590 Steven Court, Newmarket, Ontario L3Y 6Z2
Tel: [905] 895-2309
Fax: [905] 895-8931
Email: nmhydro@nmhydro.ca

Newmarket-Tay Power Distribution Ltd.

November 11, 2019

Ontario Energy Board
2300 Yonge Street
P.O. Box 2319,
Suite 2700
Toronto, ON
M4P 1E4

Dear Ms. Long:

Re: Newmarket-Tay Power Distribution Ltd. ("NT Power")
Updated Cost Allocation Models
Board File Number: EB-2019-0231

In its Decision and Order on August 23, 2018 granting approval for NT Power to purchase and amalgamate with Midland Power Utility Corporation ("Midland Power") EB-2017-0269, the Ontario Energy Board (the "OEB") ordered:

> "*Newmarket-Tay Power Distribution Ltd. Shall update their cost allocation models and file these models with the OEB no later than twelve months following Newmarket-Tay Power Distribution Ltd.'s acquisition of all shares of Midland Power Utility Corporation. This filing shall also include a proposal that demonstrates how rates that are too high or too low relative to the OEB's cost allocation policies will be adjusted over time*."[1]

The OEB did not specify that the update must comply with any particular filing requirements in its Decision and Order.

The OEB also approved a 10-year deferral period for the rebasing of Midland Power's rates and the rates of the consolidated entity.[2] NT Power is maintaining two rate zones until rates are rebased:

- Newmarket – Tay Rate Zone ("NTRZ"); and
- Midland Rate Zone ("MRZ")

On September 12, 2019, NT Power filed updated cost allocation models and a proposal to align certain customer classes within the OEB cost allocation target bands. NT Power has identified there are NTRZ customer classes outside the OEB target cost allocation bands based on the updated cost allocation models. The MRZ customer classes are within the

[1] Ontario Energy Board Decision and Order EB-2017-0269, August 23, 2018 p.24
[2] Ontario Energy Board Decision and Order EB-2017-0269, August 23, 2018 p.22

target allocation bands with the exception of the street light class. NT Power submits that the adjustment required in this case is immaterial and not warranted at this time.

NT Power is proposing to adjust the affected NTRZ customer class rates to be within the OEB target cost allocation bands effective May 1, 2020. This will impact the NTRZ street light, sentinel light, unmetered scattered load and residential customer classes.

On September 27, 2019, NT Power received a letter from the OEB requesting further information. A response to this request is included in the attached letter dated November 4, 2019. As noted in this letter, NT Power is filing this updated cost allocation models application that incorporates corrections to the September 12, 2019 filing.

The OEB also noted within its letter:

> "*The OEB also notes that Newmarket-Tay Power is due to file an incentive rate-setting mechanism (IRM) application on November 4, 2019. It is the OEB's expectation that Newmarket-Tay Power will incorporate its cost allocation update and proposal as part of its upcoming IRM application.*"

On October 11, 2019, NT Power filed a letter agreeing with the direction provided by the OEB in the September 27, 2019 letter to include the cost allocation update and proposal as part of the 2020 IRM.

NT Power is filing the IRM application for 2020, in accordance with the Chapter 3 filing requirements with one change. Instead of using existing 2019 rates as the starting point for the 2020 IRM, NT Power is proposing to use the 2019 proposed rates (Table 14) which are the output of this cost allocation application filing, as the input into the IRM model for the 2020 IRM rates

Enclosed is NT Power's:

1. Updated cost allocation application filing
2. Cost allocation excel models for NTRZ and MRZ
3. Excel model providing a derivation of the proposed fixed and variable charges, the tariff schedules and bill impacts from the 2019 IRM model by rate zone

Please do not hesitate to contact the undersigned if you have any questions in relation to the foregoing.

Yours truly,

Laurie Ann Cooledge, CPA, CMA, CPA
Chief Financial Officer
Newmarket-Tay Power Distribution Ltd.
905-953-8548 ext 2268
lauriec@nmhydro.ca

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Midland Rate Zone (MRZ)

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1.0 COST ALLOCATION

1.1 Cost Allocation Study Requirements

1.1.1 Introduction

The OEB outlined its cost allocation policies in the November 28, 2007 *Application of Cost Allocation for Electricity Distributors* and March 31, 2011 *Review of Electricity Distribution Cost Allocation Policy* (EB-2010-0219) reports (the "Cost Allocation Reports").

NT Power utilized the updated OEB-approved Cost Allocation Model (version 3.6 – issued July 12, 2018) and adhered to the instructions and guidelines issued by the OEB. The cost allocation models contain the 2018 actual costs, customer numbers, kWh and kW values for each rate zone.

Below is a summary of the process that NT Power applied in completing both the NTRZ and MRZ cost allocation models:

- Worksheet I3 - Trial Balance Data has been populated using the 2018 audited financial data, net income, PILS, and interest on long term debt. The revenue requirement is consistent with the total 2018 revenue collected by rate zone.
- Worksheet I4 -Break-out of Assets, NT Power updated the break-out of assets between primary and secondary assets based on engineering records and data from customer and financial information systems.
- Worksheet I5.1 - Miscellaneous data, NT Power updated the kilometer of roads in the service area and the proportion of pole rental revenue from secondary poles.
- Worksheet I5.2 -Weighting Factors includes LDC specific factors as directed by the OEB.

Weighting Factors

As instructed by the OEB in worksheet I5.2 – Weighting Factors, NT Power has developed service and billing & collecting factors for each of the NTRZ and MRZ customer classifications. The weighting factors are presented in the Table 1 and 2.

Table 1: Service Weighting Factors	
Rate Class	**Factor**
Residential – NTRZ	1.0
General Service Less Than 50 kW - NTRZ	0.1
General Service 50 to 4,999 kW - NTRZ	0.0
Sentinel Lighting - NTRZ	0.0
Street Lighting - NTRZ	0.0
Unmetered Scattered Load - NTRZ	0.0
Residential – MRZ	1.0
General Service < 50 kW - MRZ	0.1
General Service >= 50 kW - MRZ	0.0
Street Lighting - MRZ	0.0
Unmetered Scattered Load - MRZ	0.0

The Service Weighting factors were developed by rate zone based on:

- The weighting factor for the residential class for both rate zones is set to “1” as per the instructions in the Cost Allocation Reports.
- The general service less than 50kW factor is based on the costs for services to approximately 10% of NTRZ and MRZ customers in this class that have legacy services owned by NT Power resulting in a factor of 0.1. The remaining 90% of services are owned and maintained by the customer.
- All general service 50kW or greater, street light, sentinel light and unmetered scattered load services in both rate zones are owned by the customers resulting in a factor of 0.

Table 2: Billing Weighting Factors	
Rate Class	**Factor**
Residential – NTRZ	1.0
General Service less than 50 kW - NTRZ	1.0
General Service 50 to 4,999 kW - NTRZ	1.9
Sentinel Lighting - NTRZ	0.4
Street Lighting - NTRZ	0.4
Unmetered Scattered Load - NTRZ	0.4
Residential – MRZ	1.0
General Service less than 50 kW - MRZ	1.0
General Service 50 to 4,999 kW - MRZ	2.1
Street Lighting - MRZ	0.7
Unmetered Scattered Load - MRZ	0.7

The Billing & Collecting Weighting factors were developed by rate zone based on:

- The weighting factor for the residential class for both rate zones is set to “1” as per the instructions in the Cost Allocation Reports.
- The GS<50 customer class has the same weighting factor as the residential customer class in both rate zones as the costs are similar to the residential class.
- The GS>50 customer class billing weighting factor for the NTRZ is based on the validation process of the monthly billing. 80% of NTRZ meters in this class are still being read manually requiring additional billing validation processes.
- The GS>50 customer class billing weighting factor for the MRZ is based on the validation process of the monthly billing
- The sentinel lighting, street lighting and unmetered scattered load weighting factors for both rate zones are based on no required collection costs.

