-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	421.9	0	-6	6	0.00	0.1	86.58	0.0	0.0	0.1
21990777	JJ23290961-NODE	S591-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	379.3	0	-3	3	0.00	0.1	86.58	0.0	0.0	0.0
21755625	S591-PD	JJ23503929-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	450.5	0	-2	2	0.00	0.1	86.58	0.0	0.0	0.0
21755622	JJ23503929-NODE	S2823-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	627.4	0	-2	2	0.00	0.0	86.58	0.0	0.0	0.0
21987116	S2823-PD	FAH76-PD	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	115.9	0	-2	2	0.00	0.0	86.58	0.0	0.0	0.0
21990764	FAH76-PD	24801504-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	82.7	0	-1	1	0.00	0.0	86.58	0.0	0.0	0.0
21990788	JJ23290961-NODE	JJ23290963-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	339.0	0	-2	2	0.00	0.0	86.58	0.0	0.0	0.0
21990864	JJ23290963-NODE	S587-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	60.7	0	-1	1	0.00	0.0	86.58	0.0	0.0	0.0
21990853	S587-PD	FAH25-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	105.4	0	-1	1	0.00	0.0	86.58	0.0	0.0	0.0
21990831	FAH25-PD	JJ23290859-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	36.2	0	-1	1	0.00	0.0	86.58	0.0	0.0	0.0
21990879	JJ23290963-NODE	S589-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	68.6	0	-1	1	0.00	0.0	86.58	0.0	0.0	0.0
21990840	S589-PD	FAH97-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	90.0	0	-1	1	0.00	0.0	86.58	0.0	0.0	0.0
21990810	FAH97-PD	JJ23290893-NODE	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	27.9	27.600	54.7	0	-1	1	0.00	0.0	86.58	0.0	0.0	0.0
22246612	JJ23368063-NODE	FX69-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	36.8	0	-2	2	0.00	0.1	87.14	0.0	0.0	0.1

22246610	FX69-PD	JJ23368077-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	0.6	0	-2	2	0.00	0.1	87.14	0.0	0.0	0.1
24708262	24693202-NODE	FU557-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.3	27.600	39.9	312	82	323	96.69	6.6	-16.91	0.0	0.0	5.4
24384064	24378772-NODE	F4130-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	24.8	41	9	42	97.62	2.6	-14.61	0.0	0.0	1.9
24384072	F4130-PD	24384071-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	1.5	41	9	42	97.62	2.6	-14.62	0.0	0.0	1.9
24384371	24378782-NODE	F4131-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	32.7	41	10	42	96.88	2.6	-16.41	0.0	0.0	2.0
24384377	F4131-PD	24384291-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.5	41	10	42	96.88	2.6	-16.42	0.0	0.0	2.0
22366592	JJ23338453-NODE	S3983-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	19.9	1534	355	1575	97.40	32.1	-15.02	0.0	0.0	11.0
22366589	S3983-PD	JJ23419151-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.3	27.600	14.5	1534	355	1575	97.40	32.1	-15.02	0.0	0.0	11.0
22373785	JJ23435729-NODE	F3934-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	21.6	123	30	127	97.20	7.7	-15.49	0.0	0.0	5.9
22373783	F3934-PD	JJ23435745-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.1	123	30	127	97.20	7.7	-15.49	0.0	0.0	5.9
24637417	JJ23435761-NODE	F3935-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	37.5	123	30	127	97.22	7.7	-15.43	0.0	0.0	5.9
24231055	JJ23523655-NODE	24231048-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_276	Overhead Line	28.4	27.600	10.9	62	16	64	96.86	1.3	-16.15	0.0	0.0	1.1
22402563	25231524-NODE	F3946-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	11.1	493	114	506	97.42	30.8	-14.70	0.0	0.0	23.3
22402556	F3946-PD	JJ23441333-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_160	Overhead Line		27.600	19.4	493	114	506	97.42	30.8	-14.70	0.0	0.0	23.3
22247551	JJ23364209-NODE	FZ29-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	50.0	208	53	214	96.88	4.3	-15.50	0.0	0.0	1.3
22247544	FZ29-PD	JJ23364219-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	28.6	27.600	2.3	208	53	214	96.88	4.3	-15.51	0.0	0.0	1.3
25622741	25622740-NODE	25964811-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	29.0	27.600	52.1	0	-1	1	0.00	0.0	89.99	0.0	0.0	0.0
25964803	JJ23331319-NODE	25964811-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	29.0	27.600	266.0	0	-1	1	0.00	0.0	89.99	0.0	0.0	0.0
22123526	JJ23331335-NODE	JJ23331319-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	29.0	27.600	72.0	0	0	0	0.00	0.0	89.99	0.0	0.0	0.0
27059153	S4560-PD	JJ23331335-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27(	Overhead Line	29.0	27.600	360.8	0	0	0	0.00	0.0	89.99	0.0	0.0	0.0

Load Flow - Summary Report (EAST F3)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK.sxst
Date	Tue Feb 07 2023
Time	13h36m44s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	1604.90	478.90	1674.83	95.82
Load used (Adjusted)	1604.89	478.85	1674.80	95.83
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**1604.89**	**478.85**	**1674.80**	**95.83**
Cable Capacitance	0.00	-1.35	1.35	0.00
Line Capacitance	0.00	-0.29	0.29	0.00
Total Shunt Capacitance	**0.00**	**-1.64**	**1.64**	**0.00**
Line Losses	4.87	10.56	11.63	41.86
Cable Losses	1.84	1.55	2.40	76.58
Transformer Load Losses	5.76	11.27	12.66	45.50
Transformer No-Load Losses	13.41	0.00	13.41	100.00
Total Losses	**25.87**	**23.38**	**34.87**	**74.19**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25027124	25026992-NODE	25027081-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.8	1631	501	1706	95.60	227.1	11.97	0.0	0.0	24.5
25617561	25027081-NODE	S2259-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	116.5	1631	501	1706	95.60	227.1	11.97	1.2	1.1	73.6
26678440	FL277-PD	JJ23281385-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	95.9	131	40	137	95.74	18.4	11.88	0.0	0.0	10.6
21883413	JJ23281385-NODE	TO FL277-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	227.5	131	40	137	95.73	18.4	11.86	0.0	0.0	10.6
21883457	S828-PD	JJ23281357-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	214.8	504	152	526	95.76	70.5	11.90	0.2	0.2	20.3
24904078	JJ23281357-NODE	S832-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	11.6	504	151	526	95.76	70.5	11.89	0.0	0.0	20.3
24904092	S832-PD	24904091-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.9	504	151	526	95.76	70.5	11.89	0.0	0.0	20.3
24904106	24904091-NODE	24904101-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	15.5	293	88	306	95.77	41.0	11.91	0.0	0.0	12.4
24904116	24904101-NODE	24904115-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	3.3	96	29	100	95.85	13.4	12.09	0.0	0.0	5.0
24904124	24904115-NODE	FC168-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	5.2	27	8	29	95.84	11.5	12.01	0.0	0.0	6.4
24904130	FC168-PD	24900206-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	9.0	27	8	29	95.84	11.5	12.00	0.0	0.0	6.4
24900207	24900206-NODE	TO FC168-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	336.6	27	8	29	95.84	11.5	12.00	0.0	0.0	6.4
24904136	24904115-NODE	FC169-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	4.7	42	12	43	96.00	17.4	12.47	0.0	0.0	9.7
24904142	FC169-PD	24932133-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	4.0	42	12	43	96.00	17.4	12.47	0.0	0.0	9.7
24932134	24932133-NODE	TO FC169-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	607.1	42	12	43	96.00	17.4	12.47	0.0	0.0	9.7
24904148	24904115-NODE	FC170-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	5.3	27	8	28	95.65	11.3	11.58	0.0	0.0	6.3
24904154	FC170-PD	24900381-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	8.7	27	8	28	95.65	11.3	11.58	0.0	0.0	6.3
24900382	24900381-NODE	TO FC170-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	811.8	27	8	28	95.64	11.3	11.58	0.0	0.0	6.3
24904168	24904101-NODE	FC167-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.2	197	60	206	95.73	27.6	11.82	0.0	0.0	8.2
24904174	FC167-PD	24828520-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	10.4	197	60	206	95.73	27.6	11.82	0.0	0.0	16.0
24828521	24828520-NODE	TO FC167-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	321.1	197	60	206	95.73	27.6	11.82	0.1	0.1	16.0
24904193	24904091-NODE	S2323-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.0	211	63	220	95.75	29.5	11.86	0.0	0.0	8.7
24904215	S2323-PD	S2324-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	48.9	211	63	220	95.75	29.5	11.86	0.0	0.0	8.7
24904236	S2324-PD	24904235-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.2	210	63	220	95.75	29.5	11.86	0.0	0.0	8.7
24904242	24904235-NODE	FC166-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.3	132	40	137	95.74	18.4	11.84	0.0	0.0	5.5
24904248	FC166-PD	24899824-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	10.4	132	40	137	95.74	18.4	11.84	0.0	0.0	10.7
24899825	24899824-NODE	TO FC166-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	239.0	132	40	137	95.74	18.4	11.84	0.0	0.0	10.7
24904268	24904235-NODE	24904267-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	15.3	79	24	82	95.76	11.1	11.88	0.0	0.0	3.3
24904286	24904267-NODE	FC171-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.2	79	24	82	95.76	11.1	11.87	0.0	0.0	3.3
24904292	FC171-PD	24899934-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	11.7	79	24	82	95.76	11.1	11.87	0.0	0.0	6.4
24899935	24899934-NODE	TO FC171-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	284.8	79	24	82	95.75	11.1	11.87	0.0	0.0	6.4
24904356	24904267-NODE	24904330-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.9	0	0	0	0.00	0.0	118.63	0.0	0.0	0.0
24817577	S780-PD	24817565-NODE	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	325.9	79	24	82	95.79	11.0	11.97	0.0	0.0	2.7
24817820	24817565-NODE	S1025-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	8.4	79	24	82	95.75	11.0	11.88	0.0	0.0	3.3
24817937	S1025-PD	24817928-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.0	79	24	82	95.75	11.0	11.88	0.0	0.0	3.3
24817929	24817928-NODE	24817900-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	15.4	0	0	0	0.00	0.0	118.64	0.0	0.0	0.0
24817901	24817900-NODE	24817839-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.7	0	0	0	0.00	0.0	118.64	0.0	0.0	0.0
24817919	24817900-NODE	25688769-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.4	0	0	0	0.00	0.0	118.64	0.0	0.0	0.0
25688770	25688769-NODE	24817918-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	10.1	0	0	0	0.00	0.0	118.64	0.0	0.0	0.0
24817945	24817928-NODE	FL324-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.7	79	24	82	95.74	11.0	11.86	0.0	0.0	3.3
24817953	FL324-PD	24817508-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	7.1	79	24	82	95.74	11.0	11.86	0.0	0.0	6.4
24817533	24817508-NODE	TO FL324-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	35.9	79	24	82	95.74	11.0	11.86	0.0	0.0	6.4
21883613	FL342-PD	TO FL342-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	279.3	79	24	82	95.77	11.0	12.02	0.0	0.0	6.4
24816456	24816437-NODE	24817605-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	211.1	0	0	0	0.00	0.0	119.01	0.0	0.0	0.0
24817887	24817605-NODE	24817839-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	10.1	0	0	0	0.00	0.0	119.01	0.0	0.0	0.0
21883795	JJ23280971-NODE	23174789-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	287.0	0	0	0	0.00	0.0	119.03	0.0	0.0	0.0

21942357	JJ23285337-NODE	TO F2691-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	172.8	55	16	57	95.82	23.0	12.16	0.0	0.0	12.8
21942817	TO F2691-PD	23174789-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	218.9	27	8	29	95.82	11.5	12.17	0.0	0.0	6.4
22103427	JJ23360375-NODE	23179729-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	459.4	27	8	28	95.61	11.2	11.67	0.0	0.0	6.2
26948329	JJ23362329-NODE	TO FK189-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	95.0	13	4	14	95.57	5.6	11.58	0.0	0.0	3.1
24567996	23644790-NODE	TO F1228-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	274.7	27	8	28	95.61	11.2	11.65	0.0	0.0	6.2
22103432	TO F1228-PD	23179729-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	156.9	0	0	0	0.00	0.0	118.70	0.0	0.0	0.0
21883901	S2259-PD	JJ23280939-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	5.8	1630	499	1704	95.61	227.1	11.97	0.0	0.1	91.6
21883642	JJ23280939-NODE	JJ23281243-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	378.5	847	260	886	95.59	118.0	11.94	0.8	2.0	43.8
22023494	JJ23281243-NODE	JJ23376211-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	135.1	806	246	843	95.64	112.5	11.93	0.3	0.6	41.8
22023466	JJ23376211-NODE	S3369-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	5.7	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22023450	S3369-PD	JJ23376259-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	35.1	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22023345	JJ23376259-NODE	JJ23376333-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	106.0	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22023275	JJ23376333-NODE	23623436-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	19.1	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22023324	JJ23376333-NODE	S3371-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	39.4	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22017014	S3371-PD	26251042-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	448.6	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
26251043	26251042-NODE	JJ23384047-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	3079.0	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22016817	JJ23384047-NODE	23237479-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	33.2	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22017001	JJ23384047-NODE	23237491-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	11.3	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22023421	JJ23376259-NODE	23237588-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	76.8	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22023483	JJ23376211-NODE	23623545-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	82.7	806	246	843	95.65	112.5	11.92	0.2	0.4	41.8
22018846	23623545-NODE	23237519-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	12.9	0	0	0	0.00	0.0	118.85	0.0	0.0	0.0
23623546	23623545-NODE	S21-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	189.2	806	245	842	95.67	112.5	11.92	0.4	0.9	41.8
22018833	S21-PD	23623701-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	19.7	805	244	842	95.69	112.5	11.92	0.0	0.1	41.8
21883636	23623701-NODE	21904930-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_240(	Overhead Line		4.160	35.9	4	1	4	95.87	1.7	12.24	0.0	0.0	0.6
23623702	23623701-NODE	JJ23281263-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	207.0	801	243	837	95.69	111.9	11.92	0.4	1.0	41.2
21942480	JJ23281263-NODE	JJ23287143-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	209.3	722	218	754	95.71	100.9	11.91	0.3	0.8	37.1
21942475	JJ23287143-NODE	26720204-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	105.5	715	216	746	95.74	99.9	11.91	0.2	0.4	36.1
26678111	26720204-NODE	FL277-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	9.5	131	40	137	95.74	18.4	11.88	0.0	0.0	6.8
26720225	26720204-NODE	JJ23281371-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	75.4	583	175	609	95.75	81.5	11.91	0.1	0.2	29.3
21883420	JJ23281371-NODE	S828-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	47.5	504	152	526	95.76	70.5	11.90	0.0	0.1	25.2
22023901	JJ23281371-NODE	S3308-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	9.0	79	24	82	95.79	11.0	11.98	0.0	0.0	4.1
22027502	S3308-PD	JJ23365229-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	180.9	79	24	82	95.79	11.0	11.98	0.0	0.0	4.1
22018882	JJ23365229-NODE	S780-PD	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	5.2	79	24	82	95.79	11.0	11.97	0.0	0.0	4.1
22027492	JJ23365229-NODE	23233660-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	162.5	0	0	0	0.00	0.0	118.65	0.0	0.0	0.0
23623777	JJ23287143-NODE	21991372-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.3	7	2	7	95.81	2.9	12.01	0.0	0.0	2.2
26678155	JJ23281263-NODE	FL342-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	26.4	79	24	82	95.77	11.0	12.02	0.0	0.0	4.1
24244070	JJ23281243-NODE	24244056-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	10.7	40	12	41	95.76	5.5	12.16	0.0	0.0	2.0
22684301	JJ23280939-NODE	JJ23281059-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	5.6	783	239	819	95.63	109.1	12.00	0.0	0.0	50.5
21883779	JJ23281059-NODE	S2332-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	68.3	25	7	26	95.56	3.5	13.06	0.0	0.0	3.7
21883774	S2332-PD	23643935-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	259.8	25	7	26	95.57	3.5	13.06	0.0	0.0	3.7
21883785	23643935-NODE	21905070-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_240(	Overhead Line		4.160	8.4	12	4	13	95.95	5.2	12.73	0.0	0.0	1.8
23643936	23643935-NODE	JJ23281051-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	327.3	12	4	13	95.22	1.7	13.36	0.0	0.0	1.8
23643959	JJ23281051-NODE	21905083-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.9	12	4	13	95.95	5.2	12.72	0.0	0.0	3.9
25346385	JJ23281051-NODE	24762461-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	116.3	0	0	0	0.00	0.0	119.01	0.0	0.0	0.0
24762462	24762461-NODE	24762460-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	114.0	0	0	0	0.00	0.0	119.01	0.0	0.0	0.0
24816390	24762460-NODE	S1023-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	30.5	0	0	0	0.00	0.0	119.01	0.0	0.0	0.0
24816438	S1023-PD	24816437-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	14.1	0	0	0	0.00	0.0	119.01	0.0	0.0	0.0
24816399	24762460-NODE	F2690-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.6	0	0	0	0.00	0.0	119.03	0.0	0.0	0.0

21883876	F2690-PD	JJ23280971-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.1	0	0	0	0.00	0.0	119.03	0.0	0.0	0.0
22684300	JJ23281059-NODE	S2307-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	101.8	758	232	793	95.61	105.7	11.96	0.2	0.5	50.5
21883768	S2307-PD	JJ23280955-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	24.6	758	232	792	95.63	105.7	11.96	0.0	0.1	50.5
21883888	JJ23280955-NODE	23233715-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	32.3	0	0	0	0.00	0.0	118.98	0.0	0.0	0.0
25434405	JJ23280955-NODE	JJ23281083-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	126.4	758	232	792	95.63	105.7	11.96	0.2	0.6	50.5
21943050	JJ23281083-NODE	JJ23285325-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	175.0	606	184	633	95.69	84.4	12.06	0.2	0.5	35.7
22024641	JJ23285325-NODE	JJ23374103-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	127.2	103	31	108	95.76	43.1	12.16	0.0	0.1	32.7
22021586	JJ23374103-NODE	JJ23377739-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	126.5	103	31	108	95.77	43.1	12.16	0.0	0.1	32.7
22021609	JJ23377739-NODE	23644078-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	540.6	76	23	79	95.78	31.7	12.15	0.1	0.1	24.0
21943032	23644078-NODE	21992980-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.1	21	6	22	95.80	8.6	12.12	0.0	0.0	6.5
23644079	23644078-NODE	F2691-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	98.5	55	16	57	95.82	23.0	12.16	0.0	0.0	17.5
21943038	F2691-PD	JJ23285337-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.4	55	16	57	95.82	23.0	12.16	0.0	0.0	17.5
25072213	JJ23377739-NODE	22086105-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.8	27	8	29	95.79	11.5	12.18	0.0	0.0	8.7
25434184	JJ23285325-NODE	JJ23285293-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	145.7	502	152	525	95.69	70.0	12.04	0.1	0.3	27.9
21943057	JJ23285293-NODE	F263-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	36.0	152	46	159	95.69	21.2	11.98	0.0	0.0	10.9
22020884	F263-PD	23644182-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	219.4	152	46	159	95.69	21.2	11.97	0.0	0.0	10.9
22024658	23644182-NODE	22086134-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_240(	Overhead Line		4.160	7.9	13	4	14	95.55	5.6	11.57	0.0	0.0	2.0
23644183	23644182-NODE	JJ23363787-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	327.3	139	42	145	95.71	19.3	12.01	0.0	0.0	9.0
22707496	JJ23363787-NODE	JJ23363789-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	109.9	99	30	103	95.70	13.8	11.97	0.0	0.0	7.0
21943069	JJ23363789-NODE	JJ23285309-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	113.8	20	6	21	95.55	8.4	11.54	0.0	0.0	6.4
21943063	JJ23285309-NODE	JJ23285315-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	99.5	0	0	0	0.00	0.0	118.69	0.0	0.0	0.0
23644210	JJ23285309-NODE	21993018-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.2	20	6	21	95.55	8.4	11.54	0.0	0.0	6.4
24238401	JJ23363789-NODE	24238367-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	14.9	79	24	82	95.74	11.0	12.07	0.0	0.0	4.1
24238421	JJ23363787-NODE	24238377-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	12.7	40	12	41	95.76	5.5	12.12	0.0	0.0	2.0
21943075	JJ23285293-NODE	JJ23285295-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	172.1	350	106	366	95.71	48.8	12.06	0.1	0.2	20.7
22018020	JJ23285295-NODE	JJ23381261-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	340.2	350	106	365	95.71	48.8	12.03	0.1	0.3	20.7
22018009	JJ23381261-NODE	JJ23353407-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	148.3	336	101	351	95.73	46.9	12.05	0.1	0.1	20.7
22684390	JJ23353407-NODE	JJ23285215-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	192.9	257	78	268	95.74	35.9	12.05	0.0	0.1	17.0
21943087	JJ23285215-NODE	F2027-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	27.5	92	28	96	95.71	12.9	11.93	0.0	0.0	6.0
21943080	F2027-PD	JJ23285235-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	324.3	92	28	96	95.71	12.9	11.93	0.0	0.0	6.0
21943093	JJ23285235-NODE	JJ23285237-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	84.2	13	4	14	95.54	1.9	11.49	0.0	0.0	2.0
21943098	JJ23285237-NODE	21993091-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	114.5	13	4	14	95.55	5.6	11.48	0.0	0.0	4.3
24243241	JJ23285235-NODE	24243219-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	16.6	79	24	82	95.74	11.0	12.00	0.0	0.0	4.1
21943105	JJ23285215-NODE	JJ23285217-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	548.0	165	49	172	95.77	23.0	12.12	0.1	0.2	13.4
21943111	JJ23285217-NODE	23644399-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	195.2	86	26	89	95.83	12.0	12.21	0.0	0.0	9.7
22707942	23644399-NODE	21993122-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_240(	Overhead Line		4.160	27.4	7	2	7	95.81	2.9	12.19	0.0	0.0	1.0
23644400	23644399-NODE	25433511-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	168.8	79	23	82	95.83	11.0	12.20	0.0	0.0	9.7
25433512	25433511-NODE	JJ23285137-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	184.3	59	18	61	95.84	8.2	12.23	0.0	0.0	8.7
22707939	JJ23285137-NODE	JJ23285143-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	152.3	59	17	61	95.85	8.2	12.23	0.0	0.0	8.7
21943116	JJ23285143-NODE	JJ23285129-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	0.0	59	17	61	95.87	8.2	12.23	0.0	0.0	8.7
21943136	JJ23285129-NODE	F2026-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.8	59	17	61	95.87	24.7	12.23	0.0	0.0	18.7
21943129	F2026-PD	23644505-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	193.7	59	17	61	95.87	24.7	12.23	0.0	0.0	18.7
21943140	23644505-NODE	21993183-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.7	6	2	7	95.96	2.6	12.41	0.0	0.0	2.0
23644506	23644505-NODE	23644547-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	599.7	53	16	55	95.86	22.1	12.20	0.1	0.1	16.7
21943146	23644547-NODE	21993218-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.7	6	2	7	95.96	2.6	12.36	0.0	0.0	2.0
23644548	23644547-NODE	F1706-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	1949.8	46	14	48	95.88	19.4	12.18	0.1	0.2	14.7
22707925	F1706-PD	JJ23361167-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	192.1	46	14	48	95.94	19.4	12.17	0.0	0.0	14.7
22707929	JJ23361167-NODE	JJ23276347-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	183.3	34	10	35	95.95	14.2	12.17	0.0	0.0	10.7

21826000	JJ23276347-NODE	FK117-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.4	25	7	26	95.93	10.5	12.13	0.0	0.0	7.9
21825983	FK117-PD	21879968-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	783.8	25	7	26	95.93	10.5	12.12	0.0	0.0	7.9
25072138	JJ23276347-NODE	25072137-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	547.3	9	3	9	96.01	3.7	12.29	0.0	0.0	2.8
21826015	25072137-NODE	JJ23276333-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	349.0	6	2	7	95.98	2.6	12.21	0.0	0.0	2.0
21826028	JJ23276333-NODE	21880004-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	565.4	6	2	7	95.97	2.6	12.19	0.0	0.0	2.0
25072127	25072137-NODE	21879989-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.9	3	1	3	96.09	1.1	12.45	0.0	0.0	0.8
22708248	JJ23361167-NODE	22713717-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.7	12	4	13	95.95	5.2	12.16	0.0	0.0	4.0
25433520	25433511-NODE	24243354-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	27.5	20	6	21	95.80	2.8	12.11	0.0	0.0	1.0
24243326	JJ23285217-NODE	24243314-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	29.8	79	24	82	95.75	11.0	12.01	0.0	0.0	4.1
24243283	JJ23353407-NODE	24243270-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	36.1	79	24	82	95.75	11.0	12.06	0.0	0.0	4.1
23644255	JJ23381261-NODE	22085458-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.1	13	4	14	95.55	5.6	11.53	0.0	0.0	4.3
24242867	JJ23285295-NODE	24242854-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	10.2	1	0	1	100.00	0.1	28.90	0.0	0.0	0.0
23641065	JJ23281083-NODE	21905055-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	34.0	27	8	28	95.55	11.2	11.65	0.0	0.0	8.5
25434394	JJ23281083-NODE	F272-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	46.2	125	39	131	95.51	52.5	11.57	0.0	0.0	39.8
22708473	F272-PD	JJ23360325-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	449.8	125	39	131	95.52	52.5	11.57	0.2	0.3	39.8
22708459	JJ23360325-NODE	F2981-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	14.0	27	8	28	95.61	11.2	11.67	0.0	0.0	8.5
22708463	F2981-PD	JJ23360375-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	21.9	27	8	28	95.61	11.2	11.67	0.0	0.0	8.5
22708468	JJ23360325-NODE	JJ23360311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	42.5	98	30	103	95.55	41.3	11.55	0.0	0.0	31.3
22707920	JJ23360311-NODE	JJ23362309-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.6	40	12	42	95.59	16.9	11.63	0.0	0.0	12.8
22707903	JJ23362309-NODE	FK189-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	35.4	13	4	14	95.57	5.6	11.59	0.0	0.0	4.3
22707900	FK189-PD	JJ23362329-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	32.3	13	4	14	95.57	5.6	11.58	0.0	0.0	4.3
22707916	JJ23362309-NODE	F1228-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	14.2	27	8	28	95.60	11.2	11.65	0.0	0.0	8.5
23644799	F1228-PD	23644790-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	21.7	27	8	28	95.60	11.2	11.65	0.0	0.0	8.5
22708480	JJ23360311-NODE	JJ23360313-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	120.2	58	18	61	95.52	24.4	11.49	0.0	0.0	18.5
22178910	JJ23360313-NODE	24588968-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	389.4	45	14	47	95.52	18.8	11.48	0.0	0.0	14.2
24588969	24588968-NODE	22224941-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.9	45	14	47	95.53	18.8	11.47	0.0	0.0	14.2
23644874	JJ23360313-NODE	21905039-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.6	13	4	14	95.55	5.6	11.53	0.0	0.0	4.3

Load Flow - Summary Report (HARV F2)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK.sxst
Date	Tue Feb 07 2023
Time	13h26m17s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	1569.22	597.55	1679.14	93.45
Load used (Adjusted)	1568.98	596.89	1678.68	93.46
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**1568.98**	**596.89**	**1678.68**	**93.46**
Cable Capacitance	0.00	-0.55	0.55	0.00
Line Capacitance	0.00	-0.19	0.19	0.00
Total Shunt Capacitance	**0.00**	**-0.74**	**0.74**	**0.00**
Line Losses	33.08	77.77	84.51	39.14
Cable Losses	3.39	3.14	4.62	73.40
Transformer Load Losses	5.68	11.26	12.61	45.01
Transformer No-Load Losses	12.70	0.00	12.70	100.00
Total Losses	**54.84**	**92.17**	**107.25**	**51.14**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25012250	25012052-NODE	25012221-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.5	1624	688	1764	92.07	235.0	6.26	0.0	0.0	24.8
24559104	25012221-NODE	JJ23336305-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	49.5	1624	688	1764	92.07	235.0	6.26	0.5	0.5	74.4
22133401	JJ23320081-NODE	TO F907-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	96.6	35	14	38	93.21	15.4	7.19	0.0	0.0	8.5
24560945	TO F907-PD	23179454-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	312.2	24	9	25	93.22	10.2	7.20	0.0	0.0	5.7
24560963	JJ23320067-NODE	TO F908-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	311.6	47	18	51	93.22	20.5	7.12	0.0	0.0	11.4
24560957	TO F908-PD	TO TX D505-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	254.7	24	9	25	93.23	10.3	7.13	0.0	0.0	5.7
24560951	23179454-NODE	TO TX D505-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	139.6	0	0	0	0.01	0.0	118.35	0.0	0.0	0.0
22142166	JJ23311957-NODE	JJ23311955-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	389.2	1269	495	1362	93.16	187.5	6.08	2.7	2.5	54.7
22036355	JJ23551599-NODE	TO FD704-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	53.7	73	28	78	93.36	10.7	6.30	0.0	0.0	6.2
22181559	JJ23556789-NODE	TO FD731-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	97.8	121	46	129	93.33	17.9	6.13	0.0	0.0	10.3
25094621	FD782-PD	TO FD782-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	111.7	121	46	129	93.33	17.9	6.16	0.0	0.0	13.2
22142276	JJ23311813-NODE	TO F2058-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	123.7	109	42	117	93.39	16.2	6.14	0.0	0.0	9.3
24560182	TO F2058-PD	TO TX D327-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	25.0	73	28	78	93.36	10.8	6.09	0.0	0.0	6.2
22142343	JJ23311749-NODE	TO FD323-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	38.6	72	28	78	93.35	10.8	5.98	0.0	0.0	6.2
22142393	JJ23311697-NODE	TO FD492-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	13.6	72	28	78	93.34	10.8	5.92	0.0	0.0	6.2
26948623	JJ23472031-NODE	TO FD359-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	154.2	72	28	78	93.36	10.8	5.94	0.0	0.0	6.2
24559964	24559955-NODE	TO FD568-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	13.4	72	28	78	93.35	10.7	6.26	0.0	0.0	3.2
22181447	JJ23320785-NODE	TO F494-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	239.1	73	27	77	93.86	32.3	6.45	0.1	0.0	18.0
24560409	TO F494-PD	TO TX D491-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	51.8	48	18	52	93.85	21.5	6.44	0.0	0.0	12.0
24560417	TO TX D491-PD	23178514-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	197.4	24	9	26	93.86	10.8	6.46	0.0	0.0	6.0
22180826	JJ23336305-NODE	S813-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	37.9	1623	688	1763	92.08	235.0	6.26	0.3	0.8	92.6
22180848	S813-PD	S68-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	356.9	1623	687	1762	92.09	235.0	6.26	3.1	7.4	92.6
22180855	S68-PD	S563-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	494.0	1620	680	1757	92.21	235.0	6.26	4.4	10.3	92.6
22041329	S563-PD	JJ23541547-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	155.0	1615	669	1749	92.38	235.0	6.26	1.4	3.2	92.6
22696805	JJ23541547-NODE	27266129-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	578.0	1542	638	1668	92.39	224.6	6.19	4.7	11.0	88.9
22133449	27266129-NODE	F907-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	95.9	35	14	38	93.20	15.4	7.19	0.0	0.0	11.6
22133461	F907-PD	JJ23320081-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	19.2	35	14	38	93.21	15.4	7.19	0.0	0.0	11.6
27266130	27266129-NODE	27266141-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	207.3	1502	614	1622	92.57	219.5	6.17	1.6	3.8	88.9
22133436	27266141-NODE	F908-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	21.5	47	18	51	93.22	20.5	7.13	0.0	0.0	15.5
22133474	F908-PD	JJ23320067-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	19.0	47	18	51	93.22	20.5	7.13	0.0	0.0	15.5
27266142	27266141-NODE	S564-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	211.9	1453	592	1568	92.62	212.6	6.14	1.6	3.7	88.9
26935075	S564-PD	JJ23541549-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	13.2	1451	588	1566	92.68	212.6	6.14	0.1	0.2	88.9
22133500	JJ23541549-NODE	23240084-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	30.9	0	0	0	0.03	0.0	117.87	0.0	0.0	0.0
22133638	JJ23541549-NODE	26935074-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	280.5	1451	588	1565	92.69	212.6	6.14	2.1	4.9	88.9
26788448	26935074-NODE	JJ23319735-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	345.9	1449	583	1562	92.78	212.6	6.14	2.5	6.0	88.9
22132821	JJ23319735-NODE	JJ23320875-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	510.1	1446	577	1557	92.89	212.6	6.14	3.7	8.9	88.9
22133596	JJ23320875-NODE	JJ23319879-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	101.9	1430	563	1537	93.05	210.8	6.13	0.7	1.7	88.9
22133584	JJ23319879-NODE	F2430-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	30.2	48	18	52	93.80	21.4	6.71	0.0	0.0	16.2
24559522	F2430-PD	24559521-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	110.1	48	18	52	93.81	21.4	6.71	0.0	0.0	16.2
22133551	24559521-NODE	24559511-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	268.2	36	13	39	93.81	16.0	6.71	0.0	0.0	12.2
22133522	24559511-NODE	F282-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	388.3	24	9	26	93.81	10.7	6.70	0.0	0.0	8.1
22133535	F282-PD	JJ23319999-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	3.6	24	9	26	93.82	10.7	6.69	0.0	0.0	8.1
22133510	JJ23319999-NODE	24559487-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	300.5	24	9	26	93.81	10.7	6.69	0.0	0.0	8.1
22133486	24559487-NODE	23240084-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	50.2	0	0	0	0.05	0.0	116.96	0.0	0.0	0.0
24559488	24559487-NODE	22174791-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.1	24	9	26	93.82	10.7	6.69	0.0	0.0	8.1
22133624	JJ23319999-NODE	JJ23319857-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	333.2	0	0	0	0.05	0.0	116.98	0.0	0.0	0.0

24559512	24559511-NODE	22174816-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.1	12	4	13	93.82	5.3	6.72	0.0	0.0	4.1
22133569	24559521-NODE	22174834-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	6.8	12	4	13	93.82	5.3	6.73	0.0	0.0	4.0
22133610	JJ23319879-NODE	JJ23319871-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	362.9	1381	543	1484	93.05	203.7	6.11	2.4	5.7	81.3
22133763	JJ23319871-NODE	S667-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	11.7	1269	497	1363	93.12	187.5	6.08	0.1	0.2	68.0
22133749	S667-PD	JJ23311957-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	124.5	1269	497	1363	93.12	187.5	6.08	0.7	1.6	68.0
22142156	JJ23311955-NODE	S188-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	25.3	1266	493	1358	93.19	187.5	6.07	0.1	0.3	68.0
22036366	S188-PD	JJ23551589-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	86.7	1266	492	1358	93.20	187.5	6.07	0.5	1.1	68.0
22036344	JJ23551589-NODE	FD704-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	14.4	73	28	78	93.36	10.7	6.30	0.0	0.0	3.9
22036334	FD704-PD	JJ23551599-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	6.3	73	28	78	93.36	10.7	6.30	0.0	0.0	3.9
22036376	JJ23551589-NODE	JJ23502009-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	47.1	1193	463	1280	93.21	176.8	6.06	0.2	0.5	64.2
22588915	JJ23502009-NODE	JJ23551603-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	145.7	1120	435	1202	93.22	166.1	6.04	0.6	1.5	60.4
22036312	JJ23551603-NODE	JJ23312963-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	8.1	1114	431	1194	93.25	165.2	6.04	0.0	0.1	60.4
22140502	JJ23312963-NODE	25386031-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	126.4	262	101	281	93.33	38.9	6.15	0.0	0.1	14.6
25386032	25386031-NODE	24560016-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	267.0	142	54	152	93.35	21.0	6.15	0.0	0.0	8.3
22181566	24560016-NODE	JJ23556783-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	188.7	130	50	139	93.31	19.2	6.14	0.0	0.0	7.5
22181551	JJ23556783-NODE	FD731-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	26.6	121	46	129	93.33	17.9	6.13	0.0	0.0	6.6
22181545	FD731-PD	JJ23556789-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	1.9	121	46	129	93.33	17.9	6.13	0.0	0.0	6.6
22181576	JJ23556783-NODE	24560075-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	278.0	9	3	10	93.14	1.3	6.19	0.0	0.0	1.4
22142143	24560075-NODE	23240451-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	119.8	0	0	0	0.03	0.0	117.19	0.0	0.0	0.0
24560076	24560075-NODE	22176908-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	6.5	9	3	10	93.19	3.9	6.14	0.0	0.0	3.0
24560017	24560016-NODE	22176942-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	8.3	12	4	13	93.82	5.4	6.23	0.0	0.0	4.1
25386040	25386031-NODE	FD782-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	11.1	121	46	129	93.33	17.9	6.16	0.0	0.0	6.6
22140524	JJ23312963-NODE	23240463-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	139.9	0	0	0	0.03	0.0	117.23	0.0	0.0	0.0
22140542	JJ23312963-NODE	S429-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	70.4	851	330	913	93.23	126.3	6.01	0.2	0.4	46.2
22142249	S429-PD	JJ23311913-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	125.5	851	330	913	93.24	126.3	6.01	0.3	0.7	46.2
22142196	JJ23311913-NODE	JJ23311903-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	74.5	778	301	834	93.26	115.5	5.99	0.2	0.4	42.3
22142208	JJ23311903-NODE	JJ23311861-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	36.2	760	294	815	93.27	112.8	5.99	0.1	0.2	41.3
22142236	JJ23311861-NODE	JJ23311793-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	193.8	723	280	776	93.27	107.5	5.98	0.4	0.8	39.3
22044057	JJ23311793-NODE	22108293-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	81.8	6	2	7	93.18	2.8	6.25	0.0	0.0	2.1
22142301	JJ23311793-NODE	F2058-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	4.3	109	42	117	93.39	16.2	6.14	0.0	0.0	5.9
22142289	F2058-PD	JJ23311813-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	19.2	109	42	117	93.39	16.2	6.14	0.0	0.0	5.9
22142313	JJ23311793-NODE	JJ23311783-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	159.9	608	235	652	93.28	90.3	5.95	0.2	0.5	33.4
22142327	JJ23311783-NODE	JJ23311725-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	141.3	571	220	612	93.30	85.0	5.94	0.2	0.4	31.5
22142379	JJ23311725-NODE	JJ23508429-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	111.5	544	210	583	93.31	80.9	5.93	0.1	0.3	30.0
22142367	JJ23508429-NODE	FD323-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	22.2	72	28	78	93.35	10.8	5.99	0.0	0.0	3.9
22142353	FD323-PD	JJ23311749-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	1.0	72	28	78	93.35	10.8	5.98	0.0	0.0	3.9
22585600	JJ23508429-NODE	JJ23508427-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	123.9	471	181	505	93.32	70.1	5.92	0.1	0.2	26.2
22217073	JJ23508427-NODE	S4070-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	30.5	399	153	427	93.33	59.3	5.91	0.0	0.0	22.4
22217088	S4070-PD	JJ23508439-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	92.3	399	153	427	93.33	59.3	5.91	0.1	0.1	22.4
22585576	JJ23508439-NODE	JJ23508437-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	94.0	278	107	298	93.35	41.4	5.91	0.0	0.1	16.0
22585586	JJ23508437-NODE	JJ23311669-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	101.8	272	104	291	93.34	40.5	5.91	0.0	0.1	15.0
22142422	JJ23311669-NODE	FD492-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	21.2	72	28	78	93.34	10.8	5.92	0.0	0.0	4.0
22142407	FD492-PD	JJ23311697-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	3.6	72	28	78	93.34	10.8	5.92	0.0	0.0	4.0
22142434	JJ23311669-NODE	JJ23492277-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	115.3	199	77	213	93.35	29.7	5.91	0.0	0.0	11.2
22540553	JJ23492277-NODE	24560333-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	125.1	79	30	84	93.40	11.7	5.95	0.0	0.0	4.8
22540556	24560333-NODE	JJ23492237-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	7.9	72	28	78	93.36	10.8	5.94	0.0	0.0	4.0
22518832	JJ23492237-NODE	FD359-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	82.2	72	28	78	93.36	10.8	5.94	0.0	0.0	4.0

24560351	FD359-PD	JJ23472031-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	19.2	72	28	78	93.36	10.8	5.94	0.0	0.0	4.0
22540559	JJ23492237-NODE	23253447-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	129.5	0	0	0	0.03	0.0	116.95	0.0	0.0	0.0
24560334	24560333-NODE	22578057-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	8.1	6	2	6	93.85	2.7	5.97	0.0	0.0	2.1
24226279	JJ23492277-NODE	24226253-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	11.9	121	46	129	93.32	18.0	5.88	0.0	0.0	6.6
24560299	JJ23508437-NODE	22606881-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.4	6	2	6	93.85	2.7	6.00	0.0	0.0	2.1
24226335	JJ23508439-NODE	24226307-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	12.4	121	46	129	93.32	18.0	5.91	0.0	0.0	6.6
24228036	JJ23508427-NODE	24228019-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	8.4	72	28	78	93.36	10.8	5.98	0.0	0.0	3.9
24226389	JJ23311725-NODE	24226378-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	10.2	27	10	29	93.40	4.1	6.09	0.0	0.0	1.5
24226452	JJ23311783-NODE	24226438-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	9.5	36	14	39	93.37	5.4	6.07	0.0	0.0	2.0
24226518	JJ23311861-NODE	24226493-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	7.9	36	14	39	93.37	5.4	6.15	0.0	0.0	2.0
22142224	JJ23311903-NODE	24560135-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	254.0	18	7	20	93.45	2.7	6.29	0.0	0.0	1.0
24225752	JJ23311913-NODE	24225729-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	9.3	72	28	78	93.36	10.7	6.17	0.0	0.0	3.9
24286025	JJ23551603-NODE	24286015-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	10.4	6	2	6	93.18	2.6	6.18	0.0	0.0	2.0
22588923	JJ23502009-NODE	FD568-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	30.5	72	28	78	93.35	10.7	6.26	0.0	0.0	3.9
24559956	FD568-PD	24559955-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	0.6	72	28	78	93.35	10.7	6.26	0.0	0.0	3.9
22540962	JJ23319871-NODE	F2001-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	27.2	25	10	27	93.15	11.0	6.57	0.0	0.0	8.4
22133723	F2001-PD	24559786-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	91.8	25	10	27	93.15	11.0	6.57	0.0	0.0	8.4
22133733	24559786-NODE	22174982-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	470.8	25	10	27	93.15	11.0	6.57	0.0	0.0	8.4
22540965	JJ23319871-NODE	F538-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	98.3	84	31	90	93.79	37.4	6.46	0.0	0.0	28.3
22133779	F538-PD	24560369-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	376.3	84	31	90	93.79	37.4	6.46	0.1	0.1	28.3
22132929	24560369-NODE	26572053-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	110.2	73	27	78	93.82	32.3	6.45	0.0	0.0	24.5
26572062	26572053-NODE	F494-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	421.5	73	27	78	93.83	32.3	6.45	0.1	0.1	24.5
22132945	F494-PD	JJ23320785-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	6.0	73	27	77	93.86	32.3	6.45	0.0	0.0	24.5
24560370	24560369-NODE	22175011-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	8.2	11	4	12	93.84	5.1	6.48	0.0	0.0	3.9
24559546	JJ23320875-NODE	22174849-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	11.0	12	5	13	93.16	5.5	6.78	0.0	0.0	4.2
22133679	JJ23319735-NODE	23240100-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	28.4	0	0	0	0.02	0.0	117.92	0.0	0.0	0.0
24228278	JJ23541547-NODE	24228259-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	18.4	73	28	78	93.37	10.5	7.72	0.0	0.0	3.8

Load Flow - Summary Report (HOWD F3)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK.sxst
Date	Mon Feb 06 2023
Time	16h00m30s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	362.24	130.07	384.88	94.12
Load used (Adjusted)	362.22	130.06	384.87	94.12
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**362.22**	**130.06**	**384.87**	**94.12**
Cable Capacitance	0.00	-0.03	0.03	0.00
Line Capacitance	0.00	-0.43	0.43	0.00
Total Shunt Capacitance	**0.00**	**-0.46**	**0.46**	**0.00**
Line Losses	6.72	16.43	17.75	37.86
Cable Losses	0.04	0.03	0.05	76.54
Transformer Load Losses	1.23	1.99	2.33	52.59
Transformer No-Load Losses	4.99	0.00	4.99	100.00
Total Losses	**12.98**	**18.45**	**22.56**	**57.53**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25013888	25013550-NODE	25013829-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.1	375	148	403	93.02	53.6	7.86	0.0	0.0	11.8
24181920	25013829-NODE	JJ23283531-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	51.6	375	148	403	93.02	53.6	7.86	0.0	0.0	23.6
21911347	JJ23283531-NODE	S2187-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	7.2	375	148	403	93.02	53.6	7.86	0.0	0.0	29.4
23636640	S2187-PD	23636629-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	15.0	375	148	403	93.02	53.6	7.86	0.0	0.0	29.4
24566259	23636629-NODE	JJ23283549-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	105.9	375	148	403	93.02	53.6	7.86	0.1	0.2	29.4
21911171	JJ23283549-NODE	26609945-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	210.4	375	148	403	93.03	53.6	7.85	0.1	0.3	29.4
25071177	26609945-NODE	JJ23283715-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	605.7	375	148	403	93.06	53.6	7.85	0.4	0.9	29.4
21910744	JJ23283715-NODE	25370444-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	125.8	375	147	402	93.12	53.6	7.85	0.1	0.2	29.4
21910734	25370444-NODE	S1243-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	91.1	375	146	402	93.14	53.6	7.85	0.1	0.1	29.4
21910823	S1243-PD	23636694-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	186.7	374	146	402	93.15	53.6	7.85	0.1	0.3	29.4
21910842	23636694-NODE	21924442-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.2	5	2	5	93.08	2.0	7.88	0.0	0.0	0.7
23636695	23636694-NODE	S475-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	327.9	370	144	397	93.17	52.9	7.85	0.2	0.5	29.4
21910852	S475-PD	JJ23283565-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	45.5	370	144	396	93.20	52.9	7.85	0.0	0.1	29.4
21911296	JJ23283565-NODE	JJ23283567-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	87.9	48	18	51	93.33	6.8	8.35	0.0	0.0	3.5
21911264	JJ23283567-NODE	JJ23283609-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	189.7	48	18	51	93.33	6.8	8.35	0.0	0.0	3.5
21911235	JJ23283609-NODE	JJ23283627-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	1076.1	32	12	34	93.45	4.5	8.59	0.0	0.0	2.7
22088002	JJ23283627-NODE	22163604-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	758.2	10	4	11	92.86	4.3	7.84	0.0	0.0	3.3
24242634	JJ23283627-NODE	24242620-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	11.9	22	8	23	93.70	3.1	8.88	0.0	0.0	1.1
21943192	JJ23283609-NODE	F2061-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	5.6	16	6	17	93.09	6.8	7.86	0.0	0.0	5.1
21943185	F2061-PD	24062141-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	174.4	16	6	17	93.09	6.8	7.86	0.0	0.0	5.1
21911246	24062141-NODE	21924872-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	11.5	2	1	2	93.37	0.8	8.31	0.0	0.0	0.6
24062142	24062141-NODE	24062161-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	226.2	14	5	15	93.05	6.0	7.79	0.0	0.0	4.5
21911255	24062161-NODE	21924890-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	13.9	9	4	10	93.03	4.0	7.76	0.0	0.0	3.0
24062162	24062161-NODE	21924905-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	164.8	5	2	5	93.08	2.0	7.84	0.0	0.0	1.5
22225803	JJ23283565-NODE	23636729-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	736.4	322	125	345	93.19	46.1	7.77	0.4	1.0	28.3
23636738	23636729-NODE	21924460-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.4	3	1	3	93.03	1.3	8.14	0.0	0.0	1.0
27018478	23636729-NODE	JJ23442897-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	306.4	318	123	341	93.27	45.7	7.77	0.2	0.4	28.3
22225818	JJ23442897-NODE	JJ23442899-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	200.9	318	123	341	93.30	45.7	7.77	0.1	0.3	28.3
22225811	JJ23442899-NODE	23636761-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	274.5	318	122	341	93.33	45.7	7.77	0.1	0.4	28.3
21910870	23636761-NODE	21924478-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	6.8	5	2	5	93.07	2.0	7.80	0.0	0.0	0.7
23636762	23636761-NODE	JJ23284087-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	305.6	313	120	336	93.36	45.0	7.77	0.2	0.4	28.3
21910881	JJ23284087-NODE	JJ23284061-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	140.7	313	120	335	93.39	45.0	7.76	0.1	0.2	28.4
22225736	JJ23284061-NODE	24291634-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	101.0	313	120	335	93.41	45.0	7.76	0.1	0.1	28.4
24291635	24291634-NODE	JJ23443009-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	918.9	313	120	335	93.42	45.0	7.76	0.5	1.2	28.4
22225742	JJ23443009-NODE	JJ23283977-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	137.0	313	118	334	93.52	45.0	7.76	0.1	0.2	28.4
21910946	JJ23283977-NODE	S4521-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	144.0	313	118	334	93.54	45.0	7.76	0.1	0.2	28.4
26709054	S4521-PD	24062428-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	156.6	313	118	334	93.55	45.0	7.76	0.1	0.2	28.4
21943164	24062428-NODE	21924573-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.2	5	2	5	93.07	2.0	7.75	0.0	0.0	0.7
24062429	24062428-NODE	JJ23283943-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	140.6	308	116	329	93.58	44.4	7.76	0.1	0.2	28.4
21910971	JJ23283943-NODE	FH158-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	4.7	29	11	31	93.66	4.1	8.47	0.0	0.0	1.5
25681126	FH158-PD	25681139-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	281.6	29	11	31	93.66	4.1	8.47	0.0	0.0	1.5
22707335	JJ23283943-NODE	24062485-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	323.1	279	105	298	93.58	40.2	7.69	0.1	0.4	26.9
22707330	24062485-NODE	22713645-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	7.8	9	4	10	93.02	4.0	7.68	0.0	0.0	1.4
24062486	24062485-NODE	JJ23364371-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	658.0	270	101	288	93.64	38.9	7.68	0.3	0.8	26.9
21884680	JJ23364371-NODE	JJ23279903-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	323.6	265	98	282	93.72	38.2	7.68	0.1	0.4	26.9
21884655	JJ23279903-NODE	23233851-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	11.1	0	0	0	0.00	0.0	118.78	0.0	0.0	0.0

21884659	JJ23279903-NODE	S320-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	271.1	264	98	282	93.76	38.2	7.68	0.1	0.3	26.9
24116499	S320-PD	24116498-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	845.2	264	98	282	93.79	38.2	7.68	0.3	1.0	26.9
21884663	24116498-NODE	21905807-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	7.6	9	4	10	93.02	4.0	7.71	0.0	0.0	1.4
24116520	24116498-NODE	24116519-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	757.7	255	93	271	93.91	36.9	7.67	0.3	0.9	26.9
21884684	24116519-NODE	21905817-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	6.8	5	2	5	93.06	2.0	7.80	0.0	0.0	0.7
21884688	24116519-NODE	JJ23279875-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	700.9	250	90	266	94.01	36.2	7.67	0.3	0.8	26.9
21884691	JJ23279875-NODE	JJ23279873-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	598.7	240	86	255	94.13	34.8	7.66	0.2	0.7	26.9
21884695	JJ23279873-NODE	JJ23279849-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	111.3	231	82	245	94.24	33.5	7.65	0.0	0.1	26.9
21884708	JJ23279849-NODE	JJ23279815-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	66.7	231	82	245	94.26	33.5	7.65	0.0	0.1	26.9
21884719	JJ23279815-NODE	FH25-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	5.2	5	2	5	93.06	2.0	7.88	0.0	0.0	1.5
21884712	FH25-PD	21905860-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	181.9	5	2	5	93.06	2.0	7.88	0.0	0.0	1.5
21884728	JJ23279815-NODE	FK27-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	14.2	9	4	10	93.02	4.1	7.81	0.0	0.0	3.1
21884723	FK27-PD	21905871-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	252.0	9	4	10	93.02	4.1	7.81	0.0	0.0	3.1
24116593	JJ23279815-NODE	24116592-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	220.7	217	76	230	94.34	31.4	7.64	0.1	0.2	26.9
21884733	24116592-NODE	21905882-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	9.9	9	4	10	93.02	4.1	7.83	0.0	0.0	1.4
24116620	24116592-NODE	24116619-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	354.6	208	72	220	94.43	30.1	7.63	0.1	0.4	26.9
21884737	24116619-NODE	JJ23279807-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	321.6	203	70	215	94.51	29.4	7.62	0.1	0.4	26.9
21942447	JJ23279807-NODE	FK29-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	68.7	5	2	5	92.92	2.1	8.06	0.0	0.0	1.6
21942442	FK29-PD	21905906-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	347.1	5	2	5	92.92	2.1	8.06	0.0	0.0	1.6
21942457	JJ23279807-NODE	F2022-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	12.7	15	6	16	92.88	6.4	8.00	0.0	0.0	4.8
21942452	F2022-PD	24116636-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	115.5	15	6	16	92.88	6.4	8.00	0.0	0.0	4.8
21884746	24116636-NODE	21905916-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	7.6	10	4	11	92.87	4.2	7.97	0.0	0.0	3.2
24116637	24116636-NODE	21905284-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	220.0	5	2	5	92.92	2.1	8.05	0.0	0.0	1.6
22684054	JJ23279807-NODE	JJ23280745-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	575.0	183	62	193	94.74	26.6	7.58	0.2	0.7	26.9
21884103	JJ23280745-NODE	21905270-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	227.3	10	3	10	95.13	4.2	7.91	0.0	0.0	3.2
22684055	JJ23280745-NODE	JJ23280831-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	370.7	173	58	182	94.82	25.2	7.55	0.1	0.4	25.4
21884003	JJ23280831-NODE	F54-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	101.7	124	41	131	94.92	54.4	7.41	0.1	0.1	41.2
21883995	F54-PD	24116714-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	144.7	124	41	131	94.93	54.4	7.41	0.1	0.1	41.2
21883967	24116714-NODE	JJ23280873-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	496.4	115	38	121	94.93	50.2	7.38	0.2	0.3	38.0
21883955	JJ23280873-NODE	JJ23280883-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	530.9	100	33	105	94.95	43.8	7.33	0.2	0.2	33.2
21883933	JJ23280883-NODE	F2179-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	27.8	74	24	78	94.94	32.5	7.21	0.0	0.0	24.6
24116794	F2179-PD	24116793-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	307.5	74	24	78	94.94	32.5	7.21	0.1	0.1	24.6
21883919	24116793-NODE	21905100-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	19.1	5	2	5	95.15	2.1	7.57	0.0	0.0	1.6
21883927	24116793-NODE	JJ23279761-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	664.4	69	23	72	94.94	30.3	7.19	0.1	0.1	23.0
22027763	JJ23279761-NODE	F3157-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	16.0	7	2	7	95.22	3.0	7.63	0.0	0.0	2.3
22027744	F3157-PD	JJ23364757-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	19.2	7	2	7	95.22	3.0	7.63	0.0	0.0	2.3
22707237	JJ23364757-NODE	24116912-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	1095.0	7	2	7	95.22	3.0	7.63	0.0	0.0	2.3
22707233	24116912-NODE	22713621-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	9.4	5	2	5	95.15	2.1	7.48	0.0	0.0	1.6
24116913	24116912-NODE	21906007-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	171.2	2	1	2	95.35	0.9	7.85	0.0	0.0	0.7
24116894	JJ23279761-NODE	24116893-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	136.7	62	20	65	94.96	27.3	7.13	0.0	0.0	20.7
21884771	24116893-NODE	21905997-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	8.6	5	2	5	95.15	2.1	7.48	0.0	0.0	1.6
21884775	24116893-NODE	JJ23279741-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	56.9	57	19	60	94.95	25.2	7.10	0.0	0.0	19.1
21884784	JJ23279741-NODE	FK32-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	6.7	5	2	5	95.15	2.1	7.48	0.0	0.0	1.6
21884780	FK32-PD	21991329-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	167.8	5	2	5	95.15	2.1	7.48	0.0	0.0	1.6
21884789	JJ23279741-NODE	JJ23276311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	1796.8	52	17	55	94.93	23.0	7.07	0.2	0.2	17.4
21826061	JJ23276311-NODE	FK120-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	7.7	5	2	5	95.16	2.2	7.33	0.0	0.0	1.6
21826042	FK120-PD	21878978-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	361.8	5	2	5	95.16	2.2	7.33	0.0	0.0	1.6

22684251	JJ23276311-NODE	F396-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	2314.9	47	15	50	95.00	20.9	7.03	0.2	0.2	15.8
21824963	F396-PD	24116977-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	361.8	47	15	49	95.09	20.9	7.02	0.0	0.0	15.8
22177225	24116977-NODE	21878966-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	5.6	10	3	10	95.12	4.3	7.05	0.0	0.0	3.3
24116978	24116977-NODE	24116999-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	250.2	37	12	39	95.10	16.6	7.01	0.0	0.0	12.5
21824957	24116999-NODE	21878959-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.6	32	10	34	95.10	14.4	6.99	0.0	0.0	10.9
22177235	24116999-NODE	21878972-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	1202.5	5	2	5	95.17	2.2	7.13	0.0	0.0	1.6
21883943	JJ23280883-NODE	F2180-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	29.2	26	8	27	95.18	11.4	7.66	0.0	0.0	8.6
21883949	F2180-PD	24116807-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	318.3	26	8	27	95.18	11.4	7.66	0.0	0.0	8.6
21884754	24116807-NODE	21905940-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.9	5	2	5	95.15	2.1	7.60	0.0	0.0	1.6
24116808	24116807-NODE	JJ23279783-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	180.0	21	7	22	95.19	9.2	7.67	0.0	0.0	7.0
21884751	JJ23279783-NODE	24181009-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	228.5	16	5	17	95.20	7.1	7.68	0.0	0.0	5.4
21884758	24181009-NODE	24116833-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	237.4	14	5	15	95.18	6.2	7.64	0.0	0.0	4.7
21884762	24116833-NODE	21905963-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	11.5	2	1	2	95.34	0.9	7.93	0.0	0.0	0.7
24116834	24116833-NODE	24116853-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	997.8	12	4	13	95.16	5.3	7.59	0.0	0.0	4.0
21884766	24116853-NODE	21905974-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	18.2	7	2	8	95.16	3.2	7.57	0.0	0.0	2.4
24116854	24116853-NODE	21905986-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	584.1	5	2	5	95.17	2.1	7.58	0.0	0.0	1.6
24181010	24181009-NODE	21905951-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.6	2	1	2	95.34	0.9	7.94	0.0	0.0	0.7
21942400	JJ23279783-NODE	FK30-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	11.5	5	2	5	95.16	2.1	7.60	0.0	0.0	1.6
21942396	FK30-PD	21905927-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	173.8	5	2	5	95.16	2.1	7.60	0.0	0.0	1.6
21883981	JJ23280873-NODE	21905142-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.0	5	2	5	95.15	2.1	7.70	0.0	0.0	1.6
24116739	JJ23280873-NODE	F2178-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.6	10	3	10	95.16	4.3	7.71	0.0	0.0	3.2
21883976	F2178-PD	24116757-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	297.9	10	3	10	95.16	4.3	7.71	0.0	0.0	3.2
21883989	24116757-NODE	21905113-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	304.4	5	2	5	95.16	2.1	7.71	0.0	0.0	1.6
24116758	24116757-NODE	21905128-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.3	5	2	5	95.15	2.1	7.70	0.0	0.0	1.6
24116715	24116714-NODE	21905156-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.9	10	3	10	95.13	4.2	7.75	0.0	0.0	3.2
21884008	JJ23280831-NODE	24116686-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	104.9	48	16	51	94.76	7.0	7.92	0.0	0.0	6.1
21884048	24116686-NODE	21905256-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.9	10	3	10	95.13	4.2	7.79	0.0	0.0	1.5
24116687	24116686-NODE	JJ23280797-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	154.2	38	13	41	94.67	5.6	7.95	0.0	0.0	4.6
21884044	JJ23280797-NODE	JJ23280781-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	250.3	16	6	17	94.02	2.4	8.10	0.0	0.0	1.4
21884061	JJ23280781-NODE	FK287-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	16.5	0	0	0	0.00	0.0	115.73	0.0	0.0	0.0
21884055	FK287-PD	26900030-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	658.6	0	0	0	0.00	0.0	115.73	0.0	0.0	0.0
21884067	JJ23280781-NODE	24181274-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	159.6	16	6	17	94.02	2.4	8.07	0.0	0.0	1.4
21884097	24181274-NODE	21905240-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	9.6	7	2	8	95.16	3.2	7.83	0.0	0.0	1.1
24181275	24181274-NODE	S101-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	169.8	9	3	9	93.08	1.3	8.24	0.0	0.0	1.4
21884092	S101-PD	JJ23280763-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	167.7	9	3	9	93.10	1.3	8.22	0.0	0.0	1.4
22174915	JJ23280763-NODE	F3728-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	4.8	9	3	9	93.13	3.9	8.20	0.0	0.0	3.0
22174900	F3728-PD	24181373-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	78.1	9	3	9	93.13	3.9	8.20	0.0	0.0	3.0
21884072	24181373-NODE	21905210-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.9	2	1	2	93.34	0.8	8.53	0.0	0.0	0.6
24181378	24181373-NODE	JJ23280767-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	257.0	7	3	7	93.07	3.1	8.10	0.0	0.0	2.3
21884086	JJ23280767-NODE	21905225-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	21.8	7	3	7	93.06	3.1	8.09	0.0	0.0	2.3
21942462	JJ23280797-NODE	F181-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	4.6	22	7	23	95.16	9.8	7.83	0.0	0.0	7.4
22174351	F181-PD	24181143-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	220.5	22	7	23	95.16	9.8	7.83	0.0	0.0	7.4
22174330	24181143-NODE	JJ23280815-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	388.8	13	4	13	95.18	5.5	7.87	0.0	0.0	4.2
21884019	JJ23280815-NODE	24181179-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	155.9	5	2	5	95.16	2.1	7.82	0.0	0.0	1.6
21884013	24181179-NODE	21905169-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.2	5	2	5	95.16	2.1	7.81	0.0	0.0	1.6
21884025	JJ23280815-NODE	24181196-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	156.4	8	3	8	95.20	3.4	7.89	0.0	0.0	2.6
21884030	24181196-NODE	21905182-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	10.5	5	2	5	95.16	2.1	7.81	0.0	0.0	1.6

24181197	24181196-NODE	24181213-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	272.1	3	1	3	95.26	1.3	8.01	0.0	0.0	1.0
21884038	24181213-NODE	21905196-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	8.8	3	1	3	95.24	1.3	7.97	0.0	0.0	1.0
24181214	24181213-NODE	JJ23280805-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	204.0	0	0	0	0.00	0.0	115.72	0.0	0.0	0.0
24181144	24181143-NODE	22224915-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	10.5	10	3	10	95.13	4.2	7.77	0.0	0.0	3.2
21884741	24116619-NODE	21905893-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.7	5	2	5	93.06	2.0	7.94	0.0	0.0	0.7
24116542	JJ23279873-NODE	21905838-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.4	9	4	10	93.02	4.1	7.80	0.0	0.0	3.1
24116532	JJ23279875-NODE	21905827-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	10.0	9	4	10	93.02	4.1	7.76	0.0	0.0	3.1
24062498	JJ23364371-NODE	21905794-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	8.8	5	2	5	93.07	2.0	7.75	0.0	0.0	1.5
25370596	25370444-NODE	23232163-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	116.0	0	0	0	0.00	0.0	119.33	0.0	0.0	0.0
21910786	JJ23283715-NODE	23232152-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	28.2	0	0	0	0.00	0.0	119.34	0.0	0.0	0.0
21911315	JJ23283549-NODE	23232204-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	28.3	0	0	0	0.00	0.0	119.44	0.0	0.0	0.0

