



Northern Ontario Wires Inc.
Filed: August 30, 2024
EB-2024-0046
Exhibit 4

Exhibit 4:

OPERATING COSTS

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Tab 1

Exhibit 4: Operating Costs

Tab 1 (of 5): Overview



OVERVIEW

The evidence in Exhibit 4 provides an overview of Northern Ontario Wires Inc. (NOW Inc.)'s Operating Costs, which consist of Operations, Maintenance & Administration (OM&A), Depreciation & Amortization and Taxes. These costs are summarized in **Table 1** below for the period 2017 to 2025.

Table 1
Operating Costs 2017 to 2025

Item	2017 OEB Approved	2017 Actuals	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year
OM&A	2,757,906	2,692,253	2,689,939	2,776,551	2,763,476	2,749,921	2,913,382	3,238,873	3,804,197	4,550,911
Depre- ciation	438,977	434,168	445,928	378,991	374,547	384,642	391,365	373,188	377,482	444,406
Taxes	42,771	39,368	96,685	50,418	49,055	56,410	15,720	586	0	0
Total	3,239,654	3,165,789	3,232,452	3,205,960	3,187,078	3,190,973	3,320,467	3,612,647	4,181,679	4,995,317

Operating costs consist of the required expenditures necessary to maintain and operate NOW Inc.'s distribution system assets, the costs associated with metering, billing, collecting from its customers, the costs associated with ensuring all stakeholders' safety (public, employees, etc.) and costs to maintain the distribution business service quality and reliability standards in compliance with the Distribution System Code and other regulatory bodies (IESO, Ministry of Energy, OEB, ESA, etc.). These are on-going costs associated with providing distribution services in alignment with customer expectations.

This Application was prepared using actual results for 2017 to 2023 and forecasted values for 2024 and 2025. NOW Inc is reporting under Modified International Financial Reporting Standards (MIFRS) for all years in this Application.

NOW Inc is proposing to recover through distribution rates for the 2025 Test Year a total of \$4,995,317 for Operating Costs as detailed in Table 1 above. The Test Year OM&A amount totals \$4,550,911.



OM&A costs are discussed below, and other details are provided in E4/T2/S1 “OM&A and Cost Driver Tables” and E4/T4/S1 “Program Delivery Costs”. Depreciation & Amortization costs are discussed in E2/T1/S3 “Depreciation Expense & Policy”, and Taxes are discussed in E6/T2/S1 “Overview of Payments in Lieu of Taxes (PILs)”.

OM&A - OVERVIEW

NOW Inc.’s requested OM&A for the 2025 Test Year is \$4,550,911.

The details for the Test Year (2025) OM&A expenditures are shown in Table 2 below.

Table 2
2025 Test Year OM&A Expenditures

<u>Item</u>	<u>Cost</u>
Operation	1,207,276
Maintenance	1,370,467
Customer Service	937,555
Administration	1,035,613
Total	4,550,911

The OM&A costs for 2017 to 2025 are summarized in **Table 3** below.

Table 3
Operation Maintenance and Administration Costs 2017 to 2025

Programs	2017 OEB- Approved	2017 Actuals	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year
Total - Operations	817,472	734,010	938,481	927,457	852,226	930,035	919,277	1,025,061	999,605	1,207,276
Total - Maintenance	565,783	495,810	440,704	488,483	639,441	536,321	702,981	743,961	980,909	1,370,467
Total - Customer Service	726,564	775,872	749,497	757,347	688,585	680,520	642,584	703,383	776,167	937,555
Total – Admin. and General	648,087	686,563	561,156	603,262	583,225	603,046	648,539	766,468	1,047,516	1,035,613
Total	2,757,906	2,692,253	2,689,839	2,776,551	2,763,476	2,749,921	2,913,382	3,238,873	3,804,197	4,550,911



Programs	Variance (2025 TY less 2024 BY)	(2025 Test Year vs. 2023 Actuals)	(2025 Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Total - Operations	207,671	182,215	389,804
Total - Maintenance	389,558	626,506	804,684
Total - Customer Service	161,388	234,172	210,991
Total – Admin. and General	-11,903	269,145	387,526
Total	746,714	1,312,038	1,793,005

OM&A costs represent NOW Inc.'s integrated set of asset maintenance and operations activities required to maintain reliability, safely operate the system and meet customer needs. This includes providing services to customers connected to NOW Inc.'s distribution system; meeting the requirements of the OEB's Standard Supply Service Code, Retail Settlement Code and Distribution System Code; meeting public and employee safety objectives, environmental requirements and government direction; and maintaining distribution business service quality and reliability at targeted performance levels. A detailed discussion of the specific work programs in each of these categories is provided in E4/T4/S1.

OM&A Budget Process

NOW Inc.'s forecasted 2024 and 2025 OM&A costs were developed as part of its annual business planning process which was reviewed and approved by the NOW Inc. Board of Directors on July 23, 2024. Further information on NOW Inc.'s budget process can be found in E1/T5/S1, Section 2.

OM&A 2017 to 2025

NOW Inc.'s proposed 2025 Test Year OM&A of \$4,550,911 represents an increase of \$1,793,005 from the 2017 OEB approved level of \$2,757,906. This change represents an overall 65% increase and a compound average annual increase of 6.5%. Inflation (as estimated based on the OEB inflation factor calculation) has been approximately 25% over this period.



Table 4 (below) provides a summary of the impact of inflation (based on the OEB inflation factor) over the 2017 to 2025 period.

Table 4
Inflation 2017 to 2025

Year	OEB Inflation Factor (%)
2017	1.9%
2018	1.2%
2019	1.5%
2020	2.0%
2021	2.2%
2022	3.3%
2023	3.7%
2024	4.8%
2025	3.6%
Total	24.2%
Annual Average	2.7%

The OM&A cost increase has exceeded the rate of inflation primarily due to the addition of staff over the past several years, inflationary pressures and the need to ensure that critical work in operations and maintenance work programs can be completed to ensure safe and reliable operation of NOW Inc.'s distribution system.

Studies that support the increased level of operation and maintenance work programs can be found at E4/T4/S1 in the following attachments.

- Short Circuit and Protective Coordination Report (Attachment 1)
- NOW Vegetation Management Report (Attachment 2)
- NOW Cochrane Vegetation Management Plan (Attachment 3)
- NOW Iroquois Falls & Kapuskasing Vegetation Management Plan (Attachment 4)
- NOW Vegetation Management 5 Year Action Plan (Attachment 5)
- Acumen Audit Report (Attachment 6)

Further details on OM&A costs are provided in:



- 1 • OM&A Summary and Cost Driver Tables (E4/T2/S1)
- 2 • Program Delivery Costs (E4/T4/S1)
- 3 • Workforce Planning and Employee Compensation (E4/T4/S2)

4 Work Program details of NOW Inc.'s operating costs for the 2017 to 2025 period are
 5 provided in **Table 5** below.

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Table 5
OM&A Programs 2017 to 2025

Programs	2017 OEB- Approved	2017 Actuals	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (2025 Test Year vs. 2017 OEB- Approved)
<i>Operation</i>											
Transformer/Substation	28,856	30,249	44,559	40,218	38,252	36,475	43,949	110,014	81,536	91,671	62,815
Customer Premises	243,526	217,170	206,990	269,275	268,048	263,422	340,553	413,485	397,538	449,575	206,049
Load Dispatching	318,456	304,623	400,720	299,820	209,641	194,745	204,653	212,609	198,839	240,299	-78,157
Eng & Ops Admin	201,698	159,476	242,759	273,849	297,588	310,777	282,900	239,899	273,555	333,279	124,742
Meter Expenses	24,936	22,492	43,453	44,295	38,697	124,616	47,222	49,054	48,137	57,452	32,516
Total - Operations	817,472	734,009	938,481	927,458	852,226	930,035	919,278	1,025,060	999,605	1,207,276	389,804
<i>Maintenance</i>											
Maintenance of O/H Lines	373,660	331,979	337,644	327,723	462,103	347,745	477,425	535,237	593,233	738,789	365,129
Maintenance of Line Transformers	20,509	17,869	6,589	22,592	11,748	1,537	33,571	5,291	42,525	50,548	30,039
Maintenance of U/G Conductors	53,592	31,575	18,071	29,907	36,731	17,166	16,132	40,990	63,752	76,113	22,521
Maintenance Transformer/Substation	9,748	23,671	10,333	13,887	26,467	6,756	13,713	39,659	34,921	41,425	31,677
Tree Trimming and Vegetation Control	108,274	90,716	68,067	94,374	102,392	163,117	162,140	122,784	246,478	429,740	321,466
Total - Maintenance	565,783	495,810	440,705	488,484	639,441	536,320	702,981	743,962	980,909	1,370,467	770,832
<i>Customer Service</i>											
Billing and Collecting	453,441	478,902	465,477	503,166	430,237	456,394	517,177	494,901	530,113	625,193	171,752
Meter Reading	198,123	199,796	212,237	223,406	218,323	208,901	207,154	203,075	216,054	237,362	39,239
Bad Debt	75,000	97,174	71,783	30,775	40,025	15,225	-81,747	5,407	30,000	75,000	0
Total - Customer Service	726,564	775,872	749,498	757,348	688,585	680,520	642,584	703,383	776,167	937,555	224,830
<i>Administrative and General</i>											
Administration	447,537	440,973	428,403	472,167	444,257	464,875	489,325	562,161	589,020	690,891	243,354
Regulatory	107,305	148,082	33,828	35,596	35,042	34,433	37,920	40,747	335,034	197,000	89,695
Outside Services	53,133	55,380	55,477	54,068	61,422	61,752	73,553	106,802	66,937	143,561	90,428
Property	40,112	42,128	43,448	41,431	42,504	41,986	47,741	56,758	56,525	61,382	21,270
Total - Administrative and General	648,087	686,563	561,155	603,262	583,224	603,046	648,539	766,468	1,047,516	1,059,115	411,028
Total	2,757,906	2,692,253	2,689,839	2,776,551	2,763,476	2,749,921	2,913,382	3,238,873	3,804,197	4,550,911	1,793,005

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10

11 Over the 2017 (OEB Approved) to 2025 period, costs related to Operations increased by
 12 \$389,804, costs related to Maintenance increased by \$804,684, costs related to
 13 Customer Service increased by \$210,991 and costs associated with Administrative and



General costs increased by \$387,526. Explanations of these variances are included in E4/T4/S1 Program Delivery Costs.

OVERALL COST TREND

NOW Inc.'s OM&A costs have increased \$1,793,005 from 2017 OEB approved to the proposed 2025 Test Year amounts.

Reasons for this increase include:

- Increased Vegetation Management (including outsourcing)
- Wage increases
- Inflationary pressures
- Increase in GIS and outage management costs
- Increased workforce for safety and standby coverage
- Engineering support, cyber costs, third party services

A review of the company's Operation and Maintenance practices by new management led to several studies being conducted that have identified the need for additional spending on Operational and Maintenance work programs, in particular vegetation management.

To address these issues NOW Inc. has added three staff in the 2023 to 2024 period and is proposing to add approximately half of an FTE in the IT area in 2025 to address work backlogs and to ensure continued high reliability in its service territory.

The details behind the staffing issues, the specific staff hired and the work they perform, the results of the management review and the findings of the external studies will be detailed in this exhibit. Additional information on staffing can be found in E4/T4/S2 Workforce Planning and Employee Compensation and E4/T4/S1 Program Delivery Costs.



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Exhibit 4: Operating Costs

Tab 2 (of 5): OM&A Summary and Cost Driver Tables



OM&A SUMMARY AND COST DRIVER TABLES

The major drivers of NOW Inc.'s OM&A costs over the period 2017 to 2025 are shown in Table 1 below, which is Appendix 2-JB.

Table 1
OM&A Cost Driver Table

OM&A	Last Rebasings Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Opening Balance^a	\$ 2,757,906	\$ 2,692,254	\$ 2,689,838	\$ 2,776,552	\$ 2,763,477	\$ 2,749,921	\$ 2,913,381	\$ 3,238,873	\$ 3,804,197
Salaries, Wages and Benefits	-97,330	16,554	129,387	65,180	-93,706	101,102	168,224	278,856	319,917
Training	-15,063	3,538	2,890	-19,668	-10,932	26,592	31,106	20,727	25,781
Engineering	-51,659	3,434	2,312	4,878	1,446	1,602	-34,681	58,403	56,427
Operation Maintenance and Vehicles	29,812	112,178	-44,416	-49,241	65,479	139,070	9,944	-34,181	135,064
Bad Debts	22,174	-25,390	-42,313	9,250	-24,800	-96,972	87,153	24,594	45,000
Computer Systems and Support	636	-4,402	25,739	-22,490	-2,073	10,082	15,320	1,400	8,698
Third Party Tree Trimming							10,250	-10,250	253,852
Professional Services	2,247	97	-1,409	7,354	10,080	16,714	35,462	-56,740	96,624
Regulatory Costs	40,777	-114,254	1,789	-554	-609	3,486	2,828	294,287	-195,255
Meters	2,755	5,830	12,755	-7,784	41,559	-38,215	-114	-11,772	606
Closing Balance^a	\$ 2,692,254	\$ 2,689,838	\$ 2,776,552	\$ 2,763,477	\$ 2,749,921	\$ 2,913,381	\$ 3,238,873	\$ 3,804,197	\$ 4,550,911

An explanation of these key cost drivers from 2017 to 2025 are as follows:

- The main driver of cost increases over this period are wages, salaries and benefits. These increases are primarily related to the addition of 3.5 FTEs since the beginning of 2023 to deal with a priority work and an increased level of critical OM&A and Capital programs and projects. See E4/T4/S2 Workforce Planning and Employee Compensation and E4/T4/S1 Program Delivery Costs for additional details.
- Increased costs due to inflationary pressures (see Table 3 below). Inflationary pressures have been greater in the past few years partly attributable to the impact of the COVID pandemic.
- Increase in training (and the associated travel costs), especially since the period of the COVID pandemic. The need for additional training was identified by new management.



- 1 • Increased Engineering and Operations costs associated with increased
2 requirements such as distribution system planning, outage management
3 and reporting requirements.
- 4 • Increase in maintenance for overhead lines because of aging
5 infrastructure.
- 6 • Increase in outside services to support work programs, in particular
7 vegetation management, information technology and regulatory.
- 8 • Inflationary pressures have increased the cost of labour and material. The
9 OEB related inflation rates over the period 2017 to 2025 are shown in
10 Table 3 below. Inflationary pressures have been larger over the past
11 several years.
- 12 • Supply Chain issues arising out of the COVID Pandemic have also led to
13 cost increases.
- 14 • Increase in operation activities at customer premises due to increased
15 customer requests, service upgrades and trouble calls.
- 16 • Due to the small staff complement, regulatory-related expenses have
17 increased because of the need to utilize external consultants for rate
18 applications to meet increased OEB requirements.
- 19 • Increase in vegetation management program to address reliability
20 issues specifically the retention of third-party tree trimming expertise.
- 21 • Increase in IT expenditures to address cyber security and adoption of
22 newer technology to support productivity and system operation.
- 23 • Increase in Transformer maintenance program to deal with aging
24 infrastructure.



- Increase regulatory expenses to address additional regulatory burden (e.g. RRR reporting and implementation of new rate structures).

Table 2 (below) summarizes the primary cost drivers over the period 2017 to 2025

Table 2
Primary Cost Drivers 2017 to 2025

Primary Cost Drivers 2017-2025	Total	Change 2025 vs 2017
Salaries, Wages and Benefits	\$ 888,184	50%
Training	\$ 64,971	4%
Operation Maintenance and Vehi	\$ 363,709	20%
Third Party Tree Trimming	\$ 253,852	14%
Professional Services	\$ 110,428	6%
	\$ 1,681,143	94%

Table 3 (below) provides a summary of the impact of inflation (based on the OEB inflation factor) over the 2017 to 2025 period.



1

Table 3

2

Inflation 2017 to 2025

Year	OEB Inflation Factor (%)
2017	1.9%
2018	1.2%
2019	1.5%
2020	2.0%
2021	2.2%
2022	3.3%
2023	3.7%
2024	4.8%
2025	3.6%
Total	24.2%
Annual Average	2.7%

3

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Exhibit 4: Operating Costs

Tab 3 (of 5): Program Delivery Appendices



PROGRAM DELIVERY APPENDICES

OM&A appendices are provided in the following attachments:

- E4/T3/S1/ATT1: 2-JA Summary of Recoverable OM&A expenses
- E4/T3/S1/ATT2: 2-JB Recoverable OM&A Cost Driver
- E4/T3/S1/ATT3: 2-JC OM&A Programs Table
- E4/T3/S1/ATT4: 2-L Recoverable OM&A Cost per Customer & per FTE



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OEB Appendix 2-JA

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Appendix 2-JA

	2017 Last Releasing Year OEB Approved	2017 Last Releasing Year Actuals	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year
Operations ¹	\$ 817,472	\$ 724,000	\$ 938,481	\$ 927,458	\$ 852,206	\$ 930,035	\$ 919,278	\$ 1,025,060	\$ 989,805	\$ 1,070,476
Maintenance ²	\$ 565,783	\$ 489,810	\$ 440,709	\$ 488,484	\$ 639,441	\$ 536,320	\$ 702,981	\$ 743,992	\$ 980,909	\$ 1,370,245
Billing and Collection ³	\$ 775,874	\$ 775,874	\$ 767,348	\$ 749,488	\$ 680,520	\$ 680,520	\$ 642,384	\$ 703,383	\$ 716,767	\$ 757,167
Community Relations ⁴	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative and General ⁵	\$ 648,087	\$ 694,298	\$ 951,106	\$ 600,840	\$ 580,819	\$ 600,501	\$ 648,839	\$ 795,449	\$ 1,047,125	\$ 1,233,611
Total	\$ 2,747,906	\$ 2,689,990	\$ 2,689,840	\$ 2,774,133	\$ 2,761,070	\$ 2,747,396	\$ 2,910,767	\$ 3,239,872	\$ 3,804,197	\$ 4,650,914
% Change (year over year)		-2.5%	0.0%	3.1%	-0.5%	-0.5%	5.9%	11.3%	17.5%	

1 Historical accounts going back to the last cost of service application are required to be entered by the applicant

2 Recoverable O&M that is included on these tables should be identical to the recoverable O&M that is shown for the corresponding periods on Appendix 2.B.

3 For unrecoverable O&M Expenses see Section 2.4.3.7

4 USA included in Operations: 5005, 5010, 5012, 5014, 5015, 5017, 5020, 5025, 5030, 5035, 5040, 5045, 5050, 5055, 5060, 5065, 5070, 5075, 5080, 5085, 5090, 5095, 5096

5 USA included in Billing and Collecting: 5005, 5010, 5012, 5014, 5015, 5017, 5020, 5025, 5030, 5035, 5040, 5045, 5050, 5055, 5060, 5065, 5070, 5075, 5080, 5085, 5090, 5095, 5096

6 USA included in Maintenance: 5105, 5110, 5112, 5114, 5120, 5125, 5130, 5135, 5140, 5145, 5150, 5160, 5165, 5170, 5172, 5175, 5178, 5195

7 USA included in Community Relations: 5405, 5410, 5412, 5420, 5425

8 USA included in Administrative and General: 5505, 5510, 5515, 5520, 5605, 5610, 5615, 5620, 5625, 5630, 5635, 5640, 5645, 5648, 5649, 5650, 5655, 5660, 5665, 5670, 5672, 5675, 5680, 5811, 5685, 5695, **6205 (sub-union LEAP funding)**

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OEB Appendix 2-JB

Appendix 2-JB
Recoverable OM&A Cost Driver Table^{1,3}

OM&A	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
Opening Balance ²	\$ 2,757,906	\$ 2,692,254	\$ 2,689,838	\$ 2,776,552	\$ 2,763,477	\$ 2,749,921	\$ 2,913,381	\$ 3,238,873	\$ 3,804,197
Salaries, Wages and Benefits	-97,330	16,554	129,387	65,180	-93,706	101,102	168,224	278,856	319,917
Training	-15,063	3,538	2,890	-19,668	-10,932	26,592	31,106	20,727	25,781
Engineering	-51,659	3,434	2,312	4,878	1,446	1,602	-34,681	58,403	56,427
Operation Maintenance and Vehicles	29,812	112,178	-44,416	-49,241	65,479	139,070	9,944	-34,181	135,064
Bad Debts	22,174	-25,390	-42,313	9,250	-24,800	-96,972	87,153	24,594	45,000
Computer Systems and Support	636	-4,402	25,739	-22,490	-2,073	10,082	15,320	1,400	8,698
Third Party Tree Trimming							10,250	-10,250	253,852
Professional Services	2,247	97	-1,409	7,354	10,080	16,714	35,462	-56,740	96,624
Regulatory Costs	40,777	-114,254	1,769	-554	-609	3,486	2,828	294,287	-195,255
Meters	2,755	5,830	12,755	-7,784	41,559	-38,215	-114	-11,772	606
Closing Balance ²	\$ 2,692,254	\$ 2,689,838	\$ 2,776,552	\$ 2,763,477	\$ 2,749,921	\$ 2,913,381	\$ 3,238,873	\$ 3,804,197	\$ 4,550,911

Notes:

- For each year, a detailed explanation for each cost driver and associated amount is required in Exhibit 4.
- Opening Balance for "Last Rebasing Year" (cell B15) should be equal to the OEB-Approved amount. For purposes of assessing incremental cost drivers, the closing balance for each year become the opening balance for the next year.
- If it has been more than four years since the applicant last filed a cost of service application, additional years of historical actuals should be incorporated into the table, as necessary, to go back to the last cost of service application. If the applicant last filed a cost of service application less than four years ago, a minimum of three years of actual information is required.



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Schedule 1
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OEB Appendix 2-JC

File Number EB-2024-0046
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Date: 30-Aug-24

**Appendix 2-JC
OM&A Programs Table**

Programs	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS		
Operation												
Transformer/Substation	28,856	30,249	44,559	40,218	38,252	36,475	43,949	110,014	81,536	126,671	16,657	97,815
Customer Premises	243,526	217,170	206,990	269,275	268,048	263,422	340,553	413,485	397,538	449,575	36,090	206,049
Load Dispatching	318,456	304,623	400,720	299,820	209,641	194,745	204,653	212,609	198,839	240,299	27,690	-78,157
Eng & Ops Admin	201,698	159,476	242,759	273,849	297,588	310,777	282,900	239,899	273,555	333,279	93,380	131,581
Meter Expenses	24,936	22,492	43,453	44,295	38,697	124,616	47,222	49,054	48,137	57,452	8,398	32,516
Sub-Total	817,472	734,009	938,481	927,458	852,226	930,035	919,278	1,025,060	999,605	1,207,276	182,216	389,804
Maintenance												
Maintenance of O/H Lines	373,660	331,979	337,644	327,723	462,103	347,745	477,425	535,237	593,233	628,789	93,552	255,129
Maintenance of Line Transformers	20,509	17,869	6,589	22,592	11,748	1,537	33,571	5,291	42,525	125,548	120,257	105,039
Maintenance of U/G Conductors	53,592	31,575	18,071	29,907	36,731	17,166	16,132	40,990	63,752	76,113	35,123	22,521
Maintenance Transformer/Substation	9,748	23,671	10,333	13,887	26,467	6,756	13,713	39,659	34,921	41,425	1,766	31,677
Tree Trimming and Vegetation Control	108,274	90,716	68,067	94,374	102,392	163,117	162,140	122,784	246,478	498,592	375,808	390,318
Sub-Total	565,783	495,810	440,705	488,484	639,441	536,320	702,981	743,962	980,909	1,370,467	626,505	804,684
Billing and Collecting												
Billing and Collecting	453,441	478,902	465,477	503,166	430,237	456,394	517,177	494,901	530,113	625,193	130,292	171,752
Meter Reading	198,123	199,796	212,237	223,406	218,323	208,901	207,154	203,075	216,054	237,362	34,287	39,239
Bad Debt	75,000	97,174	71,783	30,775	40,025	15,225	-81,747	5,407	30,000	75,000	69,593	0
											0	0
											0	0
Sub-Total	726,564	775,872	749,498	757,348	688,585	680,520	642,584	703,383	776,167	937,555	234,172	210,991
Community Relations												
											0	0
											0	0
											0	0
											0	0
Sub-Total	0	0	0	0	0	0	0	0	0	0	0	0
Administrative and General												
Administration	447,537	440,973	428,403	472,167	444,257	464,875	489,325	562,161	589,020	690,891	128,730	243,354
Regulatory	107,305	148,082	33,828	35,596	35,042	34,433	37,920	40,747	335,034	139,779	99,032	32,474
Outside Services	53,133	55,380	55,477	54,068	61,422	61,752	73,553	106,802	66,937	143,561	36,759	90,428
Property	40,112	42,128	43,448	41,431	42,504	41,986	47,741	56,758	56,525	61,382	4,624	21,270
Sub-Total	648,087	686,563	561,155	603,262	583,224	603,046	648,539	766,468	1,047,516	1,035,613	269,145	387,526
Miscellaneous												
											0	0
Total	2,757,906	2,692,253	2,689,839	2,776,551	2,763,476	2,749,921	2,913,382	3,238,873	3,804,197	4,550,911	1,312,038	1,793,005

Notes:

- 1 Please provide a breakdown of the major components of each OM&A Program undertaken in each year. Please ensure that all programs below the materiality threshold are included in the miscellaneous line. Add more Programs as required.
- 2 The applicant should group projects appropriately and avoid presentations that result in classification of significant components of the OM&A budget in the miscellaneous category



Northern Ontario Wires Inc.
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OEB Appendix 2-L

Appendix 2-L

Recoverable OM&A Cost per Customer and per FTE ¹

	Last Rebasing Year 2017 - OEB Approved	Last Rebasing Year (2017 Actuals)	2017 Actuals	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year
Reporting Basis	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
OM&A Costs											
O&M	\$ 1,383,255	\$ 1,229,819	\$ 1,118,643	\$ 1,379,186	\$ 1,415,941	\$ 1,491,667	\$ 1,466,355	\$ 1,622,259	\$ 1,769,022	\$ 1,980,514	\$ 2,577,743
Admin Expenses ⁵	\$ 1,374,651	\$ 1,460,171	\$ 677,912	\$ 561,156	\$ 600,844	\$ 1,269,402	\$ 1,281,041	\$ 1,288,504	\$ 1,469,851	\$ 1,823,683	\$ 1,973,168
Total Recoverable OM&A from Appendix 2-JB⁵	\$ 2,757,906	\$ 2,689,990	\$ 1,796,555	\$ 1,940,342	\$ 2,016,785	\$ 2,761,070	\$ 2,747,396	\$ 2,910,763	\$ 3,238,873	\$ 3,804,197	\$ 4,550,911
Number of Customers^{2,4}	6,097	6,001	6,001	5,922	6,003	5,955	5,960	5,966	5,996	5,986	5,974
Number of FTEs^{3,4}	16	17	17	16	17	17	16	16	16	19	20
Customers/FTEs	388	359	359	370	350	361	375	375	372	312	305
OM&A cost per customer											
O&M per customer	\$227	\$205	\$186	\$233	\$236	\$250	\$246	\$272	\$295	\$331	\$431
Admin per customer	\$225	\$243	\$113	\$95	\$100	\$213	\$215	\$216	\$245	\$305	\$330
Total OM&A per customer	\$452	\$448	\$299	\$328	\$336	\$464	\$461	\$488	\$540	\$635	\$762
OM&A cost per FTE											
O&M per FTE	\$88,105	\$73,642	\$66,985	\$86,199	\$82,610	\$90,404	\$92,224	\$102,029	\$109,877	\$103,152	\$131,518
Admin per FTE	\$87,557	\$87,435	\$40,594	\$35,072	\$35,055	\$76,933	\$80,569	\$81,038	\$91,295	\$94,983	\$100,672
Total OM&A per FTE	\$175,663	\$161,077	\$107,578	\$121,271	\$117,665	\$167,338	\$172,792	\$183,067	\$201,172	\$198,135	\$232,189

Notes:

- 1 If it has been more than four years since the applicant last filed a cost of service application, additional years of historical actuals should be incorporated into the table, as necessary, to go back to the last cost of service application. If the applicant last filed a cost of service application less than four years ago, a minimum of three years of actual information is required.
- 2 The method of calculating the number of customers must be identified. Should correspond with data provided in Appendix 2-IB.
- 3 The method of calculating the number of FTEs must be identified. See also Appendix 2-K.
- 4 The number of customers and the number of FTEs should correspond to mid-year or average of January 1 and December 31 figures.
- 5 For the test year, the applicant should take into account the system O&M (line 24 of Appendix 2-AB) in developing its forecasted OM&A.



Northern Ontario Wires Inc.
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Exhibit 4
Tab 4

Exhibit 4: Operating Costs

Tab 4 (of 5): Program Delivery Costs



PROGRAM DELIVERY COSTS

Introduction

The electricity industry has been undergoing many changes since NOW Inc.'s last cost of service application in 2017. There have been new initiatives from both the Province and the OEB for enhanced customer service and customer engagement. In addition, there have been a number of initiatives led by the OEB in response to the Letters of Direction in both 2022 and 2023 from the Ministry of Energy. Climate change studies (e.g. Ontario Clean Energy Opportunity – Report of the Electrification and Energy Transitions Panel) and direction from the Government and OEB are also impacting the industry in particular with respect to the need for greater system resiliency and grid modernization.

NOW Inc.'s service territory is in three separate towns (Kapusksasing, Cochrane and Iroquois Falls) which are 170 kilometers apart (Kapusksasing to Iroquois Falls). The terrain is rugged, with few major connecting transportation routes resulting in certain practices being required to ensure worker safety and reliability, in particular with respect to ensuring Standby Services are available at several locations in the service territory.

NOW Inc. has faced several challenges over the past few years in terms of attracting and retaining staff and has had a high staff turnover rate. During this period there were several employees who took leaves of absence and several employees who joined for a short period of time and then sought employment elsewhere. These challenges, especially over the 2018 to 2023 period, resulted in some O&M work programs not being fully executed consistent with NOW Inc.'s plans for these years. A safe and reliable system has been maintained over this period, however there have been recent issues with respect to reliability that have resulted in the development of plans to maintain and in some situations improve reliability.



1 To address these issues NOW Inc. has changed some of its practices (e.g. more
2 outsourcing), has added three additional staff in the 2022 to 2024 period and is planning
3 on a part time employee to become a full-time employee in 2025 to address work priority
4 work, deal with new IT requirements (in particular cyber security) and to ensure
5 continued high reliability in its service territory.

6
7 Additional details behind the staffing issues, the need for increased staff levels, the
8 specific staff hired and the work they perform, can be found in E4/T4/S2 Workforce
9 Planning and Employee Compensation.

10
11 A review of the company's Operation and Maintenance practices by new management
12 led to several studies being conducted that have identified the need for additional
13 spending on Operational and Maintenance work programs including, in particular,
14 vegetation management. In addition, over the period 2022 to 2024 NOW Inc. has started
15 to move many of its Operations and Maintenance activities from being reactive to being
16 proactive.

17
18 This exhibit will also discuss the results of the management review and the findings of
19 the external studies (E4/T4/S1/A1-5) (e.g. Fuse Study, Vegetation Management Studies)
20 and the impact of these studies on the OM&A work programs.

21 22 **OM&A PROGRAM DELIVERY COSTS**

23
24 OM&A expenses include all costs relating to the operation, maintenance, and
25 administration of NOW Inc.'s distribution system. It includes direct work program costs
26 which include labour, benefits, material and service costs as well as support costs such
27 as fleet, stores/purchasing, health and safety, training and engineering and purchased
28 services.

29
30 Table 1 below shows the 2017 actual costs compared to 2017 OEB approved levels.
31



1

Table 1

2

2017 OEB Approved vs 2017 Actual OM&A

Programs	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	Variance (2017 A less 2017 OEB Approved)
Reporting Basis	MIFRS	MIFRS	MIFRS
Operation			
Transformer/Substation	28,856	30,249	1,393
Customer Premises	243,526	217,170	-26,356
Load Dispatching	318,456	304,623	-13,834
Eng & Ops Admin	201,698	159,476	-42,222
Meter Expenses	24,936	22,492	-2,444
Sub-Total	817,472	734,009	-83,463
Maintenance			
Maintenance of O/H Lines	373,660	331,979	-41,681
Maintenance of Line Transformers	20,509	17,869	-2,640
Maintenance of U/G Conductors	53,592	31,575	-22,017
Maintenance Transformer/Substation	9,748	23,671	13,923
Tree Trimming and Vegetation Control	108,274	90,716	-17,558
Sub-Total	565,783	495,810	-69,973
Billing and Collecting			
Billing and Collecting	453,441	478,902	25,461
Meter Reading	198,123	199,796	1,673
Bad Debt	75,000	97,174	22,174
Sub-Total	726,564	775,872	49,308
Community Relations			
Sub-Total	0	0	0
Administrative and General			
Administration	447,537	440,973	-6,564
Regulatory	107,305	148,082	40,777
Outside Services	53,133	55,380	2,247
Property	40,112	42,128	2,016
Sub-Total	648,087	686,563	38,476
Miscellaneous			
Total	2,757,906	2,692,253	-65,653

3



The 2017 actual OM&A was \$65,653 lower than OEB approved level. Overall, there were no significant variances. Variances in the Operations and Maintenance areas reflect timing related changes of work programs for various reasons (e.g. staffing). In addition, the OEB approved OM&A levels were based on a full year however rates were implemented on May 1, 2017, resulting in some delayed expenditures.

OPERATIONS

This section describes the Operations work programs. Operations costs in the 2025 Test Year are \$473,267 (58%) higher than 2017 actual costs. The costs in each major area are shown in **Table 2** below.

Table 2
Operations OM&A 2017 to 2025

Programs	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year
Operation										
Transformer/Substation	28,856	30,249	44,559	40,218	38,252	36,475	43,949	110,014	81,536	126,671
Customer Premises	243,526	217,170	206,990	269,275	268,048	263,422	340,553	413,485	397,538	449,575
Load Dispatching	318,456	304,623	400,720	299,820	209,641	194,745	204,653	212,609	198,839	240,299
Eng & Ops Admin	201,698	159,476	242,759	273,849	297,588	310,777	282,900	239,899	273,555	333,279
Meter Expenses	24,936	22,492	43,453	44,295	38,697	124,616	47,222	49,054	48,137	57,452
Total Operations	817,472	734,009	938,481	927,458	852,226	930,035	919,278	1,025,060	999,605	1,207,276



Transformer/Substation

Table 3 provides the Transformer/Substation expenditures for 2017 -2025.

Table 3
Transformer/Substation Expenditures 2017 to 2025

Programs	Last Rebasement Year (2017 OEB- Approved)	Last Rebasement Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasement Year (2017 OEB- Approved))
Transformer/Substation	28,856	30,249	44,559	40,218	38,252	36,475	43,949	110,014	81,536	126,671	16,657	97,815

The Transformer/Substation work program includes direct labour and material costs to maintain equipment for feeders for overhead and underground wires. It also includes transformer and substation maintenance, which involves monthly visual inspections and annual oil sampling. This includes monthly visual inspections on pole-mount and pad-mount transformers as well as station buildings are performed. The work program also includes vegetation control at substations.

NOW Inc.'s maintenance strategy is to minimize reactive and emergency-type work through an effective program (including predictive and preventative actions). These assets are crucial distribution system components which carry major consequences in case of failure. Much of this work is now preventative with major work programs related to previously identified issues completed.

Furthermore, with the anticipated introduction of the outage management system, NOW Inc. foresees additional controls and predictive measures being applied.

Previously NOW Inc. has solely relied on oil testing with respect to its sub-station testing program. NOW Inc. has increased its sub-station testing to take into account other techniques (e.g. power factor testing, current testing, leakage reactive testing, DC winding resistance testing, insulation resistance testing and TTR H/S testing) NOW Inc.



1 has incorporated the costs for development and implementation of new testing
2 techniques in its 2024 and 2025 OM&A expenditures.

3
4 NOW Inc is completing its Transformer PCB assessment and remediation including the
5 checking of all transformers and data collection. This work will be completed in 2025 as
6 directed by the Federal government.

7
8 Variance Explanation

9
10 The increase over the 2017 to 2025 period of \$97,815 or 339% mainly reflects a better
11 understanding of the transformers due to more detailed testing and a shift in priorities as
12 identified by new management through a review of the asset base. The testing results
13 have provided NOW Inc. with a better understanding of its transformers status and as a
14 result has increased expenditures in this area to deal with aging infrastructure. In
15 addition, NOW Inc. conducted 115kV structure maintenance at Cochrane MTS.

16
17 The planned 2025 expenditures of \$126,671 are \$16,657 or 15% higher than 2023
18 actual expenditures.

19
20 **PRODUCTIVITY**

21
22 NOW Inc. is in the process of acquiring and implementing a new GIS based tool
23 (GO360). This system, made up of several modules, contains a mapping system, a work
24 order system, an asset condition assessment tool, additional billing and customer
25 service functions, and has an asset statistics analysis tool.

26
27 Other modules contain an outage management tool, which will help decrease outage
28 duration by being able to pin – point outages. This tool will also help reduce line patrols
29 and allow for quicker response to trouble calls. Powerline technicians will also be able to
30 access distribution system information through a mobile connection (tablet access).



More detailed information on the GO360 tool can be found in E1/T8/S1 Facilitating Innovation

Customer Premises

Table 4 provides the Customer Premises expenditures for 2017 to 2025

Table 4
Customer Premises Expenditures 2017 to 2025

Programs	Last Rebasing Year (2017 OEB-Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB-Approved))
Customer Premises	243,526	217,170	206,990	269,275	268,048	263,422	340,553	413,485	397,538	449,575	36,090	206,049

The Customer Premises program is driven by customer demand and includes labour, vehicle charges, materials and other costs related to providing services to assets on customer's premises. Such work entails the performing of cable locates; meeting customer appointments; addressing trouble calls; disconnection and reconnection of meters; investigation of service complaints; addressing customer concerns; and installing voltage recorders. Customer Premises expenditures help ensure customer satisfaction by addressing overall customer issues and concerns.

Variance Explanation

In 2025 customer premise expenditures are planned at \$449,575 or (85%) higher than 2017 approved primarily due to expanding work levels in the area with greater customer interaction and requests due to increased customer awareness of the need to notify all utilities when performing work on their property. The volume and increasing demand required more costs and assistance in ensuring customer satisfaction.