- Worksheet "I6.1 – Revenue" reflects the actual 2018 kWh and kW by rate class. The revenue shown in rows 39 to 41 are consistent with actual 2018 distribution revenues by rate class. Adjustments in row 37 have been included to insure the revenues in rows 39 to 41 match the actual 2018 distribution revenues.
- Worksheet "I6.2 – Customer Data" has been updated to reflect 2018 actual data for customers, connections, devices and number of bills. Bad Debt and Late Payment values are a 3-year average of actual data.
- Worksheets "I7.1 – Meter Capital" have been updated based upon the following current meter costs:

Table 3: Meter Cost

Meter Type	Cost per Meter ($)
Single Phase 200 Amp - Urban (Smart Meter) - NTRZ	231
Single Phase 200 Amp - Rural – NTRZ	236
Central Meter – NTRZ	270
Network Meter – NTRZ	401
Three-phase - No demand – NTRZ	532
Demand without IT – NTRZ	859
Demand with IT – NTRZ	2,152
Demand with IT & Interval Capability - Secondary – NTRZ	2,362
Demand with IT & Interval Capability - Primary – NTRZ	26,913
LDC Specific – Demand with IT and Interval Capability-Secondary Power Quality – NTRZ	9,173
Single Phase 200 Amp - Urban – MRZ	107
Central Meter – MRZ	176
Network Meter – MRZ	177
Demand without IT – MRZ	589
Demand with IT- MRZ	678
Demand with IT and Interval Capability - Secondary- MRZ	737

NTRZ and MRZ determined the cost per meter by reviewing internal financial records of current meter cost by meter type.

- Worksheet "I7.2 – Meter Reading" has been updated with the current meter reading weighting factors:

Table 4: Meter Reading Factors	
Rate Class	**Factor**
Smart Meter - NTRZ	1.0
Smart Meter with Demand - NTRZ	10.0
Interval Meter - NTRZ	4.0
Smart Meter – MRZ	1.0
Smart Meter with Demand - MRZ	1.25
Interval Meter- MRZ	4.0

The Meter Reading Weighting factors were developed by rate zone based on:

- The weighting factor for a smart meter for both rate zones is set to "1".
- Smart meters with demand in the MRZ are based on additional processes required for the demand readings.
- Smart meters with demand in the NTRZ are read manually
- Interval meters in both rate zones utilize a proprietary meter interrogation/reading process with higher costs.

- Worksheet "I8 – Demand Data" reflects the findings of the 2004 hour by hour load data being scaled to be consistent with 2018 actual kWh by rate zone and rate class. The results of the scaling process are provided below. NT Power was not able to update its load profiles at this time due to metering and system restrictions primarily related to consumption data for some meter types that still require manual reads. NT Power is working with their automated meter infrastructure providers to ensure the required data is available. NT Power confirms that it intends to put plans in place to update its load profiles the next time a cost allocation model is filed.

Table 5: Load Profile Scaling Percentages

Rate Class	2004 Weather Normal Values used in Original Filing (kWh)	2018 (kWh)	Scaling Factor
Residential - NTRZ	238,398,566	282,139,763	118.3%
General Service less than 50 kW - NTRZ	111,043,165	91,548,982	82.4%
General Service 50 to 4,999 kW - NTRZ	302,277,186	278,825,252	92.2%
Sentinel Lighting - NTRZ	342,732	275,116	80.3%
Street Lighting - NTRZ	4,494,889	2,565,174	57.1%
Unmetered Scattered Load - NTRZ	220,379	552,037	250.5%
Total - NTRZ	656,776,917	655,906,325	
Residential - MRZ	49,978,185	50,684,557	101.4%
General Service less than 50 kW - MRZ	28,403,343	24,374,246	85.8%
General Service 50 to 4,999 kW - MRZ	162,088,407	113,618,428	70.1%
Street Lighting - MRZ	1,152,865	519,881	45.1%
Unmetered Scattered Load - MRZ	854,570	395,009	46.2%
Total - MRZ	242,477,370	189,592,121	

- Worksheet "I9. - Direct Allocations" has not been used as NT Power has determined there are no costs to be directly allocated.

1.2. Specific Customer Classes

NT Power proposes no changes to the rate classes in the two rate zones.

1.3 Class Revenue Requirements

1.3.1 Class Revenue Requirements

NT Power's assets were broken out into primary and secondary distribution functions using breakout percentages of assets, capital contributions, depreciation, accumulated depreciation, customer data and load data by primary, line transformer and secondary categories that were developed from the best data available to NT Power, its engineering records, and its customer and financial information systems. An Excel version of the updated cost allocation study has been included with the filed application material. In addition, Appendix 1-1 NTRZ and Appendix 1-2 MRZ outlines Input Sheets I-6 & I-8 and Output Sheets O-1 & O-2 (first page only) for both rate zones.

The table below demonstrates NT Power's 2018 revenue and allocated costs from the cost allocation models:

Table 6: Service Revenue Requirements

	Service Revenue Requirement	
Rate Class	**Revenue**	**Allocated Costs**
Residential - NTRZ	$12,414,719	$13,384,407
General Service less than 50 kW - NTRZ	$3,369,209	$2,881,044
General Service 50 to 4,999 kW - NTRZ	$3,958,244	$3,881,002
Sentinel Lighting - NTRZ	$15,531	$10,182
Street Lighting - NTRZ	$567,300	$181,670
Unmetered Scattered Load - NTRZ	$23,834	$10,534
Total - NTRZ	$20,348,837	$20,348,837
Residential - MRZ	$2,895,054	$2,875,953
General Service less than 50 kW - MRZ	$666,542	$584,671
General Service 50 to 4,999 kW - MRZ	$1,127,611	$1,252,711
Street Lighting - MRZ	$94,813	$70,868
Unmetered Scattered Load - MRZ	$6,672	$6,489
Total - MRZ	$4,790,691	$4,790,691

1.4 Revenue to Cost Ratios

1.4.1 Revenue to Cost Ratios

The Cost Allocation Reports established updated "target ranges" for the revenue to cost ratios for each customer class. The OEB's review of the Street Lighting cost allocation methodology resulted in an updated target range for that rate class. The Table below identifies the revenue to cost ratios calculated prior to and after the proposed Test Year rate design in comparison with the "target ranges" (all ratios exclude revenues and costs related to transformer ownership allowance).