Load Flow - Summary Report (LOWV F3)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK.sxst
Date	Tue Feb 07 2023
Time	16h00m36s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	1425.98	425.74	1488.18	95.82
Load used (Adjusted)	1425.94	425.60	1488.10	95.82
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**1425.94**	**425.60**	**1488.10**	**95.82**
Cable Capacitance	0.00	-17.70	17.70	0.00
Line Capacitance	0.00	-17.65	17.65	0.00
Total Shunt Capacitance	**0.00**	**-35.35**	**35.35**	**0.00**
Line Losses	5.50	12.77	13.91	39.56
Cable Losses	0.13	0.10	0.16	79.70
Transformer Load Losses	3.59	6.13	7.11	50.53
Transformer No-Load Losses	26.02	0.00	26.02	100.00
Total Losses	**35.23**	**19.00**	**40.03**	**88.02**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25018280	25018142-NODE	25018183-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.2	13.800	6.6	1461	409	1517	96.29	61.5	12.42	0.0	0.0	9.6
22373793	25018183-NODE	S3621-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.2	13.800	114.2	1461	409	1517	96.29	61.5	12.42	0.1	0.1	19.2
22056666	S3561-PD	JJ23307829-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.2	13.800	146.0	0	-1	1	0.01	0.0	118.07	0.0	0.0	0.0
24577969	JJ23307829-NODE	24577939-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.2	13.800	6.3	0	0	0	0.01	0.0	118.07	0.0	0.0	0.0
23614282	FAQ79-PD	23614273-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	19.4	9	2	10	97.40	1.2	14.81	0.0	0.0	0.8
23614274	23614273-NODE	TO FAQ79-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	495.6	9	2	10	97.36	1.2	14.71	0.0	0.0	0.6
22352041	FAE37-PD	TO FAE37-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	313.2	19	5	19	96.36	2.4	11.65	0.0	0.0	1.3
23634482	FAE23-PD	23634469-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	55.1	14	3	14	97.04	1.8	13.16	0.0	0.0	1.0
23634470	23634469-NODE	TO FAE23-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	528.5	14	4	14	96.94	1.8	12.92	0.0	0.0	1.0
23634434	FAE33-PD	23634425-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	23.1	19	5	19	96.40	2.4	11.72	0.0	0.0	1.3
23634426	23634425-NODE	TO FAE33-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	315.9	19	5	19	96.36	2.4	11.64	0.0	0.0	1.3
21881967	JJ23271185-NODE	TO FAL75-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	454.5	9	2	10	97.23	1.2	13.78	0.0	0.0	0.6
21721784	FAL103-PD	TO FAL103-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	409.7	0	0	1	-41.17	0.1	93.05	0.0	0.0	0.0
21989143	JJ23292503-NODE	JJ23292515-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	361.8	7	0	7	99.99	0.9	26.75	0.0	0.0	0.5
21989105	JJ23292515-NODE	JJ23292533-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	186.4	7	1	7	99.45	0.9	21.53	0.0	0.0	0.5
21989068	JJ23292533-NODE	JJ23292539-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	349.2	7	1	7	98.90	0.9	19.04	0.0	0.0	0.5
21989024	JJ23292539-NODE	TO TX AL50-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	422.1	7	2	7	97.36	0.9	14.35	0.0	0.0	0.5
21989046	JJ23292539-NODE	TO TX AL49-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	169.7	0	0	0	0.01	0.0	117.55	0.0	0.0	0.0
21989088	JJ23292533-NODE	TO TX AL49-PD-1	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	83.2	0	0	0	0.01	0.0	117.55	0.0	0.0	0.0
24584379	JJ23292515-NODE	TO F1991-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	197.6	0	0	0	0.01	0.0	117.55	0.0	0.0	0.0
26539195	26539187-NODE	JJ23271495-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	433.8	27	6	28	97.46	3.4	14.62	0.0	0.0	2.5
21986134	F2367-PD	JJ23271183-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1122.2	11	2	11	98.57	1.3	17.85	0.0	0.0	0.7
22311498	JJ23394111-NODE	TO FAM46-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.2	13.800	176.2	158	47	165	95.92	6.7	11.30	0.0	0.0	4.4
21880832	FAL80-PD	TO FAL80-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	704.6	14	3	14	97.28	1.7	14.30	0.0	0.0	1.0
23656513	F3806-PD	27016069-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	257.0	79	19	81	97.32	9.9	14.60	0.0	0.0	5.5
22352389	27016069-NODE	TO F3806-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	345.8	78	19	81	97.24	9.9	14.40	0.0	0.0	5.5
22288368	TO F3806-PD	TO TX AR43-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	404.9	53	12	54	97.60	6.6	15.32	0.0	0.0	3.7
22288358	TO TX AR43-PD	TO TX AR44-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	524.2	46	10	47	97.63	5.7	15.39	0.0	0.0	3.2
22288350	TO TX AR44-PD	TO TX AR45-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	783.6	38	8	39	97.59	4.7	15.28	0.0	0.0	2.6
22352487	TO TX AR45-PD	TO TX AR46-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	643.0	30	7	31	97.32	3.8	14.59	0.0	0.0	2.1
22352483	TO TX AR46-PD	TO TX AR50-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	815.7	15	3	16	97.46	1.9	14.95	0.0	0.0	1.1
23656184	23656183-NODE	TO FAQ84-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	510.9	15	4	16	96.95	1.9	13.68	0.0	0.0	1.1
22374725	FAL100-PD	TO FAL100-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	435.6	19	5	19	96.55	2.3	12.67	0.0	0.0	1.3
21723703	FAL102-PD	TO FAL102-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	574.6	19	5	19	96.76	2.3	13.11	0.0	0.0	1.3
23613050	F3929-PD	JJ23271751-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	19.0	18	3	18	98.30	2.2	17.33	0.0	0.0	1.2
21880946	JJ23271751-NODE	TO F3929-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	507.8	18	3	18	98.28	2.2	17.26	0.0	0.0	1.2
22373926	TO F3929-PD	23613165-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1195.4	7	1	7	99.51	0.9	22.22	0.0	0.0	0.5
23613166	23613165-NODE	TO TX AL68-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.1	7	2	7	95.92	0.9	11.47	0.0	0.0	0.5
22053524	S3621-PD	JJ23316363-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	11.2	1461	410	1517	96.28	61.5	12.40	0.0	0.0	23.9
22053531	JJ23316363-NODE	23225176-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	48.3	0	0	0	0.01	0.0	118.08	0.0	0.0	0.0
22053540	JJ23316363-NODE	JJ23277433-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	83.5	1461	410	1517	96.28	61.5	12.40	0.1	0.1	23.9
21938266	JJ23277433-NODE	S3561-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	19.0	0	-1	1	0.01	0.0	118.07	0.0	0.0	0.0
25862585	JJ23277433-NODE	25862575-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	7.0	1461	410	1518	96.27	61.5	12.37	0.0	0.0	23.9
25862593	25862575-NODE	S1055-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	53.9	1461	410	1518	96.27	61.5	12.37	0.0	0.1	23.9
21938272	S1055-PD	JJ23421117-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	238.5	1461	410	1518	96.27	61.5	12.37	0.1	0.3	23.9
22382266	JJ23421117-NODE	FAK81-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.8	9	3	10	95.89	1.2	11.47	0.0	0.0	0.9

22382262	FAK81-PD	23631718-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	152.4	9	3	10	95.89	1.2	11.47	0.0	0.0	0.9
22382281	JJ23421117-NODE	JJ23293409-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	11.7	1452	407	1508	96.28	61.1	12.37	0.0	0.0	23.5
21987513	JJ23293409-NODE	FAQ51-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	67.0	5	1	5	96.01	0.6	11.71	0.0	0.0	0.4
21987494	FAQ51-PD	22245893-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	221.2	5	1	5	95.99	0.6	11.67	0.0	0.0	0.4
21987526	JJ23293409-NODE	26893500-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	232.0	1447	406	1503	96.28	60.9	12.37	0.1	0.3	23.3
23614332	26893500-NODE	21871955-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	8.5	2	1	2	95.91	0.3	11.61	0.0	0.0	0.1
26893501	26893500-NODE	26894803-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	249.0	1445	405	1500	96.28	60.8	12.37	0.1	0.3	23.3
21938385	26894803-NODE	FAQ33-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	5.5	4	1	4	96.15	0.5	12.19	0.0	0.0	0.4
21938393	FAQ33-PD	21871932-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	230.5	4	1	4	96.15	0.5	12.19	0.0	0.0	0.4
26894804	26894803-NODE	JJ23331491-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	135.6	1441	404	1496	96.29	60.7	12.37	0.1	0.2	23.3
22123220	JJ23331491-NODE	FAQ79-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.6	9	2	10	97.40	1.2	14.82	0.0	0.0	0.9
22123247	JJ23331491-NODE	JJ23277369-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	118.0	1431	401	1486	96.28	60.3	12.35	0.1	0.2	22.9
21933227	JJ23277369-NODE	JJ23277379-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	242.7	1425	400	1480	96.28	60.1	12.35	0.1	0.3	22.9
21933220	JJ23277379-NODE	21871915-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	8.5	4	1	4	95.77	0.4	11.31	0.0	0.0	0.2
22140408	JJ23277379-NODE	JJ23317887-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	14.5	1422	398	1477	96.29	59.9	12.36	0.0	0.0	22.9
22140320	JJ23317887-NODE	FAQ30-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.2	9	3	10	95.97	1.2	11.57	0.0	0.0	0.9
22140302	FAQ30-PD	24984428-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	294.4	9	3	10	95.97	1.2	11.57	0.0	0.0	0.9
24984429	24984428-NODE	JJ23317925-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	162.8	9	3	10	95.92	1.2	11.47	0.0	0.0	0.9
22140356	JJ23317925-NODE	21911017-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	174.0	9	3	10	95.90	1.2	11.42	0.0	0.0	0.9
22140394	JJ23317887-NODE	23613817-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	211.4	1413	396	1467	96.29	59.5	12.36	0.1	0.3	22.7
21933212	23613817-NODE	21871906-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	8.0	5	1	5	95.92	0.6	11.47	0.0	0.0	0.2
23613818	23613817-NODE	JJ23277385-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	530.5	1408	394	1462	96.30	59.3	12.36	0.3	0.7	22.7
21933205	JJ23277385-NODE	JJ23277387-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	286.0	1400	391	1454	96.31	59.0	12.36	0.2	0.4	22.4
21933197	JJ23277387-NODE	JJ23279539-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	1214.7	1372	383	1425	96.32	57.8	12.38	0.6	1.5	22.4
21933614	JJ23279539-NODE	S1645-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	185.7	1370	381	1422	96.34	57.8	12.37	0.1	0.2	22.4
21938280	S1645-PD	JJ23279371-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	235.2	1370	381	1422	96.34	57.8	12.37	0.1	0.3	22.4
21933621	JJ23279371-NODE	JJ23273483-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	156.8	1232	345	1280	96.30	52.0	12.26	0.1	0.2	20.5
21878487	JJ23273483-NODE	JJ23273481-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	11.0	988	280	1027	96.21	41.7	12.04	0.0	0.0	20.2
21938287	JJ23273481-NODE	S1329-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	230.2	988	280	1027	96.21	41.7	12.04	0.1	0.2	20.2
21938296	S1329-PD	JJ23277415-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	440.9	988	280	1027	96.21	41.7	12.04	0.1	0.4	20.2
21933630	JJ23277415-NODE	JJ23277407-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	242.8	983	278	1022	96.22	41.5	12.04	0.1	0.2	20.2
21933637	JJ23277407-NODE	JJ23279357-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	365.8	969	275	1007	96.21	41.0	12.00	0.1	0.3	20.2
21933645	JJ23279357-NODE	JJ23277341-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	415.6	964	273	1002	96.21	40.7	12.00	0.1	0.3	19.9
21933653	JJ23277341-NODE	JJ23279353-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	839.6	960	272	998	96.22	40.6	11.99	0.3	0.7	19.9
21933664	JJ23279353-NODE	JJ23279347-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	379.4	955	270	992	96.23	40.4	11.99	0.1	0.3	19.9
21933672	JJ23279347-NODE	JJ23279345-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	486.0	924	261	960	96.25	39.1	12.01	0.1	0.4	19.9
21933680	JJ23279345-NODE	JJ23277877-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	582.6	920	259	956	96.25	38.9	12.01	0.2	0.4	19.8
21933688	JJ23277877-NODE	JJ23273669-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	380.2	917	258	952	96.26	38.8	12.00	0.1	0.3	19.6
23615002	JJ23273669-NODE	21910653-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.9	4	1	4	95.77	0.5	10.95	0.0	0.0	0.3
24457733	JJ23273669-NODE	24457732-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	202.3	913	257	948	96.27	38.6	12.00	0.1	0.1	19.5
24457743	24457732-NODE	24457742-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	8.4	0	0	0	0.01	0.0	117.76	0.0	0.0	0.0
25667221	24457732-NODE	24458482-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	60.8	913	257	948	96.27	38.6	12.00	0.0	0.0	19.5
24457953	24458482-NODE	S4238-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	12.2	913	257	948	96.27	38.6	11.99	0.0	0.0	19.5
24458465	S4238-PD	24458464-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	9.0	913	257	948	96.27	38.6	11.99	0.0	0.0	19.5
21933694	24458464-NODE	JJ23279331-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	131.9	913	257	948	96.27	38.6	11.99	0.0	0.1	19.5
21933705	JJ23279331-NODE	JJ23277317-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	1051.4	560	158	582	96.26	23.7	11.96	0.1	0.3	12.4
21933713	JJ23277317-NODE	JJ23279325-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	560.8	560	158	582	96.26	23.7	11.94	0.1	0.2	12.4

21933727	JJ23279325-NODE	JJ23277329-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	8.6	556	156	578	96.26	23.6	11.92	0.0	0.0	12.4
21933720	JJ23277329-NODE	JJ23277333-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	163.3	553	155	574	96.26	23.4	11.93	0.0	0.0	12.2
21933736	JJ23277333-NODE	JJ23273471-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	206.7	546	153	567	96.27	23.1	11.94	0.0	0.1	11.9
21878489	JJ23273471-NODE	JJ23273473-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	204.4	542	152	563	96.27	22.9	11.93	0.0	0.1	11.9
21938479	JJ23273473-NODE	S1449-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	697.1	538	151	559	96.27	22.8	11.93	0.1	0.2	11.9
21933815	S1449-PD	JJ23277293-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	245.8	538	151	559	96.27	22.8	11.91	0.0	0.1	11.9
21933807	JJ23277293-NODE	JJ23277305-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	11.7	489	139	508	96.20	20.7	11.76	0.0	0.0	9.7
21933825	JJ23277305-NODE	JJ23273463-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	402.5	487	138	507	96.20	20.7	11.75	0.0	0.1	9.7
21878492	JJ23273463-NODE	JJ23273465-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	335.3	486	138	505	96.20	20.6	11.74	0.0	0.1	9.7
22055813	JJ23273465-NODE	JJ23310071-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	5.6	9	3	10	96.00	1.2	11.17	0.0	0.0	0.9
22055774	JJ23310071-NODE	FAM42-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	65.4	5	1	5	96.07	0.6	11.31	0.0	0.0	0.5
22055750	FAM42-PD	22114626-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	382.6	5	1	5	96.05	0.6	11.27	0.0	0.0	0.5
22055794	22114626-NODE	JJ23310099-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	20.6	0	0	0	0.01	0.0	117.44	0.0	0.0	0.0
23617835	JJ23310071-NODE	23671584-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.8	5	1	5	95.92	0.6	11.02	0.0	0.0	0.5
22055836	JJ23273465-NODE	JJ23279267-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	370.0	476	135	495	96.20	20.2	11.74	0.0	0.1	9.7
21933841	JJ23279267-NODE	JJ23279269-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	379.9	475	135	493	96.20	20.1	11.73	0.0	0.1	9.7
21933833	JJ23279269-NODE	JJ23273303-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	210.8	457	129	475	96.21	19.4	11.75	0.0	0.0	8.9
21878616	JJ23273303-NODE	JJ23273305-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	738.3	457	129	475	96.21	19.4	11.75	0.1	0.1	8.9
21933858	JJ23273305-NODE	JJ23279263-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	494.7	456	129	473	96.21	19.3	11.72	0.0	0.1	8.9
21933850	JJ23279263-NODE	JJ23279265-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	117.7	455	129	473	96.20	19.3	11.71	0.0	0.0	8.9
21933866	JJ23279265-NODE	JJ23276981-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	529.1	454	129	471	96.20	19.2	11.70	0.0	0.1	8.9
21933873	JJ23276981-NODE	JJ23279255-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	234.1	442	126	459	96.17	18.7	11.64	0.0	0.0	8.9
22123795	JJ23279255-NODE	FAM44-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	36.6	4	1	4	95.95	0.5	11.12	0.0	0.0	0.3
22123779	FAM44-PD	22198733-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	420.5	4	1	4	95.93	0.5	11.09	0.0	0.0	0.3
22123833	JJ23279255-NODE	JJ23279239-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	436.7	438	125	455	96.17	18.6	11.63	0.0	0.1	8.8
21933907	JJ23279239-NODE	JJ23279241-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	416.6	436	124	453	96.17	18.5	11.62	0.0	0.1	8.8
21933882	JJ23279241-NODE	FAM26-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	124.0	2	0	2	97.10	0.2	14.26	0.0	0.0	0.2
21938853	FAM26-PD	21872795-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	816.0	2	0	2	97.00	0.2	14.02	0.0	0.0	0.2
21933890	JJ23279241-NODE	FAL29-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	40.8	4	1	4	95.84	0.5	10.88	0.0	0.0	0.3
21938847	FAL29-PD	21872785-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	143.5	4	1	4	95.82	0.5	10.85	0.0	0.0	0.3
21933898	JJ23279241-NODE	JJ23279243-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	14.6	431	123	448	96.17	18.3	11.60	0.0	0.0	8.6
21933915	JJ23279243-NODE	JJ23276927-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	462.3	431	123	448	96.17	18.3	11.60	0.0	0.1	8.6
21933925	JJ23276927-NODE	JJ23279233-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	210.6	429	122	446	96.17	18.2	11.58	0.0	0.0	8.6
21933933	JJ23279233-NODE	JJ23277229-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	441.1	427	122	444	96.16	18.1	11.58	0.0	0.1	8.6
21932848	JJ23277229-NODE	23632383-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	773.7	372	106	387	96.20	15.8	11.65	0.0	0.1	7.9
23632384	23632383-NODE	JJ23276507-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	7.8	368	105	383	96.19	15.6	11.61	0.0	0.0	7.9
21932856	JJ23276507-NODE	JJ23279187-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	21.9	359	102	373	96.16	15.2	11.56	0.0	0.0	7.5
21934055	JJ23279187-NODE	JJ23276487-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	673.9	359	102	373	96.16	15.2	11.56	0.0	0.1	7.5
21934047	JJ23276487-NODE	JJ23279185-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	233.8	343	98	357	96.17	14.6	11.56	0.0	0.0	7.5
21934061	JJ23279185-NODE	JJ23279183-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	218.8	334	95	347	96.17	14.2	11.57	0.0	0.0	7.0
21934073	JJ23279183-NODE	JJ23276461-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	204.0	332	95	346	96.17	14.1	11.55	0.0	0.0	7.0
21939257	JJ23276461-NODE	FAL71-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	60.3	23	7	24	95.69	3.0	10.55	0.0	0.0	2.3
21939263	FAL71-PD	21873687-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	527.1	23	7	24	95.69	3.0	10.54	0.0	0.0	2.3
22288327	JJ23276461-NODE	JJ23279167-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	1191.6	309	88	321	96.20	13.1	11.62	0.0	0.1	7.0
21932831	JJ23279167-NODE	F1398-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	29.1	21	6	22	95.95	2.7	11.07	0.0	0.0	2.0
21932839	F1398-PD	JJ23273093-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1023.3	21	6	22	95.95	2.7	11.06	0.0	0.0	2.0
21878797	JJ23273093-NODE	JJ23273091-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	299.0	17	5	18	95.91	2.2	10.97	0.0	0.0	1.7

21934113	JJ23273091-NODE	JJ23276375-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	791.1	11	3	11	96.01	1.3	11.18	0.0	0.0	1.0
21934104	JJ23276375-NODE	JJ23276559-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	399.6	4	1	4	96.12	0.5	11.40	0.0	0.0	0.3
21939188	JJ23276559-NODE	FAE12-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.1	4	1	4	95.96	0.5	11.07	0.0	0.0	0.3
21939182	FAE12-PD	21873499-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	470.8	4	1	4	95.95	0.5	11.06	0.0	0.0	0.3
21939333	JJ23276375-NODE	FAE20-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.0	7	2	7	95.79	0.9	10.74	0.0	0.0	0.7
21939339	FAE20-PD	21873696-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	495.8	7	2	7	95.79	0.9	10.73	0.0	0.0	0.7
23633387	JJ23273091-NODE	21873782-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.5	7	2	7	95.69	0.9	10.53	0.0	0.0	0.7
23633368	JJ23273093-NODE	21873792-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.4	4	1	4	95.76	0.5	10.68	0.0	0.0	0.3
21934122	JJ23279167-NODE	23632516-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	262.9	288	82	299	96.20	12.2	11.61	0.0	0.0	7.0
21939269	23632516-NODE	S1552-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	98.6	269	76	280	96.22	11.4	11.66	0.0	0.0	6.2
21934157	S1552-PD	S1551-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	845.6	269	76	280	96.21	11.4	11.65	0.0	0.1	6.2
25079652	S1551-PD	JJ23273103-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	376.3	269	76	280	96.20	11.4	11.61	0.0	0.0	6.2
21939274	JJ23273103-NODE	JJ23276437-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	370.4	247	70	257	96.22	10.5	11.64	0.0	0.0	6.2
21934173	JJ23276437-NODE	JJ23276413-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	179.3	238	67	247	96.22	10.1	11.66	0.0	0.0	5.8
21934182	JJ23276413-NODE	JJ23276421-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	177.8	231	65	240	96.23	9.8	11.68	0.0	0.0	5.8
21939284	JJ23276421-NODE	FAF4-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	30.3	8	2	8	96.04	1.0	11.89	0.0	0.0	0.7
21939279	FAF4-PD	21873721-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	154.9	8	2	8	96.03	1.0	11.87	0.0	0.0	0.7
25882143	JJ23276421-NODE	25882142-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	736.8	223	63	232	96.23	9.5	11.67	0.0	0.0	5.8
21934189	25882142-NODE	21873712-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	8.3	1	0	2	96.05	0.2	11.27	0.0	0.0	0.1
25882174	25882142-NODE	25882161-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	842.9	222	63	230	96.22	9.4	11.62	0.0	0.0	5.8
21934212	25882161-NODE	JJ23275839-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	279.7	216	61	225	96.21	9.2	11.60	0.0	0.0	5.8
21934222	JJ23275839-NODE	S1550-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	62.9	147	42	153	96.15	6.2	11.59	0.0	0.0	2.6
22352045	S1550-PD	JJ23408625-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	147.1	147	42	153	96.15	6.2	11.59	0.0	0.0	2.6
22351647	JJ23408625-NODE	JJ23410439-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	141.2	128	37	133	96.11	5.4	11.56	0.0	0.0	2.3
22351651	JJ23410439-NODE	JJ23279123-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	376.2	121	35	126	96.13	5.1	11.60	0.0	0.0	2.3
23634153	JJ23279123-NODE	21875340-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.2	8	2	8	96.00	1.0	11.80	0.0	0.0	0.7
23634226	JJ23279123-NODE	JJ23275841-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	120.8	114	33	118	96.11	4.8	11.55	0.0	0.0	1.9
21939873	JJ23275841-NODE	F2193-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	33.0	3	1	3	96.61	0.4	13.10	0.0	0.0	0.3
21939864	F2193-PD	JJ23272837-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	299.3	3	1	3	96.60	0.4	13.07	0.0	0.0	0.3
21878936	JJ23272837-NODE	JJ23270751-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	214.3	2	0	2	96.61	0.2	13.09	0.0	0.0	0.2
21882842	JJ23270751-NODE	JJ23270753-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	113.9	2	0	2	96.42	0.2	12.68	0.0	0.0	0.2
23634788	JJ23270753-NODE	21875326-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.8	2	0	2	96.32	0.2	12.47	0.0	0.0	0.2
23634758	JJ23272837-NODE	21875311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	12.4	2	0	2	96.32	0.2	12.48	0.0	0.0	0.2
22054407	JJ23275841-NODE	F3377-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	182.6	110	32	115	96.09	4.7	11.48	0.0	0.0	1.8
22054417	F3377-PD	JJ23272847-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	206.2	110	32	115	96.08	4.7	11.46	0.0	0.0	1.8
21878932	JJ23272847-NODE	JJ23272845-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	405.5	101	29	105	96.08	4.3	11.51	0.0	0.0	1.8
21878928	JJ23272845-NODE	JJ23272849-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	450.0	100	29	104	96.05	4.2	11.44	0.0	0.0	1.7
21878924	JJ23272849-NODE	JJ23272853-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	261.5	92	27	96	96.03	3.9	11.34	0.0	0.0	1.4
21878921	JJ23272853-NODE	JJ23272857-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	827.6	85	25	89	96.04	3.6	11.37	0.0	0.0	1.4
21934228	JJ23272857-NODE	JJ23275857-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	158.7	79	23	83	95.97	3.4	11.19	0.0	0.0	1.4
21934238	JJ23275857-NODE	23225157-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	295.8	0	0	0	0.00	0.0	118.05	0.0	0.0	0.0
21939852	JJ23275857-NODE	F2192-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	36.0	79	23	83	95.95	3.4	11.16	0.0	0.0	1.4
22123964	F2192-PD	JJ23330413-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	526.0	79	23	83	95.95	3.4	11.15	0.0	0.0	1.4
22123951	JJ23330413-NODE	23671520-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	924.7	79	23	83	95.90	3.4	11.04	0.0	0.0	1.4
22215652	JJ23330413-NODE	FAE36-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	6.5	0	0	0	-99.61	0.0	33.13	0.0	0.0	0.0
22215632	FAE36-PD	22198754-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	136.4	0	0	0	-99.64	0.0	32.90	0.0	0.0	0.0
23634692	JJ23272857-NODE	21875203-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.0	6	2	6	96.04	0.7	11.87	0.0	0.0	0.6

23634680	JJ23272853-NODE	21875257-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.5	7	2	7	95.69	0.9	10.53	0.0	0.0	0.7
23634669	JJ23272849-NODE	21875265-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.8	8	2	8	96.00	1.0	11.80	0.0	0.0	0.7
23634652	JJ23272845-NODE	21875281-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	14.0	2	0	2	96.33	0.2	12.48	0.0	0.0	0.2
23634616	JJ23272847-NODE	21875297-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.6	9	3	10	95.87	1.2	10.63	0.0	0.0	0.9
24984041	JJ23275841-NODE	24984040-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	48.6	0	0	0	0.01	0.0	117.55	0.0	0.0	0.0
24983996	24984040-NODE	24983943-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	18.0	0	0	0	0.01	0.0	117.55	0.0	0.0	0.0
24984071	24984040-NODE	24983964-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	19.3	0	0	0	0.01	0.0	117.55	0.0	0.0	0.0
24219262	JJ23410439-NODE	24219255-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	6.8	7	2	7	95.69	0.9	10.53	0.0	0.0	0.7
22352036	JJ23408625-NODE	FAE37-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	24.6	19	5	19	96.36	2.4	11.66	0.0	0.0	1.8
21939879	JJ23275839-NODE	F712-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.1	70	19	72	96.32	8.8	11.56	0.0	0.0	6.7
21939885	F712-PD	JJ23279137-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1320.9	70	19	72	96.31	8.8	11.56	0.0	0.0	6.7
21934198	JJ23279137-NODE	JJ23270801-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	17.4	60	17	63	96.36	7.7	11.63	0.0	0.0	5.8
21882753	JJ23270801-NODE	21875011-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	376.6	9	3	10	95.93	1.2	10.74	0.0	0.0	0.9
21934205	JJ23270801-NODE	JJ23279133-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	651.1	51	14	53	96.43	6.5	11.80	0.0	0.0	4.9
23634390	JJ23279133-NODE	21873705-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.4	9	3	10	95.87	1.2	10.61	0.0	0.0	0.9
23634407	JJ23279133-NODE	23634406-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	624.0	42	11	43	96.54	5.3	12.02	0.0	0.0	4.0
22139664	23634406-NODE	22198875-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.8	9	3	10	95.87	1.2	10.61	0.0	0.0	0.9
22139685	23634406-NODE	JJ23273109-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	97.3	32	9	34	96.69	4.1	12.36	0.0	0.0	3.1
21878791	JJ23273109-NODE	FAE23-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	195.9	14	3	14	97.06	1.8	13.21	0.0	0.0	1.3
22139737	JJ23273109-NODE	FAE33-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	39.1	19	5	19	96.40	2.4	11.72	0.0	0.0	1.8
23634355	JJ23279137-NODE	21875234-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	23.4	9	3	10	95.87	1.2	10.62	0.0	0.0	0.9
25882162	25882161-NODE	21875356-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	6.7	5	2	6	95.73	0.7	10.61	0.0	0.0	0.2
21939296	JJ23276413-NODE	FAL11-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	28.1	7	2	7	95.73	0.9	10.61	0.0	0.0	0.7
21939290	FAL11-PD	21873731-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	161.3	7	2	7	95.72	0.9	10.60	0.0	0.0	0.7
23632549	JJ23276437-NODE	21873764-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.2	9	3	10	95.87	1.2	10.67	0.0	0.0	0.9
21939323	JJ23273103-NODE	23633197-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	104.2	22	7	23	95.94	2.9	11.03	0.0	0.0	2.2
23633198	23633197-NODE	F1345-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	165.5	19	6	20	95.96	2.4	11.08	0.0	0.0	1.8
21934149	F1345-PD	JJ23276391-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	808.8	19	6	20	95.95	2.4	11.05	0.0	0.0	1.8
21934141	JJ23276391-NODE	JJ23279159-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	542.5	8	2	9	96.06	1.1	11.28	0.0	0.0	0.8
21934132	JJ23279159-NODE	21873738-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	994.9	1	0	2	96.96	0.2	13.24	0.0	0.0	0.1
21939307	JJ23279159-NODE	FAF2-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.6	7	2	7	95.75	0.9	10.65	0.0	0.0	0.7
21939302	FAF2-PD	21873747-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	303.4	7	2	7	95.75	0.9	10.65	0.0	0.0	0.7
21939318	JJ23276391-NODE	FAM30-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	18.6	10	3	11	95.75	1.3	10.65	0.0	0.0	1.0
21939313	FAM30-PD	21873756-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	378.1	10	3	11	95.74	1.3	10.64	0.0	0.0	1.0
23633204	23633197-NODE	21873775-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	6.8	4	1	4	95.76	0.5	10.68	0.0	0.0	0.3
23632517	23632516-NODE	21873800-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	7.2	19	6	19	95.88	2.4	10.72	0.0	0.0	0.8
21939251	JJ23279183-NODE	FAM23-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	22.8	2	0	2	96.55	0.2	13.00	0.0	0.0	0.2
21939246	FAM23-PD	21873679-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	251.2	2	0	2	96.53	0.2	12.96	0.0	0.0	0.2
23632469	JJ23279185-NODE	21873669-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.6	9	3	10	95.87	1.2	10.75	0.0	0.0	0.9
21939232	JJ23276487-NODE	FAM24-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.4	4	1	4	95.91	0.5	10.99	0.0	0.0	0.3
21939226	FAM24-PD	21873576-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	340.6	4	1	4	95.90	0.5	10.97	0.0	0.0	0.3
21939236	JJ23276487-NODE	F1378-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	38.8	12	4	12	95.91	1.5	11.00	0.0	0.0	1.2
21939241	F1378-PD	JJ23273119-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	68.8	12	4	12	95.91	1.5	10.99	0.0	0.0	1.2
21878789	JJ23273119-NODE	JJ23279195-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	808.9	11	3	11	95.88	1.3	10.93	0.0	0.0	1.0
21934024	JJ23279195-NODE	JJ23279193-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	178.2	7	2	7	95.77	0.9	10.70	0.0	0.0	0.7
21934030	JJ23279193-NODE	JJ23271199-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	6.4	7	2	7	95.73	0.9	10.62	0.0	0.0	0.7
21881952	JJ23271199-NODE	21873643-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	187.0	7	2	7	95.73	0.9	10.62	0.0	0.0	0.7

21991114	JJ23279193-NODE	23236588-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	16.9	0	0	0	0.01	0.0	117.44	0.0	0.0	0.0
23635027	JJ23279195-NODE	21873653-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	13.5	4	1	4	95.77	0.5	10.70	0.0	0.0	0.3
23633105	JJ23273119-NODE	21873661-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	14.7	1	0	2	96.06	0.2	11.30	0.0	0.0	0.1
21939220	JJ23276507-NODE	FAL75-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	33.0	9	2	10	97.24	1.2	13.80	0.0	0.0	0.9
21939214	FAL75-PD	JJ23271185-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	12.4	9	2	10	97.24	1.2	13.79	0.0	0.0	0.9
23632392	23632383-NODE	21873566-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.4	4	1	4	96.07	0.5	11.97	0.0	0.0	0.4
21938543	JJ23277229-NODE	F797-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	27.5	55	16	58	95.92	7.1	11.02	0.0	0.0	5.4
23635114	F797-PD	23635105-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	27.3	55	16	58	95.92	7.1	11.02	0.0	0.0	5.4
23635106	23635105-NODE	JJ23273081-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	744.6	55	16	58	95.92	7.1	11.02	0.0	0.0	5.4
21878802	JJ23273081-NODE	JJ23273079-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	13.2	55	16	58	95.90	7.1	10.98	0.0	0.0	5.4
21938535	JJ23273079-NODE	F1259-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	171.2	48	14	50	95.93	6.2	11.04	0.0	0.0	4.7
21938538	F1259-PD	JJ23273285-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	13.0	48	14	50	95.92	6.2	11.03	0.0	0.0	4.7
21878650	JJ23273285-NODE	JJ23273279-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	444.1	48	14	50	95.92	6.2	11.03	0.0	0.0	4.7
21878659	JJ23273279-NODE	JJ23279229-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	14.2	47	14	49	95.91	6.0	10.99	0.0	0.0	4.5
21933941	JJ23279229-NODE	JJ23279223-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	149.9	40	12	41	95.94	5.1	11.05	0.0	0.0	3.9
21933958	JJ23279223-NODE	JJ23279217-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	505.7	33	10	34	95.96	4.2	11.10	0.0	0.0	3.2
21933975	JJ23279217-NODE	JJ23279219-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	403.1	32	9	33	95.93	4.0	11.03	0.0	0.0	3.1
21881961	JJ23279219-NODE	21873584-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	265.5	4	1	4	95.87	0.5	10.91	0.0	0.0	0.3
21933967	JJ23279219-NODE	JJ23271209-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	187.0	28	8	29	95.92	3.6	11.01	0.0	0.0	2.7
21881926	JJ23271209-NODE	21873491-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	189.4	4	1	4	95.84	0.5	10.84	0.0	0.0	0.3
21933984	JJ23271209-NODE	JJ23279215-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	172.5	24	7	26	95.92	3.1	11.01	0.0	0.0	2.4
21878778	JJ23279215-NODE	JJ23273131-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	227.2	18	5	19	95.97	2.4	11.12	0.0	0.0	1.8
21878780	JJ23273131-NODE	23618285-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	465.5	18	5	19	95.96	2.4	11.08	0.0	0.0	1.8
23618286	23618285-NODE	JJ23273133-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	26.8	15	4	15	95.96	1.9	11.08	0.0	0.0	1.4
21933999	JJ23273133-NODE	JJ23271193-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	484.0	15	4	15	95.95	1.9	11.08	0.0	0.0	1.4
21881957	JJ23271193-NODE	21873610-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	354.0	2	1	2	96.13	0.3	11.43	0.0	0.0	0.2
21933990	JJ23271193-NODE	JJ23279197-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	128.0	13	4	13	95.87	1.6	10.91	0.0	0.0	1.2
21934017	JJ23279197-NODE	JJ23273121-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	101.6	11	3	11	95.85	1.3	10.86	0.0	0.0	1.0
21878786	JJ23273121-NODE	JJ23273123-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	455.2	7	2	7	95.81	0.9	10.78	0.0	0.0	0.7
21878783	JJ23273123-NODE	JJ23273125-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	104.9	0	0	0	0.01	0.0	117.43	0.0	0.0	0.0
23635083	JJ23273123-NODE	21873627-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	15.4	7	2	7	95.69	0.9	10.54	0.0	0.0	0.7
21934008	JJ23273121-NODE	23635064-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	196.2	4	1	4	95.89	0.5	10.94	0.0	0.0	0.3
23635065	23635064-NODE	JJ23279205-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	24.2	0	0	0	0.01	0.0	117.43	0.0	0.0	0.0
21991125	JJ23279205-NODE	23236588-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	73.6	0	0	0	0.01	0.0	117.43	0.0	0.0	0.0
23635071	23635064-NODE	21873637-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	14.0	4	1	4	95.77	0.5	10.70	0.0	0.0	0.3
23618319	JJ23279197-NODE	21873620-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	11.3	2	1	2	95.90	0.3	10.96	0.0	0.0	0.2
23618292	23618285-NODE	21873601-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	11.5	4	1	4	95.77	0.5	10.70	0.0	0.0	0.3
23618272	JJ23279215-NODE	21873593-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	19.5	6	2	6	95.72	0.8	10.61	0.0	0.0	0.6
23618234	JJ23279217-NODE	21873889-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.4	1	0	1	96.20	0.2	11.58	0.0	0.0	0.1
22294807	JJ23279223-NODE	JJ23376621-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	535.4	7	2	7	95.80	0.9	10.78	0.0	0.0	0.7
22294814	JJ23376621-NODE	24219318-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	21.9	7	2	7	95.69	0.9	10.56	0.0	0.0	0.7
21933950	JJ23279229-NODE	21872823-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	187.0	7	2	7	95.73	0.9	10.63	0.0	0.0	0.7
23618202	JJ23273279-NODE	21872832-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.5	1	0	2	96.06	0.2	11.29	0.0	0.0	0.1
23618177	JJ23273079-NODE	21873881-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	19.7	7	2	7	95.69	0.9	10.56	0.0	0.0	0.7
23618113	JJ23279233-NODE	21872813-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	12.9	2	1	2	96.14	0.2	11.36	0.0	0.0	0.2
21938858	JJ23276927-NODE	FAL28-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	39.3	1	0	2	96.34	0.2	11.90	0.0	0.0	0.1
21938863	FAL28-PD	21872804-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	263.6	1	0	2	96.30	0.2	11.82	0.0	0.0	0.1

23618031	JJ23279239-NODE	21872776-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	14.6	2	1	2	96.19	0.3	12.21	0.0	0.0	0.2
21938815	JJ23276981-NODE	F72-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.0	12	3	12	97.17	1.5	13.70	0.0	0.0	1.1
21938821	F72-PD	26936774-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	542.4	12	3	12	97.17	1.5	13.69	0.0	0.0	1.1
26936779	26936774-NODE	JJ23276975-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	142.6	12	3	12	95.97	1.5	11.04	0.0	0.0	1.1
21723625	JJ23276975-NODE	JJ23497783-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	173.9	2	1	2	96.27	0.3	11.67	0.0	0.0	0.2
21723638	JJ23497783-NODE	21872725-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	85.1	2	1	2	96.17	0.3	11.45	0.0	0.0	0.2
23617988	JJ23276975-NODE	21872716-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	8.7	9	3	10	95.87	1.2	10.84	0.0	0.0	0.9
26936787	26936774-NODE	FAL103-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	411.3	0	0	1	-39.56	0.1	94.06	0.0	0.0	0.0
21938827	JJ23279265-NODE	FAL33-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	40.9	2	1	2	96.28	0.2	11.70	0.0	0.0	0.2
21938832	FAL33-PD	21872750-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	156.0	2	1	2	96.25	0.2	11.63	0.0	0.0	0.2
27141669	JJ23279263-NODE	27125144-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.1	0	0	0	0.01	0.0	117.51	0.0	0.0	0.0
23617906	JJ23273305-NODE	21872664-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	12.5	2	0	2	96.32	0.2	12.50	0.0	0.0	0.2
21938799	JJ23279269-NODE	FAM27-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	59.9	14	4	15	95.77	1.8	10.81	0.0	0.0	1.4
21938793	FAM27-PD	21872336-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	647.0	14	4	15	95.76	1.8	10.80	0.0	0.0	1.4
23617882	JJ23279269-NODE	21872674-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	16.3	4	1	4	95.77	0.5	10.81	0.0	0.0	0.3
23617864	JJ23279267-NODE	21872076-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	16.3	2	0	2	96.33	0.2	12.50	0.0	0.0	0.2
23617817	JJ23273463-NODE	21872025-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.9	2	0	2	96.32	0.2	12.49	0.0	0.0	0.2
21938458	JJ23277305-NODE	FAM1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	76.3	2	0	2	96.60	0.2	13.09	0.0	0.0	0.2
21938450	FAM1-PD	21872018-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	257.1	2	0	2	96.54	0.2	12.95	0.0	0.0	0.2
21938472	JJ23277293-NODE	F1379-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	27.7	49	12	50	96.96	6.2	13.40	0.0	0.0	4.7
21938465	F1379-PD	JJ23273455-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	432.3	49	12	50	96.96	6.2	13.40	0.0	0.0	4.7
21878494	JJ23273455-NODE	23617451-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	19.8	49	12	50	96.95	6.2	13.38	0.0	0.0	4.7
23617452	23617451-NODE	JJ23271769-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	165.9	45	11	47	97.04	5.7	13.58	0.0	0.0	4.3
21880919	JJ23271769-NODE	JJ23271771-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	328.4	45	11	47	97.03	5.7	13.56	0.0	0.0	4.3
21878501	JJ23271771-NODE	23617497-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	7.9	45	11	47	97.02	5.7	13.54	0.0	0.0	4.3
23617498	23617497-NODE	23617542-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	512.0	42	10	43	97.12	5.3	13.77	0.0	0.0	4.0
23617543	JJ23273447-NODE	23617542-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	15.0	38	9	39	97.22	4.8	14.01	0.0	0.0	3.7
21933798	JJ23273447-NODE	JJ23279293-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	3.0	33	8	34	97.42	4.2	14.51	0.0	0.0	3.2
21933790	JJ23279293-NODE	JJ23279297-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	168.7	33	8	34	97.42	4.2	14.51	0.0	0.0	3.2
21933783	JJ23279297-NODE	JJ23277033-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	296.8	30	7	30	97.59	3.7	14.94	0.0	0.0	2.8
21933776	JJ23277033-NODE	JJ23279303-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	346.8	26	6	27	97.78	3.3	15.46	0.0	0.0	2.5
21933767	JJ23279303-NODE	JJ23277047-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	91.7	26	6	27	97.77	3.3	15.42	0.0	0.0	2.5
21933760	JJ23277047-NODE	JJ23279311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	267.0	22	5	23	98.01	2.8	16.10	0.0	0.0	2.1
22351568	JJ23279311-NODE	F3891-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	40.9	19	4	19	98.33	2.4	17.06	0.0	0.0	1.8
22351564	F3891-PD	JJ23277007-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	746.5	19	4	19	98.33	2.4	17.06	0.0	0.0	1.8
21933751	JJ23277007-NODE	26784556-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	203.3	8	2	9	96.09	1.1	11.47	0.0	0.0	0.8
21938770	26784556-NODE	FAL48-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	44.3	7	2	7	95.87	0.9	11.02	0.0	0.0	0.7
21938776	FAL48-PD	21872646-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	816.5	7	2	7	95.86	0.9	11.00	0.0	0.0	0.7
26784557	26784556-NODE	FAL47-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.5	1	0	2	96.89	0.2	13.22	0.0	0.0	0.1
25700855	FAL47-PD	21872856-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	897.9	1	0	2	96.88	0.2	13.20	0.0	0.0	0.1
21938787	JJ23277007-NODE	FAL46-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	25.3	4	1	4	95.95	0.5	11.19	0.0	0.0	0.3
21938781	FAL46-PD	21872655-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	435.3	4	1	4	95.94	0.5	11.17	0.0	0.0	0.3
21989174	JJ23277007-NODE	F1991-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	231.5	7	0	7	99.99	0.9	26.87	0.0	0.0	0.6
21989160	F1991-PD	JJ23292503-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	33.7	7	0	7	99.99	0.9	26.77	0.0	0.0	0.6
23617680	JJ23279311-NODE	21872620-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	6.2	4	1	4	95.77	0.5	10.82	0.0	0.0	0.3
21938754	JJ23277047-NODE	FAL44-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	23.8	4	1	4	95.90	0.5	11.08	0.0	0.0	0.3
21938748	FAL44-PD	21872629-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	303.5	4	1	4	95.89	0.5	11.06	0.0	0.0	0.3

21938765	JJ23277033-NODE	FAL43-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	17.9	4	1	4	95.83	0.5	10.95	0.0	0.0	0.3
21938759	FAL43-PD	21872638-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	146.5	4	1	4	95.82	0.5	10.93	0.0	0.0	0.3
23617613	JJ23279297-NODE	21872345-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	19.2	4	1	4	95.77	0.5	10.83	0.0	0.0	0.3
21938493	JJ23273447-NODE	FAL40-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	18.1	5	2	5	95.81	0.7	10.91	0.0	0.0	0.5
21938487	FAL40-PD	21872084-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	267.0	5	2	5	95.80	0.7	10.90	0.0	0.0	0.5
23617549	23617542-NODE	21872093-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	12.9	4	1	4	95.77	0.5	10.83	0.0	0.0	0.3
23617515	23617497-NODE	21872033-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.3	4	1	4	95.77	0.5	10.83	0.0	0.0	0.3
23617458	23617451-NODE	21872039-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	16.7	4	1	4	95.77	0.5	10.84	0.0	0.0	0.3
23617249	JJ23273473-NODE	21871963-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.4	4	1	4	96.07	0.5	11.94	0.0	0.0	0.4
23617216	JJ23273471-NODE	21871970-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.3	4	1	4	96.07	0.5	11.94	0.0	0.0	0.4
21938422	JJ23277333-NODE	FAM13-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.3	7	2	7	95.73	0.9	10.81	0.0	0.0	0.7
21938414	FAM13-PD	21871990-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	179.1	7	2	7	95.73	0.9	10.79	0.0	0.0	0.7
21938429	JJ23277329-NODE	FAL6-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	26.9	4	1	4	95.92	0.5	11.18	0.0	0.0	0.3
22274766	FAL6-PD	JJ23372807-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	339.4	4	1	4	95.91	0.5	11.16	0.0	0.0	0.3
23617136	JJ23372807-NODE	21871997-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	5.6	4	1	4	95.77	0.5	10.88	0.0	0.0	0.3
23616876	JJ23279325-NODE	21872005-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	6.7	4	1	4	96.07	0.5	11.94	0.0	0.0	0.4
22311483	JJ23279331-NODE	F3826-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	161.4	268	76	278	96.15	11.3	11.75	0.0	0.0	6.2
22311480	F3826-PD	JJ23394293-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	25.0	268	77	278	96.15	11.3	11.75	0.0	0.0	13.2
22351353	JJ23394293-NODE	JJ23412685-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	1099.5	261	74	271	96.16	11.0	11.77	0.1	0.1	12.5
22311470	JJ23412685-NODE	FAT4-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	22.8	19	5	19	95.90	2.4	11.07	0.0	0.0	1.8
21937583	FAT4-PD	21910790-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	355.1	19	5	19	95.90	2.4	11.07	0.0	0.0	1.8
22351349	JJ23412685-NODE	JJ23412691-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	824.7	242	69	252	96.16	10.3	11.77	0.1	0.0	12.5
22311477	JJ23412691-NODE	JJ23394323-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	325.0	235	67	244	96.15	10.0	11.76	0.0	0.0	11.9
22311227	JJ23394323-NODE	F3830-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	31.9	77	21	79	96.60	3.2	12.66	0.0	0.0	7.4
25171019	F3830-PD	JJ23277827-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	153.4	77	21	79	96.60	9.7	12.65	0.0	0.0	7.4
21932974	JJ23277827-NODE	23615288-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	268.7	73	19	76	96.63	9.3	12.71	0.0	0.0	7.0
21933031	23615288-NODE	JJ23277845-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	566.8	72	19	74	96.64	9.1	12.73	0.0	0.0	6.9
21933021	JJ23277845-NODE	23615406-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	217.3	68	18	70	96.67	8.6	12.79	0.0	0.0	6.5
21878366	23615406-NODE	JJ23273665-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	506.2	65	17	67	96.71	8.2	12.88	0.0	0.0	6.2
21937549	JJ23273665-NODE	F1381-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	264.7	63	17	65	96.72	8.0	12.89	0.0	0.0	6.1
21754892	F1381-PD	25382144-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	743.3	63	17	65	96.71	8.0	12.88	0.0	0.0	6.1
21754890	25382144-NODE	21763407-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.6	1	0	2	96.06	0.2	11.46	0.0	0.0	0.1
25382145	25382144-NODE	JJ23279611-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1184.5	62	16	64	96.72	7.8	12.88	0.0	0.0	5.9
21933013	JJ23279611-NODE	JJ23271787-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	268.2	60	16	62	96.71	7.6	12.85	0.0	0.0	5.8
21880900	JJ23271787-NODE	21871975-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	417.1	1	0	2	96.45	0.2	12.26	0.0	0.0	0.1
21983316	JJ23271787-NODE	JJ23298435-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	830.6	59	15	61	96.71	7.5	12.85	0.0	0.0	5.6
21983293	JJ23298435-NODE	FAM41-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	23.1	4	1	4	95.98	0.5	11.28	0.0	0.0	0.3
21983274	FAM41-PD	22046954-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	513.5	4	1	4	95.97	0.5	11.26	0.0	0.0	0.3
21983305	JJ23298435-NODE	25064837-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	167.5	55	14	57	96.74	7.0	12.91	0.0	0.0	5.3
25064838	25064837-NODE	JJ23279615-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	294.1	48	12	50	96.88	6.1	13.22	0.0	0.0	4.6
21933005	JJ23279615-NODE	JJ23279617-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	487.6	48	12	50	96.87	6.1	13.21	0.0	0.0	4.6
21878504	JJ23279617-NODE	JJ23273445-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	739.9	47	12	48	96.88	5.9	13.23	0.0	0.0	4.5
21878533	JJ23273445-NODE	JJ23273389-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	223.4	43	11	45	96.95	5.5	13.38	0.0	0.0	4.1
23615693	JJ23273389-NODE	21872708-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.3	4	1	4	95.77	0.5	10.84	0.0	0.0	0.3
23615701	JJ23273389-NODE	JJ23273291-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	123.7	40	10	41	97.04	5.0	13.59	0.0	0.0	3.8
21878633	JJ23273291-NODE	JJ23273293-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	67.7	40	10	41	97.04	5.0	13.58	0.0	0.0	3.8
21932998	JJ23273293-NODE	JJ23279623-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	467.4	34	8	35	97.22	4.3	14.01	0.0	0.0	3.3

21932989	JJ23279623-NODE	F2255-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	32.8	27	6	28	97.46	3.4	14.63	0.0	0.0	2.6
21881405	F2255-PD	26539187-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1.5	27	6	28	97.46	3.4	14.62	0.0	0.0	2.6
21881425	JJ23271495-NODE	JJ23271497-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	383.2	26	6	26	97.19	3.2	13.94	0.0	0.0	2.5
21878642	JJ23271497-NODE	JJ23273287-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	245.9	26	6	26	97.17	3.3	13.90	0.0	0.0	2.5
21932980	JJ23273287-NODE	JJ23276961-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	252.1	22	5	23	97.36	2.8	14.36	0.0	0.0	2.1
21938838	JJ23276961-NODE	FAM5-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	37.6	5	1	5	95.98	0.6	11.26	0.0	0.0	0.5
21938842	FAM5-PD	24773224-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	168.1	5	1	5	95.97	0.6	11.23	0.0	0.0	0.5
24773225	24773224-NODE	24773255-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	200.7	5	1	5	95.92	0.6	11.13	0.0	0.0	0.5
24773256	24773255-NODE	24773265-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	190.3	5	1	5	95.86	0.6	11.00	0.0	0.0	0.5
24773266	24773265-NODE	21872759-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	128.7	5	1	5	95.80	0.6	10.89	0.0	0.0	0.5
22274813	JJ23276961-NODE	JJ23372613-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	292.6	17	4	18	97.67	2.2	15.16	0.0	0.0	1.7
22274810	JJ23372613-NODE	F2367-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1030.5	11	2	11	98.66	1.3	18.15	0.0	0.0	1.0
21881973	JJ23271183-NODE	JJ23271181-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	456.6	11	3	11	95.97	1.3	11.23	0.0	0.0	1.0
21878773	JJ23271181-NODE	23616106-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	427.4	11	3	11	95.91	1.3	11.10	0.0	0.0	1.0
23616119	23616106-NODE	JJ23273145-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	6.5	7	2	7	95.89	0.9	11.06	0.0	0.0	0.7
25630559	JJ23273145-NODE	21873549-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	954.7	7	2	7	95.89	0.9	11.06	0.0	0.0	0.7
23616125	23616106-NODE	21873557-NODE	DEFAULT	Overhead Line		13.800	10.7	4	1	4	95.77	0.5	10.82	0.0	0.0	0.3
24219521	JJ23372613-NODE	24219512-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.2	7	2	7	95.69	0.9	10.67	0.0	0.0	0.7
23615880	JJ23273287-NODE	21872768-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.1	4	1	4	95.77	0.5	10.83	0.0	0.0	0.3
23615856	JJ23271495-NODE	21872732-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.4	1	0	2	96.06	0.2	11.42	0.0	0.0	0.1
23615767	JJ23279623-NODE	F1933-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	29.8	7	2	7	96.12	0.9	11.54	0.0	0.0	0.7
21938808	F1933-PD	JJ23273299-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	319.6	7	2	7	96.11	0.9	11.53	0.0	0.0	0.7
21878624	JJ23273299-NODE	24773530-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	164.5	4	1	4	96.23	0.5	11.78	0.0	0.0	0.4
25414527	24773530-NODE	21872691-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	111.5	4	1	4	96.17	0.5	11.65	0.0	0.0	0.4
23615831	JJ23273299-NODE	21872683-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.8	4	1	4	95.85	0.5	11.00	0.0	0.0	0.3
23615727	JJ23273293-NODE	21872699-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	17.8	5	2	6	95.73	0.7	10.76	0.0	0.0	0.5
23615671	JJ23273445-NODE	21872328-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.5	4	1	4	95.77	0.5	10.84	0.0	0.0	0.3
23615645	JJ23279617-NODE	21872111-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.3	1	0	2	96.06	0.2	11.43	0.0	0.0	0.1
25064846	25064837-NODE	25027926-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.0	7	2	7	95.69	0.9	10.69	0.0	0.0	0.7
23615445	JJ23279611-NODE	21871983-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.2	1	0	2	96.06	0.2	11.45	0.0	0.0	0.1
23615418	JJ23273665-NODE	21910719-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.7	1	0	2	96.06	0.2	11.47	0.0	0.0	0.1
23615407	23615406-NODE	21910737-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	14.7	4	1	4	95.77	0.5	10.89	0.0	0.0	0.3
21937556	JJ23277845-NODE	FAT11-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	26.5	4	1	4	95.87	0.5	11.10	0.0	0.0	0.3
21937563	FAT11-PD	21910479-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	237.7	4	1	4	95.86	0.5	11.07	0.0	0.0	0.3
23615289	23615288-NODE	21910755-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.5	1	0	2	96.06	0.2	11.49	0.0	0.0	0.1
21937577	JJ23277827-NODE	FAT10-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	24.8	4	1	4	95.97	0.5	11.31	0.0	0.0	0.3
21937569	FAT10-PD	21910771-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	486.2	4	1	4	95.96	0.5	11.29	0.0	0.0	0.3
22311496	JJ23394323-NODE	FAM46-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	30.3	158	47	165	95.92	6.7	11.30	0.0	0.0	5.9
25171007	FAM46-PD	JJ23394111-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	2.1	158	47	165	95.92	6.7	11.30	0.0	0.0	5.9
24219474	JJ23412691-NODE	24219462-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.9	7	2	7	95.69	0.9	10.75	0.0	0.0	0.7
24219442	JJ23394293-NODE	24219432-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.3	7	2	7	95.69	0.9	10.78	0.0	0.0	0.7
22311487	JJ23279331-NODE	F1321-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	244.5	85	22	88	96.69	3.6	12.94	0.0	0.0	2.0
21937541	F1321-PD	JJ23279637-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	726.3	85	22	88	96.68	3.6	12.90	0.0	0.0	2.0
21932959	JJ23279637-NODE	JJ23277909-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	557.1	76	20	78	96.72	3.2	13.01	0.0	0.0	1.5
21932966	JJ23277909-NODE	JJ23279631-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	485.1	62	16	64	96.84	2.6	13.36	0.0	0.0	1.5
21932951	JJ23279631-NODE	JJ23279639-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	626.4	52	13	54	96.96	2.2	13.66	0.0	0.0	1.1
21932944	JJ23279639-NODE	JJ23277897-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	506.2	43	11	44	97.01	1.8	13.73	0.0	0.0	1.1

21937485	JJ23277897-NODE	FAT12-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.7	5	1	5	96.00	0.6	11.27	0.0	0.0	0.5
21937477	FAT12-PD	21910617-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	239.4	5	1	5	96.00	0.6	11.26	0.0	0.0	0.5
22056088	JJ23277897-NODE	JJ23309775-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	785.9	38	9	40	97.06	1.6	13.85	0.0	0.0	0.9
22056111	JJ23309775-NODE	JJ23277889-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	1332.5	35	9	36	97.04	1.5	13.76	0.0	0.0	0.9
21932936	JJ23277889-NODE	26097030-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	619.2	25	6	26	97.14	1.1	14.00	0.0	0.0	0.5
26097031	26097030-NODE	JJ23279645-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	2009.4	16	4	16	97.47	0.7	15.24	0.0	0.0	0.4
21932920	JJ23279645-NODE	JJ23279653-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	1051.2	11	3	11	95.42	0.5	14.87	0.0	0.0	0.4
21932928	JJ23279653-NODE	JJ23273817-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	225.4	9	2	9	94.47	0.4	13.77	0.0	0.0	0.4
21917799	JJ23273817-NODE	JJ23296951-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	192.5	7	2	8	94.48	0.3	13.64	0.0	0.0	0.3
21984345	JJ23296951-NODE	JJ23278177-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	435.2	2	0	2	90.61	0.1	18.59	0.0	0.0	0.1
23616604	JJ23278177-NODE	21909271-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.6	2	0	2	96.32	0.2	12.45	0.0	0.0	0.2
23616778	JJ23278177-NODE	23228867-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	272.2	0	0	0	0.01	0.0	117.74	0.0	0.0	0.0
23616569	JJ23296951-NODE	21909260-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.2	6	2	6	96.04	0.7	11.85	0.0	0.0	0.6
23616561	JJ23273817-NODE	21909083-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.1	2	0	2	96.32	0.2	12.45	0.0	0.0	0.2
21936984	JJ23279653-NODE	FAT5-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	32.5	2	1	2	96.58	0.2	12.50	0.0	0.0	0.2
21936976	FAT5-PD	21909073-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	587.5	2	1	2	96.56	0.2	12.45	0.0	0.0	0.2
23616495	JJ23279645-NODE	21909066-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.3	5	2	6	95.73	0.7	10.86	0.0	0.0	0.5
26097039	26097030-NODE	26034678-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	14.2	9	3	10	95.87	1.2	11.00	0.0	0.0	0.9
21937498	JJ23277889-NODE	FAT6-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	28.3	9	3	10	95.95	1.2	11.16	0.0	0.0	0.9
21937491	FAT6-PD	21909045-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	483.8	9	3	10	95.94	1.2	11.15	0.0	0.0	0.9
23616406	JJ23309775-NODE	22114641-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	12.2	4	1	4	96.07	0.5	11.92	0.0	0.0	0.4
22352441	JJ23279639-NODE	F3860-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	31.3	9	3	10	96.30	1.2	12.41	0.0	0.0	0.9
22352437	F3860-PD	JJ23406463-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1345.6	9	3	10	96.30	1.2	12.40	0.0	0.0	0.9
22352586	JJ23406463-NODE	21910602-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	210.1	2	0	2	96.50	0.2	12.83	0.0	0.0	0.2
24221050	JJ23406463-NODE	24221026-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.8	8	2	8	96.00	1.0	11.79	0.0	0.0	0.7
23616271	JJ23279631-NODE	21910584-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.6	9	3	10	95.87	1.2	11.01	0.0	0.0	0.9
21937470	JJ23277909-NODE	FAR14-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.4	14	4	15	95.77	1.8	10.93	0.0	0.0	1.4
21937463	FAR14-PD	21910567-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	645.8	14	4	15	95.76	1.8	10.93	0.0	0.0	1.4
23616230	JJ23279637-NODE	21910442-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.3	9	3	10	95.87	1.2	11.01	0.0	0.0	0.9
24458874	24458464-NODE	24458528-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	20.1	0	0	0	0.01	0.0	117.76	0.0	0.0	0.0
24458910	24458482-NODE	24458528-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	33.5	0	0	0	0.01	0.0	117.76	0.0	0.0	0.0
21937514	JJ23277877-NODE	FAL3-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	78.9	4	1	4	95.81	0.5	11.06	0.0	0.0	0.3
21937506	FAL3-PD	21910670-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	33.8	4	1	4	95.78	0.5	10.99	0.0	0.0	0.3
23614973	JJ23279345-NODE	21910685-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.5	4	1	4	95.77	0.5	11.00	0.0	0.0	0.3
21937528	JJ23279347-NODE	FAR12-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.7	31	9	32	95.91	3.9	11.16	0.0	0.0	3.0
21937520	FAR12-PD	21910461-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1300.5	31	9	32	95.90	3.9	11.16	0.0	0.0	3.0
23614936	JJ23279353-NODE	21910703-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.3	5	1	5	95.92	0.6	11.22	0.0	0.0	0.5
21938408	JJ23277341-NODE	FAR29-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.2	4	1	4	96.18	0.5	12.15	0.0	0.0	0.4
21938401	FAR29-PD	21910857-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	288.1	4	1	4	96.17	0.5	12.13	0.0	0.0	0.4
23614859	JJ23279357-NODE	21871948-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.5	5	2	6	95.73	0.7	11.04	0.0	0.0	0.5
21938310	JJ23277407-NODE	FAL80-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	29.8	14	3	14	97.28	1.7	14.31	0.0	0.0	1.3
23614711	JJ23277415-NODE	21871941-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.8	5	1	5	96.04	0.6	11.85	0.0	0.0	0.4
23614624	JJ23273483-NODE	23614623-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	16.5	244	65	253	96.66	10.3	13.15	0.0	0.0	9.7
22123883	23614623-NODE	F3462-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	273.0	243	65	252	96.66	10.2	13.15	0.0	0.0	9.7
22123898	F3462-PD	JJ23277783-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	226.9	243	65	252	96.66	10.2	13.14	0.0	0.0	9.7
22311279	JJ23277783-NODE	JJ23395475-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	121.8	243	65	252	96.65	10.2	13.12	0.0	0.0	9.7
23631891	JJ23395475-NODE	23631890-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	375.2	236	62	244	96.67	9.9	13.16	0.0	0.1	9.4

21933179	23631890-NODE	JJ23277737-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	679.2	232	61	240	96.68	9.8	13.16	0.0	0.1	9.2
21933164	JJ23277737-NODE	JJ23279549-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	273.3	200	52	207	96.71	8.4	13.29	0.0	0.0	8.5
21933171	JJ23279549-NODE	JJ23279547-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	157.7	192	50	199	96.73	8.1	13.30	0.0	0.0	8.2
21933149	JJ23279547-NODE	JJ23277743-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	154.4	183	48	189	96.77	7.7	13.39	0.0	0.0	8.2
21933156	JJ23277743-NODE	F1636-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	24.2	175	45	181	96.80	22.1	13.42	0.0	0.0	16.8
21984893	F1636-PD	JJ23279569-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	106.9	175	45	181	96.80	22.1	13.42	0.0	0.0	16.8
21933131	JJ23279569-NODE	JJ23277753-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	124.6	172	44	177	96.82	21.6	13.45	0.0	0.0	16.4
21933140	JJ23277753-NODE	JJ23279563-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	347.4	171	44	177	96.81	21.6	13.43	0.0	0.0	16.4
21933118	JJ23279563-NODE	JJ23277773-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	486.3	164	42	169	96.85	20.7	13.51	0.0	0.0	15.6
21933104	JJ23277773-NODE	JJ23279573-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	245.7	160	41	165	96.86	20.2	13.53	0.0	0.0	15.3
21933110	JJ23279573-NODE	JJ23273655-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	253.5	154	39	159	96.88	19.4	13.57	0.0	0.0	14.7
23655427	JJ23273655-NODE	21911122-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.5	1	0	1	96.70	0.1	13.14	0.0	0.0	0.1
23655467	JJ23273655-NODE	23655466-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	251.7	153	39	158	96.88	19.3	13.57	0.0	0.0	14.7
21721825	23655466-NODE	JJ23279583-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	273.6	152	39	157	96.89	19.1	13.57	0.0	0.0	14.5
21933096	JJ23279583-NODE	JJ23382741-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	392.1	148	38	153	96.91	18.7	13.62	0.0	0.0	14.1
22288343	JJ23382741-NODE	F3806-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	3.8	79	19	81	97.32	9.9	14.60	0.0	0.0	7.5
22288382	JJ23382741-NODE	JJ23345171-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	399.7	69	19	72	96.41	8.8	12.49	0.0	0.0	6.7
21937622	JJ23345171-NODE	FAQ16-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	30.2	8	2	8	96.04	1.0	11.70	0.0	0.0	0.7
21937611	FAQ16-PD	21910839-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	172.8	8	2	8	96.03	1.0	11.69	0.0	0.0	0.7
22206399	JJ23345171-NODE	JJ23345161-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	985.5	62	17	64	96.45	7.8	12.57	0.0	0.0	5.9
22206341	JJ23345161-NODE	FAQ84-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	16.6	15	4	16	96.95	1.9	13.69	0.0	0.0	1.4
23656200	FAQ84-PD	23656183-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	20.9	15	4	16	96.95	1.9	13.68	0.0	0.0	1.4
22206417	JJ23345161-NODE	JJ23279587-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	226.7	47	13	48	96.25	5.9	12.14	0.0	0.0	4.5
21933074	JJ23279587-NODE	JJ23278251-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	959.0	43	12	44	96.24	5.4	12.12	0.0	0.0	4.1
21933083	JJ23278251-NODE	JJ23273839-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	281.1	35	10	37	96.24	4.5	12.10	0.0	0.0	3.4
21917730	JJ23273839-NODE	JJ23273835-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	242.8	33	9	34	96.23	4.2	12.09	0.0	0.0	3.2
21917746	JJ23273835-NODE	JJ23272759-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	178.7	29	8	30	96.24	3.7	12.11	0.0	0.0	2.8
21879014	JJ23272759-NODE	JJ23272757-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	287.4	29	8	30	96.23	3.7	12.09	0.0	0.0	2.8
21933060	JJ23272757-NODE	JJ23278259-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	63.0	29	8	30	96.22	3.7	12.06	0.0	0.0	2.8
21933068	JJ23278259-NODE	JJ23279591-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	145.6	10	3	10	96.46	1.3	12.58	0.0	0.0	1.0
21933040	JJ23279591-NODE	JJ23278271-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	701.3	9	3	10	96.42	1.2	12.48	0.0	0.0	0.9
21933052	JJ23278271-NODE	JJ23273849-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	267.3	5	2	6	96.34	0.7	12.32	0.0	0.0	0.5
21917715	JJ23273849-NODE	JJ23273847-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	224.1	4	1	4	96.25	0.5	12.13	0.0	0.0	0.4
22123999	JJ23273847-NODE	23632803-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	261.2	0	0	0	0.01	0.0	117.87	0.0	0.0	0.0
23632812	23632803-NODE	23243696-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	14.0	0	0	0	0.01	0.0	117.87	0.0	0.0	0.0
23656504	JJ23273847-NODE	21908890-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.1	4	1	4	96.07	0.5	11.74	0.0	0.0	0.4
23656498	JJ23273849-NODE	21908900-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.0	2	0	2	96.32	0.2	12.27	0.0	0.0	0.2
21936849	JJ23278271-NODE	FAQ11-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	28.7	4	1	4	96.28	0.5	12.18	0.0	0.0	0.4
21936857	FAQ11-PD	21908911-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	548.1	4	1	4	96.27	0.5	12.16	0.0	0.0	0.4
23656456	JJ23279591-NODE	21908933-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.0	1	0	1	96.69	0.1	13.09	0.0	0.0	0.1
21936868	JJ23278259-NODE	F2967-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.2	19	5	20	96.08	2.4	11.78	0.0	0.0	1.8
21986501	F2967-PD	23656418-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	453.0	19	5	20	96.08	2.4	11.77	0.0	0.0	1.8
21986529	23656418-NODE	26484719-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	593.4	11	3	12	96.08	1.4	11.77	0.0	0.0	1.1
26313498	26484719-NODE	26313481-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.6	11	3	12	96.01	1.5	11.61	0.0	0.0	1.1
23656419	23656418-NODE	22047907-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.4	8	2	8	96.00	1.0	11.61	0.0	0.0	0.7
23656257	JJ23273835-NODE	21908944-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.3	4	1	4	96.07	0.5	11.74	0.0	0.0	0.4
23656250	JJ23273839-NODE	21908954-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	6.8	2	1	2	96.18	0.3	11.98	0.0	0.0	0.2