The complexity of many locates has increased over the 2017 to 2025 period. For example, access through customer yards is increasingly challenging due to historical easements not being respected. Also, customer enquiries with respect to tree trimming



have increased. In addition, post COVID there have been many more projects around homes that were delayed during COVID and are now proceeding. NOW Inc. intends to improve the tracking of locates and customer interaction information.

The planned 2025 customer premises expenditures are \$449,575 or (9%) higher than 2023 actual levels. This variance from the 2023 actuals reflects the factors identified above.

PRODUCTIVITY

Resources are continued to be scheduled to tackle programs in a systematic practice to reduce roll out costs and efficiency of the workforce. This reduces the amount of required overtime hours while taking into account customer impact regarding outages and scheduling them at the least intrusive time. NOW Inc. expects there to be productivity improvements as a result of replacing ceramic insulators with composite insulators. NOW Inc. has been actively replacing ceramic insulators over the past few years. Ceramic insulators have been shown to fail more often than composite insulators.

NOW Inc. also expects productivity improvements in this area with the implementation of the GO360 system (discussed above). More detailed information on the GO360 tool can be found in E1/T8/S1 Facilitating Innovation.

Load Dispatching

Table 5 provides the Load Dispatching expenditures for – 2017 to 2025.

Table 5
Load Dispatching Expenditures 2017 to 2025

Programs	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Load Dispatching	318,456	304,623	400,720	299,820	209,641	194,745	204,653	212,609	198,839	240,299	27,690	-78,157



The Load Dispatching expenditures are incurred to maintain all overhead and underground feeders, overhead services, transformers (pole mount and pad mount), underground conductors, primary switches, and other related fixtures. Pro-active maintenance of these assets typically involves cyclical line patrols with infrared scanning and repairs to primary and secondary conductors.

In 2025 load dispatching expenditures are planned at \$240,299 or (25%) lower than 2017 approved levels. Some of the variance in this area is as a result of an accounting coding change that saw a correction and some costs been shifted to Customer Premises. NOW Inc. has been mitigating issues in this area on an on-going basis.

The planned 2025 expenditures of \$240,229 are \$27,690 or 13% higher than 2023 actual expenditures.

PRODUCTIVITY

The three main sources of outages are animal contact, vegetation contact and equipment failures. To address these issues and reduce costs in this area NOW Inc. has implemented measures to help protect assets from animal contact (animal contact guards), has increased its vegetation management program and has adjusted work priorities to deal with equipment failures (e.g. implementation of the GO360 asset condition assessment module).

Engineering and Operations Administration

Table 6 provides Engineering and Operations Administration expenditures for 2017-2025



Table 6
Engineering & Operations Administration Expenditures 2017 to 2025

Programs	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Eng & Ops Admin	201,698	159,476	242,759	273,849	297,588	310,777	282,900	239,899	273,555	333,279	93,380	131,581

Engineering and Operations Administration activities involve the supervision of various planning projects including the GIS mapping and the Distribution System Plan in 2025. The wages for the General Manager are included in this work program as it correlates to his duties rather than the management included under Administration. The General Manager oversees the entirety of the operations and is heavily involved in the operations administration on a daily basis. Project management, project planning, asset management, risk assessments, material specifications, design reviews, and other technical oversight justify this allocation.

In 2025 engineering and operations expenditures are planned at \$333,279 or (65%) higher than 2017 approved levels. This increase is primarily due to the addition of engineering consulting assistance to achieve operational efficiencies as well as the development of more detailed system mapping and a related asset database.

The planned 2025 engineering and operations expenditures of \$333,279 are (39%) higher than 2023 actual levels primarily due to the changes identified above.

PRODUCTIVITY

NOW Inc. is implementing improvements in its engineering standards with the use of external resources. Some of these improvements include better modeling capabilities and better documentation management. In addition, there are now better processes for construction design packages partly as a result of the development of a distribution model to properly assess the impacts of actions (or inaction) on the distribution system.



In addition, there are now better process to design packages subject to regulations 22/04 that are audited yearly by the ESA (E4/T4/S1/A6).

Meters

Table 7 provides Meter expenditures for 2017 - 2025

Table 7
Meter Expenditures 2017 to 2025

Programs	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Meter Expenses	24,936	22,492	43,453	44,295	38,697	124,616	47,222	49,054	48,137	57,452	8,398	32,516

The primary activity of the Meters work program is to verify the accuracy of all residential, commercial, industrial and wholesale meters for billing purposes. All meters are subject to various processes to ensure accuracy as there are various requirements that must be maintained to ensure installations are meeting Measurement Canada requirements.

These expenditures are largely driven by costs associated with installations, commissioning, and testing of meters. In 2021 there was a one-time surge in meter testing work to catch up with backlogs.

The variance from 2025 Test year vs. 2017 OEB approved and 2025 Test Year vs. 2023 actual are not material.



MAINTENANCE

NOW Inc.'s maintenance strategy is to predict and prevent system failures. NOW Inc.'s maintenance plan involves testing elements of the distributions systems through activities like infrared thermography testing, transformer oil analysis and routine visual equipment inspections. Any identified deficiencies are prioritized and addressed. Its preventative maintenance activities include inspection, servicing, repair of network components and regularly scheduled tree trimming. This includes overhead and pad mounted load break switch maintenance and regular inspection and repair of substation components and ancillary equipment.

NOW Inc. has retained third-party contracts for additional testing. This testing has provided a better understanding of the condition of sub-stations to identify critical asset issues.

This section describes the Maintenance work programs. Maintenance expenditures include all direct labour costs and material spending to support scheduled and reactive maintenance events related to NOW Inc.'s distribution system. The costs in each major area are shown in **Table 8** below.

Table 8
Maintenance Expenditures 2017 to 2025

Programs	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Maintenance												
Maintenance of O/H Lines	373,660	331,979	337,644	327,723	462,103	347,745	477,425	535,237	593,233	628,789	93,552	255,129
Maintenance of Line Transformers	20,509	17,869	6,589	22,592	11,748	1,537	33,571	5,291	42,525	125,548	120,257	105,039
Maintenance of U/G Conductors	53,592	31,575	18,071	29,907	36,731	17,166	16,132	40,990	63,752	76,113	35,123	22,521
Maintenance Transformer/Substation	9,748	23,671	10,333	13,887	26,467	6,756	13,713	39,659	34,921	41,425	1,766	31,677
Tree Trimming and Vegetation Control	108,274	90,716	68,067	94,374	102,392	163,117	162,140	122,784	246,478	498,592	375,808	390,318
											0	0
Total Maintenance	565,783	495,810	440,705	488,484	639,441	536,320	702,981	743,962	980,909	1,370,467	626,505	804,684

The variance in each area is discussed below.



Maintenance of Overhead Lines

Table 9 provides the Maintenance of Overhead Lines expenditures for 2017 to 2025.

Table 9
Maintenance of Overhead Lines Expenditures 2017 to 2025

Programs	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Maintenance of O/H Lines	373,660	331,979	337,644	327,723	462,103	347,745	477,425	535,237	593,233	628,789	93,552	255,129

Overhead Line maintenance primarily involves remedial work that has been identified as a result of a visual inspection. This entails the replacement of broken insulators, cross-arms, frayed conductors, etc. Normally, these problems arise due to age, deterioration, adverse weather, climate changes, and animal interference (squirrels, crows). Inspections of overhead lines are conducted on a monthly basis via line patrols. Maintenance is an important factor to ensure service reliability and mitigate future outages.

In 2025 maintenance of overhead lines expenditures are planned to be \$628,789 or (68%) higher than the 2017 approved levels primarily due to the re-focusing on this crucial asset as a result of a review by new management. It should be noted that 95% of all lines in the NOW Inc. service territory are overhead lines. Ensuring the safe and reliable operation of these lines is a priority at NOW Inc. due to the potential impact on customers. In addition, in earlier years there were some corrections made in the allocation at the USoA account level to better align expenses to work programs which resulted in the costs in this area increasing.

In 2025, maintenance of overhead lines expenditures are \$93,552 (18%) higher than the actual 2023 levels primarily reflecting the importance and re-focusing of maintenance activities this asset grouping in a safe and reliable manner.



PRODUCTIVITY

With respect to the specific reliability issues with a local hospital, NOW Inc. commissioned engineering studies to determine the best and most cost-effective manner to resolve the issue. In addition to changes and increases to the vegetation management program NOW Inc. is investigating breaker settings and better fuse coordination. These studies are filed at E4/T4/S1, Attachments 1 to 5. NOW Inc. had a successful overnight outage and managed to implement an estimated 70% of the recommended lateral circuit fusing.

The fuse coordination program in Kapuskasing (E4/T4/S1/Att1) will help isolate faults and reduce outage impacts which are assisting in the resolution of the hospital reliability issues.

The addition of the GO360 Asset Condition Assessment Module will help highlight high risk areas to proactively maintain. The new Outage Management Tool will assist in reducing outage time due to quicker identification of failed assets through the use of mobile tablets with interactive maps and system design information. More detailed information on the GO360 tool can be found in E1/T8/S1 Facilitating Innovation.

Maintenance of Line Transformers

Table 10 provides the Maintenance of Line Transformers Expenditures for 2017 - 2025.

Table 10
Maintenance of Line Transformers Expenditures 2017 to 2025

Programs	Last Rebasing Year (2017 OEB-Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB-Approved))
Maintenance of Line Transformers	20,509	17,869	6,589	22,592	11,748	1,537	33,571	5,291	42,525	125,548	120,257	105,039



The Maintenance of Line Transformers involves remedial work that has been identified as a result of a visual inspection. This includes replacement of one or more components. Visual inspections of overhead lines and transformers are conducted on a monthly basis via line patrols.

In 2025 maintenance of line transformers expenditures are \$120,257 or (512%) higher than the 2017 approved primarily due to the PCB replacement program in recent years.

The planned 2025 maintenance of line transformers expenditures are \$125,548 or (2,273%) higher than 2023 primarily due to the PCB replacement program and a low level of work in 2023.

PRODUCTIVITY

The addition of the GO360 Asset Condition Assessment Module will help highlight high risk areas to proactively maintain. The new Outage Management Tool will assist in reducing outage time due to quicker identification of failed assets. The fuse coordination program in Kapuskasing will help isolate faults and reduce outage impacts. The implementation of mobile tablets with interactive maps and system design along with GO360 tools will also increase productivity by having all resources on hand rather than paper copies at the service centres. More detailed information on the GO360 tool can be found in E1/T8/S1 Facilitating Innovation.

Maintenance of Underground Conductors

Table 11 provides the Maintenance of Underground Conductors Expenditures for 2017 to 2025.

Table 11

Maintenance of Underground Conductors Expenditures 2017 to 2025



	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Programs												
Maintenance of U/G Conductors	53,592	31,575	18,071	29,907	36,731	17,166	16,132	40,990	63,752	76,113	35,123	22,521

The Maintenance of Underground Conductors involves remedial work, such as replacement and repair, which has been identified as a result of a visual inspection at the termination point. Inspections of switches, air brakes, and ground disturbances, visual of pole dip feed versus riser load are conducted on a monthly basis via line patrols.

In 2025 maintenance of underground conductors expenditures are planned to be \$76,113 or (42%) higher than the 2017 approved levels primarily due to aging residential services that NOW Inc. inherited from older subdivisions. These assets experience more faults and secondary burn offs.

Maintenance Transformer / Substation

The Operation and Maintenance of Transformers / Substations was classified as one work program in the previous application. This has now been split into separate Operations and Maintenance programs.

The costs in the Operations category are costs associated with work protections, while the maintenance category includes costs for Transformer / Substations checks and minor vegetation control.

Table 12
Maintenance Transformer / Substations 2017 to 2025

	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Programs												
Maintenance Transformer/Substation	9,748	23,671	10,333	13,887	26,467	6,756	13,713	39,659	34,921	41,425	1,766	31,677



Tree Trimming and Vegetation Control

Table 13 provides the Tree Trimming and Vegetation Control Expenditures for 2017 to 2025.

Table 13
Tree Trimming and Vegetation Control Expenditures 2017 to 2025

Programs	Last Rebasement Year (2017 OEB- Approved)	Last Rebasement Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasement Year (2017 OEB- Approved))
Tree Trimming and Vegetation Control	108,274	90,716	68,067	94,374	102,392	163,117	162,140	122,784	246,478	498,592	375,808	390,318

Tree Trimming and Vegetation Control expenditures are costs associated with managing trees, plants and shrubs in the distribution easements within the service area. This involves tree trimming and removals or a reactive program (e.g. in response to a windstorm). Vegetation Control involves the removal of growth around other distribution assets.

Given the large geographic region in which NOW Inc. operates and the nature of the location, there is an abundance of vegetation which requires monitoring and trimming. The communities prefer to keep trees for beautification and as a result, mature trees are growing and require more attention. Additionally, the program is cyclical, thus requiring more resources every few years in order to meet the growth sequence of vegetation.

Tree trimming is a seasonal activity occurring primarily in the summer. The cycle is approximately every three years and is planned to have every community to have some maintenance each year and more significant areas every three years. This work program typically occurs from Late May to October and is performed in-house.

The Ontario Ministry of Energy states in a 2023 study entitled "Vulnerability Assessment for Ontario's Electricity Distribution Sector".



1 “A significant concern for overhead infrastructure is damage due to tree contacts.
2 Tree contacts can occur because of insufficient clearance between tree branches
3 and overhead lines, or because of fallen branches or entire trees. A longer frost-
4 free season will increase the length of the season during which trees have
5 foliage, and trees with foliage are more susceptible to damage from wind. In
6 addition, the longer growing season will put increased pressure on vegetation
7 management regimes, potentially increasing the risk that trees are not trimmed
8 before they grow too close to distribution lines. Furthermore, increased extreme
9 heat events and decreased frequency of rainfall could stress vegetation, making
10 it less healthy and more susceptible to damage. Upon initial consideration,
11 removing or reducing vegetation around overhead distribution lines may seem
12 like a viable solution to these problems; however, trees provide valuable natural
13 cooling as a result of both shading and evaporation. Removing these trees could
14 therefore have impacts on resident comfort and demand for electric cooling
15 during the summer months.” (page 54).

16
17 The increased pressure on NOW Inc.’s vegetation management program has been
18 similar to that identified in the Ministry of Energy Study. NOW Inc. has a large service
19 territory with difficult terrain and extreme weather events. Climate events (e.g.
20 windstorms, blizzards) have been occurring at a greater frequency and impact over the
21 past several years. Expansion of its current vegetation management program not only
22 address reliability issues but contributes to a more resilient system. The planned
23 expenditures in 2024 and 2025 will start the process of bringing NOW Inc.’s program
24 back to a ‘steady state’.

25
26 As noted at the beginning of this exhibit NOW Inc. has issues with attracting and
27 retaining staff. In addition, staff turnover has been relatively high with many apprentices
28 leaving for higher paying jobs at other utilities. This resulted in crews being reduced by
29 1 FTE for many activities. In addition, during the COVID pandemic NOW Inc. was unable
30 to maintain regular tree trimming activities. Up until very recently all vegetation
31 management activities have been done in house



As a result of these factors, isolated reliability issues started to arise. One reliability issue was with respect to the local hospital which had several service disruptions over the past 2 years. Management undertook a review of existing service arrangements including vegetation management practices. NOW Inc. commissioned vegetation management studies in each of Kapuskasing, Iroquois Falls and Cochrane. The completed studies (attached at E4/T4/S1, Attachments 2 and 5) indicate a need for significant increase in the vegetation management program to return to a regular maintenance level. The studies identified 'hot spots' (areas that needed particular attention in the near term). NOW Inc. has prioritized work in these areas.

In 2025 tree trimming and vegetation management expenditures are planned to be \$498,592 or (361%) higher than the 2017 approved primarily due to the factors discussed above.

The planned 2025 tree trimming and vegetation management expenditures of \$498,592 are (306%) higher than 2023 actual results primarily due to the factors discussed above.

PRODUCTIVITY

The additional spending on the vegetation management program over the next 5 years will return NOW Inc. to a 'steady state' situation. NOW Inc. will continue to monitor the progress of the plan and explore efficiencies that can be implemented as they arise.

CUSTOMER SERVICE

Expenditures in each of the work program areas of Customer Service for 2017 to 2025 are provided in **Table 14**.



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Table 14
Customer Service Expenditures – 2017 to 2025

Programs	Last Rebasement Year (2017 OEB- Approved)	Last Rebasement Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasement Year (2017 OEB- Approved))
Customer Service												
Billing and Collecting	453,441	478,902	465,477	503,166	430,237	456,394	517,177	494,901	530,113	625,193	130,292	171,752
Meter Reading	198,123	199,796	212,237	223,406	218,323	208,901	207,154	203,075	216,054	237,362	34,287	39,239
Bad Debt	75,000	97,174	71,783	30,775	40,025	15,225	-81,747	5,407	30,000	75,000	69,593	0
Total Customer Service	726,564	775,872	749,498	757,348	688,585	680,520	642,584	703,383	776,167	937,555	234,172	210,991

Variance explanations for each area are noted below.

Billing and Collecting

Table 15 provides the Billing and Collecting expenditures for the 2017 to 2025 period.

Table 15
Billing and Collecting Expenditures 2017 to 2025

Programs	Last Rebasement Year (2017 OEB- Approved)	Last Rebasement Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasement Year (2017 OEB- Approved))
Billing and Collecting	453,441	478,902	465,477	503,166	430,237	456,394	517,177	494,901	530,113	625,193	130,292	171,752

The billing and collecting group is responsible for customer care including billing, collecting, account inquiry, and general customer service for an estimated 5,980 customers in 2025 across NOW Inc.'s three geographic service territories. The group provides high quality service through personal engagement and professionalism. Answering calls live during business hours (without an automated attendant) resonates with customers as demonstrated by customer engagement results. After business hours, calls are automatically redirected to a third-party call center which will provide details and relay information to on-call staff as needed.

The Billing and Collecting group is among the first line of contact for all customer enquiries through a variety of means, whether it be over the telephone or in-person. NOW Inc. accepts billing and payment options including an equal payment plan, and pre-authorized payment.



1
2 Bill payment options available to customers include in person via cash, cheques, or
3 debit, or remotely via internet banking, local banks, customer portal payments, or pre-
4 authorized debit. The customer service group assists customers with setting up these
5 billing and payment options as well as trouble shooting and customer problems.

6
7 There are approximately 72,000 invoices issued annually to customers in a monthly
8 billing process. This process involves hand stuffing envelopes for stuffers when the
9 folding machine cannot accommodate the insert.

10
11 The customer service group also provides support for issues regarding account inquiry,
12 pre-authorized debit and equal billing, complaints, bill disputes and smart meter
13 complaints, along with payment options and other discrepancies.

14
15 Outage notifications are also sent by this department for key commercial customers as
16 well as coordinating information to other customers. During outages during office hours,
17 customer service staff answer calls and explain outages and estimated restoration times
18 through contact with outside staff.

19
20 Customer service staff responsibilities include trouble shooting customer call and
21 assisting them in the understanding of bills and what actions may be contributing to
22 higher bills. Staff look at individual callers' accounts to analyze their consumption history
23 and use this information to assist customers in understanding what happened, and how
24 bills can be reduced in the future.

25
26 In 2025 the billing and collecting expenditures are planned to be \$625,193 or (38%)
27 higher than the 2017 approved primarily due to the addition of a billing clerk to address
28 the increased level of inquiries and program development and implementation. In
29 addition, there were many changes directed by the Government and the OEB (e.g.
30 Green Button program). There has also been an increase in 3rd party costs for new



programs and changes. (e.g. third-party assistance with testing changes to billing systems) and increase postage expenses.

The planned 2025, billing and collecting expenditures of \$625,193 are (26%) higher than the 2023 actual levels primarily due to the addition of a billing clerk, inflationary pressures, along with increasing costs associated with more customer engagement activities including customer education, and administration of initiatives. There is also an increase in variable costs, as more customers take advantage of electronic payments and the fees associated with the service increase.

PRODUCTIVITY

The addition of Outage management will help reduce calls and enquiries when there is an outage. Staff will have more outage info to relay to those who cannot access it online. In addition, statistics gathering will be automated for more functions which reduces manual tabulation.

Meter Reading

Table 16 provides the Meter Reading expenditures from 2017 to 2025.

Table 16
Meter Reading Expenditures 2017 to 2025

	Last Rebasement Year (2017 OEB- Approved)	Last Rebasement Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasement Year (2017 OEB- Approved))
Programs												
Meter Reading	198,123	199,796	212,237	223,406	218,323	208,901	207,154	203,075	216,054	237,362	34,287	39,239

NOW Inc.'s metering infrastructure system consists of over 5,964 smart meters. SENSUS has been contracted to read smart meters and provide all necessary meter data on a daily basis. SENSUS also transmits the Advanced Metering Infrastructure (AMI) Network Component data between NOW Inc. and the Meter Data Management Repository (MDM/R).



1 MeterSense is NOW Inc.'s Operational Data Store (ODS) and receives the meter data
2 from SENSUS and communicates with the MDM/R in various functions. MeterSense
3 receives exceptions from the MDM/R and validates, edits, and estimates our smart
4 meter data. NOW Inc. can create CMEP files in MeterSense to be sent to the MDM/R
5 and populate any missing/estimated data for any one of our active smart meters.

6
7 Utilismart operates a secure Meter Data Management (MDM) that collects, validates,
8 stores, and presents SmartGrid data. It processes both wholesale (delivery points) and
9 retail meters (interval) along with Streetlight loads/profiles for all three communities.
10 Utilismart uses telephone lines to gain access to interval meters which NOW Inc. pays
11 for. NOW Inc. connects to Utilismart and receives the WAP (weighted average price)
12 and Global Adjustment on a daily basis. This is all necessary to provide monthly billing to
13 customers. Also accessed through Utilismart is our NSLS (Net System Load Shape)
14 which is transferred to the billing system. The NSLS is sent electronically to all Retailers
15 that have enrolled customers and that have Service Agreements with daily. The
16 Utilismart website has various reports that pertain to wholesale metering, MicroFit and
17 large commercial customers that have interval meters.

18
19 NOW Inc. has been working with Utilismart on microgrid activities, implementation of net
20 metering, implemented Green Button and changes to billing system for new rate classes
21 (e.g. UL overnight rate), NOW Inc. has also implemented a new customer portal for on-
22 line billing This system also has many new options for customers (e.g. requesting move
23 in move outs online, comparison of bill in various rate options for residential customers
24 These changes have created efficiencies in billing and collecting department (with more
25 self-serve options on line). NOW Inc. continues to promote online customer portal
26 functions including bill retrieval.

27
28 In order to work with the MDM/R there is a need to send information files back and forth
29 between the two systems. NOW Inc. uses Cleo VL Trader for this purpose. Cleo VL
30 Trader provides a secure file transfer between N.O.W and the MDM/R. All smart meter
31 data and customer billing information is transferred to the MDM/R via Synchronization



Files. Without it, NOW Inc. could not update any changes to our meters or billing in the MDM/R.

Some meters are still read by NOW Inc. staff and labour and vehicle costs associate are also recorded in this work program. These costs have decreased as a result of smart meter implementation, but there remains the need for some seal visual inspections.

In 2025 the meter reading expenditures are planned to be \$237,362 or (20%) higher than 2017 approved levels. The planned 2025 meter reading expenditures of \$237,362 are (17%) higher than 2023 actual levels primarily due to the increasing costs for outsourcing of this activity. This has been partly offset by reduced manual meter reading costs.

Bad Debt

Table 17 provides the Bad Debt Expenditures for 2017 to 2025. NOW Inc. has experienced significant volatility and an increase in Bad Debt Expense from the 2017 Board Approved level.

Table 17
Bad Debt Expenditures 2017 to 2025

Programs	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Bad Debt	75,000	97,174	71,783	30,775	40,025	15,225	-81,747	5,407	30,000	75,000	69,593	0

Bad debt expense represents the change in the provision of accounts receivable balance based on assessment of accounts that cannot be collected from customers. The provision is calculated by examining the aged accounts receivable listing and the number of days outstanding. NOW Inc. uses history and specific customer account identification in determining the accounts that will not likely be recovered.



1
2 NOW Inc. continues to work with customers to collect outstanding payments while
3 following the regulations governing disconnection and payment arrangements.

4
5 NOW Inc. does receive deposits from customers, however, it has been found that
6 receiving deposits from some residential customers is detrimental to the disconnection
7 process, as it must be applied before disconnection, which can result in a delay in the
8 disconnection process. In that time, the account balance can increase significantly which
9 poses a collection risk to the utility. NOW Inc. continues to seek deposits when deemed
10 reasonable.

11
12 Customer deposits from commercial customers are also evaluated and assessed in
13 order to hedge risk to the utility while ensuring that the result is fair to all parties.

14
15 Bad Debts expense in 2025 of \$75,000 are planned to be the same as the last OEB
16 approved in 2017. Recent history includes some bad debt recovery (e.g. in 2022) which
17 is not typical and is not a regular occurrence. Bad Debt history, which includes the cost
18 of power which is the collection responsibility of the LDC, justifies the consistent budget.

19
20 NOW Inc. is exposed to substantial risk with respect to bad debts. NOW Inc. has a few
21 large customers and past experience has shown that they have financial challenges that
22 could potentially leave NOW Inc. with a large bad debt expense. As noted in its 2017
23 application NOW Inc. had a large customer go bankrupt in 2013. Additionally, there was
24 another customer that went into bankruptcy protection in 2021.

25
26 In addition, during the COVID-19 pandemic there were several government and OEB
27 related programs to assist customers such as CEAP. CEAP has subsequently been
28 stopped.

29
30 NOW Inc. continues to work with its' large customers to assist with billing items. As an
31 example, NOW Inc. has requested deposits and put in place processes to replenish



deposits when required. NOW Inc's collection procedures are tight, and it diligently follows up with customers.

ADMINISTRATION

Work programs and their costs associate with Administration of NOW Inc.'s operations are in **Table 18**.

Table 18
Administration Expenses – 2017 to 2025

Programs	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Administrative and General												
Administration	447,537	440,973	428,403	472,167	444,257	464,875	489,325	562,161	589,020	690,891	128,730	243,354
Regulatory	107,305	148,082	33,828	35,596	35,042	34,433	37,920	40,747	335,034	139,779	99,032	32,474
Outside Services	53,133	55,380	55,477	54,068	61,422	61,752	73,553	106,802	66,937	143,561	36,759	90,428
Property	40,112	42,128	43,448	41,431	42,504	41,986	47,741	56,758	56,525	61,382	4,624	21,270
Total Administrative and General	648,087	686,563	561,155	603,262	583,224	603,046	648,539	766,468	1,047,516	1,035,613	269,145	387,526

Administration

Table 19 provides the administration expenses from 2017 to 2025.

Table 19
Administration Expenditures 2017 to 2025

Programs	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Administration	447,537	440,973	428,403	472,167	444,257	464,875	489,325	562,161	589,020	690,891	128,730	243,354

In 2025 administration expenditures of \$690,891 are \$243,354 or (54%) higher than 2017 approved.

The administration work programs expenses associate with the overall operations of the utility. Costs include executive costs, management costs, information systems, office supplies, and other administration costs. LEAP expenditures are also included in



1 Administration costs and are typically less than \$5,000 (the 2025 forecast value is
2 \$6,821 (reference E4/T4/S7).

4 **Executive**

5 The Executive costs are associated with the Board of Directors. The Board of Directors
6 (BoD) are responsible for the oversight of the utility and are compensated with a stipend
7 and per diem for meetings and travel. Training costs are included for the BoD in order to
8 ensure that they remain informed on the utility and regulatory issues. In addition, travel
9 costs are required as there is Board representation from all service territories
10 (Kapusasing, Iroquois Falls, and Cochrane).

12 **Executive and Management Office**

13 Administration includes costs associated with the Chief Financial Officer (CFO). The
14 CFO performs numerous duties as staffing is limited. Duties include the accounting and
15 financial management and reporting, regulatory reporting, regulatory applications,
16 budgeting, payroll, coordinating with other utilities, and any other requirements that
17 arise. In addition to wages, all payroll burdens and benefits associated with the CFO are
18 included in Administration. Many of the duties in the management office are split
19 between the Billing Manager, A/P Payroll Clerk and the CFO.

21 Travel and training costs for management staff are also included in administration costs.
22 Travel costs are essential to ensure that the utility remains current on issues as they
23 develop as well as the necessary networking that results in greater efficiency and
24 sharing of knowledge. As regulations change more training is required in order to stay
25 abreast of updated and new requirements. Due to NOW Inc.'s geographic location in
26 Northern Ontario, travel is more costly than for counterparts in Southern Ontario. Most
27 travel and training is done in the Toronto area, which is an eight hour drive (one way) if
28 weather and traffic are reasonable. Alternatively, the nearest airport is over 100
29 kilometers away, and then with limited daily flights that are more expensive and have
30 been in the range of \$350 - \$1,150 for a round trip. With the larger distance, more travel



1 time and accommodation cost are required. Travel is reduced through participating in
2 teleconferencing when possible.

3
4 NOW Inc. has expanded its training and development for all employees over the 2017 to
5 2025 period. There is now more advanced Health and Safety training which ramped up
6 since the COVID pandemic. Training standards have been expanded to meet IHSA
7 standards. These changes have been driven by the change in management that
8 identified areas in need of improvement. In addition, as NOW Inc. brings on new
9 apprentices their training and development has been expanded as well.

10
11 Also included are general administration wages for functions such as accounts payable,
12 payroll, and other general activities that do not fall into another direct category. These
13 costs are from union positions.

14
15 **Information Systems and Office Supplies**

16 IT systems and office supplies are included under administration. Costs include, after
17 hours service, printer supplies, telephone charges, stationary, and other office supplies.
18 Information systems includes charges for Billing software and Customer Information
19 System, charges for accounting software, cyber and other IT related costs. NOW Inc. is
20 exploring onboarding the IESO Lighthouse program recognizing that it is mandatory to
21 be enrolled by October 1, 2024.

22
23 The billing system is provided by a third party that provides software and support. These
24 costs have increased in the past and is anticipated to continue to increase as more
25 regulation requires greater customization and effort on the part of our provider.

26
27 The accounting system has been used for the past several years in conjunction with
28 affiliates. Utilizing the same system as our affiliates has helped reduce costs by sharing
29 the fees. The accounting system has created efficiencies, as reporting is more
30 streamlined, and allows for flexibility of reports to accommodate financial presentations



and reports for regulatory filings. This has saved time which has increased productivity of the workforce.

Regulatory Expenses

Table 20 shows the costs for regulatory for 2017 to 2025.

Table 20
Regulatory Expenditures 2017 to 2025

Programs	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Regulatory	107,305	148,082	33,828	35,596	35,042	34,433	37,920	40,747	335,034	139,779	99,032	32,474

Regulatory expenses have significant fluctuation year over year as a result of Cost of Service filings. Costs included are for consultant services, legal, OEB fees, cost awards, and intervener fees.

Cost associated with the Asset Condition Assessment and Distribution System Plan (DSP) to support rate applications are also included in this area.

The planned 2025 regulatory expenditures of \$139,779 are 30% higher than 2017 approved primarily due to the increased overall regulatory requirements relating to the Cost of Service filing. The 2025 Regulatory costs are lower than 2023 and 2024 as a result of the majority of the 2025 Rate Application work being completed in 2024. The costs in 2024 include the cost of preparing the 2025 rate application. Regulatory costs in 2025 include 1/5th of the one time costs incurred in support of this Application (\$86,510) and further details are provided in E4/T4/S6.

NOW Inc. does not have staff that are entirely focused on regulatory matters, and as a result multiple duties are required of the limited staff. Consultants assist in the application though regulatory guidance and evidence preparation support, Distribution



System Planning, Load Forecasting, Cost Allocation, LRAMVA calculations and other required tasks.

Outside Services

Table 21 outlines the costs for outside services from 2017 to 2025.

Table 21
Outside Services Expenditures 2017 to 2025

Programs	Last Rebasings Year (2017 OEB- Approved)	Last Rebasings Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasings Year (2017 OEB- Approved))
Outside Services	53,133	55,380	55,477	54,068	61,422	61,752	73,553	106,802	66,937	143,561	36,759	90,428

Outside services are third party costs for services rendered. A large part of outside services is the costs of the financial audit of NOW Inc. Audit services include audit of financial statements consistent with IFRS and all regulatory accounts.

Costs also include membership in the Electrical Distributors Association (EDA) which allows NOW Inc. to have an advocate that can act on its behalf. EDA membership allows management to stay up to date with issues and provides opportunities for collaboration.

NOW Inc. is also planning on joining Cornerstone Hydro Electric Concepts (CHEC) to further increase its cooperation with other utilities and access CHEC's professional services. Cornerstone Hydro Electric Concepts (CHEC) is a collaborative association of local electrical distribution companies (LDCs).

Legal fees are also a part of the outside services provided. These are exclusive of regulatory legal fees. Fees associated with the maintenance of the CGIS database are also charged to outside services. These costs are shared with affiliates which allows for NOW Inc.'s cost to be lower than if contracting this service on its own.



The increase in costs since 2017 is primarily due to implementation of cyber security measures including enhancements to firewalls and associated programs, and the CHEC association fees. NOW Inc plans to retained external expertise to assist with its cyber security and IT response and protection programs. NOW Inc. is also implementing the new OEB Cyber Security Framework and is planning on collaboration with other utilities on cyber security related matters or contracting out certain aspects of this service.

Property Expenses

Table 22 contains the expenses associated with property from 2017 to 2025.

Table 22
Property Expenditures 2017 and 2025

	Last Rebasing Year (2017 OEB- Approved)	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year	Variance (Test Year vs. 2023 Actuals)	Variance (Test Year vs. Last Rebasing Year (2017 OEB- Approved))
Programs												
Property	40,112	42,128	43,448	41,431	42,504	41,986	47,741	56,758	56,525	61,382	4,624	21,270

NOW Inc. owns property in the three communities that are served. The bulk of property expenses is property insurance that NOW Inc. has on its properties. This coverage provides security against loss incurred on property which would help minimize impact to customers should an event take place that can be claimed on the insurance. Competitive rates are received for this coverage.

In 2025 property expenditures are \$21,270 (53%) higher than 2017 approved primarily due to inflationary pressures and increase costs associated with property insurance.

In 2025 property expenditures are \$4,624 (8%) higher than 2023 actual levels primarily due to inflationary pressures and increased costs associated with property insurance costs.



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Filed: August 30, 2024
EB-2024-0046
Exhibit 4
Tab 4
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Attachment 1 (of 6):

Short Circuit and Protective Coordination Report



**Short Circuit and
Protective Device Coordination Study
Northern Ontario Wires
Kapuskasing TS, M2 – 25 kV Feeder
July 26, 2024**

Input from: Dale Williston, Williston & Associates

Brian Smith, Independent Consultant

Prepared By: B.A. (Brian) McMillan, P. Eng.

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1.0 The Engagement

On or about June 2023, Mr. Marc Belanger, General Manager of Northern Ontario Wires, spoke to McMillan Distribution Engineering and Consulting Ltd (MDEC) and Brian Smith, Independent consultant about the need to review the protective coordination's of Northern Ontario Wires's (NOW's) Iroquois Falls and Kapuskasing distribution systems.

2.0 The REVISED Definition of the Problem

Not long after being engaged by NOW, the Kapuskasing M2 feeder became the focus of the engagement. On or about June 19, 2023, the MPP and the Hospital escalated the Kapuskasing M2 frequent tripping issues and the goal of this project morphed from the original request to review and revise the existing overcurrent protective schemes employed at Iroquois Falls and Kapuskasing to the singular goal to revise all protective settings on the Kapuskasing M2 25 kV feeder such that the reliability to the Sensenbrenner Hospital located at 101 Progress Crescent, Kapuskasing Ontario is improved.

In early 2024 MDEC engaged the Sensenbrenner Hospital in an online meeting to understand the reliability issue facing the Hospital and the operating parameters of their existing emergency generation. In the discussion it was learned that during a grid outage, the emergency generation would sense the loss of voltage on the grid and would immediately start the generator and begin a warmup of the motor-generator set. At the same time a timer would begin, and after six (6) seconds the transfer switch would activate, removing all hospital electrical load from the grid and transferring a limited amount of the hospital's electrical load to the on-site emergency generation, if the grid voltage did not return within the six second window.

Operating on the emergency back up generation significantly impacted hospital activity and in particular, limited the capability of the operating rooms to meet the requirements of the doctors working there. The length and frequency of grid outages that caused the Hospital to transfer to emergency generation was the source of the inquiries from the Hospital and the MPP.

Also of note is the fact that the Sensenbrenner Hospital is located at the furthest end of the M2 feeder away from the station and therefore subject to the virtually every sustained outage that occurs on M2 system, under the existing fuse coordination scenario.

2.1 The M2 Feeder Lockout Issue

NOW had initiated the M2 Protective Coordination study based on sudden increase in the number of trip-to-lockout events on the M2 feeder, that began sometime in the middle of 2023. The urgency of the situation was reinforced after NOW received an inquiry from the local MPP and the Sensenbrenner Hospital in mid June 2023.

The Sensenbrenner Hospital provided a record of 35 different power interruptions and outage events dating from February of 2022 to January 18, 2024. Each event was cross referenced to the Hydro One Operation log to confirm the protection system operation.

In 2023, NOW began to experience feeder lockouts for faults that did not seem to be permanent faults in that a line patrol could turn up no probable cause for the outage and the feeder could be restored without repair or intervention by NOW. NOW later determined that these outages were seemingly caused by significant vegetation issues on numerous back lot lines. Vegetation issues that are normally classified as transient in nature; transient faults that should have been cleared by the normal operation of feeder reclose protections, without a permanent outage.

Regardless of the status of the feeder protective coordination, the vegetation issues posed and continue to pose a reliability and public safety concern for NOW, a concern that NOW proposes to resolve by increased vegetation management efforts in the Town of Kapuskasing.

Sometime in 2023, the character of the outages changed in that NOW was unable to perform typical day-to-day single phase switching operations on the distribution feeder without the feeder breaker locking out.