Table 7: Revenue / Cost Ratios (%)

Rate Class	Model	Proposed	OEB Target Range (%)
Residential - NTRZ	92.76%	95.47%	85 - 115
General Service less than 50 kW - NTRZ	116.94%	116.94%	80 - 120
General Service 50 to 4,999 kW - NTRZ	101.99%	101.99%	80 - 120
Sentinel Lighting - NTRZ	152.55%	120.00%	80 - 120
Street Lighting - NTRZ	312.27%	120.00%	80 - 120
Unmetered Scattered Load - NTRZ	226.27%	120.00%	80 - 120
Residential - MRZ	100.66%	100.66%	85 - 115
General Service less than 50 kW - MRZ	114.00%	114.00%	80 - 120
General Service 50 to 4,999 kW - MRZ	90.01%	90.01%	80 - 120
Street Lighting - MRZ	133.79%	133.79%	80 - 120
Unmetered Scattered Load - MRZ	102.81%	102.81%	80 - 120

For the NTRZ, NT Power is proposing to move the revenue to cost ratios for Sentinel Lighting, Street Lighting and Unmetered Scattered Load to the OEB's guideline of 120% and to maintain revenue neutrality by increasing revenue to cost ratio for the Residential class to 95.47%. For the MRZ, NT Power proposes that no changes be made to the revenue to cost ratios. Although the Street Lighting ratio is outside the OEB's guideline the movement to 120% would be approximately $9,800 in revenue. NT Power submits that this adjustment is immaterial and such a change is not warranted at this time.

1.5 Rate Adjustment

The proposed rate adjustment by customer class is provided in Table 8:

Table 8 - Revenue vs costs band adjustment analysis

		Revenue vs Cost ratio			
Rate Class	OEB target bands	%	Difference between Revenues vs Allocated costs $	Adj $ to OEB target band	Revenue vs Cost ratio % incl adj
Residential - NTRZ	85-115%	92.76%	(969,688)	(363,802)	95.47%
General Service Less Than 50 kW - NTRZ	80-120%	116.94%	488,165	NA	116.94%
General Service 50 to 4,999 kW - NTRZ Therm & Int	80-120%	101.99%	77,243	NA	101.99%
Sentinel Lighting - NTRZ	80-120%	152.55%	5,350	3,313	120.00%
Street Lighting - NTRZ	80-120%	312.27%	385,630	349,296	120.00%
Unmetered Scattered Load - NTRZ	80-120%	226.27%	13,300	11,193	120.00%
Residential - MRZ	85-115%	100.66%	19,101	NA	100.66%
General Service Less Than 50 kW - MRZ	80-120%	114.00%	81,871	NA	114.00%
General Service 50 to 4,999 kW - MRZ	80-120%	90.01%	(125,100)	NA	90.01%
Street Lighting - NTRZ	80-120%	133.79%	23,945	NA	133.79%
Unmetered Scattered Load - NTRZ	80-120%	102.81%	183	NA	102.81%

NT Power is presenting the revenue vs cost ratios and amounts as provided from Appendix 1-1 sheet O1 Revenue to Cost summary Worksheet. The adjustment to OEB target band column represents the amount required to adjust Sentinel Lighting, Street Lighting, and Unmetered Scattered Load NTRZ customer classes to the upper limit of the OEB target band. The offsetting adjustment would be applied to the NTRZ Residential customer class.

The 2018 blended rates and billing determinants used in the Cost Allocation filing for sheet I6.1 and I6.2 are as follows:

Table 9 - 2018 Fixed and Variable blended rates by rate class

	2018 Fixed			2018 Variable			2018 billing determinants (I6.1 & I6.2)			
Rate Class	Jan-Apr	May-Dec	Blended	Jan-Apr	May-Dec	Blended	Fixed		Variable	
Residential - NTRZ	21.25	24.36	23.32	0.0075	0.0038	0.0050	32,622	# of cust	282,139,763	kWh
General Service Less Than 50 kW - NTRZ	30.55	30.73	30.67	0.0200	0.0201	0.0201	3,186	# of cust	91,548,982	kWh
General Service 50 to 4,999 kW - NTRZ Thermal	138.54	139.37	139.09	4.7791	4.8078	4.7982				
General Service 50 to 4,999 kW - NTRZ Interval	138.54	139.37	139.09	4.9127	4.9422	4.9324				
General Service 50 to 4,999 kW - NTRZ Ther & Inter			139.09			4.8653	384	# of cust	621,805	kW
Sentinel Lighting - NTRZ	3.25	3.27	3.26	12.4522	12.5269	12.5020	32	# of cust	764	kW
Street Lighting - NTRZ	3.19	3.21	3.20	15.8699	15.9651	15.9334	9,091	# of connects	6,897	kW
Unmetered Scattered Load - NTRZ	17.64	17.75	17.71	0.0203	0.0204	0.0204	46	# of cust	552,037	kWh
Residential - MRZ	23.20	26.99	25.73	0.0107	0.0054	0.0072	6,395	# of cust	50,684,557	kWh
General Service Less Than 50 kW - MRZ	22.62	22.79	22.73	0.0167	0.0168	0.0168	772	# of cust	24,374,246	kWh
General Service 50 to 4,999 kW - MRZ	63.93	64.41	64.25	3.2581	3.2825	3.2744	108	# of cust	282,527	kW
Street Lighting - MRZ	3.87	3.90	3.89	8.9320	8.9990	8.9767	1,846	# of connects	1,410	kW
Unmetered Scattered Load - MRZ	10.46	10.54	10.51	0.0112	0.0113	0.0113	11	# of cust	395,009	kWh

The blended fixed and variable rates are based on the OEB approved rates by rate class effective May 2017 and May 2018. The fixed and variable billing determinants are based on the 2018 actual billing data.

The following table provides the 2018 fixed and variable annual distribution revenues, proportions and monthly rates by customer class for each rate zone:

Table 10 - 2018 Fixed and Variable proportion by rate class

	2018 Distribution Revenue													
Rate Class	Annual fixed revenue	Annual variable revenue	Annual variable transformer allowance	Total annual revenue excl addl chgs I6.1	Fixed proportion %	Variable proportion %	Addl chgs $ I6.1	Annual fixed $ with addl chgs	Annual variable $ with addl chgs	Total annual $ per I6.1	Fixed proportion % incl addl chgs	Variable proportion % incl addl chgs	Monthly fixed rate	Monthly variable rate
Residential - NTRZ	9,130,245	1,420,103	-	10,550,349	86.5%	13.5%	(230,005)	8,931,200	1,389,144	10,320,344	86.5%	13.5%	22.81	0.0049
General Service Less Than 50 kW - NTRZ	1,172,575	1,837,083	-	3,009,658	39.0%	61.0%	(23,248)	1,163,518	1,822,892	2,986,410	39.0%	61.0%	30.43	0.0199
General Service 50 to 4,999 kW - NTRZ Ther & Inter	640,942	3,025,268	(28,932)	3,637,278	17.6%	82.4%	(128,401)	618,494	2,890,382	3,508,877	17.6%	82.4%	134.22	4.6484
Sentinel Lighting - NTRZ	1,253	9,552	-	10,805	11.6%	88.4%	3,259	1,631	12,433	14,064	11.6%	88.4%	4.25	16.2730
Street Lighting - NTRZ	349,458	109,892	-	459,350	76.1%	23.9%	52,062	389,065	122,347	511,412	76.1%	23.9%	3.57	17.7392
Unmetered Scattered Load - NTRZ	9,778	11,243	-	21,021	46.5%	53.5%	1,097	10,288	11,830	22,118	46.5%	53.5%	18.64	0.0214
Residential - MRZ	1,974,264	363,239	-	2,337,504	84.5%	15.5%	133,332	2,086,877	383,959	2,470,836	84.5%	15.5%	27.19	0.0076
General Service Less Than 50 kW - MRZ	210,602	408,675	-	619,276	34.0%	66.0%	(27,105)	201,384	390,788	592,171	34.0%	66.0%	21.74	0.0160
General Service 50 to 4,999 kW - MRZ	83,268	925,097	(116,073)	892,292	9.3%	90.7%	103,828	91,842	904,278	996,120	9.2%	90.8%	70.87	3.2007
Street Lighting - MRZ	86,171	12,657	-	98,828	87.2%	12.8%	(16,874)	71,458	10,496	81,954	87.2%	12.8%	3.23	7.4440
Unmetered Scattered Load - MRZ	1,388	4,450	-	5,838	23.8%	76.2%	19	1,392	4,465	5,857	23.8%	76.2%	10.55	0.0113
Total	**13,659,945**	**8,127,260**	**(145,005)**	**21,642,200**			**(132,036)**	**13,567,150**	**7,943,014**	**21,510,164**				