21936885	JJ23278251-NODE	FAR22-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	26.3	8	2	8	96.09	1.0	11.80	0.0	0.0	0.7
21936875	FAR22-PD	21908964-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	474.3	8	2	8	96.09	1.0	11.79	0.0	0.0	0.7
21936934	JJ23279587-NODE	FAR1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	26.5	4	1	4	96.30	0.5	12.25	0.0	0.0	0.4
21936924	FAR1-PD	21909025-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	626.7	4	1	4	96.29	0.5	12.23	0.0	0.0	0.4
23656105	JJ23279583-NODE	21911086-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	12.8	4	1	4	96.07	0.5	11.78	0.0	0.0	0.4
21878379	23655466-NODE	21911103-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.2	2	0	2	96.32	0.2	12.32	0.0	0.0	0.2
21937684	JJ23279573-NODE	FAQ22-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.4	6	2	6	96.36	0.7	12.41	0.0	0.0	0.5
21937692	FAQ22-PD	21911140-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1291.6	6	2	6	96.35	0.7	12.40	0.0	0.0	0.5
21937704	JJ23277773-NODE	FAQ21-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	26.6	4	1	4	96.23	0.5	12.15	0.0	0.0	0.4
21937711	FAQ21-PD	21911161-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	430.3	4	1	4	96.22	0.5	12.13	0.0	0.0	0.4
23655293	JJ23279563-NODE	21911177-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.4	8	2	8	96.00	1.0	11.68	0.0	0.0	0.7
21937733	JJ23277753-NODE	FAQ19-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.8	0	0	0	-96.92	0.0	42.21	0.0	0.0	0.0
21937723	FAQ19-PD	21911211-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	381.1	0	0	0	-97.31	0.0	41.28	0.0	0.0	0.0
23654930	JJ23279569-NODE	21911193-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.5	4	1	4	96.07	0.5	11.83	0.0	0.0	0.4
21937748	JJ23277743-NODE	F2140-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	26.5	8	2	8	96.42	1.0	12.57	0.0	0.0	0.7
21937741	F2140-PD	JJ23273651-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	519.9	8	2	8	96.41	1.0	12.56	0.0	0.0	0.7
21878382	JJ23273651-NODE	24245693-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1367.3	4	1	4	96.56	0.5	12.89	0.0	0.0	0.4
23632127	JJ23273651-NODE	21911227-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.8	4	1	4	96.07	0.5	11.83	0.0	0.0	0.4
23632053	JJ23279547-NODE	21911244-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	13.4	9	3	10	95.87	1.2	11.25	0.0	0.0	0.9
22311209	JJ23279549-NODE	F3833-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.4	8	2	8	96.44	1.0	12.63	0.0	0.0	0.7
22311202	F3833-PD	JJ23396129-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	992.6	8	2	8	96.43	1.0	12.62	0.0	0.0	0.7
22311206	JJ23396129-NODE	21911261-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1013.0	4	1	4	96.44	0.5	12.62	0.0	0.0	0.4
24220846	JJ23396129-NODE	24220828-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.2	4	1	4	96.07	0.5	11.84	0.0	0.0	0.4
21937756	JJ23277737-NODE	F2158-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	33.9	32	9	33	96.21	1.3	12.07	0.0	0.0	0.7
21932914	F2158-PD	JJ23272177-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	512.2	32	9	33	96.20	1.3	12.05	0.0	0.0	0.7
21880184	JJ23272177-NODE	21911280-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	386.6	8	2	8	96.07	1.0	11.86	0.0	0.0	0.7
21932907	JJ23272177-NODE	23632296-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	88.5	24	7	25	96.11	1.0	11.83	0.0	0.0	0.4
23631899	23631890-NODE	21911068-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.3	4	1	4	96.07	0.5	11.87	0.0	0.0	0.4
24220977	JJ23395475-NODE	24220938-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.9	8	2	8	96.00	1.0	11.75	0.0	0.0	0.7
23614632	23614623-NODE	21871889-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.4	1	0	1	96.49	0.1	12.68	0.0	0.0	0.1
22123867	JJ23279371-NODE	F3463-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	104.8	137	36	142	96.77	5.8	13.28	0.0	0.0	3.3
22123848	F3463-PD	JJ23330503-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	25.1	137	36	142	96.77	5.8	13.27	0.0	0.0	3.3
22374746	JJ23330503-NODE	JJ23425735-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	141.9	137	36	142	96.77	5.8	13.26	0.0	0.0	3.3
22374735	JJ23425735-NODE	F3924-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	24.9	28	8	29	96.34	3.5	12.20	0.0	0.0	2.7
22374739	F3924-PD	JJ23425751-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	17.3	28	8	29	96.34	3.5	12.20	0.0	0.0	2.7
22374720	JJ23425751-NODE	FAL100-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	92.0	19	5	19	96.56	2.3	12.68	0.0	0.0	1.8
26984778	JJ23425751-NODE	24219352-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.7	9	3	10	95.87	1.2	11.23	0.0	0.0	0.9
22374743	JJ23425735-NODE	JJ23273449-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	1702.9	110	28	113	96.87	4.6	13.52	0.0	0.0	2.1
21878497	JJ23273449-NODE	JJ23273453-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	188.3	100	26	103	96.87	4.2	13.50	0.0	0.0	1.9
21933605	JJ23273453-NODE	23612993-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	5.7	100	26	104	96.85	4.2	13.48	0.0	0.0	1.9
23612994	23612993-NODE	JJ23279377-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	186.4	95	24	99	96.90	4.0	13.58	0.0	0.0	1.8
21933597	JJ23279377-NODE	JJ23279379-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	447.4	78	21	81	96.52	3.3	12.72	0.0	0.0	1.6
21933589	JJ23279379-NODE	JJ23279385-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	575.1	78	21	81	96.49	3.3	12.64	0.0	0.0	1.6
21933581	JJ23279385-NODE	23612771-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	356.5	71	19	74	96.50	3.0	12.65	0.0	0.0	1.6
23612745	23612771-NODE	23612744-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	227.8	67	18	70	96.50	2.8	12.65	0.0	0.0	1.6
21933571	23612744-NODE	JJ23277065-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	95.2	64	17	66	96.52	2.7	12.69	0.0	0.0	1.6
21723649	JJ23277065-NODE	F3963-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	51.6	31	8	32	96.65	1.3	12.92	0.0	0.0	1.0

21723660	F3963-PD	JJ23497711-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	157.9	31	8	32	96.64	1.3	12.89	0.0	0.0	1.0
21723672	JJ23497711-NODE	JJ23493737-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	702.5	31	8	32	96.61	1.3	12.82	0.0	0.0	1.0
21723692	JJ23493737-NODE	FAL102-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.5	19	5	19	96.76	2.3	13.11	0.0	0.0	1.8
21728551	JJ23493737-NODE	24219302-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	171.8	12	3	12	95.99	0.5	11.60	0.0	0.0	0.2
21938737	JJ23277065-NODE	FAK4-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	35.3	4	1	4	96.40	0.5	12.60	0.0	0.0	0.4
21938742	FAK4-PD	21872602-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	861.1	4	1	4	96.38	0.5	12.57	0.0	0.0	0.4
21986664	JJ23277065-NODE	JJ23294545-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	989.9	30	8	31	96.38	1.2	12.42	0.0	0.0	0.5
21986647	JJ23294545-NODE	23612373-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	196.3	25	7	26	96.19	1.1	12.00	0.0	0.0	0.5
21878604	23612373-NODE	JJ23271569-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	262.6	21	6	22	96.15	0.9	11.89	0.0	0.0	0.5
21933548	JJ23271569-NODE	JJ23277071-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	116.2	12	3	12	96.18	0.5	11.99	0.0	0.0	0.2
21938730	JJ23277071-NODE	FAL56-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	27.6	12	3	12	96.11	0.5	11.85	0.0	0.0	0.2
21938724	FAL56-PD	23611920-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	370.8	12	3	12	96.10	0.5	11.82	0.0	0.0	0.2
21984971	JJ23277071-NODE	F18-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	29.9	0	0	0	0.01	0.0	118.03	0.0	0.0	0.0
23612108	JJ23271569-NODE	21872577-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	14.2	2	1	2	95.91	0.3	11.44	0.0	0.0	0.2
25815104	JJ23271569-NODE	FAK39-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	79.9	7	2	7	95.94	0.9	11.36	0.0	0.0	0.7
25815110	FAK39-PD	21872586-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	143.5	7	2	7	95.93	0.9	11.33	0.0	0.0	0.7
23612384	23612373-NODE	21872567-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.8	4	1	4	96.07	0.5	11.91	0.0	0.0	0.4
23612408	JJ23294545-NODE	22048009-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.4	5	1	5	96.04	0.6	11.85	0.0	0.0	0.4
23612753	23612744-NODE	21872594-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.1	4	1	4	95.77	0.4	11.17	0.0	0.0	0.3
23612772	23612771-NODE	21872354-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	12.0	4	1	4	95.77	0.4	11.17	0.0	0.0	0.2
21938501	JJ23279385-NODE	FAK43-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	38.8	7	2	7	95.91	0.9	11.45	0.0	0.0	0.7
21938509	FAK43-PD	21872101-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1005.7	7	2	7	95.90	0.9	11.43	0.0	0.0	0.7
22373920	JJ23279377-NODE	F3929-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	99.5	18	3	18	98.31	2.2	17.34	0.0	0.0	1.6
23613002	23612993-NODE	21872058-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	11.0	5	1	5	95.88	0.2	11.38	0.0	0.0	0.2
21878498	JJ23273449-NODE	21872067-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	17.7	9	3	10	95.87	1.2	11.22	0.0	0.0	0.4
21938318	JJ23279539-NODE	FAQ27-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	28.7	2	1	2	96.53	0.2	12.63	0.0	0.0	0.2
21938325	FAQ27-PD	21911052-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	509.0	2	1	2	96.51	0.2	12.59	0.0	0.0	0.2
21938339	JJ23277387-NODE	FAQ1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	31.6	28	8	29	95.82	3.5	11.21	0.0	0.0	2.7
21938332	FAQ1-PD	21911035-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	524.1	28	8	29	95.82	3.5	11.21	0.0	0.0	2.7
21938346	JJ23277385-NODE	FAQ28-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.2	7	2	7	95.76	0.9	11.25	0.0	0.0	0.7
22373935	FAQ28-PD	21871896-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	291.5	7	2	7	95.75	0.9	11.24	0.0	0.0	0.7
21938369	JJ23277369-NODE	FAQ32-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	39.5	6	2	6	96.08	0.7	12.02	0.0	0.0	0.5
21938377	FAQ32-PD	21871924-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	125.5	6	2	6	96.07	0.7	12.00	0.0	0.0	0.5
25862601	25862575-NODE	23225184-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	20.0	0	0	0	0.01	0.0	118.07	0.0	0.0	0.0

Load Flow - Summary Report (PALM F2)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK.sxst
Date	Tue Feb 07 2023
Time	16h08m58s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	2874.44	985.49	3038.68	94.59
Load used (Adjusted)	2874.27	985.01	3038.37	94.60
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**2874.27**	**985.01**	**3038.37**	**94.60**
Cable Capacitance	0.00	-65.35	65.35	0.00
Line Capacitance	0.00	-2.25	2.25	0.00
Total Shunt Capacitance	**0.00**	**-67.60**	**67.60**	**0.00**
Line Losses	3.69	8.78	9.53	38.77
Cable Losses	2.46	2.03	3.18	77.17
Transformer Load Losses	9.95	19.79	22.15	44.94
Transformer No-Load Losses	26.18	0.00	26.18	100.00
Total Losses	**42.28**	**30.60**	**52.19**	**81.02**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25041320	25041249-NODE	25041161-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	3.0	2917	948	3067	95.10	125.7	9.68	0.0	0.0	20.5
24650053	25041161-NODE	24644036-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	313.0	2917	948	3067	95.10	125.7	9.68	1.0	0.9	40.9
24644346	24644036-NODE	S3036-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.2	2916	949	3066	95.09	125.7	9.65	0.0	0.0	40.9
24644376	S3036-PD	24644375-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.3	2916	949	3066	95.09	125.7	9.65	0.0	0.0	40.9
24644589	24644375-NODE	S3035-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.1	2067	706	2185	94.63	89.6	8.81	0.0	0.0	29.7
24644597	S3035-PD	25858350-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.8	2067	706	2185	94.63	89.6	8.81	0.0	0.0	29.7
25858351	25858350-NODE	S922-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	106.2	2067	706	2185	94.63	89.6	8.81	0.2	0.2	29.7
21820633	JJ23293977-NODE	TO FN462-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	42.6	111	38	118	94.57	4.8	8.62	0.0	0.0	1.5
24641735	JJ23264615-NODE	TO FN196-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.1	13.800	245.4	67	22	71	94.95	2.9	9.30	0.0	0.0	1.8
21912710	JJ23558125-NODE	TO FN505-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.0	13.800	50.1	111	38	118	94.55	4.8	8.50	0.0	0.0	2.9
22099521	JJ23562801-NODE	TO FN537-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	111.5	222	76	235	94.57	9.7	8.52	0.0	0.0	3.0
22378894	JJ23311693-NODE	TO F242-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	317.7	82	27	86	94.91	10.6	9.05	0.0	0.0	5.9
22378890	TO F242-PD	24189871-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	65.2	66	22	70	94.86	8.7	8.96	0.0	0.0	4.8
24189879	24189871-NODE	TO TX N109-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	16.1	66	22	70	94.83	8.7	8.90	0.0	0.0	4.8
24189897	TO TX N109-PD	24189889-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.4	56	19	59	94.88	7.3	9.00	0.0	0.0	4.1
24189890	24189889-NODE	TO TX N110-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	162.7	56	19	59	94.88	7.3	8.99	0.0	0.0	4.1
22374699	TO TX N110-PD	TO TX N111-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	136.4	36	12	38	94.96	4.7	9.14	0.0	0.0	2.6
22374694	TO TX N111-PD	TO TX N112-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	308.5	15	5	16	95.30	2.0	9.78	0.0	0.0	1.1
22374691	TO TX N112-PD	23187164-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	74.7	8	3	8	94.82	1.0	8.89	0.0	0.0	0.6
24964324	JJ23311649-NODE	TO F751-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	623.4	92	29	96	95.37	11.9	9.91	0.0	0.0	6.6
24189919	TO F751-PD	24189911-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	20.6	82	26	86	95.24	10.6	9.67	0.0	0.0	5.9
24189849	24189911-NODE	24189848-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	223.1	82	26	86	95.24	10.6	9.65	0.0	0.0	5.9
24189856	24189848-NODE	TO TX N108-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.2	82	26	86	95.15	10.6	9.49	0.0	0.0	5.9
24189830	TO TX N108-PD	24189822-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.1	72	23	75	95.24	9.3	9.66	0.0	0.0	5.2
22374733	TO TX N107-PD	24189822-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	92.1	72	23	75	95.23	9.3	9.65	0.0	0.0	5.2
24189798	24189786-NODE	TO TX N107-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.6	61	19	64	95.31	8.0	9.79	0.0	0.0	4.4
22374727	TO TX N106-PD	24189786-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	225.9	61	19	64	95.30	8.0	9.78	0.0	0.0	4.4
24643406	24643405-NODE	TO TX N106-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	309.6	51	16	54	95.33	6.6	9.83	0.0	0.0	3.7
24643417	TO TX N105-PD	24643405-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	16.8	51	17	54	95.14	6.6	9.47	0.0	0.0	3.7
24643397	24643389-NODE	TO TX N105-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.8	41	13	43	95.29	5.3	9.75	0.0	0.0	2.9
22374717	TO TX N120-PD	24643389-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	229.7	41	13	43	95.28	5.3	9.73	0.0	0.0	2.9
24641339	24641338-NODE	TO TX N120-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	206.4	31	10	32	95.30	4.0	9.78	0.0	0.0	2.2
24641346	TO TX N104-PD	24641338-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	19.6	31	10	32	95.09	4.0	9.38	0.0	0.0	2.2
24641458	24641457-NODE	TO TX N104-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	208.2	20	6	21	95.36	2.6	9.89	0.0	0.0	1.5
24641465	TO TX N103-PD	24641457-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	18.1	20	7	21	95.04	2.7	9.29	0.0	0.0	1.5
24641437	24641421-NODE	TO TX N103-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	21.8	0	0	0	0.01	0.0	117.42	0.0	0.0	0.0
22311222	23182069-NODE	24641421-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	320.8	0	0	0	0.01	0.0	117.42	0.0	0.0	0.0
22379114	TO F1637-PD	JJ23311475-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	242.7	105	33	110	95.28	13.6	9.53	0.0	0.0	7.5
24657262	24189977-NODE	TO F1637-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	200.7	87	27	91	95.31	11.2	9.59	0.0	0.0	6.2
24189985	TO TX N125-PD	24189977-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.1	87	28	91	95.24	11.2	9.45	0.0	0.0	6.2
22379077	TO TX N126-PD	TO TX N125-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	245.6	67	21	70	95.40	8.7	9.75	0.0	0.0	4.8
24190028	TO TX N127-PD	TO TX N126-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	380.4	55	17	57	95.41	7.1	9.77	0.0	0.0	3.9
24190069	TO TX N128-PD	TO TX N127-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	472.6	43	13	45	95.32	5.5	9.61	0.0	0.0	3.1
24190108	23185639-NODE	TO TX N128-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	352.8	24	8	26	95.17	3.2	9.33	0.0	0.0	1.8
22378865	JJ23311753-NODE	TO FN308-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.0	13.800	32.2	111	38	118	94.54	4.8	8.45	0.0	0.0	2.9
22378696	JJ23312003-NODE	TO F1640-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	179.0	152	48	159	95.31	19.7	9.62	0.0	0.0	10.9

24640631	TO F1640-PD	24640623-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.3	140	44	147	95.32	18.1	9.64	0.0	0.0	10.1
22378666	24640623-NODE	TO TX N137-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	205.5	140	44	147	95.32	18.1	9.64	0.0	0.0	10.1
22378680	TO TX N137-PD	TO TX N138-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	619.9	128	40	134	95.32	16.5	9.65	0.0	0.0	9.2
22378710	TO TX N138-PD	TO TX N133-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	237.4	109	35	115	95.25	14.2	9.51	0.0	0.0	7.9
22378722	TO TX N133-PD	TO TX N132-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	319.8	91	29	96	95.27	11.8	9.55	0.0	0.0	6.6
22378739	TO TX N132-PD	TO TX N131-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	707.5	67	21	70	95.32	8.7	9.65	0.0	0.0	4.8
22378751	TO TX N131-PD	TO TX N136-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	253.6	55	18	58	95.05	7.1	9.14	0.0	0.0	3.9
22378768	TO TX N136-PD	TO TX N135-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	192.7	30	10	32	95.06	3.9	9.15	0.0	0.0	2.2
24195473	TO TX N135-PD	24195472-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	128.7	18	6	19	94.95	2.4	8.95	0.0	0.0	1.3
24195532	24195472-NODE	23185559-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.4	18	6	19	94.72	2.4	8.54	0.0	0.0	1.3
22378369	JJ23312399-NODE	TO F2098-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	226.1	83	27	87	95.04	10.8	9.72	0.0	0.0	6.0
24640394	TO F2098-PD	24640393-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	182.8	72	24	76	95.03	9.3	9.70	0.0	0.0	5.2
24640401	24640393-NODE	TO TX N184-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	16.9	72	24	76	94.95	9.4	9.55	0.0	0.0	5.2
24640465	TO TX N184-PD	TO TX N185-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	315.5	55	18	58	95.10	7.2	9.81	0.0	0.0	4.0
24640437	TO TX N185-PD	TO TX N186-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	121.7	44	15	47	95.03	5.8	9.69	0.0	0.0	3.2
22378420	TO TX N186-PD	TO TX N187-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	258.1	33	11	35	95.10	4.3	9.83	0.0	0.0	2.4
22378436	TO TX N187-PD	TO TX N188-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	242.4	22	7	23	95.06	2.9	9.75	0.0	0.0	1.6
22378448	TO TX N188-PD	23186099-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	178.7	11	4	12	94.97	1.4	9.58	0.0	0.0	0.8
24644632	24644375-NODE	24644631-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	15.4	848	243	882	96.14	36.2	11.72	0.0	0.0	11.2
24644640	24644631-NODE	S3037-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.6	848	243	882	96.14	36.2	11.71	0.0	0.0	11.2
24644613	S3037-PD	JJ23532303-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	6.7	848	243	882	96.14	36.2	11.70	0.0	0.0	11.2
24645388	JJ23532303-NODE	24645387-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	2868.3	848	243	882	96.13	36.2	11.70	0.7	0.7	11.2
24646684	24645387-NODE	S3031-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.0	847	256	885	95.71	36.3	10.81	0.0	0.0	11.3
24646785	S3031-PD	24646784-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.8	847	257	885	95.71	36.3	10.81	0.0	0.0	11.3
24646753	24646784-NODE	24646746-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	15.6	847	257	885	95.71	36.3	10.81	0.0	0.0	11.3
24646747	24646746-NODE	S3032-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	9.5	646	197	676	95.66	27.7	10.71	0.0	0.0	8.4
24646733	S3032-PD	S3033-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	24.4	646	197	676	95.66	27.7	10.71	0.0	0.0	8.4
24646709	S3033-PD	24646144-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	4.9	646	197	676	95.65	27.7	10.70	0.0	0.0	8.4
24646145	24646144-NODE	S3034-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.3	179	56	187	95.45	7.7	10.31	0.0	0.0	2.4
24646051	S3034-PD	24645667-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	6.4	179	56	187	95.45	7.7	10.30	0.0	0.0	2.4
24645685	24645667-NODE	24645684-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	480.9	179	56	187	95.44	7.7	10.29	0.0	0.0	2.4
24649453	24645684-NODE	S3039-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	3.7	178	58	188	95.07	7.7	9.60	0.0	0.0	2.4
24649447	S3039-PD	24649440-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.6	178	58	188	95.07	7.7	9.59	0.0	0.0	2.4
24649441	24649440-NODE	24649351-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	17.4	178	58	188	95.06	7.7	9.57	0.0	0.0	2.4
24649352	24649351-NODE	FN355-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.7	111	37	117	94.85	4.8	9.19	0.0	0.0	1.5
24649372	FN355-PD	24645759-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.1	13.800	9.9	111	37	117	94.84	4.8	9.17	0.0	0.0	2.9
24645760	24645759-NODE	24649073-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.1	13.800	346.8	111	37	117	94.83	4.8	9.15	0.0	0.0	2.9
24649111	24649073-NODE	TO FN355-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	4.3	111	38	118	94.53	4.8	8.61	0.0	0.0	1.5
24649366	24649351-NODE	FN356-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	6.1	67	21	70	95.36	2.9	10.13	0.0	0.0	0.9
24649322	FN356-PD	24645736-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.1	13.800	10.5	67	21	70	95.35	2.9	10.11	0.0	0.0	1.7
24645737	24645736-NODE	TO FN356-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.1	13.800	527.4	67	21	70	95.33	2.9	10.08	0.0	0.0	1.7
24649459	24649440-NODE	24649233-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	9.1	0	0	0	0.01	0.0	117.67	0.0	0.0	0.0
24646482	24646144-NODE	24646481-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	17.6	468	141	489	95.72	20.1	10.85	0.0	0.0	6.0
24648138	24646481-NODE	24648137-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	3.7	257	79	269	95.59	11.0	10.54	0.0	0.0	4.0
24648173	24648137-NODE	F2957-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.7	55	17	58	95.56	7.1	10.77	0.0	0.0	4.0
24648181	F2957-PD	24646324-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	2.2	55	17	58	95.56	7.1	10.76	0.0	0.0	4.0
24646315	24646324-NODE	24646314-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	1127.9	55	17	58	95.56	7.1	10.76	0.0	0.0	5.1

24646350	24646314-NODE	TO F2957-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.1	55	18	58	95.03	7.2	9.76	0.0	0.0	4.0
24191718	TO F2957-PD	24191702-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.6	44	14	47	95.17	5.7	10.02	0.0	0.0	3.2
22418423	24191702-NODE	TO TX N99-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	32.3	44	14	47	95.16	5.7	10.00	0.0	0.0	3.2
22364678	TO TX N99-PD	TO TX N83-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	347.5	33	11	35	95.36	4.3	10.38	0.0	0.0	2.4
22364681	TO TX N83-PD	TO TX N84-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	64.1	22	7	23	95.32	2.9	10.30	0.0	0.0	1.6
22364686	TO TX N84-PD	TO TX N85-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	251.0	11	3	12	95.96	1.4	11.57	0.0	0.0	0.8
24191643	TO TX N85-PD	24191642-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	277.1	0	0	0	0.01	0.0	117.91	0.0	0.0	0.0
24191650	24191642-NODE	23182013-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.8	0	0	0	0.01	0.0	117.91	0.0	0.0	0.0
24648193	24648137-NODE	F2958-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.3	109	33	114	95.66	14.1	10.51	0.0	0.0	7.8
24648199	F2958-PD	24647927-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	2.8	109	33	114	95.66	14.1	10.51	0.0	0.0	7.8
24647928	24647927-NODE	24645525-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	12.7	109	33	114	95.66	14.1	10.51	0.0	0.0	10.1
24645526	24645525-NODE	TO F2958-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	452.3	109	33	114	95.66	14.1	10.50	0.0	0.0	7.8
22364673	TO F2958-PD	TO TX N147-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	290.7	91	28	95	95.69	11.7	10.57	0.0	0.0	6.5
22378541	TO TX N147-PD	TO TX N148-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	422.9	73	22	76	95.80	9.4	10.79	0.0	0.0	5.2
22378562	TO TX N148-PD	TO TX N149-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	311.1	55	16	57	95.92	7.0	11.03	0.0	0.0	3.9
24649636	TO TX N149-PD	24649635-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	299.1	43	12	44	96.03	5.5	11.25	0.0	0.0	3.0
24649654	24649635-NODE	TO TX N150-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	19.3	43	13	44	95.82	5.5	10.83	0.0	0.0	3.0
24649670	TO TX N150-PD	24649662-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.6	30	9	32	96.22	3.9	11.65	0.0	0.0	2.2
22378586	24649662-NODE	TO TX N151-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	400.4	30	9	32	96.20	3.9	11.61	0.0	0.0	2.2
22378601	TO TX N151-PD	24195398-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	348.4	12	3	12	97.28	1.5	14.05	0.0	0.0	0.9
24195406	24195398-NODE	TO TX N129-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.0	12	3	13	96.53	1.6	12.30	0.0	0.0	0.9
22378618	TO TX N129-PD	24195448-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	704.6	0	-1	1	0.01	0.1	117.46	0.0	0.0	0.1
24195456	24195448-NODE	23185559-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.6	0	0	0	0.01	0.0	117.46	0.0	0.0	0.0
24648227	24648137-NODE	F2959-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.6	92	28	96	95.52	11.9	10.41	0.0	0.0	6.6
24648241	F2959-PD	24647900-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1.4	92	29	96	95.51	11.9	10.40	0.0	0.0	6.6
24647905	24647900-NODE	24645408-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	33.1	92	29	96	95.51	11.9	10.40	0.0	0.0	6.6
24645409	24645408-NODE	TO F2959-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	561.4	92	29	96	95.50	11.9	10.38	0.0	0.0	6.6
22364937	TO F2959-PD	TO TX N172-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	569.8	82	26	86	95.42	10.6	10.22	0.0	0.0	5.9
22378527	TO TX N172-PD	TO TX N173-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	350.1	71	23	75	95.30	9.3	9.99	0.0	0.0	5.1
22378515	TO TX N173-PD	TO TX N174-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	394.5	56	18	59	95.33	7.3	10.04	0.0	0.0	4.0
22378498	TO TX N174-PD	TO TX N175-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	354.5	36	11	37	95.45	4.6	10.29	0.0	0.0	2.6
22378484	TO TX N175-PD	24638017-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	360.7	20	6	21	95.64	2.6	10.64	0.0	0.0	1.5
24638025	24638017-NODE	TO TX N176-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.8	20	7	21	95.09	2.7	9.60	0.0	0.0	1.5
24638041	TO TX N176-PD	24638033-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	6.5	0	0	0	0.01	0.1	117.64	0.0	0.0	0.0
26032666	24638033-NODE	23185512-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	380.0	0	0	0	0.01	0.1	117.64	0.0	0.0	0.0
26305187	24646481-NODE	24648252-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	4.3	211	63	220	95.87	9.0	11.20	0.0	0.0	3.9
24648397	24648252-NODE	F2962-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.6	105	32	110	95.71	13.5	11.06	0.0	0.0	7.5
24648450	F2962-PD	24648075-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	4.8	105	32	110	95.71	13.5	11.06	0.0	0.0	7.5
24648076	24648075-NODE	24647438-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.0	105	32	110	95.71	13.5	11.06	0.0	0.0	7.5
24647480	24647438-NODE	24647479-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	938.7	105	32	110	95.71	13.5	11.05	0.0	0.0	7.5
24647487	24647479-NODE	TO F2962-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	22.2	105	33	110	95.43	13.6	10.52	0.0	0.0	7.5
22364944	TO F2962-PD	TO TX N152-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	276.4	94	29	99	95.54	12.1	10.72	0.0	0.0	6.7
22364948	TO TX N152-PD	TO TX N197-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	281.3	78	24	81	95.66	10.0	10.95	0.0	0.0	5.5
22364952	TO TX N197-PD	TO TX N198-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	567.0	55	16	58	95.96	7.1	11.56	0.0	0.0	4.0
22364956	TO TX N198-PD	TO TX N183-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	596.0	44	13	46	95.94	5.7	11.52	0.0	0.0	3.2
24195714	TO TX N183-PD	24195713-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	272.1	33	10	35	95.88	4.3	11.40	0.0	0.0	2.4
24195721	24195713-NODE	TO TX N182-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.9	33	10	35	95.63	4.3	10.91	0.0	0.0	2.4

24195644	TO TX N182-PD	24195636-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.9	22	6	23	96.18	2.8	12.01	0.0	0.0	1.6
21863471	24195636-NODE	TO TX N192-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	523.0	22	6	23	96.17	2.8	12.00	0.0	0.0	1.6
24195842	TO TX N192-PD	23186099-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	713.0	0	-1	1	0.01	0.1	117.91	0.0	0.0	0.1
24648421	24648252-NODE	F2961-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.1	55	16	57	96.21	7.0	11.62	0.0	0.0	3.9
24648456	F2961-PD	24647360-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.5	55	16	57	96.21	7.0	11.61	0.0	0.0	3.9
24647370	24647360-NODE	24647369-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1562.3	55	16	57	96.20	7.0	11.61	0.0	0.0	3.9
24647377	24647369-NODE	TO F2961-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.1	55	17	57	95.35	7.1	9.90	0.0	0.0	3.9
24194171	TO F2961-PD	24194170-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	392.5	43	13	45	95.52	5.5	10.23	0.0	0.0	3.0
24194178	24194170-NODE	TO TX N209-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.9	43	14	45	95.23	5.5	9.69	0.0	0.0	3.1
24194153	TO TX N209-PD	24194145-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	127.7	30	10	32	95.43	3.9	10.05	0.0	0.0	2.2
22364644	24194145-NODE	TO TX N210-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	145.7	30	10	32	95.30	3.9	9.80	0.0	0.0	2.2
24194116	TO TX N210-PD	24194108-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.4	12	4	13	95.77	1.6	10.73	0.0	0.0	0.9
22364647	24194108-NODE	23186014-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	399.9	12	4	13	95.75	1.6	10.68	0.0	0.0	0.9
24648427	24648252-NODE	F2960-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.3	51	15	53	95.83	6.6	11.02	0.0	0.0	3.7
24648478	F2960-PD	24647414-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.2	51	15	53	95.82	6.6	11.01	0.0	0.0	3.7
24647419	24647414-NODE	TO F2960-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	954.7	51	15	53	95.82	6.6	11.00	0.0	0.0	3.7
22364696	TO F2960-PD	TO TX N82-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	384.0	41	13	43	95.43	5.3	10.25	0.0	0.0	2.9
24648606	TO TX N82-PD	24648605-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	304.7	31	10	32	95.36	4.0	10.10	0.0	0.0	2.2
24648613	24648605-NODE	TO TX N81-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	19.2	31	10	32	95.05	4.0	9.52	0.0	0.0	2.2
24648570	TO TX N81-PD	24648569-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	202.1	20	7	21	95.29	2.6	9.98	0.0	0.0	1.5
24648581	24648569-NODE	TO TX N80-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	20.8	20	7	22	94.98	2.7	9.40	0.0	0.0	1.5
24650375	TO TX N80-PD	24650374-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	164.0	10	3	11	95.41	1.3	10.20	0.0	0.0	0.7
24650382	24650374-NODE	TO TX N92-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	24.2	10	3	11	94.90	1.3	9.26	0.0	0.0	0.7
22311244	TO TX N92-PD	23182098-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	110.0	0	0	0	0.01	0.0	117.64	0.0	0.0	0.0
24647016	24646746-NODE	24647015-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	5.6	201	60	210	95.85	8.6	11.09	0.0	0.0	2.9
24647073	24647015-NODE	F2956-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.8	55	18	58	95.35	7.2	10.37	0.0	0.0	4.0
24647079	F2956-PD	24645505-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	6.5	55	18	58	95.35	7.2	10.36	0.0	0.0	4.0
24645506	24645505-NODE	TO F2956-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	308.3	55	18	58	95.35	7.2	10.36	0.0	0.0	4.0
21863395	TO F2956-PD	TO TX N153-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	276.8	44	14	47	95.35	5.7	10.36	0.0	0.0	3.2
22364843	TO TX N153-PD	TO TX N154-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	445.1	33	10	35	95.38	4.3	10.43	0.0	0.0	2.4
22364846	TO TX N154-PD	TO TX N155-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	261.5	22	7	23	95.21	2.9	10.11	0.0	0.0	1.6
22364850	TO TX N155-PD	23191174-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	267.4	11	4	12	95.22	1.4	10.12	0.0	0.0	0.8
24647091	24647015-NODE	F2955-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.9	79	23	82	96.09	10.1	11.37	0.0	0.0	5.6
24647125	F2955-PD	24645356-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.0	79	23	82	96.09	10.1	11.37	0.0	0.0	5.6
24645357	24645356-NODE	JJ23562819-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	238.8	79	23	82	96.08	10.1	11.36	0.0	0.0	5.6
22099464	JJ23562819-NODE	TO F2955-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	591.4	79	23	82	96.00	10.1	11.18	0.0	0.0	5.6
21750844	TO F2955-PD	TO TX N146-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	352.9	67	20	70	95.96	8.6	11.10	0.0	0.0	4.8
22099455	TO TX N146-PD	TO TX N145-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	978.2	43	12	44	96.38	5.4	11.98	0.0	0.0	3.0
24190236	TO TX N145-PD	TO TX N144-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	518.9	30	9	32	96.08	3.9	11.35	0.0	0.0	2.2
22379017	TO TX N144-PD	TO TX N143-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	295.0	18	5	19	96.10	2.3	11.40	0.0	0.0	1.3
24190173	TO TX N143-PD	23185639-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	528.8	0	-1	1	0.01	0.1	117.46	0.0	0.0	0.0
24647107	24647015-NODE	F2954-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.6	66	19	69	95.98	8.5	11.33	0.0	0.0	4.7
24647113	F2954-PD	24645605-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	4.9	66	19	69	95.98	8.5	11.33	0.0	0.0	4.7
24192708	24645605-NODE	24192707-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1597.2	66	19	69	95.98	8.5	11.32	0.0	0.0	4.7
24192715	24192707-NODE	TO F2954-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.4	66	21	70	95.25	8.6	9.90	0.0	0.0	4.8
24192806	TO F2954-PD	24192805-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	165.6	56	18	59	95.38	7.3	10.14	0.0	0.0	4.0
24192813	24192805-NODE	TO TX N101-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.2	56	18	59	95.28	7.3	9.96	0.0	0.0	4.0

24192837	TO TX N101-PD	24192825-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.1	46	14	48	95.45	5.9	10.28	0.0	0.0	3.3
24192830	24192825-NODE	TO TX N100-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	887.1	46	14	48	95.44	5.9	10.26	0.0	0.0	3.3
24192692	TO TX N100-PD	24192684-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.2	31	10	32	95.01	4.0	9.45	0.0	0.0	2.2
24192685	24192684-NODE	TO TX N124-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	98.5	31	10	32	95.00	4.0	9.44	0.0	0.0	2.2
24192673	TO TX N124-PD	24192665-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.4	20	7	21	95.10	2.7	9.63	0.0	0.0	1.5
24192666	24192665-NODE	TO TX N123-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	152.0	20	7	21	95.09	2.7	9.60	0.0	0.0	1.5
24192653	TO TX N123-PD	24192645-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.5	10	3	11	95.22	1.3	9.84	0.0	0.0	0.7
24192646	24192645-NODE	23182069-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	221.3	10	3	11	95.17	1.3	9.76	0.0	0.0	0.7
24646829	24646784-NODE	24646809-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.1	0	0	0	0.01	0.0	117.67	0.0	0.0	0.0
24644695	24644631-NODE	24644694-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	5.2	0	0	0	0.01	0.0	117.70	0.0	0.0	0.0
24644752	24644694-NODE	F2963-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.7	0	0	0	0.01	0.0	117.93	0.0	0.0	0.0
24644778	F2963-PD	24644777-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.1	0	0	0	0.01	0.0	117.93	0.0	0.0	0.0
24644760	24644694-NODE	F2964-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	2.6	0	0	0	0.01	0.0	117.49	0.0	0.0	0.0
24644786	F2964-PD	24644785-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.4	0	0	0	0.01	0.0	117.49	0.0	0.0	0.0
24644766	24644694-NODE	F2965-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.3	0	0	0	0.01	0.0	117.67	0.0	0.0	0.0
24644794	F2965-PD	24644793-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.6	0	0	0	0.01	0.0	117.67	0.0	0.0	0.0
22618142	S922-PD	JJ23264367-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	24.9	2067	706	2185	94.63	89.6	8.80	0.0	0.1	37.0
22618108	JJ23264367-NODE	23248545-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	147.0	0	0	0	0.01	0.0	117.69	0.0	0.0	0.0
22666105	JJ23264367-NODE	S3063-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	232.7	2067	706	2185	94.63	89.6	8.80	0.3	0.7	37.0
22666102	S3063-PD	24654102-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	1134.3	2067	706	2184	94.63	89.6	8.80	1.5	3.5	37.0
24654092	24654102-NODE	JJ23264607-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	736.9	189	64	199	94.76	8.2	8.96	0.0	0.0	3.0
21820644	JJ23264607-NODE	FN462-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	23.6	111	38	118	94.57	4.8	8.62	0.0	0.0	1.9
21820640	FN462-PD	JJ23293977-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	0.8	111	38	118	94.57	4.8	8.62	0.0	0.0	1.9
21820660	JJ23264607-NODE	JJ23264609-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	164.4	77	26	82	94.97	3.4	9.33	0.0	0.0	1.4
22629297	JJ23264609-NODE	JJ23264617-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	176.0	10	3	11	93.66	0.4	9.27	0.0	0.0	0.5
22629295	JJ23264617-NODE	JJ23264619-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	341.5	10	3	11	93.87	0.4	9.05	0.0	0.0	0.5
22665085	JJ23264619-NODE	JJ23264289-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	139.1	0	0	0	0.01	0.0	117.60	0.0	0.0	0.0
22618185	JJ23264289-NODE	23248581-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	20.0	0	0	0	0.01	0.0	117.60	0.0	0.0	0.0
24641710	JJ23264619-NODE	22676308-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.6	10	4	11	94.47	1.3	8.43	0.0	0.0	1.0
22629303	JJ23264609-NODE	FN196-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	26.3	67	22	71	94.95	2.9	9.31	0.0	0.0	1.1
22629301	FN196-PD	JJ23264615-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	0.4	67	22	71	94.95	2.9	9.30	0.0	0.0	1.1
24654481	24654102-NODE	S680-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	21.9	1877	639	1982	94.66	81.4	8.77	0.0	0.1	34.0
22629325	S680-PD	24640037-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	65.6	1877	639	1982	94.66	81.4	8.77	0.1	0.2	34.0
24640038	24640037-NODE	JJ23312753-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	182.8	1871	637	1977	94.67	81.2	8.77	0.2	0.5	34.0
22378146	JJ23312753-NODE	JJ23264569-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	194.7	1760	598	1859	94.68	76.4	8.79	0.2	0.4	32.2
22629331	JJ23264569-NODE	JJ23264573-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	190.6	1743	592	1841	94.69	75.6	8.79	0.2	0.4	31.9
21913477	JJ23264573-NODE	JJ23312581-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	387.4	1709	580	1805	94.70	74.2	8.79	0.3	0.8	31.3
22378210	JJ23312581-NODE	JJ23312415-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	155.8	1676	568	1769	94.71	72.7	8.79	0.1	0.3	30.8
22378286	JJ23312415-NODE	JJ23312513-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	182.4	1592	540	1682	94.69	69.1	8.74	0.1	0.4	30.8
22378257	JJ23312513-NODE	JJ23312529-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	169.7	28	10	29	94.62	1.2	8.76	0.0	0.0	0.8
22378246	JJ23312529-NODE	JJ23312551-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	170.6	11	4	12	94.25	0.5	8.83	0.0	0.0	0.5
24640522	JJ23312551-NODE	22392512-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	14.7	11	4	12	94.44	1.4	8.64	0.0	0.0	1.1
24221472	JJ23312529-NODE	24221462-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	19.0	17	6	18	94.59	0.7	8.59	0.0	0.0	0.3
22378272	JJ23312513-NODE	JJ23312519-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	151.3	1564	531	1652	94.70	67.9	8.74	0.1	0.3	30.5
22378301	JJ23312519-NODE	JJ23312055-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	124.6	1453	492	1534	94.72	63.1	8.76	0.1	0.2	28.6
22100393	JJ23312055-NODE	S4001-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	52.6	1301	443	1374	94.65	56.5	8.66	0.0	0.1	22.9
22100375	S4001-PD	JJ23558115-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	175.2	1301	443	1374	94.65	56.5	8.66	0.1	0.2	22.9

21912702	JJ23558115-NODE	FN505-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	31.9	111	38	118	94.56	4.8	8.51	0.0	0.0	1.9
21912692	FN505-PD	JJ23558125-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	28.4	111	38	118	94.56	4.8	8.51	0.0	0.0	1.9
21912717	JJ23558115-NODE	JJ23312427-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	279.7	1190	405	1257	94.67	51.7	8.67	0.1	0.3	21.3
22378315	JJ23312427-NODE	JJ23562805-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	81.9	1123	381	1186	94.69	48.8	8.70	0.0	0.1	20.4
22099485	JJ23562805-NODE	FN537-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	26.0	222	76	235	94.58	9.7	8.53	0.0	0.0	3.7
22099472	FN537-PD	JJ23562801-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	0.7	222	76	235	94.57	9.7	8.52	0.0	0.0	3.7
22099511	JJ23562805-NODE	S1599-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	14.4	900	305	950	94.71	39.1	8.74	0.0	0.0	17.2
27018097	S1599-PD	JJ23311877-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	180.0	900	305	950	94.71	39.1	8.74	0.0	0.1	17.2
22378797	JJ23311877-NODE	JJ23311879-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	117.8	366	127	387	94.44	15.9	8.29	0.0	0.0	5.8
22378784	JJ23311879-NODE	JJ23311893-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	38.7	254	89	270	94.41	11.1	8.24	0.0	0.0	4.0
22378808	JJ23311893-NODE	24642856-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	126.6	88	31	93	94.43	3.8	8.28	0.0	0.0	1.7
22378819	24642856-NODE	22392585-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	20.1	6	2	6	94.50	0.7	8.72	0.0	0.0	0.3
24642857	24642856-NODE	JJ23311849-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	83.6	82	29	87	94.42	3.6	8.24	0.0	0.0	1.7
22378831	JJ23311849-NODE	22392597-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	80.6	15	5	16	94.49	2.0	8.32	0.0	0.0	0.7
24642933	JJ23311849-NODE	24642925-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	16.8	67	23	71	94.39	2.9	8.20	0.0	0.0	1.1
24642715	JJ23311893-NODE	22392565-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	10.7	167	58	177	94.40	7.3	8.21	0.0	0.0	2.8
24642692	JJ23311879-NODE	24642659-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	10.1	111	38	118	94.51	4.8	8.40	0.0	0.0	1.9
25000920	JJ23311877-NODE	JJ23311771-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	255.9	535	178	563	94.90	23.2	9.04	0.0	0.1	11.6
22378857	JJ23311771-NODE	JJ23311781-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	138.2	145	50	153	94.54	6.3	8.45	0.0	0.0	2.4
22378851	JJ23311781-NODE	JJ23311791-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	137.6	111	38	118	94.53	4.8	8.43	0.0	0.0	1.9
22378843	JJ23311791-NODE	22392610-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	159.0	0	0	0	0.01	0.0	117.49	0.0	0.0	0.0
24643079	JJ23311791-NODE	24643066-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	10.5	111	38	118	94.51	4.8	8.39	0.0	0.0	1.9
24643054	JJ23311781-NODE	22392619-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	11.7	33	12	35	94.55	1.5	8.48	0.0	0.0	0.6
22378859	JJ23311771-NODE	JJ23311727-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	160.3	390	128	410	95.03	16.9	9.25	0.0	0.0	9.6
22378875	JJ23311727-NODE	S4517-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	33.0	279	89	293	95.19	12.0	9.56	0.0	0.0	8.0
26692261	S4517-PD	JJ23311721-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	161.1	279	89	293	95.19	12.0	9.56	0.0	0.0	8.0
22378885	JJ23311721-NODE	JJ23311461-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	97.5	279	89	293	95.19	12.0	9.55	0.0	0.0	8.0
22378970	JJ23311461-NODE	JJ23311623-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	23.3	174	56	183	95.11	7.5	9.56	0.0	0.0	8.0
22378908	JJ23311623-NODE	JJ23311671-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	24.0	82	27	86	94.81	3.5	9.16	0.0	0.0	3.8
22374661	JJ23311671-NODE	23248919-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	657.5	0	0	0	0.01	0.0	117.48	0.0	0.0	0.0
22378922	JJ23311671-NODE	F242-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	12.6	82	27	86	94.91	10.6	9.06	0.0	0.0	8.1
22378900	F242-PD	JJ23311693-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	37.2	82	27	86	94.91	10.6	9.06	0.0	0.0	8.1
22378985	JJ23311623-NODE	F751-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.8	92	29	96	95.37	11.9	9.91	0.0	0.0	9.0
22378955	F751-PD	JJ23311649-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	35.9	92	29	96	95.37	11.9	9.91	0.0	0.0	9.0
22379142	F1637-PD	JJ23311461-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.8	105	33	110	95.28	13.6	9.53	0.0	0.0	10.3
22379131	JJ23311475-NODE	F1637-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	44.2	105	33	110	95.28	13.6	9.53	0.0	0.0	10.3
22378880	JJ23311727-NODE	FN308-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	24.3	111	38	118	94.54	4.8	8.45	0.0	0.0	1.9
22378869	FN308-PD	JJ23311753-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	2.7	111	38	118	94.54	4.8	8.45	0.0	0.0	1.9
22378326	JJ23312427-NODE	JJ23312429-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	184.4	67	23	71	94.41	2.9	8.24	0.0	0.0	1.1
24221419	JJ23312429-NODE	24221406-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	8.0	67	23	71	94.39	2.9	8.21	0.0	0.0	1.1
22378644	JJ23312055-NODE	F1640-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	56.1	152	48	159	95.31	19.7	9.62	0.0	0.0	14.9
22378655	F1640-PD	JJ23312003-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.4	152	48	159	95.31	19.7	9.62	0.0	0.0	14.9
24640566	JJ23312519-NODE	22392525-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	9.7	111	38	118	94.51	4.8	8.43	0.0	0.0	1.9
22378340	JJ23312415-NODE	F2098-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	49.7	83	27	87	95.04	10.8	9.72	0.0	0.0	8.2
22378352	F2098-PD	JJ23312399-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	18.8	83	27	87	95.04	10.8	9.72	0.0	0.0	8.2
22378222	JJ23312581-NODE	23671747-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	170.2	33	11	35	94.59	1.5	8.60	0.0	0.0	0.6
26746033	JJ23264573-NODE	26545754-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.0	13.800	12.0	33	12	35	94.55	1.5	8.56	0.0	0.0	1.2

22629333	JJ23264569-NODE	JJ23264571-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	253.7	17	6	18	94.70	0.7	8.82	0.0	0.0	0.3
24221514	JJ23264571-NODE	24221503-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	9.2	17	6	18	94.59	0.7	8.63	0.0	0.0	0.3
24640089	JJ23312753-NODE	22638561-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	9.1	111	38	118	94.51	4.8	8.50	0.0	0.0	1.9
24640058	24640037-NODE	22638558-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.7	5	2	5	94.54	0.7	8.54	0.0	0.0	0.5

Load Flow - Summary Report (TOWL F3)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK.sxst
Date	Tue Feb 07 2023
Time	15h55m41s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	3751.00	1160.22	3926.33	95.53
Load used (Adjusted)	3750.61	1159.05	3925.62	95.54
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**3750.61**	**1159.05**	**3925.62**	**95.54**
Cable Capacitance	0.00	-123.62	123.62	0.00
Line Capacitance	0.00	-2.35	2.35	0.00
Total Shunt Capacitance	**0.00**	**-125.97**	**125.97**	**0.00**
Line Losses	8.89	21.26	23.04	38.58
Cable Losses	20.72	16.95	26.77	77.40
Transformer Load Losses	15.03	26.60	30.56	49.19
Transformer No-Load Losses	30.77	0.00	30.77	100.00
Total Losses	**75.41**	**64.81**	**99.44**	**75.84**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25812658	25037399-NODE	25037449-NODE	500KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	4.3	3826	1098	3980	96.12	162.8	11.16	0.0	0.0	9.4
22665432	JJ23506139-NODE	25037399-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	326.2	3826	1098	3980	96.12	162.8	11.16	1.7	1.6	50.8
22553174	S3139-PD	S3181-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	621.5	3823	1094	3976	96.14	162.8	11.13	3.2	3.1	50.8
24631845	24631886-NODE	S3139-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	6.9	3820	1094	3973	96.13	162.8	11.09	0.0	0.0	50.8
24631887	24631886-NODE	FV355-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	6.8	131	41	137	95.49	5.6	9.81	0.0	0.0	1.8
24631543	FV355-PD	TO FV355-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.1	13.800	76.4	131	41	137	95.48	5.6	9.80	0.0	0.0	3.4
25685838	24631896-NODE	24631886-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	18.5	3689	1054	3837	96.15	157.2	11.14	0.1	0.1	49.3
25685833	24631896-NODE	24631754-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	8.8	0	0	0	0.02	0.0	117.10	0.0	0.0	0.0
25685842	S3138-PD	24631896-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.4	3689	1054	3837	96.15	157.2	11.13	0.0	0.0	49.3
25761173	S3165-PD	S3138-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	340.1	3689	1054	3836	96.15	157.2	11.13	1.6	1.6	49.3
24632595	24632625-NODE	S3165-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.8	3687	1054	3835	96.15	157.2	11.11	0.0	0.0	49.3
24632626	S3168-PD	24632625-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.3	3687	1055	3835	96.14	157.3	11.09	0.0	0.0	49.3
24632529	S3178-PD	S3168-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	361.7	3687	1055	3835	96.14	157.3	11.09	1.7	1.7	49.3
24636876	S576-PD	24636875-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	1743.9	2974	836	3090	96.27	127.2	11.13	5.5	5.3	38.8
24636600	24636708-NODE	S576-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	7.6	2969	839	3085	96.23	127.3	10.97	0.0	0.0	38.9
24636713	24636708-NODE	24636599-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	4.7	666	192	693	96.06	28.6	10.66	0.0	0.0	11.7
24636658	24636599-NODE	F579-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.4	175	49	182	96.30	22.5	11.13	0.0	0.0	12.5
24637984	F579-PD	24632007-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.4	175	49	182	96.30	22.5	11.12	0.0	0.0	12.5
24636907	24632007-NODE	TO F579-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	686.0	175	49	182	96.30	22.5	11.12	0.1	0.0	12.5
22629043	TO F579-PD	TO TX V27-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	576.4	150	42	156	96.31	19.3	11.15	0.0	0.0	10.7
24638080	TO TX V27-PD	TO TX V116-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	716.9	125	35	130	96.35	16.1	11.24	0.0	0.0	8.9
24638160	TO TX V116-PD	TO TX V118-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	305.2	100	28	104	96.37	12.9	11.29	0.0	0.0	7.2
24638193	TO TX V118-PD	TO TX V117-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	463.4	75	20	78	96.56	9.6	11.70	0.0	0.0	5.4
24638258	TO TX V117-PD	TO TX V120-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	235.8	50	13	52	96.85	6.4	12.33	0.0	0.0	3.6
22628417	TO TX V120-PD	24633857-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	2277.0	25	5	26	97.84	3.2	14.83	0.0	0.0	1.8
24633874	24633857-NODE	23190099-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.6	25	8	26	95.43	3.3	9.37	0.0	0.0	1.8
24636664	24636599-NODE	F578-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	6.6	172	50	179	96.05	22.2	10.47	0.0	0.0	12.3
24638297	F578-PD	24631998-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	6.9	172	50	179	96.05	22.2	10.47	0.0	0.0	12.3
24636978	24631998-NODE	TO F578-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	946.9	172	50	179	96.05	22.2	10.47	0.1	0.0	12.3
24638407	TO F578-PD	TO TX V26-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	387.8	147	43	154	95.95	19.0	10.27	0.0	0.0	10.6
22629057	TO TX V26-PD	TO TX V25-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	748.2	123	36	128	95.96	15.8	10.28	0.0	0.0	8.8
24638511	TO TX V25-PD	TO TX V133-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	346.8	98	29	103	95.85	12.7	10.06	0.0	0.0	7.0
24638589	TO TX V133-PD	TO TX V134-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	206.8	74	22	77	95.83	9.5	10.03	0.0	0.0	5.3
22629082	TO TX V134-PD	24638642-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	379.2	49	15	51	95.89	6.3	10.14	0.0	0.0	3.5
24638671	24638642-NODE	TO TX V115-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.8	49	15	51	95.66	6.4	9.68	0.0	0.0	3.5
24638677	TO TX V115-PD	24638655-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.1	25	7	26	95.82	3.2	10.01	0.0	0.0	1.8
22629083	24638655-NODE	23190534-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	270.6	25	7	26	95.81	3.2	9.98	0.0	0.0	1.8
24636674	24636599-NODE	F577-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.3	318	94	332	95.94	41.0	10.50	0.0	0.0	22.8
24637208	F577-PD	24632046-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	4.9	318	94	332	95.94	41.0	10.49	0.0	0.0	22.8
24632047	24632046-NODE	TO F577-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	537.5	318	94	332	95.94	41.0	10.49	0.2	0.1	22.8
22629035	TO F577-PD	TO TX V28-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	389.4	289	85	302	95.93	37.3	10.48	0.1	0.0	20.7
22629032	TO TX V28-PD	TO TX V33-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1183.2	260	77	271	95.94	33.6	10.49	0.3	0.1	18.7
24637352	TO TX V33-PD	TO TX V75-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	341.3	231	69	241	95.85	29.9	10.30	0.1	0.0	16.6
24637393	TO TX V75-PD	TO TX V74-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	496.6	202	60	211	95.85	26.2	10.31	0.1	0.0	14.5
24637442	TO TX V74-PD	24637458-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	319.0	173	52	181	95.83	22.4	10.26	0.0	0.0	12.5
24637480	24637458-NODE	TO TX V73-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.2	173	52	181	95.77	22.4	10.16	0.0	0.0	12.5

24637494	TO TX V73-PD	24637466-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.7	144	43	151	95.83	18.7	10.27	0.0	0.0	10.4
24637467	24637466-NODE	TO TX V72-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	258.8	144	43	151	95.83	18.7	10.27	0.0	0.0	10.4
24637514	TO TX V72-PD	24637544-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	270.9	115	34	120	95.85	15.0	10.31	0.0	0.0	8.3
24637582	24637544-NODE	TO TX V71-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.8	115	35	121	95.78	15.0	10.17	0.0	0.0	8.3
24637566	TO TX V71-PD	24637592-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	144.5	87	26	90	95.88	11.2	10.37	0.0	0.0	6.2
24637618	24637592-NODE	TO TX V70-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.3	87	26	90	95.83	11.2	10.27	0.0	0.0	6.2
24637606	TO TX V70-PD	TO TX V69-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	446.6	58	17	60	96.00	7.5	10.61	0.0	0.0	4.1
22628988	TO TX V69-PD	TO TX V68-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	267.0	29	8	30	96.07	3.7	10.76	0.0	0.0	2.1
22628990	TO TX V68-PD	23190742-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	319.6	0	0	0	0.02	0.0	116.89	0.0	0.0	0.0
24637039	24637038-NODE	24636708-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	17.5	2303	647	2392	96.27	98.7	11.07	0.0	0.0	29.6
24637055	24637038-NODE	24637054-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	4.4	592	171	617	96.06	25.4	10.60	0.0	0.0	10.1
24637081	24637054-NODE	F580-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.1	144	41	150	96.16	18.6	10.94	0.0	0.0	10.3
22629145	F580-PD	26725740-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.8	144	41	150	96.16	18.6	10.94	0.0	0.0	10.3
26725741	TO F580-PD	26725740-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	348.5	144	41	150	96.15	18.6	10.94	0.0	0.0	10.3
24637724	24637704-NODE	TO F580-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.5	115	33	120	96.23	14.8	11.10	0.0	0.0	8.2
22629141	TO TX V29-PD	24637704-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	372.9	115	33	120	96.23	14.8	11.09	0.0	0.0	8.2
22629138	TO TX V30-PD	TO TX V29-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	329.4	87	24	90	96.35	11.1	11.35	0.0	0.0	6.2
22629136	TO TX V31-PD	TO TX V30-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	255.0	58	15	60	96.61	7.4	11.91	0.0	0.0	4.1
22629134	23190599-NODE	TO TX V31-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	2025.6	29	7	30	97.40	3.7	13.77	0.0	0.0	2.0
24637094	24637054-NODE	F581-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.1	172	50	179	96.08	22.1	10.54	0.0	0.0	12.3
24639574	F581-PD	24632037-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.9	172	50	179	96.08	22.1	10.54	0.0	0.0	12.3
24632038	24632037-NODE	TO F581-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	520.0	172	50	179	96.08	22.1	10.53	0.1	0.0	12.3
24639412	TO F581-PD	24639434-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	411.7	148	43	154	96.08	19.0	10.53	0.0	0.0	10.5
24639460	24639434-NODE	TO TX V21-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.2	147	43	154	96.00	19.0	10.36	0.0	0.0	10.6
24639444	TO TX V21-PD	24639473-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	235.2	123	35	128	96.10	15.8	10.56	0.0	0.0	8.8
24639518	24639473-NODE	TO TX V20-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	24.4	123	36	128	96.04	15.8	10.45	0.0	0.0	8.8
24639498	TO TX V20-PD	24634730-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1033.9	98	28	102	96.17	12.6	10.71	0.0	0.0	7.0
24634748	24634730-NODE	TO TX V19-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.1	98	29	103	95.86	12.7	10.09	0.0	0.0	7.0
22628960	TO TX V19-PD	24634775-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	385.6	74	22	77	95.98	9.5	10.33	0.0	0.0	5.3
24634793	24634775-NODE	TO TX V16-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.5	74	22	77	95.83	9.5	10.02	0.0	0.0	5.3
24634815	TO TX V16-PD	24634784-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.4	49	14	51	96.00	6.3	10.36	0.0	0.0	3.5
22628958	24634784-NODE	TO TX V53-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	312.8	49	14	51	95.99	6.3	10.35	0.0	0.0	3.5
22628956	TO TX V53-PD	TO TX V44-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	205.6	25	7	26	96.13	3.2	10.63	0.0	0.0	1.8
24639559	TO TX V44-PD	24639535-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	196.7	0	0	0	0.02	0.0	116.64	0.0	0.0	0.0
22628954	24639535-NODE	23190314-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	138.0	0	0	0	0.02	0.0	116.64	0.0	0.0	0.0
24637134	24637054-NODE	F601-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.4	276	81	287	95.98	35.6	10.46	0.0	0.0	19.8
24639371	F601-PD	24632020-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.6	276	81	287	95.98	35.6	10.46	0.0	0.0	19.8
22629027	24632020-NODE	TO F601-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1512.7	276	81	287	95.98	35.6	10.46	0.4	0.1	19.8
22629023	TO F601-PD	24638798-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	299.8	250	74	261	95.86	32.4	10.22	0.1	0.0	18.0
24638824	24638798-NODE	TO TX V76-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.2	250	75	261	95.82	32.4	10.15	0.0	0.0	18.0
24638830	TO TX V76-PD	24638807-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.4	225	67	235	95.87	29.2	10.23	0.0	0.0	16.2
22629021	24638807-NODE	TO TX V77-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	486.5	225	67	235	95.87	29.2	10.23	0.1	0.0	16.2
24638860	TO TX V77-PD	24638895-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	289.9	200	60	209	95.85	25.9	10.20	0.0	0.0	14.4
24638917	24638895-NODE	TO TX V78-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.1	200	60	209	95.81	25.9	10.11	0.0	0.0	14.4
24638940	TO TX V78-PD	24638908-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.9	175	52	183	95.86	22.7	10.22	0.0	0.0	12.6
24638952	24638908-NODE	TO TX V79-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	270.2	175	52	183	95.86	22.7	10.22	0.0	0.0	12.6
22629015	TO TX V79-PD	24639066-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	224.3	150	44	156	95.88	19.4	10.26	0.0	0.0	10.8

24639092	24639066-NODE	TO TX V80-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.1	150	45	157	95.84	19.5	10.17	0.0	0.0	10.8
24639107	TO TX V80-PD	24639079-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.7	125	37	130	95.92	16.2	10.33	0.0	0.0	9.0
22629013	24639079-NODE	TO TX V81-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	247.8	125	37	130	95.91	16.2	10.32	0.0	0.0	9.0
24639119	TO TX V81-PD	24639118-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	223.3	100	29	104	95.96	13.0	10.42	0.0	0.0	7.2
24639144	24639118-NODE	TO TX V82-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	29.6	100	30	104	95.90	13.0	10.29	0.0	0.0	7.2
24639158	TO TX V82-PD	24639127-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.0	75	22	78	96.04	9.7	10.58	0.0	0.0	5.4
24639166	24639127-NODE	TO TX V83-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	354.1	75	22	78	96.04	9.7	10.58	0.0	0.0	5.4
24639204	TO TX V83-PD	TO TX V84-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	532.9	50	14	52	96.13	6.5	10.78	0.0	0.0	3.6
24639235	TO TX V84-PD	24639234-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	390.3	25	7	26	96.22	3.2	10.96	0.0	0.0	1.8
24639256	24639234-NODE	TO TX V85-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.7	25	8	26	95.77	3.2	10.04	0.0	0.0	1.8
24639262	TO TX V85-PD	24639243-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	25.9	0	0	0	0.02	0.0	116.78	0.0	0.0	0.0
24639274	24639243-NODE	23190108-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	265.6	0	0	0	0.02	0.0	116.78	0.0	0.0	0.0
24637154	S575-PD	24637038-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	7.9	1711	475	1776	96.35	73.2	11.22	0.0	0.0	21.9
24632056	S614-PD	S575-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	1536.5	1711	476	1776	96.35	73.3	11.22	1.6	1.5	21.9
24640166	24640263-NODE	S614-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	7.8	1709	482	1776	96.25	73.3	10.99	0.0	0.0	21.9
24640264	24640263-NODE	24640165-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	3.6	491	142	511	96.06	21.1	10.56	0.0	0.0	8.1
24640182	24640165-NODE	F632-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.6	144	43	151	95.92	18.6	10.42	0.0	0.0	10.4
24639929	F632-PD	TO F632-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	692.5	144	43	151	95.92	18.6	10.42	0.1	0.0	10.4
24637880	TO F632-PD	TO TX V40-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	291.9	115	34	120	95.86	14.9	10.29	0.0	0.0	8.3
24637805	TO TX V40-PD	TO TX V39-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	302.1	87	26	90	95.88	11.2	10.34	0.0	0.0	6.2
24637769	TO TX V39-PD	24637747-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.5	58	17	60	95.93	7.5	10.44	0.0	0.0	4.1
24637748	24637747-NODE	TO TX V38-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	272.1	58	17	60	95.92	7.5	10.43	0.0	0.0	4.1
22629129	TO TX V38-PD	TO TX V37-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	269.0	29	8	30	96.09	3.7	10.77	0.0	0.0	2.1
22629131	TO TX V37-PD	23190599-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	340.4	0	0	0	0.02	0.0	116.85	0.0	0.0	0.0
24640211	24640165-NODE	F647-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.4	222	63	230	96.18	28.5	10.70	0.0	0.0	15.8
24640733	F647-PD	24641028-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	860.2	222	63	230	96.18	28.5	10.69	0.2	0.0	15.8
24641029	24641028-NODE	TO F647-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	589.4	221	64	230	96.06	28.5	10.46	0.1	0.0	15.9
24640771	TO F647-PD	24640792-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	238.6	197	57	205	96.05	25.4	10.43	0.0	0.0	14.1
24640814	24640792-NODE	TO TX V162-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.8	197	57	205	96.01	25.4	10.36	0.0	0.0	14.1
24640806	TO TX V162-PD	24640840-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	206.9	172	50	179	96.09	22.2	10.51	0.0	0.0	12.3
24640866	24640840-NODE	TO TX V163-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.8	172	50	179	96.05	22.2	10.44	0.0	0.0	12.3
24640873	TO TX V163-PD	24640852-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.7	147	42	153	96.14	19.0	10.63	0.0	0.0	10.6
24640853	24640852-NODE	TO TX V164-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	350.1	147	42	153	96.14	19.0	10.62	0.0	0.0	10.6
24640894	TO TX V164-PD	24640886-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.2	123	35	128	96.19	15.8	10.72	0.0	0.0	8.8
24640887	24640886-NODE	TO TX V165-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	818.5	123	35	128	96.19	15.8	10.72	0.0	0.0	8.8
22666552	TO TX V165-PD	24640901-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	159.8	98	28	102	96.12	12.7	10.58	0.0	0.0	7.0
24640909	24640901-NODE	TO TX V152-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	203.6	98	28	102	96.08	12.7	10.49	0.0	0.0	7.0
22666555	TO TX V152-PD	24640921-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	133.1	74	21	77	96.19	9.5	10.72	0.0	0.0	5.3
24640939	24640921-NODE	TO TX V153-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.7	74	21	77	96.14	9.5	10.62	0.0	0.0	5.3
24640945	TO TX V153-PD	24640930-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.1	49	13	51	96.45	6.3	11.27	0.0	0.0	3.5
24640931	24640930-NODE	24640952-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	151.3	49	13	51	96.44	6.3	11.26	0.0	0.0	3.5
24640960	24640952-NODE	TO TX V154-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	205.0	49	14	51	96.36	6.3	11.08	0.0	0.0	3.5
24640976	TO TX V154-PD	24640968-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.3	25	6	25	96.95	3.1	12.40	0.0	0.0	1.7
24640969	24640968-NODE	TO TX V157-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1174.7	25	6	25	96.94	3.1	12.37	0.0	0.0	1.7
24640991	TO TX V157-PD	24640983-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.9	0	0	0	0.02	0.0	116.60	0.0	0.0	0.0
24640984	24640983-NODE	23174364-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	90.7	0	0	0	0.02	0.0	116.60	0.0	0.0	0.0
24640231	24640165-NODE	F651-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.7	125	36	130	96.00	16.2	10.47	0.0	0.0	9.0