2.2 The December 9, 2023 & March 23, 2024 Events

The situation became much more serious on December 9, 2023, when NOW were unable to restore power to the Town after a feeder lockout. HONI could not get the breaker to close and hold using the SCADA remote control system, despite NOW isolating the 25 kV feeder to the gang operated switch located just outside the Transformer Station fence. HONI was forced to dispatch P&C technicians from Timmins to work on the protective relaying and finally restore power after an outage that lasted more than twelve (12) hours.

The situation was repeated on March 23, 2024, when a second twelve (12) hour plus outage occurred. The sequence of events for this second lengthy outage involved outages on the 115 kV system that should not have occurred.

2.3 Analysis of the HONI Feeder Protections

M2 Feeder Breaker Relay Settings were suspected as an issue by Corey Hastings in June of 2023 and HONI requested information to do further study. In November of 2023 the DESS model was completed by Brian Smith and NOW staff, and available fault current became a concern. HONI confirmed available fault current was an issue with the existing breaker settings.

Mr. Dale Williston, of Williston and Associates was engaged to assist in the analysis of and revision to the M2 feeder relay settings. With his assistance, an analysis of the Ontario Grid Control Center logs of the December 9 and March 23 events did not indicate

any reason for the feeder lockout that seemed to result from a transient fault that was assumed to be vegetation induced.

Although HONI would not share a single line drawing of the protection relaying design, a drawing from the 1980's was obtained and is believed to be a reasonable representation of the system in service at Kapuskasing TS. Based on this 1980's design the feeder should have reclosed and remained in service for transient faults, however, the hi-set instantaneous setting was so low that it is possible that transformer inrush current, related to the 5MVA 25 to 4 kV substation connected to the M2 feeder or cold load pick up, may have been a factor in the lockouts on both the December 9th and the March 23rd events. It is unclear why, previous to 2023, the protective relaying did not lockout during transient fault events, but it may have been related to the loading on the substation transformer as more and more load was converted from 4 kV to 25 kV.

Nonetheless the feeder lockouts that occurred for transient faults and unbalanced load currents due to single phase switching were ultimately blamed on the high available fault currents, low settings on the instantaneous trips (both low set and high set) and the low setting on the ground fault detection relay.

The proposed solution involved reducing the available fault currents and installing new protective relay settings for all available feeder breaker protections.

2.4 Available Fault Current on the M2 Feeder

Brian Smith, an independent consultant, was engaged to use the DESS distribution engineering analysis software to update an existing model of the Kapuskasing M2 feeder, working with Ryan Cooke and the NOW go360 GIS.

The model was revised, and a load flow and short circuit study performed. It was determined that the available fault current was in the order of 15,000 amps. At that level NOW would not be able to install a "fuse saving" scheme, the only overcurrent protective scheme possible with fault currents that high would be a "fuse blowing" scheme. In addition, the high fault currents discovered by the short circuit study would require NOW to install current limiting fuses at all transformer locations, an expensive and time-consuming effort.

The use of series reactors to reduce the available feeder fault current was discussed and it was agreed to explore this possible solution. After modelling in DESS to predict the line end system voltages and studying the results to confirm acceptable voltage levels under peak loading conditions, a balance was struck to reduce the available fault currents on the load side of the reactors to about 3000 amps. MDEC would engage several vendors to see if suitable reactors for the 25 kV system could be obtained at a reasonable cost and with suitable deliver times. After several weeks of discussion with two vendors, NOW, choose to issue a PO to one of the candidates.

2.5 Revised HONI M2 Feeder Relay settings

After establishing a new lower available fault current on the M2 feeder, revisions to the M2 overcurrent feeder protections were developed by the team and proposed to HONI at a meeting on April 21, 2023. After some back and forth discussions over the next few weeks, a final proposal was agreed upon and formally submitted to HONI (See Appendix A).

Hydro One has confirmed, in an e-mail from Corey Hastings dated May 3, 2024, the acceptance of MDEC's proposed revisions to all M2 breaker settings and will implement the proposed settings during an outage that is planned for August 19th, 2024. The outage date was subsequently revised to July 2024.

2.6 Typical Overcurrent Protective Schemes

The final stage of the comprehensive review of the protections on the M2 feeder looked at the number, type and location of existing fuses and the best way the minimize the distance from the hospital to the source of power.

The review revealed several interesting items:

1. The distance between the Hospital and Kapuskasing TS could be shortened significantly by moving open points on the three-phase system, and
2. A section of 25 kV line, that has no neutral, but was feeding the grounded-wye source for the Hospital, could be eliminated by the action contemplated in 1, and
3. Many three-phase laterals fed from the "main" three-phase line were not fused but rather had solid blade switches or were solidly tapped, and
4. Almost all single-phase laterals had no fused cutouts but rather were solidly tapped onto a three-phase line, and
5. Most existing fusing was not coordinated with upstream protective devices resulting in a hodge-podge protective scheme that might be partly "fuse saving" but seemed to mostly be "fuse blowing".

A fundamental tenant of distribution system reliability holds that fusing single-phase laterals increases system reliability as the entire three-phase line does experience an outage for a fault on a single-phase lateral, if protective coordination is achieved. Similarly, providing fuses or reclosers on three-phase laterals, that coordinate with upstream protective devices ensures that a fault on a three-phase lateral does not cause an outage on the "main" three-phase system.

Reliability can be further enhanced if the fuses or reclosers described above are coordinated in a "fuse blowing" scheme, as opposed to a "fuse saving" scheme. The underlying principle and application rationale for each scheme is described below.

Fuse Saving Schemes - Studies conducted on distribution systems from time to time have universally determined that most outages (50% to 90%) on overhead distribution systems are transient in nature. Transient faults are characterized as those faults where an electrical arc between the phase and a grounded surface is established in free air and the only flow of fault current is through that arc; there is no permeant connection to earth such as may occur if a conductor is lying on the ground. When the fault current is interrupted, the arc extinguishes and if power is reestablished after the arc is extinguished the distribution system returns to normal operation; customers having seen only a “blink” and no sustained outage. The act of interrupting the fault current, waiting a short (less than 2 seconds typically) time period and then re-energizing the line is called “reclosing”.

Naturally if the fault is permanent, such as that caused by equipment failure, a properly designed “fusing blowing” scheme will (i) lockout the “main” feeder for a permanent fault on the “main” feeder or (ii) cause a fuse to blow or a recloser to lockout any lateral fed from the “main” feeder, limiting the sustained outage to the lateral and maintaining power to the “main” feeder and any unaffected laterals. The “fuse saving” scheme minimizes truck rolls by the Utility for transient faults and removes only the smallest portion of the system which contains the faulted section.

Fuse Blowing Scheme – As noted above the “fuse saving” scheme will typically cause every customer on a feeder to see a blink for a transient outage anywhere on that feeder. In some instances, a Utility may have a customer on a feeder, for whom a “blink” is a catastrophic event. An example is a plastic extrusion facility. In these instances, the Utility may employ a “fuse blowing” scheme to minimize “blinks” on a feeder.

In a “fuse blowing” scheme, a fuse always blows before the main feeder breaker operates. Thus, a fuse blows for all transient faults and crews are forced to respond to replace a fuse for a lightning strike, an animal contact or some other transient fault event. There are more permanent outages and lower system reliability when a “fuse blowing” scheme is employed.

MDEC engaged the NOW General Manager in a discussion of the relative merits of a “fuse saving” versus a “fuse blowing” protective coordination scheme for Kapuskasing. The highest reliability can, of course, be achieved with a fuse saving scheme, and therefore considering the serious reliability concerns raised by the MPP and the Hospital, NOW management choose to proceed with a fuse saving scheme.

Improving reliability for the customers of the Kapuskasing M2 feeder turned out to be a two-step process, because of the delivery times required for the series reactors.

Step One – See Section 3.2 below - As soon as possible, install many more fuses on the single and three phase laterals fed from the “main” three-phase line to eliminate outages on the “main” feeder serving the hospital. Due to the existing high fault currents the only practical protective coordination scheme available is a “fuse blowing” scheme.

Step Two – See section 3.3 below - Install the series reactors to reduce the available fault current. After delivery and installation of the series reactors in about November/December 2024 the available fault current will be significantly reduced, and the lower fault currents will facilitate the adoption of a “fuse saving” scheme.

3.0 Kapuskasing TS M2 – Proposed Fuse Coordination

Having resolved the M2 Feeder settings with HONI, the M2 feeder fusing, as a “fuse blowing” scheme, that shall be in-service from the date of this report until the date that the reactors are placed in service.

3.1 Reconfiguring the Kapuskasing M2 Feeder

During the time MDEC and its associates have been studying the Kapuskasing M2 feeder, the feeder open points in-service were confirmed through discussions between Brian Smith and Ryan Cooke of NOW.

After the April 21st meeting between NOW, MDEC and Associates, Brian Smith and HONI, next steps were discussed with NOW. The fusing of three-phase and single-phase laterals was discussed and through this discussion it was learned that NOW desired to change the feed to the hospital from the existing configuration to a more direct route. The potential of an existing loop feed within the existing 25 kV operating system in Kapuskasing also became a point of discussion.

While setting up the DESS Distribution Engineering Analysis software model of the Kapuskasing system, Brian Smith detected loops within the Kapuskasing 25 kV system and Ryan Cooke and Guillaume Theberge assisted to confirm the normally open or closed state of some of the existing switch locations.

Brian Smith determined a system configuration to feed best the hospital more directly that requires a proposed new open point. During discussions and deliberations with NOW staff regarding the proposed change to the hospital supply, it was revealed to Brian Smith, that currently several spans of 25 kV feeder feeding the hospital does not have a neutral. This was not a new revelation for the NOW staff, but it was an important detail that was unknown to MDEC and Brian Smith up until this point in time.

No loop feed was found, but the lack of a neutral in a section of line feeding the hospital three-phase grounded-wye/grounded-wye transformer was concerning. Fortunately, the proposed new feed to the hospital is believed to have a continuous neutral back to the source, although it has not been confirmed in the field.

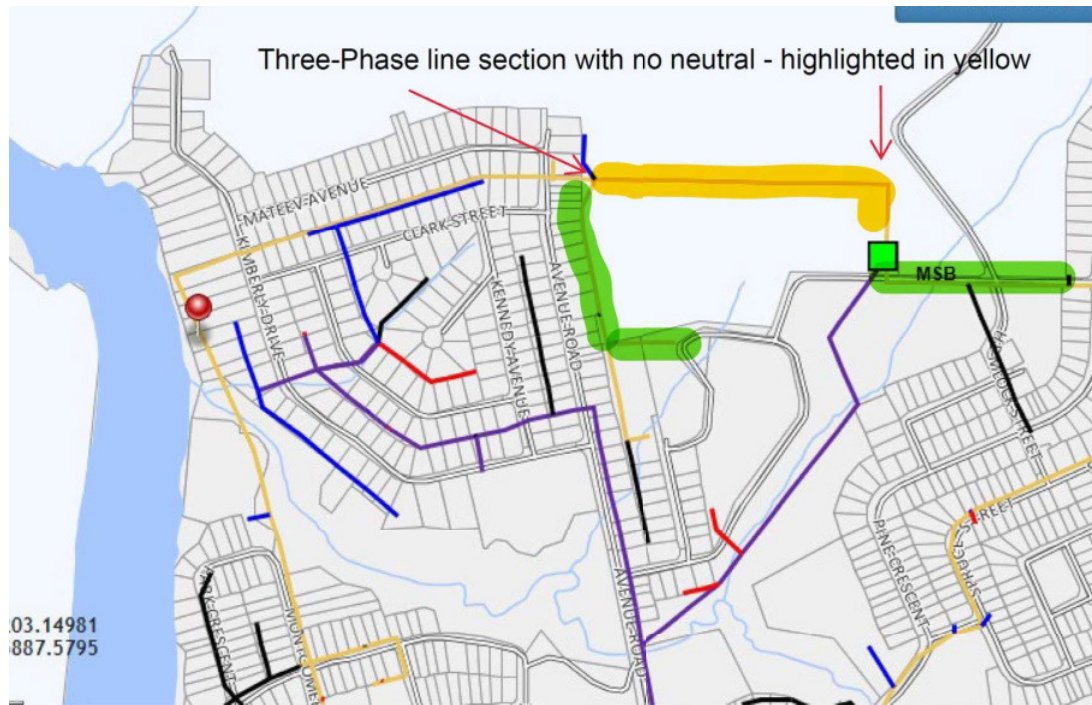


Figure 1- Three-phase feed to the Sensenbrenner Hospital - prior to May 2024 - is highlighted in green and yellow. The yellow highlighted section has no neutral; the green highlighted section has a neutral.

3.1.1 Open Points required to Establish New Feed to the Sensenbrenner Hospital

Brian Smith in an e-mail dated April 28, 2024, provided a revised DESS model based on the open points required to establish the new, more direct feed to the Sensenbrenner Hospital.

In order to establish the new feed to the Sensenbrenner Hospital the following new and existing switch locations shall be normally open points and all other existing switch locations shall be normally closed.

Figure 2 below illustrates the location of all the required open points tabulated below.

- Existing Switch - located on the western most dip pole feeding the Mateev subdivision. Node 289 in the DESS model.
- NEW SWITCH - a new three-phase set of cutouts located at pole 681, providing an open point on the eastern side of pole 681 such that Sensenbrenner Hospital is fed from the west. Node 542 in the DESS model.
- Existing Switch - S340. Node 195 in the DESS model.

- Existing Switch – C278. Node 521 in the DESS model.
- Existing Switch – C301. Node 149 in the DESS model.
- Existing Switch – C76. Node 515 in the DESS model.
- Existing Switch – S101 (the tie switch with HONI). Node 73 in the DESS model.
- Existing Switch – S90. Node 412 in the DESS model.

Of note is the fact that leaving switches C301 and C76 OPEN isolates a section of 2/0 UG AL cable, which is not Good Utility Practice. We would recommend that switch C76 be fused at 100K so that it remains on potential, serving no load, with a closed cutout at C76 being an indicator that the cable is good and can be relied upon to serve load if need be. The use of a 100K fuse link ensures that if any of the three cables fail the feeder will not lock out.

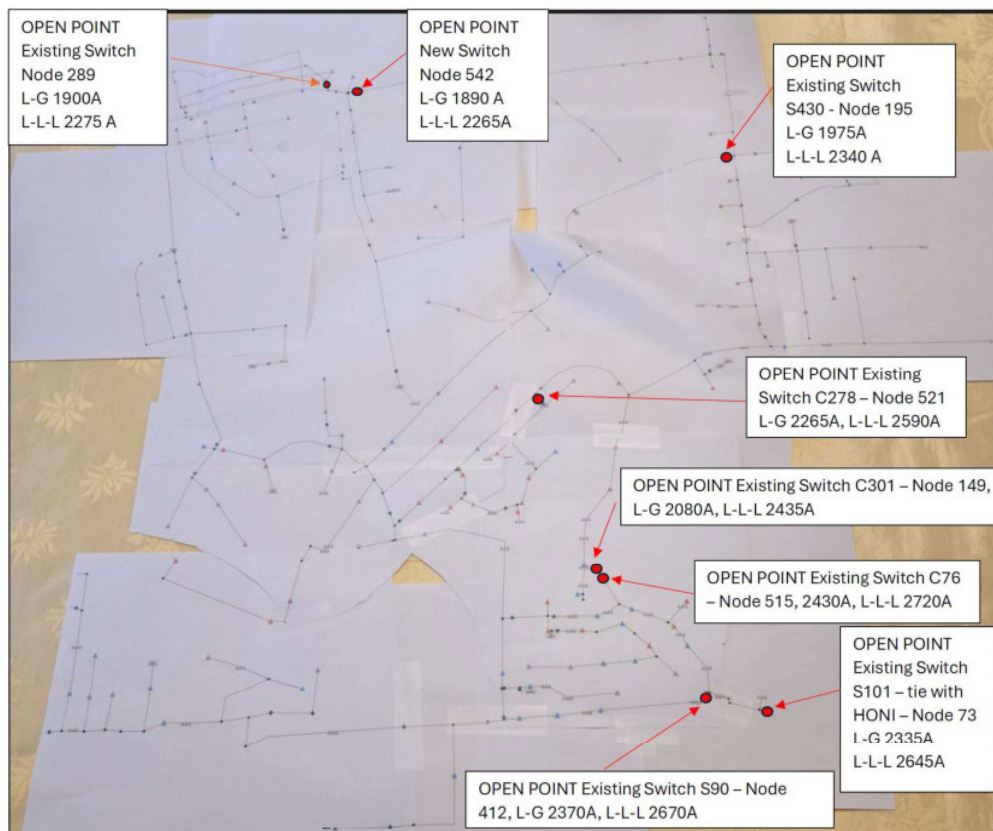


Figure 2 - Kapuskasing Distribution System, 4 kV and 25 kV showing the location of all required open points necessary to establish a new feed to the Sensenbrenner Hospital.

3.2 Proposed Fuse Coordination before the Series Reactors are Installed

The proposed fuse coordination is presented in two parts. The protections scheme before the series reactors are installed and the protections scheme after the series reactors are installed.

3.2.1 25 kV System Revised Protections

The 25 kV system leaves Kapuskasing TS, heads north to Highway 17N where the feeder T's and goes west to KapTest (GM Cold Weather Auto Test center) and east to the town of Kapuskasing (See Figure 3 below).

M2 West on HWY 17N - A table describing the fusing required at both new and existing switch locations is found in Table 1 below. The GIS did not provide specific switch information so it is assumed that a fuse can be installed at each switch location and that where solid blade switches exist NOW will change these to fusible switch devices. A graphic showing the fuse locations is provided in Figure 4.



Figure 3 - Kapuskasing TS and the feeder the M2 feeder.

Pole #	Switch #	Existing or New	K- Link Fuse Size	DESS Node	Description
766	C766	Existing	200	6	
786		New	140		Single Phase Feeding Tx T788 - Hwy 17
790		New	140		3 Ph feeding Tx T794, T795 and T797 - N of Hwy 17
801		New	140		3 Ph feeding Tx T803 - N of Hwy 17
806		New	140		3 Ph feeding Tx T808 - N of Hwy 17
812		New	140		1 PH Feeding Tx T813 and T815- Hwy 17
817		New	140		3 Ph feeding Tx T819, T821 and T826 - N of Hwy 17
839	C839	Existing	140		3 Ph feeding west on Hwy 17 to KapTest

Table 1 - Fuse locations and sizing M2 Feeder west Hwy 17 N

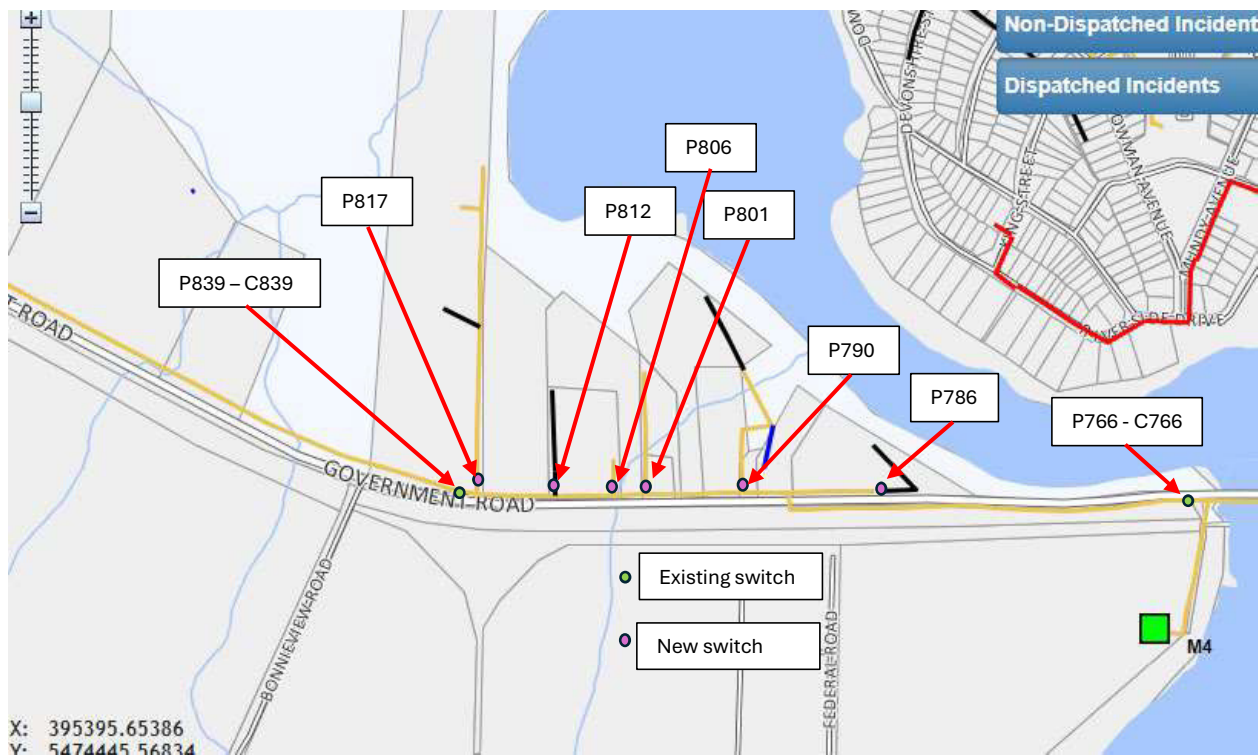


Figure 4 - New and existing fuse locations and proposed sizes on the M2 feeder west on Hwy 17N.

M2 East on HWY 17N - A table describing the fusing required at both new and existing switch locations within the geographic area described in each illustration is found in a table preceding the illustration. The GIS did not provide specific information for each existing switch so it is assumed that a fuse can be installed at each switch location and that where solid blade switches exist NOW will change these to fusible switch devices.

The area east of McPherson Ave in the general vicinity of Kolb Ave and Government Rd is illustrated below.

Pole #	Switch #	Existing or New	K- Link Fuse Size	Switch Position	DESS Node	Description
P18	S18	Existing	SOLID	NC		3 Ph feeding east on Hwy 17 across bridge to Town
P19	S19	Existing	SOLID	NC		3 Ph feeding north from Hwy 17 to McPherson Ave
P20	NEW	New	200	NC	65	3 Ph feeding east on Hwy 17 to tie with HONI
P31	S31	Existing	200	NC	420	3 Ph feeding east from McPherson Ave between Lang and Millview
P40	S40	Existing	200	NC	91	3 Ph feeding east from McPherson Ave at Kolb Ave
P41	NEW	New	200	NC		1 PH feeding Tx T42 north of Kolb Ave
P44	NEW	New	200	NC		3 Ph feeding south from Kolb Ave to T45 and on to T61 and t66
P71	NEW	New	200	NC		3 Ph feeding north from Kolb Ave to C76 the 2/0 UG cable.
P76	C76	Existing	SOLID	NC		Close Switch C76 to keep the UG on potential. It is protected by the fuse at P71
P80	NEW	New	200	NC		3 Ph feeding north west from Kolb Ave to T82.
P97	NEW	New	200	NC		3 Ph feeding north west from Government Rd to T100.
P101	S101	Existing	SOLID	NO		Three phase tie with HONI

Table 2- Fuse Chart for locations and sizing M2 Feeder in the Kolb Ave and Government Rd area.

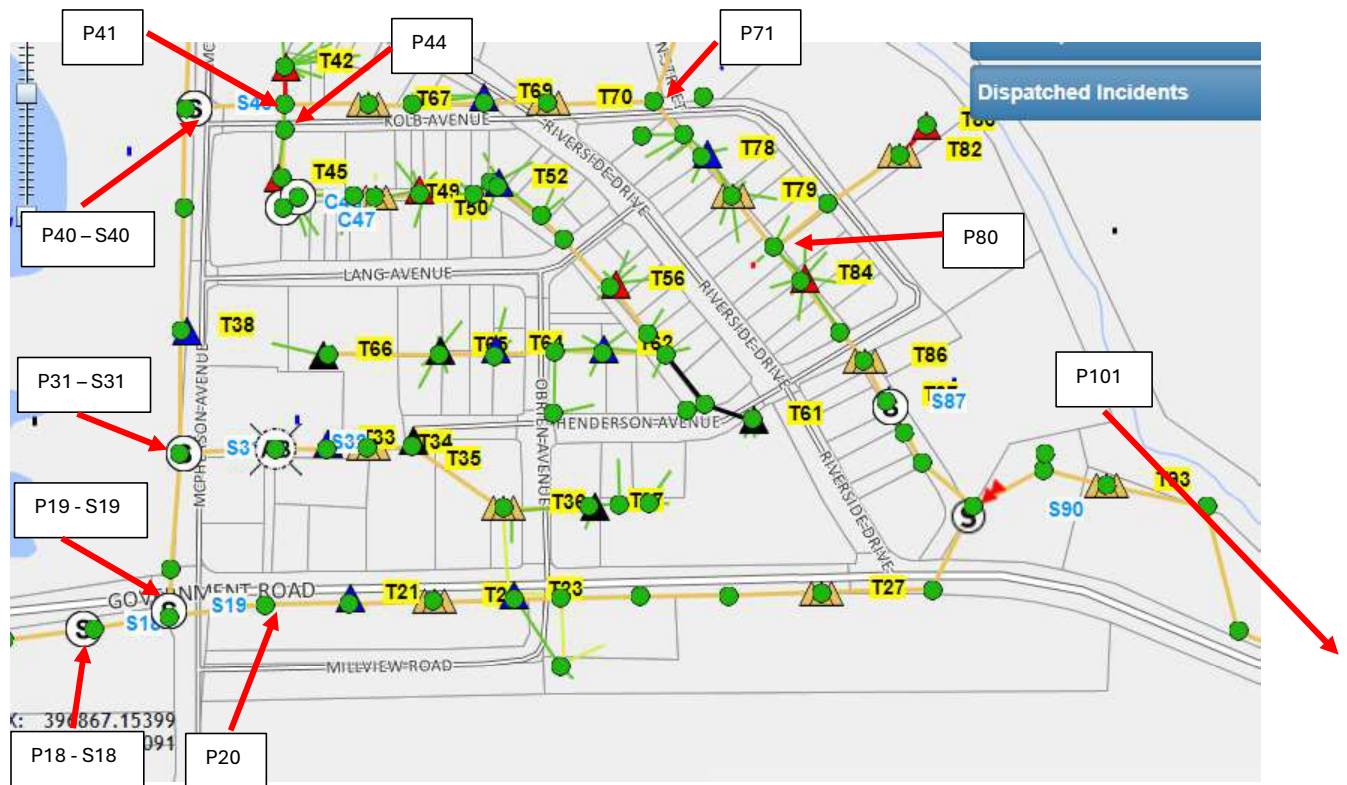


Figure 5 - Fuse locations in the area of Kolb Ave and Government Rd.

An area near the intersection of Riverside Dr, King St and Dallyn Ave is illustrated below.

Pole #	Switch #	Existing or New	K- Link Fuse Size	Switch Position	DESS Node	Description
P115	C115	Existing	SOLID	NC		Corner of Riverside Dr and King St
P117	S117	Existing	200	NC	152	Corner of King St and Dallyn Ave
P118	S118	Existing	SOLID	NC		King St just north of Dallyn Ave

Table 3 – Fuse Chart for locations near the intersection of Riverside Ave and King St.

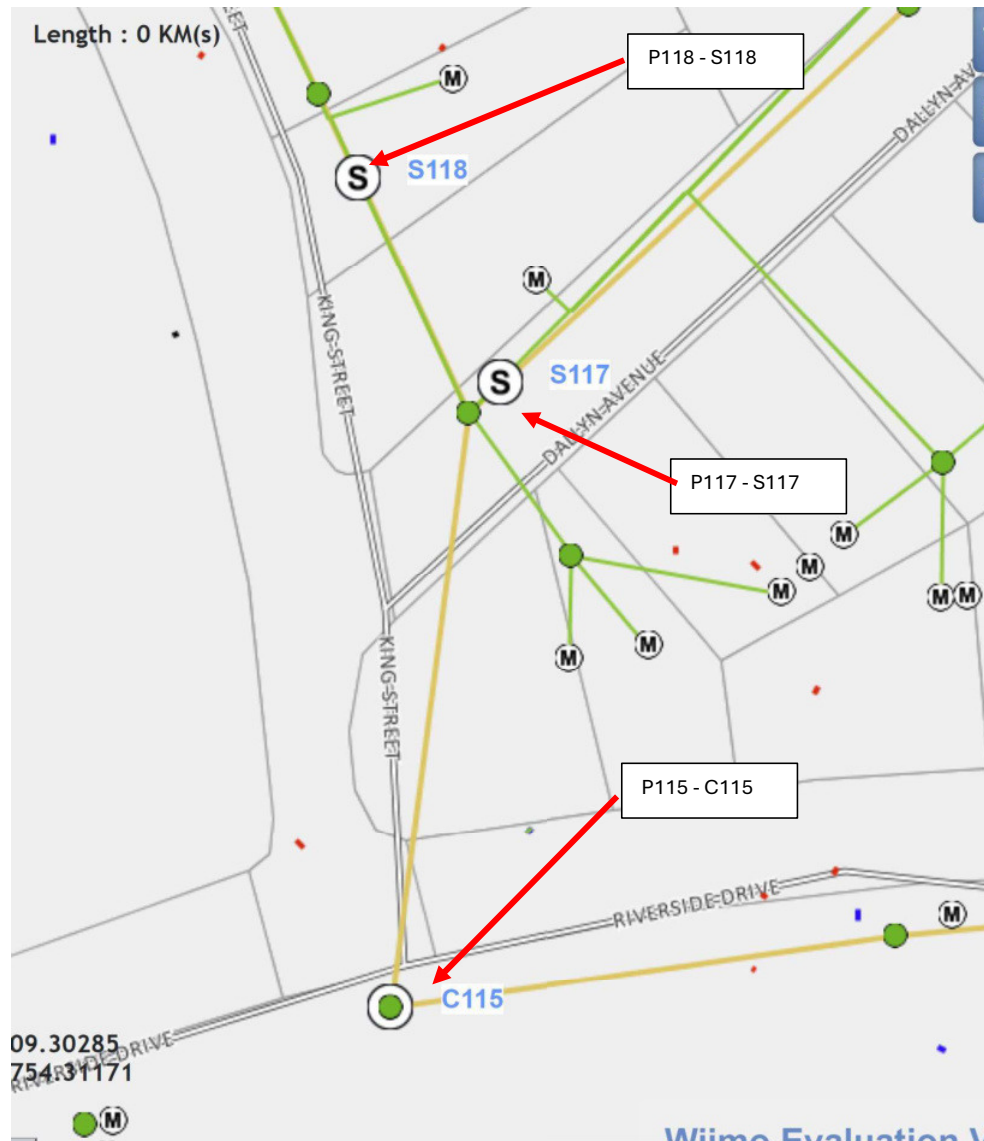


Figure 6 - Fusing locations near the intersection of Riverside Ave and King St.

Pole #	Switch #	Existing or New	K- Link Fuse Size	Switch Position	DESS Node	Description
P292	NEW	New	200			3 Ph lateral feeding south from intersection of Brunetville Rd and Byng St
P296	NEW	New	200			1 Ph (Red) feeding T 296 on Byng Ave
P309	NEW	New	200			1 Ph (White) feeding T 317 on Brunetville Rd just north-east of Byng Ave

Table 5 - Fuse Chart for locations in the vicinity of Byng Ave and Brunetville Rd

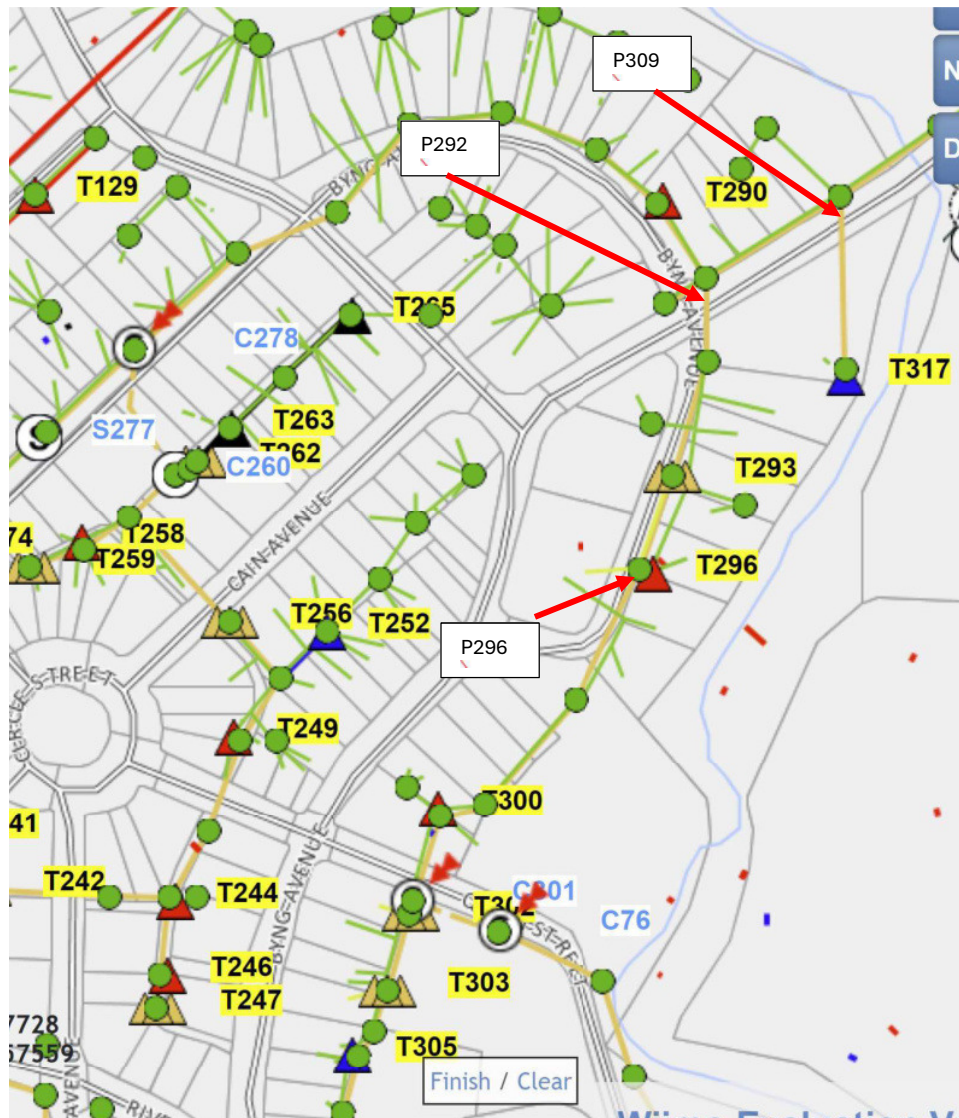


Figure 8 - Fuse locations in the vicinity of Byng Ave and Brunetville Rd.

Pole #	Switch #	Existing or New	K- Link Fuse Size	Switch Position	DESS Node	Description
P314	NEW	New	200			3 Ph line feeding south from Brunetville Rd to Air Brake Switch 315.
P318	NEW	New	200			1 Ph (Blue) feeding T 318 on Brunetville Rd.
P324	NEW	New	200			3 Ph line headed east on Brunetville Rd
P323	S323	Existing	SOLID			3 Ph line headed north on Ash St.
P575	NEW	New	200		216	1 Ph (White) lateral feeding westerly from Ash St to T577.
P568	NEW	New	200		528	1 Ph (Blue) feeding westerly across Ash St to T569.
P530	NEW	New	200		220	3 Ph lateral feeding easterly along Cedar St from Ash St towards C532.

Table 6 - Fuse Chart for location off the three-phase main line on Brunetville Rd and Ash St between Byng and Cedar.

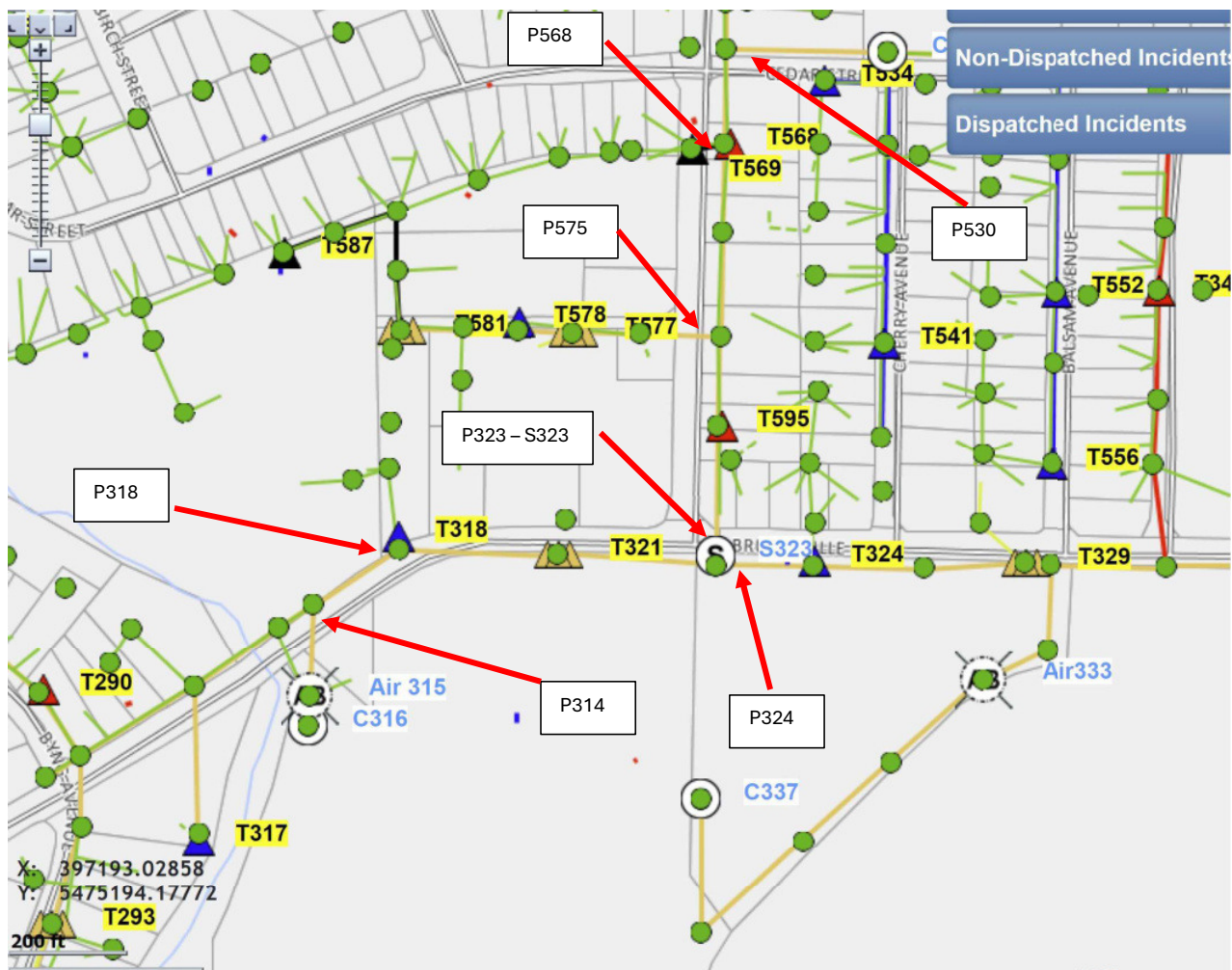


Figure 9 - Fuse locations off the three-phase main line on Brunetville Rd and Ash St between Byng and Cedar.