The annual fixed and variable revenue excluding the additional charges is based on the 2018 blended rates and billing determinants provided in table 9. The additional charge adjustment is required to balance to the audited distribution revenue due to the cost allocation model applying the blended rates and annual billing determinants from table 9. The 2018 monthly fixed and variable rates are based on the annual fixed and variable amounts including the additional charges divided by the applicable billing determinants provided in table 9.

The following table outlines the proposed annual fixed and variable revenue proportions to bring NTRZ unmetered load customers to the upper limit of the OEB target bands:

Table 11 - 2018 Proposed Fixed and Variable proportion by rate class

	Proposed band adjustment			2018 rates						2018 Proposed fixed/variable proportions				
Rate Class	Total annual band adjustment	Annual fixed split	Annual variable split	Monthly fixed rate adj	Monthly variable rate adj	Monthly fixed rate	Monthly variable rate	Monthly fixed rate with band adj	Monthly variable rate with band adj	Annual fixed revenue	Annual variable revenue	Total annual revenue with band adj	Fixed proportion %	Variable proportion %
Residential - NTRZ	363,802	363,802	-	0.93	-	22.81	0.0049	23.74	0.0049	9,295,001	1,389,144	10,684,146	87.0%	13.0%
General Service Less Than 50 kW - NTRZ	-	-	-	-	-	30.43	0.0199	30.43	0.0199	1,163,518	1,822,892	2,986,410	39.0%	61.0%
General Service 50 to 4,999 kW - NTRZ Thermal & Interval	-	-	-	-	-	134.22	4.6484	134.22	4.6484	618,494	2,890,382	3,508,877	17.6%	82.4%
Sentinel Lighting - NTRZ	(3,313)	(384)	(2,928)	(1.00)	(3.8330)	4.25	16.2730	3.25	12.4400	1,247	9,504	10,751	11.6%	88.4%
Street Lighting - NTRZ	(349,296)	(265,732)	(83,564)	(2.44)	(12.1159)	3.57	17.7392	1.13	5.6233	123,333	38,784	162,116	76.1%	23.9%
Unmetered Scattered Load - NTRZ	(11,193)	(5,206)	(5,987)	(9.43)	(0.0108)	18.64	0.0214	9.21	0.0106	5,082	5,843	10,925	46.5%	53.5%
Residential - MRZ	-	-	-	-	-	27.19	0.0076	27.19	0.0076	2,086,877	383,959	2,470,836	84.5%	15.5%
General Service Less Than 50 kW - MRZ	-	-	-	-	-	21.74	0.0160	21.74	0.0160	201,384	390,788	592,171	34.0%	66.0%
General Service 50 to 4,999 kW - MRZ	-	-	-	-	-	70.87	3.2007	70.87	3.2007	91,842	904,278	996,120	9.2%	90.8%
Street Lighting - MRZ	-	-	-	-	-	3.23	7.4440	3.23	7.4440	71,458	10,496	81,954	87.2%	12.8%
Unmetered Scattered Load - MRZ	-	-	-	-	-	10.55	0.0113	10.55	0.0113	1,392	4,465	5,857	23.8%	76.2%
Total	**0**	**92,479**	**(92,479)**							**13,659,629**	**7,850,536**	**21,510,164**		

The fixed and variable annual band adjustments proportions are allocated based on the 2018 fixed and variable proportions within Table 10. This maintains the 2018 proposed fixed and variable revenue proportions. The monthly fixed and variable rates with the band adjustments are based on the monthly fixed and variable rates and the monthly fixed and variable band adjustments. The monthly fixed and variable rates with band adjustments are multiplied by the billing determinates (Table 9) to verify proposed annual fixed and variable revenues and proportions (Table 10). The only exception to the current proportions is to the residential customer class. This is due to the elimination of the variable rate for residential customers.

The following tables provide the current and proposed fixed and variable charges by rate class:

Table 12 Monthly fixed charges

Rate Class	2018 Ceiling	2018 Floor	2018 rate	Band adj	2018 rate with band adj	2019 Current	2019 proposed with band adj
Residential - NTRZ	20.11	5.69	22.81	0.93	23.74	27.61	28.54
General Service Less Than 50 kW - NTRZ	18.94	6.97	30.43	-	30.43	31.01	31.01
General Service 50 to 4,999 kW - NTRZ Thermal	79.55	21.82	134.22	-	134.22	140.62	140.62
General Service 50 to 4,999 kW - NTRZ Interval	79.55	21.82	134.22	-	134.22	140.62	140.62
Sentinel Lighting - NTRZ	8.54	1.21	4.25	(1.00)	3.25	3.30	2.30
Street Lighting - NTRZ	1.24	0.26	3.57	(2.44)	1.13	3.24	0.80
Unmetered Scattered Load - NTRZ	8.41	1.06	18.64	(9.43)	9.21	17.91	8.48
Residential - MRZ	23.35	6.86	27.19	-	27.19	30.94	30.94
General Service Less Than 50 kW - MRZ	28.91	12.38	21.74	-	21.74	23.03	23.03
General Service 50 to 4,999 kW - MRZ	51.54	18.51	70.87	-	70.87	65.09	65.09
Street Lighting - MRZ	3.56	0.33	3.23	-	3.23	3.94	3.94
Unmetered Scattered Load - MRZ	13.45	2.17	10.55	-	10.55	10.65	10.65

Table 13 Monthly variable charges

Rate Class	2018 Rate	Band adjustment	2018 rate with band adj	2019 Current	2019 proposed with band adj
Residential - NTRZ	0.0049	-	0.0049	-	-
General Service Less Than 50 kW - NTRZ	0.0199	-	0.0199	0.0203	0.0203
General Service 50 to 4,999 kW - NTRZ Thermal	4.6484	-	4.6484	4.8511	4.8511
General Service 50 to 4,999 kW - NTRZ Interval	4.6484	-	4.6484	4.9867	4.9867
Sentinel Lighting - NTRZ	16.2730	(3.8330)	12.4400	12.6396	8.8066
Street Lighting - NTRZ	17.7392	(12.1159)	5.6233	16.1088	3.9929
Unmetered Scattered Load - NTRZ	0.0214	(0.0108)	0.0106	0.0206	0.0098
Residential - MRZ	0.0076	-	0.0076	-	-
General Service Less Than 50 kW - MRZ	0.0160	-	0.0160	0.0170	0.0170
General Service 50 to 4,999 kW - MRZ	3.2007	-	3.2007	3.3170	3.3170
Street Lighting - MRZ	7.4440	-	7.4440	9.0935	9.0935
Unmetered Scattered Load - MRZ	0.0113	-	0.0113	0.0114	0.0114

The monthly fixed and variable 2019 proposed charges are based on the 2019 approved rates and the band adjustment proportions provided in Table 11.