24639879	F651-PD	TO F651-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	85.2	125	36	130	96.00	16.2	10.46	0.0	0.0	9.0
24640456	TO F651-PD	TO TX V42-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	522.2	100	29	104	96.11	12.9	10.70	0.0	0.0	7.2
22629112	TO TX V42-PD	TO TX V41-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	813.9	75	21	78	96.14	9.7	10.76	0.0	0.0	5.4
22629110	TO TX V41-PD	24640493-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	159.2	50	15	52	96.03	6.5	10.52	0.0	0.0	3.6
24640511	24640493-NODE	TO TX V54-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.3	50	15	52	95.93	6.5	10.33	0.0	0.0	3.6
24640503	TO TX V54-PD	24640553-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	183.0	25	7	26	96.42	3.2	11.34	0.0	0.0	1.8
24640591	24640553-NODE	TO TX V57-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.4	25	7	26	96.21	3.2	10.91	0.0	0.0	1.8
24640567	TO TX V57-PD	JJ23273073-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	435.5	0	-1	1	0.02	0.1	116.74	0.0	0.0	0.1
22666582	23189619-NODE	JJ23273073-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	234.9	0	0	0	0.02	0.0	116.74	0.0	0.0	0.0
24640273	24640272-NODE	24640263-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	17.2	1218	339	1265	96.33	52.2	11.16	0.0	0.0	16.6
24640291	24640272-NODE	FV124-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	8.3	79	23	82	95.99	3.4	10.45	0.0	0.0	1.1
24639898	FV124-PD	TO FV124-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.0	13.800	445.2	79	23	82	95.98	3.4	10.42	0.0	0.0	2.1
24640308	S606-PD	24640272-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	6.3	1140	317	1183	96.35	48.9	11.20	0.0	0.0	15.5
24639768	S1297-PD	S606-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	1413.2	1140	317	1183	96.35	48.9	11.20	0.7	0.6	15.5
24641505	24641504-NODE	S1297-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	8.0	1139	323	1184	96.21	48.9	10.88	0.0	0.0	15.6
24641519	24641504-NODE	24641514-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	18.4	611	168	634	96.41	26.2	11.33	0.0	0.0	10.3
24641531	24641514-NODE	S2825-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	6.0	131	30	134	97.48	5.5	13.82	0.0	0.0	1.7
25214534	S2825-PD	25214533-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	4.4	131	30	134	97.48	5.5	13.81	0.0	0.0	1.7
24641212	25214533-NODE	24657368-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	1313.9	131	30	134	97.47	5.5	13.80	0.0	0.0	1.7
24657370	24657368-NODE	S3529-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	171.2	131	36	135	96.33	5.6	11.14	0.0	0.0	1.8
24657748	S3529-PD	24657747-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	6.2	131	37	136	96.17	5.6	10.80	0.0	0.0	1.8
24657758	24657747-NODE	24657757-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	3.8	0	0	0	0.02	0.0	116.71	0.0	0.0	0.0
24657827	24657757-NODE	F3368-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.3	0	0	0	0.02	0.0	116.72	0.0	0.0	0.0
24657881	F3368-PD	24657880-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.7	0	0	0	0.02	0.0	116.72	0.0	0.0	0.0
24657833	24657757-NODE	F3367-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.5	0	0	0	0.02	0.0	116.58	0.0	0.0	0.0
24657873	F3367-PD	24657872-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.6	0	0	0	0.02	0.0	116.58	0.0	0.0	0.0
24657855	24657757-NODE	F3366-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	6.8	0	0	0	0.02	0.0	116.83	0.0	0.0	0.0
24657865	F3366-PD	24657864-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.8	0	0	0	0.02	0.0	116.83	0.0	0.0	0.0
24657768	24657747-NODE	24657767-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	20.5	131	37	136	96.15	5.6	10.76	0.0	0.0	1.8
24657780	24657767-NODE	FV548-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	9.0	131	37	136	96.13	5.6	10.70	0.0	0.0	1.8
24657432	FV548-PD	TO FV548-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.0	13.800	1027.3	131	37	136	96.12	5.6	10.69	0.0	0.0	3.4
24657788	24657767-NODE	24657681-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	7.0	0	0	0	0.02	0.0	116.71	0.0	0.0	0.0
24641659	24641514-NODE	24641658-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	5.0	480	138	500	96.09	20.7	10.65	0.0	0.0	8.8
24641671	24641658-NODE	F2806-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.7	238	70	248	95.88	30.8	10.20	0.0	0.0	17.1
24641145	F2806-PD	TO F2806-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	368.6	238	70	248	95.88	30.8	10.20	0.1	0.0	17.1
24655878	TO F2806-PD	24655870-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	18.0	219	65	228	95.87	28.4	10.18	0.0	0.0	15.8
22666323	24655870-NODE	TO TX V217-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	289.7	219	65	228	95.86	28.4	10.17	0.1	0.0	15.8
22666325	TO TX V217-PD	TO TX V216-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	216.8	200	59	209	95.86	25.9	10.17	0.0	0.0	14.4
22666328	TO TX V216-PD	TO TX V215-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	416.9	181	54	189	95.87	23.5	10.19	0.1	0.0	13.1
22666332	TO TX V215-PD	TO TX V214-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	159.6	163	48	170	95.85	21.1	10.15	0.0	0.0	11.7
22666335	TO TX V214-PD	TO TX V213-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	185.8	144	43	150	95.88	18.6	10.19	0.0	0.0	10.4
22666338	TO TX V213-PD	24655925-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	251.7	125	37	130	95.90	16.2	10.25	0.0	0.0	9.0
24655934	24655925-NODE	TO TX V212-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.8	125	37	130	95.84	16.2	10.13	0.0	0.0	9.0
24640651	TO TX V212-PD	24640650-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	414.9	100	29	104	95.94	13.0	10.33	0.0	0.0	7.2
24640679	24640650-NODE	TO TX V158-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.9	100	30	104	95.82	13.0	10.09	0.0	0.0	7.2
24640664	TO TX V158-PD	24640642-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.7	75	22	78	95.95	9.7	10.35	0.0	0.0	5.4
22666573	24640642-NODE	TO TX V159-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	430.6	75	22	78	95.95	9.7	10.34	0.0	0.0	5.4

22666576	TO TX V159-PD	TO TX V151-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	459.2	50	15	52	95.96	6.5	10.36	0.0	0.0	3.6
22666579	TO TX V151-PD	23189619-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	453.6	25	7	26	95.95	3.2	10.35	0.0	0.0	1.8
24641677	24641658-NODE	F2807-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.9	98	27	102	96.49	12.6	11.35	0.0	0.0	7.0
21720912	F2807-PD	JJ23306055-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	988.7	98	27	102	96.49	12.6	11.34	0.0	0.0	7.0
21833059	JJ23306055-NODE	TO F2807-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	851.0	98	28	102	96.21	12.7	10.74	0.0	0.0	7.0
21886004	TO F2807-PD	TO TX V400-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	265.6	74	21	77	96.12	9.5	10.55	0.0	0.0	5.3
21886032	TO TX V400-PD	TO TX V401-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	399.4	49	14	51	96.27	6.3	10.87	0.0	0.0	3.5
21886037	TO TX V401-PD	TO TX V402-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	301.4	25	7	25	96.57	3.2	11.52	0.0	0.0	1.8
24655472	TO TX V402-PD	24655463-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	22.3	0	-1	1	0.02	0.1	116.58	0.0	0.0	0.0
24655464	24655463-NODE	23177318-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	609.8	0	-1	1	0.02	0.1	116.58	0.0	0.0	0.0
24641683	24641658-NODE	F2808-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.1	144	41	150	96.17	18.6	10.92	0.0	0.0	10.3
24641729	F2808-PD	JJ23306611-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	46.5	144	41	150	96.17	18.6	10.91	0.0	0.0	10.3
21720833	JJ23306611-NODE	TO F2808-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	519.0	144	41	150	96.16	18.6	10.89	0.0	0.0	10.3
21695437	TO F2808-PD	TO TX V280-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	398.0	115	33	120	96.20	14.9	10.98	0.0	0.0	8.3
21833048	TO TX V280-PD	TO TX V279-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	561.2	87	24	90	96.31	11.2	11.20	0.0	0.0	6.2
21886009	TO TX V279-PD	TO TX V399-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	660.5	58	16	60	96.44	7.4	11.48	0.0	0.0	4.1
21886013	TO TX V399-PD	TO TX V421-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	487.0	29	8	30	96.72	3.7	12.10	0.0	0.0	2.1
21886017	TO TX V421-PD	23175223-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	779.4	0	-1	1	0.02	0.1	116.83	0.0	0.0	0.1
24641608	24641607-NODE	24641504-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	3.9	528	155	550	95.96	22.7	10.36	0.0	0.0	8.5
24641620	F2805-PD	24641607-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.9	231	68	241	95.96	29.9	10.47	0.0	0.0	16.6
24656029	24641113-NODE	F2805-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	19.1	231	68	241	95.96	29.9	10.47	0.0	0.0	16.6
24641247	TO F2805-PD	24641113-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	839.3	231	68	241	95.95	29.9	10.46	0.2	0.0	16.6
25217895	TO TX V273-PD	TO F2805-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	685.6	202	60	211	95.90	26.2	10.36	0.1	0.0	14.5
21720947	TO TX V274-PD	TO TX V273-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	345.1	173	51	181	95.86	22.4	10.27	0.0	0.0	12.5
21720934	TO TX V275-PD	TO TX V274-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	384.1	144	43	151	95.86	18.7	10.28	0.0	0.0	10.4
21720951	TO TX V275-PD	TO TX V276-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	235.2	115	34	120	95.86	15.0	10.28	0.0	0.0	8.3
21720938	TO TX V276-PD	TO TX V277-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	385.2	87	26	90	95.91	11.2	10.38	0.0	0.0	6.2
22509864	TO TX V277-PD	24656294-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	580.2	58	17	60	95.93	7.5	10.42	0.0	0.0	4.2
24657354	24656294-NODE	TO TX V278-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.5	58	18	60	95.64	7.5	9.83	0.0	0.0	4.2
24657360	TO TX V278-PD	24656303-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.9	29	9	30	95.79	3.7	10.13	0.0	0.0	2.1
24656304	24656303-NODE	23172374-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	299.7	29	9	30	95.78	3.7	10.11	0.0	0.0	2.1
24641626	24641607-NODE	F147-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	6.8	197	58	205	95.91	25.4	10.13	0.0	0.0	14.1
24656248	F147-PD	JJ23273097-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	26.5	197	58	205	95.91	25.4	10.13	0.0	0.0	14.1
24641258	TO F147-PD	JJ23273097-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	249.8	197	58	205	95.91	25.4	10.12	0.0	0.0	14.1
24656052	24656043-NODE	TO F147-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.4	172	51	179	95.92	22.2	10.15	0.0	0.0	12.3
22666561	TO TX V156-PD	24656043-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	573.0	172	51	179	95.92	22.2	10.15	0.1	0.0	12.3
24656126	24656101-NODE	TO TX V156-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	18.1	148	44	154	95.88	19.1	10.07	0.0	0.0	10.6
24656102	TO TX V155-PD	24656101-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1149.2	148	44	154	95.88	19.1	10.06	0.1	0.0	10.6
21821132	TO TX V176-PD	TO TX V155-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	142.0	123	37	128	95.68	15.9	9.67	0.0	0.0	8.8
21821138	TO TX V175-PD	TO TX V176-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	208.9	98	30	103	95.69	12.7	9.68	0.0	0.0	7.1
21821143	TO TX V174-PD	TO TX V175-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	169.3	74	22	77	95.67	9.6	9.65	0.0	0.0	5.3
21821146	TO TX V173-PD	TO TX V174-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	158.9	49	15	51	95.67	6.4	9.64	0.0	0.0	3.5
21821152	23174364-NODE	TO TX V173-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	154.0	25	7	26	95.66	3.2	9.64	0.0	0.0	1.8
24641636	24641607-NODE	F1301-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.8	100	29	104	96.05	12.9	10.54	0.0	0.0	7.2
24655345	F1301-PD	TO F1301-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	669.3	100	29	104	96.04	12.9	10.54	0.0	0.0	7.2
21695417	TO F1301-PD	TO TX V281-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	397.8	75	22	78	95.99	9.7	10.43	0.0	0.0	5.4
21695409	TO TX V281-PD	TO TX V282-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	343.5	50	15	52	96.04	6.5	10.53	0.0	0.0	3.6

24764050	TO TX V282-PD	TO TX V283-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	363.3	25	7	26	96.25	3.2	10.96	0.0	0.0	1.8
24764057	TO TX V283-PD	23173082-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	346.5	0	0	0	0.02	0.0	116.72	0.0	0.0	0.0
22629191	JJ23264777-NODE	TO FV34-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.0	13.800	446.9	40	11	41	96.55	1.7	11.76	0.0	0.0	1.0
24633590	JJ23273943-NODE	24633589-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	148.9	150	43	156	96.21	19.2	11.10	0.0	0.0	10.7
24633605	24633589-NODE	24633581-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	204.4	150	43	156	96.19	19.2	11.04	0.0	0.0	10.7
22666179	24633581-NODE	TO F696-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	636.2	150	43	156	96.15	19.2	10.96	0.1	0.0	10.7
22628421	TO F696-PD	24633649-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	550.7	125	36	130	96.14	16.0	10.95	0.0	0.0	8.9
24633682	24633649-NODE	TO TX V10-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.6	125	36	130	96.01	16.0	10.68	0.0	0.0	8.9
24633694	TO TX V10-PD	24633669-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	18.7	100	29	104	96.15	12.8	10.97	0.0	0.0	7.1
24633712	24633669-NODE	24633707-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	473.2	100	29	104	96.15	12.8	10.96	0.0	0.0	7.1
24633736	24633707-NODE	TO TX V22-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	28.9	100	29	104	96.01	12.8	10.68	0.0	0.0	7.1
24633725	TO TX V22-PD	24633756-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	417.7	75	21	78	96.19	9.6	11.05	0.0	0.0	5.3
24633774	24633756-NODE	TO TX V24-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	33.6	75	22	78	96.03	9.6	10.71	0.0	0.0	5.3
24633765	TO TX V24-PD	24633804-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	300.2	56	16	58	96.21	7.2	11.09	0.0	0.0	4.0
24633822	24633804-NODE	TO TX V476-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.7	56	16	59	96.05	7.2	10.77	0.0	0.0	4.0
24633813	TO TX V476-PD	JJ23450977-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	251.5	37	10	39	96.35	4.8	11.39	0.0	0.0	2.7
24633836	TO TX V477-PD	JJ23450977-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.3	37	11	39	96.16	4.8	10.98	0.0	0.0	2.7
22237326	TO TX V478-PD	TO TX V477-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	444.0	19	5	19	96.83	2.4	12.46	0.0	0.0	1.3
22237353	24633847-NODE	TO TX V478-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	469.4	0	-1	1	0.02	0.1	116.93	0.0	0.0	0.0
24633865	23190099-NODE	24633847-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.0	0	0	0	0.02	0.0	116.93	0.0	0.0	0.0
24634997	TO F690-PD	JJ23273897-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1137.6	185	53	192	96.12	23.7	10.65	0.1	0.0	13.2
24635021	24635072-NODE	TO F690-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	352.7	160	47	166	96.02	20.6	10.42	0.0	0.0	11.4
24635187	TO TX V52-PD	24635072-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.8	160	47	167	95.95	20.6	10.29	0.0	0.0	11.4
24635162	24635509-NODE	TO TX V52-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	503.9	147	43	154	95.99	19.0	10.36	0.0	0.0	10.6
24635552	TO TX V51-PD	24635509-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	13.6	147	44	154	95.89	19.0	10.16	0.0	0.0	10.6
24635522	24635569-NODE	TO TX V51-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	299.3	123	36	128	95.96	15.8	10.32	0.0	0.0	8.8
24635591	TO TX V50-PD	24635569-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.3	123	36	128	95.89	15.8	10.17	0.0	0.0	8.8
24635598	24635577-NODE	TO TX V50-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.9	98	29	102	95.99	12.7	10.37	0.0	0.0	7.0
24635578	24635632-NODE	24635577-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	315.8	98	29	102	95.99	12.7	10.36	0.0	0.0	7.0
24635672	TO TX V49-PD	24635632-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	194.3	98	29	102	95.89	12.7	10.17	0.0	0.0	7.0
25213021	24635840-NODE	TO TX V49-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	369.3	74	22	77	95.95	9.5	10.29	0.0	0.0	5.3
24635904	TO TX V48-PD	24635840-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.3	74	22	77	95.80	9.5	10.00	0.0	0.0	5.3
24635910	24635860-NODE	TO TX V48-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.3	49	14	51	95.96	6.3	10.30	0.0	0.0	3.5
24635861	24635876-NODE	24635860-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	29.9	49	14	51	95.95	6.3	10.29	0.0	0.0	3.5
24635920	TO TX V55-PD	24635876-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.0	49	14	51	95.93	6.3	10.26	0.0	0.0	3.5
24635947	24635884-NODE	TO TX V55-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	28.0	25	7	25	96.36	3.2	11.14	0.0	0.0	1.8
24635885	23190314-NODE	24635884-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	711.0	25	7	26	96.32	3.2	11.07	0.0	0.0	1.8
22666189	TO F691-PD	JJ23273921-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	460.8	172	49	179	96.19	22.1	10.78	0.0	0.0	12.3
24634658	24634642-NODE	TO F691-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.2	148	42	153	96.21	18.9	10.84	0.0	0.0	10.5
22664068	TO TX V91-PD	24634642-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	702.3	148	42	153	96.21	18.9	10.83	0.1	0.0	10.5
22664075	TO TX V61-PD	TO TX V91-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	210.2	123	35	128	96.19	15.8	10.79	0.0	0.0	8.8
22664081	TO TX V59-PD	TO TX V61-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	386.6	98	28	102	96.30	12.6	11.02	0.0	0.0	7.0
22664089	JJ23272287-NODE	TO TX V59-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	251.5	74	20	76	96.42	9.5	11.27	0.0	0.0	5.3
24634672	TO TX V60-PD	JJ23272287-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	621.2	74	21	77	96.32	9.5	11.06	0.0	0.0	5.3
22628962	24635377-NODE	TO TX V60-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	346.0	49	14	51	96.37	6.3	11.17	0.0	0.0	3.5
24635410	24635402-NODE	24635377-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.2	49	14	51	96.17	6.3	10.74	0.0	0.0	3.5
24635403	TO TX V15-PD	24635402-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	203.1	49	14	51	96.16	6.3	10.73	0.0	0.0	3.5

22629087	TO TX V17-PD	TO TX V15-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	395.9	25	7	25	96.58	3.1	11.63	0.0	0.0	1.7
22629085	23190534-NODE	TO TX V17-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	545.2	0	-1	1	0.02	0.1	116.67	0.0	0.0	0.0
22628972	JJ23265009-NODE	TO FV92-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.1	13.800	153.7	131	40	137	95.53	5.6	9.79	0.0	0.0	3.4
24632725	24632625-NODE	24632724-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	17.1	0	-1	1	0.02	0.0	117.08	0.0	0.0	0.0
24632737	24632724-NODE	S3167-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.2	0	-1	1	0.02	0.0	117.08	0.0	0.0	0.0
24632489	S3167-PD	S3190-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	171.0	0	-1	1	0.02	0.0	117.08	0.0	0.0	0.0
24632745	24632724-NODE	24632689-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	0.8	0	0	0	0.02	0.0	117.08	0.0	0.0	0.0
22552949	S3871-PD	JJ23506139-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	14.5	3824	1098	3979	96.12	162.8	11.13	0.1	0.1	63.2
22552962	JJ23506035-NODE	S3871-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	20.5	3824	1098	3979	96.12	162.8	11.13	0.1	0.2	63.2
22553143	JJ23506035-NODE	23253507-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	75.1	0	0	0	0.02	0.0	117.17	0.0	0.0	0.0
22553156	S3181-PD	JJ23506035-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	337.3	3824	1098	3979	96.12	162.8	11.13	1.4	3.4	63.2
22665449	JJ23275753-NODE	S3178-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	18.7	3685	1055	3834	96.14	157.3	11.07	0.1	0.2	61.4
22665405	JJ23275753-NODE	S4246-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	46.7	3047	869	3169	96.16	130.0	11.13	0.1	0.3	49.7
26714271	S4246-PD	JJ23275801-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	164.4	3047	869	3169	96.16	130.0	11.13	0.4	1.0	49.7
22601998	JJ23275801-NODE	26714247-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	149.6	3032	864	3153	96.18	129.4	11.14	0.4	0.9	49.0
26714248	26714247-NODE	JJ23532505-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.0	13.800	1278.1	3032	863	3152	96.18	129.4	11.14	3.4	8.0	49.0
22601957	JJ23532459-NODE	JJ23532505-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.0	13.800	373.5	3016	851	3134	96.24	128.9	11.14	1.0	2.3	49.0
22602012	JJ23264783-NODE	JJ23532459-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.0	13.800	179.0	3015	849	3132	96.26	128.9	11.14	0.5	1.1	49.0
22629189	JJ23264781-NODE	JJ23264783-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.0	13.800	177.9	2975	837	3090	96.26	127.2	11.13	0.5	1.1	48.3
21694915	JJ23264781-NODE	23219416-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.0	13.800	29.8	0	0	0	0.02	0.0	116.84	0.0	0.0	0.0
22629187	S679-PD	JJ23264781-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.0	13.800	13.6	2974	836	3090	96.27	127.2	11.13	0.0	0.1	48.3
22629185	24636875-NODE	S679-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.0	13.800	14.7	2974	836	3090	96.27	127.2	11.13	0.0	0.1	48.3
22629195	JJ23264783-NODE	FV34-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.0	13.800	23.4	40	11	41	96.56	1.7	11.78	0.0	0.0	0.7
22629193	FV34-PD	JJ23264777-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.0	13.800	19.2	40	11	41	96.56	1.7	11.77	0.0	0.0	0.7
24229320	JJ23532505-NODE	24229286-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.7	12	4	13	95.48	1.6	9.46	0.0	0.0	1.2
24632921	JJ23275801-NODE	22676315-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.8	14	4	15	95.48	1.9	9.89	0.0	0.0	1.4
22665454	JJ23275755-NODE	JJ23275753-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	12.9	638	186	665	96.01	27.3	10.73	0.0	0.0	18.1
22602054	S4040-PD	JJ23275755-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	21.9	638	186	665	96.01	27.3	10.73	0.0	0.0	18.1
26714337	JJ23532401-NODE	S4040-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	180.0	638	186	665	96.01	27.3	10.73	0.0	0.1	18.1
26714323	26714312-NODE	JJ23532401-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	149.8	638	186	665	96.02	27.3	10.73	0.0	0.1	18.1
26714313	JJ23532399-NODE	26714312-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	1650.8	638	186	665	96.02	27.3	10.73	0.3	0.9	18.1
22602057	JJ23272345-NODE	JJ23532399-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	2334.3	638	185	664	96.03	27.3	10.69	0.5	1.3	18.1
21819542	JJ23353041-NODE	JJ23272345-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	171.5	507	144	527	96.16	21.7	10.87	0.0	0.1	16.2
22666173	JJ23353041-NODE	F696-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	14.8	150	43	156	96.21	19.2	11.10	0.0	0.0	14.6
24633558	F696-PD	JJ23273943-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	23.3	150	43	156	96.21	19.2	11.10	0.0	0.0	14.6
24634538	JJ23273937-NODE	JJ23353041-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	10.7	357	102	371	96.11	15.3	10.76	0.0	0.0	16.2
21819553	24634880-NODE	JJ23273937-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	8.0	185	53	192	96.03	7.9	10.74	0.0	0.0	8.4
21863495	24634880-NODE	23221231-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	1252.3	0	0	0	0.02	0.0	116.97	0.0	0.0	0.0
22666192	F690-PD	24634880-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	37.4	185	53	192	96.12	23.7	10.65	0.0	0.0	18.0
22666195	JJ23273897-NODE	F690-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	19.2	185	53	192	96.12	23.7	10.65	0.0	0.0	18.0
22666183	F691-PD	JJ23273937-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.3	172	49	179	96.19	22.1	10.78	0.0	0.0	16.7
22666186	JJ23273921-NODE	F691-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	19.3	172	49	179	96.19	22.1	10.78	0.0	0.0	16.7
22664054	JJ23272345-NODE	FV92-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	11.9	131	40	137	95.53	5.6	9.79	0.0	0.0	2.2
22628970	FV92-PD	JJ23265009-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	19.3	131	40	137	95.53	5.6	9.79	0.0	0.0	2.2
22665389	S3190-PD	JJ23532729-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	12.3	0	0	0	0.02	0.0	117.08	0.0	0.0	0.0
22601677	JJ23532729-NODE	JJ23532727-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	67.9	0	0	0	0.02	0.0	117.08	0.0	0.0	0.0
22601684	JJ23532727-NODE	JJ23306871-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	10.2	0	0	0	0.02	0.0	117.08	0.0	0.0	0.0

21720794	JJ23306871-NODE	24625488-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	301.9	0	0	0	0.02	0.0	117.08	0.0	0.0	0.0
22601897	JJ23306871-NODE	JJ23532541-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	206.5	0	0	0	0.02	0.0	117.08	0.0	0.0	0.0
22601889	JJ23532541-NODE	JJ23532543-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	4.8	0	0	0	0.02	0.0	117.08	0.0	0.0	0.0
22601904	JJ23532543-NODE	24625528-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_1:	Overhead Line	14.1	13.800	78.0	0	0	0	0.02	0.0	117.08	0.0	0.0	0.0

B

Appendix B

Analysis Results – Mitigation Case

Feeder Name	Station	Voltage (kV)	R (amp)	W (amp)	B (amp)	Three Phase Peak Apparent Power Demand (kVA)	Three Phase Peak Real Power Demand (kW)	Three Phase Peak Reactive Power Demand (kVAR)	Calculated Imbalance (%)	Power factor (%)	Total Feeder Cable (m)	Total Feeder OH Line (m)	Calculated Losses (% of Load)				
													Line (%)	Cable (%)	TX (%) (N.L.L. + L.L)	Total (%)	Total (kVA)
HARV F2	Harvester M.S.	4.16	216.9	237.5	216.9	1682	1611	483	6%	96%	816	3362	4.48%	0.27%	1.51%	6.25%	96.23
HOWD F3	Howard M.S.	4.16	46.8	59	47.2	385	373	92	16%	97%	17	10293	2.96%	0.01%	1.92%	4.89%	16.59
EAST F3	Easterbrook M.S.	4.16	227.1	227.1	227.2	1706	1631	500	0.03%	96%	1846	5699	0.69%	0.14%	1.56%	2.39%	34.76
TOWL F3	Towerline M.S.	13.8	152.3	178.3	157.7	3980	3826	1098	10%	96%	23703	2932	0.59%	0.68%	1.56%	2.83%	99.44
LOWV F3	Lowville M.S.	13.8	61.1	61.7	61.7	1517	1461	408	1%	96%	4307	39929	0.88%	0.01%	2.23%	3.12%	39.46
PALM F2	Palmer M.S.	13.8	113.1	140.7	123.3	3067	2917	948	12%	95%	12585	2876	0.31%	0.10%	1.59%	2.01%	52.14
280M6	Tremaine T.S.	27.6	440.2	442.2	444.8	22199	21067	6997	1%	95%	72917	144474	6.40%	0.15%	3.40%	9.95%	1982.85
39M32	Burlington T.S.	27.6	303.3	280.8	260.1	14122	13568	3916	8%	96%	20837	47711	3.65%	0.18%	3.15%	6.99%	883.78
76M30	Cumberland T.S.	27.6	321.7	316.7	318.6	16011	15267	4825	1%	95%	7725	10578	2.43%	0.04%	1.60%	4.08%	597.58
13M25	Bronte T.S.	27.6	110.8	104.1	107.1	5386	5279	1069	3%	98%	7658	14428	1.18%	0.17%	3.31%	4.65%	223.09

Color coding

Green: Results improved and within acceptable limits.

Orange: Results improved but still above acceptable limits.

Red: No improvement in results.

Load Flow - Summary Report (76M30)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Mon Feb 13 2023
Time	14h10m32s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	2000.00	2000.00	0.00
Total Generation	**0.00**	**2000.00**	**2000.00**	**0.00**
Load read (Non-adjusted)	15019.78	6497.85	16365.08	91.78
Load used (Adjusted)	15019.59	6497.14	16364.63	91.78
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**15019.59**	**6497.14**	**16364.63**	**91.78**
Cable Capacitance	0.00	-179.43	179.43	0.00
Line Capacitance	0.00	-36.88	36.88	0.00
Total Shunt Capacitance	**0.00**	**-216.32**	**216.32**	**0.00**
Line Losses	104.40	384.05	397.98	26.23
Cable Losses	3.11	6.14	6.88	45.24
Transformer Load Losses	35.96	153.63	157.78	22.79
Transformer No-Load Losses	104.26	0.00	104.26	100.00
Total Losses	**247.73**	**543.81**	**597.58**	**41.46**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (º)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
26858749	25218550-NODE	25218689-NODE	1250KCMIL_CU_28KV_CN_TR-XLPEI_PVCJ	Cable	29.0	27.600	4.9	15267	4825	16012	95.35	319.0	-17.54	0.0	0.1	55.8
26858802	25218689-NODE	L76M30-PD	1250KCMIL_CU_28KV_CN_TR-XLPEI_PVCJ	Cable	29.0	27.600	4.4	15267	4825	16011	95.35	319.0	-17.54	0.0	0.1	55.8
26858810	L76M30-PD	25218440-NODE	1250KCMIL_CU_28KV_CN_TR-XLPEI_PVCJ	Cable	29.0	27.600	4.6	15267	6825	16723	91.29	333.2	-24.09	0.0	0.1	58.3
26858828	25218440-NODE	25218808-NODE	1250KCMIL_CU_28KV_CN_TR-XLPEI_PVCJ	Cable	29.0	27.600	4.5	0	0	0	0.00	0.0	90.00	0.0	0.0	0.0
26862865	25218440-NODE	25754949-NODE	1250KCMIL_CU_28KV_CN_TR-XLPEI_PVCJ	Cable	29.0	27.600	9.0	15267	6825	16723	91.29	333.2	-24.09	0.1	0.2	58.3
25754950	25754949-NODE	24776856-NODE	1250KCMIL_CU_28KV_CN_TR-XLPEI_PVCJ	Cable	29.0	27.600	268.5	15267	6825	16723	91.29	333.2	-24.09	1.8	5.3	58.3
24778168	24776856-NODE	S3100-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	29.0	27.600	284.7	15265	6826	16722	91.29	333.2	-24.11	3.0	11.2	93.3
24778206	S3100-PD	JJ23551387-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	269.0	15262	6815	16715	91.31	333.2	-24.11	2.9	10.6	93.3
22037404	JJ23551387-NODE	JJ23551385-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	156.8	15197	6778	16640	91.33	331.9	-24.11	1.7	6.1	92.9
26681490	JJ23551385-NODE	26681489-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	338.2	15133	6745	16568	91.34	330.5	-24.12	3.5	13.1	92.6
22218500	26681489-NODE	JJ23489351-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	381.5	15066	6706	16491	91.36	329.2	-24.12	4.0	14.6	92.2
22036808	JJ23489351-NODE	JJ23551499-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	184.7	14958	6648	16369	91.38	326.9	-24.13	1.9	7.0	91.6
22036791	JJ23551499-NODE	FE810-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	2.7	312	136	340	91.72	6.8	-23.68	0.0	0.0	1.9
22036780	FE810-PD	JJ23551503-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	6.7	312	136	340	91.71	6.8	-23.68	0.0	0.0	1.9
22036799	JJ23551503-NODE	TO FE810-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	192.9	312	136	340	91.71	6.8	-23.68	0.0	0.0	4.9
22036818	JJ23551499-NODE	JJ23547101-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	130.1	14644	6506	16024	91.39	320.1	-24.14	1.3	4.7	89.7
22705647	JJ23547101-NODE	JJ23547039-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	97.8	14643	6501	16021	91.40	320.1	-24.14	1.0	3.5	89.7
22735685	JJ23547039-NODE	S3820-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	552.3	14642	6499	16019	91.40	320.1	-24.15	5.4	20.0	89.7
22735678	S3820-PD	26660991-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	21.5	14636	6479	16006	91.44	320.1	-24.15	0.2	0.8	89.7
26660923	26660991-NODE	FE909-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	29.5	63	22	67	94.23	1.3	-19.84	0.0	0.0	1.0
26660937	FE909-PD	TO FE909-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	408.6	63	22	67	94.21	1.3	-19.86	0.0	0.0	1.0
26660992	26660991-NODE	JJ23508275-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	137.1	14573	6456	15939	91.43	318.8	-24.17	1.3	4.9	89.4
22585723	JJ23508275-NODE	FE692-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	22.1	104	44	113	92.18	2.3	-23.09	0.0	0.0	0.6
22585712	FE692-PD	JJ23508281-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	0.8	104	44	113	92.17	2.3	-23.10	0.0	0.0	0.6
22585700	JJ23508281-NODE	TO FE692-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	112.4	104	44	113	92.17	2.3	-23.11	0.0	0.0	1.6
22702244	JJ23508275-NODE	JJ23537129-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	416.8	14467	6407	15823	91.43	316.5	-24.18	4.0	14.8	88.7
22702237	JJ23537129-NODE	FE738-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	23.7	63	26	68	92.50	1.4	-22.66	0.0	0.0	0.4
22702234	FE738-PD	JJ23537145-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	1.0	63	26	68	92.49	1.4	-22.68	0.0	0.0	0.4
22702231	JJ23537145-NODE	TO FE738-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	112.5	63	26	68	92.49	1.4	-22.68	0.0	0.0	1.0
22702240	JJ23537129-NODE	JJ23537131-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	261.2	14401	6367	15746	91.46	315.2	-24.18	2.5	9.2	88.4
22183882	JJ23537131-NODE	S3997-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	19.2	13566	5994	14831	91.47	297.0	-24.20	0.2	0.6	83.4
22183891	S3997-PD	JJ23268085-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	120.7	13566	5993	14831	91.47	297.0	-24.20	1.0	3.8	83.4
21912603	JJ23268085-NODE	JJ23268087-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	311.4	13565	5990	14828	91.48	297.0	-24.20	2.6	9.7	83.4
177	175	JJ23268087-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	26.2	2	-1	2	-74.67	0.0	41.29	0.0	0.0	0.0
22587102	175	178	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	88.6	2	-1	2	-82.42	0.0	34.09	0.0	0.0	0.0
22734616	JJ23268087-NODE	JJ23548727-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	100.3	13560	5982	14821	91.49	297.0	-24.21	0.8	3.1	83.4
22734612	JJ23548727-NODE	JJ23519371-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	126.3	13455	5935	14706	91.49	294.7	-24.21	1.1	3.9	82.8
22677925	JJ23519371-NODE	24846317-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	724.9	13246	5847	14479	91.48	290.2	-24.24	5.9	21.6	81.5
22184124	24846317-NODE	FE834-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	5.1	32	9	33	96.35	0.7	-16.01	0.0	0.0	0.2
22184116	FE834-PD	JJ23539837-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	19.4	32	9	33	96.35	0.7	-16.02	0.0	0.0	0.2
26019280	JJ23539837-NODE	TO FE834-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	400.0	32	9	33	96.33	0.7	-16.06	0.0	0.0	0.5
24846318	24846317-NODE	24846380-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	293.0	13208	5817	14432	91.52	289.5	-24.26	2.4	8.7	81.3
21912028	24846380-NODE	S109-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	412.1	13206	5809	14427	91.54	289.5	-24.26	3.3	12.2	81.3
22632243	S109-PD	JJ23483789-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	989.3	13202	5797	14419	91.56	289.6	-24.27	8.0	29.4	81.3
21752930	JJ23483789-NODE	FF771-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	32.2	104	43	113	92.41	2.3	-23.12	0.0	0.0	0.6
21752916	FF771-PD	JJ23542893-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	32.2	104	43	113	92.40	2.3	-23.14	0.0	0.0	0.6

21752943	JJ23542893-NODE	TO FF771-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	171.9	104	43	113	92.39	2.3	-23.15	0.0	0.0	1.6
21775986	JJ23483789-NODE	24320416-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	591.3	13090	5726	14287	91.62	287.3	-24.28	4.7	17.3	80.7
24320417	24320416-NODE	24846994-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	1018.9	12981	5667	14164	91.65	285.0	-24.30	8.0	29.3	80.1
22677975	24846994-NODE	FF709-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	35.1	208	85	225	92.63	4.5	-22.95	0.0	0.0	1.3
22677972	FF709-PD	JJ23518943-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.7	27.600	4.4	208	85	225	92.62	4.5	-22.96	0.0	0.0	1.3
22677978	JJ23518943-NODE	TO FF709-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	489.2	208	85	225	92.62	4.5	-22.96	0.0	0.0	3.3
24846995	24846994-NODE	JJ23544661-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	306.8	12764	5554	13920	91.69	280.5	-24.32	2.3	8.5	78.9
21773608	JJ23544661-NODE	JJ23545711-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	321.4	12450	5409	13574	91.72	273.6	-24.32	2.3	8.5	77.0
21773571	JJ23545711-NODE	FF803-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	13.2	21	7	22	95.02	1.3	-19.01	0.0	0.0	1.0
21773555	FF803-PD	JJ23545715-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	19.2	21	7	22	95.02	1.3	-19.02	0.0	0.0	1.0
21773583	JJ23545715-NODE	TO FF803-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	567.1	21	7	22	95.01	1.3	-19.03	0.0	0.0	1.0
21773597	JJ23545711-NODE	JJ23535805-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	619.1	12426	5394	13547	91.73	273.2	-24.33	4.4	16.4	77.0
21719417	JJ23535805-NODE	JJ23267365-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	303.3	12005	5199	13083	91.76	264.1	-24.34	2.0	7.5	74.5
21796802	JJ23267365-NODE	JJ23267367-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	289.1	11795	5105	12852	91.77	259.5	-24.35	1.9	6.9	73.2
22505696	JJ23267367-NODE	S3112-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	291.4	11169	4826	12168	91.80	245.8	-24.34	1.7	6.2	69.5
22648514	S3112-PD	24847474-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	169.4	11168	4820	12164	91.81	245.8	-24.34	1.0	3.6	69.5
24847475	24847474-NODE	JJ23479463-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	149.1	11156	4813	12150	91.82	245.5	-24.34	0.9	3.2	69.3
21719901	JJ23479463-NODE	JJ23534197-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	373.5	10843	4673	11807	91.84	238.6	-24.33	2.0	7.5	67.4
21719889	JJ23534197-NODE	FF752-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	2.5	63	27	68	91.99	1.4	-24.14	0.0	0.0	0.4
21719886	FF752-PD	JJ23534201-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	3.8	63	27	68	91.99	1.4	-24.14	0.0	0.0	0.4
21719893	JJ23534201-NODE	TO FF752-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	33.2	63	27	68	91.99	1.4	-24.14	0.0	0.0	1.0
21719897	JJ23534197-NODE	24852224-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	225.2	10779	4639	11734	91.85	237.3	-24.34	1.2	4.5	67.0
24852225	24852224-NODE	JJ23267471-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	113.7	10777	4635	11732	91.87	237.3	-24.34	0.6	2.3	67.0
21719824	JJ23267471-NODE	L64-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	43.5	208	88	226	92.13	4.6	-23.96	0.0	0.0	1.3
21719829	L64-PD	JJ23267363-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	0.7	208	88	226	92.13	4.6	-23.97	0.0	0.0	1.3
21796810	JJ23267363-NODE	S107-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	9.3	208	88	226	92.12	4.6	-23.97	0.0	0.0	3.3
22536550	S107-PD	FF338-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	163.6	208	88	226	92.11	4.6	-23.99	0.0	0.0	3.3
24847647	FF338-PD	TO FF338-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	49.5	208	90	227	91.80	4.6	-24.43	0.0	0.0	3.3
21796667	JJ23267471-NODE	JJ23267473-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	288.1	10568	4544	11504	91.87	232.7	-24.34	1.5	5.5	65.8
21796635	JJ23267473-NODE	S49-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	300.0	10046	4318	10935	91.87	221.3	-24.36	1.4	5.2	62.6
22622740	S49-PD	24847859-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	406.4	10045	4314	10932	91.89	221.3	-24.36	1.9	7.0	62.6
24847860	24847859-NODE	24852329-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	42.1	10043	4307	10927	91.90	221.3	-24.36	0.2	0.7	62.6
24852330	24852329-NODE	JJ23275923-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	108.9	10043	4306	10927	91.91	221.3	-24.36	0.5	1.9	62.6
22665318	JJ23275923-NODE	JJ23275993-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	17.9	9730	4168	10585	91.92	214.4	-24.35	0.1	0.3	60.7
21721334	JJ23275993-NODE	JJ23299661-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	328.3	8483	3621	9223	91.97	186.8	-24.28	1.1	4.1	53.2
21721325	JJ23299661-NODE	FQ270-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	35.5	104	45	114	91.94	2.3	-24.35	0.0	0.0	0.6
21721321	FQ270-PD	JJ23299667-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	9.1	104	45	114	91.93	2.3	-24.37	0.0	0.0	0.6
21721330	JJ23299667-NODE	TO FQ270-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	48.3	104	45	114	91.92	2.3	-24.37	0.0	0.0	1.7
22510073	JJ23299661-NODE	JJ23485957-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	142.1	8377	3572	9107	91.99	184.5	-24.28	0.5	1.7	52.5
22510059	JJ23485957-NODE	FQ397-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	40.7	208	88	226	92.08	4.6	-24.14	0.0	0.0	1.3
22510054	FQ397-PD	JJ23485961-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	9.3	208	88	226	92.08	4.6	-24.15	0.0	0.0	1.3
22510064	JJ23485961-NODE	TO FQ397-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	197.1	208	88	226	92.08	4.6	-24.15	0.0	0.0	3.3
22510069	JJ23485957-NODE	JJ23485959-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	253.3	8168	3482	8880	91.99	179.9	-24.28	0.8	2.9	51.3
22602846	JJ23485959-NODE	JJ23531589-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	196.2	7337	3113	7970	92.06	161.5	-24.20	0.5	1.8	46.2
22602664	JJ23531589-NODE	F3969-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	49.5	208	89	227	92.01	4.6	-24.28	0.0	0.0	1.3
22602657	F3969-PD	JJ23531619-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	2.5	208	89	227	92.00	4.6	-24.29	0.0	0.0	1.3
22602824	JJ23531619-NODE	24227167-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	157.1	208	89	227	92.00	4.6	-24.29	0.0	0.0	3.3
22602839	JJ23531589-NODE	JJ23531595-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	298.0	7128	3022	7742	92.07	156.9	-24.20	0.7	2.6	45.0

22601721	JJ23531595-NODE	JJ23532693-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	89.9	6919	2932	7514	92.07	152.3	-24.20	0.2	0.7	43.7
22601713	JJ23532693-NODE	JJ23308445-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	167.4	6710	2842	7287	92.08	147.7	-24.19	0.4	1.3	42.5
21720548	JJ23308445-NODE	FQ295-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	39.0	208	89	227	91.92	4.6	-24.43	0.0	0.0	1.3
21720545	FQ295-PD	JJ23308429-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	8.3	208	89	227	91.92	4.6	-24.44	0.0	0.0	1.3
21720550	JJ23308429-NODE	TO FQ295-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	110.0	208	89	227	91.92	4.6	-24.44	0.0	0.0	3.3
22589314	JJ23308445-NODE	JJ23526979-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	321.0	6501	2751	7060	92.09	143.1	-24.19	0.6	2.3	41.2
22589307	JJ23526979-NODE	FQ468-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	34.3	104	44	113	92.11	2.3	-24.17	0.0	0.0	0.6
22589305	FQ468-PD	JJ23527003-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	2.0	104	44	113	92.10	2.3	-24.19	0.0	0.0	0.6
22589310	JJ23527003-NODE	TO FQ468-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	96.8	104	44	113	92.10	2.3	-24.19	0.0	0.0	1.7
22589312	JJ23526979-NODE	JJ23307051-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	145.6	6396	2705	6945	92.10	140.8	-24.19	0.3	1.0	40.6
21720765	JJ23307051-NODE	FQ287-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	41.3	312	136	341	91.65	6.9	-24.85	0.0	0.0	1.9
21720762	FQ287-PD	JJ23307073-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	2.6	312	136	341	91.64	6.9	-24.86	0.0	0.0	1.9
21720759	JJ23307073-NODE	TO FQ287-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	152.5	312	136	341	91.64	6.9	-24.86	0.0	0.0	5.0
22602796	JJ23307051-NODE	JJ23531713-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	98.2	6084	2568	6604	92.13	133.9	-24.16	0.2	0.6	38.7
22602774	JJ23531713-NODE	FQ483-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	34.8	63	27	68	92.01	1.4	-24.33	0.0	0.0	1.1
22602767	FQ483-PD	JJ23531725-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	9.4	63	27	68	91.99	1.4	-24.36	0.0	0.0	1.1
22602781	JJ23531725-NODE	TO FQ483-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	33.8	63	27	68	91.99	1.4	-24.37	0.0	0.0	1.0
22602788	JJ23531713-NODE	JJ23527489-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	201.0	6021	2541	6535	92.13	132.5	-24.16	0.3	1.3	38.3
22589284	JJ23527489-NODE	FQ469-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	17.9	63	26	68	92.51	1.4	-23.60	0.0	0.0	1.1
22589282	FQ469-PD	JJ23527521-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	5.2	63	26	68	92.50	1.4	-23.61	0.0	0.0	1.1
22589286	JJ23527521-NODE	TO FQ469-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	118.5	63	26	68	92.50	1.4	-23.62	0.0	0.0	1.0
22589290	JJ23527489-NODE	JJ23385725-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	122.8	5958	2514	6467	92.13	131.2	-24.16	0.2	0.7	37.9
21928267	JJ23385725-NODE	FQ322-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	30.9	63	26	68	92.21	1.4	-24.05	0.0	0.0	0.4
21928260	FQ322-PD	JJ23385735-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	0.7	63	26	68	92.20	1.4	-24.08	0.0	0.0	0.4
21928284	JJ23385735-NODE	TO FQ322-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	67.9	63	26	68	92.19	1.4	-24.08	0.0	0.0	1.0
21928290	JJ23385725-NODE	JJ23270181-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	265.1	5895	2487	6398	92.13	129.8	-24.17	0.4	1.6	37.5
21720745	JJ23270181-NODE	24852432-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	12.8	4496	1896	4879	92.15	99.0	-24.16	0.0	0.0	29.1
24852443	24852432-NODE	24848766-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	406.6	4496	1896	4879	92.15	99.0	-24.16	0.4	1.4	29.1
21720746	24848766-NODE	JJ23271307-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	143.8	4433	1868	4811	92.15	97.6	-24.17	0.1	0.5	28.7
22638664	JJ23271307-NODE	FQ24-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	23.5	104	45	114	91.81	2.3	-24.67	0.0	0.0	0.6
22638663	FQ24-PD	JJ23271323-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	5.1	104	45	114	91.80	2.3	-24.68	0.0	0.0	0.6
22638662	JJ23271323-NODE	TO FQ24-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	15.0	104	45	114	91.80	2.3	-24.69	0.0	0.0	1.7
22638665	JJ23271307-NODE	JJ23271305-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	166.5	4328	1823	4697	92.16	95.3	-24.16	0.1	0.5	28.1
21720552	JJ23271305-NODE	S3659-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	244.4	4093	1727	4442	92.14	90.2	-24.20	0.2	0.7	26.7
21720554	S3659-PD	JJ23274043-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	312.1	4093	1726	4442	92.14	90.2	-24.20	0.2	0.9	26.7
21720852	JJ23274043-NODE	24852528-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	311.5	2014	814	2173	92.71	44.1	-23.35	0.1	0.2	14.1
24852529	24852528-NODE	24850339-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	477.6	2014	814	2173	92.71	44.1	-23.36	0.1	0.3	14.1
22589247	24850339-NODE	JJ23528209-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	178.6	976	359	1040	93.85	21.1	-21.55	0.0	0.0	7.8
22589245	JJ23528209-NODE	F3912-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	39.8	208	85	225	92.53	4.6	-23.64	0.0	0.0	1.3
22589243	F3912-PD	JJ23528099-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	329.3	208	85	225	92.52	4.6	-23.65	0.0	0.0	3.5
22589254	JJ23528099-NODE	FQ470-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	26.9	208	86	225	92.47	4.6	-23.72	0.0	0.0	1.3
22589252	FQ470-PD	JJ23528135-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	2.1	208	86	225	92.47	4.6	-23.73	0.0	0.0	1.3
22589256	JJ23528135-NODE	TO FQ470-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	415.6	208	86	225	92.47	4.6	-23.73	0.0	0.0	3.3
22589258	JJ23528099-NODE	JJ23528101-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	3.0	0	0	0	0.00	0.0	88.65	0.0	0.0	0.0
22589249	JJ23528209-NODE	JJ23524185-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	691.6	767	273	815	94.19	16.5	-20.98	0.0	0.1	6.5
22575982	JJ23524185-NODE	24852504-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	130.1	746	270	794	94.01	16.1	-21.29	0.0	0.0	6.5
24852505	24852504-NODE	JJ23505045-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	13.4	746	271	794	94.01	16.1	-21.30	0.0	0.0	6.5
22555248	JJ23505045-NODE	JJ23276163-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	22.4	385	136	408	94.21	8.3	-20.76	0.0	0.0	3.5

22665257	JJ23276163-NODE	JJ23276183-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	22.0	189	68	201	93.70	4.1	-21.17	0.0	0.0	3.4
22575986	JJ23276183-NODE	JJ23524161-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	148.8	21	7	22	91.86	0.4	-19.47	0.0	0.0	0.4
22575989	JJ23524161-NODE	23222212-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	664.4	0	-1	1	0.00	0.0	88.64	0.0	0.0	0.0
22576005	JJ23524161-NODE	F3898-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	39.2	21	8	22	93.83	1.4	-21.58	0.0	0.0	1.0
24851016	24851036-NODE	F3898-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	1.5	21	8	22	93.82	1.4	-21.60	0.0	0.0	1.0
24851037	24293865-NODE	24851036-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	345.3	21	8	22	93.82	1.4	-21.60	0.0	0.0	1.0
22665266	JJ23276183-NODE	F2768-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	29.9	168	61	179	93.94	10.9	-21.38	0.0	0.0	8.2
22665264	F2768-PD	JJ23273459-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	11.5	168	61	179	93.94	10.9	-21.39	0.0	0.0	8.2
26948430	JJ23273459-NODE	TO F2768-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	907.4	168	61	179	93.94	10.9	-21.39	0.0	0.0	7.8
22666360	TO F2768-PD	TO TX Q135-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	423.2	147	56	157	93.51	9.6	-22.10	0.0	0.0	6.9
25217809	TO TX Q135-PD	TO TX Q136-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	431.9	126	48	135	93.39	8.2	-22.30	0.0	0.0	5.9
22666459	TO TX Q136-PD	TO TX Q112-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	220.9	105	41	113	93.20	6.9	-22.59	0.0	0.0	4.9
22666455	TO TX Q112-PD	24851708-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	142.7	84	33	90	93.22	5.5	-22.56	0.0	0.0	3.9
24851729	24851708-NODE	TO TX Q113-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	12.3	84	33	90	93.02	5.5	-22.88	0.0	0.0	3.9
24851737	TO TX Q113-PD	24851716-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	11.6	63	24	67	93.39	4.1	-22.29	0.0	0.0	2.9
24851717	24851716-NODE	TO TX Q114-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	143.6	63	24	67	93.37	4.1	-22.33	0.0	0.0	2.9
24851782	TO TX Q114-PD	24851754-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	10.4	42	16	45	93.71	2.7	-21.77	0.0	0.0	2.0
24851755	24851754-NODE	TO TX Q115-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	487.5	42	16	45	93.68	2.7	-21.82	0.0	0.0	2.0
24851825	TO TX Q115-PD	24851813-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	11.3	21	8	23	92.73	1.4	-23.32	0.0	0.0	1.0
24851814	24851813-NODE	23189304-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	145.4	21	9	23	92.66	1.4	-23.43	0.0	0.0	1.0
22665272	JJ23276163-NODE	F2769-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	20.5	196	68	207	94.52	12.6	-20.38	0.0	0.0	9.6
22665270	F2769-PD	JJ23276173-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	9.8	196	68	207	94.52	12.6	-20.38	0.0	0.0	9.6
22006063	JJ23276173-NODE	TO F2769-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	644.0	196	68	207	94.52	12.6	-20.38	0.0	0.0	9.0
22006016	TO F2769-PD	TO TX Q334-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	230.9	180	63	191	94.34	11.6	-20.69	0.0	0.0	8.3
22006025	TO TX Q334-PD	TO TX Q335-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	173.9	164	57	174	94.41	10.6	-20.57	0.0	0.0	7.6
22006038	TO TX Q335-PD	TO TX Q336-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	140.2	148	51	157	94.53	9.5	-20.35	0.0	0.0	6.8
22006051	TO TX Q336-PD	24851481-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	114.1	132	45	140	94.72	8.5	-20.03	0.0	0.0	6.1
24851499	24851481-NODE	TO TX Q337-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	15.6	132	45	140	94.62	8.5	-20.20	0.0	0.0	6.1
24851511	TO TX Q337-PD	24851489-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	11.4	116	38	123	94.96	7.5	-19.59	0.0	0.0	5.4
24851490	24851489-NODE	TO TX Q338-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	641.3	116	38	123	94.95	7.5	-19.61	0.0	0.0	5.4
22665517	TO TX Q338-PD	TO Q111-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	701.0	95	32	100	94.86	6.1	-19.78	0.0	0.0	4.4
26746149	TO Q111-PD	TO Q330-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	12.3	95	34	101	94.03	6.2	-21.22	0.0	0.0	4.4
21974182	TO Q330-PD	TO TO Q330-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	569.7	95	35	101	94.01	6.2	-21.24	0.0	0.0	4.4
21974170	TO TO Q330-PD	TO TX Q330-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	137.0	79	30	85	93.60	5.2	-21.93	0.0	0.0	3.7
21974160	TO TX Q330-PD	TO TX Q331-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	137.5	63	24	68	93.77	4.1	-21.65	0.0	0.0	3.0
21974149	TO TX Q331-PD	TO TX Q332-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	233.8	48	17	51	94.05	3.1	-21.18	0.0	0.0	2.2
24851588	TO TX Q332-PD	TO TX Q333-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	482.1	32	11	34	94.25	2.1	-20.83	0.0	0.0	1.5
24851617	TO TX Q333-PD	24327351-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	9.5	16	6	17	93.05	1.0	-22.81	0.0	0.0	0.7
24327352	24327351-NODE	23175094-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	147.6	16	6	17	92.97	1.0	-22.92	0.0	0.0	0.7
22555266	JJ23505045-NODE	F2770-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	31.7	361	135	386	93.69	23.5	-21.87	0.0	0.0	17.8
22555257	F2770-PD	JJ23273355-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	10.4	361	135	386	93.69	23.5	-21.87	0.0	0.0	17.8
22666416	JJ23273355-NODE	TO F2770-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	695.7	361	135	386	93.69	23.5	-21.87	0.1	0.0	16.9
24328379	TO F2770-PD	TO TX Q108-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	127.7	346	131	370	93.54	22.5	-22.13	0.0	0.0	16.2
21695049	TO TX Q108-PD	TO TX Q109-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	453.8	330	125	353	93.57	21.5	-22.08	0.1	0.0	15.4
21695059	TO TX Q109-PD	TO TX Q219-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	226.9	310	117	331	93.51	20.2	-22.18	0.0	0.0	14.5
21695056	TO TX Q219-PD	24851318-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	241.4	289	109	309	93.53	18.8	-22.13	0.0	0.0	13.5
24851335	24851318-NODE	TO TX Q225-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	5.4	289	110	309	93.43	18.9	-22.29	0.0	0.0	13.5
24851343	TO TX Q225-PD	24851326-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	8.5	268	101	287	93.55	17.5	-22.10	0.0	0.0	12.5

24851327	24851326-NODE	TO TX Q224-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	184.0	268	101	287	93.55	17.5	-22.11	0.0	0.0	12.5
21695067	TO TX Q224-PD	TO TX Q223-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	194.2	248	93	264	93.60	16.1	-22.02	0.0	0.0	11.6
21695070	TO TX Q223-PD	TO TX Q222-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	128.5	227	85	242	93.66	14.8	-21.92	0.0	0.0	10.6
21695073	TO TX Q222-PD	TO TX Q221-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	143.1	206	76	220	93.77	13.4	-21.75	0.0	0.0	9.6
21695044	TO TX Q221-PD	TO TX Q220-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	426.0	186	68	198	93.89	12.1	-21.55	0.0	0.0	8.7
24851381	TO TX Q220-PD	JJ23273467-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	9.0	165	61	176	93.84	10.7	-21.63	0.0	0.0	7.7
22666353	JJ23273467-NODE	TO TX Q110-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	377.5	165	61	176	93.83	10.7	-21.64	0.0	0.0	7.7
22666357	TO TX Q110-PD	TO TX Q137-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	147.3	144	53	154	93.81	9.4	-21.68	0.0	0.0	6.7
22666379	TO TX Q137-PD	24851404-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	296.2	124	45	132	93.99	8.0	-21.38	0.0	0.0	5.8
24851421	24851404-NODE	TO TX Q130-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	9.7	124	46	132	93.71	8.1	-21.84	0.0	0.0	5.8
24851429	TO TX Q130-PD	24851412-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	8.5	103	37	110	94.07	6.7	-21.25	0.0	0.0	4.8
24851413	24851412-NODE	TO TX Q131-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	209.9	103	37	110	94.06	6.7	-21.26	0.0	0.0	4.8
22666373	TO TX Q131-PD	TO TX Q132-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	407.1	82	29	87	94.30	5.3	-20.85	0.0	0.0	3.8
22666367	TO TX Q132-PD	TO TX Q133-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	221.9	62	22	66	94.35	4.0	-20.77	0.0	0.0	2.9
22666370	TO TX Q133-PD	TO TX Q134-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	155.2	41	14	43	94.93	2.7	-19.73	0.0	0.0	1.9
22666022	TO TX Q134-PD	TO TX Q173-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	279.3	21	5	21	96.83	1.3	-15.89	0.0	0.0	0.9
22665653	TO TX Q173-PD	TO Q174-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	367.8	0	-3	3	0.00	0.2	88.59	0.0	0.0	0.1
26746139	TO Q174-PD	TO Q325-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	12.6	0	-1	1	0.00	0.1	88.59	0.0	0.0	0.0
21974230	TO Q325-PD	24327798-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	281.8	0	-1	1	0.00	0.1	88.59	0.0	0.0	0.0
22575993	JJ23524185-NODE	F3899-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	36.1	21	4	21	98.48	1.3	-11.34	0.0	0.0	1.0
22575997	F3899-PD	JJ23524175-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	19.1	21	4	21	98.47	1.3	-11.36	0.0	0.0	1.0
22575970	JJ23524175-NODE	TO F3899-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	696.9	21	4	21	98.47	1.3	-11.37	0.0	0.0	0.9
22575974	TO F3899-PD	24293865-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		27.600	696.9	0	-3	3	0.00	0.2	88.66	0.0	0.0	0.1
22666096	24850339-NODE	S2765-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	20.8	1039	456	1134	91.57	23.0	-25.04	0.0	0.0	6.5
21720905	S2765-PD	JJ23306085-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	57.3	1039	456	1134	91.57	23.0	-25.04	0.0	0.0	6.5
22577159	JJ23306085-NODE	S3957-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	15.4	1039	456	1134	91.57	23.0	-25.05	0.0	0.0	17.6
22577142	S3957-PD	F3875-PD	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	34.7	1039	456	1134	91.57	23.0	-25.05	0.0	0.0	6.0
22577150	F3875-PD	JJ23521861-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	57.9	1039	456	1134	91.57	23.0	-25.05	0.0	0.0	17.6
22577119	JJ23521861-NODE	S3958-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	9.8	830	367	908	91.46	18.4	-25.20	0.0	0.0	14.1
22576165	S3958-PD	S3968-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	184.7	830	367	908	91.46	18.4	-25.20	0.0	0.0	14.1
22576157	S3968-PD	JJ23521917-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	29.4	830	367	908	91.45	18.4	-25.21	0.0	0.0	14.1
22577133	JJ23521917-NODE	FQ450-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	5.6	830	367	908	91.45	18.4	-25.22	0.0	0.0	13.3
24850759	FQ450-PD	TO FQ450-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	50.9	830	367	908	91.45	18.4	-25.22	0.0	0.0	13.3
22577173	JJ23521861-NODE	S3956-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	36.5	208	89	227	91.99	4.6	-24.44	0.0	0.0	3.3
22577165	S3956-PD	S2906-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	19.6	208	89	227	91.93	4.6	-24.53	0.0	0.0	3.3
22577182	S2906-PD	JJ23521827-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	3.0	208	89	227	91.89	4.6	-24.59	0.0	0.0	3.3
22577199	JJ23521827-NODE	FQ125-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	65.3	0	-1	1	0.00	0.0	88.65	0.0	0.0	0.0
22577190	FQ125-PD	JJ23521847-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	7.4	0	0	0	0.00	0.0	88.65	0.0	0.0	0.0
22577203	JJ23521827-NODE	FQ126-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	10.8	208	90	227	91.75	4.6	-24.79	0.0	0.0	3.3
22666093	FQ126-PD	TO FQ126-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	11.3	208	90	227	91.73	4.6	-24.82	0.0	0.0	3.3
22666155	JJ23274043-NODE	S2702-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	24.0	2078	912	2269	91.58	46.1	-25.03	0.0	0.0	12.9
24852828	S2702-PD	S45-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	32.3	2078	912	2269	91.58	46.1	-25.03	0.0	0.0	35.2
24852855	S45-PD	F2979-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	26.8	2078	912	2269	91.58	46.1	-25.03	0.0	0.0	35.2
24852863	F2979-PD	JJ23274063-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.4	27.600	4.7	2078	912	2269	91.58	46.1	-25.03	0.0	0.0	35.2
24852901	JJ23274063-NODE	24849775-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	197.1	2078	912	2269	91.58	46.1	-25.03	0.3	0.1	33.3
24852914	24849775-NODE	JJ23274073-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	36.3	2078	914	2270	91.54	46.1	-25.08	0.1	0.0	33.3
24852923	JJ23274073-NODE	JJ23274077-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	30.8	1662	731	1816	91.53	36.9	-25.09	0.0	0.0	26.7
24852932	JJ23274077-NODE	JJ23274083-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	32.1	1143	503	1248	91.54	25.3	-25.08	0.0	0.0	18.3