Pole #	Switch #	Existing or New	K- Link Fuse Size	Switch Position	DESS Node	Description
P522	NEW	New	200	NC	531	1 Ph (Blue) feeding westerly across Ash St to T525.
P466	NEW	New	200	NC	233	1 Ph (Blue) feeding easterly along St. Lawrence Ave from Ash St to T478
P459	NEW	New	200	NC		1 Ph (Red) feeding westerly across Ash St to T460.
P438	NEW	New	200	NC	533	1 Ph (Red) feeding westerly across Ash St to T439.
P430	NEW	New	200	NC	244	1 Ph (Blue) feeding easterly from Ash St along Superior St to T431.
P430	S430	Existing	200	NO		3 Ph Tie Switch at the Intersection of Superior St and Ash St.
P597	NEW	New	200	NC	495	1 Ph (Blue) feeding westerly across Ash St backlot Spruce St to T599.
P607	S607	Existing	SOLID	NC		Existing Switch on Nipigon Ave at Ash St.
P608	C608	Existing	SOLID	NC	489	1 Ph (Blue) lateral feeding north and south back lot on Ash St to T620 and T609.
P640	NEW	New	200	NC	T641	1 Ph (White) feeding north across Sofija Place to T641.

Table 7 - Fuse Chart for locations on Ash St and Nipigon Ave between Cedar and Ottawa St.

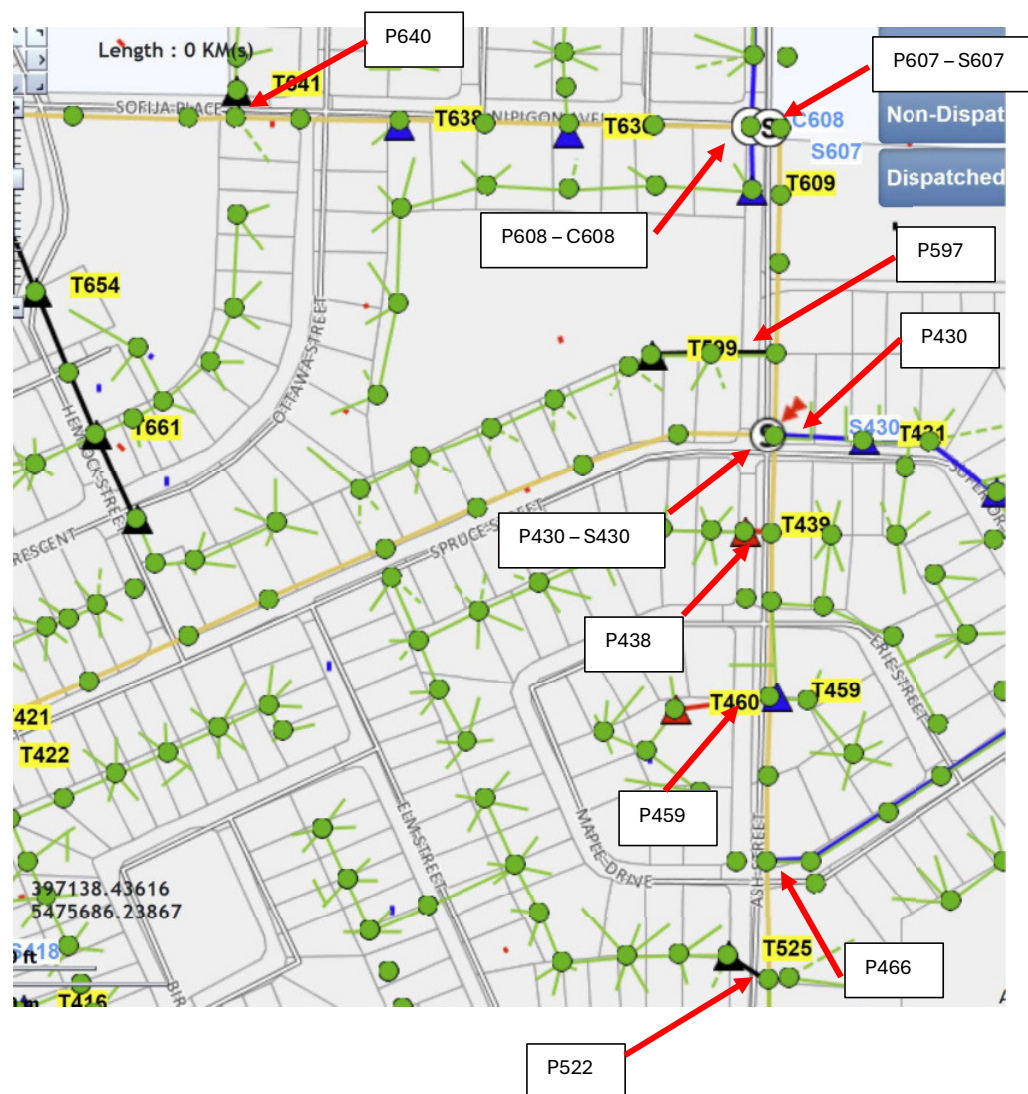


Figure 10 - Fuse locations on the main three-phase line on Ash St and Nipigon Ave between Cedar St and Ottawa St.

Pole #	Switch #	Existing or New	K- Link Fuse Size	Switch Position	DESS Node	Description
P651	NEW	New	200	NC	490	1 Ph (White) south from Sofia Place to T654.
Substation						See Section 10.4 for fusing details
P680	NEW	New	SOLID	NO		New open point to increase reliability to hospital

Table 8 - Fuse Chart for locations on the three-phase main line along Sophia Place between Ottawa st, includes the 25 to 4 kV Substation and back lot to Avenue Rd.

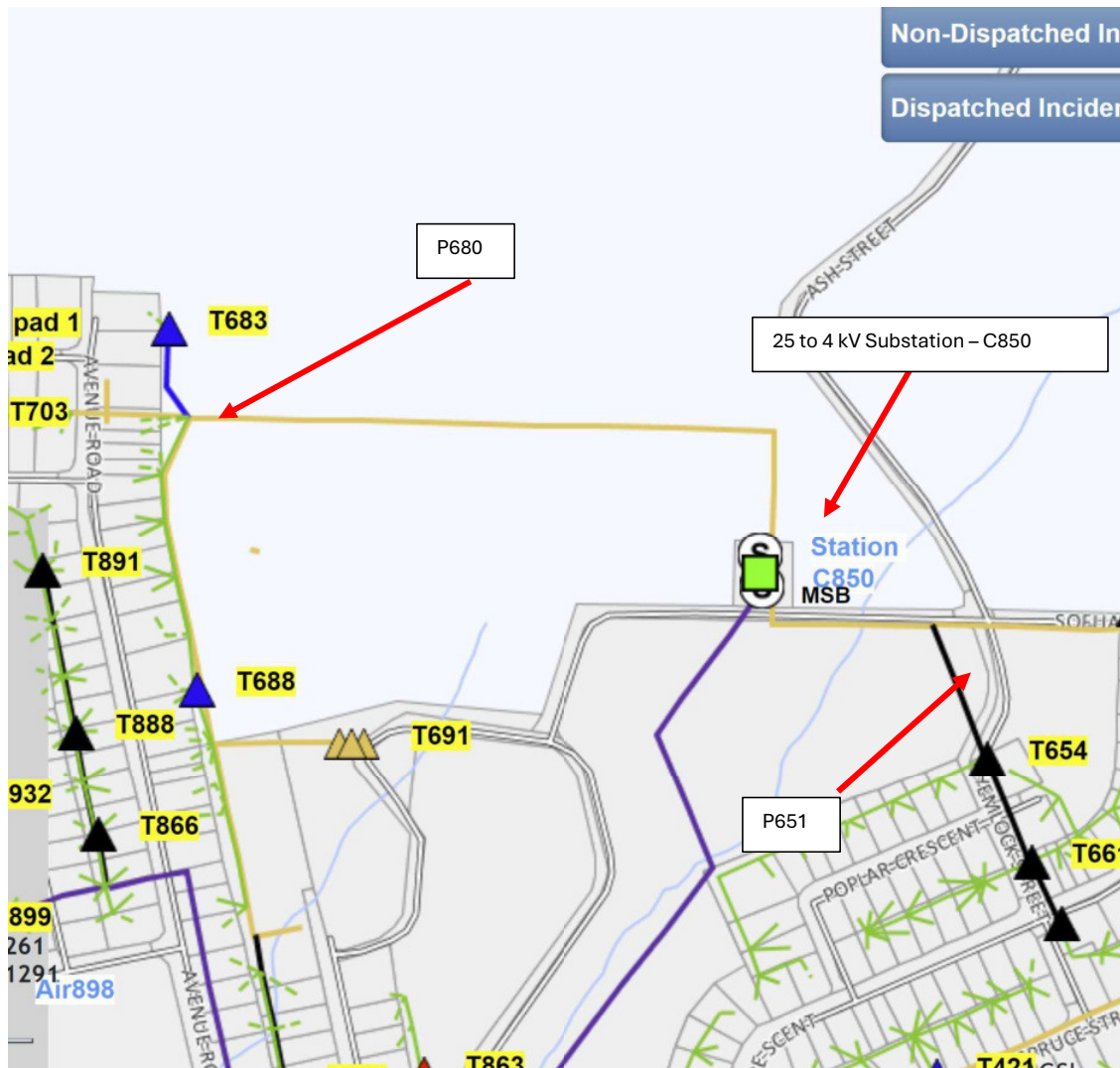


Figure 11 - Fuse locations on the three-phase main line along Sophia Place between Ottawa St, includes the 25 to 4 kV substation and back lot to Avenue Rd.

Pole #	Switch #	Existing or New	K- Link Fuse Size	Switch Position	DESS Node	Description
P119	NEW	New	200		176	1 Ph (Red) feeding northerly on Stewart Ave to T124.
P140	NEW	New	200		134	3 Ph lateral feeding southerly backlot on Mundy Ave to T144, 145 and 147.
P356	S356	Existing	200		188	3 Ph feeding northerly on Mundy Ave to S430 at Ash St.
P176	NEW	New	200		179	3 Ph feeding southerly one span across King at Mundy Ave to P355.
P178	NEW	New	200		180	1 Ph (White) feeding northerly on Summers Ave to T187, T193.
P178	NEW	New	200		180	3 Ph lateral feeding southerly across King backlot on Empire Ave to T183.
P221	NEW	New	200		447	1 PH (Red) feeding northerly on Corona Ave to T226.
P221	NEW	New	200		447	3 PH feeding southerly backlot on west side of Empire Ave to T225.(padmount)
P178	S178	Existing	SOLID	NC		Main three phase line at P178
P981	C981	Existing	200	NC		1 PH (White) feeding south and west on Devonshire backlot on Bowman Ave
P1109	NEW	New	200	NC		3 Ph - feeding north - west on Bowman Ave to T1110

Table 9 - Fuse chart for locations in the vicinity of King St from Riverside Dr to Bowman Ave, then on Bowman Ave from King St to Devonshire St.

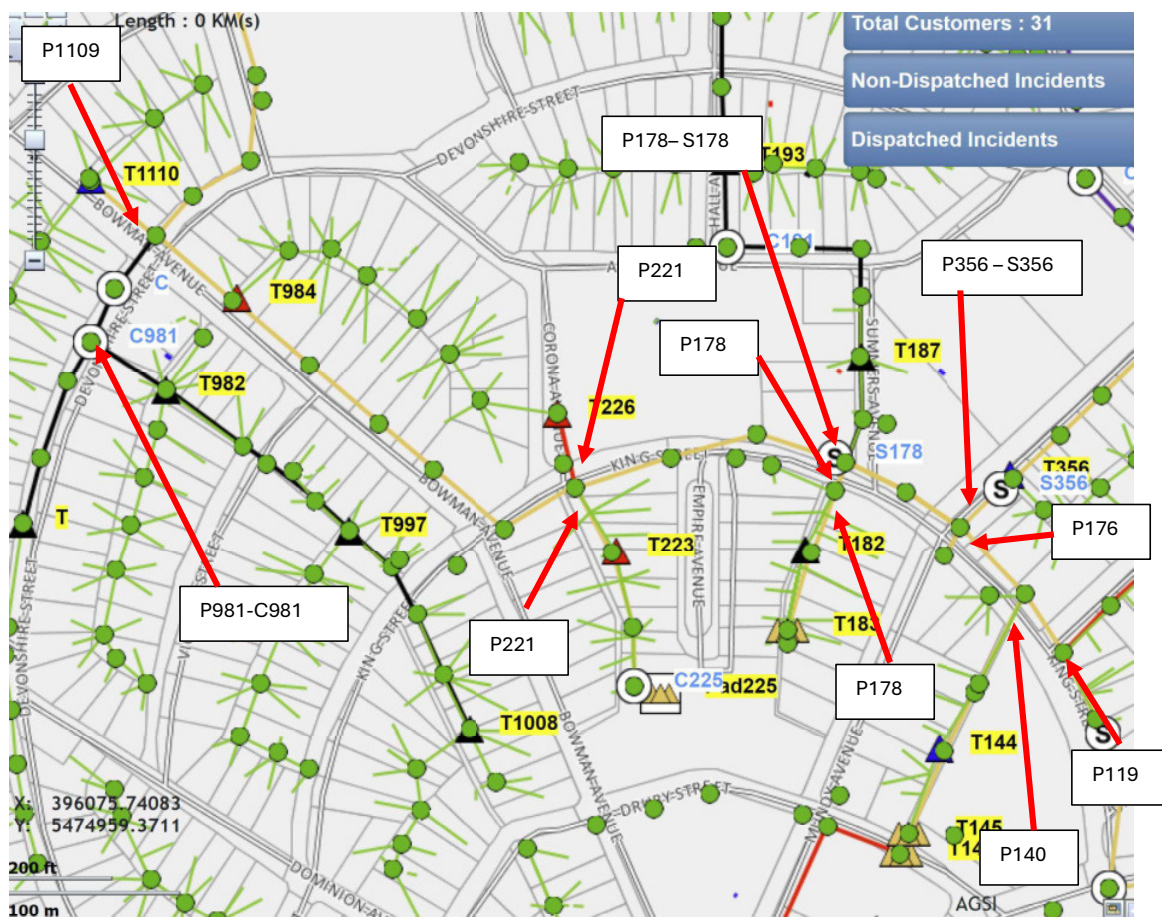


Figure 12 - Fuse locations in the vicinity of King St from Riverside Dr to Bowman Ave, then on Bowman Ave from King St to Devonshire St.

Pole #	Switch #	Existing or New	K- Link Fuse Size	Switch Position	DESS Node	Description
732	C732	Existing	200	NC		1 Ph (White) linefeeding west from Montgomery Ave to Edgerton St and T736
750	NEW	New	200	NC		3 Ph feeding east on Edgerton St to T752
729	S729	Existing	SOLID	NC		3 Ph main feeder on Montgomery Ave
721	NEW	New	200	NC		1 Ph (Blue) feeding west from Montgomery Ave to T722

Table 10 - Fuse chart for fuse locations in the vicinity of Montgomery Ave from Devonshire St to Park Cres.

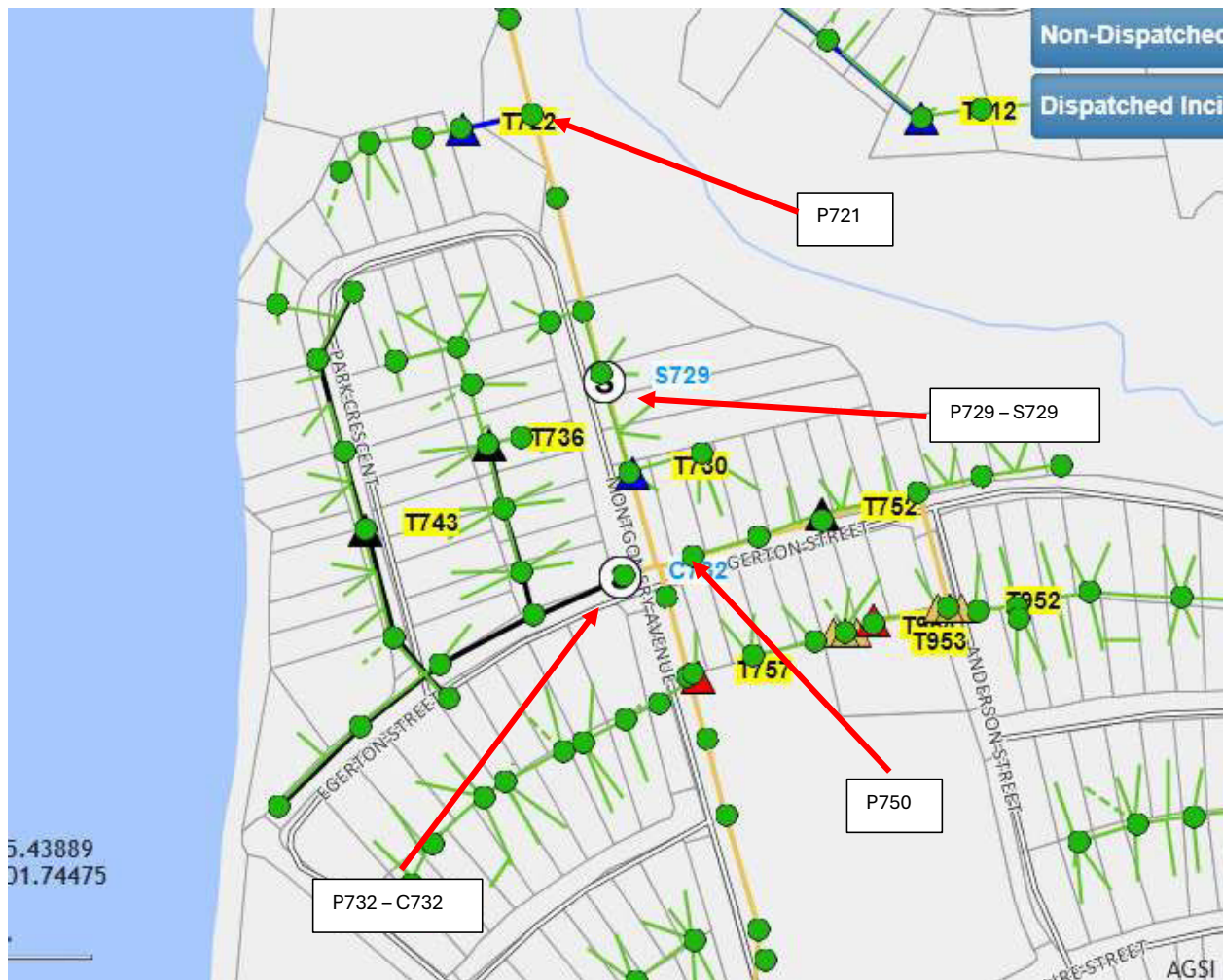


Figure 13 – Fuse locations in the vicinity of Montgomery Ave from Devonshire St to Park Cres.

Pole #	Switch #	Existing or New	K- Link Fuse Size	Switch Position	DESS Node	Description
714	C714	Existing	Solid	NC		3 Ph feeding north backlot on Montgomery Ave near T 915
710	710	Existing	200A	NC		3 Ph Dip feeding Mateev UG Subdivision
702	702	Existing	200A	NO		3 Ph Dip feeding Mateev UG Subdivision
681	NEW	New	Solid	NO		3 Ph located on the easterly side of P681.
692	NEW	New	200A	NC		3 Ph feeding south from the tap to Senensbrenner Hospital

Table 11 - Fuse Chart for feeder near Mateev Subdivision and feed to Senensbrenner Hospital



Figure 14 - Fuse locations on 25 kV System near the Mateev subdivision and Senensbrenner Hospital.

3.2.2 25 to 4 kV Substation Protections

The existing 25 to 4 kV station connected to the Kapuskasing M2 feeder has a 5 MVA, delta/Grounded-Wye power transformer. The existing protections are not known but based on the age and size of the station some reasonable assumptions can be made until the actual fuse size and type can be field checked by NOW staff.

Transformer fuse size: The transformer is a 5 MVA, which yields a full load current of ...

$$5000 / 25 / 1.732 = 115.47 \text{ amps}$$

Typically, a designer will provide a transformer fuse that allows the transformer to operate at 150% of rated current, therefore the minimum fuse size is likely greater than...

$$115.47 \times 1.5 = 173 \text{ amps}$$

Transformer fuse type: Typical transformer fuse types for a 5 MVA station are the S&C SMD-1A or SMD-2B, with the possibility that the SM5 fuse might be used. The protective coordination curves for these three typical, possible fuse types are presented below. Since the installation of several Trip Savers is contemplated after the series reactors are installed the planned curves for the Trip Savers are included for completeness.

Assuming an SM5-200E Fuse - Figure 15 is the Coordination plot for the existing 5 MVA 25 to 4 kV substation assuming upstream Trip Saver and an SM5-200E fuse protecting the station. The curves for the various protective elements are:

1. Green – the phase and ground very inverse timed curves for the M2 feeder Breaker.
2. Purple – the fast trip setting for the Trip Saver and Yellow – the slow trip setting for the Trip Saver.
3. Red – the minimum melt and total clearing curves for an S&C SM5-200E standard speed fuse
4. Blue – Dots – the magnetizing currents and cold load pick up currents for a 5 MVA, 5.31% impedance power transformer – Lines the damage curves for the 5 MVA power transformer.

The Coordination plots show that if an SM5-200E fuse existing on the high side of the 5MVA 25 to 4 kV substation, it will coordinate when the series reactors are installed.

Until the series reactors are installed an SM5-200E fuse will blow before the feeder locks out.

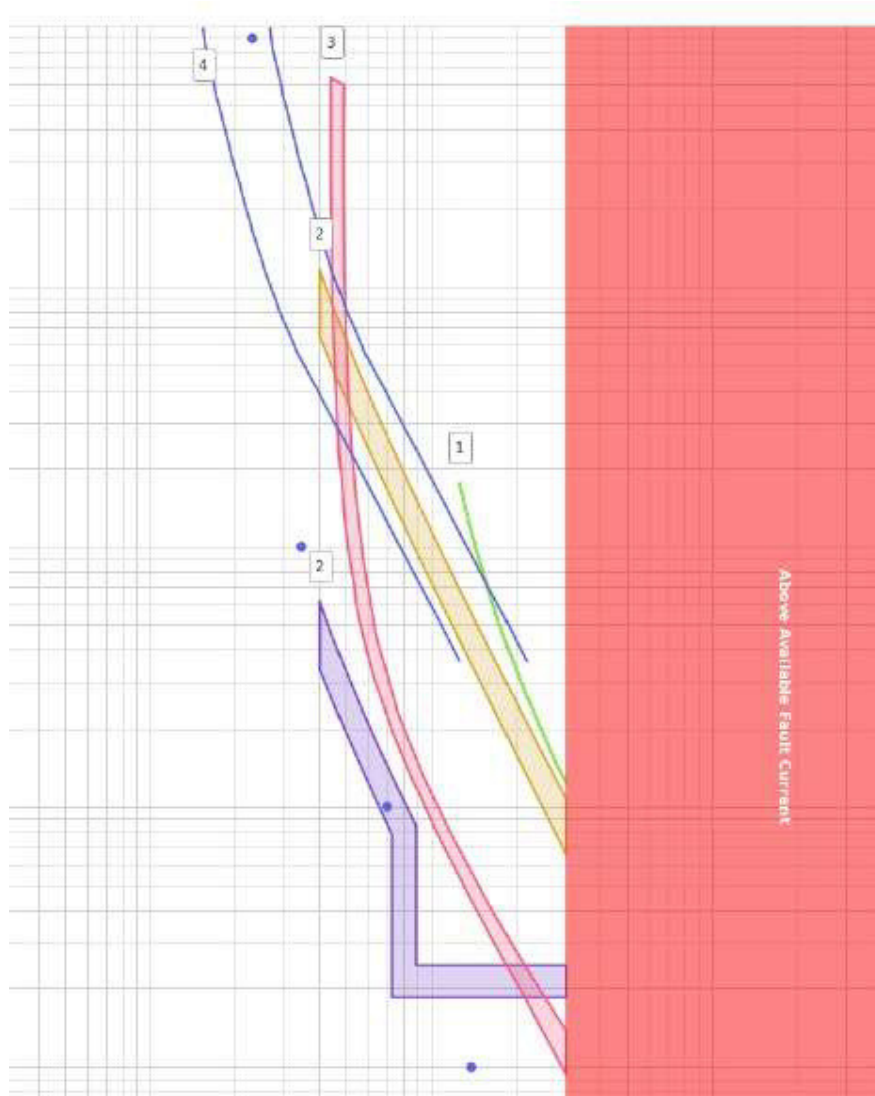


Figure 15 - Protective coordination of the 5 MVA 25 to 4 kV substation connected to the M2 feeder assuming an SM5-200E fuse.

Assuming an SMD1A-200E Fuse - Figure 16 is the Corordinaide plot for the existing 5 MVA 25 to 4 kV substation assuming upstream Trip Saver and an SMD1A-200E fuse protecting the station. The curves for the various protective elements are:

1. Green – the phase and ground very inverse timed curves for the M2 feeder Breaker.
2. Purple – the fast trip setting for the Trip Saver and Yellow – the slow trip setting for the Trip Saver.
3. Red – the minimum melt and total clearing curves for an S&C SMD1A-200E standard speed fuse
4. Blue – Dots – the magnetizing currents and cold load pick up currents for a 5 MVA, 5.31% impedance power transformer – Lines the damage curves for the 5 MVA power transformer.

The Coordinaide plots show that if an SMD1A-200E fuse existing on the high side of the 5MVA 25 to 4 kV substation, it will coordinate when the series reactors are installed.

Until the series reactors are installed an SMD1A-200E fuse will blow before the feeder locks out.



Figure 16 - Protective coordination of the 5 MVA 25 to 4 kV substation connected to the M2 feeder assuming an SMD1A-200E fuse.

Assuming an SMD2B-200E Fuse - Figure 17 is the Corordinaide plot for the existing 5 MVA 25 to 4 kV substation assuming upstream Trip Saver and an SMD2B-200E fuse protecting the station. The curves for the various protective elements are:

1. Green – the phase and ground very inverse timed curves for the M2 feeder Breaker.
2. Purple – the fast trip setting for the Trip Saver and Orange – the slow trip setting for the Trip Saver.
3. Yellow – the minimum melt and total clearing curves for an S&C SMD2B-200E standard speed fuse
4. Blue – Dots – the magnetizing currents and cold load pick up currents for a 5 MVA, 5.31% impedance power transformer – Lines the damage curves for the 5 MVA power transformer.

The Coordinaide plots show that if an SMD2B-200E fuse existing on the high side of the 5MVA 25 to 4 kV substation, it will coordinate when the series reactors are installed.

Until the series reactors are installed an SMD2B-200E fuse will blow before the feeder locks out.

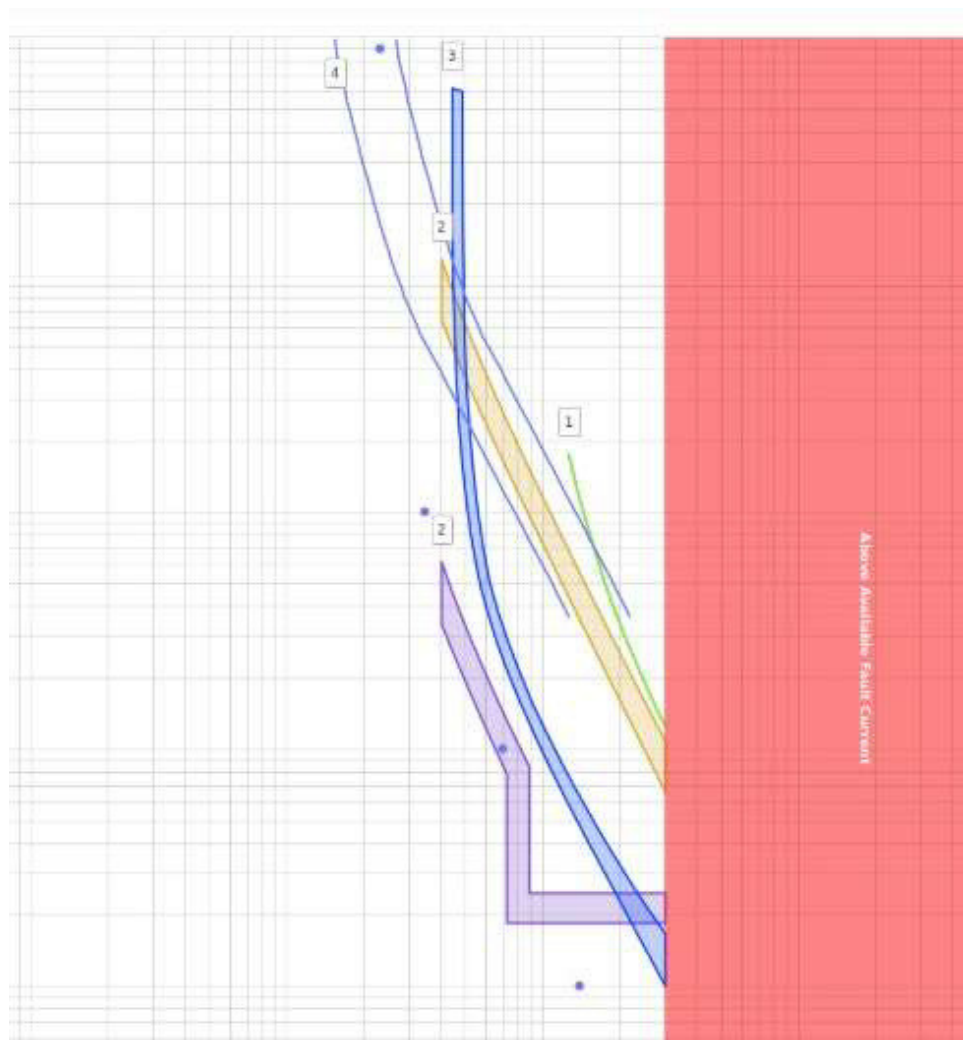


Figure 17 - Protective coordination of the 5 MVA 25 to 4 kV substation connected to the M2 feeder assuming an SMD2B-200E fuse.

If the field check reveals any other 25 kV fusing on the substation, it is recommended that NOW install fused cutouts with a 200K fuse link to protect the station until the series reactors are installed. The use of a 200K fuse link will ensure that the station fuse blows before the feeder can lockout. The Trip Saver is included for completeness, but these **shall not** be installed until after the series reactors are installed.

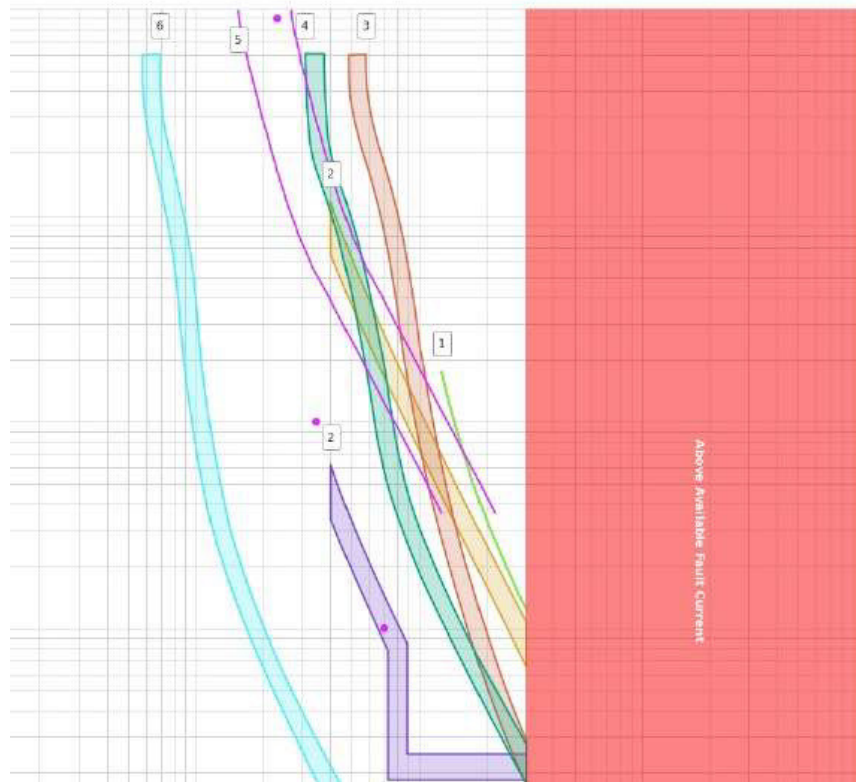


Figure 18 - Possible protective coordination schemes for the 4 kV system.

1. Green – the phase and ground very inverse timed curves for the M2 feeder Breaker.
2. Purple – the fast trip setting for the Trip Saver and Orange – the slow trip setting for the Trip Saver.
3. Red – the minimum melt and total clearing curves for an S&C Type K 200A fuse link.
4. Teal - the minimum melt and total clearing curves for an S&C Type T 140A fuse link.
5. Purple – Dots – the magnetizing currents and cold load pick up currents for a 5 MVA, 5.31% impedance power transformer – Lines the damage curves for the 5 MVA power transformer.
6. Light Blue – the minimum melt and total clearing curves for an S&C Type K 140A fuse link located downstream from the 5MVA 25 to 4 kV power transformer on the 4 kV system.
7. – the minimum melt and total clearing curves for an S&C Type K 200A fuse link.

3.2.3 4 kV System Protections

Considering that the 4kV system is the subject of a voltage conversion effort by NOW it may not be necessary to update the protective coordination, however, in the interest of completeness and professional responsibility, it is recommended that all fuses (except transformer fuses) feeding single phase and three phase laterals on the 4 kV system be changed to 140 K fuse links. Although the protection will not coordinate, they will operate to protect the public in the case of a fault, until such time as the 4 kV system is converted to 25 kV.

3.3 Proposed Fuse Coordination After the Series Reactors are Installed

The proposed fuse coordination is presented in two parts. The protections scheme before the series reactors are installed and the protections scheme after the series reactors are installed.

3.3.1 25 kV System Protection – After Series Reactors are Installed

Fusing - The protective coordination scheme has been designed such that the “fuse blowing” scheme was installed on the 25 kV system before the installation of the series reactors will seamlessly transition to a “fuse saving” scheme after the series reactors are installed....and therefore no revisions to the 25 kV fusing are contemplated.

Trip Savers – The addition of Trip Savers to the protective coordination on the 25 kV system provides an additional layer of sectionalizing capability that does not exist simply using type K fuses and the feeder breaker.

After a meeting with S&C's Trip Saver expert the fast and slow curve settings were agreed upon and are detailed below.

The Trip Saver is programmed such that it is set up as....

- Emulated Device is a “Recloser, Microprocessor Controlled”
- Type is a “Cooper (Forms 4,5,6, FX)
- Minimum Trip Current is “400A”

Fast Curve Settings – S&C 142, Low-current cut off = 400A, Time multiplier = 1.9

Slow Curve Settings – S&C 142, Low-current cut off = 400A, Time multiplier = 0.1, Definite Time #1 = True, Definite Time #1 Current = 800, Definite Time #1 Time = 0.2.

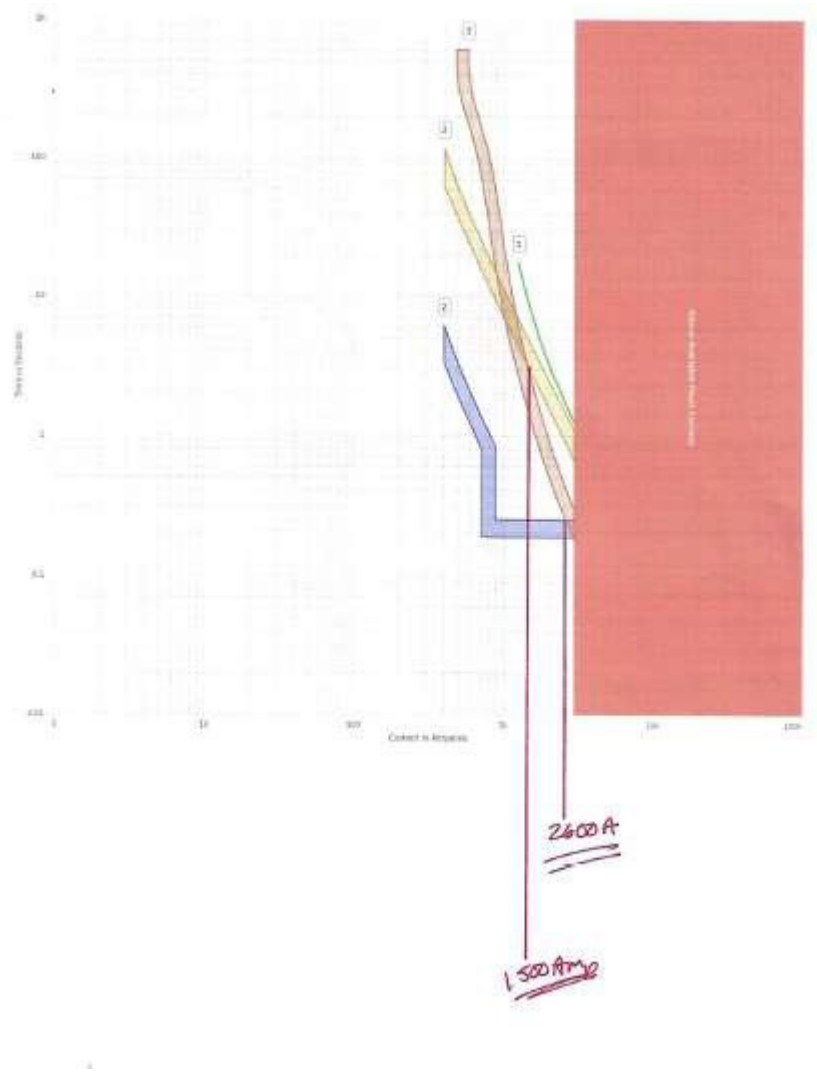


Figure 19 - TCC for proposed feeder breaker protections (1) plus Trip Saver (2), plus 200A Type K (3)).