The proposed 2019 fixed and variable rates and bill impact summary by customer class is provided in the following table:

Table 14 2019 Proposed monthly rate charges

	Fixed distribution rate			Variable distribution rate			
Rate Class	2019 rate	Fixed Band adj	Proposed rate with band adj	2019 rate	Variable Band adj	Proposed with band adj	Total bill impact %
Residential - NTRZ	27.61	0.93	28.54	-	-	-	0.91%
General Service Less Than 50 kW - NTRZ	31.01	-	31.01	0.0203	-	0.0203	0.00%
General Service 50 to 4,999 kW - NTRZ Thermal	140.62	-	140.62	4.8511	-	4.8511	0.00%
General Service 50 to 4,999 kW - NTRZ Interval	140.62	-	140.62	4.9867	-	4.9867	0.00%
Sentinel Lighting - NTRZ	3.30	(1.00)	2.30	12.6396	(3.8330)	8.8066	-9.09%
Street Lighting - NTRZ	3.24	(2.44)	0.80	16.1088	(12.1159)	3.9929	-14.80%
Unmetered Scattered Load - NTRZ	17.91	(9.43)	8.48	0.0206	(0.0108)	0.0098	-29.78%
Residential - MRZ	30.94	-	30.94	-	-	-	0.00%
General Service Less Than 50 kW - MRZ	23.03	-	23.03	0.0170	-	0.0170	0.00%
General Service 50 to 4,999 kW - MRZ	65.09	-	65.09	3.3170	-	3.3170	0.00%
Street Lighting - MRZ	3.94	-	3.94	9.0935	-	9.0935	0.00%
Unmetered Scattered Load - MRZ	10.65	-	10.65	0.0114	-	0.0114	0.00%

In accordance with the OEB's expectation that NT Power will incorporate the cost allocation update as part of its upcoming IRM application, NT Power proposes to use the current 2019 rates as a starting point in the IRM application. The proposed 2020 rates will be adjusted for the recommended fixed and variable band adjustment, explained above, by including the band adjustment in the IRM model sheet 16.Rev2Cost_GDPIPI for the fixed and variable components of the NTRZ Residential, Sentinel Lighting, Street Lighting and Unmetered Scattered Load customer rate classes.

The detailed bill impact by customer class resulting from these changes are provided in Appendices B and D for NTRZ and MRZ respectively.

Respectfully submitted

Newmarket – Tay Rate Zone

APPENDIX A: COST ALLOCATION MODEL – SPECIFIC INPUT AND OUTPUT SHEETS

Ontario Energy Board

2019 Cost Allocation Model

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Sheet I6.1 Revenue Worksheet - Application

Total kWhs from Load Forecast	655,906,325
Total kWs from Load Forecast	629,466
Deficiency/sufficiency (RRWF 8. cell F51)	-
Miscellaneous Revenue (RRWF 5. cell F48)	2,985,613

			1	2	3	7	8	9
	ID	Total	Residential	GS <50	GENERAL SERVICE 50 TO 4,999 KW	Street Light	SENTINEL LIGHTING	UNMETERED SCATTERED LOAD
Billing Data								
Forecast kWh	CEN	655,906,325	282,139,763	91,548,982	278,825,252	2,565,174	275,116	552,037
Forecast kW	CDEM	629,466	-	-	621,805	6,897	764	-
Forecast kW, included in CDEM, of customers receiving line transformer allowance		34,038			34,038			
Optional - Forecast kWh, included in CEN, from customers that receive a line transformation allowance on a kWh basis. In most cases this will not be applicable and will be left blank.		-						
KWh excluding KWh from Wholesale Market Participants	CEN EWMP	651,438,541	282,139,763	91,548,982	274,357,468	2,565,174	275,116	552,037
Existing Monthly Charge			$23.32	$30.67	$139.09	$3.20	$3.26	$17.71
Existing Distribution kWh Rate			$0.01	$0.02				$0.02
Existing Distribution kW Rate					$4.87	$15.93	$12.50	
Existing TOA Rate			$0.85	$0.85	$0.85	$0.85	$0.85	$0.85
Additional Charges			($230,005.00)	($23,248.00)	($128,401.00)	$52,060.00	$3,256.00	$1,097.00
Distribution Revenue from Rates		$17,392,157	$10,320,344	$2,986,410	$3,537,810	$511,412	$14,063	$22,118
Transformer Ownership Allowance		$28,932	$0	$0	$28,932	$0	$0	$0
Net Class Revenue	CREV	$17,363,224	$10,320,344	$2,986,410	$3,508,877	$511,412	$14,063	$22,118

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2019 Cost Allocation Model

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Sheet I6.2 Customer Data Worksheet - Application

	ID	Total	1 Residential	2 GS <50	3 GENERAL SERVICE 50 TO 4,999 KW	7 Street Light	8 SENTINEL LIGHTING	9 UNMETERED SCATTERED LOAD
Billing Data								
Bad Debt 3 Year Historical Average	BDHA	$116,400	$84,080	$9,470	$22,850	$0	$0	$0
Late Payment 3 Year Historical Average	LPHA	$170,032	$96,454	$28,065	$45,214	$66	$63	$171
Number of Bills	CNB	435,276	391,464	38,232	4,608	36	384	552
Number of Devices	CDEV					9,091		
Number of Connections (Unmetered)	CCON	9,169				9,091	32	46
Total Number of Customers	CCA	36,195	32,622	3,186	384	3		-
Bulk Customer Base	CCB	36,192	32,622	3,186	384			
Primary Customer Base	CCP	36,512	32,622	3,186	384	320		-
Line Transformer Customer Base	CCLT	34,844	31,782	2,506	245	311		
Secondary Customer Base	CCS	31,388	31,146	242	-	-	-	-
Weighted - Services	CWCS	31,164	31,146	18	-	-	-	-
Weighted Meter -Capital	CWMC	10,086,640	7,824,777	1,407,669	853,502	692	-	-
Weighted Meter Reading	CWMR	39,177	32,622	3,186	3,366	3	-	-
Weighted Bills	CWNB	438,743	391,464	38,232	8,624	16	167	241

Bad Debt Data

Historic Year:	2015	167,051	89,371	9,131	68,550			
Historic Year:	2016	84,581	75,565	9,016	-			
Historic Year:	2017	97,567	87,305	10,262	-			
Three-year average		**116,400**	**84,080**	**9,470**	**22,850**	**-**	**-**	**-**

Street Lighting Adjustment Factors

NCP Test Results	4 NCP

	Primary Asset Data		Line Transformer Asset Data	
Class	**Customers/ Devices**	**4 NCP**	**Customers/ Devices**	**4 NCP**
Residential	32,622	244,761	31,782	244,761
Street Light	9,091	2,398	9,091	2,398

Street Lighting Adjustment Factors	
Primary	28.4442
Line Transformer	29.1960

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Sheet I8 Demand Data Worksheet - Application

This is an input sheet for demand allocators.