24852941	JJ23274083-NODE	JJ23274085-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	10.1	0	0	0	0.00	0.0	88.66	0.0	0.0	0.0
24852950	JJ23274083-NODE	S3059-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	16.2	1143	503	1249	91.52	25.4	-25.10	0.0	0.0	18.3
22076488	S3059-PD	F3625-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	31.1	1143	503	1249	91.52	25.4	-25.11	0.0	0.0	18.3
22076476	F3625-PD	JJ23425755-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	8.3	1143	504	1249	91.51	25.4	-25.12	0.0	0.0	18.3
22076414	JJ23425755-NODE	S3825-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	89.7	623	274	681	91.53	13.8	-25.10	0.0	0.0	10.0
22076401	S3825-PD	FQ386-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	15.0	623	275	681	91.47	13.8	-25.18	0.0	0.0	10.0
24850275	FQ386-PD	TO FQ386-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	28.1	623	276	682	91.46	13.8	-25.19	0.0	0.0	10.0
22076437	JJ23425755-NODE	S3824-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	24.8	519	229	568	91.48	11.5	-25.16	0.0	0.0	8.3
22076426	S3824-PD	FQ161-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	6.8	519	230	568	91.46	11.5	-25.19	0.0	0.0	8.3
22666112	FQ161-PD	JJ23274129-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	5.5	519	230	568	91.46	11.5	-25.20	0.0	0.0	8.3
22666109	JJ23274129-NODE	TO FQ161-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	13.6	519	230	568	91.45	11.5	-25.20	0.0	0.0	8.3
24852959	JJ23274077-NODE	S3058-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	23.9	519	229	568	91.50	11.5	-25.14	0.0	0.0	8.3
22666121	S3058-PD	FQ160-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	28.8	519	229	568	91.48	11.5	-25.17	0.0	0.0	8.3
22666118	FQ160-PD	JJ23274115-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	7.1	519	230	568	91.46	11.5	-25.20	0.0	0.0	8.3
22666106	JJ23274115-NODE	TO FQ160-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	12.0	519	230	568	91.45	11.5	-25.20	0.0	0.0	8.3
24852968	JJ23274073-NODE	S3057-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	13.0	416	183	454	91.53	9.2	-25.10	0.0	0.0	6.7
22666127	S3057-PD	FQ21-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	18.5	416	183	454	91.51	9.2	-25.11	0.0	0.0	6.7
24849983	FQ21-PD	TO FQ21-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	62.8	416	183	454	91.50	9.2	-25.14	0.0	0.0	6.7
22681221	JJ23271305-NODE	F4452-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	22.3	235	96	254	92.63	5.2	-23.46	0.0	0.0	1.5
22681217	F4452-PD	26785597-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	84.6	235	96	254	92.63	5.2	-23.46	0.0	0.0	1.5
22618496	26785597-NODE	FQ13-PD	556KCMIL_ACSR_DOVE_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	23.8	63	27	68	91.88	1.4	-24.57	0.0	0.0	0.4
22618494	FQ13-PD	JJ23263819-NODE	556KCMIL_ACSR_DOVE_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	2.5	63	27	68	91.87	1.4	-24.59	0.0	0.0	0.4
22618491	JJ23263819-NODE	TO FQ13-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	13.8	63	27	68	91.86	1.4	-24.60	0.0	0.0	1.0
26785598	26785597-NODE	27311295-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	118.1	172	69	186	92.88	3.8	-23.08	0.0	0.0	1.1
27304502	27311295-NODE	FQ542-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	27.3	63	24	67	93.61	1.4	-21.92	0.0	0.0	1.0
27241631	FQ542-PD	TO FQ542-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	281.5	63	24	67	93.45	1.4	-22.17	0.0	0.0	1.0
27311296	27311295-NODE	27223100-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	100.0	110	45	119	92.41	2.4	-23.79	0.0	0.0	0.7
27223101	27223100-NODE	JJ23274307-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	295.3	110	45	119	92.38	2.4	-23.84	0.0	0.0	0.7
25299757	JJ23274307-NODE	JJ23274267-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	414.8	110	46	119	92.28	2.4	-23.98	0.0	0.0	0.7
22666078	JJ23274267-NODE	JJ23274265-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	95.7	104	44	113	92.16	2.3	-24.16	0.0	0.0	0.6
22666069	JJ23274265-NODE	FQ169-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	2.3	104	44	113	92.13	2.3	-24.20	0.0	0.0	0.6
22666049	FQ169-PD	JJ23274273-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.4	27.600	19.4	104	44	113	92.13	2.3	-24.20	0.0	0.0	0.6
22666072	JJ23274273-NODE	TO FQ169-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.4	27.600	104.3	104	44	113	92.13	2.3	-24.21	0.0	0.0	1.7
27133659	JJ23274267-NODE	22676348-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	9.1	5	2	6	91.86	0.3	-24.58	0.0	0.0	0.3
21720792	24848766-NODE	FQ284-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	22.0	63	26	68	92.23	1.4	-24.04	0.0	0.0	0.4
24848863	FQ284-PD	24848823-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.1	63	26	68	92.22	1.4	-24.06	0.0	0.0	1.1
24848824	24848823-NODE	TO FQ284-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	72.5	63	26	68	92.22	1.4	-24.06	0.0	0.0	1.0
22602884	JJ23270181-NODE	JJ23531529-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1004.3	376	157	407	92.29	8.3	-23.94	0.0	0.0	2.3
22602864	JJ23531529-NODE	FQ482-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	4.2	104	42	113	92.65	2.3	-23.40	0.0	0.0	0.6
22602859	FQ482-PD	JJ23531535-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	22.5	104	42	113	92.65	2.3	-23.41	0.0	0.0	0.6
22602871	JJ23531535-NODE	TO FQ482-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	247.7	104	42	113	92.64	2.3	-23.42	0.0	0.0	1.7
22602877	JJ23531529-NODE	JJ23498287-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	141.7	271	115	295	92.03	6.0	-24.34	0.0	0.0	1.7
22541441	JJ23498287-NODE	FQ401-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	10.9	208	90	227	91.88	4.6	-24.56	0.0	0.0	1.3
22541438	FQ401-PD	JJ23498301-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.9	208	90	227	91.87	4.6	-24.56	0.0	0.0	1.3
22541444	JJ23498301-NODE	TO FQ401-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	87.8	208	90	227	91.87	4.6	-24.56	0.0	0.0	3.3
22541447	JJ23498287-NODE	24808414-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	465.7	63	26	68	92.45	1.4	-23.72	0.0	0.0	0.4
24808415	24808414-NODE	23258408-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	130.1	0	0	0	0.00	0.0	88.70	0.0	0.0	0.0
24808441	24808414-NODE	FQ446-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	3.3	63	27	68	92.11	1.4	-24.21	0.0	0.0	0.4

24808451	FQ446-PD	24808450-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	19.2	63	27	68	92.11	1.4	-24.21	0.0	0.0	0.4
22551373	24808450-NODE	TO FQ446-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	52.5	63	27	68	92.10	1.4	-24.23	0.0	0.0	1.0
22640354	JJ23270181-NODE	JJ23270179-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	110.6	1023	434	1111	92.06	22.5	-24.28	0.0	0.0	6.3
22640357	JJ23270179-NODE	JJ23270177-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	151.9	1023	434	1111	92.06	22.5	-24.28	0.0	0.0	6.3
22665185	JJ23270177-NODE	S167-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	169.3	1023	434	1111	92.06	22.5	-24.29	0.0	0.0	6.3
22665189	S167-PD	JJ23276425-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	64.1	1023	434	1111	92.05	22.5	-24.30	0.0	0.0	6.3
22665077	JJ23276425-NODE	JJ23276789-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	288.0	960	408	1043	92.05	21.2	-24.31	0.0	0.0	5.9
21695275	JJ23276789-NODE	JJ23292573-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	160.0	897	383	975	91.98	19.8	-24.41	0.0	0.0	5.5
21695237	JJ23292573-NODE	25060463-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	174.9	793	338	862	91.99	17.5	-24.40	0.0	0.0	4.9
25060464	25060463-NODE	JJ23295327-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	744.2	584	249	635	92.01	12.9	-24.37	0.0	0.0	3.6
21694921	JJ23295327-NODE	FQ211-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	31.0	63	27	68	92.03	1.4	-24.34	0.0	0.0	0.4
21694920	FQ211-PD	JJ23295355-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.4	63	27	68	92.01	1.4	-24.37	0.0	0.0	0.4
21694918	JJ23295355-NODE	TO FQ211-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	37.9	63	27	68	92.01	1.4	-24.37	0.0	0.0	1.0
21694922	JJ23295327-NODE	JJ23295321-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	33.1	521	223	567	91.96	11.5	-24.45	0.0	0.0	3.2
21694923	JJ23295321-NODE	JJ23294321-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	313.1	313	133	340	92.06	6.9	-24.30	0.0	0.0	1.9
21695116	JJ23294321-NODE	JJ23294317-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	482.6	313	133	340	92.01	6.9	-24.38	0.0	0.0	1.9
21695109	JJ23294317-NODE	FQ217-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	26.0	208	90	227	91.88	4.6	-24.56	0.0	0.0	1.3
21695113	FQ217-PD	TO FQ217-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	88.7	208	90	227	91.88	4.6	-24.57	0.0	0.0	3.3
21695121	JJ23294317-NODE	JJ23291775-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	140.3	104	44	113	92.10	2.3	-24.24	0.0	0.0	0.6
21695549	JJ23291775-NODE	FQ207-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	24.3	104	45	114	91.81	2.3	-24.66	0.0	0.0	0.6
21695543	FQ207-PD	JJ23291795-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.8	104	45	114	91.80	2.3	-24.67	0.0	0.0	0.6
21695537	JJ23291795-NODE	TO FQ207-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	16.6	104	45	114	91.80	2.3	-24.67	0.0	0.0	1.7
21695555	JJ23291775-NODE	23258524-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	697.4	0	-1	1	0.00	0.0	88.69	0.0	0.0	0.0
24632936	JJ23294321-NODE	24632958-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	149.0	0	0	0	0.00	0.0	88.69	0.0	0.0	0.0
24774315	JJ23295321-NODE	S4171-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	305.6	208	90	227	91.80	4.6	-24.67	0.0	0.0	3.5
21779713	S4171-PD	S32-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	55.6	208	90	227	91.76	4.6	-24.74	0.0	0.0	1.3
22666846	S32-PD	FQ89-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	6.5	208	90	227	91.75	4.6	-24.75	0.0	0.0	3.5
22666843	FQ89-PD	JJ23272463-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	19.3	208	90	227	91.75	4.6	-24.75	0.0	0.0	3.5
22666841	JJ23272463-NODE	TO FQ89-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	17.9	208	90	227	91.74	4.6	-24.76	0.0	0.0	3.3
25060472	25060463-NODE	FQ516-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	37.6	208	89	227	91.90	4.6	-24.53	0.0	0.0	3.5
25060492	FQ516-PD	TO FQ516-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	99.3	208	89	227	91.89	4.6	-24.53	0.0	0.0	3.3
21695273	JJ23292573-NODE	FQ208-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	37.3	104	45	114	91.87	2.3	-24.56	0.0	0.0	0.6
21695272	FQ208-PD	JJ23292595-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	51.8	104	45	114	91.86	2.3	-24.58	0.0	0.0	0.6
21695201	JJ23292595-NODE	TO FQ208-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	27.6	104	45	114	91.84	2.3	-24.61	0.0	0.0	1.7
22665071	JJ23276789-NODE	FQ197-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	9.7	63	25	68	92.84	1.4	-23.11	0.0	0.0	0.4
24849046	FQ197-PD	JJ23276799-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	3.2	63	25	68	92.84	1.4	-23.12	0.0	0.0	1.0
22665075	JJ23276799-NODE	TO FQ197-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	175.4	63	25	68	92.84	1.4	-23.12	0.0	0.0	1.0
22665218	JJ23276425-NODE	FQ191-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	29.8	63	27	68	92.10	1.4	-24.22	0.0	0.0	1.0
22665216	FQ191-PD	TO FQ191-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	23.4	63	27	68	91.92	1.4	-24.49	0.0	0.0	1.0
24774568	JJ23532693-NODE	FQ495-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	29.4	208	90	227	91.88	4.6	-24.49	0.0	0.0	3.5
24774555	FQ495-PD	24774544-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.2	208	90	227	91.87	4.6	-24.50	0.0	0.0	3.5
24774545	24774544-NODE	TO FQ495-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	86.5	208	90	227	91.87	4.6	-24.50	0.0	0.0	3.3
22602680	JJ23531595-NODE	F3968-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	33.9	208	88	226	92.12	4.6	-24.13	0.0	0.0	1.3
22602672	F3968-PD	JJ23531607-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	2.0	208	88	226	92.12	4.6	-24.14	0.0	0.0	1.3
22602831	JJ23531607-NODE	TO F3968-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	140.0	208	88	226	92.12	4.6	-24.14	0.0	0.0	3.3
22602818	24227167-NODE	TO F3968-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	78.8	0	-1	1	0.00	0.0	88.77	0.0	0.0	0.0
24848330	JJ23485959-NODE	S3043-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	66.6	831	367	908	91.47	18.4	-25.04	0.0	0.0	5.2
22666170	S3043-PD	S50-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	133.7	831	367	908	91.47	18.4	-25.05	0.0	0.0	5.2

21779624	S50-PD	26977957-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	24.0	831	367	908	91.46	18.4	-25.06	0.0	0.0	14.1
26977964	26977957-NODE	JJ23263261-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	23.1	831	367	908	91.46	18.4	-25.06	0.0	0.0	14.1
22666214	JJ23263261-NODE	FQ60-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	5.8	415	184	454	91.45	9.2	-25.08	0.0	0.0	7.0
24848299	FQ60-PD	TO FQ60-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	32.6	415	184	454	91.45	9.2	-25.08	0.0	0.0	6.7
22666216	JJ23263261-NODE	FQ66-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	23.2	416	184	454	91.47	9.2	-25.04	0.0	0.0	7.0
24848276	FQ66-PD	TO FQ66-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	34.5	416	184	454	91.47	9.2	-25.04	0.0	0.0	6.7
22665316	JJ23275993-NODE	S3192-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	26.6	1247	548	1362	91.56	27.6	-24.87	0.0	0.0	7.7
22665314	S3192-PD	JJ23275879-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	3.8	1247	548	1362	91.56	27.6	-24.87	0.0	0.0	7.7
22665362	JJ23275879-NODE	S3102-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	52.5	1247	548	1362	91.56	27.6	-24.87	0.0	0.0	21.1
22665358	S3102-PD	F3489-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	57.7	1247	548	1362	91.56	27.6	-24.87	0.0	0.0	21.1
22665353	F3489-PD	JJ23275907-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	85.4	1247	548	1362	91.56	27.6	-24.87	0.0	0.0	21.1
21886082	JJ23275907-NODE	JJ23363863-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	38.5	1247	548	1362	91.56	27.6	-24.88	0.0	0.0	20.0
21886060	JJ23363863-NODE	S3738-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	44.5	624	274	681	91.55	13.8	-24.89	0.0	0.0	10.0
21886055	S3738-PD	FQ180-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	79.2	624	275	681	91.52	13.8	-24.93	0.0	0.0	10.0
24848128	FQ180-PD	TO FQ180-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	35.0	624	275	682	91.47	13.8	-25.00	0.0	0.0	10.0
21886069	JJ23363863-NODE	S3737-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	49.9	624	274	681	91.54	13.8	-24.90	0.0	0.0	10.0
21886064	S3737-PD	FQ310-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	71.1	624	275	681	91.51	13.8	-24.95	0.0	0.0	10.0
21886078	FQ310-PD	TO FQ310-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	19.2	624	276	682	91.46	13.8	-25.01	0.0	0.0	10.0
22665346	JJ23275923-NODE	S655-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	52.2	312	136	340	91.67	6.9	-24.72	0.0	0.0	1.9
22665337	S655-PD	JJ23275933-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.7	312	136	341	91.66	6.9	-24.73	0.0	0.0	1.9
22665328	JJ23275933-NODE	S3191-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	26.7	312	136	341	91.66	6.9	-24.73	0.0	0.0	5.3
22665324	S3191-PD	FQ51-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	37.8	312	136	341	91.66	6.9	-24.73	0.0	0.0	5.3
22665322	FQ51-PD	JJ23275971-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	62.6	312	136	341	91.65	6.9	-24.74	0.0	0.0	5.3
22665320	JJ23275971-NODE	TO FQ51-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	155.8	312	136	341	91.65	6.9	-24.74	0.0	0.0	5.0
21796829	JJ23267473-NODE	JJ23267347-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	307.8	521	221	565	92.07	11.4	-24.07	0.0	0.0	3.2
21796820	JJ23267347-NODE	JJ23267353-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	151.7	208	84	225	92.81	4.5	-22.95	0.0	0.0	1.3
22533354	JJ23267353-NODE	24811906-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	451.6	208	84	225	92.79	4.5	-22.99	0.0	0.0	1.3
24701511	24811906-NODE	FF808-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	7.2	208	85	225	92.66	4.6	-23.20	0.0	0.0	3.5
24811815	FF808-PD	24811801-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	19.3	208	85	225	92.66	4.6	-23.20	0.0	0.0	3.5
24811802	24811801-NODE	TO FF808-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	513.1	208	85	225	92.65	4.6	-23.20	0.0	0.0	3.3
24811907	24811906-NODE	JJ23435597-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	347.8	0	0	0	0.00	0.0	88.90	0.0	0.0	0.0
22621645	JJ23267347-NODE	S3630-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	19.2	312	137	341	91.52	6.9	-24.86	0.0	0.0	1.9
22621641	S3630-PD	JJ23267359-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.5	27.600	1.5	312	137	341	91.52	6.9	-24.87	0.0	0.0	1.9
21796816	JJ23267359-NODE	S629-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	23.8	312	137	341	91.52	6.9	-24.87	0.0	0.0	5.3
22536559	S629-PD	FF335-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	21.1	312	137	341	91.52	6.9	-24.87	0.0	0.0	5.3
22536556	FF335-PD	JJ23429365-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.5	27.600	1.7	312	137	341	91.52	6.9	-24.87	0.0	0.0	5.3
22536553	JJ23429365-NODE	TO FF335-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.5	27.600	48.1	312	137	341	91.51	6.9	-24.87	0.0	0.0	5.0
22622788	JJ23479463-NODE	FF651-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	4.7	312	137	341	91.58	6.9	-24.70	0.0	0.0	1.9
22622783	FF651-PD	JJ23479441-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	1.4	312	137	341	91.58	6.9	-24.70	0.0	0.0	1.9
22622792	JJ23479441-NODE	TO FF651-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	101.3	312	137	341	91.58	6.9	-24.70	0.0	0.0	5.0
24847504	24847474-NODE	22665800-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_16	Overhead Line		27.600	9.2	10	4	11	91.80	0.7	-24.40	0.0	0.0	0.5
22536520	JJ23267367-NODE	JJ23429565-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	301.8	624	272	680	91.65	13.7	-24.54	0.0	0.0	3.9
22536517	JJ23429565-NODE	23224219-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	271.4	0	0	0	0.00	0.0	89.03	0.0	0.0	0.0
22536523	JJ23429565-NODE	23252671-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	4.8	624	273	681	91.62	13.7	-24.59	0.0	0.0	3.9
21775211	23252671-NODE	S4044-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	5.8	624	273	681	91.62	13.7	-24.59	0.0	0.0	3.9
21775218	S4044-PD	S652-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.6	27.600	204.8	624	273	681	91.62	13.7	-24.59	0.0	0.0	10.5
22536514	S652-PD	FF561-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.6	27.600	23.0	624	273	681	91.61	13.7	-24.61	0.0	0.0	10.5
22536511	FF561-PD	JJ23429613-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.6	27.600	21.0	624	273	681	91.61	13.7	-24.61	0.0	0.0	10.5

22536508	JJ23429613-NODE	TO FF561-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	245.4	624	273	681	91.61	13.7	-24.61	0.0	0.0	9.9
22536482	JJ23267365-NODE	JJ23429769-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	7.3	208	87	226	92.24	4.6	-23.66	0.0	0.0	1.3
22559593	JJ23429769-NODE	S3285-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	7.1	208	87	226	92.24	4.6	-23.66	0.0	0.0	1.3
22559603	S3285-PD	F19-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	21.5	208	87	226	92.24	4.6	-23.67	0.0	0.0	1.3
22536541	F19-PD	JJ23429445-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	24.0	208	87	226	92.24	4.6	-23.67	0.0	0.0	1.3
22536538	JJ23429445-NODE	S634-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	207.3	208	87	226	92.23	4.6	-23.68	0.0	0.0	3.3
22536535	S634-PD	FF353-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	20.7	208	90	227	91.85	4.6	-24.24	0.0	0.0	3.3
24847220	FF353-PD	TO FF353-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	51.7	208	90	227	91.81	4.6	-24.30	0.0	0.0	3.3
21754174	JJ23535805-NODE	F3904-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	12.4	417	179	453	91.90	9.1	-24.13	0.0	0.0	2.6
21754169	F3904-PD	JJ23535813-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	19.1	417	179	453	91.90	9.1	-24.13	0.0	0.0	2.6
21719403	JJ23535813-NODE	TO F3904-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	374.3	417	179	453	91.90	9.1	-24.14	0.0	0.0	6.6
21754414	TO F3904-PD	TO TX F755-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	21.8	104	45	114	91.83	2.3	-24.24	0.0	0.0	1.7
21775971	JJ23544661-NODE	FF788-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	3.6	312	137	341	91.54	6.9	-24.58	0.0	0.0	1.9
24784631	FF788-PD	JJ23544677-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.6	27.600	19.0	312	137	341	91.53	6.9	-24.58	0.0	0.0	1.9
21775979	JJ23544677-NODE	TO FF788-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.6	27.600	58.9	312	137	341	91.53	6.9	-24.58	0.0	0.0	5.0
24320457	24320416-NODE	FF817-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	12.1	104	42	112	92.93	2.3	-22.39	0.0	0.0	1.6
24320425	FF817-PD	TO FF817-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.7	27.600	309.0	104	42	112	92.88	2.3	-22.46	0.0	0.0	1.6
22735262	JJ23519371-NODE	FE765-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	42.8	208	84	225	92.69	4.5	-22.47	0.0	0.0	1.3
22735257	FE765-PD	JJ23548523-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	2.8	208	84	225	92.68	4.5	-22.48	0.0	0.0	1.3
22735269	JJ23548523-NODE	TO FE765-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	516.4	208	84	225	92.68	4.5	-22.48	0.0	0.0	3.3
22735241	JJ23548727-NODE	JJ23548533-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	808.9	104	44	113	92.25	2.3	-23.12	0.0	0.0	0.6
22735228	JJ23548533-NODE	FE784-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	2.5	104	45	114	91.97	2.3	-23.53	0.0	0.0	0.6
22735222	FE784-PD	24846228-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	18.9	104	45	114	91.97	2.3	-23.54	0.0	0.0	0.6
24846229	24846228-NODE	TO FE784-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	55.7	104	45	114	91.96	2.3	-23.54	0.0	0.0	1.6
22721980	JJ23537131-NODE	JJ23542487-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	253.8	832	364	909	91.61	18.2	-24.00	0.0	0.0	5.1
22721975	JJ23542487-NODE	FE749-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	30.8	312	138	341	91.50	6.8	-24.16	0.0	0.0	1.9
22721973	FE749-PD	JJ23542495-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	22.1	312	138	341	91.49	6.8	-24.16	0.0	0.0	1.9
22721978	JJ23542495-NODE	TO FE749-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	21.4	312	138	341	91.49	6.8	-24.17	0.0	0.0	4.9
22721982	JJ23542487-NODE	JJ23475827-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	313.3	520	227	568	91.66	11.4	-23.93	0.0	0.0	3.2
22517676	JJ23475827-NODE	L110-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	55.0	208	91	227	91.56	4.6	-24.06	0.0	0.0	1.3
21912613	L110-PD	S193-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	169.5	208	91	227	91.55	4.6	-24.08	0.0	0.0	1.3
22518118	S193-PD	FE590-PD	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.8	27.600	41.8	208	92	227	91.52	4.6	-24.12	0.0	0.0	3.5
22518111	FE590-PD	JJ23474539-NODE	1/0AWG_ACSR_RAVEN_CUST_OH_PRIMARY	Overhead Line	28.8	27.600	23.7	208	92	227	91.52	4.6	-24.13	0.0	0.0	3.5
22518105	JJ23474539-NODE	TO FE590-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	23.9	208	92	227	91.51	4.6	-24.14	0.0	0.0	3.3
22517706	JJ23475827-NODE	JJ23475805-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	156.3	312	136	340	91.69	6.8	-23.89	0.0	0.0	1.9
22517712	JJ23475805-NODE	JJ23475807-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	587.4	312	136	341	91.67	6.8	-23.91	0.0	0.0	1.9
22517703	JJ23475807-NODE	L254-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.8	27.600	104.9	312	137	341	91.60	6.8	-24.01	0.0	0.0	1.9
22517700	L254-PD	S651-PD	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	28.8	27.600	48.9	312	137	341	91.59	6.8	-24.03	0.0	0.0	1.8
22517697	S651-PD	FE440-PD	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	28.8	27.600	21.4	312	137	341	91.58	6.8	-24.04	0.0	0.0	1.8
22517694	FE440-PD	JJ23475897-NODE	556KCMIL_AAC_DAHLIA_CUST_OH_PRIMARY	Overhead Line	28.8	27.600	24.8	312	137	341	91.58	6.8	-24.04	0.0	0.0	1.8
22517691	JJ23475897-NODE	TO FE440-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.8	27.600	88.6	312	137	341	91.58	6.8	-24.05	0.0	0.0	4.9
24777896	JJ23547039-NODE	23234551-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	631.0	0	-1	1	0.00	0.0	89.79	0.0	0.0	0.0
22705654	JJ23547101-NODE	23249199-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	208.3	0	0	0	0.00	0.0	89.80	0.0	0.0	0.0
22541142	JJ23489351-NODE	FE572-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	64.3	104	44	113	92.23	2.3	-22.90	0.0	0.0	0.6
22541139	FE572-PD	JJ23489337-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	3.4	104	44	113	92.21	2.3	-22.93	0.0	0.0	0.6
22541145	JJ23489337-NODE	TO FE572-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	121.0	104	44	113	92.21	2.3	-22.94	0.0	0.0	1.6
26329741	26681489-NODE	FE913-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	27.4	63	26	68	92.16	1.4	-22.97	0.0	0.0	1.0
26696111	FE913-PD	TO FE913-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	56.3	63	26	68	92.14	1.4	-22.99	0.0	0.0	1.0

26948938	JJ23551385-NODE	FE806-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	15.1	63	26	68	92.20	1.4	-22.87	0.0	0.0	0.4
22037393	FE806-PD	TO FE806-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	28.9	27.600	63.8	63	26	68	92.19	1.4	-22.89	0.0	0.0	1.0
24230647	JJ23551387-NODE	24230632-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_27	Overhead Line	28.9	27.600	10.5	62	27	68	91.71	1.4	-23.57	0.0	0.0	1.0

Load Flow - Summary Report (EAST F3)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Mon Feb 13 2023
Time	10h29m47s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	1604.90	478.90	1674.83	95.82
Load used (Adjusted)	1604.89	478.85	1674.80	95.83
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**1604.89**	**478.85**	**1674.80**	**95.83**
Cable Capacitance	0.00	-1.35	1.35	0.00
Line Capacitance	0.00	-0.29	0.29	0.00
Total Shunt Capacitance	**0.00**	**-1.64**	**1.64**	**0.00**
Line Losses	4.84	10.48	11.54	41.97
Cable Losses	1.81	1.53	2.37	76.40
Transformer Load Losses	5.76	11.27	12.65	45.50
Transformer No-Load Losses	13.41	0.00	13.41	100.00
Total Losses	**25.82**	**23.27**	**34.76**	**74.28**

Load Balancing Report (EAST F3)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Mon Feb 13 2023
Time	10h26m48s
Project Name	New
Objective	**Balance the load (kVA)**
Minimum kVA Average Unbalance	1.00 %
Restrictions	
Ignore 1-phase section(s):	No
Ignore 2-phase section(s):	No
Ignore 3-phase section(s):	No
Ignore the underground cable:	Yes
Respect Phase Rotation:	No

Network(s): EAST F3

Suggested Rephasing

Step	Section ID	Rephasing (kVA)		
		A	B	C
1	23641065			to B 27.95
2	21943069			to B 20.97
3	21943098			to B 13.99
4	22024658			to A 13.99
5	C167-L	to B 70.72	to A 64.0	No change

Results

Feeder EAST F3

	Load (kVA)			Current (A)			Ineutral	Total Losses	Unbalance Factor		
	A	B	C	A	B	C	(A)	(kW)	Load	Current	Voltage
Before	561.22	498.26	646.41	224.11	198.87	258.43	52.16	79.34	13.68 %	13.78 %	0.1 %
After	568.61	568.44	568.75	227.06	227.07	227.19	2.0	79.27	0.03 %	0.04 %	0.02 %

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25027124	25026992-NODE	25027081-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.8	1631	500	1706	95.60	227.1	11.98	0.0	0.0	21.6
25617561	25027081-NODE	S2259-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	116.5	1631	500	1706	95.60	227.1	11.98	1.2	1.1	64.7
21883901	S2259-PD	JJ23280939-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	5.8	1630	499	1704	95.61	227.1	11.98	0.0	0.1	80.6
21883642	JJ23280939-NODE	JJ23281243-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	378.5	847	260	886	95.59	118.0	11.94	0.8	2.0	42.8
22023494	JJ23281243-NODE	JJ23376211-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	135.1	806	246	843	95.64	112.5	11.93	0.3	0.6	40.8
22023466	JJ23376211-NODE	S3369-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	5.7	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22023450	S3369-PD	JJ23376259-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	35.1	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22023345	JJ23376259-NODE	JJ23376333-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	106.0	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22023275	JJ23376333-NODE	23623436-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	19.1	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22023324	JJ23376333-NODE	S3371-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	39.4	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22017014	S3371-PD	26251042-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	448.6	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
26251043	26251042-NODE	JJ23384047-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	3079.0	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22016817	JJ23384047-NODE	23237479-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	33.2	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22017001	JJ23384047-NODE	23237491-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	11.3	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22023421	JJ23376259-NODE	23237588-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	76.8	0	0	0	0.00	0.0	118.87	0.0	0.0	0.0
22023483	JJ23376211-NODE	23623545-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	82.7	806	246	843	95.65	112.5	11.92	0.2	0.4	40.8
22018846	23623545-NODE	23237519-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	12.9	0	0	0	0.00	0.0	118.85	0.0	0.0	0.0
23623546	23623545-NODE	S21-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	189.2	806	245	842	95.67	112.5	11.92	0.4	0.9	40.8
22018833	S21-PD	23623701-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	19.7	805	244	842	95.69	112.5	11.92	0.0	0.1	40.8
21883636	23623701-NODE	21904930-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_240(	Overhead Line		4.160	35.9	4	1	4	95.87	1.7	12.25	0.0	0.0	0.6
23623702	23623701-NODE	JJ23281263-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	207.0	801	243	837	95.69	111.9	11.92	0.4	1.0	40.2
21942480	JJ23281263-NODE	JJ23287143-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	209.3	722	218	754	95.71	100.9	11.91	0.3	0.8	36.1
21942475	JJ23287143-NODE	26720204-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	105.5	715	216	746	95.74	99.9	11.91	0.2	0.4	36.1
26678111	26720204-NODE	FL277-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	9.5	131	40	137	95.74	18.4	11.88	0.0	0.0	6.8
26678440	FL277-PD	JJ23281385-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	95.9	131	40	137	95.74	18.4	11.88	0.0	0.0	10.6
21883413	JJ23281385-NODE	TO FL277-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	227.5	131	40	137	95.73	18.4	11.87	0.0	0.0	10.6
26720225	26720204-NODE	JJ23281371-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	75.4	583	175	609	95.75	81.5	11.91	0.1	0.2	29.9
21883420	JJ23281371-NODE	S828-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	47.5	504	152	526	95.76	70.5	11.90	0.0	0.1	26.2
21883457	S828-PD	JJ23281357-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	214.8	504	152	526	95.76	70.5	11.90	0.2	0.2	21.1
24904078	JJ23281357-NODE	S832-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	11.6	504	151	526	95.76	70.5	11.89	0.0	0.0	21.1
24904092	S832-PD	24904091-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.9	504	151	526	95.76	70.5	11.89	0.0	0.0	21.1
24904106	24904091-NODE	24904101-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	15.5	293	88	306	95.77	41.0	11.91	0.0	0.0	13.2
24904116	24904101-NODE	24904115-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	3.3	96	29	100	95.85	13.4	12.07	0.0	0.0	5.0
24904124	24904115-NODE	FC168-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	5.2	27	8	29	95.84	11.5	12.02	0.0	0.0	6.4
24904130	FC168-PD	24900206-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	9.0	27	8	29	95.84	11.5	12.02	0.0	0.0	6.4
24900207	24900206-NODE	TO FC168-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	336.6	27	8	29	95.84	11.5	12.02	0.0	0.0	6.4
24904136	24904115-NODE	FC169-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	4.7	42	12	43	96.00	17.5	12.35	0.0	0.0	9.7
24904142	FC169-PD	24932133-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	4.0	42	12	43	96.00	17.5	12.35	0.0	0.0	9.7
24932134	24932133-NODE	TO FC169-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	607.1	42	12	43	96.00	17.5	12.35	0.0	0.0	9.7
24904148	24904115-NODE	FC170-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	5.3	27	8	28	95.65	11.3	11.69	0.0	0.0	6.3
24904154	FC170-PD	24900381-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	8.7	27	8	28	95.65	11.3	11.69	0.0	0.0	6.3
24900382	24900381-NODE	TO FC170-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	811.8	27	8	28	95.65	11.3	11.69	0.0	0.0	6.3
24904168	24904101-NODE	FC167-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.2	197	60	206	95.73	27.6	11.83	0.0	0.0	8.2
24904174	FC167-PD	24828520-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	10.4	197	60	206	95.73	27.6	11.83	0.0	0.0	16.0
24828521	24828520-NODE	TO FC167-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	321.1	197	60	206	95.73	27.6	11.83	0.1	0.1	16.0
24904193	24904091-NODE	S2323-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.0	211	63	220	95.75	29.5	11.87	0.0	0.0	8.7

24904215	S2323-PD	S2324-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	48.9	211	63	220	95.75	29.5	11.87	0.0	0.0	8.7
24904236	S2324-PD	24904235-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.2	210	63	220	95.75	29.5	11.86	0.0	0.0	8.7
24904242	24904235-NODE	FC166-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.3	132	40	137	95.74	18.4	11.85	0.0	0.0	5.5
24904248	FC166-PD	24899824-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	10.4	132	40	137	95.74	18.4	11.84	0.0	0.0	10.7
24899825	24899824-NODE	TO FC166-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	239.0	132	40	137	95.74	18.4	11.84	0.0	0.0	10.7
24904268	24904235-NODE	24904267-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	15.3	79	24	82	95.76	11.1	11.88	0.0	0.0	3.3
24904286	24904267-NODE	FC171-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.2	79	24	82	95.76	11.1	11.88	0.0	0.0	3.3
24904292	FC171-PD	24899934-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	11.7	79	24	82	95.76	11.1	11.88	0.0	0.0	6.4
24899935	24899934-NODE	TO FC171-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	284.8	79	24	82	95.75	11.1	11.87	0.0	0.0	6.4
24904356	24904267-NODE	24904330-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.9	0	0	0	0.00	0.0	118.63	0.0	0.0	0.0
22023901	JJ23281371-NODE	S3308-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	9.0	79	24	82	95.79	11.0	11.98	0.0	0.0	4.1
22027502	S3308-PD	JJ23365229-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	180.9	79	24	82	95.79	11.0	11.98	0.0	0.0	4.1
22018882	JJ23365229-NODE	S780-PD	336KCMIL_AAC_HENDRIX_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	5.2	79	24	82	95.79	11.0	11.97	0.0	0.0	4.1
24817577	S780-PD	24817565-NODE	500KCMIL_CU_28KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	325.9	79	24	82	95.79	11.0	11.97	0.0	0.0	2.7
24817820	24817565-NODE	S1025-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	8.4	79	24	82	95.75	11.0	11.88	0.0	0.0	3.3
24817937	S1025-PD	24817928-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	6.0	79	24	82	95.75	11.0	11.88	0.0	0.0	3.3
24817929	24817928-NODE	24817900-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	15.4	0	0	0	0.00	0.0	118.64	0.0	0.0	0.0
24817901	24817900-NODE	24817839-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	5.7	0	0	0	0.00	0.0	118.64	0.0	0.0	0.0
24817919	24817900-NODE	25688769-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.4	0	0	0	0.00	0.0	118.64	0.0	0.0	0.0
25688770	25688769-NODE	24817918-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	10.1	0	0	0	0.00	0.0	118.64	0.0	0.0	0.0
24817945	24817928-NODE	FL324-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	7.7	79	24	82	95.74	11.0	11.87	0.0	0.0	3.3
24817953	FL324-PD	24817508-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	7.1	79	24	82	95.74	11.0	11.86	0.0	0.0	6.4
24817533	24817508-NODE	TO FL324-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	35.9	79	24	82	95.74	11.0	11.86	0.0	0.0	6.4
22027492	JJ23365229-NODE	23233660-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	162.5	0	0	0	0.00	0.0	118.65	0.0	0.0	0.0
23623777	JJ23287143-NODE	21991372-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.3	7	2	7	95.81	2.9	12.02	0.0	0.0	2.2
26678155	JJ23281263-NODE	FL342-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	26.4	79	24	82	95.77	11.0	12.02	0.0	0.0	4.1
21883613	FL342-PD	TO FL342-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.3	4.160	279.3	79	24	82	95.77	11.0	12.02	0.0	0.0	6.4
24244070	JJ23281243-NODE	24244056-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	10.7	40	12	41	95.76	5.5	12.16	0.0	0.0	2.0
22684301	JJ23280939-NODE	JJ23281059-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	5.6	783	239	819	95.63	109.1	12.02	0.0	0.0	39.4
21883779	JJ23281059-NODE	S2332-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	68.3	25	7	26	95.56	3.5	12.96	0.0	0.0	3.7
21883774	S2332-PD	23643935-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	259.8	25	7	26	95.56	3.5	12.95	0.0	0.0	3.7
21883785	23643935-NODE	21905070-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_240(	Overhead Line		4.160	8.4	12	4	13	95.95	5.2	12.63	0.0	0.0	1.8
23643936	23643935-NODE	JJ23281051-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	327.3	12	4	13	95.22	1.7	13.25	0.0	0.0	1.8
23643959	JJ23281051-NODE	21905083-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.9	12	4	13	95.95	5.2	12.62	0.0	0.0	3.9
25346385	JJ23281051-NODE	24762461-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	116.3	0	0	0	0.00	0.0	119.01	0.0	0.0	0.0
24762462	24762461-NODE	24762460-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	114.0	0	0	0	0.00	0.0	119.01	0.0	0.0	0.0
24816390	24762460-NODE	S1023-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	30.5	0	0	0	0.00	0.0	119.01	0.0	0.0	0.0
24816438	S1023-PD	24816437-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	14.1	0	0	0	0.00	0.0	119.01	0.0	0.0	0.0
24816456	24816437-NODE	24817605-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	211.1	0	0	0	0.00	0.0	119.01	0.0	0.0	0.0
24817887	24817605-NODE	24817839-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	10.1	0	0	0	0.00	0.0	119.01	0.0	0.0	0.0
24816399	24762460-NODE	F2690-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.6	0	0	0	0.00	0.0	119.02	0.0	0.0	0.0
21883876	F2690-PD	JJ23280971-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	19.1	0	0	0	0.00	0.0	119.02	0.0	0.0	0.0
21883795	JJ23280971-NODE	23174789-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	287.0	0	0	0	0.00	0.0	119.02	0.0	0.0	0.0
22684300	JJ23281059-NODE	S2307-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	101.8	758	232	793	95.62	105.6	11.99	0.2	0.4	39.4
21883768	S2307-PD	JJ23280955-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	24.6	758	232	792	95.63	105.6	11.99	0.0	0.1	39.4
21883888	JJ23280955-NODE	23233715-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	32.3	0	0	0	0.00	0.0	118.98	0.0	0.0	0.0
25434405	JJ23280955-NODE	JJ23281083-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	126.4	758	232	792	95.63	105.6	11.99	0.2	0.5	39.4
21943050	JJ23281083-NODE	JJ23285325-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	175.0	606	184	633	95.68	84.4	12.05	0.2	0.5	37.7

22024641	JJ23285325-NODE	JJ23374103-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	127.2	103	31	108	95.76	43.2	12.15	0.0	0.1	32.7
22021586	JJ23374103-NODE	JJ23377739-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	126.5	103	31	108	95.77	43.2	12.15	0.0	0.1	32.7
22021609	JJ23377739-NODE	23644078-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	540.6	76	23	79	95.78	31.7	12.15	0.1	0.1	24.0
21943032	23644078-NODE	21992980-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	10.1	21	6	22	95.80	8.6	12.11	0.0	0.0	6.5
23644079	23644078-NODE	F2691-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	98.5	55	16	57	95.82	23.1	12.16	0.0	0.0	17.5
21943038	F2691-PD	JJ23285337-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.4	55	16	57	95.82	23.1	12.16	0.0	0.0	17.5
21942357	JJ23285337-NODE	TO F2691-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	172.8	55	16	57	95.82	23.1	12.16	0.0	0.0	12.8
21942817	TO F2691-PD	23174789-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	218.9	27	8	29	95.82	11.5	12.16	0.0	0.0	6.4
25072213	JJ23377739-NODE	22086105-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.8	27	8	29	95.79	11.5	12.17	0.0	0.0	8.7
25434184	JJ23285325-NODE	JJ23285293-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	145.7	502	152	525	95.69	70.0	12.03	0.1	0.3	31.3
21943057	JJ23285293-NODE	F263-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	36.0	152	46	159	95.69	21.2	12.01	0.0	0.0	8.5
22020884	F263-PD	23644182-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	219.4	152	46	159	95.69	21.2	12.01	0.0	0.0	8.5
22024658	23644182-NODE	22086134-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_240(	Overhead Line		4.160	7.9	13	4	14	95.55	5.6	11.70	0.0	0.0	2.0
23644183	23644182-NODE	JJ23363787-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	327.3	139	42	145	95.71	19.3	12.04	0.0	0.0	8.5
22707496	JJ23363787-NODE	JJ23363789-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	109.9	99	30	103	95.70	13.8	12.00	0.0	0.0	6.7
21943069	JJ23363789-NODE	JJ23285309-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	113.8	20	6	21	95.55	8.4	11.67	0.0	0.0	6.4
21943063	JJ23285309-NODE	JJ23285315-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	99.5	0	0	0	0.00	0.0	118.82	0.0	0.0	0.0
23644210	JJ23285309-NODE	21993018-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.2	20	6	21	95.55	8.4	11.67	0.0	0.0	6.4
24238401	JJ23363789-NODE	24238367-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	14.9	79	24	82	95.74	11.0	12.08	0.0	0.0	4.1
24238421	JJ23363787-NODE	24238377-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	12.7	40	12	41	95.76	5.5	12.12	0.0	0.0	2.0
21943075	JJ23285293-NODE	JJ23285295-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	172.1	350	106	366	95.71	48.8	12.04	0.1	0.2	22.8
22018020	JJ23285295-NODE	JJ23381261-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	340.2	350	106	365	95.70	48.8	12.01	0.1	0.3	22.7
22018009	JJ23381261-NODE	JJ23353407-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	148.3	336	101	351	95.73	46.9	12.02	0.1	0.1	22.7
22684390	JJ23353407-NODE	JJ23285215-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	192.9	257	78	268	95.74	35.9	12.01	0.0	0.1	19.1
21943087	JJ23285215-NODE	F2027-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	27.5	92	28	96	95.71	12.9	11.95	0.0	0.0	5.7
21943080	F2027-PD	JJ23285235-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	324.3	92	28	96	95.71	12.9	11.95	0.0	0.0	5.7
21943093	JJ23285235-NODE	JJ23285237-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	84.2	13	4	14	95.54	1.9	11.53	0.0	0.0	2.0
21943098	JJ23285237-NODE	21993091-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	114.5	13	4	14	95.55	5.6	11.53	0.0	0.0	4.3
24243241	JJ23285235-NODE	24243219-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	16.6	79	24	82	95.74	11.0	12.01	0.0	0.0	4.1
21943105	JJ23285215-NODE	JJ23285217-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	548.0	165	49	172	95.77	23.0	12.05	0.1	0.2	13.4
21943111	JJ23285217-NODE	23644399-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	195.2	86	26	89	95.83	12.0	12.07	0.0	0.0	9.7
22707942	23644399-NODE	21993122-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_240(	Overhead Line		4.160	27.4	7	2	7	95.81	2.9	12.19	0.0	0.0	1.0
23644400	23644399-NODE	25433511-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	168.8	79	23	82	95.83	11.0	12.05	0.0	0.0	9.7
25433512	25433511-NODE	JJ23285137-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	184.3	59	18	61	95.84	8.2	12.03	0.0	0.0	8.8
22707939	JJ23285137-NODE	JJ23285143-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	152.3	59	17	61	95.85	8.2	12.02	0.0	0.0	8.8
21943116	JJ23285143-NODE	JJ23285129-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	0.0	59	17	61	95.87	8.2	12.02	0.0	0.0	8.8
21943136	JJ23285129-NODE	F2026-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	7.8	59	17	61	95.87	24.7	12.02	0.0	0.0	18.7
21943129	F2026-PD	23644505-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	193.7	59	17	61	95.87	24.7	12.02	0.0	0.0	18.7
21943140	23644505-NODE	21993183-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.7	6	2	7	95.96	2.6	12.20	0.0	0.0	2.0
23644506	23644505-NODE	23644547-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	599.7	53	16	55	95.86	22.1	12.00	0.1	0.1	16.7
21943146	23644547-NODE	21993218-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	11.7	6	2	7	95.96	2.6	12.15	0.0	0.0	2.0
23644548	23644547-NODE	F1706-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	1949.8	46	14	48	95.88	19.5	11.97	0.1	0.2	14.7
22707925	F1706-PD	JJ23361167-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	192.1	46	14	48	95.94	19.5	11.96	0.0	0.0	14.7
22707929	JJ23361167-NODE	JJ23276347-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	183.3	34	10	35	95.95	14.2	11.96	0.0	0.0	10.8
21826000	JJ23276347-NODE	FK117-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.4	25	7	26	95.93	10.5	11.92	0.0	0.0	8.0
21825983	FK117-PD	21879968-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	783.8	25	7	26	95.93	10.5	11.92	0.0	0.0	8.0
25072138	JJ23276347-NODE	25072137-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	547.3	9	3	9	96.01	3.7	12.09	0.0	0.0	2.8
21826015	25072137-NODE	JJ23276333-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	349.0	6	2	7	95.98	2.6	12.00	0.0	0.0	2.0

21826028	JJ23276333-NODE	21880004-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	565.4	6	2	7	95.97	2.6	11.99	0.0	0.0	2.0
25072127	25072137-NODE	21879989-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	9.9	3	1	3	96.09	1.1	12.24	0.0	0.0	0.8
22708248	JJ23361167-NODE	22713717-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.7	12	4	13	95.94	5.3	11.96	0.0	0.0	4.0
25433520	25433511-NODE	24243354-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	27.5	20	6	21	95.80	2.8	12.11	0.0	0.0	1.0
24243326	JJ23285217-NODE	24243314-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	29.8	79	24	82	95.75	11.0	12.02	0.0	0.0	4.1
24243283	JJ23353407-NODE	24243270-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	36.1	79	24	82	95.75	11.0	12.06	0.0	0.0	4.1
23644255	JJ23381261-NODE	22085458-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.1	13	4	14	95.55	5.6	11.72	0.0	0.0	4.2
24242867	JJ23285295-NODE	24242854-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_416(	Overhead Line	4.3	4.160	10.2	1	0	1	100.00	0.1	28.90	0.0	0.0	0.0
23641065	JJ23281083-NODE	21905055-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	34.0	27	8	28	95.55	11.2	11.79	0.0	0.0	8.5
25434394	JJ23281083-NODE	F272-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	46.2	125	39	131	95.51	52.4	11.73	0.0	0.0	39.7
22708473	F272-PD	JJ23360325-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	449.8	125	39	131	95.52	52.4	11.73	0.2	0.3	39.7
22708459	JJ23360325-NODE	F2981-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	14.0	27	8	28	95.61	11.2	11.82	0.0	0.0	8.5
22708463	F2981-PD	JJ23360375-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	21.9	27	8	28	95.61	11.2	11.82	0.0	0.0	8.5
22103427	JJ23360375-NODE	23179729-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	459.4	27	8	28	95.61	11.2	11.82	0.0	0.0	6.2
22708468	JJ23360325-NODE	JJ23360311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	42.5	98	30	103	95.55	41.2	11.70	0.0	0.0	31.2
22707920	JJ23360311-NODE	JJ23362309-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.6	40	12	42	95.59	16.8	11.78	0.0	0.0	12.8
22707903	JJ23362309-NODE	FK189-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	35.4	13	4	14	95.57	5.6	11.74	0.0	0.0	4.3
22707900	FK189-PD	JJ23362329-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	32.3	13	4	14	95.57	5.6	11.74	0.0	0.0	4.3
26948329	JJ23362329-NODE	TO FK189-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	95.0	13	4	14	95.57	5.6	11.74	0.0	0.0	3.1
22707916	JJ23362309-NODE	F1228-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	14.2	27	8	28	95.61	11.2	11.81	0.0	0.0	8.5
23644799	F1228-PD	23644790-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	21.7	27	8	28	95.61	11.2	11.81	0.0	0.0	8.5
24567996	23644790-NODE	TO F1228-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	274.7	27	8	28	95.61	11.2	11.81	0.0	0.0	6.2
22103432	TO F1228-PD	23179729-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	156.9	0	0	0	0.00	0.0	118.86	0.0	0.0	0.0
22708480	JJ23360311-NODE	JJ23360313-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	120.2	58	18	61	95.52	24.3	11.64	0.0	0.0	18.4
22178910	JJ23360313-NODE	24588968-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	389.4	45	14	47	95.52	18.7	11.63	0.0	0.0	14.2
24588969	24588968-NODE	22224941-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	8.9	45	14	47	95.53	18.7	11.63	0.0	0.0	14.2
23644874	JJ23360313-NODE	21905039-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_240	Overhead Line		4.160	6.6	13	4	14	95.55	5.6	11.69	0.0	0.0	4.3

Load Flow - Summary Report (HARV F2)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Thu Feb 09 2023
Time	19h47m42s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	1569.22	597.55	1679.14	93.45
Load used (Adjusted)	1568.99	596.92	1678.70	93.46
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**1568.99**	**596.92**	**1678.70**	**93.46**
Cable Capacitance	0.00	-0.55	0.55	0.00
Line Capacitance	0.00	-0.19	0.19	0.00
Total Shunt Capacitance	**0.00**	**-0.74**	**0.74**	**0.00**
Line Losses	32.86	77.08	83.79	39.22
Cable Losses	3.41	3.15	4.64	73.44
Transformer Load Losses	5.67	11.26	12.61	45.00
Transformer No-Load Losses	12.70	0.00	12.70	100.00
Total Losses	**54.64**	**91.48**	**106.56**	**51.28**

Load Balancing Report (HARV F2)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Thu Feb 09 2023
Time	19h45m36s
Project Name	New
Objective	**Balance the load (kVA)**
Minimum kVA Average Unbalance	1.00 %
Restrictions	
Ignore 1-phase section(s):	No
Ignore 2-phase section(s):	No
Ignore 3-phase section(s):	No
Ignore the underground cable:	Yes
Respect Phase Rotation:	No

Network(s): HARV F2

Suggested Rephasing

Step	Section ID	Rephasing (kVA)		
		A	B	C
1	24560017		to A 12.89	
2	24560334		to A 6.46	
3	24560299		to A 6.46	

Results

Feeder HARV F2

	Load (kVA)			Current (A)			Ineutral	Total Losses	Unbalance Factor		
	A	B	C	A	B	C	(A)	(kW)	Load	Current	Voltage
Before	542.6	652.57	568.51	216.77	261.08	227.24	39.93	80.41	11.0 %	11.08 %	0.09 %
After	570.95	622.51	569.82	228.19	248.95	227.76	22.07	80.19	5.91 %	5.95 %	0.05 %

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25012250	25012052-NODE	25012221-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.5	1624	688	1763	92.08	235.0	6.28	0.0	0.0	23.6
24559104	25012221-NODE	JJ23336305-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	49.5	1624	688	1763	92.08	235.0	6.28	0.5	0.5	70.9
22180826	JJ23336305-NODE	S813-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	37.9	1623	687	1763	92.09	235.0	6.28	0.3	0.8	88.3
22180848	S813-PD	S68-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	356.9	1623	686	1762	92.10	235.0	6.28	3.1	7.3	88.3
22180855	S68-PD	S563-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	494.0	1620	679	1756	92.22	235.0	6.28	4.3	10.2	88.3
22041329	S563-PD	JJ23541547-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	155.0	1615	669	1748	92.39	235.0	6.28	1.4	3.2	88.3
22696805	JJ23541547-NODE	27266129-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	578.0	1541	638	1668	92.40	224.5	6.21	4.6	10.9	84.6
22133449	27266129-NODE	F907-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	95.9	35	14	38	93.20	15.4	7.22	0.0	0.0	11.7
22133461	F907-PD	JJ23320081-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	19.2	35	14	38	93.21	15.4	7.22	0.0	0.0	11.7
22133401	JJ23320081-NODE	TO F907-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	96.6	35	14	38	93.21	15.4	7.22	0.0	0.0	8.5
24560945	TO F907-PD	23179454-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	312.2	24	9	25	93.22	10.3	7.24	0.0	0.0	5.7
27266130	27266129-NODE	27266141-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	207.3	1501	613	1622	92.57	219.4	6.19	1.6	3.7	84.6
22133436	27266141-NODE	F908-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	21.5	47	18	51	93.22	20.5	7.16	0.0	0.0	15.6
22133474	F908-PD	JJ23320067-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	19.0	47	18	51	93.22	20.5	7.16	0.0	0.0	15.6
24560963	JJ23320067-NODE	TO F908-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	311.6	47	18	51	93.22	20.5	7.16	0.0	0.0	11.4
24560957	TO F908-PD	TO TX D505-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	254.7	24	9	25	93.23	10.3	7.17	0.0	0.0	5.7
24560951	23179454-NODE	TO TX D505-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	139.6	0	0	0	0.01	0.0	118.39	0.0	0.0	0.0
27266142	27266141-NODE	S564-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	211.9	1453	591	1568	92.62	212.5	6.16	1.5	3.6	84.6
26935075	S564-PD	JJ23541549-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	13.2	1451	588	1566	92.69	212.5	6.16	0.1	0.2	84.6
22133500	JJ23541549-NODE	23240084-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	30.9	0	0	0	0.03	0.0	117.99	0.0	0.0	0.0
22133638	JJ23541549-NODE	26935074-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	280.5	1451	587	1565	92.69	212.5	6.16	2.0	4.8	84.6
26788448	26935074-NODE	JJ23319735-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	345.9	1449	583	1562	92.78	212.5	6.16	2.5	6.0	84.6
22132821	JJ23319735-NODE	JJ23320875-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	510.1	1446	577	1557	92.89	212.5	6.16	3.7	8.8	84.6
22133596	JJ23320875-NODE	JJ23319879-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	101.9	1430	563	1537	93.05	210.7	6.15	0.7	1.7	84.6
22133584	JJ23319879-NODE	F2430-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	30.2	48	18	52	93.80	21.3	6.90	0.0	0.0	16.1
24559522	F2430-PD	24559521-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	110.1	48	18	52	93.80	21.3	6.90	0.0	0.0	16.1
22133551	24559521-NODE	24559511-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	268.2	36	13	39	93.80	16.0	6.89	0.0	0.0	12.1
22133522	24559511-NODE	F282-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	388.3	24	9	26	93.81	10.6	6.88	0.0	0.0	8.1
22133535	F282-PD	JJ23319999-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	3.6	24	9	26	93.81	10.6	6.88	0.0	0.0	8.1
22133510	JJ23319999-NODE	24559487-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	300.5	24	9	26	93.81	10.6	6.87	0.0	0.0	8.1
22133486	24559487-NODE	23240084-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	50.2	0	0	0	0.04	0.0	117.14	0.0	0.0	0.0
24559488	24559487-NODE	22174791-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	7.1	24	9	26	93.82	10.6	6.87	0.0	0.0	8.1
22133624	JJ23319999-NODE	JJ23319857-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	333.2	0	0	0	0.04	0.0	117.15	0.0	0.0	0.0
24559512	24559511-NODE	22174816-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	7.1	12	4	13	93.82	5.3	6.90	0.0	0.0	4.0
22133569	24559521-NODE	22174834-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	6.8	12	4	13	93.82	5.3	6.92	0.0	0.0	4.0
22133610	JJ23319879-NODE	JJ23319871-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	362.9	1381	543	1484	93.05	203.6	6.13	2.4	5.7	77.0
22133763	JJ23319871-NODE	S667-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	11.7	1269	497	1363	93.12	187.5	6.09	0.1	0.2	71.2
22133749	S667-PD	JJ23311957-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	124.5	1269	497	1363	93.12	187.5	6.09	0.7	1.6	71.2
22142166	JJ23311957-NODE	JJ23311955-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	389.2	1269	495	1362	93.16	187.5	6.09	2.7	2.6	57.2
22142156	JJ23311955-NODE	S188-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	25.3	1266	493	1358	93.19	187.5	6.08	0.1	0.3	71.2
22036366	S188-PD	JJ23551589-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	86.7	1266	492	1358	93.20	187.5	6.08	0.5	1.1	71.2
22036344	JJ23551589-NODE	FD704-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	14.4	73	28	78	93.36	10.7	6.29	0.0	0.0	3.9
22036334	FD704-PD	JJ23551599-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	6.3	73	28	78	93.36	10.7	6.29	0.0	0.0	3.9
22036355	JJ23551599-NODE	TO FD704-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	53.7	73	28	78	93.36	10.7	6.29	0.0	0.0	6.2
22036376	JJ23551589-NODE	JJ23502009-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	47.1	1193	463	1280	93.21	176.8	6.07	0.2	0.6	67.3
22588915	JJ23502009-NODE	JJ23551603-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	145.7	1120	435	1202	93.22	166.1	6.06	0.6	1.5	63.3

22036312	JJ23551603-NODE	JJ23312963-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	8.1	1114	431	1194	93.25	165.2	6.06	0.0	0.1	63.3
22140502	JJ23312963-NODE	25386031-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	126.4	262	101	281	93.33	38.9	6.19	0.0	0.1	15.0
25386032	25386031-NODE	24560016-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	267.0	142	54	152	93.35	21.0	6.22	0.0	0.0	8.5
22181566	24560016-NODE	JJ23556783-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	188.7	130	50	139	93.31	19.2	6.14	0.0	0.0	7.5
22181551	JJ23556783-NODE	FD731-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	26.6	121	46	129	93.33	17.9	6.13	0.0	0.0	6.6
22181545	FD731-PD	JJ23556789-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	1.9	121	46	129	93.33	17.9	6.13	0.0	0.0	6.6
22181559	JJ23556789-NODE	TO FD731-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	97.8	121	46	129	93.33	17.9	6.13	0.0	0.0	10.3
22181576	JJ23556783-NODE	24560075-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	278.0	9	3	10	93.14	1.3	6.28	0.0	0.0	1.4
22142143	24560075-NODE	23240451-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	119.8	0	0	0	0.03	0.0	117.19	0.0	0.0	0.0
24560076	24560075-NODE	22176908-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	6.5	9	3	10	93.18	3.9	6.23	0.0	0.0	3.0
24560017	24560016-NODE	22176942-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	8.3	12	4	13	93.81	5.4	7.06	0.0	0.0	4.1
25386040	25386031-NODE	FD782-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	11.1	121	46	129	93.33	17.9	6.15	0.0	0.0	6.6
25094621	FD782-PD	TO FD782-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	111.7	121	46	129	93.33	17.9	6.15	0.0	0.0	13.3
22140524	JJ23312963-NODE	23240463-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	139.9	0	0	0	0.03	0.0	117.23	0.0	0.0	0.0
22140542	JJ23312963-NODE	S429-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	70.4	851	330	913	93.23	126.3	6.01	0.2	0.4	48.3
22142249	S429-PD	JJ23311913-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	125.5	851	330	913	93.24	126.3	6.01	0.3	0.7	48.3
22142196	JJ23311913-NODE	JJ23311903-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	74.5	778	301	834	93.26	115.5	6.00	0.2	0.4	44.4
22142208	JJ23311903-NODE	JJ23311861-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	36.2	760	294	815	93.27	112.8	5.99	0.1	0.2	43.4
22142236	JJ23311861-NODE	JJ23311793-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	193.8	723	280	776	93.27	107.5	5.99	0.4	0.8	41.4
22044057	JJ23311793-NODE	22108293-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	81.8	6	2	7	93.19	2.8	5.93	0.0	0.0	2.1
22142301	JJ23311793-NODE	F2058-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	4.3	109	42	117	93.39	16.2	6.13	0.0	0.0	5.9
22142289	F2058-PD	JJ23311813-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	19.2	109	42	117	93.39	16.2	6.13	0.0	0.0	5.9
22142276	JJ23311813-NODE	TO F2058-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	123.7	109	42	117	93.39	16.2	6.13	0.0	0.0	9.3
24560182	TO F2058-PD	TO TX D327-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	25.0	73	28	78	93.36	10.8	6.09	0.0	0.0	6.2
22142313	JJ23311793-NODE	JJ23311783-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	159.9	608	235	652	93.28	90.3	5.96	0.2	0.5	34.4
22142327	JJ23311783-NODE	JJ23311725-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	141.3	571	220	612	93.30	85.0	5.95	0.2	0.4	32.5
22142379	JJ23311725-NODE	JJ23508429-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	111.5	544	210	583	93.31	80.9	5.95	0.1	0.3	31.0
22142367	JJ23508429-NODE	FD323-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	22.2	72	28	78	93.35	10.8	5.98	0.0	0.0	4.0
22142353	FD323-PD	JJ23311749-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	1.0	72	28	78	93.35	10.8	5.98	0.0	0.0	4.0
22142343	JJ23311749-NODE	TO FD323-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	38.6	72	28	78	93.35	10.8	5.98	0.0	0.0	6.2
22585600	JJ23508429-NODE	JJ23508427-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	123.9	471	181	505	93.32	70.1	5.94	0.1	0.2	27.0
22217073	JJ23508427-NODE	S4070-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	30.5	399	153	427	93.33	59.3	5.93	0.0	0.0	23.1
22217088	S4070-PD	JJ23508439-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	92.3	399	153	427	93.33	59.3	5.93	0.1	0.1	23.1
22585576	JJ23508439-NODE	JJ23508437-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	94.0	278	107	298	93.35	41.4	5.95	0.0	0.1	16.5
22585586	JJ23508437-NODE	JJ23311669-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	101.8	272	104	291	93.34	40.5	5.93	0.0	0.1	15.5
22142422	JJ23311669-NODE	FD492-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	21.2	72	28	78	93.34	10.8	5.92	0.0	0.0	4.0
22142407	FD492-PD	JJ23311697-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	3.6	72	28	78	93.34	10.8	5.92	0.0	0.0	4.0
22142393	JJ23311697-NODE	TO FD492-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	13.6	72	28	78	93.34	10.8	5.92	0.0	0.0	6.2
22142434	JJ23311669-NODE	JJ23492277-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	115.3	199	77	213	93.35	29.7	5.93	0.0	0.0	11.5
22540553	JJ23492277-NODE	24560333-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	125.1	79	30	84	93.40	11.7	6.01	0.0	0.0	4.9
22540556	24560333-NODE	JJ23492237-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	7.9	72	28	78	93.36	10.8	5.94	0.0	0.0	4.0
22518832	JJ23492237-NODE	FD359-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	82.2	72	28	78	93.36	10.8	5.94	0.0	0.0	4.0
24560351	FD359-PD	JJ23472031-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	19.2	72	28	78	93.36	10.8	5.93	0.0	0.0	4.0
26948623	JJ23472031-NODE	TO FD359-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	154.2	72	28	78	93.36	10.8	5.93	0.0	0.0	6.2
22540559	JJ23492237-NODE	23253447-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	129.5	0	0	0	0.03	0.0	116.95	0.0	0.0	0.0
24560334	24560333-NODE	22578057-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	8.1	6	2	6	93.83	2.7	6.80	0.0	0.0	2.1
24226279	JJ23492277-NODE	24226253-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	11.9	121	46	129	93.32	18.0	5.88	0.0	0.0	6.6

24560299	JJ23508437-NODE	22606881-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.4	6	2	6	93.83	2.7	6.83	0.0	0.0	2.1
24226335	JJ23508439-NODE	24226307-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	12.4	121	46	129	93.32	18.0	5.90	0.0	0.0	6.6
24228036	JJ23508427-NODE	24228019-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	8.4	72	28	78	93.36	10.8	5.98	0.0	0.0	4.0
24226389	JJ23311725-NODE	24226378-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	10.2	27	10	29	93.40	4.1	6.09	0.0	0.0	1.5
24226452	JJ23311783-NODE	24226438-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	9.5	36	14	39	93.37	5.4	6.06	0.0	0.0	2.0
24226518	JJ23311861-NODE	24226493-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	7.9	36	14	39	93.37	5.4	6.14	0.0	0.0	2.0
22142224	JJ23311903-NODE	24560135-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	254.0	18	7	20	93.45	2.7	6.29	0.0	0.0	1.0
24225752	JJ23311913-NODE	24225729-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	9.3	72	28	78	93.36	10.7	6.16	0.0	0.0	3.9
24286025	JJ23551603-NODE	24286015-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	10.4	6	2	6	93.18	2.6	6.26	0.0	0.0	2.0
22588923	JJ23502009-NODE	FD568-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	30.5	72	28	78	93.35	10.7	6.25	0.0	0.0	3.9
24559956	FD568-PD	24559955-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	0.6	72	28	78	93.35	10.7	6.25	0.0	0.0	3.9
24559964	24559955-NODE	TO FD568-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	13.4	72	28	78	93.35	10.7	6.25	0.0	0.0	3.2
22540962	JJ23319871-NODE	F2001-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	27.2	25	10	27	93.15	11.1	6.30	0.0	0.0	8.4
22133723	F2001-PD	24559786-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	91.8	25	10	27	93.15	11.1	6.30	0.0	0.0	8.4
22133733	24559786-NODE	22174982-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	470.8	25	10	27	93.15	11.1	6.30	0.0	0.0	8.4
22540965	JJ23319871-NODE	F538-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	98.3	84	31	90	93.78	37.2	6.66	0.0	0.0	28.2
22133779	F538-PD	24560369-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	376.3	84	31	90	93.79	37.2	6.66	0.1	0.1	28.2
22132929	24560369-NODE	26572053-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	110.2	73	27	78	93.82	32.2	6.65	0.0	0.0	24.4
26572062	26572053-NODE	F494-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	421.5	73	27	78	93.83	32.2	6.65	0.1	0.1	24.4
22132945	F494-PD	JJ23320785-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	6.0	73	27	77	93.85	32.2	6.65	0.0	0.0	24.4
22181447	JJ23320785-NODE	TO F494-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	239.1	73	27	77	93.85	32.2	6.65	0.1	0.0	17.9
24560409	TO F494-PD	TO TX D491-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	51.8	48	18	52	93.85	21.4	6.64	0.0	0.0	11.9
24560417	TO TX D491-PD	23178514-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	197.4	24	9	26	93.86	10.7	6.66	0.0	0.0	6.0
24560370	24560369-NODE	22175011-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	8.2	11	4	12	93.83	5.1	6.68	0.0	0.0	3.8
24559546	JJ23320875-NODE	22174849-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	11.0	12	5	13	93.16	5.5	6.54	0.0	0.0	4.2
22133679	JJ23319735-NODE	23240100-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	28.4	0	0	0	0.02	0.0	117.92	0.0	0.0	0.0
24228278	JJ23541547-NODE	24228259-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	18.4	73	28	78	93.37	10.5	7.72	0.0	0.0	3.8