Locations for the Trip Savers – As can be seen in Figure 19 a 200A type K fuse will coordinate with the Trip Savers between approximately 1500A and 2600A of fault current. Based on the proposed open points in Section 3.1 that describe a revised feed to the Sensenbrenner Hospital, it is recommended that after the series reactors are installed, Trip Savers, configured as described above, be installed at the following switch locations.

Pole #	Switch #	Existing or New	K- Link Fuse Size	Switch Position	DESS Node	Description
P40	S40	Existing	Trip Saver	NC	91	3 Ph feeding east from McPherson Ave at Kolb Ave
P117	S117	Existing	Trip Saver	NC	152	Corner of King St and Dallyn Ave
P356	S356	Existing	Trip Saver		188	3 Ph feeding northerly on Mundy Ave to S430 at Ash St.



There are other locations, such as the M2 heading west towards KapTest where it may appear to be useful to install a Trip saver. However, the fault current levels are such that the 140K fuses and the Trip Saver do not coordinate. Similarly changing the fuses to 200K does not create coordination at the higher available fault levels.

3.3.2 25 to 4 kV Substation – After the Series Reactors are Installed

There are plans to replace the existing 5 MVA substation with a 2 MVA pad mount transformer. As long as the existing 5 MVA power transformer remains in service, protective coordination described in section 3.2.2 can remain in effect.

Replacing the 5 MVA Substation Transformer with a 2 MVA Pad Mount – When the 5 MVA power transformer is removed and the 2 MVA pad mount is placed in service to provide 25 to 4 kV step down voltages, the protective relaying shall be as follows:

25 kV fuse on the high side of the pad mount: A 100A Type K Positrol fuse link in a standard 200A cutout

4 kV fuse on the low side of the pad mount: A 140A Type K Positrol fuse link in a standard 200A cutout.

Any fuse located downstream of the 140K shall be an S&C Positrol Type K fuse link rated at less than 140A. If progressively smaller sizes are used as one heads downstream from the pad mount, fuse coordination is assured. As always fuse sizes need to accommodate expected loads so as not to blow for normal peak loading. NOTE: Single and three phase distribution transformers are fused as per section 8 of the USF standards.



B. A. (Brian) McMillan, P. Eng.

President and Chief Engineer

McMillan Distribution Engineering and Consulting Ltd.

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Feeder Fault Values Used to Determine Settings: (describe ruling fuse or any salient features etc.)

notes:

Fault Info Required									
Fault:	Location/Switch	S.C.	Generator OFF				Generator ON		
			3 Phase (amps)	L-G (amps)	Zapp (3PH) ohms pft@ 50g	Zapp (L-G) ohms pft@ 50g	3 Phase (amps)	L-G (amps)	Zapp (3PH) ohms pft@ 50g
@ TS Bus		Max Min							
@ Feeder End		Max Min							
@ 1st "Critical" Lateral Fuse		Max Min							
@ 1st Mid-Feeder Recloser		Max Min							
Loadability (based on protection settings)		Max Min							

ADDITIONAL NOTES:

scheme notes cont'd:

phase setting notes cont'd:

ground setting notes cont'd:

feeder owner notes cont'd:

See Attached

fault value notes cont'd:



Appendix 2
M2 Fault Study and Settings

1.0 DESS Fault Study for Settings

Study Conditions	Reactors Out									
	Minimum Z					Maximum Z				
	Fault Type		Fault Type			Fault Type		Fault Type		
TS Bus - M2 CB Load Side	L-L-L	L-L	L-G	L-L-L	L-L	L-G	L-L-L	L-L	L-L-L	L-L
TS Bus - M2 CB Load Side	14771	12792	11032	8000	6928	5451	14771	12792	11032	8000
CB + Reactor Load Side	14771	12792	11032	8000	6928	5451	2748	2380	2068	1847
First Line Fuse	6931	8652	7065	6379	5524	4281	2748	2380	2068	1847
Most Distant Three Phase Supply	4323	3746	2906	3516	3045	2318	2082	1786	1673	1451
Most Distant Two Phase Supply	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Most Distant Single Phase Supply	N/A	N/A	2830	N/A	N/A	2269	N/A	N/A	1648	1433

2.0 M2 Settings - Future Reactors in

Element	PI Setting	CTR 400/5	Sec. Setting	Device	A Range	Comment
50A-High Set Phase Instantaneous	10,000.0	80	125.0	CO-11	6-144	Set above L-L-L max fault level for first fuse. Protects TS equipment for close in faults. Use tap setting 40-144 A. Note: Setting reduced to 2850 A after the reactors are installed.
50N-High Set Ground Instantaneous	7,250.0	80	90.6	CO-11	6-144	Set above L-G max fault level for first fuse. Protects TS equipment for close in faults. Use tap setting 40-144 A. Note: Setting reduced to 2600 A after the reactors are installed.
50B-Low Set Phase Instantaneous	800.0	80	10.0	RXL24-1110M	5.0-10.0	Set for 50% of most distant L-L minimum fault level. Protects fuses for initial fault. Use parallel connection for 5.0 - 10.0 A range.
50Nb-Low Set Ground Instantaneous	725.5	80	9.1	RXL24-1110M	5.0-10.0	Set for 50% of most distant L-G minimum fault level. Protects fuses for initial fault. Use parallel connection for 5.0 - 10.0 A range.
51-Extremely Inverse Phase Timed	960.0	80	12.0	CO-11	1-12	Set below most distant minimum L-L fault to coordinate with 200X fuse. Must allow fuse to blow for permanent fault and still protect line conductors and coordinate with H1 bus backup protection. Use tap 12.0 and Time Dial of 2.0.
51N-Extremely Inverse Ground Timed	960.0	80	12.0	CO-11	1-12	Set below most distant minimum L-G fault to coordinate with 200X fuse. Must allow fuse to blow for permanent fault and still protect line conductors and coordinate with H1 bus backup protection. Use tap 12.0 and Time Dial of 2.0.

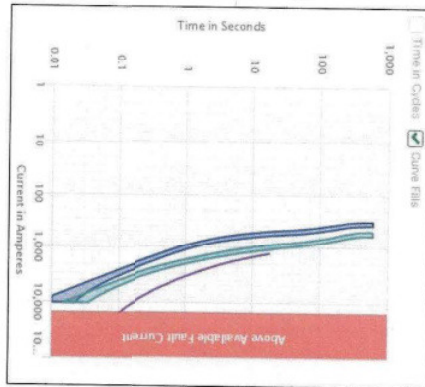
Note: There are no changes to the 79-L, 79-I, 79-48 and 94-Timers.



Notes:

- 1- The left hand curve is the 140K fuse.
- 2- The centre curve is the 200K fuse.
- 3- The right hand curve is the 51 and 51N set for a minimum pickup of 950 A and a Time Dial of 2.0.
- 4- The maximum fault level is <3000 A when the reactors are installed. The low set 50B and 50NB will clear the fault in approximately 0.110 seconds. A 200 K fuse can withstand 3000 A for > 0.150 seconds without damage. Therefore, first fuse is protected. The second 140K fuse must be located where the current is <2300 A to prevent damage for a fault of 0.110 seconds duration.

SAC Coordinate Graph



*Note: Values from CO-11 instruction Leaflet, 41-100-1B, Figure 15
Due to low resolution, these values are only a guideline.

Device #	Device	Pil. A PU	Sec. A PU	X PU	*Op Secs.
51	CO-11	950	12.00	1.00	Pickup
51	CO-11	1440	18.00	1.50	10.00
51	CO-11	1920	24.00	2.00	3.50
51	CO-11	2400	30.00	2.50	2.00
Device #	Device	Pil. A PU	Sec. A PU	X PU	*Op Secs.
51N	CO-11	950	12.00	1.00	Pickup
51N	CO-11	1440	18.00	1.50	10.00
51N	CO-11	1920	24.00	2.00	3.50
51N	CO-11	2400	30.00	2.50	2.00

3.0 M2 Interim Settings - Reactors Out

There are two main problems with the M2 protection. First, the fault currents are too high to utilize standard type K fuses in a fuse saving scheme. This is being resolved by the addition of current limiting reactors. Second, the existing settings are too sensitive. The sensitive settings resulted two issues. The first issue is the high set elements, the 50A and 50NB, responding to faults at the end of the feeder instead of only close in faults, faults just short of the first fuse. If there is a permanent fault, the feeder will trip on the low set instantaneous, reclose and trip and lockout on the high set instantaneous without blowing the fuse. The second issue is the 50NB responding to single phase switching on the feeder. By implementing most of the future 'reactors in' settings now, except for the 50A and 50NB, both issues are resolved. The M2 protection will function as a fuse blowing scheme until the reactors are installed. When the reactors are installed, the 50A and 50NB will be revised, to provide instantaneous protection for the reactors for close in faults.

Prepared by Dale Williston and Brian Smith

Reviewed by Brian McMillan, P. Eng.





Northern Ontario Wires Inc.
Filed: August 30, 2024
EB-2024-0046
Exhibit 4
Tab 4
Schedule 1
Attachment 2
Page 1 of 1

Attachment 2 (of 6):

NOW Vegetation Management Report

Northern Ontario Wires Vegetation Management Consultation Report

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Diversified Forestry Inc.
Dale Allard

Date: July 2024

Introduction

This report is intended to address tree pruning, tree removal and underbrush removal and management around Northern Ontario Wires electrical equipment and related circuits in Kapuskasing, Cochrane and Iroquois Falls, Ontario.

The focus of the report is to identify specific areas which require tree pruning, tree removal and underbrush removal to reduce contact between electrical distribution equipment and woody materials located within proximity and nearby.

The purpose of the report is to identify and make recommendations on how to improve tree and limb clearances around electrical equipment and circuits connecting, to eliminate, reduce and appropriately mitigate existing hazards associated with electrical equipment and its unintended contact with surrounding vegetation in urban and rural areas. While in doing so implement best practices on a go forward basis to limit such contacts for a prescribed period thereof.

Following a site visit in July 2024, a collection of issues has been recognized as contributors to the current encroachment of bush lines on the utility rights-of-ways, excessive growth of underbrush in urban and rural locations, the existence of hazardous trees, overgrown limbs beneath the conductors and growing parallel to and above the equipment all currently in contact and in near conduct with circuits and equipment.

Current Identified Vegetative Management and Electrical Distribution Concerns

Duration of Cycle Pruning

Through observation of the vegetative growth surrounding the electrical circuits and related equipment, it appears limited active vegetative management approaches have been implemented to maintain tree and limb growth to a manageable level. At this time there have been observed a significant number of mature, semi-mature trees and underbrush in locations that have not been appropriately maintained and have overgrown the space required to appropriately maintain any safe distance between the electrical equipment and the vegetation.

It should be noted that a significant number of trees that have been left to grow during any prior vegetation management practices and are now in so close proximity to the electrical equipment the only reasonable option to attain a safe distance of approach between an energized conductor and the woody plant would be to remove the plant.

Irregular pruning intervals of woody vegetation around the electrical equipment have contributed to the aggressive growth of trees and limbs currently in regular contact with the hydro lines. This growth is so extensive and in such a manner that controls through pruning the limb(s) appropriately to attain, in attempts to maintain safe distances between the vegetation and the lines may not be possible and removal of the tree may be the resulting option.

Tree Topping

Tree Topping has been utilized as a relatively current method to provide clearance between the trees and the electrical equipment of Northern Ontario Wires. Tree topping is the random cutting of the top of the tree, or thusly the removal of the apically dominant bud on a tree to reduce its height at any random point on the tree. Trees have genetically programmed apical dominant abilities to focus energy in growing vertical limbs, forcing the remaining tips of the branches grow horizontal. Apical dominance can be easily recognized in many conifers (spruce, pines). Deciduous trees (maples, poplars) can have several apically dominant buds resulting in codominant leaders and spreading crowns. Topping cuts in woody vegetation to reduce its size may lead, in most cases to an increase and rapid growth, both in the time the plant takes to regenerate the limbs and in the number of limbs regenerated. Topping is recognized as a past practice in utility arboriculture and vegetative maintenance and should not be used as the intended method to obtain utility line clearances.

The removal of the apical bud causes two genetic reactions within the tree; First, it promotes the vigorous growth of latent buds. The sprouting of these latent buds creates fast-growing material commonly referred to as watersprouts. Watersprouts form structurally poor limbs with an exponential growth rate that will commonly encroach any safe proximity intended for vegetation clearing in a very short period of time.

Secondly are the increased number of limbs generated in proximity to the electrical equipment. As latent buds begin to germinate around the cut of a topped tree, or inappropriately pruned limb, not only one latent bud germinates but typically a number of watersprouts will form. This creates multiple watersprouts growing in proximity to the equipment at an exponential growth rate that are often poorly attached to the tree trunk and prone to failure. Inadvertently this has a compounding adverse effect on the purpose of tree trimming to attain and maintain hydro line clearance.

Stubbing cuts

Cuts made randomly along a limb are generally referred to as ‘stubbing’ the limb. Generally performed on deciduous trees these cuts cause watersprouting or cause the branch to die. Conifers react very similar to deciduous trees and may sprout in response, however in most cases conifer stubs create small dead limbs off the main stem of the tree. A stubbing cut can increase the limb material growing within or encroaching on the equipment or may increase the amount of dead wood in the crown of the tree which creates hazard potential for line men, city workers and the general public below who may utilize spaces below the tree.

Leaning Trees and Identification of Potential Hazardous Trees

Trees over or in proximity of electrical conductors should be regularly inspected and removed as deemed necessary or required. There are several reasons why trees grow on a lean. Genetic ability, example phototropism causes the plant to grow to increased light exposure. Utility right-of-way clearing contributes to vegetation growth habits and sometime encourages leaning trees. Trees in proximity to electrical equipment should be regularly monitored to watch for unnatural leaning trees in cases of wind throw or blow down or from trees in damp locations and roots

slip. These situations create hazards for electrical circuits. An increased emphasis on the removal of trees leaning in the direction of the equipment with the potential to reach the equipment should be individually inspected on a regular basis and removed as deemed required or at the first sign of structural or integral defect or decay.

Hazardous trees would be those standing dead or structurally defective, both with potential in the event if failed could strike the electrical equipment. These trees should be regularly identified and removed as necessary. Consideration of prevailing winds, root loss or elimination and maturity of a tree should also be evaluated when assessing hazardous trees.

Contractor Compliance and Practice, lack of Quality Control and No Current Vegetation Management Policy

Compounding situations regarding the monitoring and oversight of vegetative growth and its management lead to the severe encroachment of trees, underbrush and limbs in and around the electrical equipment. Through limited ongoing vegetation management practice woody vegetation has been permitted to grow causing interference with the electrical equipment and circuits.

Recommendations

The following is a short list of recommendations that would help mitigate the potential for ongoing contact between electrical equipment and woody plants within the communities:

1. Any trees growing in such proximity to electrical equipment that if pruning would require the removal of most of the limbs, the tree should be removed.
2. Any trees growing near electrical equipment which have limbs in regular contact with electrical equipment or within proximity of electrical equipment should be pruned to attain appropriate clearance to the electrical equipment using appropriate arboricultural practices.
3. All dead trees standing with the potential to contact the electrical equipment if the tree should fail, should be removed.
4. Any underbrush or small tree(s) growing under or within proximity of the electrical equipment (urban locations) that if left growing would be in contact with or within proximity of the electrical equipment within the proceeding three to five years should be removed.
5. Any underbrush and small trees growing under or within proximity of the electrical equipment (rural and ROW locations) that if left growing would be in contact with or within proximity of the electrical equipment within the proceeding three to five years should be removed. In areas where mechanical removal of the stump and roots is possible it should be considered to mitigate rapid regeneration of the plant.
6. Establish a vegetation management guide outlining appropriate arboriculture practices in managing trees and shrubs with potential for growth in proximity to electrical equipment. A pruning program implemented on a cycle or as-needed basis to appropriately cut trees and limbs back to attain a minimum of 3m (10') of clearance around primary conductors and 1m (3') of clearance around secondary conductors. Ensuring pruning is performed in accordance with appropriate arboriculture methods for utility line clearing with intentions on maintaining an appropriate clearance for a period of three to five years. Consideration of the location of the tree(s), either rural, commercial, urban or residential locations should be considered when determining the clearance of hazardous tree parts that have the potential to strike or contact the electrical equipment. The vegetation management guidelines should address appropriate identification of tree removal and when, pruning requires and circuit identification, dead limbs and underbrush.

Recommendations for Vegetation Management and Technical Specifications

General

The importance of trees to the environment in general, and to the citizens of Kapuskasing, Cochrane and Iroquois Falls in particular, cannot be overestimated. Not only do trees benefit climatic conditions, but also, from the aesthetic point of view, their contribution is beyond monetary consideration. Trees are encouraged to grow along streets or are planted there to beautify the city and their destruction or unnecessary removal is indefensible. Desirable as it may be, it is not always practical to locate overhead lines where the pruning of trees for line clearance can be eliminated. It is, however, the established policy of Northern Ontario Wires to engage skilled Utility Arborists and to follow recognized arboricultural practices in line clearing work so that the health and appearance of trees may be maintained to the highest degree that existing conditions will permit.

The purpose of performing line-clearing operations is not only to render power circuits free from tree interference so that they may give uninterrupted service, but also to protect the public against avoidable hazards due to the presence of North Ontario Wires hydro lines.

In general, ownership to trees will be with the municipality or property owners. To maintain good public relations, it is advisable that personnel responsible for line clearing operations notify the adjacent property owners before proceeding with the work. It is also very important that persons arranging for and performing the work conduct themselves in a manner that would promote good public relations.

Specifications

The specifications as follows shall govern all line clearing operations authorized by Northern Ontario Wires unless they are specifically amended by Northern Ontario Wires authorized representative by way of a written addendum issued by the Purchasing Department.

The Contractor must work in accordance with the most recently published Infrastructure Health and Safety Association (IHSA) Electrical Utility Safety Rules, IHSA Line Clearing Operations Safe Practice Guide, the Utility Work Protection Code, the Ontario Occupational Health & Safety Act and the Ministry of Transportation Ontario Traffic Manual Book 7 (Temporary Conditions).

Notification to Customers

Notification cards should be delivered to all households where privately owned trees would be subject to pruning or removal. Notification cards should be delivered prior to any trimming taking place in the area. A minimum of five (5) working days' notice should be given. These notification cards should be provided to the contractor by Northern Ontario Wires; however, it may be the contractor's responsibility to distribute the notifications cards to the households. These notification cards should not be distributed earlier than four weeks before work is expected to begin in an area.

Before any work on private property is commenced, the Contractor should notify the owner of that property that work will be performed. If permission is refused, the matter shall be referred to a Northern Ontario Wires authorized representative. If the property owner is not at home, the Contractor may trim/remove trees on that property as per Northern Ontario Wires Vegetation Management Property Work Description List or Northern Ontario Wires Vegetation Management standard.

Permission / Customer Acknowledgement

Northern Ontario Wires would be investing in a much more robust Forestry program to re-establish the right-of-ways and proximities to trees and limbs in order to reduce the number and frequency of tree-related power outages and potential for contacts with hydro lines through vegetation growing in proximity. In order to accomplish this goal, Northern Ontario Wires should contact each customer whose property will be substantially affected by the Vegetation Management Program to obtain written approval / acknowledgement for the Contractor to perform the necessary work on the customer's property. These written agreements / understandings should be obtained in advance of the Contractor beginning work in the areas. Northern Ontario Wires is granted access under "Section 40 - Powers of Entry" under the Electricity Act, 1998 to enter on land on which its distribution system is located to inspect, maintain, repair, alter, remove, replace or disconnect wires or other facilities used to distribute electricity. Northern Ontario Wires may enter any land for the purpose of cutting down or removing trees, branches or other obstructions if, in the opinion of Northern Ontario Wires it is necessary to do so to maintain the safe and reliable operation of its distribution system. Northern Ontario Wires may provide a list of locations in which its representative has spoken to the owners. If necessary, this list should contain any pertinent information regarding a

particular tree at a particular address that would be expected to be pruned or removed outside the normal scope of the Northern Ontario Wires Vegetation Management guidelines for tree trimming.

Circuits and Apparatus to be Cleared

Any line clearing operation shall provide adequate clearance as per Northern Ontario Wires standard whenever possible on all 44 kV & 12.47 / 7.2 kV primary circuits, secondary lines, secondary house services, street light services, communications circuits (Bell Canada, CATV, etc.), down guys, poles and street light fixtures in the specified areas. All trees located on or overhanging the road allowance that interfere with or could cause hazard to Northern Ontario Wires electrical equipment should be trimmed or removed in accordance with these specifications.

Protecting the Bark of Trees

Spurs should not be used for climbing thin barked trees or trees in urban or residential locations unless the tree is being removed.

Pruning

Cuts – Saw and pruner cuts shall be appropriately made outside the branch bark ridge. Flush cuts will be avoided in all circumstances. Limbs shall be removed in such a manner as to prevent peeling or stripping of the bark. Limbs shall be removed in accordance with the 1/3 rule as to mitigate the production of watersprouts or suckering. Appropriate aerial equipment and arboriculture gear and practices should be used when lowering cut branches where necessary to prevent damage to trees, conductors, fences and other property. All cut branches shall be removed from the canopy of the tree or surrounding tree, no “hangers” shall be left in trees after pruning. Pruning methods shall be performed as to avoid contact with the electrical equipment in all circumstances where possible, in the event contact is made with the electrical conductor no twigs or branches shall be left on the conductors. Corrective Pruning, old stubs remaining from previous line clearing operations should be removed as well as any stubs on the line side of the tree resulting from storm damage.

Limbs Under Conductors

Limbs growing up into the conductors from the side of a tree shall be removed at the main trunk using the arboriculture 1/3 rule. Unless otherwise approved by a Northern Ontario Wires authorized representative.

Limbs Parallel With Conductors

Limbs that are growing out from the side of a tree, parallel with conductors, and could sway or blow into the conductors, shall be removed if it is practicable to do so; otherwise, they shall be shortened.

Overhanging Limbs

Limbs directly over the conductors shall be removed if practicable; otherwise they shall be shortened sufficiently to prevent their dropping onto the conductors under the additional weight of snow or ice. Northern Ontario Wires preference would be not to have any overhanging limbs whenever possible.

Dead Limbs and Danger Trees

All dead wood, level with or above the conductors, in trees immediately adjacent to the line that in the event the limb could strike the line should be removed. This also includes dead limbs that might be blown into the line from trees located in the immediate vicinity. A danger tree is defined as any tree that constitutes an unacceptable hazard to the safe and reliable operation of the electrical equipment that is found outside of Northern Ontario Wires standard for line clearing. Northern Ontario Wires will identify danger trees to be removed by specifying and marking the identified trees and making arrangements, if necessary, with the landowner on which the tree is located addressing its removal. Danger trees (trees that are of compromised through the loss of its structural integrity and threaten the electrical equipment due to rot, structural defects or trees that are dead or mostly dead) that are discovered by the contractor over the course of their line clearing operations shall be brought to the attention of Northern Ontario Wires representative. It shall be within Northern Ontario Wires discretion whether a danger tree is to be removed or not and if a work order for its removal shall be issued. In the event the Contractor identifies a danger tree it is encouraged to provide as much detail to the utility as possible including:

- Tree species
- Location

- Reason for removal
- Cost for removal & disposal

While the removal of certain danger trees may be included in the Vegetation Management Contract, Northern Ontario Wires reserves the right to determine which danger trees will be removed or left in place.

Tops of Weak-Wooded Trees to be Lowered

In situations trees standing within striking distance of the electrical circuits that are tall and not deemed immediately hazardous should be considered to be reduced in size to reduce the potential for failure during excessive environmental events. Tall and weak-wooded trees towering above the line should be considered for crown reduction pruning and have their tops lowered as much as practicable in accordance with proper arboriculture technique. To lower the tops, the “drop-crotch” method shall be used so that the tree will not be randomly ‘topped’ or appear to have been chopped off at a definite height. If when trimming trees on private property, the owner of the property requests additional or other than normal pruning operations, the authorized representative of Northern Ontario Wires should be contacted and an order for additional work should be considered. The Contractor shall refer customer requests requiring major pruning or tree removal to Northern Ontario Wires authorized representative.

Minimum Line Clearance

Northern Ontario Wires standard for line clearing should include the removal of all limbs whether sound or diseased that are liable by allying, swaying or by any other means to contact the conductor, and where it is practical to do so prune the tree to attain a minimum of 3m (10’) horizontal distance from Primary circuits and 1m (3’) radius from Secondary circuits and auxiliary equipment. These distances should be extend beyond such clearance requirement for limbs growing below the circuits to allow for rapid regeneration while maintaining an appropriate distance between the vegetation and the circuit(s) for the period of three to five years following the pruning taking place for all tree species, except where this would result in serious mutilation of the tree where in such case special considerations or removal of the tree should be considered for such instances.

With respect to trees currently growing at such a distance that the closest side of a tree trunk is measured at 3m (10’) or any part of the tree trunk is within the 3m (10’) zone, and to attain appropriate clearance to the conduct would require removal of an excessive number of limbs (that would typically equal in excess of 30%-50% of the overall foliage of the tree), its removal should be considered. This stipulation is to avoid having trees along the power line right of way that if pruned would result in excessive suckering or death within the following three to five years. In establishing clearance, the possibility of children climbing trees and contacting live conductors must always be borne in mind. Where adequate clearance cannot be obtained without mutilating the tree and if permission cannot be obtained to remove it, the condition shall be reported to Northern Ontario Wires authorized representative. Trees of doubtful strength that do not interfere with the lines but could in falling strike the line shall be reported to Northern Ontario Wires authorized representative. Notwithstanding the foregoing, the Contractor shall attempt in all cases to obtain clearances. Diseased limbs overhanging the line shall be removed in all cases. Limbs overhanging the line shall be removed in all cases where if the limbs was to fail it would strike the circuits. Trees growing from under the line shall be removed if cases of excessive suckering and rapid regeneration of the plant make maintaining appropriate line clearance an unruly task that would not permit acceptable clearance for a period of three to five years. In such cases tree replacement options and programs for more acceptable low growing species should be considered by the utility.

Stump Grinding

In circumstances in which trees have been removed in accordance to Northern Ontario Wires Vegetation Management standards, stump removal considerations should be considered in certain circumstances (residential and commercial locations). If stump removal is elected, regardless of diameter of the stump, they are to be ground to a 20cm (8”) to 30cm (12”) depth below the surrounding grade. The site should be left level with the surrounding ground, excess debris should be removed and site cleaned up well.

Clearing of Brush

The Contractor shall remove for a distance of 3m (10') in urban locations and for a distance of 4.5m (15') in rural or ROW locations, from both sides of the center of the power line. Brush is defined as all undergrowth up to 10 cm (4 inches) in diameter and must be removed at ground level to prevent leaving potential trip hazards. All brush removed is to be chipped and disposed of and any exceptions should be approved by a Northern Ontario Wire's authorized representative. Mechanical Brushing (mulching) **may** be permitted in off road locations with written permission from the controlling authority. Use of excavator or extendable arm mulching units shall obtain preauthorization from Northern Ontario Wires to permit its use prior to its use in any situation. Residue from the mechanical brushing should be no larger than 15cm (6") in length. Mechanical brushing shall not be performed in proximity to homes (no closer than 10m).

Disposal of Wood, Brush and Debris

The Contractor shall be responsible for the disposal of all wood, brush and debris at their expense unless otherwise directed by Northern Ontario Wires authorized representative. If the property owner will allow wood or brush to be left on his/her property, written approval must be obtained in advance as well as permission from Northern Ontario Wires. The Contractor shall consult with the Municipalities for the disposal of all brush and cuttings. Waste shall be disposed of at an approved waste disposal site. Damaged ground shall be reinstated to its original condition consistent with its surroundings. Backyards, lawns or other manicured grassed areas shall be raked to eliminate small twigs, branches and debris and in general shall be cleared consistent with its surroundings or prior to any work performed. Debris created by vehicles, chipping brush and cuts shall be cleaned up. Chips being transported on vehicles shall be adequately contained so that they will neither blow off nor spill in accordance to regulation. It is Northern Ontario Wires preference that tree stubs, trunks and wood of pruned or removed trees be removed daily. If the contractor **must** leave a tree partially removed (by leaving a tree trunk standing) it shall be removed in such a fashion as to 'make safe' the tree and the surrounding area and should be removed within a maximum of five (5) business days of tree work being performed.

Disinfection of Tools

To mitigate the spread of disease, (such as Dutch Elm disease and Verticillium Wilt) healthy trees should be pruned first. Tools which have been used on infected trees, shall be treated by dipping in Methyl Hydrate or other approved disinfectants each time that trimming is complete on one infected tree before moving on to the next. You must ensure you have the appropriate Material Safety Data Sheet (MSDS) used as a disinfectant.



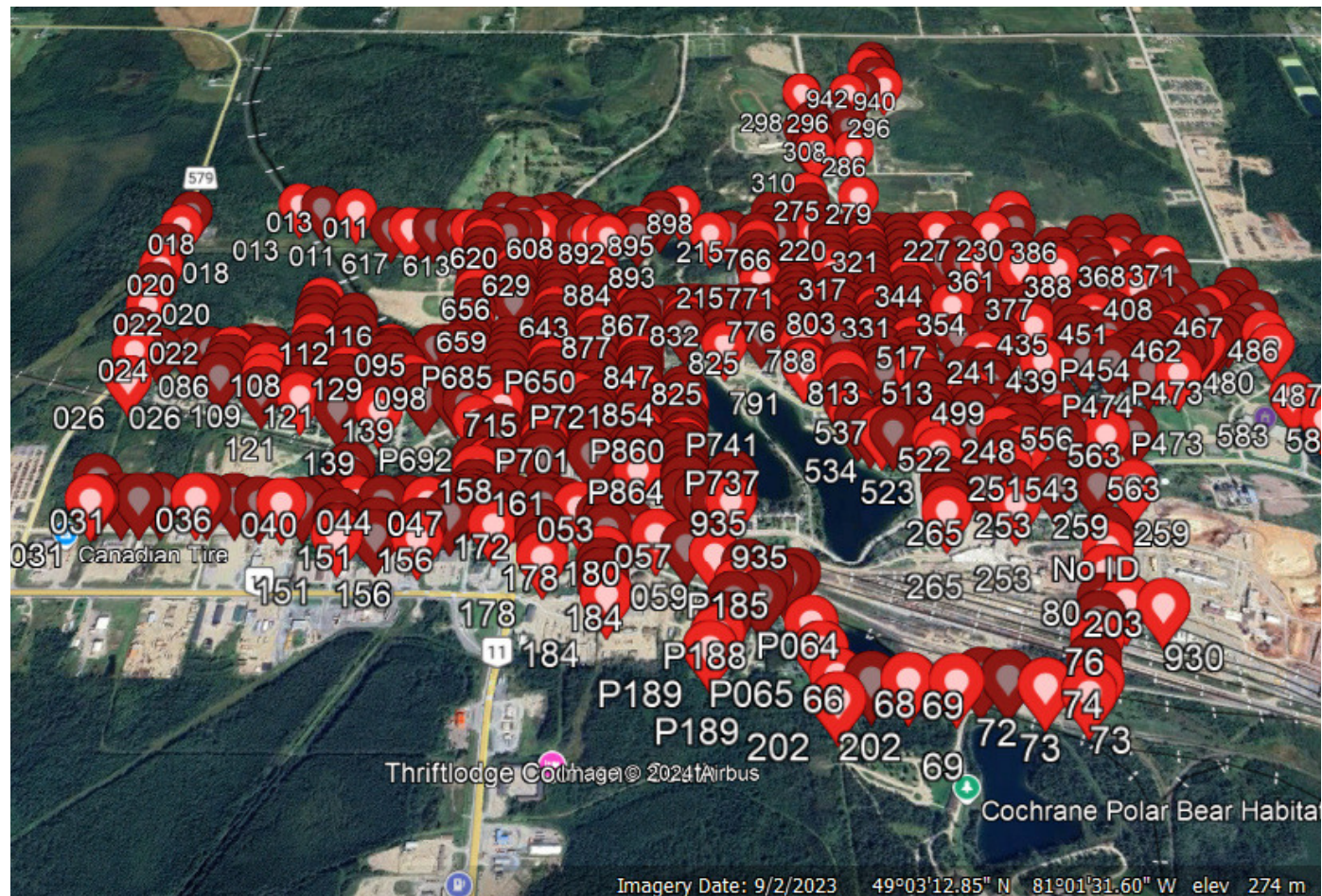
Northern Ontario Wires Inc.
Filed: August 30, 2024
EB-2024-0046
Exhibit 4
Tab 4
Schedule 1
Attachment 3
Page 1 of 1

Attachment 3 (of 6):

NOW Cochrane Vegetation Management Plan

Cochrane Vegetation Management Plan

Cochrane Vegetation Management Report Area



* All red way-points on this map represent the location of assessed vegetation.