CP TEST RESULTS	12 CP
NCP TEST RESULTS	4 NCP

Co-incident Peak	Indicator
1 CP	CP 1
4 CP	CP 4
12 CP	CP 12

Non-co-incident Peak	Indicator
1 NCP	NCP 1
4 NCP	NCP 4
12 NCP	NCP 12

Customer Classes		Total	1 Residential	2 GS <50	3 GENERAL SERVICE 50 TO 4,999 KW	7 Street Light	8 SENTINEL LIGHTING	9 UNMETERED SCATTERED LOAD
		CP Sanity Check	Pass	Pass	Pass	Check 4CP and 12CP	Check 4CP and 12CP	Check 4CP and 12CP
CO-INCIDENT PEAK								
1 CP								
Transformation CP	TCP1	122,892	57,624	24,552	40,654	-	-	62
Bulk Delivery CP	BCP1	122,892	57,624	24,552	40,654	-	-	62
Total Sytem CP	DCP1	122,892	57,624	24,552	40,654	-	-	62
4 CP								
Transformation CP	TCP4	456,185	216,764	83,093	155,443	575	56	254
Bulk Delivery CP	BCP4	456,185	216,764	83,093	155,443	575	56	254
Total Sytem CP	DCP4	456,185	216,764	83,093	155,443	575	56	254
12 CP								
Transformation CP	TCP12	1,249,627	595,260	201,423	448,499	3,380	311	754
Bulk Delivery CP	BCP12	1,249,627	595,260	201,423	448,499	3,380	311	754
Total Sytem CP	DCP12	1,249,627	595,260	201,423	448,499	3,380	311	754
NON CO_INCIDENT PEAK								
		NCP Sanity Check	Pass	Check 4 NCP	Pass	Pass	Pass	Pass
1 NCP								
Classification NCP from Load Data Provider	DNCP1	144,822	65,588	30,917	47,557	610	84	66
Primary NCP	PNCP1	144,822	65,588	30,917	47,557	610	84	66
Line Transformer NCP	LTNCP1	121,009	65,588	24,318.27	30,342.36	610	84	66
Secondary NCP	SNCP1	68,696	65,588	2,348.37	-	610	84	66
4 NCP								
Classification NCP from Load Data Provider	DNCP4	540,851	244,761	110,586	182,532	2,398	316	258
Primary NCP	PNCP4	540,851	244,761	110,586	182,532	2,398	316	258
Line Transformer NCP	LTNCP4	451,175	244,761	86,983.21	116,459.22	2,398	316	258
Secondary NCP	SNCP4	258,792	244,761	11,059	-	2,398	316	258
12 NCP								
Classification NCP from Load Data Provider	DNCP12	1,426,599	650,527	272,622	494,943	6,979	774	754
Primary NCP	PNCP12	1,426,599	650,527	272,622	494,943	6,979	774	754
Line Transformer NCP	LTNCP12	1,189,253	650,527	214,435.26	315,783.95	6,979	774	754
Secondary NCP	SNCP12	679,742	650,527	20,707.63	-	6,979	774	754

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Sheet O1 Revenue to Cost Summary Worksheet - Application

Instructions:
Please see the first tab in this workbook for detailed instructions

Class Revenue, Cost Analysis, and Return on Rate Base

Rate Base Assets		Total	1 Residential	2 GS <50	3 GENERAL SERVICE 50 TO 4,999 KW	7 Street Light	8 SENTINEL LIGHTING	9 UNMETERED SCATTERED LOAD
crev	Distribution Revenue at Existing Rates	$17,363,224	$10,320,344	$2,986,410	$3,508,877	$511,412	$14,063	$22,118
mi	Miscellaneous Revenue (mi)	$2,985,613	$2,094,375	$382,798	$449,367	$55,888	$1,468	$1,716
		Miscellaneous Revenue Input equals Output						
	Total Revenue at Existing Rates	$20,348,837	$12,414,719	$3,369,209	$3,958,244	$567,300	$15,531	$23,834
	Factor required to recover deficiency (1 + D)	1.0000						
	Distribution Revenue at Status Quo Rates	$17,363,225	$10,320,344	$2,986,410	$3,508,877	$511,412	$14,063	$22,118
	Miscellaneous Revenue (mi)	$2,985,613	$2,094,375	$382,798	$449,367	$55,888	$1,468	$1,716
	Total Revenue at Status Quo Rates	$20,348,837	$12,414,719	$3,369,209	$3,958,244	$567,300	$15,531	$23,834
	Expenses							
di	Distribution Costs (di)	$2,807,591	$1,675,539	$445,463	$654,698	$28,350	$1,823	$1,718
cu	Customer Related Costs (cu)	$2,314,333	$1,958,170	$211,769	$114,368	$28,549	$606	$871
ad	General and Administration (ad)	$5,283,157	$3,705,798	$689,380	$825,997	$56,775	$2,525	$2,682
dep	Depreciation and Amortization (dep)	$4,273,253	$2,862,030	$573,226	$783,931	$49,488	$2,305	$2,273
INPUT	PILs (INPUT)	$877,089	$492,313	$148,675	$232,324	$2,863	$452	$463
INT	Interest	$1,832,657	$1,028,676	$310,653	$485,436	$5,981	$945	$966
	Total Expenses	$17,388,081	$11,722,526	$2,379,167	$3,096,754	$172,006	$8,656	$8,972
	Direct Allocation	$0	$0	$0	$0	$0	$0	$0
NI	Allocated Net Income (NI)	$2,960,756	$1,661,881	$501,877	$784,248	$9,663	$1,526	$1,561
	Revenue Requirement (includes NI)	$20,348,837	$13,384,407	$2,881,044	$3,881,002	$181,670	$10,182	$10,534
		Revenue Requirement Input equals Output						
	Rate Base Calculation							
	Net Assets							
dp	Distribution Plant - Gross	$106,157,484	$65,607,231	$16,106,518	$23,436,896	$890,130	$58,790	$57,919
gp	General Plant - Gross	$5,484,955	$3,325,153	$851,318	$1,260,828	$41,601	$3,035	$3,020
accum dep	Accumulated Depreciation	($15,757,861)	($10,488,448)	($2,176,099)	($2,902,692)	($174,125)	($8,508)	($7,989)
co	Capital Contribution	($33,832,328)	($23,479,373)	($4,306,070)	($5,463,355)	($542,149)	($21,223)	($20,158)
	Total Net Plant	$62,052,250	$34,964,563	$10,475,667	$16,331,677	$215,456	$32,094	$32,791
	Directly Allocated Net Fixed Assets	$0	$0	$0	$0	$0	$0	$0
COP	Cost of Power (COP)	$80,511,036	$34,951,708	$11,293,070	$33,848,564	$315,848	$33,875	$67,972
	OM&A Expenses	$10,405,082	$7,339,508	$1,346,613	$1,595,063	$113,675	$4,954	$5,270
	Directly Allocated Expenses	$0	$0	$0	$0	$0	$0	$0
	Subtotal	*$90,916,118*	*$42,291,215*	*$12,639,682*	*$35,443,627*	*$429,523*	*$38,829*	*$73,242*
	Working Capital	$13,637,418	$6,343,682	$1,895,952	$5,316,544	$64,428	$5,824	$10,986
	Total Rate Base	$75,689,667	$41,308,245	$12,371,620	$21,648,221	$279,885	$37,919	$43,778
		Rate Base Input equals Output						
	Equity Component of Rate Base	$30,275,867	$16,523,298	$4,948,648	$8,659,289	$111,954	$15,167	$17,511
	Net Income on Allocated Assets	$2,960,756	$692,193	$990,042	$861,490	$395,294	$6,876	$14,862
	Net Income on Direct Allocation Assets	$0	$0	$0	$0	$0	$0	$0
	Net Income	$2,960,756	$692,193	$990,042	$861,490	$395,294	$6,876	$14,862
	RATIOS ANALYSIS							
	REVENUE TO EXPENSES STATUS QUO%	100.00%	92.76%	116.94%	101.99%	312.27%	152.55%	226.27%
	EXISTING REVENUE MINUS ALLOCATED COSTS	($0)	($969,688)	$488,165	$77,243	$385,630	$5,350	$13,300
		Deficiency Input equals Output						
	STATUS QUO REVENUE MINUS ALLOCATED COSTS	$0	($969,688)	$488,165	$77,243	$385,630	$5,350	$13,300
	RETURN ON EQUITY COMPONENT OF RATE BASE	9.78%	4.19%	20.01%	9.95%	353.09%	45.33%	84.87%