Load Flow - Summary Report (HARV F2)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Thu Feb 09 2023
Time	22h04m29s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.01	198.99	198.99	0.01
Total Generation	**0.01**	**198.99**	**198.99**	**0.01**
Load read (Non-adjusted)	1569.22	597.55	1679.14	93.45
Load used (Adjusted)	1569.00	596.93	1678.72	93.46
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**1569.00**	**596.93**	**1678.72**	**93.46**
Cable Capacitance	0.00	-0.55	0.55	0.00
Line Capacitance	0.00	-0.19	0.19	0.00
Total Shunt Capacitance	**0.00**	**-0.74**	**0.74**	**0.00**
Line Losses	32.74	76.80	83.49	39.22
Cable Losses	3.39	3.14	4.62	73.44
Transformer Load Losses	5.65	11.22	12.56	45.00
Transformer No-Load Losses	12.75	0.00	12.75	100.00
Total Losses	**54.54**	**91.15**	**106.22**	**51.34**

Load Balancing Report (HARV F2)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Thu Feb 09 2023
Time	22h07m24s
Project Name	New
Objective	**Balance the load (kVA)**
Minimum kVA Average Unbalance	1.00 %
Restrictions	
Ignore 1-phase section(s):	No
Ignore 2-phase section(s):	No
Ignore 3-phase section(s):	No
Ignore the underground cable:	Yes
Respect Phase Rotation:	No

Network(s): HARV F2

Suggested Rephasing

No rephasing found

Results

Feeder HARV F2

	Load (kVA)			Current (A)			Ineutral	Total Losses	Unbalance Factor		
	A	B	C	A	B	C	(A)	(kW)	Load	Current	Voltage
Before	548.09	599.95	547.36	218.69	239.52	218.41	22.03	79.77	6.16 %	6.2 %	0.05 %
After	548.09	599.95	547.36	218.69	239.52	218.41	22.03	79.77	6.16 %	6.2 %	0.05 %

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25012250	25012052-NODE	25012221-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.5	1624	488	1695	95.76	225.5	12.48	0.0	0.0	22.7
24559104	25012221-NODE	JJ23336305-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	49.5	1624	687	1763	92.09	234.5	6.28	0.5	0.5	70.8
22180826	JJ23336305-NODE	S813-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	37.9	1623	687	1762	92.09	234.5	6.28	0.3	0.8	88.1
22180848	S813-PD	S68-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	356.9	1623	686	1762	92.10	234.5	6.28	3.1	7.3	88.1
22180855	S68-PD	S563-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	494.0	1620	679	1756	92.23	234.5	6.28	4.3	10.1	88.1
22041329	S563-PD	JJ23541547-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	155.0	1615	669	1748	92.40	234.5	6.28	1.4	3.2	88.1
22696805	JJ23541547-NODE	27266129-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	578.0	1541	638	1668	92.40	224.1	6.21	4.6	10.8	84.4
22133449	27266129-NODE	F907-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	95.9	35	14	38	93.20	15.4	7.21	0.0	0.0	11.6
22133461	F907-PD	JJ23320081-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	19.2	35	14	38	93.21	15.4	7.21	0.0	0.0	11.6
22133401	JJ23320081-NODE	TO F907-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	96.6	35	14	38	93.21	15.4	7.21	0.0	0.0	8.5
24560945	TO F907-PD	23179454-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	312.2	24	9	25	93.22	10.2	7.23	0.0	0.0	5.7
27266130	27266129-NODE	27266141-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	207.3	1501	613	1622	92.58	219.0	6.19	1.6	3.7	84.4
22133436	27266141-NODE	F908-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	21.5	47	18	51	93.22	20.5	7.15	0.0	0.0	15.5
22133474	F908-PD	JJ23320067-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	19.0	47	18	51	93.22	20.5	7.15	0.0	0.0	15.5
24560963	JJ23320067-NODE	TO F908-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	311.6	47	18	51	93.22	20.5	7.15	0.0	0.0	11.4
24560957	TO F908-PD	TO TX D505-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	254.7	24	9	25	93.23	10.3	7.16	0.0	0.0	5.7
24560951	23179454-NODE	TO TX D505-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	139.6	0	0	0	0.01	0.0	118.38	0.0	0.0	0.0
27266142	27266141-NODE	S564-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	211.9	1453	591	1568	92.62	212.2	6.16	1.5	3.6	84.4
26935075	S564-PD	JJ23541549-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	13.2	1451	587	1565	92.69	212.2	6.16	0.1	0.2	84.4
22133500	JJ23541549-NODE	23240084-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	30.9	0	0	0	0.03	0.0	117.98	0.0	0.0	0.0
22133638	JJ23541549-NODE	26935074-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	280.5	1451	587	1565	92.69	212.2	6.16	2.0	4.8	84.4
26788448	26935074-NODE	JJ23319735-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	345.9	1449	582	1562	92.78	212.2	6.16	2.5	5.9	84.4
22132821	JJ23319735-NODE	JJ23320875-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	510.1	1446	576	1557	92.89	212.2	6.15	3.7	8.7	84.4
22133596	JJ23320875-NODE	JJ23319879-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	101.9	1430	563	1537	93.05	210.3	6.15	0.7	1.7	84.4
22133584	JJ23319879-NODE	F2430-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	30.2	48	18	52	93.80	21.3	6.89	0.0	0.0	16.1
24559522	F2430-PD	24559521-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	110.1	48	18	52	93.80	21.3	6.89	0.0	0.0	16.1
22133551	24559521-NODE	24559511-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	268.2	36	13	39	93.81	15.9	6.89	0.0	0.0	12.1
22133522	24559511-NODE	F282-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	388.3	24	9	26	93.81	10.6	6.88	0.0	0.0	8.1
22133535	F282-PD	JJ23319999-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	3.6	24	9	26	93.82	10.6	6.87	0.0	0.0	8.1
22133510	JJ23319999-NODE	24559487-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	300.5	24	9	26	93.81	10.6	6.87	0.0	0.0	8.1
22133486	24559487-NODE	23240084-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	50.2	0	0	0	0.04	0.0	117.14	0.0	0.0	0.0
24559488	24559487-NODE	22174791-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	7.1	24	9	26	93.82	10.6	6.87	0.0	0.0	8.1
22133624	JJ23319999-NODE	JJ23319857-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	333.2	0	0	0	0.04	0.0	117.15	0.0	0.0	0.0
24559512	24559511-NODE	22174816-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	7.1	12	4	13	93.82	5.3	6.90	0.0	0.0	4.0
22133569	24559521-NODE	22174834-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	6.8	12	4	13	93.82	5.3	6.91	0.0	0.0	4.0
22133610	JJ23319879-NODE	JJ23319871-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	362.9	1381	543	1484	93.06	203.2	6.13	2.4	5.6	76.9
22133763	JJ23319871-NODE	S667-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	11.7	1269	497	1363	93.12	187.2	6.09	0.1	0.2	71.1
22133749	S667-PD	JJ23311957-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	124.5	1269	497	1363	93.13	187.2	6.09	0.7	1.6	71.1
22142166	JJ23311957-NODE	JJ23311955-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	389.2	1269	495	1362	93.16	187.2	6.09	2.7	2.6	57.1
22142156	JJ23311955-NODE	S188-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	25.3	1266	493	1358	93.19	187.2	6.08	0.1	0.3	71.1
22036366	S188-PD	JJ23551589-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	86.7	1266	492	1358	93.20	187.2	6.08	0.5	1.1	71.1
22036344	JJ23551589-NODE	FD704-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	14.4	73	28	78	93.36	10.7	6.29	0.0	0.0	3.9
22036334	FD704-PD	JJ23551599-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	6.3	73	28	78	93.36	10.7	6.29	0.0	0.0	3.9
22036355	JJ23551599-NODE	TO FD704-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	53.7	73	28	78	93.36	10.7	6.29	0.0	0.0	6.2
22036376	JJ23551589-NODE	JJ23502009-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	47.1	1193	463	1280	93.21	176.5	6.07	0.2	0.5	67.2
22588915	JJ23502009-NODE	JJ23551603-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	145.7	1120	435	1202	93.22	165.8	6.05	0.6	1.5	63.2

22036312	JJ23551603-NODE	JJ23312963-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	8.1	1114	431	1194	93.25	164.9	6.05	0.0	0.1	63.2
22140502	JJ23312963-NODE	25386031-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	126.4	262	101	281	93.33	38.8	6.19	0.0	0.1	15.0
25386032	25386031-NODE	24560016-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	267.0	142	54	152	93.35	21.0	6.22	0.0	0.0	8.5
22181566	24560016-NODE	JJ23556783-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	188.7	130	50	139	93.31	19.2	6.14	0.0	0.0	7.5
22181551	JJ23556783-NODE	FD731-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	26.6	121	46	129	93.33	17.9	6.13	0.0	0.0	6.6
22181545	FD731-PD	JJ23556789-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	1.9	121	46	129	93.33	17.9	6.13	0.0	0.0	6.6
22181559	JJ23556789-NODE	TO FD731-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	97.8	121	46	129	93.33	17.9	6.13	0.0	0.0	10.3
22181576	JJ23556783-NODE	24560075-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	278.0	9	3	10	93.14	1.3	6.28	0.0	0.0	1.4
22142143	24560075-NODE	23240451-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	119.8	0	0	0	0.03	0.0	117.19	0.0	0.0	0.0
24560076	24560075-NODE	22176908-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	6.5	9	3	10	93.19	3.9	6.23	0.0	0.0	3.0
24560017	24560016-NODE	22176942-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	8.3	12	4	13	93.81	5.4	7.06	0.0	0.0	4.1
25386040	25386031-NODE	FD782-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	11.1	121	46	129	93.33	17.9	6.15	0.0	0.0	6.6
25094621	FD782-PD	TO FD782-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	111.7	121	46	129	93.33	17.9	6.15	0.0	0.0	13.3
22140524	JJ23312963-NODE	23240463-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	139.9	0	0	0	0.03	0.0	117.22	0.0	0.0	0.0
22140542	JJ23312963-NODE	S429-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	70.4	851	330	913	93.23	126.1	6.01	0.2	0.4	48.2
22142249	S429-PD	JJ23311913-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	125.5	851	330	913	93.24	126.1	6.01	0.3	0.7	48.2
22142196	JJ23311913-NODE	JJ23311903-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	74.5	778	301	834	93.26	115.3	6.00	0.2	0.4	44.3
22142208	JJ23311903-NODE	JJ23311861-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	36.2	760	294	815	93.27	112.6	5.99	0.1	0.2	43.3
22142236	JJ23311861-NODE	JJ23311793-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	193.8	723	280	776	93.27	107.3	5.98	0.4	0.8	41.3
22044057	JJ23311793-NODE	22108293-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	81.8	6	2	7	93.19	2.8	5.93	0.0	0.0	2.1
22142301	JJ23311793-NODE	F2058-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	4.3	109	42	117	93.39	16.1	6.13	0.0	0.0	5.9
22142289	F2058-PD	JJ23311813-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	19.2	109	42	117	93.39	16.1	6.13	0.0	0.0	5.9
22142276	JJ23311813-NODE	TO F2058-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	123.7	109	42	117	93.39	16.1	6.13	0.0	0.0	9.3
24560182	TO F2058-PD	TO TX D327-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	25.0	73	28	78	93.36	10.8	6.09	0.0	0.0	6.2
22142313	JJ23311793-NODE	JJ23311783-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	159.9	608	235	652	93.28	90.2	5.96	0.2	0.5	34.4
22142327	JJ23311783-NODE	JJ23311725-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	141.3	571	220	612	93.30	84.8	5.95	0.2	0.4	32.4
22142379	JJ23311725-NODE	JJ23508429-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	111.5	544	210	583	93.31	80.8	5.94	0.1	0.3	30.9
22142367	JJ23508429-NODE	FD323-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	22.2	72	28	78	93.35	10.8	5.98	0.0	0.0	4.0
22142353	FD323-PD	JJ23311749-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	1.0	72	28	78	93.35	10.8	5.98	0.0	0.0	4.0
22142343	JJ23311749-NODE	TO FD323-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	38.6	72	28	78	93.35	10.8	5.98	0.0	0.0	6.2
22585600	JJ23508429-NODE	JJ23508427-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	123.9	471	181	505	93.32	70.0	5.94	0.1	0.2	27.0
22217073	JJ23508427-NODE	S4070-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	30.5	399	153	427	93.33	59.2	5.93	0.0	0.0	23.0
22217088	S4070-PD	JJ23508439-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	92.3	399	153	427	93.33	59.2	5.93	0.1	0.1	23.0
22585576	JJ23508439-NODE	JJ23508437-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	94.0	278	107	298	93.35	41.3	5.94	0.0	0.1	16.4
22585586	JJ23508437-NODE	JJ23311669-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	101.8	272	104	291	93.34	40.4	5.92	0.0	0.1	15.5
22142422	JJ23311669-NODE	FD492-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	21.2	72	28	78	93.34	10.8	5.92	0.0	0.0	4.0
22142407	FD492-PD	JJ23311697-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	3.6	72	28	78	93.34	10.8	5.92	0.0	0.0	4.0
22142393	JJ23311697-NODE	TO FD492-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	13.6	72	28	78	93.34	10.8	5.92	0.0	0.0	6.2
22142434	JJ23311669-NODE	JJ23492277-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	115.3	199	77	213	93.35	29.6	5.93	0.0	0.0	11.5
22540553	JJ23492277-NODE	24560333-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	125.1	79	30	84	93.40	11.7	6.00	0.0	0.0	4.9
22540556	24560333-NODE	JJ23492237-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	7.9	72	28	78	93.36	10.8	5.94	0.0	0.0	4.0
22518832	JJ23492237-NODE	FD359-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	82.2	72	28	78	93.36	10.8	5.93	0.0	0.0	4.0
24560351	FD359-PD	JJ23472031-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	19.2	72	28	78	93.36	10.8	5.93	0.0	0.0	4.0
26948623	JJ23472031-NODE	TO FD359-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	154.2	72	28	78	93.36	10.8	5.93	0.0	0.0	6.2
22540559	JJ23492237-NODE	23253447-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	129.5	0	0	0	0.03	0.0	116.94	0.0	0.0	0.0
24560334	24560333-NODE	22578057-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_	Overhead Line		4.160	8.1	6	2	6	93.84	2.7	6.80	0.0	0.0	2.0
24226279	JJ23492277-NODE	24226253-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	11.9	121	46	129	93.32	17.9	5.87	0.0	0.0	6.6

24560299	JJ23508437-NODE	22606881-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.4	6	2	6	93.84	2.7	6.82	0.0	0.0	2.0
24226335	JJ23508439-NODE	24226307-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	12.4	121	46	129	93.32	17.9	5.90	0.0	0.0	6.6
24228036	JJ23508427-NODE	24228019-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	8.4	72	28	78	93.36	10.8	5.98	0.0	0.0	4.0
24226389	JJ23311725-NODE	24226378-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	10.2	27	10	29	93.40	4.0	6.09	0.0	0.0	1.5
24226452	JJ23311783-NODE	24226438-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	9.5	36	14	39	93.37	5.4	6.06	0.0	0.0	2.0
24226518	JJ23311861-NODE	24226493-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	7.9	36	14	39	93.37	5.4	6.14	0.0	0.0	2.0
22142224	JJ23311903-NODE	24560135-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	254.0	18	7	20	93.45	2.7	6.28	0.0	0.0	1.0
24225752	JJ23311913-NODE	24225729-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	9.3	72	28	78	93.36	10.7	6.16	0.0	0.0	3.9
24286025	JJ23551603-NODE	24286015-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	10.4	6	2	6	93.18	2.6	6.26	0.0	0.0	2.0
22588923	JJ23502009-NODE	FD568-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	30.5	72	28	78	93.35	10.7	6.25	0.0	0.0	3.9
24559956	FD568-PD	24559955-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	0.6	72	28	78	93.35	10.7	6.25	0.0	0.0	3.9
24559964	24559955-NODE	TO FD568-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	13.4	72	28	78	93.35	10.7	6.25	0.0	0.0	3.2
22540962	JJ23319871-NODE	F2001-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	27.2	25	10	27	93.15	11.0	6.29	0.0	0.0	8.4
22133723	F2001-PD	24559786-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	91.8	25	10	27	93.15	11.0	6.29	0.0	0.0	8.4
22133733	24559786-NODE	22174982-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	470.8	25	10	27	93.15	11.0	6.29	0.0	0.0	8.4
22540965	JJ23319871-NODE	F538-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	98.3	84	31	90	93.79	37.2	6.66	0.0	0.0	28.2
22133779	F538-PD	24560369-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	376.3	84	31	90	93.79	37.2	6.66	0.1	0.1	28.2
22132929	24560369-NODE	26572053-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	110.2	73	27	78	93.82	32.1	6.65	0.0	0.0	24.3
26572062	26572053-NODE	F494-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	421.5	73	27	78	93.83	32.1	6.65	0.1	0.1	24.3
22132945	F494-PD	JJ23320785-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	6.0	73	27	77	93.85	32.1	6.65	0.0	0.0	24.3
22181447	JJ23320785-NODE	TO F494-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	239.1	73	27	77	93.85	32.1	6.65	0.1	0.0	17.8
24560409	TO F494-PD	TO TX D491-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	51.8	48	18	52	93.85	21.4	6.64	0.0	0.0	11.9
24560417	TO TX D491-PD	23178514-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	197.4	24	9	26	93.86	10.7	6.66	0.0	0.0	5.9
24560370	24560369-NODE	22175011-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	8.2	11	4	12	93.83	5.1	6.68	0.0	0.0	3.8
24559546	JJ23320875-NODE	22174849-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	11.0	12	5	13	93.17	5.5	6.53	0.0	0.0	4.2
22133679	JJ23319735-NODE	23240100-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	28.4	0	0	0	0.02	0.0	117.92	0.0	0.0	0.0
24228278	JJ23541547-NODE	24228259-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	18.4	73	28	78	93.37	10.4	7.71	0.0	0.0	3.8

Load Flow - Summary Report (HARV F2)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Fri Mar 03 2023
Time	15h42m46s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.01	199.99	199.99	0.01
Total Generation	**0.01**	**199.99**	**199.99**	**0.01**
Load read (Non-adjusted)	1569.22	597.55	1679.14	93.45
Load used (Adjusted)	1569.09	597.03	1678.83	93.46
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**1569.09**	**597.03**	**1678.83**	**93.46**
Cable Capacitance	0.00	-0.56	0.56	0.00
Line Capacitance	0.00	-0.19	0.19	0.00
Total Shunt Capacitance	**0.00**	**-0.75**	**0.75**	**0.00**
Line Losses	20.45	72.30	75.14	27.22
Cable Losses	3.34	3.09	4.55	73.44
Transformer Load Losses	5.57	11.05	12.37	45.00
Transformer No-Load Losses	12.94	0.00	12.94	100.00
Total Losses	**42.30**	**86.44**	**96.23**	**43.96**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (º)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25012250	25012052-NODE	25012221-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.5	1611	483	1682	95.79	223.8	12.55	0.0	0.0	22.6
24559104	25012221-NODE	JJ23336305-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	49.5	1611	683	1750	92.08	232.8	6.27	0.5	0.5	70.2
22180826	JJ23336305-NODE	S813-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.3	4.160	37.9	1611	682	1749	92.08	232.8	6.27	0.2	0.7	63.7
22180848	S813-PD	S68-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.3	4.160	356.9	1611	681	1749	92.09	232.8	6.27	1.9	6.9	63.7
22180855	S68-PD	S563-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.3	4.160	494.0	1609	675	1745	92.22	232.8	6.27	2.6	9.5	63.7
22041329	S563-PD	JJ23541547-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.3	4.160	155.0	1606	665	1738	92.39	232.8	6.27	0.8	3.0	63.7
22696805	JJ23541547-NODE	27266129-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.3	4.160	578.0	1533	634	1659	92.40	222.4	6.20	2.8	10.2	61.0
22133449	27266129-NODE	F907-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	95.9	35	14	38	93.21	15.3	7.20	0.0	0.0	11.6
22133461	F907-PD	JJ23320081-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	19.2	35	14	38	93.21	15.3	7.20	0.0	0.0	11.6
22133401	JJ23320081-NODE	TO F907-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	96.6	35	14	38	93.21	15.3	7.20	0.0	0.0	8.5
24560945	TO F907-PD	23179454-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	312.2	24	9	25	93.22	10.2	7.22	0.0	0.0	5.7
27266130	27266129-NODE	27266141-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.3	4.160	207.3	1495	610	1615	92.58	217.3	6.18	0.9	3.5	61.0
22133436	27266141-NODE	F908-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	21.5	47	18	51	93.22	20.4	7.15	0.0	0.0	15.5
22133474	F908-PD	JJ23320067-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	19.0	47	18	51	93.23	20.4	7.15	0.0	0.0	15.5
24560963	JJ23320067-NODE	TO F908-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	311.6	47	18	51	93.23	20.4	7.15	0.0	0.0	11.4
24560957	TO F908-PD	TO TX D505-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	254.7	24	9	25	93.23	10.2	7.15	0.0	0.0	5.7
24560951	23179454-NODE	TO TX D505-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	139.6	0	0	0	0.01	0.0	118.36	0.0	0.0	0.0
27266142	27266141-NODE	S564-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.3	4.160	211.9	1447	589	1562	92.62	210.5	6.14	0.9	3.4	61.0
26935075	S564-PD	JJ23541549-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.3	4.160	13.2	1446	585	1560	92.69	210.5	6.14	0.1	0.2	61.0
22133500	JJ23541549-NODE	23240084-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	30.9	0	0	0	0.02	0.0	117.98	0.0	0.0	0.0
22133638	JJ23541549-NODE	26935074-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.3	4.160	280.5	1446	585	1559	92.70	210.5	6.14	1.2	4.5	61.0
26788448	26935074-NODE	JJ23319735-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.3	4.160	345.9	1444	581	1557	92.78	210.5	6.14	1.5	5.6	61.0
22132821	JJ23319735-NODE	JJ23320875-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.2	4.160	510.1	1443	575	1553	92.89	210.5	6.14	2.2	8.2	61.0
22133596	JJ23320875-NODE	JJ23319879-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.2	4.160	101.9	1428	562	1535	93.05	208.7	6.14	0.4	1.6	61.0
22133584	JJ23319879-NODE	F2430-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	30.2	48	18	52	93.81	21.1	6.89	0.0	0.0	16.0
24559522	F2430-PD	24559521-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	110.1	48	18	52	93.81	21.1	6.89	0.0	0.0	16.0
22133551	24559521-NODE	24559511-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	268.2	36	13	39	93.81	15.8	6.88	0.0	0.0	12.0
22133522	24559511-NODE	F282-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	388.3	24	9	26	93.81	10.6	6.87	0.0	0.0	8.0
22133535	F282-PD	JJ23319999-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	3.6	24	9	26	93.82	10.6	6.87	0.0	0.0	8.0
22133510	JJ23319999-NODE	24559487-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	300.5	24	9	26	93.82	10.6	6.86	0.0	0.0	8.0
22133486	24559487-NODE	23240084-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	50.2	0	0	0	0.03	0.0	117.13	0.0	0.0	0.0
24559488	24559487-NODE	22174791-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	7.1	24	9	26	93.82	10.6	6.86	0.0	0.0	8.0
22133624	JJ23319999-NODE	JJ23319857-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	333.2	0	0	0	0.03	0.0	117.14	0.0	0.0	0.0
24559512	24559511-NODE	22174816-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	7.1	12	4	13	93.82	5.3	6.89	0.0	0.0	4.0
22133569	24559521-NODE	22174834-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	6.8	12	4	13	93.82	5.3	6.91	0.0	0.0	4.0
22133610	JJ23319879-NODE	JJ23319871-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.2	4.160	362.9	1379	542	1482	93.06	201.6	6.11	1.4	5.3	55.6
22133763	JJ23319871-NODE	S667-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.2	4.160	11.7	1269	496	1362	93.13	185.7	6.07	0.0	0.1	51.4
22133749	S667-PD	JJ23311957-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.2	4.160	124.5	1269	496	1362	93.13	185.7	6.07	0.4	1.5	51.4
22142166	JJ23311957-NODE	JJ23311955-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	389.2	1268	495	1361	93.16	185.7	6.07	2.6	2.5	56.7
22142156	JJ23311955-NODE	S188-PD	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.2	4.160	25.3	1266	492	1358	93.20	185.7	6.07	0.1	0.3	51.4
22036366	S188-PD	JJ23551589-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.2	4.160	86.7	1265	492	1358	93.20	185.7	6.07	0.3	1.1	51.4
22036344	JJ23551589-NODE	FD704-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	14.4	73	28	78	93.36	10.6	6.28	0.0	0.0	3.9
22036334	FD704-PD	JJ23551599-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	6.3	73	28	78	93.36	10.6	6.28	0.0	0.0	3.9
22036355	JJ23551599-NODE	TO FD704-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	53.7	73	28	78	93.36	10.6	6.28	0.0	0.0	6.1
22036376	JJ23551589-NODE	JJ23502009-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.2	4.160	47.1	1193	463	1279	93.22	175.1	6.05	0.1	0.5	48.5
22588915	JJ23502009-NODE	JJ23551603-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.2	4.160	145.7	1120	435	1201	93.22	164.4	6.04	0.4	1.4	45.7

22036312	JJ23551603-NODE	JJ23312963-NODE	556KCMIL_AAC_DAHLIA_3PH_OH_PRIMARY_	Overhead Line	4.2	4.160	8.1	1114	431	1194	93.26	163.6	6.04	0.0	0.1	45.7
22140502	JJ23312963-NODE	25386031-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	126.4	262	101	281	93.34	38.5	6.17	0.0	0.1	14.9
25386032	25386031-NODE	24560016-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	267.0	142	54	152	93.35	20.8	6.21	0.0	0.0	8.4
22181566	24560016-NODE	JJ23556783-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	188.7	130	50	139	93.32	19.0	6.13	0.0	0.0	7.5
22181551	JJ23556783-NODE	FD731-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	26.6	121	46	129	93.33	17.7	6.11	0.0	0.0	6.5
22181545	FD731-PD	JJ23556789-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	1.9	121	46	129	93.33	17.7	6.11	0.0	0.0	6.5
22181559	JJ23556789-NODE	TO FD731-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	97.8	121	46	129	93.33	17.7	6.11	0.0	0.0	10.2
22181576	JJ23556783-NODE	24560075-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	278.0	9	3	10	93.14	1.3	6.26	0.0	0.0	1.4
22142143	24560075-NODE	23240451-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	119.8	0	0	0	0.02	0.0	117.17	0.0	0.0	0.0
24560076	24560075-NODE	22176908-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	6.5	9	3	10	93.19	3.9	6.21	0.0	0.0	2.9
24560017	24560016-NODE	22176942-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.3	12	4	13	93.82	5.3	7.04	0.0	0.0	4.0
25386040	25386031-NODE	FD782-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	11.1	121	46	129	93.33	17.7	6.14	0.0	0.0	6.5
25094621	FD782-PD	TO FD782-PD	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	111.7	121	46	129	93.33	17.7	6.14	0.0	0.0	13.1
22140524	JJ23312963-NODE	23240463-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	139.9	0	0	0	0.02	0.0	117.20	0.0	0.0	0.0
22140542	JJ23312963-NODE	S429-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	70.4	851	330	913	93.24	125.1	6.00	0.2	0.4	47.8
22142249	S429-PD	JJ23311913-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	125.5	851	330	913	93.25	125.1	6.00	0.3	0.7	47.8
22142196	JJ23311913-NODE	JJ23311903-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	74.5	778	301	834	93.26	114.4	5.99	0.2	0.4	43.9
22142208	JJ23311903-NODE	JJ23311861-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	36.2	760	294	815	93.27	111.7	5.98	0.1	0.2	42.9
22142236	JJ23311861-NODE	JJ23311793-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	193.8	723	280	776	93.27	106.4	5.97	0.3	0.8	41.0
22044057	JJ23311793-NODE	22108293-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	81.8	6	2	7	93.19	2.8	5.91	0.0	0.0	2.1
22142301	JJ23311793-NODE	F2058-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	4.3	109	42	117	93.40	16.0	6.12	0.0	0.0	5.9
22142289	F2058-PD	JJ23311813-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	19.2	109	42	117	93.40	16.0	6.12	0.0	0.0	5.9
22142276	JJ23311813-NODE	TO F2058-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	123.7	109	42	117	93.40	16.0	6.12	0.0	0.0	9.2
24560182	TO F2058-PD	TO TX D327-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	25.0	73	28	78	93.37	10.7	6.07	0.0	0.0	6.1
22142313	JJ23311793-NODE	JJ23311783-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	159.9	608	235	652	93.29	89.5	5.95	0.2	0.5	34.1
22142327	JJ23311783-NODE	JJ23311725-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	141.3	571	220	612	93.30	84.1	5.94	0.2	0.4	32.1
22142379	JJ23311725-NODE	JJ23508429-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	111.5	544	209	583	93.32	80.1	5.93	0.1	0.3	30.7
22142367	JJ23508429-NODE	FD323-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	22.2	72	28	78	93.35	10.7	5.97	0.0	0.0	3.9
22142353	FD323-PD	JJ23311749-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	1.0	72	28	78	93.35	10.7	5.97	0.0	0.0	3.9
22142343	JJ23311749-NODE	TO FD323-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	38.6	72	28	78	93.35	10.7	5.97	0.0	0.0	6.1
22585600	JJ23508429-NODE	JJ23508427-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	123.9	471	181	505	93.32	69.4	5.93	0.1	0.2	26.7
22217073	JJ23508427-NODE	S4070-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	30.5	399	153	427	93.33	58.8	5.92	0.0	0.0	22.8
22217088	S4070-PD	JJ23508439-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	92.3	399	153	427	93.34	58.8	5.92	0.1	0.1	22.8
22585576	JJ23508439-NODE	JJ23508437-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	94.0	278	107	298	93.35	41.0	5.93	0.0	0.1	16.3
22585586	JJ23508437-NODE	JJ23311669-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	101.8	272	104	291	93.34	40.1	5.91	0.0	0.1	15.3
22142422	JJ23311669-NODE	FD492-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	21.2	72	28	78	93.35	10.7	5.91	0.0	0.0	3.9
22142407	FD492-PD	JJ23311697-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	3.6	72	28	78	93.35	10.7	5.91	0.0	0.0	3.9
22142393	JJ23311697-NODE	TO FD492-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	13.6	72	28	78	93.35	10.7	5.91	0.0	0.0	6.1
22142434	JJ23311669-NODE	JJ23492277-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	115.3	199	77	214	93.35	29.4	5.92	0.0	0.0	11.4
22540553	JJ23492277-NODE	24560333-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	125.1	79	30	84	93.40	11.6	5.99	0.0	0.0	4.9
22540556	24560333-NODE	JJ23492237-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	7.9	72	28	78	93.37	10.7	5.93	0.0	0.0	3.9
22518832	JJ23492237-NODE	FD359-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	82.2	72	28	78	93.36	10.7	5.92	0.0	0.0	3.9
24560351	FD359-PD	JJ23472031-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	19.2	72	28	78	93.37	10.7	5.92	0.0	0.0	3.9
26948623	JJ23472031-NODE	TO FD359-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	4.2	4.160	154.2	72	28	78	93.37	10.7	5.92	0.0	0.0	6.1
22540559	JJ23492237-NODE	23253447-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	129.5	0	0	0	0.03	0.0	116.92	0.0	0.0	0.0
24560334	24560333-NODE	22578057-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.1	6	2	6	93.84	2.7	6.79	0.0	0.0	2.0
24226279	JJ23492277-NODE	24226253-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	11.9	121	46	129	93.33	17.8	5.86	0.0	0.0	6.5

24560299	JJ23508437-NODE	22606881-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	9.4	6	2	6	93.84	2.7	6.81	0.0	0.0	2.0
24226335	JJ23508439-NODE	24226307-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	12.4	121	46	129	93.33	17.8	5.89	0.0	0.0	6.5
24228036	JJ23508427-NODE	24228019-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	8.4	72	28	78	93.36	10.7	5.97	0.0	0.0	3.9
24226389	JJ23311725-NODE	24226378-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	10.2	27	10	29	93.41	4.0	6.08	0.0	0.0	1.5
24226452	JJ23311783-NODE	24226438-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	9.5	36	14	39	93.37	5.3	6.05	0.0	0.0	2.0
24226518	JJ23311861-NODE	24226493-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	7.9	36	14	39	93.37	5.3	6.13	0.0	0.0	2.0
22142224	JJ23311903-NODE	24560135-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	254.0	18	7	20	93.46	2.7	6.27	0.0	0.0	1.0
24225752	JJ23311913-NODE	24225729-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	9.3	72	28	78	93.36	10.6	6.14	0.0	0.0	3.9
24286025	JJ23551603-NODE	24286015-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	10.4	6	2	6	93.19	2.6	6.24	0.0	0.0	2.0
22588923	JJ23502009-NODE	FD568-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	30.5	72	28	78	93.35	10.6	6.24	0.0	0.0	3.9
24559956	FD568-PD	24559955-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.2	4.160	0.6	72	28	78	93.35	10.6	6.24	0.0	0.0	3.9
24559964	24559955-NODE	TO FD568-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.2	4.160	13.4	72	28	78	93.35	10.6	6.24	0.0	0.0	3.1
22540962	JJ23319871-NODE	F2001-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	27.2	25	10	27	93.15	11.0	6.28	0.0	0.0	8.3
22133723	F2001-PD	24559786-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	91.8	25	10	27	93.15	11.0	6.28	0.0	0.0	8.3
22133733	24559786-NODE	22174982-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	470.8	25	10	27	93.16	11.0	6.27	0.0	0.0	8.3
22540965	JJ23319871-NODE	F538-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	98.3	84	31	90	93.79	36.9	6.65	0.0	0.0	27.9
22133779	F538-PD	24560369-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	376.3	84	31	90	93.80	36.9	6.65	0.1	0.1	27.9
22132929	24560369-NODE	26572053-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	110.2	73	27	78	93.82	31.9	6.65	0.0	0.0	24.1
26572062	26572053-NODE	F494-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	421.5	73	27	78	93.83	31.9	6.65	0.1	0.1	24.1
22132945	F494-PD	JJ23320785-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	6.0	73	27	77	93.86	31.9	6.65	0.0	0.0	24.1
22181447	JJ23320785-NODE	TO F494-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	239.1	73	27	77	93.86	31.9	6.65	0.1	0.0	17.7
24560409	TO F494-PD	TO TX D491-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	51.8	48	18	52	93.85	21.2	6.64	0.0	0.0	11.8
24560417	TO TX D491-PD	23178514-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		4.160	197.4	24	9	26	93.86	10.6	6.65	0.0	0.0	5.9
24560370	24560369-NODE	22175011-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.2	11	4	12	93.84	5.0	6.67	0.0	0.0	3.8
24559546	JJ23320875-NODE	22174849-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_2	Overhead Line		4.160	11.0	12	5	13	93.17	5.5	6.51	0.0	0.0	4.1
22133679	JJ23319735-NODE	23240100-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	28.4	0	0	0	0.02	0.0	117.90	0.0	0.0	0.0
24228278	JJ23541547-NODE	24228259-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	18.4	73	28	78	93.37	10.4	7.71	0.0	0.0	3.8

Load Flow - Summary Report (HOWD F3)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Fri Feb 10 2023
Time	14h28m05s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	362.24	130.07	384.88	94.12
Load used (Adjusted)	362.22	130.01	384.85	94.12
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**362.22**	**130.01**	**384.85**	**94.12**
Cable Capacitance	0.00	-0.03	0.03	0.00
Line Capacitance	0.00	-0.43	0.43	0.00
Total Shunt Capacitance	**0.00**	**-0.46**	**0.46**	**0.00**
Line Losses	4.85	10.31	11.40	42.52
Cable Losses	0.03	0.03	0.04	72.65
Transformer Load Losses	1.20	1.94	2.29	52.60
Transformer No-Load Losses	5.09	0.00	5.09	100.00
Total Losses	**11.17**	**12.29**	**16.61**	**67.27**

Load Balancing Report (HOWD F3)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Fri Feb 10 2023
Time	14h12m34s
Project Name	New
Objective	**Balance the load (kVA)**
Minimum kVA Average Unbalance	1.00 %
Restrictions	
Ignore 1-phase section(s):	No
Ignore 2-phase section(s):	No
Ignore 3-phase section(s):	No
Ignore the underground cable:	Yes
Respect Phase Rotation:	No

Network(s): HOWD F3

Suggested Rephasing

Step	Section ID	Rephasing (kVA)		
		A	B	C
1	21942462		to C 23.5	
2	21884048		to C 10.18	
3	21884103		to C 10.18	
4	21884097		to C 7.66	
5	21943192	to C 16.93		

Results

Feeder HOWD F3

	Load (kVA)			Current (A)			Ineutral	Total Losses	Unbalance Factor		
	A	B	C	A	B	C	(A)	(kW)	Load	Current	Voltage
Before	141.15	208.0	54.21	56.19	83.01	21.57	53.33	63.23	59.68 %	59.75 %	0.22 %
After	122.92	153.0	123.53	48.93	60.99	49.21	12.82	61.34	14.91 %	14.98 %	0.09 %

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25013888	25013550-NODE	25013829-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	4.1	373	142	399	93.48	53.0	8.65	0.0	0.0	8.7
24181920	25013829-NODE	JJ23283531-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.3	4.160	51.6	373	142	399	93.48	53.0	8.65	0.0	0.0	17.4
21911347	JJ23283531-NODE	S2187-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	7.2	373	142	399	93.47	53.0	8.65	0.0	0.0	21.6
23636640	S2187-PD	23636629-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	15.0	373	142	399	93.47	53.0	8.65	0.0	0.0	21.6
24566259	23636629-NODE	JJ23283549-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	105.9	373	142	399	93.48	53.0	8.65	0.0	0.1	21.6
21911171	JJ23283549-NODE	26609945-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	210.4	373	142	399	93.48	53.0	8.65	0.1	0.2	21.6
25071177	26609945-NODE	JJ23283715-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	605.7	373	141	399	93.50	53.0	8.65	0.3	0.6	21.6
21910744	JJ23283715-NODE	25370444-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	125.8	373	141	399	93.54	53.0	8.64	0.1	0.1	21.6
21910734	25370444-NODE	S1243-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	91.1	373	141	399	93.55	53.0	8.64	0.0	0.1	21.6
21910823	S1243-PD	23636694-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	186.7	373	141	398	93.56	53.0	8.64	0.1	0.2	21.6
21910842	23636694-NODE	21924442-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.2	5	2	5	93.08	2.0	7.90	0.0	0.0	0.7
23636695	23636694-NODE	S475-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	327.9	368	139	393	93.58	52.4	8.65	0.1	0.3	21.6
21910852	S475-PD	JJ23283565-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	45.5	368	138	393	93.60	52.4	8.65	0.0	0.0	21.6
21911296	JJ23283565-NODE	JJ23283567-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	87.9	48	18	51	93.33	6.8	8.28	0.0	0.0	5.1
21911264	JJ23283567-NODE	JJ23283609-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	189.7	48	18	51	93.33	6.8	8.28	0.0	0.0	5.1
21911235	JJ23283609-NODE	JJ23283627-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	1076.1	32	12	34	93.45	4.5	8.47	0.0	0.0	2.7
22088002	JJ23283627-NODE	22163604-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	758.2	10	4	11	92.86	4.3	7.49	0.0	0.0	3.3
24242634	JJ23283627-NODE	24242620-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	11.9	22	8	23	93.70	3.1	8.87	0.0	0.0	1.2
21943192	JJ23283609-NODE	F2061-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	5.6	16	6	17	93.09	6.8	7.88	0.0	0.0	5.1
21943185	F2061-PD	24062141-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	174.4	16	6	17	93.09	6.8	7.88	0.0	0.0	5.1
21911246	24062141-NODE	21924872-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	11.5	2	1	2	93.38	0.8	8.33	0.0	0.0	0.6
24062142	24062141-NODE	24062161-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	226.2	14	5	15	93.05	5.9	7.81	0.0	0.0	4.5
21911255	24062161-NODE	21924890-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	13.9	9	4	10	93.03	4.0	7.78	0.0	0.0	3.0
24062162	24062161-NODE	21924905-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	164.8	5	2	5	93.08	2.0	7.86	0.0	0.0	1.5
22225803	JJ23283565-NODE	23636729-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	736.4	320	120	342	93.64	45.6	8.71	0.3	0.6	20.5
23636738	23636729-NODE	21924460-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.4	3	1	3	93.02	1.3	7.74	0.0	0.0	1.0
27018478	23636729-NODE	JJ23442897-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	306.4	317	118	338	93.70	45.2	8.71	0.1	0.3	20.5
22225818	JJ23442897-NODE	JJ23442899-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	200.9	317	118	338	93.72	45.2	8.71	0.1	0.2	20.5
22225811	JJ23442899-NODE	23636761-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	274.5	317	118	338	93.73	45.2	8.71	0.1	0.2	20.5
21910870	23636761-NODE	21924478-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	6.8	5	2	5	93.08	2.0	7.76	0.0	0.0	0.7
23636762	23636761-NODE	JJ23284087-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	305.6	312	116	333	93.76	44.5	8.72	0.1	0.3	20.5
21910881	JJ23284087-NODE	JJ23284061-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	140.7	312	115	333	93.78	44.5	8.72	0.0	0.1	20.5
22225736	JJ23284061-NODE	24291634-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	101.0	312	115	333	93.79	44.5	8.72	0.0	0.1	20.5
24291635	24291634-NODE	JJ23443009-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	918.9	312	115	333	93.79	44.5	8.72	0.3	0.8	20.5
22225742	JJ23443009-NODE	JJ23283977-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	137.0	312	115	332	93.85	44.5	8.72	0.0	0.1	20.5
21910946	JJ23283977-NODE	S4521-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	144.0	312	114	332	93.86	44.5	8.72	0.0	0.1	20.5
26709054	S4521-PD	24062428-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	156.6	312	114	332	93.87	44.5	8.72	0.1	0.1	20.5
21943164	24062428-NODE	21924573-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.2	5	2	5	93.07	2.0	7.64	0.0	0.0	0.7
24062429	24062428-NODE	JJ23283943-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	140.6	307	112	327	93.89	43.8	8.73	0.0	0.1	20.5
21910971	JJ23283943-NODE	FH158-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	4.7	29	11	31	93.66	4.1	8.46	0.0	0.0	1.5
25681126	FH158-PD	25681139-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	281.6	29	11	31	93.66	4.1	8.46	0.0	0.0	1.5
22707335	JJ23283943-NODE	24062485-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	323.1	278	101	296	93.92	39.7	8.76	0.1	0.2	19.1
22707330	24062485-NODE	22713645-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	7.8	9	4	10	93.03	4.0	7.55	0.0	0.0	1.4
24062486	24062485-NODE	JJ23364371-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	658.0	269	98	286	93.97	38.4	8.80	0.2	0.4	19.1
21884680	JJ23364371-NODE	JJ23279903-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	323.6	264	95	281	94.03	37.7	8.82	0.1	0.2	19.1
21884655	JJ23279903-NODE	23233851-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	11.1	0	0	0	0.00	0.0	118.78	0.0	0.0	0.0

21884659	JJ23279903-NODE	S320-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	271.1	264	95	280	94.05	37.7	8.82	0.1	0.2	19.1
24116499	S320-PD	24116498-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	845.2	264	95	280	94.06	37.7	8.82	0.2	0.5	19.1
21884663	24116498-NODE	21905807-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	7.6	9	4	10	93.02	4.0	7.49	0.0	0.0	1.4
24116520	24116498-NODE	24116519-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	757.7	254	91	270	94.15	36.4	8.86	0.2	0.5	19.1
21884684	24116519-NODE	21905817-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	6.8	5	2	5	93.07	2.0	7.56	0.0	0.0	0.7
21884688	24116519-NODE	JJ23279875-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	700.9	249	89	265	94.21	35.7	8.88	0.2	0.4	19.1
21884691	JJ23279875-NODE	JJ23279873-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	598.7	240	85	254	94.30	34.3	8.93	0.1	0.4	19.1
21884695	JJ23279873-NODE	JJ23279849-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	111.3	231	81	244	94.39	33.0	8.99	0.0	0.1	19.1
21884708	JJ23279849-NODE	JJ23279815-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	66.7	231	81	244	94.40	33.0	8.99	0.0	0.0	19.1
21884719	JJ23279815-NODE	FH25-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	5.2	5	2	5	93.07	2.0	7.58	0.0	0.0	1.5
21884712	FH25-PD	21905860-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	181.9	5	2	5	93.07	2.0	7.58	0.0	0.0	1.5
21884728	JJ23279815-NODE	FK27-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	14.2	9	4	10	93.02	4.0	7.51	0.0	0.0	3.0
21884723	FK27-PD	21905871-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	252.0	9	4	10	93.02	4.0	7.51	0.0	0.0	3.0
24116593	JJ23279815-NODE	24116592-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	220.7	217	75	229	94.49	31.0	9.08	0.1	0.1	19.1
21884733	24116592-NODE	21905882-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	9.9	9	4	10	93.02	4.0	7.52	0.0	0.0	1.4
24116620	24116592-NODE	24116619-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	354.6	207	71	219	94.57	29.7	9.15	0.1	0.2	19.1
21884737	24116619-NODE	JJ23279807-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	321.6	203	69	214	94.63	29.0	9.19	0.1	0.2	19.1
21942447	JJ23279807-NODE	FK29-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	68.7	5	2	5	92.91	2.2	6.97	0.0	0.0	1.6
21942442	FK29-PD	21905906-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	347.1	5	2	5	92.90	2.2	6.97	0.0	0.0	1.6
21942457	JJ23279807-NODE	F2022-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	12.7	15	6	16	92.87	6.5	6.91	0.0	0.0	4.9
21942452	F2022-PD	24116636-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	115.5	15	6	16	92.87	6.5	6.91	0.0	0.0	4.9
21884746	24116636-NODE	21905916-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.6	10	4	11	92.85	4.3	6.89	0.0	0.0	3.3
24116637	24116636-NODE	21905284-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	220.0	5	2	5	92.90	2.2	6.96	0.0	0.0	1.6
22684054	JJ23279807-NODE	JJ23280745-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	575.0	183	61	192	94.84	26.1	9.43	0.1	0.3	19.1
21884103	JJ23280745-NODE	21905270-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	227.3	10	3	10	95.15	4.1	10.71	0.0	0.0	3.1
22684055	JJ23280745-NODE	JJ23280831-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	370.7	173	58	182	94.87	24.7	9.36	0.1	0.2	19.1
21884003	JJ23280831-NODE	F54-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	101.7	124	41	131	94.94	53.8	9.04	0.1	0.1	40.8
21883995	F54-PD	24116714-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	144.7	124	41	131	94.95	53.8	9.04	0.1	0.1	40.8
21883967	24116714-NODE	JJ23280873-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	496.4	115	38	121	94.95	49.6	9.01	0.2	0.3	37.6
21883955	JJ23280873-NODE	JJ23280883-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	530.9	100	33	105	94.98	43.3	8.96	0.2	0.2	32.8
21883933	JJ23280883-NODE	F2179-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	27.8	74	24	78	94.96	32.1	8.85	0.0	0.0	24.3
24116794	F2179-PD	24116793-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	307.5	74	24	78	94.96	32.1	8.85	0.1	0.1	24.3
21883919	24116793-NODE	21905100-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	19.1	5	2	5	95.17	2.1	9.20	0.0	0.0	1.6
21883927	24116793-NODE	JJ23279761-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	664.4	69	23	72	94.97	30.0	8.82	0.1	0.1	22.7
22027763	JJ23279761-NODE	F3157-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	16.0	7	2	7	95.24	3.0	9.26	0.0	0.0	2.3
22027744	F3157-PD	JJ23364757-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	19.2	7	2	7	95.24	3.0	9.26	0.0	0.0	2.3
22707237	JJ23364757-NODE	24116912-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	1095.0	7	2	7	95.24	3.0	9.26	0.0	0.0	2.3
22707233	24116912-NODE	22713621-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.4	5	2	5	95.17	2.1	9.11	0.0	0.0	1.6
24116913	24116912-NODE	21906007-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	171.2	2	1	2	95.37	0.9	9.49	0.0	0.0	0.7
24116894	JJ23279761-NODE	24116893-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	136.7	62	20	65	94.98	27.0	8.77	0.0	0.0	20.5
21884771	24116893-NODE	21905997-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	8.6	5	2	5	95.17	2.1	9.11	0.0	0.0	1.6
21884775	24116893-NODE	JJ23279741-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	56.9	57	19	60	94.97	24.9	8.74	0.0	0.0	18.8
21884784	JJ23279741-NODE	FK32-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	6.7	5	2	5	95.17	2.1	9.11	0.0	0.0	1.6
21884780	FK32-PD	21991329-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	167.8	5	2	5	95.17	2.1	9.11	0.0	0.0	1.6
21884789	JJ23279741-NODE	JJ23276311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	1796.8	52	17	55	94.95	22.8	8.71	0.2	0.2	17.2
21826061	JJ23276311-NODE	FK120-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.7	5	2	5	95.17	2.1	8.96	0.0	0.0	1.6
21826042	FK120-PD	21878978-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	361.8	5	2	5	95.17	2.1	8.96	0.0	0.0	1.6

22684251	JJ23276311-NODE	F396-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	2314.9	47	15	49	95.02	20.6	8.67	0.2	0.2	15.6
21824963	F396-PD	24116977-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	361.8	47	15	49	95.11	20.6	8.66	0.0	0.0	15.6
22177225	24116977-NODE	21878966-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	5.6	10	3	10	95.14	4.3	8.69	0.0	0.0	3.2
24116978	24116977-NODE	24116999-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	250.2	37	12	39	95.12	16.4	8.65	0.0	0.0	12.4
21824957	24116999-NODE	21878959-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.6	32	10	34	95.11	14.2	8.63	0.0	0.0	10.8
22177235	24116999-NODE	21878972-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	1202.5	5	2	5	95.19	2.1	8.77	0.0	0.0	1.6
21883943	JJ23280883-NODE	F2180-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	29.2	26	8	27	95.19	11.2	9.28	0.0	0.0	8.5
21883949	F2180-PD	24116807-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	318.3	26	8	27	95.19	11.2	9.28	0.0	0.0	8.5
21884754	24116807-NODE	21905940-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.9	5	2	5	95.17	2.1	9.22	0.0	0.0	1.6
24116808	24116807-NODE	JJ23279783-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	180.0	21	7	22	95.21	9.1	9.29	0.0	0.0	6.9
21884751	JJ23279783-NODE	24181009-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	228.5	16	5	17	95.22	7.0	9.31	0.0	0.0	5.3
21884758	24181009-NODE	24116833-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	237.4	14	5	15	95.20	6.1	9.27	0.0	0.0	4.7
21884762	24116833-NODE	21905963-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	11.5	2	1	2	95.36	0.9	9.57	0.0	0.0	0.7
24116834	24116833-NODE	24116853-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	997.8	12	4	13	95.18	5.3	9.22	0.0	0.0	4.0
21884766	24116853-NODE	21905974-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	18.2	7	2	8	95.17	3.2	9.19	0.0	0.0	2.4
24116854	24116853-NODE	21905986-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	584.1	5	2	5	95.18	2.1	9.21	0.0	0.0	1.6
24181010	24181009-NODE	21905951-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.6	2	1	2	95.36	0.9	9.57	0.0	0.0	0.7
21942400	JJ23279783-NODE	FK30-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	11.5	5	2	5	95.17	2.1	9.22	0.0	0.0	1.6
21942396	FK30-PD	21905927-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	173.8	5	2	5	95.17	2.1	9.22	0.0	0.0	1.6
21883981	JJ23280873-NODE	21905142-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.0	5	2	5	95.17	2.1	9.32	0.0	0.0	1.6
24116739	JJ23280873-NODE	F2178-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.6	10	3	10	95.18	4.2	9.33	0.0	0.0	3.2
21883976	F2178-PD	24116757-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	297.9	10	3	10	95.18	4.2	9.33	0.0	0.0	3.2
21883989	24116757-NODE	21905113-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	304.4	5	2	5	95.18	2.1	9.33	0.0	0.0	1.6
24116758	24116757-NODE	21905128-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.3	5	2	5	95.17	2.1	9.32	0.0	0.0	1.6
24116715	24116714-NODE	21905156-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.9	10	3	10	95.14	4.2	9.36	0.0	0.0	3.2
21884008	JJ23280831-NODE	24116686-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	104.9	48	16	51	94.77	6.8	10.20	0.0	0.0	5.9
21884048	24116686-NODE	21905256-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.9	10	3	10	95.15	4.1	10.68	0.0	0.0	1.4
24116687	24116686-NODE	JJ23280797-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	154.2	39	13	41	94.68	5.4	10.08	0.0	0.0	4.4
21884044	JJ23280797-NODE	JJ23280781-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	250.3	16	6	17	94.02	2.3	9.17	0.0	0.0	1.4
21884061	JJ23280781-NODE	FK287-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	16.5	0	0	0	0.03	0.0	117.37	0.0	0.0	0.0
21884055	FK287-PD	26900030-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	658.6	0	0	0	0.03	0.0	117.37	0.0	0.0	0.0
21884067	JJ23280781-NODE	24181274-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	159.6	16	6	17	94.04	2.3	9.14	0.0	0.0	1.4
21884097	24181274-NODE	21905240-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	9.6	7	2	8	95.18	3.1	10.74	0.0	0.0	1.1
24181275	24181274-NODE	S101-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	169.8	9	3	9	93.09	1.3	7.86	0.0	0.0	1.4
21884092	S101-PD	JJ23280763-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	167.7	9	3	9	93.11	1.3	7.84	0.0	0.0	1.4
22174915	JJ23280763-NODE	F3728-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	4.8	9	3	9	93.14	3.9	7.81	0.0	0.0	2.9
22174900	F3728-PD	24181373-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	78.1	9	3	9	93.14	3.9	7.81	0.0	0.0	2.9
21884072	24181373-NODE	21905210-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.9	2	1	2	93.35	0.8	8.16	0.0	0.0	0.6
24181378	24181373-NODE	JJ23280767-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	257.0	7	3	7	93.07	3.0	7.72	0.0	0.0	2.3
21884086	JJ23280767-NODE	21905225-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	21.8	7	3	7	93.07	3.0	7.71	0.0	0.0	2.3
21942462	JJ23280797-NODE	F181-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	4.6	22	7	24	95.18	9.4	10.73	0.0	0.0	7.1
22174351	F181-PD	24181143-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	220.5	22	7	24	95.18	9.4	10.73	0.0	0.0	7.1
22174330	24181143-NODE	JJ23280815-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	388.8	13	4	13	95.21	5.3	10.78	0.0	0.0	4.0
21884019	JJ23280815-NODE	24181179-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	155.9	5	2	5	95.18	2.0	10.72	0.0	0.0	1.5
21884013	24181179-NODE	21905169-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.2	5	2	5	95.18	2.0	10.71	0.0	0.0	1.5
21884025	JJ23280815-NODE	24181196-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	156.4	8	3	8	95.22	3.3	10.80	0.0	0.0	2.5
21884030	24181196-NODE	21905182-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	10.5	5	2	5	95.18	2.0	10.71	0.0	0.0	1.5

24181197	24181196-NODE	24181213-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	272.1	3	1	3	95.29	1.2	10.93	0.0	0.0	0.9
21884038	24181213-NODE	21905196-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	8.8	3	1	3	95.27	1.2	10.89	0.0	0.0	0.9
24181214	24181213-NODE	JJ23280805-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	204.0	0	0	0	0.00	0.0	118.58	0.0	0.0	0.0
24181144	24181143-NODE	22224915-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	10.5	10	3	10	95.15	4.1	10.67	0.0	0.0	3.1
21884741	24116619-NODE	21905893-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.7	5	2	5	93.07	2.0	7.61	0.0	0.0	0.7
24116542	JJ23279873-NODE	21905838-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.4	9	4	10	93.02	4.0	7.50	0.0	0.0	3.0
24116532	JJ23279875-NODE	21905827-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	10.0	9	4	10	93.02	4.0	7.49	0.0	0.0	3.0
24062498	JJ23364371-NODE	21905794-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	8.8	5	2	5	93.07	2.0	7.60	0.0	0.0	1.5
25370596	25370444-NODE	23232163-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	116.0	0	0	0	0.00	0.0	119.33	0.0	0.0	0.0
21910786	JJ23283715-NODE	23232152-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	28.2	0	0	0	0.00	0.0	119.34	0.0	0.0	0.0
21911315	JJ23283549-NODE	23232204-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	28.3	0	0	0	0.00	0.0	119.44	0.0	0.0	0.0

Load Flow - Summary Report (HOWD F3)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Fri Feb 10 2023
Time	16h52m29s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	50.00	50.00	0.00
Total Generation	**0.00**	**50.00**	**50.00**	**0.00**
Load read (Non-adjusted)	362.24	130.07	384.88	94.12
Load used (Adjusted)	362.22	130.01	384.85	94.12
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**362.22**	**130.01**	**384.85**	**94.12**
Cable Capacitance	0.00	-0.03	0.03	0.00
Line Capacitance	0.00	-0.43	0.43	0.00
Total Shunt Capacitance	**0.00**	**-0.46**	**0.46**	**0.00**
Line Losses	4.84	10.30	11.38	42.52
Cable Losses	0.03	0.03	0.04	72.67
Transformer Load Losses	1.20	1.94	2.28	52.60
Transformer No-Load Losses	5.10	0.00	5.10	100.00
Total Losses	**11.17**	**12.27**	**16.59**	**67.31**

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25013888	25013550-NODE	25013829-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.4	4.160	4.1	373	92	385	97.10	51.0	15.63	0.0	0.0	8.4
24181920	25013829-NODE	JJ23283531-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	4.4	4.160	51.6	373	92	385	97.10	51.0	15.63	0.0	0.0	16.8
21911347	JJ23283531-NODE	S2187-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.4	4.160	7.2	373	142	399	93.48	53.0	8.65	0.0	0.0	21.6
23636640	S2187-PD	23636629-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.4	4.160	15.0	373	142	399	93.48	53.0	8.65	0.0	0.0	21.6
24566259	23636629-NODE	JJ23283549-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	105.9	373	142	399	93.48	53.0	8.65	0.0	0.1	21.6
21911171	JJ23283549-NODE	26609945-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	210.4	373	142	399	93.48	53.0	8.65	0.1	0.2	21.6
25071177	26609945-NODE	JJ23283715-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	605.7	373	141	399	93.50	53.0	8.64	0.3	0.6	21.6
21910744	JJ23283715-NODE	25370444-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	125.8	373	141	399	93.54	53.0	8.64	0.1	0.1	21.6
21910734	25370444-NODE	S1243-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	91.1	373	141	399	93.55	53.0	8.64	0.0	0.1	21.6
21910823	S1243-PD	23636694-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	186.7	373	141	398	93.56	53.0	8.64	0.1	0.2	21.6
21910842	23636694-NODE	21924442-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.2	5	2	5	93.08	2.0	7.90	0.0	0.0	0.7
23636695	23636694-NODE	S475-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	327.9	368	139	393	93.58	52.3	8.65	0.1	0.3	21.6
21910852	S475-PD	JJ23283565-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	45.5	368	138	393	93.60	52.3	8.65	0.0	0.0	21.6
21911296	JJ23283565-NODE	JJ23283567-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	87.9	48	18	51	93.33	6.8	8.28	0.0	0.0	5.1
21911264	JJ23283567-NODE	JJ23283609-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	189.7	48	18	51	93.33	6.8	8.28	0.0	0.0	5.1
21911235	JJ23283609-NODE	JJ23283627-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	1076.1	32	12	34	93.45	4.5	8.47	0.0	0.0	2.7
22088002	JJ23283627-NODE	22163604-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	758.2	10	4	11	92.86	4.3	7.49	0.0	0.0	3.3
24242634	JJ23283627-NODE	24242620-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	11.9	22	8	23	93.70	3.1	8.87	0.0	0.0	1.2
21943192	JJ23283609-NODE	F2061-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	5.6	16	6	17	93.09	6.8	7.87	0.0	0.0	5.1
21943185	F2061-PD	24062141-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	174.4	16	6	17	93.09	6.8	7.87	0.0	0.0	5.1
21911246	24062141-NODE	21924872-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	11.5	2	1	2	93.38	0.8	8.32	0.0	0.0	0.6
24062142	24062141-NODE	24062161-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	226.2	14	5	15	93.05	5.9	7.81	0.0	0.0	4.5
21911255	24062161-NODE	21924890-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	13.9	9	4	10	93.03	4.0	7.78	0.0	0.0	3.0
24062162	24062161-NODE	21924905-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	164.8	5	2	5	93.08	2.0	7.86	0.0	0.0	1.5
22225803	JJ23283565-NODE	23636729-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	736.4	320	120	342	93.64	45.6	8.70	0.3	0.6	20.5
23636738	23636729-NODE	21924460-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.4	3	1	3	93.02	1.3	7.74	0.0	0.0	1.0
27018478	23636729-NODE	JJ23442897-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	306.4	317	118	338	93.70	45.1	8.71	0.1	0.3	20.5
22225818	JJ23442897-NODE	JJ23442899-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	200.9	317	118	338	93.72	45.1	8.71	0.1	0.2	20.5
22225811	JJ23442899-NODE	23636761-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	274.5	317	118	338	93.73	45.1	8.71	0.1	0.2	20.5
21910870	23636761-NODE	21924478-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	6.8	5	2	5	93.08	2.0	7.76	0.0	0.0	0.7
23636762	23636761-NODE	JJ23284087-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	305.6	312	116	333	93.76	44.5	8.72	0.1	0.2	20.5
21910881	JJ23284087-NODE	JJ23284061-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	140.7	312	115	333	93.78	44.5	8.72	0.0	0.1	20.5
22225736	JJ23284061-NODE	24291634-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	101.0	312	115	333	93.79	44.5	8.72	0.0	0.1	20.5
24291635	24291634-NODE	JJ23443009-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	918.9	312	115	333	93.79	44.5	8.72	0.3	0.8	20.5
22225742	JJ23443009-NODE	JJ23283977-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	137.0	312	115	332	93.85	44.5	8.72	0.0	0.1	20.5
21910946	JJ23283977-NODE	S4521-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	144.0	312	114	332	93.86	44.5	8.72	0.0	0.1	20.5
26709054	S4521-PD	24062428-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	156.6	312	114	332	93.87	44.5	8.72	0.1	0.1	20.5
21943164	24062428-NODE	21924573-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.2	5	2	5	93.07	2.0	7.64	0.0	0.0	0.7
24062429	24062428-NODE	JJ23283943-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	140.6	307	112	327	93.89	43.8	8.73	0.0	0.1	20.5
21910971	JJ23283943-NODE	FH158-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	4.7	29	11	31	93.66	4.1	8.46	0.0	0.0	1.5
25681126	FH158-PD	25681139-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	281.6	29	11	31	93.66	4.1	8.46	0.0	0.0	1.5
22707335	JJ23283943-NODE	24062485-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	323.1	278	101	296	93.92	39.7	8.76	0.1	0.2	19.1
22707330	24062485-NODE	22713645-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	7.8	9	4	10	93.03	4.0	7.54	0.0	0.0	1.4
24062486	24062485-NODE	JJ23364371-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	658.0	269	98	286	93.97	38.3	8.80	0.2	0.4	19.1
21884680	JJ23364371-NODE	JJ23279903-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	323.6	264	95	281	94.03	37.7	8.82	0.1	0.2	19.1
21884655	JJ23279903-NODE	23233851-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	11.1	0	0	0	0.00	0.0	118.78	0.0	0.0	0.0

21884659	JJ23279903-NODE	S320-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	271.1	264	95	280	94.05	37.7	8.82	0.1	0.2	19.1
24116499	S320-PD	24116498-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	845.2	264	95	280	94.06	37.7	8.82	0.2	0.5	19.1
21884663	24116498-NODE	21905807-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	7.6	9	4	10	93.02	4.0	7.49	0.0	0.0	1.4
24116520	24116498-NODE	24116519-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	757.7	254	91	270	94.15	36.3	8.86	0.2	0.5	19.1
21884684	24116519-NODE	21905817-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	6.8	5	2	5	93.07	2.0	7.55	0.0	0.0	0.7
21884688	24116519-NODE	JJ23279875-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	700.9	249	89	265	94.22	35.7	8.88	0.2	0.4	19.1
21884691	JJ23279875-NODE	JJ23279873-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	598.7	240	85	254	94.30	34.3	8.93	0.1	0.4	19.1
21884695	JJ23279873-NODE	JJ23279849-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	111.3	231	81	244	94.39	33.0	8.99	0.0	0.1	19.1
21884708	JJ23279849-NODE	JJ23279815-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	66.7	231	81	244	94.40	33.0	8.99	0.0	0.0	19.1
21884719	JJ23279815-NODE	FH25-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	5.2	5	2	5	93.07	2.0	7.58	0.0	0.0	1.5
21884712	FH25-PD	21905860-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	181.9	5	2	5	93.07	2.0	7.58	0.0	0.0	1.5
21884728	JJ23279815-NODE	FK27-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	14.2	9	4	10	93.03	4.0	7.51	0.0	0.0	3.0
21884723	FK27-PD	21905871-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	252.0	9	4	10	93.02	4.0	7.51	0.0	0.0	3.0
24116593	JJ23279815-NODE	24116592-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	220.7	217	75	229	94.49	31.0	9.08	0.1	0.1	19.1
21884733	24116592-NODE	21905882-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	9.9	9	4	10	93.02	4.0	7.52	0.0	0.0	1.4
24116620	24116592-NODE	24116619-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	354.6	207	71	219	94.57	29.6	9.15	0.1	0.2	19.1
21884737	24116619-NODE	JJ23279807-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	321.6	203	69	214	94.63	29.0	9.19	0.1	0.2	19.1
21942447	JJ23279807-NODE	FK29-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	68.7	5	2	5	92.91	2.2	6.97	0.0	0.0	1.6
21942442	FK29-PD	21905906-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	347.1	5	2	5	92.90	2.2	6.96	0.0	0.0	1.6
21942457	JJ23279807-NODE	F2022-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	12.7	15	6	16	92.87	6.5	6.91	0.0	0.0	4.9
21942452	F2022-PD	24116636-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	115.5	15	6	16	92.87	6.5	6.91	0.0	0.0	4.9
21884746	24116636-NODE	21905916-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	7.6	10	4	11	92.85	4.3	6.88	0.0	0.0	3.3
24116637	24116636-NODE	21905284-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	220.0	5	2	5	92.90	2.2	6.96	0.0	0.0	1.6
22684054	JJ23279807-NODE	JJ23280745-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	575.0	183	61	192	94.84	26.1	9.43	0.1	0.3	19.1
21884103	JJ23280745-NODE	21905270-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	227.3	10	3	10	95.15	4.1	10.71	0.0	0.0	3.1
22684055	JJ23280745-NODE	JJ23280831-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	370.7	173	58	182	94.87	24.7	9.36	0.1	0.2	19.1
21884003	JJ23280831-NODE	F54-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	101.7	124	41	131	94.94	53.8	9.04	0.1	0.1	40.8
21883995	F54-PD	24116714-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	144.7	124	41	131	94.95	53.8	9.04	0.1	0.1	40.8
21883967	24116714-NODE	JJ23280873-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	496.4	115	38	121	94.95	49.6	9.01	0.2	0.3	37.6
21883955	JJ23280873-NODE	JJ23280883-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	530.9	100	33	105	94.98	43.3	8.96	0.2	0.2	32.8
21883933	JJ23280883-NODE	F2179-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	27.8	74	24	78	94.96	32.1	8.85	0.0	0.0	24.3
24116794	F2179-PD	24116793-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	307.5	74	24	78	94.96	32.1	8.85	0.1	0.1	24.3
21883919	24116793-NODE	21905100-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	19.1	5	2	5	95.17	2.1	9.20	0.0	0.0	1.6
21883927	24116793-NODE	JJ23279761-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	664.4	69	23	72	94.97	30.0	8.82	0.1	0.1	22.7
22027763	JJ23279761-NODE	F3157-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	16.0	7	2	7	95.24	3.0	9.26	0.0	0.0	2.3
22027744	F3157-PD	JJ23364757-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	19.2	7	2	7	95.24	3.0	9.26	0.0	0.0	2.3
22707237	JJ23364757-NODE	24116912-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	1095.0	7	2	7	95.24	3.0	9.26	0.0	0.0	2.3
22707233	24116912-NODE	22713621-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	9.4	5	2	5	95.17	2.1	9.11	0.0	0.0	1.6
24116913	24116912-NODE	21906007-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	171.2	2	1	2	95.37	0.9	9.49	0.0	0.0	0.7
24116894	JJ23279761-NODE	24116893-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	136.7	62	20	65	94.98	27.0	8.77	0.0	0.0	20.4
21884771	24116893-NODE	21905997-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	8.6	5	2	5	95.17	2.1	9.11	0.0	0.0	1.6
21884775	24116893-NODE	JJ23279741-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	56.9	57	19	60	94.97	24.9	8.74	0.0	0.0	18.8
21884784	JJ23279741-NODE	FK32-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	6.7	5	2	5	95.17	2.1	9.11	0.0	0.0	1.6
21884780	FK32-PD	21991329-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	167.8	5	2	5	95.17	2.1	9.11	0.0	0.0	1.6
21884789	JJ23279741-NODE	JJ23276311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	1796.8	52	17	55	94.95	22.7	8.71	0.2	0.2	17.2
21826061	JJ23276311-NODE	FK120-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	7.7	5	2	5	95.17	2.1	8.96	0.0	0.0	1.6
21826042	FK120-PD	21878978-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_;	Overhead Line		4.160	361.8	5	2	5	95.17	2.1	8.96	0.0	0.0	1.6