Cochrane

Examples of Areas of Concern:





Cochrane
Vegetation Management Plan

H-Hot R-Remove T-Trim B-Brush C-Clear

POLE # Span	Street Access Point	Tree Species	Status	Backyard Row Gully Roadside	Bucket Climb	Notes
81			C			
NO ID			C			
80			C			
78			C			
203			C			
930			C			
77			C			
76			C			
75			C			
74			C			
73			C			
72			C			
71			C			
70			C			
69			C			
68			C			
67			C			
66			C			
65			C			
202			C			
64-63	Second St	Poplar	R H	Roadside	Bucket	
62			C			
61			C			
190			C			
191			C			

Cochrane
Vegetation Management Plan

60			C			
185			C			
186			C			
187	Shelby Ave	Birch	R H	Roadside, Front Yard	Bucket	
188			C			
189			C			
59			C			
58			C			
57			C			
56			C			
55			C			
54			C			
179			C			
180			C			
181			C			
182- 184	Between 80 Second St and 2 HWY 11 S	Poplar	R		Bucket	
53			C			
52-173	100 Third Ave	Poplar	R	Roadside		Access on Second St side, accross from OPP Station
174			C			
175			C			
176	Between 74 Second St and 64 Third Ave	Poplar, Birch	B	Between parking lots		
177			C			
178			C			
51			C			
50			C			
170			C			
171			C			

Cochrane
Vegetation Management Plan

172	93 Third Ave	Willow, Manitoba Maple	H T	Back of Parking lot	Bucket	
159			C			
158			C			
160			C			
161			C			
163			C			
048- 049	Accross from 46 Second St	Spruce	T	Roadside	Bucket	
048- 157	46 Second St	Spruce	T	Yard, adjacent to parking lot	Bucket	
47			C			
46			C			
155			C			
156			C			
045- 154	22 Second St	Poplar	T, R	Side of Driveway/Parki ng	Bucket	
043- 044	10 Nakita Ave, access from Second St side	Poplar	T	Roadside	Bucket	
148- 151			C			
042- 034			C			
031- 033	1 Second St	Mixed, Remove tall Growing species	B	Roadside		

Cochrane
Vegetation Management Plan

024-031	ROW off Fifth St and Second St, E of Western Ave	Mixed, Remove tall growing species	B	ROW		
023-019						Hydro One
18			C			
017-005	Access ROW from corner of 8th St and HWY 579		B	ROW		danger trees
4	Golf Course	Poplar	R H	Near Parking Lot	Bucket	
2	Golf Course	Spruce	T	Near Parking Lot	Bucket	
84	65 Patricia Ave	Vines	R	Front yard		Remove vines from pole
82			C			
85	Corner of Patricia and 5th St		B	Roadside		
86	6 Fifth St		B	Roadside		
102-105			C			
106			C			
87-88			C			
107-110			C			
116			C			
115-113	Access to ROW off of Empire Ave	Willow, Birch, Spruce	R	ROW	Bucket	
112	Access to ROW off of Empire Ave	Jack Pine	R H	ROW	Bucket	
111			C			

Cochrane
Vegetation Management Plan

117-118	Access ROW off Fifth St and Nipissing St, between Connaught and Sybil Ave	Spruce, Elm	T R	ROW	Bucket	
119	Access ROW off 5th st and Nipissing st, between Connaught and Sybil Ave	Spruce, Manitoba Maple	R H	ROW	Bucket	
120-122			C			
133-132			C			
131-130	Access ROW off Fifth St and Nipissing St, between Victoria and Sybil Ave	Manitoba Maple, Birch	R	ROW	Bucket	
129	Access ROW off Fifth St and Nipissing St, between Victoria and Sybil Ave	Spruce	R H	ROW	Bucket	
128			C			
092-093	20 Fifth St	Spruce	R	Roadside		
122			C			
125	Access ROW off N side of Fifth St between Sybil and First Ave	Poplar	R H	ROW	Bucket	
126-127			C			
95			C			
96			C			
94	Corner of Fifth St and James Bay Rd	Manitoba Maple	R			
134	Access ROW off James Bay Rd and Nipissing St	Poplar	R H	ROW	Bucket	

Cochrane
Vegetation Management Plan

135-136			C			
137	Access ROW off James Bay Rd and Nipissing St	Ash	T	ROW	Bucket	
138	Access ROW off James bay Rd and Nipissing St		T		Bucket	Secondary triplex
139						
100-99	Adjacent to Beer Store at 8 James Bay Rd	Poplar	R	Roadside	Bucket	
98-97			C			
614-618	Between 401 1st Ave and Eighth St W	Mixed	B	Roadside		
669-666			C			
660-659	Access ROW off Fifth St and Sixth St, between First Ave and Second Ave	Manitoba Maple	R T	ROW	Bucket	
661			C			
658			C			
657-654	Access ROW off Sixth St and Seventh St, between First Ave and Second Ave	Manitoba Maple	T B	ROW	Bucket	
623	45 Seventh St W	Manitoba Maple	B	Yard next to road and ROW		
622-612	Access ROW off Seventh St W between First Ave and Golf Course Rd	Manitoba Maple, Spruce	B	ROW		
613			C			
612	Access ROW off Seventh St W between First Ave and Golf Course Rd	Manitoba Maple	R	ROW	Bucket	

Cochrane
Vegetation Management Plan

611	423 Golf Course Rd	Spruce, Manitoba Maple	R	Along Driveway	Bucket	
4	Lee Golf Club	Poplar	R H		Bucket	
2	Golf Course Rd	Spruce, Jack Pine	T	Roadside	Bucket	
1			C			
208	ROW off Golf Course Rd	Poplar	R	ROW	Climb	
606- 607			C			
609- 610			C			
608	Water Plant Rd		B			
209- 211			C			
891			C			
892- 893	Water Plant Rd, Accross Spring Lake	Mix	B T	Roadside	Bucket	
894	Water Plant Rd, Accross Spring Lake	Poplar	T	Roadside	Bucket	
895			C			
212	Water Plant Rd, Accross Spring Lake		B			
896	430 Water Plant Rd		B			
897- 898	430 Water Plant Rd	Poplar, Manitoba Maple	R H	ROW	Climb	
686	215 Co-op Lane	Poplar	R B	Roadside	Bucket	
685			C			
687- 688	207 Co-op Lane	Manitoba Maple	RH	Roadside	Bucket	

Cochrane
Vegetation Management Plan

710-711			C			
691-692			C			
712-713	39 4th st W	Manitoba Maple	R H	Roadside	Bucket	
693			C			
694	2nd Ave, First pole after Roundabout	Poplar	R H	Roadside	Bucket	
695-696			C			
615			C			
714	4th st W, accross from Rudyk lane	Manitoba maple	T	Roadside	Bucket	
713			C			
683-680			C			
675-676			C			
633-629	Access ROW off 6th and 7th st, between 2nd and 3rd Ave		T	ROW	Bucket	secondary
627	Corner of Golf course rd and 7th St	Maple	T		Bucket	
628-634	7th st W between 2nd and 3rd Ave	Spruce	R	Roadside	Bucket	
635	77 7th st W	Birch	T	front yard	Bucket	
636	87 7th St W	Tamarack	R	Roadside	Bucket	
637			C			

Cochrane
Vegetation Management Plan

638-639	Access ROW off 6th and 7th St, between 3rd Ave and Aileen Wright Lane	Birches, Poplar	T	ROW	Bucket	
640	Access ROW off 6th and 7th St, between 3rd Ave and Aileen Wright Lane	Poplar	R H	ROW	Bucket	
641	Access ROW off 6th and 7th St, between 3rd Ave and Aileen Wright Lane	Ash	R H	ROW	Bucket	
642	Access ROW off 6th and 7th St, between 3rd Ave and Aileen Wright Lane	Spruce	T	ROW	Bucket	
643	Access ROW off 6th and 5th between 3rd and 4th Ave	Manitoba	R	ROW	Bucket	
644			C			
645-647	Access ROW off 6th and 5th between 3rd and 4th Ave	Manitoba Maple	B	ROW		
647-951	Access ROW off 6th and 5th between 3rd and 4th Ave	Spruce	T	Backyard	Bucket	Secondary
648	Access ROW off 6th and 5th between 3rd and 4th Ave	Manitoba Maple	T	ROW	Bucket	
649-650	Access ROW off 4th and 5th between 3rd and 4th Ave	Manitoba Maple	B	ROW		
650	Access ROW off 4th and 5th between 3rd and 4th Ave	Birch, Spruce	T H R	ROW	Bucket	Backyard access needed at 221 4th Ave

Cochrane
Vegetation Management Plan

651	Access ROW off 4th and 5th between 3rd and 4th Ave	Birch	T	ROW	Bucket	
652-653	Access ROW off 4th and 5th between 3rd and 4th Ave	Spruce, Manitoba Maple Row	R T	ROW	Bucket	Backyard access needed for 209 4th Ave
719	83 4th St W	Manitoba Maple	R	ROW	Bucket	
717-718			C			
720			C			
705-701			C			
707			C			
730			C			
732			C			
729-726			C			
725-724	Access ROW off 3rd and 4th St W, between 4th and 5th ave	Spruce	T	ROW	Bucket	
723-722	4th St W accross from Desjardins	Manitoba Maples	T	Roadside	Bucket	
721	Corner of 4th Ave and 4th st W	Birch	R	Roadside	Bucket	
856-855			C			
901-904	Access ROW off 4th and 5th St between 4th and 5th ave	Manitoba Maples, Spruce	T	ROW	Bucket	
			C			

Cochrane
Vegetation Management Plan

875-876			C			
876	Access ROW off 5th and 6th st between 4th and 5th Ave	Manitoba Maple	T H	ROW	Climb	Secondary
873			C			
872	Corner of 5th Ave and 6th St	Spruce	T	Roadside	Bucket	
879	Aileen Wright Lane	Spruce	T	Roadside	Bucket	
880			C			
884			C			
885	369 Aileen Wright Lane	Birch	T/R H	Next to driveway	Bucket	
869-870	328 5th Ave	Spruce, Apple	R, T H	Roadside	Bucket	
868-867			C			
839			C			
840	Access ROW off 5th and 6th St between 5th and 6th Ave	Manitoba Maple	R	ROW	Climb	
841	Access ROW off 5th and 6th St between 5th and 6th Ave	Manitoba Maple, Cherry	B	ROW		
842-843	Access ROW off 5th and 6th St between 5th and 6th Ave	Manitoba Maples	R	ROW	Climb	
845			C			
846-847	Access ROW off 4th and 5th St between 5th and 6th Ave	Manitoba Maples	R	ROW	Bucket	

Cochrane
Vegetation Management Plan

848	Access ROW off 4th and 5th St between 5th and 6th Ave	Manitoba Maples	R H	ROW	Bucket	
849-852	Access ROW off 4th and 5th St between 5th and 6th Ave	Manitoba Maples	B R H	ROW	Climb	
852	Access ROW off 4th and 5th St between 5th and 6th Ave	Spruce	R H	ROW	Bucket	
854			C			
857	Access ROW off 3rd and 4th St W, between 5th and 6th Ave		B	ROW		Brush around Pole
858-859	Access ROW off 3rd and 4th St W, between 5th and 6th Ave	Spruce	T	ROW	Bucket	Secondary
860-864			C			
733-735			C			
932-936			C			
756-757	214A Lakefront Ave	Manitoba Maple	R H	Side Yard	Bucket	
931			C			
750-747			C			
736-738	Labelle Lane	Manitoba Maples	B	ROW		

Cochrane
Vegetation Management Plan

738-739	Labelle Lane	mixed species	Rx3, B, Tx3	ROW	Bucket	Remove 2 Manitobas and Birch, Trim 3 spruce, brush remaining woody vegetation
740	Labelle Lane	Manitoba Maples	B	ROW, sloped		
741-744			C			
838	317 6th Ave, 6th St side	Spruce	R	Roadside	Bucket	Backyard access required
837-836			C			
829	Corner of 6th St and 7th Ave	Manitoba Maple, Poplar, Cherry	B T R H	Roadside	Bucket	
830-833	Access ROW off 5th and 6th St, between 6th and 7th Ave	Manitoba, Poplar Birch	B T H	ROW	Climb	
834	Access ROW off 5th and 6th St, between 6th and 7th Ave	Poplar, Birch	T B	ROW	climb	
826			C			
818-819			C			
820			C			
821	316 7th Ave N, Transfiguration Church	Maple	T	Parking Lot	Bucket	
822-825	ROW behind Transfiguration Church	Spruce	T	ROW	Bucket	
778-779	Access ROW off 5th and 6th St between 8th and 9th avenue	Mixed	B	ROW		

Cochrane
Vegetation Management Plan

777	Access ROW off 5th and 6th St between 8th and 9th avenue	Spruce	T	ROW	Bucket	
776	Access ROW off 5th and 6th St between 8th and 9th avenue	Manitoba maple, apple	T/R	ROW	Bucket	
775-771			C			
771	Access ROW off 6th and 7th St between 8th and 9th Ave	Manitoba	B	ROW		
770	Access ROW off 6th and 7th St between 8th and 9th Ave	Manitoba maple	T	ROW	Bucket	
769	Access ROW off 7th St between 8th and 9th Ave	Spruce	T H	ROW	Bucket	
768			C			
767	Access ROW off 7th St between 8th and 9th Ave	Manitoba Maple	T	ROW	Bucket	
766-217	Access ROW off 7th St between 8th and 9th Ave	Poplar, Spruce	T H	ROW	Bucket	
217-216	Access ROW off 7th St between 8th and 9th Ave		B T R	ROW	Climb	
217-218	427 9th Ave	Spruce	T	Roadside	Bucket	
269-270	Lady Minto Hospital	Mugo Pine	T	Roadside	Bucket	
219	8th st between 9th and 10th ave	Spruce	T	Roadside	bucket	

Cochrane
Vegetation Management Plan

797-798	Access ROW off 7th and 8th St between 9th and 10th Ave		B	ROW		
796-795	Access ROW off 6th and 7th St between 9th and 10th Ave	Balsam	R	ROW	Bucket	
794-793	Access ROW off 6th and 7th St between 9th and 10th Ave	Spruce	T R B H	ROW	Bucket	
792			C			
782-781			C			
802			C			
803			C			
783			C			
784-785	Access ROW off 5th and 6th St between 9th and 10th Ave		B	ROW		
786-787			C			
788	Access ROW off 5th and 6th St between 9th and 10th Ave	Spruce	T	ROW	bucket	
790-791	Access ROW off 5th and 6th St between 9th and 10th Ave	Birch, Cedar	T	ROW	bucket	Secondary
220-221	428 10th Ave, 8th st Side	Spruce	T H	Roadside	bucket	
272			C			
273-274	277 8th St	Manitoba Maple	R H	Roadside	bucket	

Cochrane
Vegetation Management Plan

275			C			
313	Access ROW off 8th and 7th St between 10th and 11th Ave	Manitoba Maple	R	ROW	Bucket	
314	Access ROW off 8th and 7th St between 10th and 11th Ave	Manitoba Maple	T	ROW	Bucket	
315			C			
316	Access ROW off 8th and 7th St between 10th and 11th Ave	Manitoba Maple	B	ROW		
317			C			
318-319	Access ROW off 6th and 7th St between 10th and 11th Ave	Manitoba Maple	T H	ROW	Bucket	Secondary
814	Access ROW off 6th and 7th St between 10th and 11th Ave		B	ROW		
803-804			C			
816-818			C			
804-809	Access ROW off 5th and 6th st between 10th and 11th ave	Manitoba Maple	T B	ROW	Bucket	
812	Access ROW off 5th and 6th st between 10th and 11th ave	Spruce	T	ROW	Bucket	
813			C			

Cochrane
Vegetation Management Plan

539-538	308 5th St	Birch, Spruce Manitoba	T R H	ROW	Bucket, Climb	
537	ROW behind 171 11th Ave	Manitoba maple, spruce	T R H	ROW	Bucket	
536	ROW behind 171 11th Ave	Birch, Poplar	T	ROW	Bucket	
535			C			
534-528	325 4th St E	Manitoba maples	T H	Roadside	Bucket	
528-527	337 4th St E	Manitoba maple, Birch	T R H	Roadside	Bucket	
526			C			
529	ROW off 4th and 5th st E, between 11th and 12th Ave	Maple	T H	ROW	Bucket	
530			C			
338-339	ROW off 5th and 6th st, between 11th and 12th Ave	Manitoba Maple	T B	ROW	Bucket	Secondary,
337	ROW off 5th and 6th st, between 11th and 12th Ave	Manitoba Maple	T	ROW	Bucket	Secondary,
336	ROW off 5th and 6th st, between 11th and 12th Ave	Manitoba Maple	B around Pole	ROW		Secondary,
335	ROW off 5th and 6th st, between 11th and 12th Ave	Manitoba Maple	T	ROW	Bucket	Secondary,
334-333	ROW off 5th and 6th st, between 11th and 12th Ave	Row of Spruce, Manitoba Maple	T R H	ROW	Bucket	Secondary, Trim spruce, Remove manitoba

Cochrane
Vegetation Management Plan

332-331			C			
330	ROW off 5th and 6th st, between 11th and 12th Ave	Manitoba Maple, Cherry	T B	ROW	Bucket	
329	ROW off 6th and 7th St, between 11th and 12th Ave	Spruce	T	ROW	Bucket	
328			C			
327	ROW off 6th and 7th St, between 11th and 12th Ave	Spruce	T	ROW	Bucket	
326-324			C			
323	ROW off 7th and 8th st, between 11th and 12th Ave	Poplar	R H	ROW	Bucket	
322	ROW off 7th and 8th st, between 11th and 12th Ave	Spruce, Cedar	R T H	ROW	Bucket	
321			C			
320	ROW off 7th and 8th st, between 11th and 12th Ave	Spruce, Pr	T H	ROW	Bucket	
222-223			C			
224	Corner of 8th St and 12th Ave	Spruce, Birch	R	Roadside	Bucket	
290-286	ROW off 10th and 11th St, between 11th and 12th Ave		R/T	ROW	Bucket	
286-279			C			
225			C			
226	Corner of 8th St and 13th Ave	Manitoba Maple	T H	Roadside	Bucket	

Cochrane
Vegetation Management Plan

340	ROW off 7th and 8th St, between 12th and 13th Ave	Spruce	T H	ROW	Bucket	
341	ROW off 7th and 8th St, between 12th and 13th Ave	Manitoba Maple	T H	ROW	Bucket	
342	ROW off 7th and 8th St, between 12th and 13th Ave	Cherry	T/R	ROW/Backyard	Bucket	Backyard access possibly needed at 369 Seventh St E
343	ROW off 6th and 7th St between 12th and 13th Ave	Spruce	R H	ROW	Bucket	
344	ROW off 6th and 7th St between 12th and 13th Ave	Spruce	T	ROW	Bucket	
345	ROW off 6th and 7th St between 12th and 13th Ave	Spruce	T	ROW	Bucket	
346	ROW off 6th and 7th St between 12th and 13th Ave	Manitoba Maple	T	ROW	Bucket	Secondary
516- 521			C			
516	ROW off 5th and 6th St between 12th and 13th Ave	Elm, Manitoba Maple	T	ROW	Bucket	
515- 511			C			
510- 509	ROW off 4th and 5th st between 12th and 13th Ave		B/R	ROW	Bucket	
509	ROW off 4th and 5th st between 12th and 13th Ave	Manitoba Maple	T	ROW	Bucket	
506- 508			C			
522	ROW off 3rd and 4th st between 12th and 13th Ave	Manitoba Maple	T H	ROW	Bucket	

Cochrane
Vegetation Management Plan

523-524	ROW off 3rd and 4th st between 12th and 13th Ave	Manitoba Maple, Poplar	B T H	ROW	Bucket	
525	383 3rd St E	Manitoba Maple	T	Roadside	Bucket	Secondary
262-265			C			
261			C			
260-256	3rd St E between 13th and 15th Ave	Manitoba Maples, Mountain Ash	T H	Roadside	Bucket	
252-253	S end of 14th Ave	Manitoba Maple	T H	Roadside	Bucket	
251-250	108 14th Ave	Crabapple, Manitoba Maple	T	Roadside	Bucket	
249	132 14th Ave	Elm	T H	Roadside	Bucket	
248	140 14th Ave	Manitoba Maple, Spruce	R	Roadside	Bucket	
540-495	405 4th st E	Ash	T	Roadside	Bucket	
248-245			C			
245-244	14th Ave between 4th and 5th St	Spruce, 2 Ash, Manitoba Maple	T R H	Roadside	Bucket	

Cochrane
Vegetation Management Plan

244-242	Corners of 5th St and 14th Ave	Manitoba Maple, 3 Spruce	B T H	Roadside	Bucket	
241-240	252 14th Ave	2 Birch	T H	Roadside	Bucket	
237-233			C			
233-261	424-418 7th St	Manitoba Maples	T	Roadside	Bucket	
231-228	420 14th Ave	Birch	T H	Roadside	Bucket	
228	Corner of 8th St and 14 Ave	Cedar	T	Roadside	Bucket	
227-349	ROW off 8th and 7th St between 13th and 14th Ave	Spruce, Manitoba Maple, Birch	T R	ROW	Bucket	
349-354	ROW off 6th and 7th St, between 13th and 14th Ave	Birch, Spruce, Manitoba Maple	T R	ROW	Bucket	
354-357	ROW off 5th and 6th St between 13th and 14th Ave	Manitoba Maples	T R H	ROW	Bucket	
358-360			C			
499	ROW off 4th and 5th St between 13-14th Ave	Manitoba Maples	B	ROW		
498-497	ROW off 4th and 5th St between 13-14th Ave	Spruce	T	ROW	Bucket	
495-496			C			
506	387 4th st E	Poplar	T	Roadside	Bucket	

Cochrane
Vegetation Management Plan

543-542	ROW off 3rd and 4th St E between 15th and 14th Ave	Elm	T	ROW	Bucket	
542-541	ROW off 3rd and 4th St E between 15th and 14th Ave	Manitoba Maple, Cherry	B	ROW		
541	ROW off 4th and 5th St between 15th and 14th Ave	Poplar	T H	Roadside	bucket	
548	ROW off 4th and 5th St between 15th and 14th Ave	Manitoba Maple, Cherry	T	ROW	climb	
549-550	ROW off 4th and 5th St between 15th and 14th Ave	Manitoba Maple	T	ROW	Bucket	
429	ROW off 5th and 6th St between 14th and 15th Ave	Manitoba Maple	T	ROW	Bucket	
428-427	ROW off 5th and 6th St between 14th and 15th Ave	Manitoba Maple	T	ROW	Bucket	
425-424	ROW off 5th and 6th St between 14th and 15th Ave	Manitoba Maple, Balsam, Maple, Spruce	3xT R H	ROW	Bucket	Backyard access needed at 315 15th Ave
432-433	Corner of 6th St and 15th Ave	Spruce, Cedar, Balsam	T	Roadside	Bucket	
432-424	Corner of 6th St and 15th Ave	Birch	T	Roadside	Bucket	
361-362	438-434 7th st front yards	Spruce, Birch, Manitoba Maple	T H	Roadside	Bucket	

Cochrane
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228-230			C			
382	ROW off 8th and 7th St, between 15th and 16th ave	Poplar	R	ROW	Bucket	
385-386	451 8th St	Manitoba Maple	B	Yard		
393-392	ROW off 7th and 8th St between 16th and 17th Ave	Mountain Ash, Maple	T H	ROW	Bucket	
363	484 7th St	Cedar	R H	Front yard	Bucket	
364	484 7th St	Birch	R H	Roadside	Bucket	
377	ROW off 6th and 7th St between 15th and 16th Ave	Cedar	T	ROW	Bucket	
433-434	ROW off 6th and 5th St between 15th and 16th Ave	Balsam	R H	ROW	Bucket	
433-441	between 15th and 16th Ave on 6th St	Spruce	T	Roadside	Bucket	
434-439	ROW off 6th and 5th St between 15th and 16th Ave	Spruce, Manitoba Maple, Maple, Birch	T R H	ROW/Backyard	Bucket	Backyard access needed at 291 16th Ave
439-558			C			
558-556	ROW off 4th and 5th St E between 15th and 16th Ave	Spruce, Manitoba Maple	T	ROW	Bucket	
555-561	Corner of 16th Ave and 4th St E	Manitoba Maple	T H	Roadside	Bucket	
554			C			
588	466 4th St E	Manitoba Maple	T H	Roadside	Bucket	

Cochrane
Vegetation Management Plan

256-258			C			
951	3rd St between 16th and 17th Ave	Manitoba and Birch	B H	Roadside		
572			C			
562	499 4th St E	Birch	T	Roadside	Bucket	
563	ROW off 4th st between 16th and 17th Ave	Spruce	R H	ROW	Bucket	
446-447	ROW off 5th and 6th St between 16th and 17th Ave	Row of Spruce, Poplar	R/T H	ROW	Bucket	
446-445	ROW off 5th and 6th St between 16th and 17th Ave	Spruce	R H	ROW	Bucket	
445-444	ROW off 5th and 6th St between 16th and 17th Ave	Cedar, Amur Maple, Carragana	R B H	ROW	Bucket	
444-443	ROW off 5th and 6th St between 16th and 17th Ave	Birch, Manitoba Maple	T R	ROW	Bucket	
443-442			C			
442-388			C			
365-388	ROW off 6th and 7th St between 16th and 17th Ave	Carragana, Spruce	B R	ROW		
392-393	ROW off 7th and 8th St between 16th and 17th Ave	Mountain Ash, Maple	T H	ROW	Bucket	
366-367	ROW entrance by 396 17th Ave	Balsam, Birch	T	ROW	Bucket	

Cochrane
Vegetation Management Plan

366-365	493 7th St	Birch	T	Roadside	Bucket	
450-451	320 17th Ave	Crabapple	T	Roadside	Bucket	
400	3 Iroquois Rd	Spruce	T	Roadside	Bucket	
398-397	ROW off 8th St and Iroquois Rd between 17th and 18th Ave	Spruce	R	Backyard	Bucket	
395	ROW off 8th St and Iroquois Rd between 17th and 18th Ave	Manitoba Maple	T	ROW	Bucket	
367-402	ROW off 8th St and Iroquois Rd between 17th and 18th Ave	Manitoba Maple	B R H	ROW	Bucket	
403	ROW off 8th St and Iroquois Rd between 17th and 18th Ave	Spruce	T	ROW	Bucket	
411-410	ROW off 8th St between 18th and 19th Ave	Spruce	R	Backyard	Bucket	Backyard Access needed at 33 19th Ave
410-406			C			
407-408	ROW off 8th St between 18th and 19th Ave	Spruce	R	Backyard	Bucket	Backyard Access needed at 15 19th Ave
370-371	24 19th Ave	Birch	T H	Side Yard	Bucket	
371-413	ROW off 8th St Behind 19th Ave	Manitoba Maple	B	ROW		
413-416	ROW off 8th St behind 19th Ave		B	ROW		
416-418	ROW off Highland between 19 Ave and Algonquin Rd	Birch, Spruce	T R	ROW	Bucket	

Cochrane
Vegetation Management Plan

492-493	ROW off Glen rd between iroquois and Algonquin	Spruce and Cedar Row	T	Backyard	Bucket	
492-491	ROW off Glen rd between iroquois and Algonquin	Poplar	T	ROW	Bucket	
491-490			C			
494			C			
453-454	corner of 17th Ave and Algonquin	Spruce and Cedar	R H	Roadside	Bucket	
455	ROW off 17th Ave and Glen Rd between Huron and Algonquin	Service Berry	B	ROW		
456	ROW off 17th Ave and Glen Rd between Huron and Algonquin	Manitoba Maple	R B	ROW		
457	ROW off 17th Ave and Glen Rd between Huron and Algonquin	Manitoba Maple	R	ROW	Bucket	
458			C			
459			C			
471			C			
460	ROW off Glen and Highland Ave, between huron and iroquois rd	Poplar, Balsam, Manitoba Maple	R T H	ROW	Bucket	
461	ROW off Glen and Highland Ave, between huron and iroquois rd	Birch	T	ROW	Bucket	
462-463	ROW off Glen and Highland Ave, between Huron St and iroquois rd	Spruce, Poplar, Cedar	T R H	ROW	Bucket	

Cochrane
Vegetation Management Plan

464	Corner of Huron St and Highland Ave	Mountain Ash	R	Roadside		
465-467			C			
465-469			C			
423			C			
475	ROW off Glen Ave behind Huron Rd	Poplar	B	ROW		
474			C			
472	ROW between Glen Ave and Huron Rd	Willow, Poplar	R	Yard	Bucket	
477	ROW between Glen Ave and Huron Rd	Spruce	R	ROW	Bucket	
478	ROW between Glen Ave and Huron Rd	Manitoba Maple	T H	ROW	Bucket	
479			C			
480	36 Huron rd	Manitoba Maple, Spruce	R T H	yard	Bucket	
481	23 Highland Ave	Manitoba Maple	B	Roadside		
482	44 Huron rd	Manitoba Maple	T	Backyard	bucket	
483	50 Huron St	Spruce	R H	Backyard	bucket	
484	62 Huron St	Manitoba Maple, Spruce	T R	Backyard	bucket	
485	Genier Rd between Cree and Huron St	Spruce, Manitoba Maple	R H B	Roadside	Bucket	

Cochrane
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486	Corner of Cree and Genier Rd	Manitoba Maple	T	Roadside	Bucket	
487	Genier Rd between Sioux and Cree St	Poplars	R H	Backyard	Bucket	
583	28 Genier Rd	Poplars	B	Roadside		
309-310			C			
312			C			
308	Accross from 451 Chalmers Ave	Manitoba Maple	T	Backyard	Bucket/ climb	Backyard access potentially needed at 449 11th Ave
304-307			C			
303	Accross from 451 Chalmers Ave	Spruce	T R H	Backyard	Bucket	
299	Corner of 11th St and 11th Ave	Birch	T	Roadside	Bucket	
298-296	ROW off 11th St between 11th and 12th Ave	Poplar	B R	ROW		
939	N End of 12th Ave		B	ROW		
940-941			C			
942	ROW at N end of 12th Ave		B	ROW		
943-944			C			
215			C			



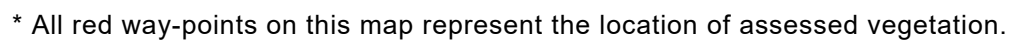
Northern Ontario Wires Inc.
Filed: August 30, 2024
EB-2024-0046
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Attachment 4 (of 6):

***NOW Iroquois Falls & Kapuskasing Vegetation
Management Plan***

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Filed: 30 August, 2024
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Iroquois Falls

Examples of Areas of Concern:





Iroquois Falls
Vegetation Management Plan

H-Hot R-Remove T-Trim B-Brush C-Clear

POLE # Span	Street Access Point	Tree Species	Status	Backyard Row Gully Roadside	Bucket Climb	Notes
P001-017			C			
018-019	641 Destroyes Ave	Spruce	R	Roadside	Bucket	
020-022			C			
022-160	Ambridge Dr between Destroyes and Synagogue Ave	Poplars	B R	Roadside		
161-165			C			
700			C			
698			C			
697	Lane Way off Synagogue Ave and Main St	Spruce	R	Backyard		
695-694			C			
701-702			C			
703	Access through 636 D'Iberville ave	Manitoba Maple	R	Backyard	Bucket	
704	Access through 636 d'Iberville ave	Manitoba Maple	T	Backyard	Climb	
606			C			
705	Access behind 41 Main st	Spruce	R	Backyard	Climb	
683			C			
687-683	Access Backyard of 33 Main st	Spruce	R	Backyard	Bucket	
384			C			
378-376			C			
379-380			C			

Iroquois Falls
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375			C			
370-369			C			
12			C			
385-388			C			
389-391			C			
415-416			C			
417-418			C			
419	80 Marion St	Spruce	T	Roadside	Bucket	
428-429			C			
430			C			
432	110 Calvert St	Balsam	R	Roadside	Bucket	
434			C			
483	S end of D'Iberville Ave	Spruce	R	yard	Bucket	Backyard Access needed for 123 Calvert St
484-485			C			
486-489	S End of D'Iberville St		B	ROW		Cut and leave?
438-439			C			
440	W end of Calvert St	Spruce	R	Roadside		
441			C			
423	Corner of Marion and D'Iberville	Spruce, Red Pine	R H	Roadside	Bucket	
424-425			C			
393			C			
394-395	414 Zealand Ave, Access Teefy St side	Maple	T H	Roadside	Bucket	
396			C			
400	413 Zealand Ave, access teefy st side	Birch	T	Roadside	Bucket	
401-408			C			
543-542			C			
544	239 Church St	Ash	T R	Roadside	Bucket	Remove only one stem

Iroquois Falls
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545			C			
547			C			
549			C			
551-554			C			
555-559			C			
560-562			C			
564-568			C			
570-571			C			
573-574			C			
575	638 Cedar Ave	Basswood	T	Backyard	Bucket	
577-578	335 Drury lane	Spruce, Manitoba Maple	T R	Backyard	Bucket	
580	Valumart Back Parking lot, 320 Main	Cedar	T	Backyard	Bucket	
581			C			
585	345 Main St	Spruce	R H	front yard	Bucket	
586			C			
588-587	399 Ambridge Dr	Birch, Elm, Poplar,	T R	Yard	Climb	
589			C			
638-636			C			
632-631			C			
628-627			C			
606			C			

Iroquois Falls
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605	Access through 343 Ste Helene Ave Parking lot	Ash, Spruce, Mountain Ash	B R H	Backyard	Bucket	
613			C			
593	Corner of Church and Radio	Elm	T	Roadside	Bucket	
592			C			
595-604	650 Church St	Spruce	R	Backyard	Bucket	
596			C			
597	Access through Park on De Maricourt rd	Poplar, Manitoba maple	T R H	Park	Bucket	
598	Access through Park on De Maricourt rd	Poplars	T R H	Park	Bucket	
600			C			
601	Access through Park on De Maricourt rd	Ash	T H	Park	Bucket	
602	Access through Park on De Maricourt rd	Ash	T	Park	Bucket	
603	Access through Park on De Maricourt rd	Ash, Willow	T	Park	Bucket	
623-625	425 De Maricourt Rd	Mixed group	H R T	Backyard	Bucket Climb	
622-621			C			
621-613			C			
639-640			C			
641	366 Cambridge Ave	Spruce	R H	Roadside	Bucket	
642-643			C			

Iroquois Falls
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645, 647, 649			C			
203-197	End of King St	Mixed	B R H	ROW	Maybe Climb	Terrain is Wet, Leave Brush if Possible
194-196	End of Balsam St	Mixed	B R H	ROW		Terrain is Wet, Leave Brush if Possible
193-191			C			
190	813 Victoria St, Balsam St side	Spruce	T	Roadside	Bucket	
189			C			
661	757 Pearl St, Back yard	Spruce	R H	Backyard	Climb	
660-658			C			
657	700 Victoria Rd	Elm	R H	Backyard	Climb	
656			C			
652			C			
655			C			
662-663			C			
664	741 Sheridan Ave	Poplar	T H	backyard	Climb	
665-666			C			
667	754 Pearl St	Birch	T H	Backyard	Climb	
676-674			C			
680-663	793 Tomko Lane	Apple, Ash	T H	Backyard	Climb	
681-680	766 Tomko Lane	Spruce	T R H	Backyard	Bucket	
684			C			
683-682	766 Tomko Lane	Jack Pine	T	Backyard	Climb	
682-686	766 Tomko Lane	Jack Pine, Spruce	R H	Backyard	Climb	

Iroquois Falls
Vegetation Management Plan

687-690			C			
179-180			C			
178-179	296 Cambridge Ave	mixed	T	Parking Lot	Bucket	
IF1			C			
177-176			C			
173-175			C			
711, 712, 720			C			
IF2			C			
181-182	296 Cambridge ave	Poplar	R	school yard		
183-182	Ecole Secondaire Alliance	Poplar	B	school yard		
685-684	822 tomko lane	Spruce	T	Backyard	climb	
184-185			C			
186-185	873 centennial st	Spruce	R H	Backyard	Climb	
187-763	ROW off Spruce St between Victoria rd and Centennial St	Mixed	T	ROW	Bucket	
763	ROW off Spruce St between Victoria rd and Centennial St	Manitoba Maple, Spruce	R	ROW	Bucket	
762	ROW off Spruce St between Victoria rd and Centennial St	Maple	B H	ROW	Bucket	
761			C			
760	ROW off Spruce St between Victoria rd and Centennial St	Pine, Spruce	T	ROW	Bucket	

Iroquois Falls
Vegetation Management Plan

758-756			C			
755-754			C			
733-732			C			
728-731	Access from ROW at corner of Spruce st and Centennial	mixed	B	bush/field		
727-726			C			
718-725			C			
734			C			
735	2 Poplar Crescent	Poplar, Spruce	T R H	Backyard/Field	Bucket	
746			C			
736-737	8 Poplar Crescent	Poplar	R H	Backyard	Climb	
737-738			C			
739	15 Poplar Crescent	Maple, Spruce	T H	Backyard	Climb	
740-744	16-28 Poplar Crescent	Pr, Sw, Mountain Ash, Bw	R T H	Backyard	Bucket/Climb	
745			C			
750-751	60 O'mara Dr	Manitoba maple, Spruce	R H	Backyard	climb	
747	1 Poplar Crescent	Service Berry	T	Backyard	Climb	
766	ROW off Spruce st and Reynolds St, between Victoria Rd, and O'mara dr	Spruce	R	ROW	Bucket	
767-768			C			

Iroquois Falls
Vegetation Management Plan

769-773			C			
774	ROW off Spruce st and Reynolds St, between Victoria Rd, and O'mara dr	Spruce	T	ROW	Bucket	
775	ROW off Spruce st and Reynolds St, between Victoria Rd, and O'mara dr	Spruce	T R	ROW	Bucket	
778-781			C			
782	8 Elm St	Birch	T	Backyard	Climb	
783			C			
707-710			C			
164-172			C			
23-24			C			
25-32	NW Industrial Rd		B	ROW		
32-34	Access from Golf course	Poplar	T R H	ROW	Climb	
35-42			C			
863			C			
43	Corner of park st and NW Industrial Rd	Poplar	R H	Roadside	Bucket	
44-45			C			
80-83			C			
96			C			
97-100	Argyle Ave	Spruce, Cedar	R T	Roadside	Bucket	
101-104			C			
95-87			C			
86-85	Argyle Ave	Mountain Ash	T	Roadside	Bucket	

Iroquois Falls
Vegetation Management Plan

105-107			C			
116	Mistango St, between Cambridge and Buckingham	Maple	H T	Roadside	Bucket	
111-113			C			
108-110			C			
117			C			
118	Mistango St, between cambridge and Devonshire Ave	Birch	T	Roadside	Bucket	
119-129	Mistango St, between cambridge and Devonshire Ave	Manitoba Maple	R	Roadside	Bucket	
126			C			
120-123			C			
130	Mistango St, between Devonshire and Essex Ave	Birch	T H	Roadside	Bucket	
140-133			C			
134-135	ROW off Mistango St, between Devonshire and Essex Ave	Birch, Manitoba Maple	R H	ROW	Bucket	
136-137	ROW off Mistango St, between Devonshire and Essex Ave	Maple	T	ROW	Bucket	
138-139	ROW off Mistango St, between Devonshire and Essex Ave	Manitoba Maple, Poplar	R	ROW	Bucket	
No Pole ID- No Pole ID	North Industrial Rd		B	ROW		

Iroquois Falls
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No Pole ID- No Pole ID	North Industrial Rd, at Bridge		B R H	Roadside, gully	Bucket	
No Pole ID- No Pole ID			C			
142-144			C			
141	Corner of Mistango and Essex	Manitoba Maple	B	Roadside		
864	ROW off Anston Dr, between essex and Devonshire	Maple	H R	ROW	Bucket	
866-871			C			
872	ROW off Anston Dr, between essex and Devonshire	Spruce	T	ROW	Bucket	
145-146			C			
148-149			C			
147	151 Essex Ave	Poplars	R B T	Roadside	Bucket	
873			C			
915-918			C			
59	Windigo Dr, between Essex and Devonshire	Ash	R H	Roadside	Bucket	
58-55			C			
54	184 Cambridge Ave	Manitoba maple	R	parking lot	Bucket	
49-53			C			
67-70			C			
71	227 Cambridge Ave	Ash	T	Roadside	Bucket	
73-77			C			
60-66			C			
78-79			C			

Iroquois Falls
Vegetation Management Plan

938	ROW off Aurora St, between Fyfe and Devonshire	Spruce	R H	Side Yard	Bucket	
936-935	ROW off Aurora St, between Fyfe and Devonshire	Manitoba Maple	B	Backyard		
933			C			
932			C			
924-919			C			
915-918			C			
873			C			
913			C			
874	Essex Ave between Anson and Windigo Dr	Manitoba Maple	R	Roadside	Bucket	
875-879			C			
880-882			C			
929-926			C			
925-920			C			
930-931			C			
941	229 Grosvenor Ave S, Circle Pl side		T	Side Yard	Bucket	
940	147 Picadilly Cir	Cedar	T	Backyard	Bucket	
939			C			
942			C			
943-944	230 Grosvenor Ave	Manitoba Maple	T	Backyard	Bucket	
945-948			C			
894-892			C			
889-890	ROW behind Circle Pl	Birch	T	ROW	Bucket	
891			C			
884			C			

Iroquois Falls
Vegetation Management Plan

885	110 Picadilly Cir	Red Pine	T	Park	Bucket	
886	110 Picadilly Cir	Ash	T H	Park	Bucket	
887			C			
895			C			
906			C			
897	116 Picadilly Cir	Manitoba Maple	R	Backyard, access from park	Bucket	
898-902			C			
903	ROW off tamarack st and New Circle Pl	Spruce	R	ROW	Bucket	
904-905			C			
906-907			C			
949-951			C			
962	Corner of Smith St and Mills Ave	Manitoba Maple	B	Roadside		
963-966			C			
967-158	58 Anson Dr	Poplar	R		Bucket	
157-154	58 Anson Dr		B	Hill		
153-150			C			
458-457			C			
456	524 Mario St	Spruce	R H	Side Yard	Bucket	
442	369 Nosov Dr, Backyard	Poplar	T B	Backyard	Climb	
443	392 Calvert St	Poplar, Spruce	R T	Backyard	Climb	
444-445			C			
446-447			C			
448	355 Marion St	Spruce	T	Roadside	Bucket	
449			C			
450-451			C			