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Sheet O2 Monthly Fixed Charge Min. & Max. Worksheet - Application

Output sheet showing minimum and maximum level for Monthly Fixed Charge

Summary

	1	2	3	7	8	9
	Residential	GS <50	GENERAL SERVICE 50 TO 4,999 KW	Street Light	SENTINEL LIGHTING	UNMETERED SCATTERED LOAD
Customer Unit Cost per month - Avoided Cost	$5.69	$6.97	$21.82	$0.26	$1.21	$1.06
Customer Unit Cost per month - Directly Related	$10.26	$12.25	$42.30	$0.52	$2.69	$2.53
Customer Unit Cost per month - Minimum System with PLCC Adjustment	$20.11	$18.94	$79.55	$1.24	$8.54	$8.41
Existing Approved Fixed Charge	$23.32	$30.67	$139.09	$3.20	$3.26	$17.71

Midland Rate Zone (MRZ)

APPENDIX C: COST ALLOCATION MODEL – SPECIFIC INPUT AND OUTPUT SHEETS

Ontario Energy Board

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Sheet I6.1 Revenue Worksheet - MRZ

Total kWhs from Load Forecast	189,592,121
Total kWs from Load Forecast	283,937
Deficiency/sufficiency (RRWF 8. cell F51)	-
Miscellaneous Revenue (RRWF 5. cell F48)	643,752

			1	2	3	7	9
	ID	Total	Residential	GS <50	GENERAL SERVICE 50 TO 4,999 KW	Street Light	UNMETERED SCATTERED LOAD
Billing Data							
Forecast kWh	CEN	189,592,121	50,684,557	24,374,246	113,618,428	519,881	395,009
Forecast kW	CDEM	283,937			282,527	1,410	
Forecast kW, included in CDEM, of customers receiving line transformer allowance		193,455			193,455		
Optional - Forecast kWh, included in CEN, from customers that receive a line transformation allowance on a kWh basis. In most cases this will not be applicable and will be left blank.		80,155,863			80,155,863		
KWh excluding KWh from Wholesale Market Participants	CEN EWMP	185,865,826	50,684,557	24,374,246	109,892,133	519,881	395,009
Existing Monthly Charge			$25.73	$22.73	$64.25	$3.89	$10.51
Existing Distribution kWh Rate			$0.01	$0.02			$0.01
Existing Distribution kW Rate					$3.27	$8.98	
Existing TOA Rate					$0.60		
Additional Charges			$133,332.25	($27,105.05)	$103,828.00	($16,874.00)	$19.00
Distribution Revenue from Rates		$4,263,012	$2,470,836	$592,171	$1,112,193	$81,954	$5,857
Transformer Ownership Allowance		$116,073	$0	$0	$116,073	$0	$0
Net Class Revenue	CREV	$4,146,939	$2,470,836	$592,171	$996,120	$81,954	$5,857

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Sheet I6.2 Customer Data Worksheet - MRZ

			1	2	3	7	9
	ID	Total	Residential	GS <50	GENERAL SERVICE 50 TO 4,999 KW	Street Light	UNMETERED SCATTERED LOAD
Billing Data							
Bad Debt 3 Year Historical Average	BDHA	$65,496	$48,603	$16,893	$0	$0	$0
Late Payment 3 Year Historical Average	LPHA	$23,455	$13,684	$3,450	$6,314	$0	$7
Number of Bills	CNB	87,480	76,740	9,264	1,296	48	132
Number of Devices	CDEV					1,846	
Number of Connections (Unmetered)	CCON	1,503				1,492	11
Total Number of Customers	CCA	7,279	6,395	772	108	4	
Bulk Customer Base	CCB	7,275	6,395	772	108		
Primary Customer Base	CCP	7,341	6,395	772	108	66	
Line Transformer Customer Base	CCLT	7,311	6,395	772	78	66	
Secondary Customer Base	CCS	6,395	6,395	-	-	-	-
Weighted - Services	CWCS	6,395	6,395	-	-	-	-
Weighted Meter -Capital	CWMC	1,049,044	712,726	265,261	71,057	-	-
Weighted Meter Reading	CWMR	7,545	6,464	844	237	-	-
Weighted Bills	CWNB	88,911	76,740	9,264	2,773	36	98

Bad Debt Data

Historic Year:	2015	64,067	50,593	13,474			
Historic Year:	2016	64,225	53,105	11,120			
Historic Year:	2017	68,197	42,112	26,085			
Three-year average		**65,496**	**48,603**	**16,893**	-	-	-

Street Lighting Adjustment Factors

NCP Test Results	4 NCP

	Primary Asset Data		Line Transformer Asset Data	
Class	**Customers/ Devices**	**4 NCP**	**Customers/ Devices**	**4 NCP**
Residential	6,395	45,791	6,395	45,791
Street Light	1,846	471	1,846	471

Street Lighting Adjustment Factors	
Primary	28.0641
Line Transformer	28.0641

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Sheet I8 Demand Data Worksheet - MRZ

This is an input sheet for demand allocators.