22684251	JJ23276311-NODE	F396-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	2314.9	47	15	49	95.02	20.6	8.67	0.2	0.2	15.6
21824963	F396-PD	24116977-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	361.8	47	15	49	95.11	20.6	8.66	0.0	0.0	15.6
22177225	24116977-NODE	21878966-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	5.6	10	3	10	95.14	4.3	8.69	0.0	0.0	3.2
24116978	24116977-NODE	24116999-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	250.2	37	12	39	95.12	16.4	8.65	0.0	0.0	12.4
21824957	24116999-NODE	21878959-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.6	32	10	34	95.12	14.2	8.63	0.0	0.0	10.8
22177235	24116999-NODE	21878972-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	1202.5	5	2	5	95.19	2.1	8.77	0.0	0.0	1.6
21883943	JJ23280883-NODE	F2180-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	29.2	26	8	27	95.19	11.2	9.28	0.0	0.0	8.5
21883949	F2180-PD	24116807-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	318.3	26	8	27	95.20	11.2	9.28	0.0	0.0	8.5
21884754	24116807-NODE	21905940-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.9	5	2	5	95.17	2.1	9.22	0.0	0.0	1.6
24116808	24116807-NODE	JJ23279783-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	180.0	21	7	22	95.21	9.1	9.29	0.0	0.0	6.9
21884751	JJ23279783-NODE	24181009-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	228.5	16	5	17	95.22	7.0	9.31	0.0	0.0	5.3
21884758	24181009-NODE	24116833-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	237.4	14	5	15	95.20	6.1	9.27	0.0	0.0	4.7
21884762	24116833-NODE	21905963-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	11.5	2	1	2	95.36	0.9	9.56	0.0	0.0	0.7
24116834	24116833-NODE	24116853-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	997.8	12	4	13	95.18	5.3	9.22	0.0	0.0	4.0
21884766	24116853-NODE	21905974-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	18.2	7	2	8	95.17	3.2	9.19	0.0	0.0	2.4
24116854	24116853-NODE	21905986-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	584.1	5	2	5	95.18	2.1	9.21	0.0	0.0	1.6
24181010	24181009-NODE	21905951-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.6	2	1	2	95.36	0.9	9.57	0.0	0.0	0.7
21942400	JJ23279783-NODE	FK30-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	11.5	5	2	5	95.17	2.1	9.22	0.0	0.0	1.6
21942396	FK30-PD	21905927-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	173.8	5	2	5	95.17	2.1	9.22	0.0	0.0	1.6
21883981	JJ23280873-NODE	21905142-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.0	5	2	5	95.17	2.1	9.32	0.0	0.0	1.6
24116739	JJ23280873-NODE	F2178-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.6	10	3	10	95.18	4.2	9.33	0.0	0.0	3.2
21883976	F2178-PD	24116757-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	297.9	10	3	10	95.18	4.2	9.33	0.0	0.0	3.2
21883989	24116757-NODE	21905113-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	304.4	5	2	5	95.18	2.1	9.33	0.0	0.0	1.6
24116758	24116757-NODE	21905128-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	7.3	5	2	5	95.17	2.1	9.32	0.0	0.0	1.6
24116715	24116714-NODE	21905156-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.9	10	3	10	95.14	4.2	9.36	0.0	0.0	3.2
21884008	JJ23280831-NODE	24116686-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	104.9	48	16	51	94.77	6.8	10.20	0.0	0.0	5.9
21884048	24116686-NODE	21905256-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.9	10	3	10	95.15	4.1	10.68	0.0	0.0	1.4
24116687	24116686-NODE	JJ23280797-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	154.2	39	13	41	94.68	5.4	10.07	0.0	0.0	4.4
21884044	JJ23280797-NODE	JJ23280781-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	250.3	16	6	17	94.02	2.3	9.17	0.0	0.0	1.4
21884061	JJ23280781-NODE	FK287-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	16.5	0	0	0	0.03	0.0	117.36	0.0	0.0	0.0
21884055	FK287-PD	26900030-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	658.6	0	0	0	0.03	0.0	117.36	0.0	0.0	0.0
21884067	JJ23280781-NODE	24181274-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	159.6	16	6	17	94.04	2.3	9.14	0.0	0.0	1.4
21884097	24181274-NODE	21905240-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	9.6	7	2	8	95.18	3.1	10.73	0.0	0.0	1.1
24181275	24181274-NODE	S101-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	169.8	9	3	9	93.09	1.3	7.85	0.0	0.0	1.4
21884092	S101-PD	JJ23280763-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	167.7	9	3	9	93.11	1.3	7.83	0.0	0.0	1.4
22174915	JJ23280763-NODE	F3728-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	4.8	9	3	9	93.14	3.9	7.81	0.0	0.0	2.9
22174900	F3728-PD	24181373-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	78.1	9	3	9	93.14	3.9	7.81	0.0	0.0	2.9
21884072	24181373-NODE	21905210-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.9	2	1	2	93.36	0.8	8.16	0.0	0.0	0.6
24181378	24181373-NODE	JJ23280767-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	257.0	7	3	7	93.07	3.0	7.71	0.0	0.0	2.3
21884086	JJ23280767-NODE	21905225-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	21.8	7	3	7	93.07	3.0	7.70	0.0	0.0	2.3
21942462	JJ23280797-NODE	F181-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	4.6	22	7	24	95.18	9.4	10.73	0.0	0.0	7.1
22174351	F181-PD	24181143-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	220.5	22	7	24	95.18	9.4	10.73	0.0	0.0	7.1
22174330	24181143-NODE	JJ23280815-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	388.8	13	4	13	95.21	5.3	10.78	0.0	0.0	4.0
21884019	JJ23280815-NODE	24181179-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	155.9	5	2	5	95.18	2.0	10.72	0.0	0.0	1.5
21884013	24181179-NODE	21905169-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.2	5	2	5	95.18	2.0	10.71	0.0	0.0	1.5
21884025	JJ23280815-NODE	24181196-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	156.4	8	3	8	95.22	3.3	10.80	0.0	0.0	2.5
21884030	24181196-NODE	21905182-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	10.5	5	2	5	95.18	2.0	10.71	0.0	0.0	1.5

24181197	24181196-NODE	24181213-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	272.1	3	1	3	95.29	1.2	10.93	0.0	0.0	0.9
21884038	24181213-NODE	21905196-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	8.8	3	1	3	95.27	1.2	10.88	0.0	0.0	0.9
24181214	24181213-NODE	JJ23280805-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	204.0	0	0	0	0.00	0.0	118.58	0.0	0.0	0.0
24181144	24181143-NODE	22224915-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	10.5	10	3	10	95.15	4.1	10.67	0.0	0.0	3.1
21884741	24116619-NODE	21905893-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_2	Overhead Line		4.160	8.7	5	2	5	93.07	2.0	7.61	0.0	0.0	0.7
24116542	JJ23279873-NODE	21905838-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	9.4	9	4	10	93.02	4.0	7.50	0.0	0.0	3.0
24116532	JJ23279875-NODE	21905827-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	10.0	9	4	10	93.02	4.0	7.49	0.0	0.0	3.0
24062498	JJ23364371-NODE	21905794-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_:	Overhead Line		4.160	8.8	5	2	5	93.07	2.0	7.59	0.0	0.0	1.5
25370596	25370444-NODE	23232163-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	116.0	0	0	0	0.00	0.0	119.32	0.0	0.0	0.0
21910786	JJ23283715-NODE	23232152-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	28.2	0	0	0	0.00	0.0	119.34	0.0	0.0	0.0
21911315	JJ23283549-NODE	23232204-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_4	Overhead Line	4.3	4.160	28.3	0	0	0	0.00	0.0	119.43	0.0	0.0	0.0

Load Flow - Summary Report (LOWV F3)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Mon Feb 13 2023
Time	11h03m14s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	1425.98	425.74	1488.18	95.82
Load used (Adjusted)	1425.94	425.60	1488.10	95.82
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**1425.94**	**425.60**	**1488.10**	**95.82**
Cable Capacitance	0.00	-17.70	17.70	0.00
Line Capacitance	0.00	-17.65	17.65	0.00
Total Shunt Capacitance	**0.00**	**-35.36**	**35.36**	**0.00**
Line Losses	5.27	12.00	13.10	40.20
Cable Losses	0.12	0.09	0.15	79.57
Transformer Load Losses	3.59	6.13	7.10	50.53
Transformer No-Load Losses	26.03	0.00	26.03	100.00
Total Losses	**35.01**	**18.22**	**39.46**	**88.71**

Load Balancing Report (LOWV F3)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Mon Feb 13 2023
Time	11h01m25s
Project Name	New
Objective	**Balance the load (kVA)**
Minimum kVA Average Unbalance	1.00 %
Restrictions	
Ignore 1-phase section(s):	No
Ignore 2-phase section(s):	No
Ignore 3-phase section(s):	No
Ignore the underground cable:	Yes
Respect Phase Rotation:	No

Network(s): LOWV F3

Suggested Rephasing

Step	Section ID	Rephasing (kVA)		
		A	B	C
1	21937528	to B 32.22		
2	21939257			to B 24.28
3	22311470	to B 19.36		

Results

Feeder LOWV F3

	Load (kVA)			Current (A)			Ineutral	Total Losses	Unbalance Factor		
	A	B	C	A	B	C	(A)	(kW)	Load	Current	Voltage
Before	554.62	430.13	532.7	67.45	52.33	64.73	14.09	197.92	14.96 %	14.91 %	0.14 %
After	502.96	506.79	507.21	61.1	61.71	61.65	0.36	197.7	0.53 %	0.63 %	0.14 %

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25018280	25018142-NODE	25018183-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.2	13.800	6.6	1461	408	1517	96.31	61.5	12.46	0.0	0.0	8.8
22373793	25018183-NODE	S3621-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.2	13.800	114.2	1461	409	1517	96.30	61.5	12.45	0.1	0.1	17.6
22053524	S3621-PD	JJ23316363-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	11.2	1461	409	1517	96.30	61.5	12.43	0.0	0.0	21.9
22053531	JJ23316363-NODE	23225176-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	48.3	0	0	0	0.01	0.0	118.08	0.0	0.0	0.0
22053540	JJ23316363-NODE	JJ23277433-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	83.5	1461	409	1517	96.30	61.5	12.43	0.0	0.1	21.9
21938266	JJ23277433-NODE	S3561-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	19.0	0	-1	1	0.01	0.0	118.07	0.0	0.0	0.0
22056666	S3561-PD	JJ23307829-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.2	13.800	146.0	0	-1	1	0.01	0.0	118.07	0.0	0.0	0.0
24577969	JJ23307829-NODE	24577939-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.2	13.800	6.3	0	0	0	0.01	0.0	118.07	0.0	0.0	0.0
25862585	JJ23277433-NODE	25862575-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	7.0	1461	410	1517	96.28	61.5	12.40	0.0	0.0	21.9
25862593	25862575-NODE	S1055-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	53.9	1461	410	1517	96.28	61.5	12.40	0.0	0.1	21.9
21938272	S1055-PD	JJ23421117-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	238.5	1461	410	1517	96.28	61.5	12.40	0.1	0.3	21.9
22382266	JJ23421117-NODE	FAK81-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.8	9	3	10	95.89	1.2	11.53	0.0	0.0	0.9
22382262	FAK81-PD	23631718-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	152.4	9	3	10	95.89	1.2	11.52	0.0	0.0	0.9
22382281	JJ23421117-NODE	JJ23293409-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	11.7	1451	407	1507	96.29	61.1	12.41	0.0	0.0	21.9
21987513	JJ23293409-NODE	FAQ51-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	67.0	5	1	5	96.01	0.6	11.77	0.0	0.0	0.4
21987494	FAQ51-PD	22245893-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	221.2	5	1	5	95.99	0.6	11.72	0.0	0.0	0.4
21987526	JJ23293409-NODE	26893500-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	232.0	1447	405	1502	96.29	60.9	12.41	0.1	0.3	21.9
23614332	26893500-NODE	21871955-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	8.5	2	1	2	95.91	0.3	11.67	0.0	0.0	0.1
26893501	26893500-NODE	26894803-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	249.0	1444	404	1500	96.30	60.8	12.41	0.1	0.3	21.9
21938385	26894803-NODE	FAQ33-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	5.5	4	1	4	96.15	0.5	12.07	0.0	0.0	0.4
21938393	FAQ33-PD	21871932-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	230.5	4	1	4	96.15	0.5	12.06	0.0	0.0	0.4
26894804	26894803-NODE	JJ23331491-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	135.6	1440	403	1496	96.30	60.7	12.41	0.1	0.2	21.8
22123220	JJ23331491-NODE	FAQ79-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.6	9	2	10	97.40	1.2	14.89	0.0	0.0	0.9
23614282	FAQ79-PD	23614273-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	19.4	9	2	10	97.40	1.2	14.89	0.0	0.0	0.8
23614274	23614273-NODE	TO FAQ79-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	495.6	9	2	10	97.36	1.2	14.78	0.0	0.0	0.6
22123247	JJ23331491-NODE	JJ23277369-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	118.0	1431	401	1486	96.30	60.3	12.39	0.1	0.2	21.8
21933227	JJ23277369-NODE	JJ23277379-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	242.7	1425	399	1480	96.30	60.0	12.39	0.1	0.3	21.8
21933220	JJ23277379-NODE	21871915-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	8.5	4	1	4	95.77	0.4	11.37	0.0	0.0	0.2
22140408	JJ23277379-NODE	JJ23317887-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	14.5	1422	398	1476	96.30	59.9	12.39	0.0	0.0	21.6
22140320	JJ23317887-NODE	FAQ30-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.2	9	3	10	95.97	1.2	11.64	0.0	0.0	0.9
22140302	FAQ30-PD	24984428-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	294.4	9	3	10	95.97	1.2	11.63	0.0	0.0	0.9
24984429	24984428-NODE	JJ23317925-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	162.8	9	3	10	95.92	1.2	11.54	0.0	0.0	0.9
22140356	JJ23317925-NODE	21911017-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	174.0	9	3	10	95.90	1.2	11.49	0.0	0.0	0.9
22140394	JJ23317887-NODE	23613817-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	211.4	1412	395	1466	96.31	59.5	12.39	0.1	0.3	21.6
21933212	23613817-NODE	21871906-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	8.0	5	1	5	95.92	0.6	11.54	0.0	0.0	0.2
23613818	23613817-NODE	JJ23277385-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	530.5	1407	393	1461	96.31	59.3	12.40	0.3	0.7	21.6
21933205	JJ23277385-NODE	JJ23277387-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	286.0	1400	391	1454	96.32	59.0	12.40	0.2	0.4	21.5
21933197	JJ23277387-NODE	JJ23279539-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	1214.7	1372	382	1424	96.34	57.8	12.41	0.6	1.5	21.5
21933614	JJ23279539-NODE	S1645-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	185.7	1370	380	1422	96.35	57.8	12.40	0.1	0.2	21.5
21938280	S1645-PD	JJ23279371-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	235.2	1370	380	1421	96.36	57.8	12.40	0.1	0.3	21.5
21933621	JJ23279371-NODE	JJ23273483-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	156.8	1232	344	1279	96.31	52.0	12.30	0.1	0.2	20.5
21878487	JJ23273483-NODE	JJ23273481-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	11.0	988	279	1026	96.23	41.7	12.12	0.0	0.0	19.1
21938287	JJ23273481-NODE	S1329-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	230.2	988	279	1026	96.23	41.7	12.12	0.1	0.2	19.1
21938296	S1329-PD	JJ23277415-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	440.9	988	279	1026	96.23	41.7	12.11	0.1	0.3	19.1
21933630	JJ23277415-NODE	JJ23277407-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	242.8	983	278	1021	96.24	41.5	12.11	0.1	0.2	19.1
21933637	JJ23277407-NODE	JJ23279357-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	365.8	969	274	1007	96.22	40.9	12.07	0.1	0.3	19.1

21933645	JJ23279357-NODE	JJ23277341-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	415.6	964	272	1001	96.23	40.7	12.07	0.1	0.3	18.8
21933653	JJ23277341-NODE	JJ23279353-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	839.6	960	271	997	96.23	40.6	12.07	0.2	0.6	18.8
21933664	JJ23279353-NODE	JJ23279347-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	379.4	955	269	992	96.24	40.4	12.06	0.1	0.3	18.8
21933672	JJ23279347-NODE	JJ23279345-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	486.0	924	260	960	96.26	39.0	12.08	0.1	0.3	18.8
21933680	JJ23279345-NODE	JJ23277877-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	582.6	920	259	956	96.26	38.9	12.08	0.2	0.4	18.7
21933688	JJ23277877-NODE	JJ23273669-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	380.2	916	258	952	96.27	38.7	12.07	0.1	0.2	18.5
23615002	JJ23273669-NODE	21910653-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.9	4	1	4	95.77	0.5	11.02	0.0	0.0	0.3
24457733	JJ23273669-NODE	24457732-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	202.3	913	256	948	96.28	38.6	12.07	0.1	0.1	18.4
24457743	24457732-NODE	24457742-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	8.4	0	0	0	0.01	0.0	117.76	0.0	0.0	0.0
25667221	24457732-NODE	24458482-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	60.8	913	256	948	96.28	38.6	12.07	0.0	0.0	18.4
24457953	24458482-NODE	S4238-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	12.2	913	256	948	96.28	38.6	12.06	0.0	0.0	18.4
24458465	S4238-PD	24458464-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	9.0	913	256	948	96.28	38.6	12.06	0.0	0.0	18.4
21933694	24458464-NODE	JJ23279331-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	131.9	913	256	948	96.28	38.6	12.06	0.0	0.1	18.4
21933705	JJ23279331-NODE	JJ23277317-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	1051.4	560	157	582	96.27	23.7	12.05	0.1	0.3	11.3
21933713	JJ23277317-NODE	JJ23279325-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	560.8	560	157	582	96.27	23.7	12.02	0.1	0.1	11.3
21933727	JJ23279325-NODE	JJ23277329-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	8.6	556	156	578	96.27	23.5	12.01	0.0	0.0	11.3
21933720	JJ23277329-NODE	JJ23277333-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	163.3	553	155	574	96.27	23.4	12.01	0.0	0.0	11.2
21933736	JJ23277333-NODE	JJ23273471-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	206.7	546	153	567	96.28	23.1	12.03	0.0	0.0	10.9
21878489	JJ23273471-NODE	JJ23273473-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	204.4	542	152	563	96.28	22.9	12.02	0.0	0.0	10.9
21938479	JJ23273473-NODE	S1449-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	697.1	538	151	559	96.28	22.8	12.02	0.1	0.2	10.9
21933815	S1449-PD	JJ23277293-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	245.8	538	151	559	96.28	22.8	12.00	0.0	0.1	10.9
21933807	JJ23277293-NODE	JJ23277305-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	11.7	489	139	508	96.21	20.7	11.85	0.0	0.0	9.0
21933825	JJ23277305-NODE	JJ23273463-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	402.5	487	138	506	96.21	20.6	11.84	0.0	0.1	9.0
21878492	JJ23273463-NODE	JJ23273465-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	335.3	486	138	505	96.21	20.6	11.83	0.0	0.1	9.0
22055813	JJ23273465-NODE	JJ23310071-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	5.6	9	3	10	96.00	1.2	11.33	0.0	0.0	0.9
22055774	JJ23310071-NODE	FAM42-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	65.4	5	1	5	96.07	0.6	11.47	0.0	0.0	0.4
22055750	FAM42-PD	22114626-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	382.6	5	1	5	96.05	0.6	11.43	0.0	0.0	0.4
22055794	22114626-NODE	JJ23310099-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	20.6	0	0	0	0.01	0.0	117.60	0.0	0.0	0.0
23617835	JJ23310071-NODE	23671584-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.8	5	1	5	95.92	0.6	11.18	0.0	0.0	0.5
22055836	JJ23273465-NODE	JJ23279267-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	370.0	476	135	495	96.21	20.2	11.83	0.0	0.1	8.7
21933841	JJ23279267-NODE	JJ23279269-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	379.9	475	135	493	96.21	20.1	11.82	0.0	0.1	8.7
21933833	JJ23279269-NODE	JJ23273303-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	210.8	457	129	475	96.22	19.4	11.84	0.0	0.0	8.6
21878616	JJ23273303-NODE	JJ23273305-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	738.3	457	129	475	96.22	19.4	11.84	0.0	0.1	8.6
21933858	JJ23273305-NODE	JJ23279263-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	494.7	455	129	473	96.21	19.3	11.82	0.0	0.1	8.6
21933850	JJ23279263-NODE	JJ23279265-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	117.7	455	129	473	96.21	19.3	11.80	0.0	0.0	8.6
21933866	JJ23279265-NODE	JJ23276981-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	529.1	454	129	471	96.21	19.2	11.80	0.0	0.1	8.5
21933873	JJ23276981-NODE	JJ23279255-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	234.1	442	126	459	96.18	18.7	11.73	0.0	0.0	7.9
22123795	JJ23279255-NODE	FAM44-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	36.6	4	1	4	95.95	0.5	11.22	0.0	0.0	0.3
22123779	FAM44-PD	22198733-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	420.5	4	1	4	95.94	0.5	11.19	0.0	0.0	0.3
22123833	JJ23279255-NODE	JJ23279239-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	436.7	438	125	455	96.18	18.6	11.72	0.0	0.1	7.9
21933907	JJ23279239-NODE	JJ23279241-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	416.6	436	124	453	96.18	18.5	11.71	0.0	0.1	7.9
21933882	JJ23279241-NODE	FAM26-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	124.0	2	0	2	97.10	0.2	13.98	0.0	0.0	0.2
21938853	FAM26-PD	21872795-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	816.0	2	0	2	97.00	0.2	13.75	0.0	0.0	0.2
21933890	JJ23279241-NODE	FAL29-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	40.8	4	1	4	95.84	0.5	10.98	0.0	0.0	0.3
21938847	FAL29-PD	21872785-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	143.5	4	1	4	95.82	0.5	10.95	0.0	0.0	0.3
21933898	JJ23279241-NODE	JJ23279243-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	14.6	431	123	448	96.17	18.3	11.69	0.0	0.0	7.9
21933915	JJ23279243-NODE	JJ23276927-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	462.3	431	123	448	96.17	18.3	11.69	0.0	0.1	7.9

21933925	JJ23276927-NODE	JJ23279233-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	210.6	429	122	446	96.17	18.2	11.68	0.0	0.0	7.9
21933933	JJ23279233-NODE	JJ23277229-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	441.1	427	122	444	96.17	18.1	11.67	0.0	0.1	7.9
21932848	JJ23277229-NODE	23632383-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	773.7	372	106	387	96.20	15.8	11.74	0.0	0.1	7.9
23632384	23632383-NODE	JJ23276507-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	7.8	368	105	383	96.19	15.6	11.71	0.0	0.0	7.9
21932856	JJ23276507-NODE	JJ23279187-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	21.9	359	102	373	96.17	15.2	11.65	0.0	0.0	7.4
21934055	JJ23279187-NODE	JJ23276487-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	673.9	359	102	373	96.17	15.2	11.65	0.0	0.1	7.4
21934047	JJ23276487-NODE	JJ23279185-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	233.8	343	98	357	96.17	14.6	11.65	0.0	0.0	7.4
21934061	JJ23279185-NODE	JJ23279183-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	218.8	334	95	347	96.17	14.2	11.66	0.0	0.0	7.0
21934073	JJ23279183-NODE	JJ23276461-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	204.0	332	95	346	96.17	14.1	11.65	0.0	0.0	7.0
21939257	JJ23276461-NODE	FAL71-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	60.3	23	7	24	95.69	3.0	10.93	0.0	0.0	2.3
21939263	FAL71-PD	21873687-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	527.1	23	7	24	95.69	3.0	10.92	0.0	0.0	2.3
22288327	JJ23276461-NODE	JJ23279167-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	1191.6	309	88	321	96.20	13.1	11.69	0.0	0.1	7.0
21932831	JJ23279167-NODE	F1398-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	29.1	21	6	22	95.95	2.7	11.18	0.0	0.0	2.0
21932839	F1398-PD	JJ23273093-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1023.3	21	6	22	95.95	2.7	11.18	0.0	0.0	2.0
21878797	JJ23273093-NODE	JJ23273091-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	299.0	17	5	18	95.91	2.2	11.08	0.0	0.0	1.7
21934113	JJ23273091-NODE	JJ23276375-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	791.1	11	3	11	96.01	1.3	11.29	0.0	0.0	1.0
21934104	JJ23276375-NODE	JJ23276559-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	399.6	4	1	4	96.12	0.5	11.52	0.0	0.0	0.3
21939188	JJ23276559-NODE	FAE12-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.1	4	1	4	95.96	0.5	11.18	0.0	0.0	0.3
21939182	FAE12-PD	21873499-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	470.8	4	1	4	95.95	0.5	11.18	0.0	0.0	0.3
21939333	JJ23276375-NODE	FAE20-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.0	7	2	7	95.79	0.9	10.85	0.0	0.0	0.7
21939339	FAE20-PD	21873696-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	495.8	7	2	7	95.79	0.9	10.85	0.0	0.0	0.7
23633387	JJ23273091-NODE	21873782-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.5	7	2	7	95.69	0.9	10.65	0.0	0.0	0.7
23633368	JJ23273093-NODE	21873792-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.4	4	1	4	95.76	0.5	10.80	0.0	0.0	0.3
21934122	JJ23279167-NODE	23632516-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	262.9	288	82	299	96.20	12.2	11.67	0.0	0.0	7.0
21939269	23632516-NODE	S1552-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	98.6	269	76	280	96.22	11.4	11.72	0.0	0.0	6.2
21934157	S1552-PD	S1551-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	845.6	269	76	280	96.22	11.4	11.71	0.0	0.1	6.2
25079652	S1551-PD	JJ23273103-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	376.3	269	76	280	96.20	11.4	11.67	0.0	0.0	6.2
21939274	JJ23273103-NODE	JJ23276437-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	370.4	247	70	257	96.22	10.5	11.70	0.0	0.0	6.2
21934173	JJ23276437-NODE	JJ23276413-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	179.3	238	67	247	96.22	10.1	11.71	0.0	0.0	5.8
21934182	JJ23276413-NODE	JJ23276421-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	177.8	231	65	240	96.23	9.8	11.73	0.0	0.0	5.8
21939284	JJ23276421-NODE	FAF4-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	30.3	8	2	8	96.03	1.0	11.60	0.0	0.0	0.7
21939279	FAF4-PD	21873721-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	154.9	8	2	8	96.03	1.0	11.59	0.0	0.0	0.7
25882143	JJ23276421-NODE	25882142-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	736.8	223	63	232	96.23	9.5	11.72	0.0	0.0	5.8
21934189	25882142-NODE	21873712-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	8.3	1	0	2	96.06	0.2	11.39	0.0	0.0	0.1
25882174	25882142-NODE	25882161-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	842.9	222	63	230	96.22	9.4	11.68	0.0	0.0	5.8
21934212	25882161-NODE	JJ23275839-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	279.7	216	61	225	96.21	9.2	11.65	0.0	0.0	5.8
21934222	JJ23275839-NODE	S1550-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	62.9	147	42	153	96.15	6.2	11.59	0.0	0.0	2.6
22352045	S1550-PD	JJ23408625-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	147.1	147	42	153	96.15	6.2	11.59	0.0	0.0	2.6
22351647	JJ23408625-NODE	JJ23410439-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	141.2	128	37	133	96.11	5.4	11.54	0.0	0.0	2.3
22351651	JJ23410439-NODE	JJ23279123-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	376.2	121	35	126	96.13	5.1	11.57	0.0	0.0	2.3
23634153	JJ23279123-NODE	21875340-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.2	8	2	8	96.00	1.0	11.52	0.0	0.0	0.7
23634226	JJ23279123-NODE	JJ23275841-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	120.8	114	33	118	96.11	4.8	11.53	0.0	0.0	2.0
21939873	JJ23275841-NODE	F2193-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	33.0	3	1	3	96.61	0.4	12.80	0.0	0.0	0.3
21939864	F2193-PD	JJ23272837-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	299.3	3	1	3	96.59	0.4	12.77	0.0	0.0	0.3
21878936	JJ23272837-NODE	JJ23270751-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	214.3	2	0	2	96.60	0.2	12.80	0.0	0.0	0.2
21882842	JJ23270751-NODE	JJ23270753-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	113.9	2	0	2	96.42	0.2	12.39	0.0	0.0	0.2
23634788	JJ23270753-NODE	21875326-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.8	2	0	2	96.32	0.2	12.18	0.0	0.0	0.2

23634758	JJ23272837-NODE	21875311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	12.4	2	0	2	96.32	0.2	12.19	0.0	0.0	0.2
22054407	JJ23275841-NODE	F3377-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	182.6	110	32	115	96.09	4.7	11.47	0.0	0.0	1.8
22054417	F3377-PD	JJ23272847-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	206.2	110	32	115	96.08	4.7	11.45	0.0	0.0	1.8
21878932	JJ23272847-NODE	JJ23272845-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	405.5	101	29	105	96.08	4.3	11.48	0.0	0.0	1.8
21878928	JJ23272845-NODE	JJ23272849-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	450.0	100	29	104	96.05	4.2	11.41	0.0	0.0	1.7
21878924	JJ23272849-NODE	JJ23272853-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	261.5	92	27	96	96.03	3.9	11.34	0.0	0.0	1.4
21878921	JJ23272853-NODE	JJ23272857-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	827.6	85	25	89	96.04	3.6	11.36	0.0	0.0	1.4
21934228	JJ23272857-NODE	JJ23275857-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	158.7	79	23	83	95.97	3.4	11.21	0.0	0.0	1.4
21934238	JJ23275857-NODE	23225157-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	295.8	0	0	0	0.01	0.0	117.77	0.0	0.0	0.0
21939852	JJ23275857-NODE	F2192-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	36.0	79	23	83	95.95	3.4	11.17	0.0	0.0	1.4
22123964	F2192-PD	JJ23330413-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	526.0	79	23	83	95.95	3.4	11.16	0.0	0.0	1.4
22123951	JJ23330413-NODE	23671520-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	924.7	79	23	83	95.90	3.4	11.05	0.0	0.0	1.4
22215652	JJ23330413-NODE	FAE36-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	6.5	0	0	0	-99.61	0.0	32.84	0.0	0.0	0.0
22215632	FAE36-PD	22198754-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	136.4	0	0	0	-99.64	0.0	32.61	0.0	0.0	0.0
23634692	JJ23272857-NODE	21875203-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.0	6	2	6	96.04	0.7	11.58	0.0	0.0	0.6
23634680	JJ23272853-NODE	21875257-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.5	7	2	7	95.69	0.9	10.64	0.0	0.0	0.7
23634669	JJ23272849-NODE	21875265-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.8	8	2	8	96.00	1.0	11.51	0.0	0.0	0.7
23634652	JJ23272845-NODE	21875281-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	14.0	2	0	2	96.32	0.2	12.19	0.0	0.0	0.2
23634616	JJ23272847-NODE	21875297-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.6	9	3	10	95.87	1.2	10.80	0.0	0.0	0.9
24984041	JJ23275841-NODE	24984040-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	48.6	0	0	0	0.01	0.0	117.55	0.0	0.0	0.0
24983996	24984040-NODE	24983943-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	18.0	0	0	0	0.01	0.0	117.55	0.0	0.0	0.0
24984071	24984040-NODE	24983964-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	19.3	0	0	0	0.01	0.0	117.55	0.0	0.0	0.0
24219262	JJ23410439-NODE	24219255-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	6.8	7	2	7	95.69	0.9	10.65	0.0	0.0	0.7
22352036	JJ23408625-NODE	FAE37-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	24.6	19	5	19	96.36	2.4	11.83	0.0	0.0	1.8
22352041	FAE37-PD	TO FAE37-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	313.2	19	5	19	96.36	2.4	11.83	0.0	0.0	1.3
21939879	JJ23275839-NODE	F712-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.1	70	19	72	96.32	8.8	11.73	0.0	0.0	6.7
21939885	F712-PD	JJ23279137-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1320.9	70	19	72	96.32	8.8	11.73	0.0	0.0	6.7
21934198	JJ23279137-NODE	JJ23270801-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	17.4	60	17	63	96.36	7.7	11.81	0.0	0.0	5.8
21882753	JJ23270801-NODE	21875011-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	376.6	9	3	10	95.93	1.2	10.91	0.0	0.0	0.9
21934205	JJ23270801-NODE	JJ23279133-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	651.1	51	14	53	96.43	6.5	11.97	0.0	0.0	4.9
23634390	JJ23279133-NODE	21873705-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.4	9	3	10	95.87	1.2	10.79	0.0	0.0	0.9
23634407	JJ23279133-NODE	23634406-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	624.0	42	11	43	96.54	5.3	12.19	0.0	0.0	4.0
22139664	23634406-NODE	22198875-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.8	9	3	10	95.87	1.2	10.78	0.0	0.0	0.9
22139685	23634406-NODE	JJ23273109-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	97.3	32	9	34	96.70	4.1	12.54	0.0	0.0	3.1
21878791	JJ23273109-NODE	FAE23-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	195.9	14	3	14	97.06	1.8	13.38	0.0	0.0	1.3
23634482	FAE23-PD	23634469-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	55.1	14	3	14	97.04	1.8	13.34	0.0	0.0	1.0
23634470	23634469-NODE	TO FAE23-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	528.5	14	4	14	96.94	1.8	13.09	0.0	0.0	1.0
22139737	JJ23273109-NODE	FAE33-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	39.1	19	5	19	96.40	2.4	11.90	0.0	0.0	1.8
23634434	FAE33-PD	23634425-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	23.1	19	5	19	96.40	2.4	11.89	0.0	0.0	1.3
23634426	23634425-NODE	TO FAE33-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	315.9	19	5	19	96.37	2.4	11.81	0.0	0.0	1.3
23634355	JJ23279137-NODE	21875234-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	23.4	9	3	10	95.87	1.2	10.80	0.0	0.0	0.9
25882162	25882161-NODE	21875356-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	6.7	5	2	6	95.73	0.7	10.73	0.0	0.0	0.2
21939296	JJ23276413-NODE	FAL11-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	28.1	7	2	7	95.73	0.9	10.72	0.0	0.0	0.7
21939290	FAL11-PD	21873731-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	161.3	7	2	7	95.72	0.9	10.71	0.0	0.0	0.7
23632549	JJ23276437-NODE	21873764-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.2	9	3	10	95.87	1.2	10.84	0.0	0.0	0.9
21939323	JJ23273103-NODE	23633197-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	104.2	22	7	23	95.94	2.9	11.15	0.0	0.0	2.2
23633198	23633197-NODE	F1345-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	165.5	19	6	20	95.96	2.4	11.20	0.0	0.0	1.8

21934149	F1345-PD	JJ23276391-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	808.8	19	6	20	95.95	2.4	11.17	0.0	0.0	1.8
21934141	JJ23276391-NODE	JJ23279159-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	542.5	8	2	9	96.07	1.1	11.40	0.0	0.0	0.8
21934132	JJ23279159-NODE	21873738-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	994.9	1	0	2	96.96	0.2	13.37	0.0	0.0	0.1
21939307	JJ23279159-NODE	FAF2-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	7.6	7	2	7	95.75	0.9	10.77	0.0	0.0	0.7
21939302	FAF2-PD	21873747-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	303.4	7	2	7	95.75	0.9	10.76	0.0	0.0	0.7
21939318	JJ23276391-NODE	FAM30-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	18.6	10	3	11	95.75	1.3	10.76	0.0	0.0	1.0
21939313	FAM30-PD	21873756-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	378.1	10	3	11	95.75	1.3	10.76	0.0	0.0	1.0
23633204	23633197-NODE	21873775-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	6.8	4	1	4	95.76	0.5	10.80	0.0	0.0	0.3
23632517	23632516-NODE	21873800-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line	13.800	7.2	19	6	19	95.88	2.4	10.89	0.0	0.0	0.8
21939251	JJ23279183-NODE	FAM23-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	22.8	2	0	2	96.55	0.2	12.71	0.0	0.0	0.2
21939246	FAM23-PD	21873679-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	251.2	2	0	2	96.53	0.2	12.67	0.0	0.0	0.2
23632469	JJ23279185-NODE	21873669-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	15.6	9	3	10	95.87	1.2	10.92	0.0	0.0	0.9
21939232	JJ23276487-NODE	FAM24-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	27.4	4	1	4	95.91	0.5	11.11	0.0	0.0	0.3
21939226	FAM24-PD	21873576-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	340.6	4	1	4	95.90	0.5	11.08	0.0	0.0	0.3
21939236	JJ23276487-NODE	F1378-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	38.8	12	4	12	95.92	1.5	11.11	0.0	0.0	1.2
21939241	F1378-PD	JJ23273119-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	68.8	12	4	12	95.91	1.5	11.10	0.0	0.0	1.2
21878789	JJ23273119-NODE	JJ23279195-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	808.9	11	3	11	95.88	1.3	11.04	0.0	0.0	1.0
21934024	JJ23279195-NODE	JJ23279193-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	178.2	7	2	7	95.77	0.9	10.82	0.0	0.0	0.7
21934030	JJ23279193-NODE	JJ23271199-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	6.4	7	2	7	95.73	0.9	10.73	0.0	0.0	0.7
21881952	JJ23271199-NODE	21873643-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	187.0	7	2	7	95.73	0.9	10.73	0.0	0.0	0.7
21991114	JJ23279193-NODE	23236588-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	16.9	0	0	0	0.01	0.0	117.55	0.0	0.0	0.0
23635027	JJ23279195-NODE	21873653-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	13.5	4	1	4	95.77	0.5	10.81	0.0	0.0	0.3
23633105	JJ23273119-NODE	21873661-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	14.7	1	0	2	96.06	0.2	11.41	0.0	0.0	0.1
21939220	JJ23276507-NODE	FAL75-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	33.0	9	2	10	97.24	1.2	13.97	0.0	0.0	0.9
21939214	FAL75-PD	JJ23271185-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	12.4	9	2	10	97.24	1.2	13.96	0.0	0.0	0.9
21881967	JJ23271185-NODE	TO FAL75-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	454.5	9	2	10	97.24	1.2	13.96	0.0	0.0	0.6
23632392	23632383-NODE	21873566-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.4	4	1	4	96.07	0.5	11.69	0.0	0.0	0.4
21938543	JJ23277229-NODE	F797-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	27.5	55	16	58	95.92	7.1	11.13	0.0	0.0	5.4
23635114	F797-PD	23635105-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	27.3	55	16	58	95.92	7.1	11.13	0.0	0.0	5.4
23635106	23635105-NODE	JJ23273081-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	744.6	55	16	58	95.92	7.1	11.12	0.0	0.0	5.4
21878802	JJ23273081-NODE	JJ23273079-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	13.2	55	16	58	95.90	7.1	11.09	0.0	0.0	5.4
21938535	JJ23273079-NODE	F1259-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	171.2	48	14	50	95.93	6.2	11.15	0.0	0.0	4.7
21938538	F1259-PD	JJ23273285-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	13.0	48	14	50	95.93	6.2	11.13	0.0	0.0	4.7
21878650	JJ23273285-NODE	JJ23273279-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	444.1	48	14	50	95.93	6.2	11.13	0.0	0.0	4.7
21878659	JJ23273279-NODE	JJ23279229-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	14.2	47	14	49	95.91	6.0	11.10	0.0	0.0	4.5
21933941	JJ23279229-NODE	JJ23279223-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	149.9	40	12	41	95.94	5.1	11.16	0.0	0.0	3.9
21933958	JJ23279223-NODE	JJ23279217-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	505.7	33	10	34	95.96	4.2	11.21	0.0	0.0	3.2
21933975	JJ23279217-NODE	JJ23279219-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	403.1	32	9	33	95.93	4.0	11.14	0.0	0.0	3.1
21881961	JJ23279219-NODE	21873584-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	265.5	4	1	4	95.87	0.5	11.02	0.0	0.0	0.3
21933967	JJ23279219-NODE	JJ23271209-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	187.0	28	8	29	95.92	3.6	11.12	0.0	0.0	2.7
21881926	JJ23271209-NODE	21873491-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	189.4	4	1	4	95.84	0.5	10.95	0.0	0.0	0.3
21933984	JJ23271209-NODE	JJ23279215-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	172.5	24	7	26	95.92	3.1	11.12	0.0	0.0	2.4
21878778	JJ23279215-NODE	JJ23273131-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	227.2	18	5	19	95.98	2.3	11.22	0.0	0.0	1.8
21878780	JJ23273131-NODE	23618285-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	465.5	18	5	19	95.96	2.3	11.19	0.0	0.0	1.8
23618286	23618285-NODE	JJ23273133-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	26.8	15	4	15	95.96	1.9	11.19	0.0	0.0	1.4
21933999	JJ23273133-NODE	JJ23271193-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	484.0	15	4	15	95.96	1.9	11.18	0.0	0.0	1.4
21881957	JJ23271193-NODE	21873610-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	354.0	2	1	2	96.13	0.3	11.53	0.0	0.0	0.2

21933990	JJ23271193-NODE	JJ23279197-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	128.0	13	4	13	95.87	1.6	11.01	0.0	0.0	1.2
21934017	JJ23279197-NODE	JJ23273121-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	101.6	11	3	11	95.85	1.3	10.97	0.0	0.0	1.0
21878786	JJ23273121-NODE	JJ23273123-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	455.2	7	2	7	95.81	0.9	10.88	0.0	0.0	0.7
21878783	JJ23273123-NODE	JJ23273125-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	104.9	0	0	0	0.01	0.0	117.54	0.0	0.0	0.0
23635083	JJ23273123-NODE	21873627-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	15.4	7	2	7	95.69	0.9	10.65	0.0	0.0	0.7
21934008	JJ23273121-NODE	23635064-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	196.2	4	1	4	95.89	0.5	11.05	0.0	0.0	0.3
23635065	23635064-NODE	JJ23279205-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	24.2	0	0	0	0.01	0.0	117.54	0.0	0.0	0.0
21991125	JJ23279205-NODE	23236588-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	73.6	0	0	0	0.01	0.0	117.54	0.0	0.0	0.0
23635071	23635064-NODE	21873637-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	14.0	4	1	4	95.77	0.5	10.80	0.0	0.0	0.3
23618319	JJ23279197-NODE	21873620-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	11.3	2	1	2	95.90	0.3	11.07	0.0	0.0	0.2
23618292	23618285-NODE	21873601-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	11.5	4	1	4	95.77	0.5	10.80	0.0	0.0	0.3
23618272	JJ23279215-NODE	21873593-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	19.5	6	2	6	95.72	0.8	10.71	0.0	0.0	0.6
23618234	JJ23279217-NODE	21873889-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.4	1	0	1	96.20	0.2	11.69	0.0	0.0	0.1
22294807	JJ23279223-NODE	JJ23376621-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	535.4	7	2	7	95.80	0.9	10.88	0.0	0.0	0.7
22294814	JJ23376621-NODE	24219318-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	21.9	7	2	7	95.69	0.9	10.66	0.0	0.0	0.7
21933950	JJ23279229-NODE	21872823-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	187.0	7	2	7	95.73	0.9	10.73	0.0	0.0	0.7
23618202	JJ23273279-NODE	21872832-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.5	1	0	2	96.06	0.2	11.40	0.0	0.0	0.1
23618177	JJ23273079-NODE	21873881-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	19.7	7	2	7	95.69	0.9	10.67	0.0	0.0	0.7
23618113	JJ23279233-NODE	21872813-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	12.9	2	1	2	96.14	0.2	11.53	0.0	0.0	0.2
21938858	JJ23276927-NODE	FAL28-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	39.3	1	0	2	96.34	0.2	12.01	0.0	0.0	0.1
21938863	FAL28-PD	21872804-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	263.6	1	0	2	96.30	0.2	11.93	0.0	0.0	0.1
23618031	JJ23279239-NODE	21872776-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	14.6	2	1	2	96.19	0.3	11.94	0.0	0.0	0.2
21938815	JJ23276981-NODE	F72-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.0	12	3	12	97.17	1.5	13.87	0.0	0.0	1.1
21938821	F72-PD	26936774-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	542.4	12	3	12	97.17	1.5	13.86	0.0	0.0	1.1
26936779	26936774-NODE	JJ23276975-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	142.6	12	3	12	95.97	1.5	11.21	0.0	0.0	1.1
21723625	JJ23276975-NODE	JJ23497783-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	173.9	2	1	2	96.27	0.3	11.83	0.0	0.0	0.2
21723638	JJ23497783-NODE	21872725-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	85.1	2	1	2	96.17	0.3	11.61	0.0	0.0	0.2
23617988	JJ23276975-NODE	21872716-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	8.7	9	3	10	95.87	1.2	11.00	0.0	0.0	0.9
26936787	26936774-NODE	FAL103-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	411.3	0	0	1	-39.56	0.1	94.22	0.0	0.0	0.1
21721784	FAL103-PD	TO FAL103-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	409.7	0	0	1	-41.17	0.1	93.22	0.0	0.0	0.0
21938827	JJ23279265-NODE	FAL33-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	40.9	2	1	2	96.28	0.2	11.86	0.0	0.0	0.2
21938832	FAL33-PD	21872750-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	156.0	2	1	2	96.25	0.2	11.80	0.0	0.0	0.2
27141669	JJ23279263-NODE	27125144-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.1	0	0	0	0.01	0.0	117.60	0.0	0.0	0.0
23617906	JJ23273305-NODE	21872664-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	12.5	2	0	2	96.32	0.2	12.24	0.0	0.0	0.2
21938799	JJ23279269-NODE	FAM27-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	59.9	14	4	15	95.77	1.8	10.90	0.0	0.0	1.4
21938793	FAM27-PD	21872336-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	647.0	14	4	15	95.76	1.8	10.88	0.0	0.0	1.4
23617882	JJ23279269-NODE	21872674-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	16.3	4	1	4	95.77	0.5	10.90	0.0	0.0	0.3
23617864	JJ23279267-NODE	21872076-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	16.3	2	0	2	96.33	0.2	12.25	0.0	0.0	0.2
23617817	JJ23273463-NODE	21872025-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.9	2	0	2	96.32	0.2	12.24	0.0	0.0	0.2
21938458	JJ23277305-NODE	FAM1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	76.3	2	0	2	96.60	0.2	12.85	0.0	0.0	0.2
21938450	FAM1-PD	21872018-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	257.1	2	0	2	96.53	0.2	12.70	0.0	0.0	0.2
21938472	JJ23277293-NODE	F1379-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	27.7	49	12	50	96.96	6.2	13.50	0.0	0.0	4.7
21938465	F1379-PD	JJ23273455-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	432.3	49	12	50	96.96	6.2	13.49	0.0	0.0	4.7
21878494	JJ23273455-NODE	23617451-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	19.8	49	12	50	96.95	6.2	13.47	0.0	0.0	4.7
23617452	23617451-NODE	JJ23271769-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	165.9	45	11	47	97.04	5.7	13.67	0.0	0.0	4.3
21880919	JJ23271769-NODE	JJ23271771-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	328.4	45	11	47	97.03	5.7	13.66	0.0	0.0	4.3
21878501	JJ23271771-NODE	23617497-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	7.9	45	11	47	97.03	5.7	13.63	0.0	0.0	4.3

23617498	23617497-NODE	23617542-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	512.0	42	10	43	97.12	5.3	13.87	0.0	0.0	4.0
23617543	JJ23273447-NODE	23617542-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.0	38	9	39	97.22	4.8	14.10	0.0	0.0	3.7
21933798	JJ23273447-NODE	JJ23279293-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	3.0	33	8	34	97.42	4.2	14.60	0.0	0.0	3.2
21933790	JJ23279293-NODE	JJ23279297-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	168.7	33	8	34	97.42	4.2	14.60	0.0	0.0	3.2
21933783	JJ23279297-NODE	JJ23277033-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	296.8	30	7	30	97.59	3.7	15.03	0.0	0.0	2.8
21933776	JJ23277033-NODE	JJ23279303-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	346.8	26	6	27	97.79	3.3	15.55	0.0	0.0	2.5
21933767	JJ23279303-NODE	JJ23277047-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	91.7	26	6	27	97.77	3.3	15.51	0.0	0.0	2.5
21933760	JJ23277047-NODE	JJ23279311-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	267.0	22	5	23	98.01	2.8	16.20	0.0	0.0	2.1
22351568	JJ23279311-NODE	F3891-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	40.9	19	4	19	98.34	2.4	17.16	0.0	0.0	1.8
22351564	F3891-PD	JJ23277007-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	746.5	19	4	19	98.33	2.4	17.16	0.0	0.0	1.8
21933751	JJ23277007-NODE	26784556-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	203.3	8	2	9	96.09	1.1	11.55	0.0	0.0	0.8
21938770	26784556-NODE	FAL48-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	44.3	7	2	7	95.87	0.9	11.10	0.0	0.0	0.7
21938776	FAL48-PD	21872646-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	816.5	7	2	7	95.86	0.9	11.08	0.0	0.0	0.7
26784557	26784556-NODE	FAL47-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.5	1	0	2	96.89	0.2	13.31	0.0	0.0	0.1
25700855	FAL47-PD	21872856-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	897.9	1	0	2	96.88	0.2	13.29	0.0	0.0	0.1
21938787	JJ23277007-NODE	FAL46-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.3	4	1	4	95.95	0.5	11.27	0.0	0.0	0.3
21938781	FAL46-PD	21872655-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	435.3	4	1	4	95.94	0.5	11.25	0.0	0.0	0.3
21989174	JJ23277007-NODE	F1991-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	231.5	7	0	7	99.99	0.9	27.01	0.0	0.0	0.6
21989160	F1991-PD	JJ23292503-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	33.7	7	0	7	99.99	0.9	26.90	0.0	0.0	0.6
21989143	JJ23292503-NODE	JJ23292515-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	361.8	7	0	7	99.99	0.9	26.89	0.0	0.0	0.5
21989105	JJ23292515-NODE	JJ23292533-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	186.4	7	1	7	99.45	0.9	21.64	0.0	0.0	0.5
21989068	JJ23292533-NODE	JJ23292539-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	349.2	7	1	7	98.91	0.9	19.15	0.0	0.0	0.5
21989024	JJ23292539-NODE	TO TX AL50-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	422.1	7	2	7	97.36	0.9	14.44	0.0	0.0	0.5
21989046	JJ23292539-NODE	TO TX AL49-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	169.7	0	0	0	0.01	0.0	117.63	0.0	0.0	0.0
21989088	JJ23292533-NODE	TO TX AL49-PD-1	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	83.2	0	0	0	0.01	0.0	117.63	0.0	0.0	0.0
24584379	JJ23292515-NODE	TO F1991-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	197.6	0	0	0	0.01	0.0	117.63	0.0	0.0	0.0
23617680	JJ23279311-NODE	21872620-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	6.2	4	1	4	95.77	0.5	10.90	0.0	0.0	0.3
21938754	JJ23277047-NODE	FAL44-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	23.8	4	1	4	95.90	0.5	11.17	0.0	0.0	0.3
21938748	FAL44-PD	21872629-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	303.5	4	1	4	95.89	0.5	11.15	0.0	0.0	0.3
21938765	JJ23277033-NODE	FAL43-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	17.9	4	1	4	95.83	0.5	11.03	0.0	0.0	0.3
21938759	FAL43-PD	21872638-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	146.5	4	1	4	95.82	0.5	11.02	0.0	0.0	0.3
23617613	JJ23279297-NODE	21872345-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	19.2	4	1	4	95.77	0.5	10.91	0.0	0.0	0.3
21938493	JJ23273447-NODE	FAL40-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	18.1	5	2	5	95.81	0.7	10.99	0.0	0.0	0.5
21938487	FAL40-PD	21872084-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	267.0	5	2	5	95.80	0.7	10.98	0.0	0.0	0.5
23617549	23617542-NODE	21872093-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	12.9	4	1	4	95.77	0.5	10.91	0.0	0.0	0.3
23617515	23617497-NODE	21872033-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.3	4	1	4	95.77	0.5	10.91	0.0	0.0	0.3
23617458	23617451-NODE	21872039-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	16.7	4	1	4	95.77	0.5	10.92	0.0	0.0	0.3
23617249	JJ23273473-NODE	21871963-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.4	4	1	4	96.07	0.5	11.70	0.0	0.0	0.4
23617216	JJ23273471-NODE	21871970-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.3	4	1	4	96.07	0.5	11.70	0.0	0.0	0.4
21938422	JJ23277333-NODE	FAM13-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.3	7	2	7	95.73	0.9	10.88	0.0	0.0	0.7
21938414	FAM13-PD	21871990-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	179.1	7	2	7	95.73	0.9	10.87	0.0	0.0	0.7
21938429	JJ23277329-NODE	FAL6-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	26.9	4	1	4	95.92	0.5	11.26	0.0	0.0	0.3
22274766	FAL6-PD	JJ23372807-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	339.4	4	1	4	95.91	0.5	11.24	0.0	0.0	0.3
23617136	JJ23372807-NODE	21871997-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	5.6	4	1	4	95.77	0.5	10.95	0.0	0.0	0.3
23616876	JJ23279325-NODE	21872005-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	6.7	4	1	4	96.07	0.5	11.70	0.0	0.0	0.4
22311483	JJ23279331-NODE	F3826-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	161.4	268	76	278	96.15	11.3	11.80	0.0	0.0	6.2
22311480	F3826-PD	JJ23394293-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	25.0	268	77	278	96.15	11.3	11.80	0.0	0.0	13.2

22351353	JJ23394293-NODE	JJ23412685-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	1099.5	261	74	271	96.16	11.0	11.82	0.1	0.1	12.5
22311470	JJ23412685-NODE	FAT4-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	22.8	19	5	19	95.90	2.4	11.37	0.0	0.0	1.8
21937583	FAT4-PD	21910790-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	355.1	19	5	19	95.90	2.4	11.37	0.0	0.0	1.8
22351349	JJ23412685-NODE	JJ23412691-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	824.7	242	69	252	96.16	10.3	11.80	0.1	0.0	12.5
22311477	JJ23412691-NODE	JJ23394323-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	325.0	235	67	244	96.16	10.0	11.79	0.0	0.0	11.8
22311227	JJ23394323-NODE	F3830-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	31.9	77	20	79	96.60	3.2	12.73	0.0	0.0	7.4
25171019	F3830-PD	JJ23277827-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	153.4	77	20	79	96.61	9.7	12.73	0.0	0.0	7.4
21932974	JJ23277827-NODE	23615288-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	268.7	73	19	76	96.63	9.3	12.78	0.0	0.0	7.0
21933031	23615288-NODE	JJ23277845-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	566.8	72	19	74	96.64	9.1	12.80	0.0	0.0	6.9
21933021	JJ23277845-NODE	23615406-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	217.3	68	18	70	96.67	8.6	12.86	0.0	0.0	6.5
21878366	23615406-NODE	JJ23273665-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	506.2	65	17	67	96.72	8.2	12.95	0.0	0.0	6.2
21937549	JJ23273665-NODE	F1381-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	264.7	63	17	65	96.72	8.0	12.96	0.0	0.0	6.1
21754892	F1381-PD	25382144-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	743.3	63	17	65	96.72	8.0	12.95	0.0	0.0	6.1
21754890	25382144-NODE	21763407-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.6	1	0	2	96.06	0.2	11.53	0.0	0.0	0.1
25382145	25382144-NODE	JJ23279611-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1184.5	62	16	64	96.72	7.8	12.95	0.0	0.0	5.9
21933013	JJ23279611-NODE	JJ23271787-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	268.2	60	16	62	96.71	7.6	12.93	0.0	0.0	5.8
21880900	JJ23271787-NODE	21871975-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	417.1	1	0	2	96.45	0.2	12.34	0.0	0.0	0.1
21983316	JJ23271787-NODE	JJ23298435-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	830.6	59	15	61	96.72	7.4	12.93	0.0	0.0	5.6
21983293	JJ23298435-NODE	FAM41-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	23.1	4	1	4	95.98	0.5	11.35	0.0	0.0	0.3
21983274	FAM41-PD	22046954-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	513.5	4	1	4	95.97	0.5	11.33	0.0	0.0	0.3
21983305	JJ23298435-NODE	25064837-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	167.5	55	14	57	96.74	7.0	12.98	0.0	0.0	5.3
25064838	25064837-NODE	JJ23279615-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	294.1	48	12	50	96.88	6.1	13.30	0.0	0.0	4.6
21933005	JJ23279615-NODE	JJ23279617-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	487.6	48	12	50	96.88	6.1	13.28	0.0	0.0	4.6
21878504	JJ23279617-NODE	JJ23273445-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	739.9	47	12	48	96.89	5.9	13.31	0.0	0.0	4.5
21878533	JJ23273445-NODE	JJ23273389-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	223.4	43	11	45	96.95	5.5	13.45	0.0	0.0	4.1
23615693	JJ23273389-NODE	21872708-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.3	4	1	4	95.77	0.5	10.90	0.0	0.0	0.3
23615701	JJ23273389-NODE	JJ23273291-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	123.7	40	10	41	97.04	5.0	13.67	0.0	0.0	3.8
21878633	JJ23273291-NODE	JJ23273293-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	67.7	40	10	41	97.04	5.0	13.66	0.0	0.0	3.8
21932998	JJ23273293-NODE	JJ23279623-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	467.4	34	8	35	97.22	4.3	14.09	0.0	0.0	3.3
21932989	JJ23279623-NODE	F2255-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	32.8	27	6	28	97.47	3.4	14.70	0.0	0.0	2.6
21881405	F2255-PD	26539187-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1.5	27	6	28	97.47	3.4	14.70	0.0	0.0	2.6
26539195	26539187-NODE	JJ23271495-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	433.8	27	6	28	97.47	3.4	14.70	0.0	0.0	2.5
21881425	JJ23271495-NODE	JJ23271497-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	383.2	26	6	26	97.19	3.2	14.02	0.0	0.0	2.5
21878642	JJ23271497-NODE	JJ23273287-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	245.9	26	6	26	97.17	3.2	13.97	0.0	0.0	2.5
21932980	JJ23273287-NODE	JJ23276961-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	252.1	22	5	23	97.36	2.8	14.44	0.0	0.0	2.1
21938838	JJ23276961-NODE	FAM5-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	37.6	5	1	5	95.98	0.6	11.33	0.0	0.0	0.5
21938842	FAM5-PD	24773224-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	168.1	5	1	5	95.97	0.6	11.30	0.0	0.0	0.5
24773225	24773224-NODE	24773255-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	200.7	5	1	5	95.92	0.6	11.20	0.0	0.0	0.5
24773256	24773255-NODE	24773265-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	190.3	5	1	5	95.86	0.6	11.07	0.0	0.0	0.5
24773266	24773265-NODE	21872759-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	128.7	5	1	5	95.80	0.6	10.95	0.0	0.0	0.5
22274813	JJ23276961-NODE	JJ23372613-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	292.6	17	4	18	97.67	2.2	15.24	0.0	0.0	1.7
22274810	JJ23372613-NODE	F2367-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1030.5	11	2	11	98.66	1.3	18.24	0.0	0.0	1.0
21986134	F2367-PD	JJ23271183-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1122.2	11	2	11	98.57	1.3	17.93	0.0	0.0	0.7
21881973	JJ23271183-NODE	JJ23271181-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	456.6	11	3	11	95.97	1.3	11.30	0.0	0.0	1.0
21878773	JJ23271181-NODE	23616106-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	427.4	11	3	11	95.91	1.3	11.17	0.0	0.0	1.0
23616119	23616106-NODE	JJ23273145-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	6.5	7	2	7	95.89	0.9	11.13	0.0	0.0	0.7
25630559	JJ23273145-NODE	21873549-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	954.7	7	2	7	95.89	0.9	11.13	0.0	0.0	0.7

23616125	23616106-NODE	21873557-NODE	DEFAULT	Overhead Line		13.800	10.7	4	1	4	95.77	0.5	10.89	0.0	0.0	0.3
24219521	JJ23372613-NODE	24219512-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.2	7	2	7	95.69	0.9	10.74	0.0	0.0	0.7
23615880	JJ23273287-NODE	21872768-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.1	4	1	4	95.77	0.5	10.90	0.0	0.0	0.3
23615856	JJ23271495-NODE	21872732-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.4	1	0	2	96.06	0.2	11.49	0.0	0.0	0.1
23615767	JJ23279623-NODE	F1933-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	29.8	7	2	7	96.12	0.9	11.61	0.0	0.0	0.7
21938808	F1933-PD	JJ23273299-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	319.6	7	2	7	96.11	0.9	11.60	0.0	0.0	0.7
21878624	JJ23273299-NODE	24773530-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	164.5	4	1	4	96.23	0.5	11.85	0.0	0.0	0.4
25414527	24773530-NODE	21872691-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	111.5	4	1	4	96.17	0.5	11.72	0.0	0.0	0.4
23615831	JJ23273299-NODE	21872683-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.8	4	1	4	95.85	0.5	11.07	0.0	0.0	0.3
23615727	JJ23273293-NODE	21872699-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	17.8	5	2	6	95.73	0.7	10.83	0.0	0.0	0.5
23615671	JJ23273445-NODE	21872328-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.5	4	1	4	95.77	0.5	10.91	0.0	0.0	0.3
23615645	JJ23279617-NODE	21872111-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.3	1	0	2	96.06	0.2	11.50	0.0	0.0	0.1
25064846	25064837-NODE	25027926-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.0	7	2	7	95.69	0.9	10.76	0.0	0.0	0.7
23615445	JJ23279611-NODE	21871983-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.2	1	0	2	96.06	0.2	11.52	0.0	0.0	0.1
23615418	JJ23273665-NODE	21910719-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.7	1	0	2	96.06	0.2	11.54	0.0	0.0	0.1
23615407	23615406-NODE	21910737-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	14.7	4	1	4	95.77	0.5	10.95	0.0	0.0	0.3
21937556	JJ23277845-NODE	FAT11-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	26.5	4	1	4	95.87	0.5	11.16	0.0	0.0	0.3
21937563	FAT11-PD	21910479-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	237.7	4	1	4	95.86	0.5	11.14	0.0	0.0	0.3
23615289	23615288-NODE	21910755-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.5	1	0	2	96.06	0.2	11.56	0.0	0.0	0.1
21937577	JJ23277827-NODE	FAT10-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	24.8	4	1	4	95.97	0.5	11.38	0.0	0.0	0.3
21937569	FAT10-PD	21910771-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	486.2	4	1	4	95.96	0.5	11.36	0.0	0.0	0.3
22311496	JJ23394323-NODE	FAM46-PD	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	30.3	158	47	165	95.92	6.7	11.31	0.0	0.0	5.9
25171007	FAM46-PD	JJ23394111-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	2.1	158	47	165	95.92	6.7	11.31	0.0	0.0	5.9
22311498	JJ23394111-NODE	TO FAM46-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.2	13.800	176.2	158	47	165	95.92	6.7	11.31	0.0	0.0	4.4
24219474	JJ23412691-NODE	24219462-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.9	7	2	7	95.69	0.9	10.82	0.0	0.0	0.7
24219442	JJ23394293-NODE	24219432-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.3	7	2	7	95.69	0.9	10.85	0.0	0.0	0.7
22311487	JJ23279331-NODE	F1321-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	244.5	85	22	88	96.69	3.6	12.98	0.0	0.0	2.0
21937541	F1321-PD	JJ23279637-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	726.3	85	22	88	96.68	3.6	12.94	0.0	0.0	2.0
21932959	JJ23279637-NODE	JJ23277909-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	557.1	76	20	78	96.72	3.2	13.03	0.0	0.0	1.5
21932966	JJ23277909-NODE	JJ23279631-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	485.1	62	16	64	96.84	2.6	13.37	0.0	0.0	1.5
21932951	JJ23279631-NODE	JJ23279639-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	626.4	52	13	54	96.96	2.2	13.65	0.0	0.0	1.1
21932944	JJ23279639-NODE	JJ23277897-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	506.2	43	11	44	97.01	1.8	13.76	0.0	0.0	1.1
21937485	JJ23277897-NODE	FAT12-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.7	5	1	5	96.00	0.6	11.43	0.0	0.0	0.4
21937477	FAT12-PD	21910617-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	239.4	5	1	5	96.00	0.6	11.41	0.0	0.0	0.4
22056088	JJ23277897-NODE	JJ23309775-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	785.9	38	9	40	97.06	1.6	13.87	0.0	0.0	0.9
22056111	JJ23309775-NODE	JJ23277889-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	1332.5	35	9	36	97.04	1.5	13.80	0.0	0.0	0.9
21932936	JJ23277889-NODE	26097030-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	619.2	25	6	26	97.14	1.1	14.01	0.0	0.0	0.5
26097031	26097030-NODE	JJ23279645-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	2009.4	16	4	16	97.47	0.7	15.16	0.0	0.0	0.4
21932920	JJ23279645-NODE	JJ23279653-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	1051.2	11	3	11	95.41	0.5	14.70	0.0	0.0	0.4
21932928	JJ23279653-NODE	JJ23273817-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	225.4	9	2	9	94.47	0.4	13.54	0.0	0.0	0.4
21917799	JJ23273817-NODE	JJ23296951-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	192.5	7	2	8	94.47	0.3	13.41	0.0	0.0	0.3
21984345	JJ23296951-NODE	JJ23278177-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	435.2	2	0	2	90.60	0.1	18.34	0.0	0.0	0.1
23616604	JJ23278177-NODE	21909271-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.6	2	0	2	96.32	0.2	12.22	0.0	0.0	0.2
23616778	JJ23278177-NODE	23228867-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	272.2	0	0	0	0.01	0.0	117.74	0.0	0.0	0.0
23616569	JJ23296951-NODE	21909260-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.2	6	2	6	96.04	0.7	11.63	0.0	0.0	0.6
23616561	JJ23273817-NODE	21909083-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.1	2	0	2	96.32	0.2	12.22	0.0	0.0	0.2
21936984	JJ23279653-NODE	FAT5-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	32.5	2	1	2	96.58	0.2	12.66	0.0	0.0	0.2