Iroquois Falls
Vegetation Management Plan

452	447 Marion St	Ash	H T	Backyard	Climb	
882	345 Calvert St	Spruce	H T	Backyard	Climb	
881	347 Calvert St	Spruce	R H	Backyard	Climb	
501	394 Nosov Dr	Cedar	T H	Backyard	Climb	
499	392 Nosov Dr	Spruce	T	Backyard	Climb	
498-497			C			
490	383 Nosov Dr	Birch Spruce	R T H	Backyard	Climb	
494	387 Nosov Dr	Tamarack	R H	Backyard	Climb	
495	387 Nosov Dr	Spruce	T H	Backyard	Climb	
496	395 Nosov Dr	Spruce	R H	Sideyard	Bucket	
509			C			
510-512			C			
535-537	711 Ambridge St		B	Backyard		
534-530	ROW behind Nosov Dr and Majestic St		C			
513-530			B	ROW		
514-516			C			
538-541			C			
527			C			
526	514 Nosov Dr	Spruce	R	Backyard	Climb	
525			C			
524	510 Nosov Dr	Willow	R	Backyard	Climb	
523	502 Nosov Dr	Spruce, Manitoba maple	T R H	Backyard	Climb	
522	567 Campion St	Balsam	T H	Backyard	climb	
517-518	502 Nosov Dr	Spruce	T H	Backyard	Climb	

Iroquois Falls
Vegetation Management Plan

519	484 Nosov Dr	Spruce	T	Backyard	Climb	
520			C			
479	671 Ambridge Dr	Spruce	T	Backyard	Climb	
478	661 Ambridge Dr	Spruce	T	Backyard	Climb	
477	649 Ambridge Dr	Spruce	R H	Backyard	Climb	
476	631 Ambridge Dr	Spruce, Cedar	T R H	Backyard	Climb/Bu cket	
467			C			
466	611 Ambridge Dr	Spruce, Pine , Ash	T R H	Side Yard	Bucket	
465	612 Ambridge Dr	Pine	R H	Backyard	climb	
463-462			C			
455	333 Calvert St	Manitoba Maple	R H	Backyard	climb	
454	337 Calvert St	Spruce	R H	Backyard	Climb	
453	315 De Maricourt Ave	Manitoba Maple, Ash	R H	Backyard	Climb	
481	347 Calvert St	Spruce	R H	Driveway	Bucket	
482	347 Calvert St	Spruce	T H	Backyard	Climb	
468-469			C			
470-472			C			
473-474	Oil tank rd		B	Roadside		
817-816			C			
815-811	Victoria Rd, N of Anson Dr	Poplar	R B H	Roadside	Bucket	
810-807			C			

Iroquois Falls
Vegetation Management Plan

806	Victoria Rd, N of Anson Dr	Poplar	B	Roadside		
805	Victoria Rd, N of Anson Dr	Poplar	R H	Roadside	Bucket	
804-796	Victoria Rd, N of Anson Dr	Spruce, Birch	T R H	Roadside	Bucket	
796-797	Victoria Rd, N of Anson Dr	Poplar	T R H	Roadside	Bucket	
798	120 Anson Dr	Spruce	T	Backyard	Bucket	
962-959			C			
958	ROW between Smith and Anson Dr	Spruce	R	ROW	Bucket	
957			C			
956-955	ROW between Smith and Anson Dr	Spruce	T	ROW	Bucket	
954	ROW between Smith and Anson Dr	Manitoba Maple	T H	ROW	Bucket	
953	ROW between Smith and Anson Dr	Manitoba Maple	R	ROW	Bucket	48
795-794			C			
792			C			
791-788			C			
787-786	ROW between Reynolds st and Anson dr	Spruce	R H	ROW	Bucket	
785-784			C			
912-908			C			
820-824	Backyards of 548-628 Paradis St	Spruce	T R H	Backyard	Climbs	
837-238			C			
827-837			C			
828-833			C			
825-826			C			

Iroquois Falls
Vegetation Management Plan

842	652 Montrock St	Ash	R	Backyard	Climb	
843	652 Montrock St	Manitoba maple	R H	Park access	Bucket	
844			C			
845-849	153-165 Anson DR	Spruce, Manitoba Maple	H T R	Backyard	Bucket/Climb	
849-850	165 Anson Dr	Birch, Spruce	R T H	Backyard	Bucket/Climb	
854	166 Anson Dr	Maple	T	Backyard	Bucket	
854-858			C			
854-No Pole ID			C			
234-245	551 Union St		B	Schoolyard		
246	715 Leroux Ave	Poplar	R	Roadside	Bucket	
247	715 Leroux Ave	Spruce	T	Roadside	Bucket	
248	1293 Leroux Ave	Manitoba Maple	T	Roadside	Bucket	
249			C			
250	1295 Leroux Ave	Manitoba Maple	R H	Roadside	Bucket	
252	172 Anson Dr	Spruce, Poplar	R H	Backyard	Climb	
253	165 Anson Dr	Manitoba Maple	T	Backyard	Climb	
254	171 Anson Dr	Manitoba Maple	T H	Backyard	Climb	
255	175 Anson Dr	Willow	R	Backyard	Climb	
256-257			C			
257-260			C			

Iroquois Falls
Vegetation Management Plan

260-265			C			
266-271	1257-1317 Jacobs Hill Rd	Mixed	T R	Roadside	Bucket	danger trees
271-275			C			
275-278	1357-1457 Jacobs Hill Rd	Mixed	R	Roadside	Bucket	Danger trees
278-283			C			
283-284	1517 Jacobs Hill Rd	Spruce	R	ROW	Climb	
285			C			
286-287	Jacobs hill Rd, W of 1517	Poplar	R	Roadside	Bucket	
287-295			C			
295-297	W of 1678 Jacobs Hill Rd		T	Roadside	Bucket	Danger Trees
297-322			C			
322-323	Jacobs Hill Rd, W of Bell Telephone Rd	Jack Pine	R	ROW	Bucket	
323-328			C			
328-330	Jacobs Hill Rd, W of Bell Telephone Rd		T	ROW	Climb	
330-335			C			
335-337	Jacobs Hill Rd	Jack Pine	T	ROW	Climb	
337-341			C			
341-342	Jacobs Hill Rd	Poplar	T	ROW	Climb	
342-348			C			
348-351	Jacobs Hill Rd	Birch	T R	ROW	Climb	
351-364	ROW between Jacobs Hill Rd and HWY 11	Mixed	B	ROW		12 spans in bush
364-366	Access accross from 8888 HWY 11	mixed	B	ROW		
366-367	Access accross from 8888 HWY 11	poplar	B R H	ROW		
367-368			C			

Kapuskasing Vegetation Management Plan

Date: June 4th 2024

Att: Marc Belanger
General Manager / Operations Supervisor
Northern Ontario Wires

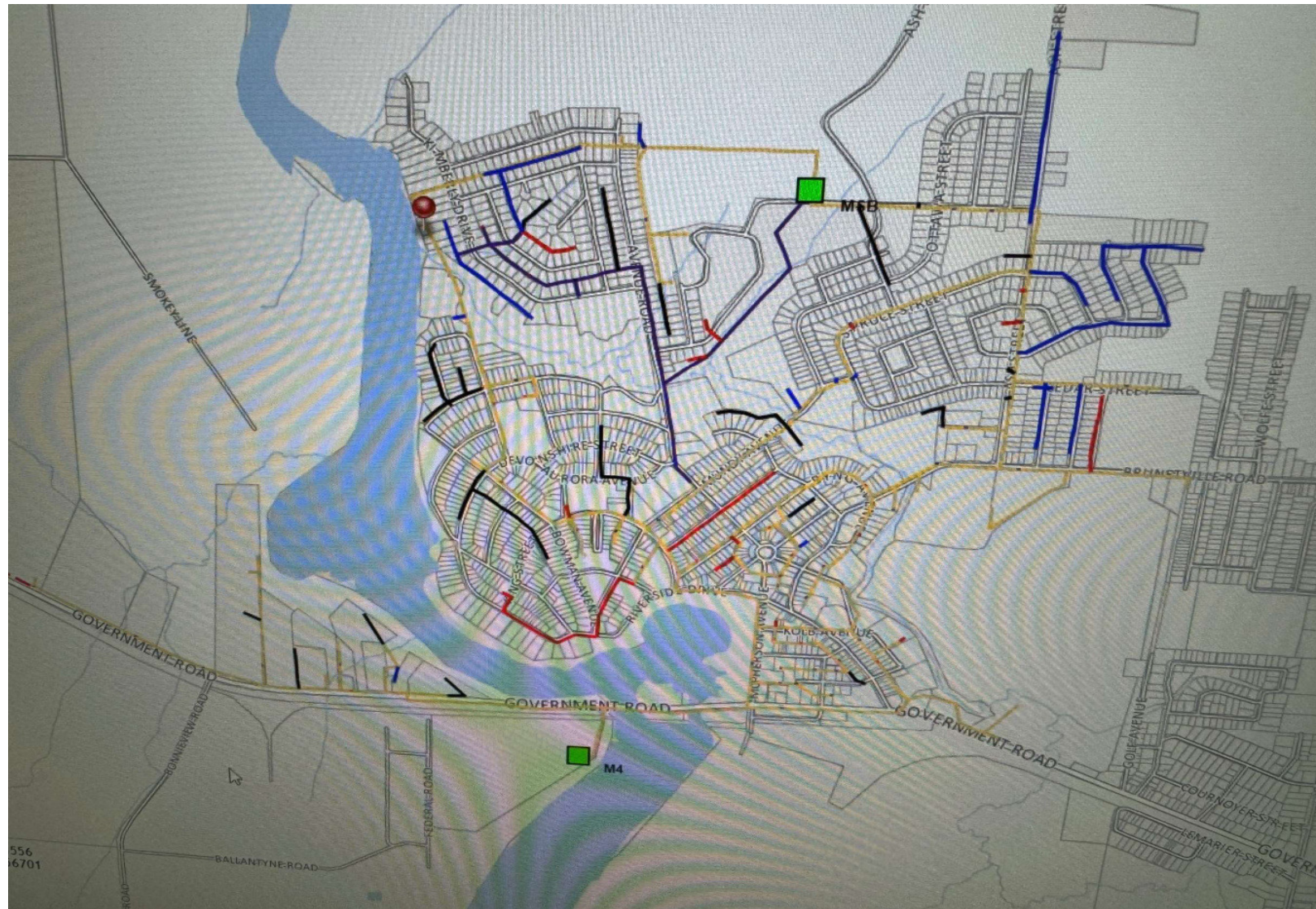
Dale Allard

dale@diversifiedforestryinc.ca

705-475-8171



Kapuskasing distribution map provided by Northern Ontario Wires





LEGEND		Notes:
	Go Straight	
	Turn Right	
	Turn Left	
	Go back to last junction	
CL	Clear	No vegetation management required
R	Removal	When no client approval required, removal tree completely.
Tr	Trim	If client does not authorize removal of trees within their property limits, tree trimming should be completed.
Br	Brush	
H	Hot (Burning off) -	Hazardous. Trees are within the limits of approach. Risk of causing fire or electrocution.

PACKAGE DIRECTIONS

When navigating through package always go RIGHT and keep going RIGHT until you reach end of circuit

Then go back to junction and go LEFT and keep going until you reach another junction. At junction follow same rule of RIGHT first always returning to junction and go left.

Findings and Recommendation

Based on our inspection, completed May 27-31st, 2024, the entire Kapuskasing distribution line requires immediate attention.

The sections identified as HOT are hazardous as they are at risk of causing a fire or electrocution. We recommend immediate tree removal or trimming.

The sections not identified as HOT, where removal or trimming was identified, will grow within the limits of approach within the next year. We recommend vegetation management be completed with the next year, before they become HOT.

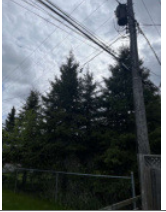
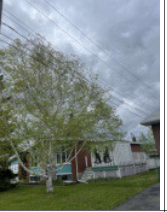
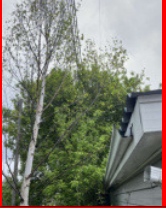
Trimming should subsequently be completed every 3 years.

In areas where mechanical brushing would be permitted, vegetation management should be complete on a rotation of 6 years.

695 - 697									Tr / R / Br	
697 - 698									Tr / R / H	
698 - 699									R / H	
699 - 700									Tr	
702	Go  to 681 and go  to 702								CL	
702 - 703									Tr / R / Br / H	

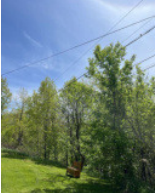
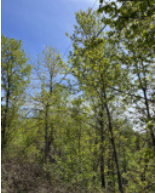
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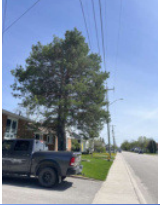
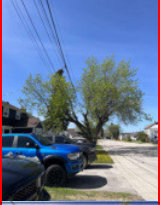
900 - 899								Tr / R / H	
899 - 897	Go  to 897.							Tr	
897 - 898	<i>This is a switch pole + dead end.</i> Go  to 899							CL	
899 - 896	At 899 go  to 896							CL	
896 - 894	(Kennedy St. road crossing)							CL	
894 - 885								CL	
885 - 886	At 885 go  to 886							CL	886 is Trans. pole
886 - 887								CL	
887 - 888								Tr / H	888 is Trans. Pole
888 - 889								CL	
at 889								Tr / H	
889 - 891								Tr / R / H	891 is Trans pole
891 - 892	dead end							CL	

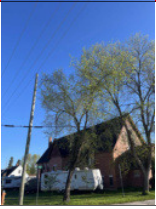
Note: all work to this point is back yard.

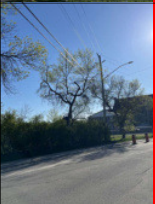
885 - 884	Go [↻] to 885. Avenue Rd. crossing to 882 go [↻] to roadside work							CL	
882 - 881								Tr / R / H	
881 - 873	go [↻] to 873 and go [↻]							Tr / R / H	
873 - 871								Light Br	
871 - 866								Tr / R / H	Manual Brush
866 - 861								Br	Manual Brush ravine
861 - 862	at 861 go [↻] to pole 862 and single place tap							Tr / R / H	
862 - 863								Tr / R / H	863 has transformer (end of tap)
861 - 856	go [↻] to 861 of tap and go [↑] to 860	-						Br	Mechanical Br
856 - 855	At station go [↻] to Avenue Rd							R / Br	Several removals / Mechanical Brushing

930 - 932								Tr / R / H	932 is dead en pole.
905 - 906	Go  to 905 and go  to 906							Tr	Large poplar tree
907 - 914	Kimberly Dr. road crossing to pole 907 then go  to 914							Tr / R / H	
914 - 915								Tr	915 is dead end pole.
907 - 908	Go  to 907 and go 							Tr / R / H	
908 - 909								Tr / R / Manual Br	Steep river bank for brushing

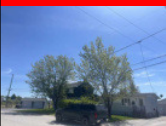
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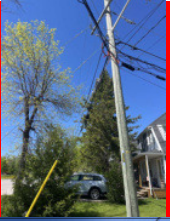
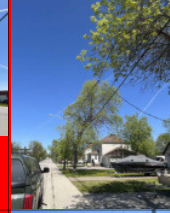
Line Section: Water Pollution Treatment Plant (WTP) to Kap Circle section									
727 - 732								Tr	
732 - 733	Eagerton Rd. intersection. Go 							Tr / R / H	
733 - 736	Go  at 733 single phase tap							Tr	End of primary
740 - 742	Go  to 733 and go  to 740 then go 							Tr / R / H	Park St. Crossing
742 - 744	-							Tr / R / H	
744 - 745	-							Tr / R / H	

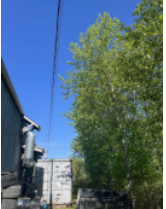
745 - 747	End of tap. Go  740 and go  to 748								Tr / R / H	
748 - 749	End of tap.								Tr	
950 - 947	End of tap. Go  to Montgomery St. intersection at live line loops + go  to 750 and continue 3 spans and go  on Anderson St. to transformer bank pole 352. At 352 cross Anderson road to pole 950.								Tr / R / H	End of open bus.
Dead end pole on Bowman	Go  to loops at Montgomery St. and Eagerton Intersection and go  on Montgomery to Devonshire. At stop take  to Bowman St. and turn  on Bowman.								Tr / R / H	1 birch
43 Devonshire	Go  to Devonshire	would not allow pictures							Tr / R	
41 Devonshire	-								Tr / R / H	1 white ash
Corner of King + Bowman									1 Tr/R	Manitoba Maple

221	Go E on King to pole 221 + 222								1 Tr / R / H	
222	Keep going E on King to pole 220 (King + Empire)								2 Tr / R / H	
178	Go E on King to Pole 178 go  on 3 phase tap Go  to King st. and go E on King (pole 178)								1 Tr / R	Trans. pole 182. Manitoba Maple
190	Turn  on Aurora St. to pole 190								Tr / R (5) / H	Single phase tap on Summers St. Mixed Elm & Manitoba Maple
177	Go  to King St. corner of King and Mundy at Eglise Immacule- Conception pole 177 Go  on Mundy St. at intersection of King and Mundy								Tr / R / H	Elm & Manitoba Maple
Intersection of King / Mundy 387	Go NE on Mundy following 3 phase line to pole 384 and follow single tap  and go to pole 387 Go  to Mundy and continue following 3 phase to St-Patrick School								Tr / R / H Tr / R / H	Work Required for 2 spans to dead pole 389

St-Patrick School	Go  on Spruce St. and go to pole 422 and go  to pole 1067								TR / R / H	8 various species of trees
1067 - 1074	-								TR / R / H / Br	
1074 - 1076		 							Tr / R / H as required	Transformer pole
1076 - 1077	-								Tr / R / H	
1077 - 1078	-								Tr / R / H	
1078 - Pole unmarked	-								Tr / R / H	
Pole unmarked to 1080	Go  at pole 1080 to 1081 where covered secondary goes to open bus	-							CL	

465 - 466	Go to intersection of Ash + Superior pole 430 and go [↘] to pole 465								Tr / R / H	
466 - 471	[↘] at pole 466 on St-Lawrence Street.								Tr / R / H	
486 - 489									Tr / R / H	
492 - 502									Tr / R / H	
502 - 515	At 502 go [↘] 515 is on Huron Rd.								Tr / R / H	
515 - 517	Go [↘] to pole 466 on Ash St. and go South to pole 530 and go [↘] on Cedar St. and go to pole 532. At pole 532 go [↘] and follow single phase tap on Cherry St.								Tr / R / H	520 is end of primary tap.

117 - 119	At King St. intersection go  at pole 117								Tr / R / H	
125 - 129	At pole 119 turn  on Stewart and follow single phase tap to pole 125 at Queen St. Crossing. End of single phase								Tr / R / H	
140 - 147	Go  to pole 119 and turn  on King St. to pole 140. At 140 go  .								Tr / R / H	
159 - 161	At 147 go  on single phase and keep following to Riverside St. and go  from pole 159	-							CL	
161 - 164	Go  to pole 140 on King St. and continue NW to intersection of Mundy.								Tr / R / H	No tree work from here to end of tap.
106 - 105	First pole is 106								Tr / R / H	

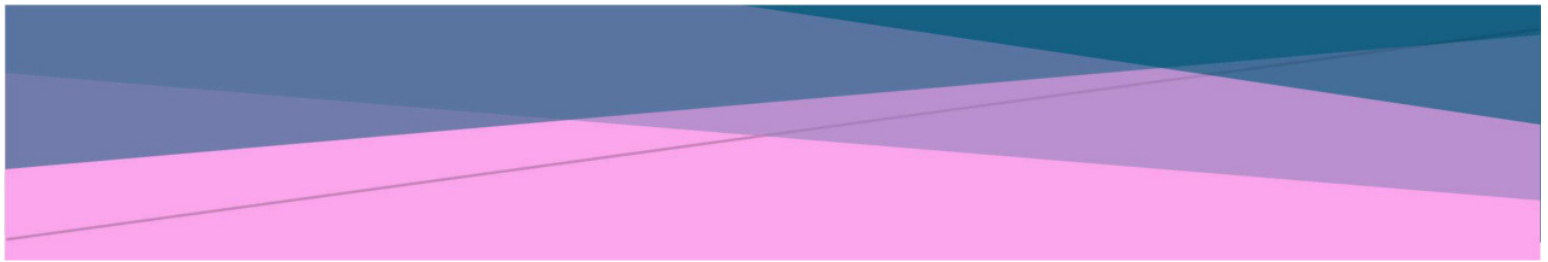
047 - end	Go to pole 041 on Kolb st and  and follow 3 phase to 047. Go to pole 063 on O'Brien St. across from 5* Taxi. End of 3 phase tap.								Tr / R / H	
094 - Golf Course 99	Go to unmarked pole at Esso Station and go  to pole 094 behind Lecours Ford								Tr	Raw of Poplar behind Lecours Ford
	Follow line to Golf course at pole 099 End of this 3 phase tap.								TR / R / H	
291 - End 403 - 608	Go  to pole 043 on Ash and Superior St  on 3 phase								Tr / R / H	
608 - 620	At 608 go  on single phase tap End of work.	-							Tr	
608 - 635	Go  to pole 608 and follow 3 phase on Nipigon St. to pole 649								Tr / R / H as required	
649 - 651	follow 3 phase on Nipigon St. to pole 649 Follow this tap to pole 654.								R	651 is single phase tap.
654 - 655	At 654 go 								CL	Several dead diseased poplar At 655 open secondary bus starts



Northern Ontario Wires Inc.
Filed: August 30, 2024
EB-2024-0046
Exhibit 4
Tab 4
Schedule 1
Attachment 5
Page 1 of 1

Attachment 5 (of 6):

NOW Vegetation Mangement 5 Year Action Plan



Northern Ontario Wires Inc.

Filed: 30 August, 2024

EB-2024-0046

Exhibit 4

Tab 4

Schedule 1

Attachment 5

Page 1 of 13



5 YEAR ACTION PLAN

Northern Ontario Wires

Kapuskasing, Cochrane and Iroquois Falls
locations

This plan ensures that ArborWorks Tree Service maintains a safe and reliable utility service for Northern Ontario Wires while actively engaging with the community to keep Cochrane and Iroquois Falls beautiful and thriving.

ArborWorks Tree Service

(705) 494-0196

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5-Year Vegetation Management Action Plan for Northern Ontario Wires

Year 1: Assessment & Planning

- **Objective:** Establish a foundation for the vegetation management program.
- **Tasks:**
 - Survey & Data Collection:
 - Conduct a comprehensive survey of all utility poles and surrounding vegetation in Cochrane and Iroquois Falls.
 - Collect data on the number of customers per pole and assess the risk to power lines.
 - Identify high-risk areas, particularly in downtown cores, and outline hot spot locations.
 - During the initial assessment, especially on rights-of-way that have not been regularly maintained, or contain minimal or no compatible vegetation, non-selective methods may be used; however, the effect of these methods on surrounding landowners should be carefully considered.
 - Community Engagement:
 - Inform the community about the upcoming vegetation management activities through local meetings and communications.
 - Establish a customer feedback loop to address any concerns.
 - Northern Ontario Wires should create a pamphlet with information on planting a tree when a tree is taken down and provide details on the work being done.
 - Mapping & Documentation:
 - Create a detailed vegetation management map for all utility lines, highlighting priority zones, including downtown cores.

- Document all findings, including tree species, proximity to lines, customer impact per pole, and hazardous or dangerous trees.

Year 2: Initial Vegetation Control

- **Objective:** Begin proactive vegetation management in high-risk areas, especially downtown cores.
- **Tasks:**
 - Tree Pruning & Trimming:
 - Focus on areas identified in Year 1 as high risk, especially where customer density is high and within downtown cores (every 2-3 years).
 - Ensure all pruning follows ISA Ontario standards and promotes tree health.
 - All materials used for pruning and trimming shall comply with federal and local laws and regulations, ensuring they are registered and approved for use.
 - Consideration shall be given to utilizing products and methods that minimize risk to humans, wildlife, and the environment. This includes selecting tools and techniques that reduce the potential for chemical runoff or habitat disruption.
 - Tree Removal:
 - Remove dead, diseased, hazardous, or dangerous trees that pose a significant risk to utility wires.
 - Special care will be taken to ensure that tree removal does not inadvertently harm surrounding vegetation or disrupt local ecosystems.
 - Mulching may be employed to disturb root systems and prevent the regeneration of undesirable species while maintaining soil health.
 - Community Safety Measures:
 - Implement safety zones around work areas to protect the public.
 - Provide clear communication to affected customers about the work being done and any potential disruptions. This will be done using

door knockers (information door handles) distributed to residents, detailing the scope of work, expected timelines, and safety precautions.

- Promote the planting and growth of appropriate vegetation, such as small trees and shrubs in town areas or ferns and low-growing plants in rights of way. This approach helps maintain aesthetic appeal and environmental health while reducing the likelihood of future interference with utility lines.
- Traffic Control:
 - Select contractors for traffic control who have validated licenses and acquired necessary permits in compliance with local and provincial regulations.
 - Coordinate with local authorities to ensure traffic control measures are effective and minimize disruption to the community.
- Customer Pole Data Integration:
 - Begin integrating customer data per pole into the vegetation management database to prioritize service reliability.
 - Use this data to refine maintenance schedules, ensuring that poles serving a higher number of customers receive more frequent inspections and vegetation management.

Year 3: Mid-Cycle Maintenance & Monitoring

- **Objective:** Maintain cleared areas and monitor vegetation growth in Cochrane, Kapuskasing, and Iroquois Falls.

This enhanced plan incorporates detailed strategies for managing vegetation in different zones and types of areas, emphasizing the importance of compliance with standards, risk management, and environmental responsibility. It also highlights the differences between residential and rural maintenance, ensuring that each area receives the appropriate level of care and attention.

- **Tasks:**
 - Maintenance Trimming:

- Revisit areas managed in Year 2, especially downtown cores, to perform maintenance trimming as necessary, ensuring all activities comply with the Utility Pruning subclause in the ANSI A300 Part 1- Pruning standard.
- Tree and tree branches with the potential to affect utility facilities should be monitored for risk, and pruned or removed as appropriate. This proactive approach minimizes the risk of outages and ensures public safety.
- Maintenance intervals, action thresholds, and methods for mitigation shall be determined by the type of facility, regulatory requirements, and available resources. For example, residential areas may require more frequent pruning cycles compared to rural areas due to higher customer density and closer proximity to utility lines.
- Regular Monitoring:
 - Northern Ontario Wires should conduct regular monitoring during cycle times to keep vegetation management up to date. Monitoring should occur at set intervals, with adjustments based on observed growth patterns and environmental factors.
 - In residential areas, where the proximity of trees to homes and infrastructure is greater, monitoring and maintenance may need to be more frequent and meticulous. In rural areas, the focus should be on managing large tracts of land efficiently, with an emphasis on preventing the encroachment of vegetation into utility corridors.
- Community Collaboration:
 - Encourage Northern Ontario Wires to create a community planting engagement program and seeding programs within the community to maintain beauty and promote safe planting practices. This initiative will help foster a sense of ownership and responsibility among residents, contributing to the long-term success of vegetation management efforts.
 - Northern Ontario Wires should consider offering workshops on safe tree planting and maintenance, educating the community on the importance of selecting appropriate species and planting locations to avoid future conflicts with utility infrastructure.

Wire Zone and Border Zone Management:

- **Wire Zone:**

- This is the portion of the electric utility right of way directly beneath the electric supply lines, extending outward to a utility-specified distance. The wire zone should be managed to promote only low-growing, primarily herbaceous vegetation. This allows easy access to utility infrastructure for inspection, repair, and maintenance, and facilitates the monitoring of vegetation both on and off the right-of-way.
- Maintaining low-growing vegetation in the wire zone is essential for reducing fire risk, preventing outages, and ensuring quick access for emergency repairs.

- **Border Zone:**

- The border zone is the portion of the electric utility right of way on either side of the wire zone, extending to the outer edge of the established right of way. This zone is selectively managed to include a mix of compatible herbaceous and woody vegetation below a specified height.
- Incompatible vegetation is selectively controlled in the border zone, while compatible vegetation that will not grow above the specified height is conserved. This approach allows for a more diverse ecological environment while ensuring that taller vegetation does not threaten utility infrastructure.
- Residential border zones may be smaller and require more frequent pruning to keep the communities green and aesthetically pleasing, whereas rural border zones can accommodate a wider range of vegetation but will still be managed to prevent interference with power lines.

- **Second Part of the Wire Zone:**

- Implement a border zone concept that requires the use of separate management strategies for the wire and border zones, though this approach might not be optimal for all sites. The concept is particularly useful in areas where ecological concerns are a

consideration, allowing for tailored strategies that balance utility needs with environmental stewardship.

Year 4: Expansion & Risk Reduction

- **Objective:** Expand vegetation management efforts to lower-risk areas, particularly in rural zones, while reducing overall risk to utility infrastructure.
- This comprehensive plan for Year 4 covers expansion into lower-risk areas, emphasizes the importance of risk reduction, and includes critical safety information related to vegetation management near utility lines. It also provides clear guidance on how residents can help maintain safety and reliability in their communities.
- **Tasks:**
 - Extended Vegetation Control:
 - Begin proactive management in medium to low-risk areas identified in Year 1, particularly focusing on rural areas that require maintenance every 3-5 years.
 - Increase the frequency of inspections in high-density customer areas and downtown cores to ensure continued safety and reliability.
 - Proper maintenance of trees and plant material growing around overhead power lines is essential to avoid potential electrical hazards and prevent power interruptions. Overgrown trees that encroach on power lines can create a number of electrical hazards, including the risk of fire and electrocution.
 - Hazard and Danger Trees:
 - In electric utility vegetation management, the terms "hazard tree" and "danger tree" describe trees that pose a discernable risk to utility facilities. A hazard tree is any tree that is dead, dying, diseased, or structurally unsound, and could fall and make contact with power lines, while a danger tree is any tree or part of a tree that is leaning or damaged and could cause injury or death if it were to fail.
 - Emergency Response Plan:

- Train utility personnel and ArborWorks teams to respond quickly to vegetation-related outages.
- Develop and implement an emergency response plan specifically for storm-related vegetation damage. This plan should include procedures for rapidly assessing damage, prioritizing critical areas, and deploying crews to restore service.

Potential Hazards:

- Direct Contact: When individuals are playing in or working around trees where power lines are hidden by foliage, there is a significant risk of electrocution.
- Energized Objects: Branches and limbs that have become entangled in power lines may unexpectedly become conductive, posing a serious risk to anyone who comes into contact with them.
- Contact with Power Lines: During tree maintenance, pruning, or removal, unqualified individuals or contact through tree pruning tools can inadvertently make contact with power lines, leading to dangerous situations.
- Downed Power Lines: When storms or high winds cause branches and limbs to break and pull down power lines, these downed lines can remain energized and pose a deadly risk to anyone nearby.
- Injuries or Fires: Tools and equipment used to prune trees around power lines, such as ladders, pole top pruners, and other pruning devices, can create an electrical arc when in close proximity to power lines, potentially resulting in serious injury or fire.
- Power Interruptions: Branches and limbs that break and damage power lines during storms or due to disease can lead to significant power interruptions, affecting large numbers of customers.

Why Perform Vegetation Management?

- Tree contact with power lines accounts for approximately 30% of outages in Ontario and can lead to serious fires and property damage.

Keeping Lines Safe and Clear:

- It is our responsibility to maintain safe minimum clearance between trees and utility lines, ensuring consistent service to homes and

businesses throughout our jurisdiction. With power lines carrying up to 44,000 volts, it is crucial for community safety that trees are kept from contacting these high-voltage circuits.

- We take tree clearance requirements for power lines very seriously and ensure that all lines are kept clear to guarantee that our customers receive the power they need, when they need it.
- By accounting for minimum clearances and planting the right trees in the right places, you can enjoy the beauty and value of vegetation while helping us continue to deliver reliable electricity service.

What Are Minimum Clearances?

- Minimum clearance refers to the ground distance between our power lines and any vegetation. Because different species grow to different heights, several important factors determine proper clearances.
 - Minimum clearance distances must account for the point of maximum sag—the lowest possible distance our distribution lines can descend toward the ground. Lines will sag more on warm summer days than on cold winter days, and will also sag more as the electricity load increases.
 - A highly loaded transmission line can sag several meters more during the summer than the same line carrying the same amount of electricity over the winter months. Plant growth must also be accounted for over a general target of six to eight-year cycles to ensure that minimum clearances will be maintained over time.
 - Minimum clearance rules also apply to underground utility assets, where a distance of 1.5 meters is recommended to avoid root interference with cables and conduits.
- **Vegetation Control Techniques:**
 - Implement control of vegetation using hand-operated tools for pruning, buckets, mowers, mulchers, and other devices. These methods are especially useful in areas where precision is required, such as in residential zones or near critical infrastructure.
 - Utilize herbicides or growth regulators for spot and systemic chemical control where necessary, while avoiding damage to non-

target species. These chemical treatments should be used sparingly and in accordance with all federal and local regulations to minimize environmental impact.

Year 5: Review & Future Planning

- **Objective:** Evaluate the effectiveness of the plan and establish the framework for the next 5-year vegetation management cycle, ensuring continued safety, reliability, and community engagement.
- **Tasks:**
 - Comprehensive Review:
 - Conduct an in-depth analysis of all data collected over the past 4 years, including customer feedback, tree growth patterns, incident reports, and the outcomes of emergency response efforts.
 - Evaluate the effectiveness of community engagement programs, such as workshops, planting initiatives, and educational campaigns, in fostering public understanding and cooperation.
 - Assess vegetation management practices in terms of their impact on community safety, service reliability, environmental conservation, and operational efficiency.
 - Regulatory Compliance Review:
 - Ensure that all activities conducted during the past 5 years complied with federal, provincial, and local regulations, including environmental laws and safety standards. Identify any areas where compliance could be improved in the next cycle.
 - Cost-Benefit Analysis:
 - Perform a cost-benefit analysis to determine the financial efficiency of the vegetation management program. Compare the costs of tree pruning, removal, and other control methods against the benefits, such as reduced outages, lower maintenance costs, and enhanced community safety.
 - Plan Adjustment:
 - Incorporation of New Technologies and Methods:

- Based on the findings from the comprehensive review, incorporate any new technologies, tools, or methods that could enhance the efficiency and effectiveness of vegetation management. For example, consider the use of advanced pruning techniques, improved tree removal strategies, or updated equipment for managing vegetation in sensitive areas.

Updating Action Thresholds and Protocols:

- Reassess the action thresholds, considering changes in vegetation growth rates, climate patterns, and community development over the past 5 years. Adjust protocols for tree pruning, trimming, and removal to reflect these updated thresholds.

Goal Setting for the Next Cycle:

- Establish new goals and priorities for the next 5-year cycle. These should include targets for reducing the number of outages caused by vegetation, enhancing community engagement, and improving the overall sustainability of vegetation management practices.
- Consider setting specific, measurable objectives for community planting programs, tree health assessments, and emergency response times.

○ **Community Report:**

Summary of Outcomes:

- Prepare and publish a comprehensive report for Northern Ontario Wires and the community, summarizing the outcomes of the 5-year vegetation management plan. This report should highlight key achievements, challenges faced, and lessons learned during the implementation of the plan.

Impact on Community Safety and Service Reliability:

- Include detailed information on how the vegetation management efforts have improved community safety and reduced the frequency and duration of power outages. Use data and case studies to illustrate the tangible benefits of the program.

Future Vegetation Management Strategies:

- Outline future vegetation management strategies that will be implemented in the next 5-year cycle. Emphasize the importance of ongoing community involvement through planting programs, educational workshops, and feedback mechanisms.

- Encourage continued collaboration between ArborWorks Tree Service, Northern Ontario Wires, and local communities to ensure the success of future vegetation management efforts.

Public Feedback Session:

- Hold a public feedback session where community members can discuss the outcomes of the plan, provide input on future strategies, and voice any concerns or suggestions. Use this session to reinforce transparency and build trust with the community.

Training and Development:

- Include a plan for ongoing training and development for utility personnel and ArborWorks teams. This should focus on new techniques, safety standards, and best practices for vegetation management.

Sustainability Initiatives:

- Promote sustainable practices by incorporating more eco-friendly methods and materials into vegetation management. Highlight any initiatives aimed at reducing the environmental impact of tree removal, pruning, and chemical treatments.



Northern Ontario Wires Inc.
Filed: August 30, 2024
EB-2024-0046
Exhibit 4
Tab 4
Schedule 1
Attachment 6
Page 1 of 1

Attachment 6 (of 6):

Acumen Audit Report



Audit Report

Ontario Regulation 22/04 Sections 4 to 8

Prepared For:

**Northern Ontario Wires
Inc.**

Date: March 28, 2024

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Appendix Listing

Appendix A Audit Results & Checklist

1. Audit Scope & Summary

This audit report was prepared for Northern Ontario Wires Inc. (NOWI), which distributes electricity in the municipalities of Cochrane, Kapuskasing and Iroquois Falls, serving approximately 6,000 residential, commercial, and industrial customers. The scope of this audit involved processes concerning six (6) municipal substations and voltages of 2,400V, 4,160V, 12KV and 25kV overhead and underground primary and secondary lines. NOWI employs fifteen (15) employees.

The auditor, Marc Richards, has a Lead Auditor Certificate (ISO 9001:2015), as well as 36 years of experience working in various capacities at local electrical distribution companies in the GTA. He is an approved auditor by the ESA to conduct this audit to the requirements of Ontario Regulations 22/04 (Regulation) for NOWI.

A site visit to NOWI's facility took place, as well as a walk-through of the stores, operations, and outside equipment storage facility during the audit.

The audit meeting was conducted at NOWI's office. Records, plans and standard design drawings were made available. A drop box was also provided.

The auditor declares himself to be independent from NOWI and the work to be audited is free of any potential threat to the auditors' independence including self-interest, self-review, advocacy, familiarity, and intimidation.

The audit was conducted on March 28, 2024, including the period required for documentation review and verification of control environment. Additional time was required to prepare this report and for audit preparation.

The audit covered the period of January 1, 2023, to December 31, 2023.

During the audit, one area for improvement was identified.

The scope of the audit covered the following processes and departments:

- Review of the responses to the issues from previous audits (if applicable)
- Maintenance
- Purchasing

- Engineering / Design
- NOWI's Construction Verification Program (CVP) Sept. 17, 2019
- CVP Refresher to staff conducted on Jan. 29, 2021(improvements needed)
- Field Construction and Inspection
- Health and Safety

The audit was conducted in accordance with the requirements of the Regulation Sections 4 – 8.