CP TEST RESULTS	12 CP
NCP TEST RESULTS	4 NCP

Co-incident Peak	Indicator
1 CP	CP 1
4 CP	CP 4
12 CP	CP 12

Non-co-incident Peak	Indicator
1 NCP	NCP 1
4 NCP	NCP 4
12 NCP	NCP 12

Customer Classes		Total	1 Residential	2 GS <50	3 GENERAL SERVICE 50 TO 4,999 KW	7 Street Light	9 UNMETERED SCATTERED LOAD
		CP Sanity Check	Check 4 CP	Pass	Pass	Check 4CP	Check 4CP and 12CP
CO-INCIDENT PEAK							
1 CP							
Transformation CP	TCP1	30,875	9,769	3,565	17,379	118	44
Bulk Delivery CP	BCP1	30,875	9,769	3,565	17,379	118	44
Total Sytem CP	DCP1	30,875	9,769	3,565	17,379	118	44
4 CP							
Transformation CP	TCP4	121,227	40,845	13,786	65,942	473	181
Bulk Delivery CP	BCP4	121,227	40,845	13,786	65,942	473	181
Total Sytem CP	DCP4	121,227	40,845	13,786	65,942	473	181
12 CP							
Transformation CP	TCP12	340,133	97,442	41,698	199,745	709	539
Bulk Delivery CP	BCP12	340,133	97,442	41,698	199,745	709	539
Total Sytem CP	DCP12	340,133	97,442	41,698	199,745	709	539
NON CO_INCIDENT PEAK							
		NCP Sanity Check	Pass	Pass	Pass	Pass	Pass
1 NCP							
Classification NCP from Load Data Provider	DNCP1	36,105	11,962	5,459	18,518	118	48
Primary NCP	PNCP1	36,105	11,962	5,459	18,518	118	48
Line Transformer NCP	LTNCP1	30,961	11,962	5,459	13,374.11	118	48
Secondary NCP	SNCP1	12,128	11,962	-	-	118	48
4 NCP							
Classification NCP from Load Data Provider	DNCP4	139,396	45,791	19,797	73,148	471	189
Primary NCP	PNCP4	139,396	45,791	19,797	73,148	471	189
Line Transformer NCP	LTNCP4	119,077	45,791	19,797	52,829.11	471	189
Secondary NCP	SNCP4	46,451	45,791	-	-	471	189
12 NCP							
Classification NCP from Load Data Provider	DNCP12	379,486	114,311	50,583	212,628	1,416	548
Primary NCP	PNCP12	379,486	114,311	50,583	212,628	1,416	548
Line Transformer NCP	LTNCP12	320,423	114,311	50,583	153,564.67	1,416	548
Secondary NCP	SNCP12	116,275	114,311	-	-	1,416	548

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Sheet O1 Revenue to Cost Summary Worksheet - MRZ

Instructions:
Please see the first tab in this workbook for detailed instructions

Class Revenue, Cost Analysis, and Return on Rate Base

Rate Base Assets		Total	1 Residential	2 GS <50	3 GENERAL SERVICE 50 TO 4,999 KW	7 Street Light	9 UNMETERED SCATTERED LOAD
crev	Distribution Revenue at Existing Rates	$4,146,939	$2,470,836	$592,171	$996,120	$81,954	$5,857
mi	Miscellaneous Revenue (mi)	$643,752	$424,218	$74,370	$131,491	$12,858	$814
		Miscellaneous Revenue Input equals Output					
	Total Revenue at Existing Rates	$4,790,691	$2,895,054	$666,542	$1,127,611	$94,813	$6,672
	Factor required to recover deficiency (1 + D)	1.0000					
	Distribution Revenue at Status Quo Rates	$4,146,939	$2,470,836	$592,171	$996,120	$81,954	$5,857
	Miscellaneous Revenue (mi)	$643,752	$424,218	$74,370	$131,491	$12,858	$814
	Total Revenue at Status Quo Rates	$4,790,691	$2,895,054	$666,542	$1,127,611	$94,813	$6,672
	Expenses						
di	Distribution Costs (di)	$1,069,800	$619,503	$106,671	$320,984	$20,863	$1,779
cu	Customer Related Costs (cu)	$561,978	$451,543	$83,312	$20,814	$6,005	$303
ad	General and Administration (ad)	$1,307,140	$849,365	$152,804	$282,009	$21,280	$1,682
dep	Depreciation and Amortization (dep)	$773,288	$420,230	$102,553	$238,948	$10,436	$1,122
INPUT	PILs (INPUT)	$109,081	$54,143	$14,092	$39,441	$1,242	$162
INT	Interest	$336,289	$166,919	$43,446	$121,595	$3,830	$500
	Total Expenses	$4,157,576	$2,561,703	$502,878	$1,023,790	$63,656	$5,548
	Direct Allocation	$0	$0	$0	$0	$0	$0
NI	Allocated Net Income (NI)	$633,115	$314,250	$81,793	$228,921	$7,211	$941
	Revenue Requirement (includes NI)	$4,790,691	$2,875,953	$584,671	$1,252,711	$70,868	$6,489
		Revenue Requirement Input equals Output					
	Rate Base Calculation						
	Net Assets						
dp	Distribution Plant - Gross	$15,175,982	$7,991,965	$1,879,139	$5,067,222	$213,821	$23,834
gp	General Plant - Gross	$2,121,623	$1,114,523	$260,721	$713,146	$29,872	$3,361
accum dep	Accumulated Depreciation	($3,492,064)	($1,854,214)	($443,330)	($1,139,881)	($49,315)	($5,324)
co	Capital Contribution	($2,240,957)	($1,480,504)	($209,372)	($486,778)	($59,720)	($4,582)
	Total Net Plant	$11,564,584	$5,771,769	$1,487,159	$4,153,708	$134,658	$17,290
	Directly Allocated Net Fixed Assets	$0	$0	$0	$0	$0	$0
COP	Cost of Power (COP)	$22,693,080	$6,203,046	$2,967,852	$13,410,975	$63,193	$48,014
	OM&A Expenses	$2,938,918	$1,920,411	$342,787	$623,807	$48,148	$3,765
	Directly Allocated Expenses	$0	$0	$0	$0	$0	$0
	Subtotal	*$25,631,998*	*$8,123,457*	*$3,310,639*	*$14,034,781*	*$111,341*	*$51,779*
	Working Capital	$3,332,160	$1,056,049	$430,383	$1,824,522	$14,474	$6,731
	Total Rate Base	$14,896,744	$6,827,818	$1,917,542	$5,978,230	$149,132	$24,021
		Rate Base Input equals Output					
	Equity Component of Rate Base	$5,958,697	$2,731,127	$767,017	$2,391,292	$59,653	$9,608
	Net Income on Allocated Assets	$633,115	$333,351	$163,664	$103,821	$31,156	$1,123
	Net Income on Direct Allocation Assets	$0	$0	$0	$0	$0	$0
	Net Income	$633,115	$333,351	$163,664	$103,821	$31,156	$1,123
	RATIOS ANALYSIS						
	REVENUE TO EXPENSES STATUS QUO%	100.00%	100.66%	114.00%	90.01%	133.79%	102.81%
	EXISTING REVENUE MINUS ALLOCATED COSTS	($0)	$19,101	$81,871	($125,100)	$23,945	$183
		Deficiency Input equals Output					
	STATUS QUO REVENUE MINUS ALLOCATED COSTS	$0	$19,101	$81,871	($125,100)	$23,945	$183
	RETURN ON EQUITY COMPONENT OF RATE BASE	10.63%	12.21%	21.34%	4.34%	52.23%	11.69%

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Sheet O2 Monthly Fixed Charge Min. & Max. Worksheet - MRZ

Output sheet showing minimum and maximum level for Monthly Fixed Charge

Summary

	1	2	3	7	9
	Residential	GS <50	GENERAL SERVICE 50 TO 4,999 KW	Street Light	UNMETERED SCATTERED LOAD
Customer Unit Cost per month - Avoided Cost	$6.86	$12.38	$18.51	$0.33	$2.17
Customer Unit Cost per month - Directly Related	$11.58	$19.68	$33.15	$0.60	$4.05
Customer Unit Cost per month - Minimum System with PLCC Adjustment	$23.35	$28.91	$51.54	$3.56	$13.45
Existing Approved Fixed Charge	$25.73	$22.73	$64.25	$3.89	$10.51