21936976	FAT5-PD	21909073-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	587.5	2	1	2	96.56	0.2	12.61	0.0	0.0	0.2
23616495	JJ23279645-NODE	21909066-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.3	5	2	6	95.73	0.7	10.93	0.0	0.0	0.5
26097039	26097030-NODE	26034678-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	14.2	9	3	10	95.87	1.2	11.15	0.0	0.0	0.9
21937498	JJ23277889-NODE	FAT6-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	28.3	9	3	10	95.95	1.2	11.31	0.0	0.0	0.9
21937491	FAT6-PD	21909045-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	483.8	9	3	10	95.94	1.2	11.30	0.0	0.0	0.9
23616406	JJ23309775-NODE	22114641-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	12.2	4	1	4	96.07	0.5	11.70	0.0	0.0	0.4
22352441	JJ23279639-NODE	F3860-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	31.3	9	3	10	96.30	1.2	12.19	0.0	0.0	0.9
22352437	F3860-PD	JJ23406463-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1345.6	9	3	10	96.29	1.2	12.18	0.0	0.0	0.9
22352586	JJ23406463-NODE	21910602-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	210.1	2	0	2	96.49	0.2	12.60	0.0	0.0	0.2
24221050	JJ23406463-NODE	24221026-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.8	8	2	8	96.00	1.0	11.56	0.0	0.0	0.7
23616271	JJ23279631-NODE	21910584-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.6	9	3	10	95.87	1.2	11.16	0.0	0.0	0.9
21937470	JJ23277909-NODE	FAR14-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.4	14	4	15	95.77	1.8	11.00	0.0	0.0	1.4
21937463	FAR14-PD	21910567-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	645.8	14	4	15	95.77	1.8	11.00	0.0	0.0	1.4
23616230	JJ23279637-NODE	21910442-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.3	9	3	10	95.87	1.2	11.16	0.0	0.0	0.9
24458874	24458464-NODE	24458528-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	20.1	0	0	0	0.01	0.0	117.76	0.0	0.0	0.0
24458910	24458482-NODE	24458528-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	33.5	0	0	0	0.01	0.0	117.76	0.0	0.0	0.0
21937514	JJ23277877-NODE	FAL3-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	78.9	4	1	4	95.81	0.5	11.13	0.0	0.0	0.3
21937506	FAL3-PD	21910670-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	33.8	4	1	4	95.78	0.5	11.06	0.0	0.0	0.3
23614973	JJ23279345-NODE	21910685-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.5	4	1	4	95.77	0.5	11.07	0.0	0.0	0.3
21937528	JJ23279347-NODE	FAR12-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.7	31	9	32	95.90	3.9	11.38	0.0	0.0	3.0
21937520	FAR12-PD	21910461-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1300.5	31	9	32	95.90	3.9	11.38	0.0	0.0	3.0
23614936	JJ23279353-NODE	21910703-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.3	5	1	5	95.92	0.6	11.36	0.0	0.0	0.4
21938408	JJ23277341-NODE	FAR29-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.2	4	1	4	96.18	0.5	11.96	0.0	0.0	0.4
21938401	FAR29-PD	21910857-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	288.1	4	1	4	96.17	0.5	11.94	0.0	0.0	0.4
23614859	JJ23279357-NODE	21871948-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.5	5	2	6	95.73	0.7	11.10	0.0	0.0	0.5
21938310	JJ23277407-NODE	FAL80-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	29.8	14	3	14	97.28	1.7	14.43	0.0	0.0	1.3
21880832	FAL80-PD	TO FAL80-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	704.6	14	3	14	97.28	1.7	14.43	0.0	0.0	1.0
23614711	JJ23277415-NODE	21871941-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.8	5	1	5	96.04	0.6	11.67	0.0	0.0	0.4
23614624	JJ23273483-NODE	23614623-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	16.5	244	65	253	96.66	10.3	13.01	0.0	0.0	9.7
22123883	23614623-NODE	F3462-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	273.0	243	65	252	96.66	10.3	13.01	0.0	0.0	9.7
22123898	F3462-PD	JJ23277783-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	226.9	243	65	252	96.65	10.3	12.99	0.0	0.0	9.7
22311279	JJ23277783-NODE	JJ23395475-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	121.8	243	65	252	96.65	10.3	12.98	0.0	0.0	9.7
23631891	JJ23395475-NODE	23631890-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	375.2	236	62	244	96.67	9.9	13.02	0.0	0.1	9.4
21933179	23631890-NODE	JJ23277737-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	679.2	232	61	240	96.67	9.8	13.02	0.0	0.1	9.2
21933164	JJ23277737-NODE	JJ23279549-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	273.3	200	52	207	96.71	8.4	13.13	0.0	0.0	8.5
21933171	JJ23279549-NODE	JJ23279547-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	157.7	192	50	199	96.73	8.1	13.14	0.0	0.0	8.2
21933149	JJ23279547-NODE	JJ23277743-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	154.4	183	48	189	96.77	7.7	13.22	0.0	0.0	8.2
21933156	JJ23277743-NODE	F1636-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	24.2	175	46	181	96.80	22.1	13.24	0.0	0.0	16.8
21984893	F1636-PD	JJ23279569-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	106.9	175	46	181	96.80	22.1	13.24	0.0	0.0	16.8
21933131	JJ23279569-NODE	JJ23277753-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	124.6	172	44	177	96.81	21.7	13.27	0.0	0.0	16.4
21933140	JJ23277753-NODE	JJ23279563-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	347.4	171	44	177	96.81	21.7	13.26	0.0	0.0	16.4
21933118	JJ23279563-NODE	JJ23277773-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	486.3	164	42	169	96.84	20.7	13.33	0.0	0.0	15.7
21933104	JJ23277773-NODE	JJ23279573-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	245.7	160	41	165	96.86	20.2	13.36	0.0	0.0	15.3
21933110	JJ23279573-NODE	JJ23273655-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	253.5	154	39	159	96.88	19.5	13.39	0.0	0.0	14.8
23655427	JJ23273655-NODE	21911122-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.5	1	0	1	96.69	0.1	12.97	0.0	0.0	0.1
23655467	JJ23273655-NODE	23655466-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	251.7	153	39	158	96.88	19.4	13.39	0.0	0.0	14.7
21721825	23655466-NODE	JJ23279583-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	273.6	152	39	157	96.88	19.2	13.40	0.0	0.0	14.5

21933096	JJ23279583-NODE	JJ23382741-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	392.1	148	38	153	96.91	18.7	13.44	0.0	0.0	14.2
22288343	JJ23382741-NODE	F3806-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	3.8	78	19	81	97.32	9.9	14.43	0.0	0.0	7.5
23656513	F3806-PD	27016069-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	257.0	78	19	81	97.32	9.9	14.43	0.0	0.0	5.5
22352389	27016069-NODE	TO F3806-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	345.8	78	19	81	97.24	9.9	14.22	0.0	0.0	5.5
22288368	TO F3806-PD	TO TX AR43-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	404.9	53	12	54	97.60	6.7	15.14	0.0	0.0	3.7
22288358	TO TX AR43-PD	TO TX AR44-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	524.2	46	10	47	97.62	5.7	15.21	0.0	0.0	3.2
22288350	TO TX AR44-PD	TO TX AR45-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	783.6	38	8	39	97.58	4.8	15.10	0.0	0.0	2.6
22352487	TO TX AR45-PD	TO TX AR46-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	643.0	30	7	31	97.31	3.8	14.41	0.0	0.0	2.1
22352483	TO TX AR46-PD	TO TX AR50-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	815.7	15	3	16	97.45	1.9	14.77	0.0	0.0	1.1
22288382	JJ23382741-NODE	JJ23345171-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	399.7	69	19	72	96.41	8.8	12.32	0.0	0.0	6.7
21937622	JJ23345171-NODE	FAQ16-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	30.2	8	2	8	96.04	1.0	11.54	0.0	0.0	0.7
21937611	FAQ16-PD	21910839-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	172.8	8	2	8	96.03	1.0	11.52	0.0	0.0	0.7
22206399	JJ23345171-NODE	JJ23345161-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	985.5	62	17	64	96.45	7.8	12.40	0.0	0.0	5.9
22206341	JJ23345161-NODE	FAQ84-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	16.6	15	4	16	96.95	1.9	13.51	0.0	0.0	1.5
23656200	FAQ84-PD	23656183-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	20.9	15	4	16	96.94	1.9	13.51	0.0	0.0	1.5
23656184	23656183-NODE	TO FAQ84-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	510.9	15	4	16	96.94	1.9	13.51	0.0	0.0	1.1
22206417	JJ23345161-NODE	JJ23279587-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	226.7	47	13	48	96.25	5.9	11.97	0.0	0.0	4.5
21933074	JJ23279587-NODE	JJ23278251-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	959.0	43	12	44	96.24	5.4	11.95	0.0	0.0	4.1
21933083	JJ23278251-NODE	JJ23273839-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	281.1	35	10	37	96.24	4.5	11.93	0.0	0.0	3.4
21917730	JJ23273839-NODE	JJ23273835-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	242.8	33	9	34	96.23	4.2	11.92	0.0	0.0	3.2
21917746	JJ23273835-NODE	JJ23272759-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	178.7	29	8	30	96.24	3.7	11.94	0.0	0.0	2.8
21879014	JJ23272759-NODE	JJ23272757-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	287.4	29	8	30	96.23	3.7	11.92	0.0	0.0	2.8
21933060	JJ23272757-NODE	JJ23278259-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	63.0	29	8	30	96.22	3.7	11.89	0.0	0.0	2.8
21933068	JJ23278259-NODE	JJ23279591-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	145.6	10	3	10	96.46	1.3	12.41	0.0	0.0	1.0
21933040	JJ23279591-NODE	JJ23278271-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	701.3	9	3	10	96.42	1.2	12.31	0.0	0.0	0.9
21933052	JJ23278271-NODE	JJ23273849-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	267.3	5	2	6	96.34	0.7	12.14	0.0	0.0	0.5
21917715	JJ23273849-NODE	JJ23273847-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	224.1	4	1	4	96.25	0.5	11.96	0.0	0.0	0.4
22123999	JJ23273847-NODE	23632803-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	261.2	0	0	0	0.01	0.0	117.70	0.0	0.0	0.0
23632812	23632803-NODE	23243696-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	14.0	0	0	0	0.01	0.0	117.70	0.0	0.0	0.0
23656504	JJ23273847-NODE	21908890-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.1	4	1	4	96.07	0.5	11.57	0.0	0.0	0.4
23656498	JJ23273849-NODE	21908900-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	8.0	2	0	2	96.32	0.2	12.10	0.0	0.0	0.2
21936849	JJ23278271-NODE	FAQ11-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	28.7	4	1	4	96.28	0.5	12.01	0.0	0.0	0.4
21936857	FAQ11-PD	21908911-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	548.1	4	1	4	96.26	0.5	11.99	0.0	0.0	0.4
23656456	JJ23279591-NODE	21908933-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	9.0	1	0	1	96.69	0.1	12.91	0.0	0.0	0.1
21936868	JJ23278259-NODE	F2967-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	27.2	19	5	20	96.08	2.4	11.61	0.0	0.0	1.8
21986501	F2967-PD	23656418-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	453.0	19	5	20	96.08	2.4	11.61	0.0	0.0	1.8
21986529	23656418-NODE	26484719-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	593.4	11	3	12	96.08	1.5	11.60	0.0	0.0	1.1
26313498	26484719-NODE	26313481-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	9.6	11	3	12	96.01	1.5	11.45	0.0	0.0	1.1
23656419	23656418-NODE	22047907-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.4	8	2	8	96.00	1.0	11.44	0.0	0.0	0.7
23656257	JJ23273835-NODE	21908944-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	7.3	4	1	4	96.07	0.5	11.57	0.0	0.0	0.4
23656250	JJ23273839-NODE	21908954-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	6.8	2	1	2	96.18	0.3	11.81	0.0	0.0	0.2
21936885	JJ23278251-NODE	FAR22-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	26.3	8	2	8	96.09	1.0	11.63	0.0	0.0	0.7
21936875	FAR22-PD	21908964-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	474.3	8	2	8	96.09	1.0	11.62	0.0	0.0	0.7
21936934	JJ23279587-NODE	FAR1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	26.5	4	1	4	96.30	0.5	12.08	0.0	0.0	0.4
21936924	FAR1-PD	21909025-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	626.7	4	1	4	96.29	0.5	12.06	0.0	0.0	0.4
23656105	JJ23279583-NODE	21911086-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	12.8	4	1	4	96.07	0.5	11.61	0.0	0.0	0.4
21878379	23655466-NODE	21911103-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line	13.800	10.2	2	0	2	96.32	0.2	12.15	0.0	0.0	0.2

21937684	JJ23279573-NODE	FAQ22-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.4	6	2	6	96.36	0.7	12.24	0.0	0.0	0.6
21937692	FAQ22-PD	21911140-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1291.6	6	2	6	96.35	0.7	12.23	0.0	0.0	0.6
21937704	JJ23277773-NODE	FAQ21-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	26.6	4	1	4	96.23	0.5	11.98	0.0	0.0	0.4
21937711	FAQ21-PD	21911161-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	430.3	4	1	4	96.22	0.5	11.96	0.0	0.0	0.4
23655293	JJ23279563-NODE	21911177-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.4	8	2	8	96.00	1.0	11.51	0.0	0.0	0.7
21937733	JJ23277753-NODE	FAQ19-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	27.8	0	0	0	-96.92	0.0	42.04	0.0	0.0	0.0
21937723	FAQ19-PD	21911211-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	381.1	0	0	0	-97.31	0.0	41.11	0.0	0.0	0.0
23654930	JJ23279569-NODE	21911193-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.5	4	1	4	96.07	0.5	11.66	0.0	0.0	0.4
21937748	JJ23277743-NODE	F2140-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	26.5	8	2	8	96.42	1.0	12.40	0.0	0.0	0.7
21937741	F2140-PD	JJ23273651-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	519.9	8	2	8	96.41	1.0	12.39	0.0	0.0	0.7
21878382	JJ23273651-NODE	24245693-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1367.3	4	1	4	96.56	0.5	12.71	0.0	0.0	0.4
23632127	JJ23273651-NODE	21911227-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.8	4	1	4	96.07	0.5	11.66	0.0	0.0	0.4
23632053	JJ23279547-NODE	21911244-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	13.4	9	3	10	95.87	1.2	11.36	0.0	0.0	0.9
22311209	JJ23279549-NODE	F3833-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.4	8	2	8	96.44	1.0	12.45	0.0	0.0	0.7
22311202	F3833-PD	JJ23396129-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	992.6	8	2	8	96.43	1.0	12.44	0.0	0.0	0.7
22311206	JJ23396129-NODE	21911261-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1013.0	4	1	4	96.44	0.5	12.45	0.0	0.0	0.4
24220846	JJ23396129-NODE	24220828-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.2	4	1	4	96.07	0.5	11.67	0.0	0.0	0.4
21937756	JJ23277737-NODE	F2158-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	33.9	32	9	33	96.21	1.3	12.03	0.0	0.0	0.7
21932914	F2158-PD	JJ23272177-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	512.2	32	9	33	96.20	1.3	12.02	0.0	0.0	0.7
21880184	JJ23272177-NODE	21911280-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	386.6	8	2	8	96.07	1.0	11.69	0.0	0.0	0.7
21932907	JJ23272177-NODE	23632296-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	88.5	24	7	25	96.11	1.0	11.84	0.0	0.0	0.4
23631899	23631890-NODE	21911068-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.3	4	1	4	96.07	0.5	11.70	0.0	0.0	0.4
24220977	JJ23395475-NODE	24220938-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.9	8	2	8	96.00	1.0	11.58	0.0	0.0	0.7
23614632	23614623-NODE	21871889-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.4	1	0	1	96.49	0.1	12.74	0.0	0.0	0.1
22123867	JJ23279371-NODE	F3463-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	104.8	137	36	142	96.78	5.8	13.33	0.0	0.0	3.3
22123848	F3463-PD	JJ23330503-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	25.1	137	36	142	96.77	5.8	13.32	0.0	0.0	3.3
22374746	JJ23330503-NODE	JJ23425735-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	141.9	137	36	142	96.77	5.8	13.31	0.0	0.0	3.3
22374735	JJ23425735-NODE	F3924-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	24.9	28	8	29	96.34	3.5	12.31	0.0	0.0	2.7
22374739	F3924-PD	JJ23425751-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	17.3	28	8	29	96.34	3.5	12.30	0.0	0.0	2.7
22374720	JJ23425751-NODE	FAL100-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	92.0	19	5	19	96.56	2.3	12.79	0.0	0.0	1.8
22374725	FAL100-PD	TO FAL100-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	435.6	19	5	19	96.55	2.3	12.78	0.0	0.0	1.3
26984778	JJ23425751-NODE	24219352-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.7	9	3	10	95.87	1.2	11.34	0.0	0.0	0.9
22374743	JJ23425735-NODE	JJ23273449-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	1702.9	110	28	113	96.87	4.6	13.55	0.0	0.0	2.1
21878497	JJ23273449-NODE	JJ23273453-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	188.3	100	26	103	96.87	4.2	13.53	0.0	0.0	1.9
21933605	JJ23273453-NODE	23612993-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	5.7	100	26	104	96.86	4.2	13.51	0.0	0.0	1.9
23612994	23612993-NODE	JJ23279377-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	186.4	95	24	99	96.90	4.0	13.61	0.0	0.0	1.8
21933597	JJ23279377-NODE	JJ23279379-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	447.4	78	21	81	96.52	3.3	12.74	0.0	0.0	1.6
21933589	JJ23279379-NODE	JJ23279385-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	575.1	78	21	81	96.49	3.3	12.66	0.0	0.0	1.6
21933581	JJ23279385-NODE	23612771-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	356.5	71	19	74	96.50	3.0	12.67	0.0	0.0	1.6
23612745	23612771-NODE	23612744-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	227.8	67	18	70	96.50	2.8	12.67	0.0	0.0	1.6
21933571	23612744-NODE	JJ23277065-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	95.2	64	17	66	96.52	2.7	12.70	0.0	0.0	1.6
21723649	JJ23277065-NODE	F3963-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	51.6	31	8	32	96.65	1.3	12.98	0.0	0.0	1.0
21723660	F3963-PD	JJ23497711-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	157.9	31	8	32	96.64	1.3	12.96	0.0	0.0	1.0
21723672	JJ23497711-NODE	JJ23493737-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	702.5	31	8	32	96.61	1.3	12.89	0.0	0.0	1.0
21723692	JJ23493737-NODE	FAL102-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.5	19	5	19	96.76	2.3	13.22	0.0	0.0	1.8
21723703	FAL102-PD	TO FAL102-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	574.6	19	5	19	96.76	2.3	13.22	0.0	0.0	1.3
21728551	JJ23493737-NODE	24219302-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	171.8	12	3	12	95.99	0.5	11.60	0.0	0.0	0.2

21938737	JJ23277065-NODE	FAK4-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	35.3	4	1	4	96.39	0.5	12.43	0.0	0.0	0.4
21938742	FAK4-PD	21872602-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	861.1	4	1	4	96.38	0.5	12.40	0.0	0.0	0.4
21986664	JJ23277065-NODE	JJ23294545-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	989.9	30	8	31	96.38	1.2	12.41	0.0	0.0	0.5
21986647	JJ23294545-NODE	23612373-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	196.3	25	7	26	96.19	1.1	12.01	0.0	0.0	0.5
21878604	23612373-NODE	JJ23271569-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	262.6	21	6	22	96.15	0.9	11.93	0.0	0.0	0.5
21933548	JJ23271569-NODE	JJ23277071-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	116.2	12	3	12	96.18	0.5	11.99	0.0	0.0	0.2
21938730	JJ23277071-NODE	FAL56-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	27.6	12	3	12	96.11	0.5	11.85	0.0	0.0	0.2
21938724	FAL56-PD	23611920-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	370.8	12	3	12	96.10	0.5	11.82	0.0	0.0	0.2
21984971	JJ23277071-NODE	F18-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	29.9	0	0	0	0.01	0.0	117.87	0.0	0.0	0.0
23612108	JJ23271569-NODE	21872577-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	14.2	2	1	2	95.91	0.3	11.51	0.0	0.0	0.2
25815104	JJ23271569-NODE	FAK39-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	79.9	7	2	7	95.94	0.9	11.46	0.0	0.0	0.7
25815110	FAK39-PD	21872586-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	143.5	7	2	7	95.93	0.9	11.43	0.0	0.0	0.7
23612384	23612373-NODE	21872567-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.8	4	1	4	96.07	0.5	11.74	0.0	0.0	0.4
23612408	JJ23294545-NODE	22048009-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.4	5	1	5	96.04	0.6	11.68	0.0	0.0	0.4
23612753	23612744-NODE	21872594-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	9.1	4	1	4	95.77	0.4	11.23	0.0	0.0	0.3
23612772	23612771-NODE	21872354-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	12.0	4	1	4	95.77	0.4	11.23	0.0	0.0	0.2
21938501	JJ23279385-NODE	FAK43-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	38.8	7	2	7	95.91	0.9	11.51	0.0	0.0	0.7
21938509	FAK43-PD	21872101-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	1005.7	7	2	7	95.90	0.9	11.50	0.0	0.0	0.7
22373920	JJ23279377-NODE	F3929-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	99.5	18	3	18	98.31	2.2	17.41	0.0	0.0	1.6
23613050	F3929-PD	JJ23271751-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	19.0	18	3	18	98.31	2.2	17.39	0.0	0.0	1.2
21880946	JJ23271751-NODE	TO F3929-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	507.8	18	3	18	98.28	2.2	17.32	0.0	0.0	1.2
22373926	TO F3929-PD	23613165-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1195.4	7	1	7	99.51	0.9	22.30	0.0	0.0	0.5
23613166	23613165-NODE	TO TX AL68-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.1	7	2	7	95.92	0.9	11.53	0.0	0.0	0.5
23613002	23612993-NODE	21872058-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.2	13.800	11.0	5	1	5	95.88	0.2	11.39	0.0	0.0	0.2
21878498	JJ23273449-NODE	21872067-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	17.7	9	3	10	95.87	1.2	11.33	0.0	0.0	0.4
21938318	JJ23279539-NODE	FAQ27-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	28.7	2	1	2	96.53	0.2	12.73	0.0	0.0	0.2
21938325	FAQ27-PD	21911052-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	509.0	2	1	2	96.51	0.2	12.69	0.0	0.0	0.2
21938339	JJ23277387-NODE	FAQ1-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	31.6	28	8	29	95.82	3.5	11.29	0.0	0.0	2.7
21938332	FAQ1-PD	21911035-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	524.1	28	8	29	95.82	3.5	11.29	0.0	0.0	2.7
21938346	JJ23277385-NODE	FAQ28-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	25.2	7	2	7	95.76	0.9	11.31	0.0	0.0	0.7
22373935	FAQ28-PD	21871896-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	291.5	7	2	7	95.75	0.9	11.30	0.0	0.0	0.7
21938369	JJ23277369-NODE	FAQ32-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	39.5	6	2	6	96.08	0.7	11.90	0.0	0.0	0.5
21938377	FAQ32-PD	21871924-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	125.5	6	2	6	96.07	0.7	11.88	0.0	0.0	0.5
25862601	25862575-NODE	23225184-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.2	13.800	20.0	0	0	0	0.01	0.0	118.07	0.0	0.0	0.0

Load Flow - Summary Report (PALM F2)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Mon Feb 13 2023
Time	11h41m18s
Project Name	New
Calculation Method	**Voltage Drop - Unbalanced**
Tolerance	0.1 %
Load Factors	As defined
Motor Factors	As defined
Generator Factors	As defined
Shunt Capacitors	On
Sensitivity Load Model	From Library

Total Summary	kW	kvar	kVA	PF(%)
Sources (Swing)	0.00	0.00	0.00	0.00
Generators	0.00	0.00	0.00	0.00
Total Generation	**0.00**	**0.00**	**0.00**	**0.00**
Load read (Non-adjusted)	2874.44	985.49	3038.68	94.59
Load used (Adjusted)	2874.27	985.02	3038.37	94.60
Shunt capacitors (Adjusted)	0.00	0.00	0.00	0.00
Shunt reactors (Adjusted)	0.00	0.00	0.00	0.00
Motors	0.00	0.00	0.00	0.00
Total Loads	**2874.27**	**985.02**	**3038.37**	**94.60**
Cable Capacitance	0.00	-65.35	65.35	0.00
Line Capacitance	0.00	-2.25	2.25	0.00
Total Shunt Capacitance	**0.00**	**-67.60**	**67.60**	**0.00**
Line Losses	3.68	8.72	9.46	38.84
Cable Losses	2.45	2.02	3.18	77.15
Transformer Load Losses	9.95	19.79	22.15	44.93
Transformer No-Load Losses	26.18	0.00	26.18	100.00
Total Losses	**42.26**	**30.54**	**52.14**	**81.06**

Load Balancing Report (PALM F2)

Study Parameters	
Study Name	CYME 8.2 Primary 2022_ BHI_AAK-No-Generation.sxst
Date	Mon Feb 13 2023
Time	11h12m00s
Project Name	New
Objective	**Balance the load (kVA)**
Minimum kVA Average Unbalance	1.00 %
Restrictions	
Ignore 1-phase section(s):	No
Ignore 2-phase section(s):	No
Ignore 3-phase section(s):	No
Ignore the underground cable:	Yes
Respect Phase Rotation:	No

Network(s): PALM F2

Suggested Rephasing

Step	Section ID	Rephasing (kVA)		
		A	B	C
1	N537-L	No change	to C 84.4	to B 71.07
2	N319-L	No change	to C 63.3	to B 53.3

Results

Feeder PALM F2

	Load (kVA)			Current (A)			Ineutral	Total Losses	Unbalance Factor		
	A	B	C	A	B	C	(A)	(kW)	Load	Current	Voltage
Before	920.69	1169.42	976.67	113.13	143.63	120.36	27.29	251.94	14.4 %	14.26 %	0.33 %
After	920.6	1145.6	1000.54	113.13	140.67	123.33	23.74	251.98	12.07 %	11.9 %	0.34 %

Equipment No	From Node	To Node	Equipment Id	Code	V (kVLL)	Base Voltage (kVLL)	Length (ft)	Total Thru Power (kW)	Total Thru Power (kvar)	Total Thru Power (kVA)	Pf avg (%)	IBal (A)	Angle I (°)	Total Loss (kW)	Total Loss (kvar)	Loading (%)
25041320	25041249-NODE	25041161-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	3.0	2917	948	3067	95.10	125.7	9.68	0.0	0.0	20.0
24650053	25041161-NODE	24644036-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	313.0	2917	948	3067	95.10	125.7	9.68	1.0	0.9	40.1
24644346	24644036-NODE	S3036-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.2	2916	949	3066	95.09	125.7	9.65	0.0	0.0	40.1
24644376	S3036-PD	24644375-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.3	2916	949	3066	95.09	125.7	9.65	0.0	0.0	40.1
24644589	24644375-NODE	S3035-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.1	2067	706	2185	94.63	89.6	8.82	0.0	0.0	28.9
24644597	S3035-PD	25858350-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.8	2067	706	2185	94.63	89.6	8.82	0.0	0.0	28.9
25858351	25858350-NODE	S922-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	106.2	2067	706	2185	94.63	89.6	8.82	0.2	0.2	28.9
22618142	S922-PD	JJ23264367-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	24.9	2067	706	2185	94.63	89.6	8.80	0.0	0.1	36.0
22618108	JJ23264367-NODE	23248545-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	147.0	0	0	0	0.01	0.0	117.69	0.0	0.0	0.0
22666105	JJ23264367-NODE	S3063-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	232.7	2067	706	2185	94.63	89.6	8.80	0.3	0.7	36.0
22666102	S3063-PD	24654102-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	1134.3	2067	706	2184	94.64	89.6	8.80	1.5	3.5	36.0
24654092	24654102-NODE	JJ23264607-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	736.9	189	64	199	94.76	8.2	8.96	0.0	0.0	3.0
21820644	JJ23264607-NODE	FN462-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	23.6	111	38	118	94.57	4.8	8.62	0.0	0.0	1.9
21820640	FN462-PD	JJ23293977-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	0.8	111	38	118	94.57	4.8	8.62	0.0	0.0	1.9
21820633	JJ23293977-NODE	TO FN462-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	42.6	111	38	118	94.57	4.8	8.62	0.0	0.0	1.5
21820660	JJ23264607-NODE	JJ23264609-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	164.4	77	26	82	94.97	3.4	9.33	0.0	0.0	1.4
22629297	JJ23264609-NODE	JJ23264617-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	176.0	10	3	11	93.66	0.4	9.23	0.0	0.0	0.5
22629295	JJ23264617-NODE	JJ23264619-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	341.5	10	3	11	93.87	0.4	9.01	0.0	0.0	0.5
22665085	JJ23264619-NODE	JJ23264289-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	139.1	0	0	0	0.01	0.0	117.60	0.0	0.0	0.0
22618185	JJ23264289-NODE	23248581-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	20.0	0	0	0	0.01	0.0	117.60	0.0	0.0	0.0
24641710	JJ23264619-NODE	22676308-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	7.6	10	4	11	94.47	1.3	8.39	0.0	0.0	1.0
22629303	JJ23264609-NODE	FN196-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	26.3	67	22	71	94.95	2.9	9.31	0.0	0.0	1.1
22629301	FN196-PD	JJ23264615-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	0.4	67	22	71	94.95	2.9	9.30	0.0	0.0	1.1
24641735	JJ23264615-NODE	TO FN196-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.1	13.800	245.4	67	22	71	94.95	2.9	9.30	0.0	0.0	1.8
24654481	24654102-NODE	S680-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	21.9	1877	639	1982	94.66	81.4	8.78	0.0	0.1	33.0
22629325	S680-PD	24640037-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	65.6	1877	639	1982	94.66	81.4	8.78	0.1	0.2	33.0
24640038	24640037-NODE	JJ23312753-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	182.8	1871	637	1977	94.67	81.2	8.78	0.2	0.5	33.0
22378146	JJ23312753-NODE	JJ23264569-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	194.7	1760	598	1859	94.68	76.4	8.79	0.2	0.4	31.1
22629331	JJ23264569-NODE	JJ23264573-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	190.6	1743	592	1841	94.69	75.6	8.79	0.2	0.4	30.8
21913477	JJ23264573-NODE	JJ23312581-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	387.4	1709	580	1805	94.70	74.2	8.80	0.3	0.8	30.3
22378210	JJ23312581-NODE	JJ23312415-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	155.8	1676	568	1769	94.71	72.7	8.80	0.1	0.3	29.7
22378286	JJ23312415-NODE	JJ23312513-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	182.4	1592	540	1682	94.69	69.1	8.75	0.1	0.3	29.7
22378257	JJ23312513-NODE	JJ23312529-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	169.7	28	10	29	94.62	1.2	8.77	0.0	0.0	0.8
22378246	JJ23312529-NODE	JJ23312551-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	170.6	11	4	12	94.25	0.5	8.83	0.0	0.0	0.5
24640522	JJ23312551-NODE	22392512-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	14.7	11	4	12	94.44	1.4	8.64	0.0	0.0	1.1
24221472	JJ23312529-NODE	24221462-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	19.0	17	6	18	94.59	0.7	8.59	0.0	0.0	0.3
22378272	JJ23312513-NODE	JJ23312519-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	151.3	1564	531	1652	94.70	67.9	8.75	0.1	0.3	29.4
22378301	JJ23312519-NODE	JJ23312055-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	124.6	1453	492	1534	94.72	63.1	8.77	0.1	0.2	27.6
22100393	JJ23312055-NODE	S4001-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	52.6	1301	443	1374	94.65	56.5	8.66	0.0	0.1	23.9
22100375	S4001-PD	JJ23558115-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	175.2	1301	443	1374	94.65	56.5	8.66	0.1	0.2	23.9
21912702	JJ23558115-NODE	FN505-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	31.9	111	38	118	94.56	4.8	8.51	0.0	0.0	1.9
21912692	FN505-PD	JJ23558125-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	28.4	111	38	118	94.56	4.8	8.51	0.0	0.0	1.9
21912710	JJ23558125-NODE	TO FN505-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.0	13.800	50.1	111	38	118	94.55	4.8	8.51	0.0	0.0	2.9
21912717	JJ23558115-NODE	JJ23312427-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	279.7	1190	405	1257	94.67	51.7	8.67	0.1	0.3	22.4
22378315	JJ23312427-NODE	JJ23562805-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	81.9	1123	381	1186	94.69	48.8	8.70	0.0	0.1	21.4
22099485	JJ23562805-NODE	FN537-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	26.0	222	76	235	94.57	9.7	8.54	0.0	0.0	3.7

22099472	FN537-PD	JJ23562801-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	0.7	222	76	235	94.57	9.7	8.54	0.0	0.0	3.7
22099521	JJ23562801-NODE	TO FN537-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.0	13.800	111.5	222	76	235	94.57	9.7	8.54	0.0	0.0	3.0
22099511	JJ23562805-NODE	S1599-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	14.4	900	305	950	94.71	39.1	8.74	0.0	0.0	17.7
27018097	S1599-PD	JJ23311877-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	180.0	900	305	950	94.71	39.1	8.73	0.0	0.1	17.7
22378797	JJ23311877-NODE	JJ23311879-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	117.8	366	127	387	94.44	15.9	8.29	0.0	0.0	6.0
22378784	JJ23311879-NODE	JJ23311893-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	38.7	254	89	270	94.41	11.1	8.24	0.0	0.0	4.5
22378808	JJ23311893-NODE	24642856-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	126.6	88	31	93	94.43	3.8	8.28	0.0	0.0	1.7
22378819	24642856-NODE	22392585-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	20.1	6	2	6	94.50	0.7	8.72	0.0	0.0	0.3
24642857	24642856-NODE	JJ23311849-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	83.6	82	29	87	94.42	3.6	8.23	0.0	0.0	1.7
22378831	JJ23311849-NODE	22392597-NODE	336KCMIL_AAC_TULIP_1PH_OH_PRIMARY_80	Overhead Line		13.800	80.6	15	5	16	94.49	2.0	8.27	0.0	0.0	0.7
24642933	JJ23311849-NODE	24642925-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	16.8	67	23	71	94.39	2.9	8.20	0.0	0.0	1.1
24642715	JJ23311893-NODE	22392565-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	10.7	167	58	177	94.40	7.3	8.22	0.0	0.0	2.8
24642692	JJ23311879-NODE	24642659-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	10.1	111	38	118	94.51	4.8	8.40	0.0	0.0	1.9
25000920	JJ23311877-NODE	JJ23311771-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	255.9	534	178	563	94.90	23.2	9.03	0.0	0.1	11.6
22378857	JJ23311771-NODE	JJ23311781-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	138.2	145	50	153	94.54	6.3	8.45	0.0	0.0	2.4
22378851	JJ23311781-NODE	JJ23311791-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	137.6	111	38	118	94.53	4.8	8.43	0.0	0.0	1.9
22378843	JJ23311791-NODE	22392610-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	159.0	0	0	0	0.01	0.0	117.49	0.0	0.0	0.0
24643079	JJ23311791-NODE	24643066-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	10.5	111	38	118	94.51	4.8	8.40	0.0	0.0	1.9
24643054	JJ23311781-NODE	22392619-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	11.7	33	12	35	94.55	1.5	8.48	0.0	0.0	0.6
22378859	JJ23311771-NODE	JJ23311727-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	160.3	390	128	410	95.03	16.9	9.24	0.0	0.0	9.6
22378875	JJ23311727-NODE	S4517-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	33.0	279	89	293	95.19	12.0	9.55	0.0	0.0	8.0
26692261	S4517-PD	JJ23311721-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	161.1	279	89	293	95.19	12.0	9.55	0.0	0.0	8.0
22378885	JJ23311721-NODE	JJ23311461-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	97.5	279	89	293	95.19	12.1	9.54	0.0	0.0	8.0
22378970	JJ23311461-NODE	JJ23311623-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	23.3	174	56	183	95.11	7.5	9.51	0.0	0.0	8.0
22378908	JJ23311623-NODE	JJ23311671-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	24.0	82	27	86	94.81	3.5	9.12	0.0	0.0	3.8
22374661	JJ23311671-NODE	23248919-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	657.5	0	0	0	0.01	0.0	117.48	0.0	0.0	0.0
22378922	JJ23311671-NODE	F242-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	12.6	82	27	86	94.91	10.7	9.01	0.0	0.0	8.1
22378900	F242-PD	JJ23311693-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	37.2	82	27	86	94.91	10.7	9.01	0.0	0.0	8.1
22378894	JJ23311693-NODE	TO F242-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	317.7	82	27	86	94.91	10.7	9.01	0.0	0.0	5.9
22378890	TO F242-PD	24189871-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	65.2	66	22	70	94.86	8.7	8.92	0.0	0.0	4.8
24189879	24189871-NODE	TO TX N109-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	16.1	66	22	70	94.83	8.7	8.86	0.0	0.0	4.8
24189897	TO TX N109-PD	24189889-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.4	56	19	59	94.88	7.3	8.96	0.0	0.0	4.1
24189890	24189889-NODE	TO TX N110-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	162.7	56	19	59	94.88	7.3	8.94	0.0	0.0	4.1
22374699	TO TX N110-PD	TO TX N111-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	136.4	36	12	38	94.96	4.7	9.09	0.0	0.0	2.6
22374694	TO TX N111-PD	TO TX N112-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	308.5	15	5	16	95.30	2.0	9.73	0.0	0.0	1.1
22374691	TO TX N112-PD	23187164-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	74.7	8	3	8	94.82	1.0	8.85	0.0	0.0	0.6
22378985	JJ23311623-NODE	F751-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	15.8	92	29	96	95.37	11.9	9.86	0.0	0.0	9.0
22378955	F751-PD	JJ23311649-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	35.9	92	29	96	95.37	11.9	9.86	0.0	0.0	9.0
24964324	JJ23311649-NODE	TO F751-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	623.4	92	29	96	95.37	11.9	9.86	0.0	0.0	6.6
24189919	TO F751-PD	24189911-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	20.6	82	26	86	95.24	10.6	9.62	0.0	0.0	5.9
24189849	24189911-NODE	24189848-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	223.1	82	26	86	95.23	10.6	9.61	0.0	0.0	5.9
24189856	24189848-NODE	TO TX N108-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.2	82	26	86	95.15	10.6	9.45	0.0	0.0	5.9
24189830	TO TX N108-PD	24189822-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.1	72	23	75	95.24	9.3	9.61	0.0	0.0	5.2
22374733	TO TX N107-PD	24189822-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	92.1	72	23	75	95.23	9.3	9.60	0.0	0.0	5.2
24189798	24189786-NODE	TO TX N107-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	12.6	61	19	64	95.31	8.0	9.75	0.0	0.0	4.4
22374727	TO TX N106-PD	24189786-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	225.9	61	19	64	95.30	8.0	9.74	0.0	0.0	4.4
24643406	24643405-NODE	TO TX N106-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	309.6	51	16	54	95.33	6.6	9.78	0.0	0.0	3.7

24643417	TO TX N105-PD	24643405-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	16.8	51	17	54	95.14	6.6	9.43	0.0	0.0	3.7
24643397	24643389-NODE	TO TX N105-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	15.8	41	13	43	95.29	5.3	9.70	0.0	0.0	2.9
22374717	TO TX N120-PD	24643389-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	229.7	41	13	43	95.27	5.3	9.68	0.0	0.0	2.9
24641339	24641338-NODE	TO TX N120-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	206.4	31	10	32	95.30	4.0	9.73	0.0	0.0	2.2
24641346	TO TX N104-PD	24641338-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	19.6	31	10	32	95.09	4.0	9.34	0.0	0.0	2.2
24641458	24641457-NODE	TO TX N104-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	208.2	20	6	21	95.36	2.6	9.84	0.0	0.0	1.5
24641465	TO TX N103-PD	24641457-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	18.1	20	7	21	95.04	2.7	9.25	0.0	0.0	1.5
24641437	24641421-NODE	TO TX N103-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	21.8	0	0	0	0.01	0.0	117.37	0.0	0.0	0.0
22311222	23182069-NODE	24641421-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	320.8	0	0	0	0.01	0.0	117.37	0.0	0.0	0.0
22379142	F1637-PD	JJ23311461-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	11.8	105	33	110	95.28	13.6	9.58	0.0	0.0	10.3
22379131	JJ23311475-NODE	F1637-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	44.2	105	33	110	95.28	13.6	9.58	0.0	0.0	10.3
22379114	TO F1637-PD	JJ23311475-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	242.7	105	33	110	95.28	13.6	9.58	0.0	0.0	7.5
24657262	24189977-NODE	TO F1637-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	200.7	87	27	91	95.31	11.2	9.64	0.0	0.0	6.2
24189985	TO TX N125-PD	24189977-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.1	87	28	91	95.24	11.2	9.50	0.0	0.0	6.2
22379077	TO TX N126-PD	TO TX N125-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	245.6	67	21	70	95.40	8.6	9.80	0.0	0.0	4.8
24190028	TO TX N127-PD	TO TX N126-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	380.4	55	17	57	95.41	7.1	9.82	0.0	0.0	3.9
24190069	TO TX N128-PD	TO TX N127-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	472.6	43	13	45	95.33	5.5	9.66	0.0	0.0	3.1
24190108	23185639-NODE	TO TX N128-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	352.8	24	8	26	95.17	3.2	9.38	0.0	0.0	1.8
22378880	JJ23311727-NODE	FN308-PD	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	24.3	111	38	118	94.54	4.8	8.46	0.0	0.0	1.9
22378869	FN308-PD	JJ23311753-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	2.7	111	38	118	94.54	4.8	8.45	0.0	0.0	1.9
22378865	JJ23311753-NODE	TO FN308-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.0	13.800	32.2	111	38	118	94.54	4.8	8.45	0.0	0.0	2.9
22378326	JJ23312427-NODE	JJ23312429-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	184.4	67	23	71	94.41	2.9	8.25	0.0	0.0	1.1
24221419	JJ23312429-NODE	24221406-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	8.0	67	23	71	94.39	2.9	8.21	0.0	0.0	1.1
22378644	JJ23312055-NODE	F1640-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	56.1	152	48	159	95.31	19.7	9.66	0.0	0.0	14.9
22378655	F1640-PD	JJ23312003-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	8.4	152	48	159	95.31	19.7	9.66	0.0	0.0	14.9
22378696	JJ23312003-NODE	TO F1640-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	179.0	152	48	159	95.31	19.7	9.66	0.0	0.0	10.9
24640631	TO F1640-PD	24640623-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.3	140	44	147	95.32	18.1	9.68	0.0	0.0	10.0
22378666	24640623-NODE	TO TX N137-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	205.5	140	44	147	95.32	18.1	9.68	0.0	0.0	10.0
22378680	TO TX N137-PD	TO TX N138-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	619.9	128	40	134	95.32	16.5	9.69	0.0	0.0	9.2
22378710	TO TX N138-PD	TO TX N133-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	237.4	109	35	115	95.25	14.2	9.55	0.0	0.0	7.9
22378722	TO TX N133-PD	TO TX N132-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	319.8	91	29	96	95.27	11.8	9.59	0.0	0.0	6.6
22378739	TO TX N132-PD	TO TX N131-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	707.5	67	21	70	95.32	8.7	9.69	0.0	0.0	4.8
22378751	TO TX N131-PD	TO TX N136-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	253.6	55	18	58	95.05	7.1	9.18	0.0	0.0	3.9
22378768	TO TX N136-PD	TO TX N135-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	192.7	30	10	32	95.06	3.9	9.19	0.0	0.0	2.2
24195473	TO TX N135-PD	24195472-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	128.7	18	6	19	94.95	2.4	9.00	0.0	0.0	1.3
24195532	24195472-NODE	23185559-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.4	18	6	19	94.72	2.4	8.58	0.0	0.0	1.3
24640566	JJ23312519-NODE	22392525-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	9.7	111	38	118	94.51	4.8	8.44	0.0	0.0	1.9
22378340	JJ23312415-NODE	F2098-PD	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	49.7	83	27	87	95.04	10.8	9.72	0.0	0.0	8.2
22378352	F2098-PD	JJ23312399-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	18.8	83	27	87	95.04	10.8	9.72	0.0	0.0	8.2
22378369	JJ23312399-NODE	TO F2098-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	226.1	83	27	87	95.04	10.8	9.72	0.0	0.0	6.0
24640394	TO F2098-PD	24640393-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	182.8	72	24	76	95.03	9.3	9.70	0.0	0.0	5.2
24640401	24640393-NODE	TO TX N184-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	16.9	72	24	76	94.95	9.4	9.55	0.0	0.0	5.2
24640465	TO TX N184-PD	TO TX N185-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	315.5	55	18	58	95.10	7.2	9.81	0.0	0.0	4.0
24640437	TO TX N185-PD	TO TX N186-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	121.7	44	15	47	95.03	5.8	9.69	0.0	0.0	3.2
22378420	TO TX N186-PD	TO TX N187-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	258.1	33	11	35	95.10	4.3	9.83	0.0	0.0	2.4
22378436	TO TX N187-PD	TO TX N188-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	242.4	22	7	23	95.06	2.9	9.75	0.0	0.0	1.6
22378448	TO TX N188-PD	23186099-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	178.7	11	4	12	94.97	1.4	9.58	0.0	0.0	0.8

22378222	JJ23312581-NODE	23671747-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.0	13.800	170.2	33	11	35	94.59	1.5	8.60	0.0	0.0	0.6
26746033	JJ23264573-NODE	26545754-NODE	1/0AWG_ACSR_RAVEN_3PH_OH_PRIMARY_1	Overhead Line	14.0	13.800	12.0	33	12	35	94.55	1.5	8.56	0.0	0.0	1.2
22629333	JJ23264569-NODE	JJ23264571-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	253.7	17	6	18	94.70	0.7	8.83	0.0	0.0	0.3
24221514	JJ23264571-NODE	24221503-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	9.2	17	6	18	94.59	0.7	8.63	0.0	0.0	0.3
24640089	JJ23312753-NODE	22638561-NODE	336KCMIL_AAC_TULIP_3PH_OH_PRIMARY_13	Overhead Line	14.1	13.800	9.1	111	38	118	94.51	4.8	8.50	0.0	0.0	1.9
24640058	24640037-NODE	22638558-NODE	1/0AWG_ACSR_RAVEN_1PH_OH_PRIMARY_8	Overhead Line		13.800	10.7	5	2	5	94.54	0.7	8.50	0.0	0.0	0.5
24644632	24644375-NODE	24644631-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	15.4	848	243	882	96.14	36.2	11.72	0.0	0.0	11.2
24644640	24644631-NODE	S3037-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.6	848	243	882	96.14	36.2	11.71	0.0	0.0	11.2
24644613	S3037-PD	JJ23532303-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	6.7	848	243	882	96.14	36.2	11.70	0.0	0.0	11.2
24645388	JJ23532303-NODE	24645387-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	2868.3	848	243	882	96.13	36.2	11.70	0.7	0.7	11.2
24646684	24645387-NODE	S3031-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.0	847	256	885	95.71	36.3	10.82	0.0	0.0	11.3
24646785	S3031-PD	24646784-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.8	847	257	885	95.71	36.3	10.81	0.0	0.0	11.3
24646753	24646784-NODE	24646746-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	15.6	847	257	885	95.71	36.3	10.81	0.0	0.0	11.3
24646747	24646746-NODE	S3032-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	9.5	646	197	676	95.66	27.7	10.71	0.0	0.0	8.4
24646733	S3032-PD	S3033-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	24.4	646	197	676	95.66	27.7	10.71	0.0	0.0	8.4
24646709	S3033-PD	24646144-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	4.9	646	197	676	95.65	27.7	10.70	0.0	0.0	8.4
24646145	24646144-NODE	S3034-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.3	179	56	187	95.45	7.7	10.31	0.0	0.0	2.4
24646051	S3034-PD	24645667-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	6.4	179	56	187	95.45	7.7	10.30	0.0	0.0	2.4
24645685	24645667-NODE	24645684-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	480.9	179	56	187	95.44	7.7	10.29	0.0	0.0	2.4
24649453	24645684-NODE	S3039-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	3.7	178	58	188	95.07	7.7	9.60	0.0	0.0	2.4
24649447	S3039-PD	24649440-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.6	178	58	188	95.07	7.7	9.59	0.0	0.0	2.4
24649441	24649440-NODE	24649351-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	17.4	178	58	188	95.06	7.7	9.57	0.0	0.0	2.4
24649352	24649351-NODE	FN355-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.7	111	37	117	94.85	4.8	9.19	0.0	0.0	1.5
24649372	FN355-PD	24645759-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.1	13.800	9.9	111	37	117	94.84	4.8	9.17	0.0	0.0	2.9
24645760	24645759-NODE	24649073-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.1	13.800	346.8	111	37	117	94.83	4.8	9.16	0.0	0.0	2.9
24649111	24649073-NODE	TO FN355-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	4.3	111	38	118	94.53	4.8	8.61	0.0	0.0	1.5
24649366	24649351-NODE	FN356-PD	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	6.1	67	21	70	95.36	2.9	10.13	0.0	0.0	0.9
24649322	FN356-PD	24645736-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.1	13.800	10.5	67	21	70	95.35	2.9	10.11	0.0	0.0	1.7
24645737	24645736-NODE	TO FN356-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	14.1	13.800	527.4	67	21	70	95.33	2.9	10.08	0.0	0.0	1.7
24649459	24649440-NODE	24649233-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	9.1	0	0	0	0.01	0.0	117.66	0.0	0.0	0.0
24646482	24646144-NODE	24646481-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	17.6	468	141	489	95.72	20.1	10.85	0.0	0.0	6.0
24648138	24646481-NODE	24648137-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	3.7	257	79	269	95.59	11.0	10.54	0.0	0.0	4.0
24648173	24648137-NODE	F2957-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.7	55	17	58	95.56	7.1	10.77	0.0	0.0	4.0
24648181	F2957-PD	24646324-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	2.2	55	17	58	95.56	7.1	10.77	0.0	0.0	4.0
24646315	24646324-NODE	24646314-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	1127.9	55	17	58	95.56	7.1	10.77	0.0	0.0	5.1
24646350	24646314-NODE	TO F2957-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.1	55	18	58	95.03	7.2	9.77	0.0	0.0	4.0
24191718	TO F2957-PD	24191702-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.6	44	14	47	95.17	5.7	10.02	0.0	0.0	3.2
22418423	24191702-NODE	TO TX N99-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	32.3	44	14	47	95.16	5.7	10.01	0.0	0.0	3.2
22364678	TO TX N99-PD	TO TX N83-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	347.5	33	11	35	95.36	4.3	10.38	0.0	0.0	2.4
22364681	TO TX N83-PD	TO TX N84-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	64.1	22	7	23	95.32	2.9	10.30	0.0	0.0	1.6
22364686	TO TX N84-PD	TO TX N85-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	251.0	11	3	12	95.96	1.4	11.57	0.0	0.0	0.8
24191643	TO TX N85-PD	24191642-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	277.1	0	0	0	0.01	0.0	117.91	0.0	0.0	0.0
24191650	24191642-NODE	23182013-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.8	0	0	0	0.01	0.0	117.91	0.0	0.0	0.0
24648193	24648137-NODE	F2958-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.3	109	33	114	95.66	14.1	10.54	0.0	0.0	7.8
24648199	F2958-PD	24647927-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	2.8	109	33	114	95.66	14.1	10.53	0.0	0.0	7.8
24647928	24647927-NODE	24645525-NODE	1/0AWG_AL_28KV_CN_TR-XLPEI_LLDPE	Cable		13.800	12.7	109	33	114	95.66	14.1	10.53	0.0	0.0	10.1
24645526	24645525-NODE	TO F2958-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	452.3	109	33	114	95.66	14.1	10.53	0.0	0.0	7.8

22364673	TO F2958-PD	TO TX N147-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	290.7	91	28	95	95.69	11.7	10.59	0.0	0.0	6.5
22378541	TO TX N147-PD	TO TX N148-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	422.9	73	22	76	95.81	9.4	10.82	0.0	0.0	5.2
22378562	TO TX N148-PD	TO TX N149-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	311.1	55	16	57	95.92	7.0	11.05	0.0	0.0	3.9
24649636	TO TX N149-PD	24649635-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	299.1	43	12	44	96.03	5.4	11.28	0.0	0.0	3.0
24649654	24649635-NODE	TO TX N150-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	19.3	43	13	44	95.83	5.5	10.86	0.0	0.0	3.0
24649670	TO TX N150-PD	24649662-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.6	30	9	32	96.22	3.9	11.67	0.0	0.0	2.2
22378586	24649662-NODE	TO TX N151-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	400.4	30	9	32	96.21	3.9	11.64	0.0	0.0	2.2
22378601	TO TX N151-PD	24195398-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	348.4	12	3	12	97.28	1.5	14.08	0.0	0.0	0.9
24195406	24195398-NODE	TO TX N129-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.0	12	3	13	96.53	1.5	12.33	0.0	0.0	0.9
22378618	TO TX N129-PD	24195448-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	704.6	0	-1	1	0.01	0.1	117.48	0.0	0.0	0.1
24195456	24195448-NODE	23185559-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.6	0	0	0	0.01	0.0	117.48	0.0	0.0	0.0
24648227	24648137-NODE	F2959-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.6	92	28	96	95.52	11.9	10.38	0.0	0.0	6.6
24648241	F2959-PD	24647900-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1.4	92	29	96	95.51	11.9	10.37	0.0	0.0	6.6
24647905	24647900-NODE	24645408-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	33.1	92	29	96	95.51	11.9	10.37	0.0	0.0	6.6
24645409	24645408-NODE	TO F2959-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	561.4	92	29	96	95.50	11.9	10.35	0.0	0.0	6.6
22364937	TO F2959-PD	TO TX N172-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	569.8	82	26	86	95.42	10.6	10.18	0.0	0.0	5.9
22378527	TO TX N172-PD	TO TX N173-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	350.1	71	23	75	95.30	9.3	9.96	0.0	0.0	5.1
22378515	TO TX N173-PD	TO TX N174-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	394.5	56	18	59	95.33	7.3	10.01	0.0	0.0	4.0
22378498	TO TX N174-PD	TO TX N175-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	354.5	36	11	37	95.45	4.6	10.26	0.0	0.0	2.6
22378484	TO TX N175-PD	24638017-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	360.7	20	6	21	95.63	2.6	10.61	0.0	0.0	1.5
24638025	24638017-NODE	TO TX N176-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.8	20	7	21	95.09	2.7	9.57	0.0	0.0	1.5
24638041	TO TX N176-PD	24638033-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	6.5	0	0	0	0.01	0.1	117.61	0.0	0.0	0.0
26032666	24638033-NODE	23185512-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	380.0	0	0	0	0.01	0.1	117.61	0.0	0.0	0.0
26305187	24646481-NODE	24648252-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	4.3	211	63	220	95.87	9.0	11.20	0.0	0.0	3.9
24648397	24648252-NODE	F2962-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.6	105	32	110	95.71	13.5	11.07	0.0	0.0	7.5
24648450	F2962-PD	24648075-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	4.8	105	32	110	95.71	13.5	11.07	0.0	0.0	7.5
24648076	24648075-NODE	24647438-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.0	105	32	110	95.71	13.5	11.06	0.0	0.0	7.5
24647480	24647438-NODE	24647479-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	938.7	105	32	110	95.71	13.5	11.06	0.0	0.0	7.5
24647487	24647479-NODE	TO F2962-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	22.2	105	33	110	95.43	13.6	10.53	0.0	0.0	7.5
22364944	TO F2962-PD	TO TX N152-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	276.4	94	29	99	95.54	12.1	10.73	0.0	0.0	6.7
22364948	TO TX N152-PD	TO TX N197-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	281.3	78	24	81	95.66	10.0	10.96	0.0	0.0	5.5
22364952	TO TX N197-PD	TO TX N198-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	567.0	55	16	58	95.96	7.1	11.57	0.0	0.0	4.0
22364956	TO TX N198-PD	TO TX N183-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	596.0	44	13	46	95.94	5.7	11.52	0.0	0.0	3.2
24195714	TO TX N183-PD	24195713-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	272.1	33	10	35	95.88	4.3	11.40	0.0	0.0	2.4
24195721	24195713-NODE	TO TX N182-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	7.9	33	10	35	95.63	4.3	10.91	0.0	0.0	2.4
24195644	TO TX N182-PD	24195636-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.9	22	6	23	96.18	2.8	12.01	0.0	0.0	1.6
21863471	24195636-NODE	TO TX N192-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	523.0	22	6	23	96.17	2.8	12.00	0.0	0.0	1.6
24195842	TO TX N192-PD	23186099-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	713.0	0	-1	1	0.01	0.1	117.91	0.0	0.0	0.1
24648421	24648252-NODE	F2961-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.1	55	16	57	96.21	7.0	11.65	0.0	0.0	3.9
24648456	F2961-PD	24647360-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.5	55	16	57	96.21	7.0	11.64	0.0	0.0	3.9
24647370	24647360-NODE	24647369-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1562.3	55	16	57	96.20	7.0	11.63	0.0	0.0	3.9
24647377	24647369-NODE	TO F2961-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.1	55	17	57	95.35	7.1	9.93	0.0	0.0	3.9
24194171	TO F2961-PD	24194170-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	392.5	43	13	45	95.52	5.5	10.26	0.0	0.0	3.0
24194178	24194170-NODE	TO TX N209-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.9	43	14	45	95.23	5.5	9.71	0.0	0.0	3.1
24194153	TO TX N209-PD	24194145-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	127.7	30	10	32	95.43	3.9	10.08	0.0	0.0	2.2
22364644	24194145-NODE	TO TX N210-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	145.7	30	10	32	95.30	3.9	9.83	0.0	0.0	2.2
24194116	TO TX N210-PD	24194108-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	11.4	12	4	13	95.77	1.6	10.76	0.0	0.0	0.9

22364647	24194108-NODE	23186014-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	399.9	12	4	13	95.75	1.6	10.70	0.0	0.0	0.9
24648427	24648252-NODE	F2960-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.3	51	15	53	95.83	6.6	10.99	0.0	0.0	3.7
24648478	F2960-PD	24647414-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.2	51	15	53	95.82	6.6	10.98	0.0	0.0	3.7
24647419	24647414-NODE	TO F2960-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	954.7	51	15	53	95.82	6.6	10.97	0.0	0.0	3.7
22364696	TO F2960-PD	TO TX N82-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	384.0	41	13	43	95.43	5.3	10.22	0.0	0.0	2.9
24648606	TO TX N82-PD	24648605-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	304.7	31	10	32	95.36	4.0	10.07	0.0	0.0	2.2
24648613	24648605-NODE	TO TX N81-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	19.2	31	10	32	95.05	4.0	9.49	0.0	0.0	2.2
24648570	TO TX N81-PD	24648569-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	202.1	20	7	21	95.29	2.6	9.95	0.0	0.0	1.5
24648581	24648569-NODE	TO TX N80-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	20.8	20	7	22	94.98	2.7	9.37	0.0	0.0	1.5
24650375	TO TX N80-PD	24650374-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	164.0	10	3	11	95.41	1.3	10.17	0.0	0.0	0.7
24650382	24650374-NODE	TO TX N92-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	24.2	10	3	11	94.90	1.3	9.23	0.0	0.0	0.7
22311244	TO TX N92-PD	23182098-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	110.0	0	0	0	0.01	0.0	117.61	0.0	0.0	0.0
24647016	24646746-NODE	24647015-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	5.6	201	60	210	95.85	8.6	11.09	0.0	0.0	2.9
24647073	24647015-NODE	F2956-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.8	55	18	58	95.35	7.2	10.37	0.0	0.0	4.0
24647079	F2956-PD	24645505-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	6.5	55	18	58	95.35	7.2	10.37	0.0	0.0	4.0
24645506	24645505-NODE	TO F2956-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	308.3	55	18	58	95.35	7.2	10.36	0.0	0.0	4.0
21863395	TO F2956-PD	TO TX N153-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	276.8	44	14	47	95.35	5.7	10.37	0.0	0.0	3.2
22364843	TO TX N153-PD	TO TX N154-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	445.1	33	10	35	95.38	4.3	10.43	0.0	0.0	2.4
22364846	TO TX N154-PD	TO TX N155-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	261.5	22	7	23	95.21	2.9	10.11	0.0	0.0	1.6
22364850	TO TX N155-PD	23191174-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	267.4	11	4	12	95.22	1.4	10.13	0.0	0.0	0.8
24647091	24647015-NODE	F2955-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.9	79	23	82	96.09	10.1	11.40	0.0	0.0	5.6
24647125	F2955-PD	24645356-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	8.0	79	23	82	96.09	10.1	11.39	0.0	0.0	5.6
24645357	24645356-NODE	JJ23562819-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	238.8	79	23	82	96.08	10.1	11.39	0.0	0.0	5.6
22099464	JJ23562819-NODE	TO F2955-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	591.4	79	23	82	96.00	10.1	11.21	0.0	0.0	5.6
21750844	TO F2955-PD	TO TX N146-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	352.9	67	20	70	95.96	8.6	11.13	0.0	0.0	4.8
22099455	TO TX N146-PD	TO TX N145-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	978.2	43	12	44	96.38	5.4	12.00	0.0	0.0	3.0
24190236	TO TX N145-PD	TO TX N144-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	518.9	30	9	32	96.08	3.9	11.37	0.0	0.0	2.2
22379017	TO TX N144-PD	TO TX N143-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	295.0	18	5	19	96.11	2.3	11.43	0.0	0.0	1.3
24190173	TO TX N143-PD	23185639-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	528.8	0	-1	1	0.01	0.1	117.48	0.0	0.0	0.0
24647107	24647015-NODE	F2954-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	5.6	66	19	69	95.98	8.5	11.30	0.0	0.0	4.7
24647113	F2954-PD	24645605-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	4.9	66	19	69	95.98	8.5	11.30	0.0	0.0	4.7
24192708	24645605-NODE	24192707-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	1597.2	66	19	69	95.98	8.5	11.29	0.0	0.0	4.7
24192715	24192707-NODE	TO F2954-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	17.4	66	21	70	95.25	8.6	9.87	0.0	0.0	4.8
24192806	TO F2954-PD	24192805-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	165.6	56	18	59	95.37	7.3	10.11	0.0	0.0	4.0
24192813	24192805-NODE	TO TX N101-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.2	56	18	59	95.28	7.3	9.93	0.0	0.0	4.0
24192837	TO TX N101-PD	24192825-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.1	46	14	48	95.45	5.9	10.25	0.0	0.0	3.3
24192830	24192825-NODE	TO TX N100-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	887.1	46	14	48	95.44	5.9	10.23	0.0	0.0	3.3
24192692	TO TX N100-PD	24192684-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	9.2	31	10	32	95.01	4.0	9.42	0.0	0.0	2.2
24192685	24192684-NODE	TO TX N124-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	98.5	31	10	32	95.00	4.0	9.41	0.0	0.0	2.2
24192673	TO TX N124-PD	24192665-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	10.4	20	7	21	95.10	2.7	9.60	0.0	0.0	1.5
24192666	24192665-NODE	TO TX N123-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	152.0	20	7	21	95.09	2.7	9.57	0.0	0.0	1.5
24192653	TO TX N123-PD	24192645-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.5	10	3	11	95.22	1.3	9.81	0.0	0.0	0.7
24192646	24192645-NODE	23182069-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	221.3	10	3	11	95.17	1.3	9.72	0.0	0.0	0.7
24646829	24646784-NODE	24646809-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	7.1	0	0	0	0.01	0.0	117.67	0.0	0.0	0.0
24644695	24644631-NODE	24644694-NODE	350KCMIL_CU_15KV_CN_TR-XLPEI_LLDPE	Cable	14.1	13.800	5.2	0	0	0	0.01	0.0	117.70	0.0	0.0	0.0
24644752	24644694-NODE	F2963-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	3.7	0	0	0	0.01	0.0	117.94	0.0	0.0	0.0
24644778	F2963-PD	24644777-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable		13.800	14.1	0	0	0	0.01	0.0	117.94	0.0	0.0	0.0

24644760	24644694-NODE	F2964-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	2.6	0	0	0	0.01	0.0	117.51	0.0	0.0	0.0
24644786	F2964-PD	24644785-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	14.4	0	0	0	0.01	0.0	117.51	0.0	0.0	0.0
24644766	24644694-NODE	F2965-PD	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	3.3	0	0	0	0.01	0.0	117.64	0.0	0.0	0.0
24644794	F2965-PD	24644793-NODE	1/0AWG_CU_15KV_CN_TR-XLPEI_PVCJ	Cable	13.800	14.6	0	0	0	0.01	0.0	117.64	0.0	0.0	0.0

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