The processes documented within the Construction Verification Program and associated procedures were followed, personnel were interviewed, and records were reviewed to confirm the implementation of the program.

1.1 General Observations

- Preventive Maintenance and inspection programs for equipment up to 750V not part of the distribution system, overhead/underground primary & secondary distribution lines and municipal substations conducted as per Appendix 'C' of Ontario Energy Board's Distribution System Code. Excellent Asset Management Programs. P.O.s are issued because of inspection programs (tree trimming, vegetation control, and oil testing for gas analysis).
- Procedures and plans for inspection programs, major, non-major and reused equipment were reviewed.
- Equipment accepted at NOWI is inspected for defects and proper order; no items were put in quarantine and sent back in 2023.
- Line patrol inspections completed by Line Staff and are captured on a software. Work Orders of deficiencies are issued to the crew. Completed work is signed off by crew leader and reviewed by GM. Monthly inspection records for substation and switchgear were available and signed off by a competent person.
- NOWI does not have any submersible transformers, submarine cables, cables in tunnels under railroads/water crossings, cables in ducts suspended to bridges, manholes, underground vaults housing NOWI's or customer owned equipment, or free-standing switchgear on the system.

1.2 Opening Meeting Attendees List

The audit opening meeting was held on March 28, 2024, and the following persons were present:

- Marc Belanger
- Ryan Cooke
- Sue Arseault
- Marc Richards

1.3 Closing Meeting Attendees List

The audit closing meeting held on March 28, 2024, and the following persons were present:

- Marc Belanger
- Ryan Cooke
- Marc Richards

1.4 Management Response

The ESA will request a copy of this audit report. Management will be asked to prepare a response to the audit findings, including actions or any opportunities for improvement with a timetable to address each issue. Action plan should be submitted to the ESA along with the audit report.

The ESA will respond directly to NOWI on receiving the report. An audit review meeting with the ESA may take place. The audit findings may be reviewed, and any items that may require action addressed along with the NOWI's action plan and timelines. If actions are required, NOWI may be asked to submit a progress report to ESA.

1.5 Auditor Opinion

It is the opinion of this auditor that NOWI is in compliance with the requirements of Ontario Regulation 22/04 Section 4, 5, 6, 7, and 8.

I found the staff at Northern Ontario Wires Inc. to be knowledgeable, helpful and very pleasant throughout the audit process. I would like to congratulate all NOWI staff on a successful audit.



Client

Marc Belanger
General Manager/Operations Supervisor
Northern Ontario Wires Inc.
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Auditor

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Appendix A

Audit Results and Checklist

Legend: NA – Not Applicable C – Complies NI – Needs Improvement NC – Non-Compliance

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
4(3)	A maintenance and inspection program for equipment up to 750 volts not part of distribution to ensure proper operation and safety (ancillary equipment): • Municipal streetlighting maintenance and inspection • New street lighting inspection • Substation batteries and chargers inspection • SCADA batteries, battery chargers inspection of and pole mounted switches and pad mounted switchgears • Substation Heating, Lighting, Ventilation, inspection, and maintenance Inspection and PM records available	Inspection and Preventive Maintenance (PM) of ancillary equipment. Inspection and PM of low voltage ancillary equipment: • Municipal Street Lighting System in the Town of Cochrane is inspected and maintained by NOWI staff under ESA's Continuous Safety Service (CSS) Program Certificate. • Municipal Street Lighting in Iroquois Falls has been converted to LED. • Municipal street lighting in Kapuskasing is maintained by a contractor. Inspection and PM records available.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
4(4)	A maintenance and inspection program for overhead primary and secondary distribution lines to ensure proper operation and safety: • Asset management program • GIS updating • Primary and secondary line patrol • Infrared inspection, records of inspection, and repair • Pole testing • Tree trimming • Porcelain insulator replacement program • Voltage conversion • Overhead rebuilds • PCB testing • Fault indicators installation • Load break switches inspection and replacement • SCADA RTU testing, inspection, and replacement for pole mounted switches • Equipment in R.O.W.	Inspection and PM overhead system: • Primary and secondary lines patrolled once a year – patrol records are in Line Patrol Report spreadsheet and done by NOWI line crew. • Annual Infrared inspection by NOWI line staff, maintenance and repairs are recorded in Service Orders. • Tree trimming every year by NOWI crew– based on annual line patrols. • Porcelain insulator replacement on-going and as required • Poles testing – visual inspection and Hammer test annually by line crew. • Voltage conversion from 2,400V to 12KV on going. • PCB testing and elimination program; new transformers have PCB free stickers • Load Break switches- visual inspection yearly and 2 sets maintained yearly at same time as station shut down. • Reclosures - 6 singles in system, inspected yearly. Replacing was put on hold in 2023. • Reclosures are in stores. • NOWI had one woodpecker issue and just replaced the pole. • Dip pole inspections during line patrol by line crew.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
	- Filling significant voids in wood poles - Inspection and PM records available	Inspection and PM records available.				
4(5)	A maintenance, inspection and testing program for underground primary and secondary distribution lines to ensure proper operation and safety: - Asset management program - GIS updating - Fault indicators installation - Infrared inspection - PCB testing - Voltage conversion, - Underground rebuilds - Single phase pad mounted transformer inspection, - Three phase pad mounted transformer inspection - Switchgear inspection - RTU testing, inspection, and replacement of free- standing pad mounted switchgears	Inspection and PM underground system: - Annual infrared inspections of pad mount transformers and dip poles by line crew. - Three phase transformers are owned by the customers. The demarcation point is at the dip pole. - PCB testing and elimination program. - Single phase pad mounted, and secondary pedestals are inspection yearly by line crew. Observations: - Inspection and PM records available. - NOWI does not have any manholes or vaults.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
	• Dry ice cleaning • Dip poles inspection • Submarine Cables (under water) • Cable Injection with Silicon program • Tunnels under railroad/water crossings • Underground cable chambers • Underground vaults housing LDC's equipment • Customer owned equipment in vaults • Inspection and PM records available					
4(6)	A maintenance, inspection, and testing program for distribution stations to ensure proper operation and safety • Asset Management • Monthly substation inspections • Infrared Inspections • Vegetation control • PCB testing • Oil sampling for gas analysis	Inspection and PM substations: • Asset management program. • Monthly substation and switchgear inspections by line crew. • Infrared inspection annually by line crew. • Shutdown maintenance of substations as required and on 3-year cycle. • Vegetation control by contractor. • Annual oil sampling and gas analysis and total inspection of substations by contractor.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
	- Shutdown maintenance of substations - Ultrasonic testing of substations - Circuit Breaker and relay testing schedule - Customer owned substations maintenance	- Battery inspection monthly by NOWI crew and annual inspection and testing by a contractor. Observations: - Inspection and PM records available. - Stark International, for oil testing and visuals. - Electeckpower for all other testing.				

Reg. Sect.	Audit Plan / Requirements	Audit Results	NA	C	NI	NC
6	Distribution equipment approved when approved by certification or field inspection; or approved under Rule of Distributor. - Documented outline of equipment approval process including identification of competent persons, review of test reports - List of approved major equipment up-to-date and reference to standards - Major equipment specifications approved by a competent person or P. Eng. - Approval records - Non-major equipment – Good Utility Practice - Receiving inspection - Pre-regulation equipment – GUP	The equipment approval procedures are documented, and a competent person identified. NOWI's approval procedures specify that equipment must be approved by a P.Eng. Equipment is approved under Rules of Distributor. Equipment Approval Sheets referencing applicable standards are approved. Equipment specifications are maintained in records. Observations: Equipment Approval Sheets have been signed off by a P. Eng. and include Technical Information, Vendor name, information of the manufacturer and applicable standards. NOWI is a member of USF and NEDBC and maintains all documents and purchasing policies.		X		



Reg. Sect.	Audit Plan / Requirements	Audit Results	NA	C	NI	NC
6(1)(a)	Specifying equipment approved by certification or field evaluation	Personnel are aware of the need to specify approved equipment.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
6(1)(a)	Checking that supplied ancillary equipment ordered is approved by certification or field evaluation.	Personnel are aware of the need to check for the equipment approval markings.		X		
6(1)(b)	Major distribution equipment approval under Rule of the Distributor: • Meets industry standards acceptable to ESA; or • Meets distributor specifications approved by a P. Eng., competent person and no undue hazard; or • Documented approval process • Supporting documentation of approvals • Certified tests reviewed by a competent person • Composite poles & wood poles	Major equipment is approved under the Rules of the Distributor. Equipment specifications show standards to be met. Certified test reports are reviewed by Distribution and are accessible. Observations: • All incoming new transformers from vendor are tested by the competent person with “no undue hazard” statement. • Equipment specifications are maintained and any new equipment has been approved by a P Eng.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
6(1)(b)	Re-Use of Major Equipment - Documented process identifies competent person - Used major equipment approved by competent person or a P. Eng. and no undue hazard. - Competent person records no undue hazard - Testing or repair – competent person records no undue hazard - Must fail safely	NOWI generally does not re-use equipment returned from the field. NOWI's equipment approval procedures specify that only un-used equipment from the field can be returned to inventory.		X		

Legend: NA – Not Applicable C – Complies NI – Needs Improvement NC – Non-Compliance

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
6(1)(b)	Non-major Equipment approval under Rule of the Distributor (no undue hazards): • Documented approval process • Meets industry standards; or • Distributor developed specifications; or • Good utility practice – 2 years or more, documented confirmation by a competent person, no undue hazards • GUP may include successful use by a different LDC	No new non-major equipment was approved during the audit period.		X		
6(1)(b)	Equipment is specified to meet Rule of Distributor standards. • Tendering • Purchasing alliances • Purchasing approved equipment (Purchase orders, reference to standard by model numbers,	NOWI is a member of USF and North-East District Buying Consortium (NEDBC). Group tendering is done through NEDBC. Specifications are provided to the vendors who also have access to NOWI equipment list. Purchase Orders specify the manufacturers' part number, equipment description and rating.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
	engineering specifications, technical data)					
6(1)(b)	Supplied equipment meets Rule of Distributor requirements: • Inspection procedure • Dealing with vendor non-compliances	Equipment from the vendors is checked against packing slips and purchase orders to ensure accuracy and satisfactory condition. Purchase orders are checked and marked by competent staff.		X		

Legend: NA – Not Applicable C – Complies NI – Needs Improvement NC – Non-Compliance

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
6(2)	Inspection and testing of equipment supplied based on Rule of Distributor requirements (Inspection and testing records)	NOWI has not developed any unique standards for testing and inspection methods. It relies on industry standards.	X			
6(2)	Determining inspection and testing methods for equipment supplied to distributor (Records of analysis, conclusions, manufacturers declaration, witness testing, third party or distributor testing)	NOWI has not developed any unique inspection or testing methods.	X			
6(1)(a) 6(2)	Dealing with vendor noncompliance (field evaluation, rejection, communications)	The procedure for dealing with vendor's non-compliance shipments is documented. Non-conforming shipments are tagged and quarantined. The vendors are contacted, and shipments are returned. Observation: No equipment was put in quarantine and shipped back during audit period.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
7	Plans: • Prepared by a P. Eng.; and/or • Based on standard design drawings and specifications or Sect. 75 OESC • Reviewed and approved by a P. Eng. or ESA • Plans by subdivision developers • Plans by external consultants • Temporary power design standard • Deviation from approved standards	NOWI is a member of a USF group. The USF standard design drawings have been certified by P. Eng. With minor exceptions all overhead and underground design work is performed in-house by component staff and reviewed. Observation: • NOWI has a P. Eng. on retainer for any design issues.		X		
7	Approved plans or standard designs required except for: • Like-for-like construction • Emergency work • Legacy construction	Approved plans or standard designs are provided except for like-for-like, emergency and legacy construction. The standard design drawings, specifications and work instructions are assembled by the Lead Hand. The USF standard designs drawings are used for pole replacement, repair and preventive maintenance. Observation: • Standards Design Drawings, Specifications, and assembly of work instructions completed by a competent person.		X		

Legend: NA – Not Applicable C – Complies NI – Needs Improvement NC – Non-Compliance

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
7	Ensure third party attachments are: • Authorized; and • No adverse effect on distribution system safety • Engineering plans certified by LDC or third-party P. Eng. (no gaps in certification) • Certified third party standards – evidence of certification • Third party generation • Bell Canada standards	Third party attachers are Cochrane Tel, Ontera, Northern Tel, Bell and East Link. Upon submitting application for attachment, a competent person will review all relevant data from third party's application (i.e., height of the attachments, proposed lead lengths of anchors etc.) Observation: • No third-party attachment application received during the audit period.		X		
7	Up-to-date copies of internal specifications and identified standards available to approving P. Eng. – examples: • Ontario Electrical Safety Code • CSA Std. O/H C22.3 No. 1 - 15 • CSA Std. U/G C22.3 No. 7 - 15	NOWI's staff has access to soft and hard copies of all necessary latest codes and standards and USF's equipment standards.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
	- CAN/CSA C22.3 No. C22.3 No. 61936 – 1, National Electrical Safety Code - Equipment Standards					
7	Ensure P. Eng. Memberships are valid and current.	NOWI does not employ a P.Eng.		X		
7	Identify competencies of identified <u>competent persons</u> and ensure they have the required competencies (training records, position descriptions, resumes)	Qualifications of identified competent persons reviewed and confirmed. A need for improvement resulted due to CVP refresher training for staff not being up to date.			X	

Legend: NA – Not Applicable C – Complies NI – Needs Improvement NC – Non-Compliance

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
7(1)(a)	Installations based on plans by a P. Eng.: - Reviewed and approved by a P. Eng.; or - Reviewed and approved by ESA (Sample of plans)	Installations are based on standard drawings, specifications and work instructions assembled by competent staff and approved.		X		
7(1)(b)	Installations based on standard drawings and specifications assembled by a P. Eng., engineering technologist or competent person (Sample of drawings and specifications)	Installations are based on standard drawings, specifications and work instructions assembled by Lead hands.		X		
7(2)(a) 7(2)(b)	Plans, standard design drawings and specifications reviewed and approved by a <u>P. Eng. or ESA</u> (Signatures, stamps)	Plans, standard design drawings and specifications reviewed and approved by competent staff.		X		
7(3) 7(5)	Plans, standard design drawings and specifications certified by a <u>P. Eng. or ESA</u> (Plans, drawings, specifications, certificates)	NOWI's standard design drawings are created by competent staff using USF standards.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
7(6)	Ensure that standard design drawings, specifications and certificates are: - Recorded and tracked - As-built drawings show changes made in construction - Retained and available to ESA - Retained for minimum of one year after audit - Electronic storage	Standard design drawings, specifications, work instructions and plans (hard copies) indexed by Work Order (WO), year and street name. Project files contain: - Municipal consent forms - Invoices - Bill of Material - Locates - Road Occupancy Permits - Standards pertaining to the project - Final close out Project files are retained and are available to ESA.		X		
8(1)	Construction verification program: - Approved by ESA - Qualified persons list up to date - Any changes approved	Qualified persons list up to date. CVP dated September 17, 2019, approved by ESA. Up to date. List of qualified staff is maintained. Staff received refresher CVP training on Jan 29, 2021. A need for improvement is noted for CVP refresher training.			X	

Legend: NA – Not Applicable C – Complies NI – Needs Improvement NC – Non-Compliance

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
8(1)	Except for like-for-like replacements, emergency and legacy work, installations based on: • Approved and certified plans before construction; or • Standard design drawings and specifications • Approved equipment • Safety standards met • Non-compliances noted in record of inspection • Collections Department	Approved plans are provided except for like-for-like, emergency and legacy work and approved equipment is supplied. The installations are based on approved and certified plans or standard design drawings and specifications before constructions. Any non-compliances are resolved and recorded. Reviewed the following projects: Completed: - 61 Devonshire St. W/O 89224. Install complete 2 poles and sting new lines at Kapuskasing District School Board. - 376 Church St. W/O 91287 – Replace pole. - Teefy St. and St. Helene – W/O 90896 Replace pole and transformer complete with all new equipment. Observation: • Standard design drawings, specifications, and assembly of work instructions for the above projects were prepared by a competent person, showed all the applicable and approved standard design drawings.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
		Records of partial and final inspections forms are printed on the project plans. Work is signed off on Daily Time Sheet Reports referenced to work orders.				
8(1)	Ensure construction inspected and approved before use: • When implemented • Monitored to cover all construction	All the constructions are inspected, approved, and non-compliances rectified before use.		X		
8(1)	Like-for-like, emergency and legacy work inspected and confirmed safe by competent person: • Metering • Cutoff and reconnection • Customer Service • NC's rectified • No undue hazard statement • Inspection record and certificate	Metering works (replacements, upgrades, and disconnects/reconnects for non-payments) completed by a line staff and are signed off in with "no undue hazard statement". Trouble calls, emergency works, plant damage, load break switch maintenance are recorded in "Daily Time Sheets" are signed off by competent person with "no undue hazard statement". Observations: Metering: • 80 Riverside Dr – Replace meter • 221 Devonshire ave. – Reco , off for non-payment • 283 2nd Ave. D/R – Upgrade		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
		Trouble Calls/Plant Damage: • 354 Main St. – No power Broken cut-out • 19 Dominion Ave. – Tree on sec. • 10 18th Ave. – No power – failed meter base • 14 Poplar St. – Burnt off connection at pole. • M2 Feeder – No Power, lightning Arrester All records available for review.				

Legend: NA – Not Applicable C – Complies NI – Needs Improvement NC – Non-Compliance

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
8(2)(a)	Inspection by:	Inspections are carried out by qualified staff identified in the CVP.		X		
8(2)(b)	• P. Eng.; or					
8(2)(c)	• Qualified person identified in inspection verification program; or • ESA					
8(3)	Records of inspection include: • Inspection before use of installation	Records of inspection provide all the required information on what was inspected and identified the inspector and include the following:		X		

	• Approved plan or standard design followed • Approved equipment used • Inspection date • Installation identified • Non-compliances rectified • Stamped, signed or initialed • Inspection verification program followed	• Records of Inspection/Certificate • Daily Time Sheets Reports • Approved standards design drawings, specifications and assembly of work instructions followed • Inspection date • Approved equipment used • Name of the inspector • Location • Stamped and sign off by inspector • Inspection before use of installation				
--	---	--	--	--	--	--

Legend: NA – Not Applicable C – Complies NI – Needs Improvement NC – Non-Compliance

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
8(4)	Safety standards met before certification Certificates available and show: - Identify work inspected - Safety standards met - Date of certification - Stamp, signature or initials - Like-for-like and legacy construction no undue hazards	Safety standards met before putting the system in use. Certificates available and show the following: - Identify work inspected - Safety standards met - Date of certification - Stamp, signature, or initials - Like-for-like and legacy construction no undue hazards		X		
8(7)	Certificates and records of inspection available to ESA and: - Records and certificates of inspection - Covers all applicable construction - Signed and dated - Progressive inspections and sampling process certificates - Records of inspection for underground work	Certificates and records of inspections available to ESA.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
	Third party contractors trained and listed in the CVP.	Installation of third party (civil work) is signed off by competent person.		X		
	Sampling program developed	No Sampling is done.	X			
	Process for resolving non-compliances and design changes	Minor non-compliances and field proposals for design changes are discussed with the crew, then marked up on drawings. Major changes will be made and updated.		X		
	Third party construction by contractors - Construction and maintenance on electrical distribution system - Records of inspection and certificates - Approved plan followed	Third party construction of underground civil construction work by developers' or owners' contractor, then is inspected and signed off by ESA.		X		
	Third party attachment – communications and community antenna systems: - Meets safety requirements - Non-compliances and variations resolved - Inspection by P. Eng. or person qualified in CVP - Certificate and record of inspection - Other joint use	Third party attachment inspections are performed by third party consulting engineer and reviewed and approved by the competent staff. Observation: No third-party plans were constructed during the audit period.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
	Public safety promotion: • Regular training includes safety • Performance assessment includes safety • Records on dealing with safety issues • Training materials • Safety communications • Interest and input from the Board	NOWI promotes public safety as follows: • Public Safety information on NOWI's web site (safety tips, tree trimming, power outages, home wiring, preparing emergency plans during power outages and link to ESA Alerts). • Emergency preparedness planning with the City, Police, EMS, Endbridge Gas, Water, Sewer and Hospital. • General Manager will provide quarterly safety reports to the board and annual summary. Meetings with the Board 9-10 times annually. • Board members are highly active in the community. • Annual safety celebration breakfast with Health and Safety Recognition Certificates issued to all employees. Attended by board members (a virtual meeting was conducted due to COVID-19). • Safety packages and NOWI's safety policy to new contractors. • Safety training to employees; First Aid, CPR and Book 7 training. • Participation with Utility Safety Professional – IHSA. • Safety Meeting quarterly for inside and outside staff. • Billing inserts – ESA pamphlets and conservation messages. • Mutual assistance plans with neighboring LDCs'.		X		

Reg. Sect.	Audit Plan / Requirement	Audit Results	NA	C	NI	NC
		- Planned outages notifications to all businesses, schools, churches, and recreation facilities. - No lost times injuries during 2023. - Informative NOWI media web pages. - Records available.				



WORKFORCE PLANNING AND EMPLOYEE COMPENSATION

STAFFING CHALLENGES

Introduction

NOW Inc. has faced challenges over the past few years in terms of attracting and retaining staff and has had a high staff turnover rate. During this period there were several employees who took leaves of absence and several employees who joined for a short period of time and then sought employment elsewhere.

These challenges, especially over the 2018 to 2023 period resulted in some O&M work programs not being fully executed consistent with NOW Inc.'s plans for these years. A safe and reliable system has been maintained over this period, however there have been recent issues with respect to reliability that have resulted in the development of plans to maintain and in some situations improve reliability.

To address these issues NOW Inc. has changed some of its practices (e.g. more outsourcing) and has added three additional staff in 2022 to 2024 period and is planning that a part time employee become a full-time employee in 2025 to address priority work, deal with new IT requirements (in particular cyber security) and to ensure continued high reliability in its service territory.

Over the period 2017 to 2025 NOW Inc. staff increases by 3.9 FTE's, with most of these (3.5 FTE's) being since 2023. This indicates the issues that NOW Inc. had with respect to attracting and retaining staff in particular over the 2020 to 2023 period. Specifically the positions added over the past several years are:

- Powerline Technician (Kapusksing)



- Powerline Technician (Cochrane)
- Billing/General Clerk

The new Powerline Technicians work on high priority work in both the OM&A and Capital areas to help ensure that NOW Inc. catches up with its operations and maintenance activities as well as dealing with aging infrastructure in the capital area. The new Billing/General clerk supplements the two existing Billing Clerk positions that were overloaded and not able to keep up with day-to-day work demands and increasing billing, collecting and administrative requirements.

In addition, in 2025 NOW Inc. is planning on retaining a IT related expert on a full time basis. This additional resource is required to keep abreast of cyber security improvements and the implementation of new systems.

NOW Inc.'s FTE count over the period 2017 to 2025 is shown in Table 1 below.

Table 1
NOW Inc. FTE count (2017 – 2025)

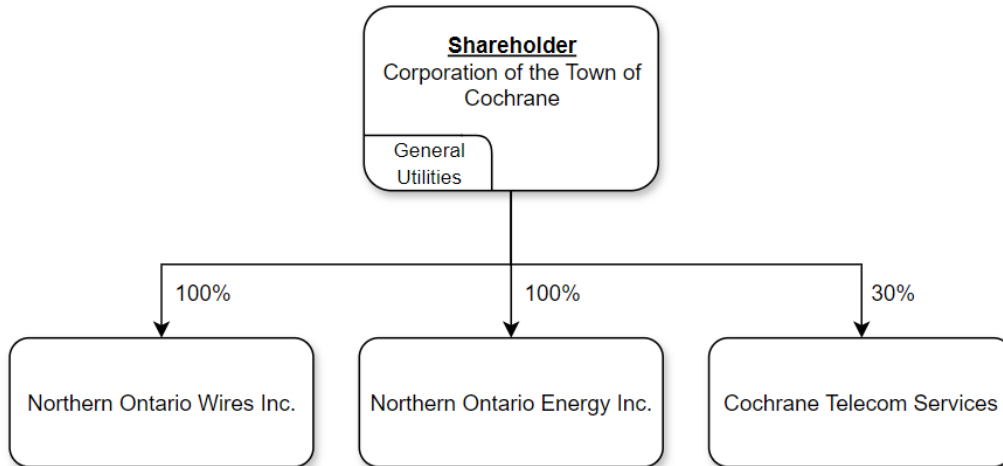
	Last Rebasings Year 2017 - OEB Approved	Last Rebasings Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year
Number of Employees (FTEs including Part-Time) ¹										
Management (including executive)	3.5	3.5	3.5	3.7	3.4	3.4	3.9	4.4	3.0	3.0
Non-Management (union and non-union)	12.2	13.2	12.5	13.4	13.1	12.5	12.0	11.7	16.2	16.6
Total	15.7	16.7	16.0	17.1	16.5	15.9	15.9	16.1	19.2	19.6

Organization

The following charts show NOW Inc.'s corporate structure and organizational structure for the regulated entity.



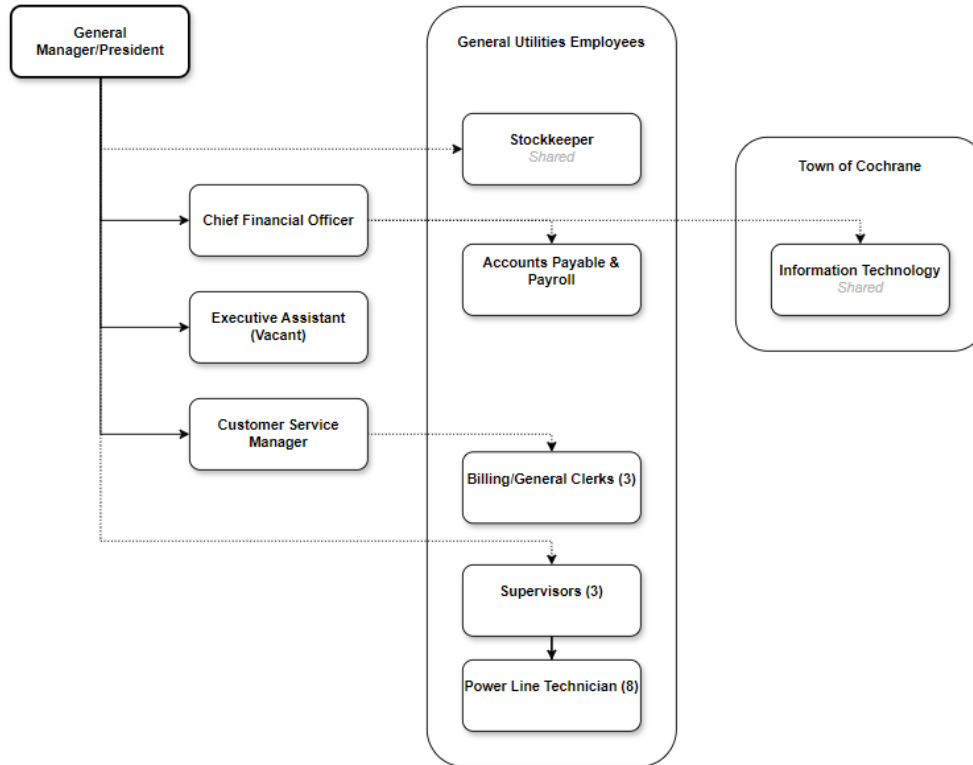
CHART 1
CORPORATE ENTITIES RELATIONSHIP CHART
As of January 1, 2024



Northern Ontario Wires Inc. has four staff positions. Other staff required to support the operations of NOW Inc. are provided through a Shared Services Agreement with the Corporation of the Town of Cochrane that provides staff through its General Utilities department as well as half of one other position with the Corporation of the Town of Cochrane.



CHART 2
UTILITY ORGANIZATIONAL CHART
As of January 1, 2024



Staffing

As noted above NOW Inc. has faced several challenges over the past few years in terms of attracting and retaining staff and a high staff turnover rate.

In recent years several work practices had been identified as not being optimal. In many situations there was only one powerline technician on a call. Due to health and safety requirements there were circumstances where work could not be completed without



1 another employee on site. Many of these circumstances were with respect to overhead
2 lines, where a powerline technician could not be working alone.

3
4 Other examples for the need of additional staff are found in the large and difficult
5 geography and weather patterns in NOW Inc.'s service territory. Kapuskasing, Cochrane
6 and Iroquois Falls are distant from each other with one primarily road linking them. During
7 the winter there are many circumstance where roads are closed due to weather conditions.
8 This necessitates that NOW Inc. have staff (Standby Services) in each area to respond to
9 trouble calls and emergencies.

10
11 E4/T4/S1 OM&A Program Delivery Costs explains the need for additional Operations and
12 Maintenance activities and additional spending on NOW Inc.'s vegetation management
13 program. As noted above there is also the need for additional IT staff to deal with cyber
14 security improvements and modernization of the NOW Inc.'s IT systems.

15 16 **COMPENSATION OVERVIEW**

17 Northern Ontario Wires Inc.'s (NOW Inc.) compensation plan is designed to engage
18 qualified personnel that will provide benefits to customers. Pay structures are designed to
19 be reflective of the industry marketplace for Union employees and the Management
20 structure is designed to be at the 25th percentile of the industry average for comparative
21 jobs.

22
23 The salary grids in place are for base pay, and NOW Inc. does not provide incentive based
24 compensation, but has a benefit package for active employees including an OMERS
25 pension. NOW Inc. faces challenges in regard to employee staffing as a result of the
26 northern geographic locations in which it operates. The three service territories are
27 isolated from major population centres and as such it can prove difficult to attract and
28 retain skilled employees.



POWER WORKERS' UNION COMPENSATION

NOW Inc.'s employees are all unionized except for three management staff positions being the General Manager, Chief Financial Officer, and Billing and Collection Manager. All other employees are contracted to NOW Inc. through the affiliate The Corporation of the Town of Cochrane, General Utilities Department. The shared services agreement is explained and provided in E4/T4/S3.

The compensation for PWU represented employees is negotiated thorough the collective bargaining process. The collective agreement defines the terms and conditions of employment and is set for a fixed and negotiated term. In this heavily unionized workforce, NOW Inc. has limited ability to reduce compensation, especially when facing challenges attracting qualified candidates. The industry and the competitive nature of skilled powerline technician positions add increased pressure on wages and benefits. The current contract came into effect July 1, 2022, and expires June 30, 2025.

The Union wage increases since 2017 are shown in Table 2 below.

Table 2
Union increases 2017 to 2024

Year	Union % Increase
2017	\$0.80 + 2%
2018	\$0.50 + 2.5%
2019	0.0%
2020	0.0%
2021	0.0%
2022	6.6%
2023	2.0%
2024	2.4%

In order to ensure NOW Inc.'s success, being able to attract, motivate, and retain the right people is essential. General labour challenges facing the industry have impacted NOW Inc. and, in addition, there are challenges due to the geographic location in which NOW

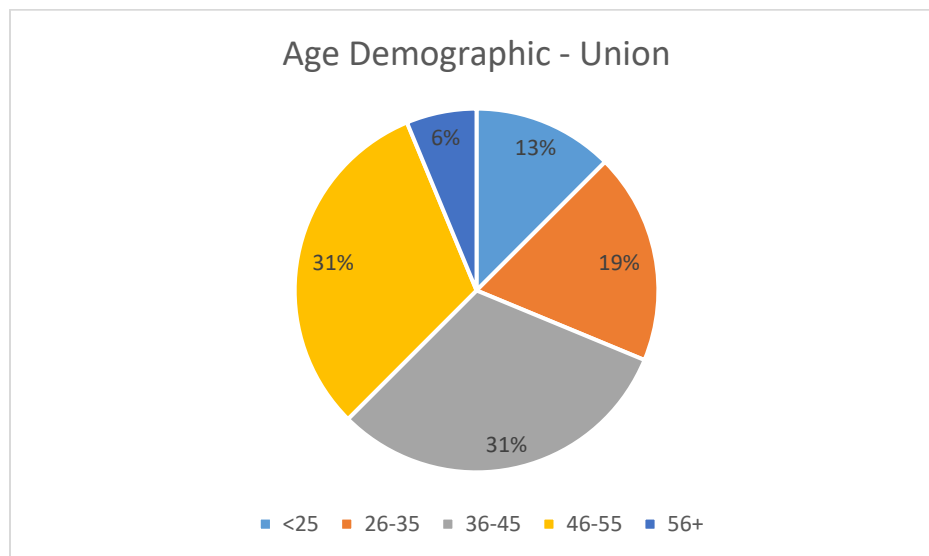


Inc. operates. As such, it is necessary that NOW Inc. position itself as an attractive place to work. To achieve this goal NOW Inc. needs to have competitive wages with a rewarding work-life balance that is desired by people who like to settle in Northern Ontario.

Recent MEARIE information has shown that NOW Inc. union staff are paid below the industry average for comparable positions. Several times over the past few years NOW Inc. has lost employees to utilities who operate near its service territory. In order to attract and retain staff, in 2025 NOW Inc. is planning to migrate salaries and benefits closer to the industry average noted in the MEARIE information.

The age profile of NOW Inc. union members is shown in Chart 3 below

Chart 3
Union Demographics



The chart shows that 37% number of union members are 46 years of age or older. This indicates the need to bring in younger staff while older staff are still available to help with the training and transition.



MANAGEMENT COMPENSATION

NOW Inc.'s management compensations is designed around a salary grid with five steps. Each position has its own pay range on the grid based on accountabilities, qualifications, and experience.

The management compensation structure is twofold:

1. An employee's base salary within the salary grid dependent on performance, experience, and accountability, and;
2. A benefit plan to cover health and dental coverage for the employee and family which is designed to be consistent with the union employees.

There is no short-term incentive (STI) program, as salaries are designed to ensure that bill impacts to customers are not overly burdened by management compensation practices. Staff members ensure that all duties and tasks as assigned are completed even with the limited staff levels.

Table 3 below provides the annual increases in management salary:

Table 3
Management Salary Increases

Year	Management % Increase
2017	1.8%
2018	1.9%
2019	1.8%
2020	1.9%
2021	0.9%
2022	5.0%
2023	6.4%
2024	3.4%

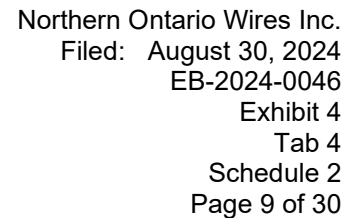


Table 4 provides a summary of staff positions and levels from 2017 to 2025.

[illegible]

CTS = Cochrane Telcom Services

As noted above NOW Inc's headcount (FTEs) has increased over the past several years and there are plans to move one employee from part time to full time (i.e. IT restaff). Difficulties with turnover in the outside crew as well as safety issues has resulted in the need to increase FTE complement in NOW Inc.'s service territory with special attention to



1 the Kapuskasing service are due to the geographic constraints and distance from other
2 resources.

3
4 NOW Inc. has taken actions to ensure that the staff count is reasonable. Some of the
5 productivity achieved that minimized the increase of FTE's include:

- 6 • New financial system providing administration, payroll, and finance efficiencies
- 7 • New payment portal to allow customer self-service and payment options
- 8 • Reorganization of resources and duties
- 9 • For further information on NOW Inc.'s innovation initiatives please refer to
10 E1/T8/S1 Facilitating Innovation

11
12 NOW Inc. will continue to strive for efficiencies and will review outsourcing of certain
13 functions should the need arise.

14 15 **STAFFING CATEGORIES**

16 NOW Inc. has two categories of staff. Union staff contracted from the Corporation of the
17 Town of Cochrane General Utilities Department and Management Staff.

18 19 **STAFF CONTRACTED FROM AFFILIATE**

20 Staff contracted by NOW Inc.'s affiliate are unionized members of the Power Workers'
21 Union (PWU) The Canadian Union of Public Employees CUPE Local 1000 which has
22 replaced The Canadian Union of Public Employees Local Union 71 (CUPE). The current
23 contract is effective from July 1, 2022 to June 30, 2025. Staff are categorized between
24 outside crew and office staff, with varying hours of work and pay scale.

25 26 **a) OUTSIDE CREW**

27 The outside line crew works a standard 40-hour work week, additional requirements
28 include overtime, and on-call time. One significant challenge with the outside crew is the
29 location NOW Inc.'s service territory. The service territory has three communities that are
30 170 kilometers apart on the Highway 11 corridor in Northern Ontario. In the winter months,
31 these roads can become treacherous as they are single lane and have a high density of



1 large animals and traffic along the Trans-Canada Highway. Road closures are a common
2 occurrence in winter months which hampers NOW Inc.'s ability to respond to call outs and
3 emergencies in the service territories if operations were centrally located.

4
5 As a result, NOW Inc. has three service centers, with one being located in each community
6 along with a separate crew located out of each. By having three crews, NOW Inc. is able
7 to respond to call outs quickly regardless of road closures. This provides benefit to
8 customers as outages times are reduced and service is provided in a more timely manner.

9
10 **b) OFFICE STAFF**

11 Office staff is centrally located in Cochrane and provide services to all three service
12 territories. Office hours are a standard 35-hour work week. Office staff is also unionized
13 with PWU with the same collective agreement as the outside staff. The office staff are all
14 employees of NOW Inc.'s affiliate and are contracted to NOW Inc. as needed which
15 generates efficiencies. Functions of the office staff include, IT, Accounts Payable, Payroll,
16 Billing, Collections, General Office Clerk, Purchasing and Stockkeeping. These
17 employees and functions are no longer being shared with the previous affiliate (Cochrane
18 Telecom) with the exception of the purchasing/stockkeeping employee. This change since
19 NOW Inc.'s last rebasing was necessitated by the sale of the affiliate company (Cochrane
20 Telecom) to a third party. As such the operations employee service provider for NOW Inc.
21 has been established within the Corporation of the Town of Cochrane.

22
23 **MANAGEMENT STAFF**

24 Management staff at NOW Inc. are responsible for many facets of the organization.
25 Included in this category are General Manager, Chief Financial Officer, and Customer
26 Service Manager. There are three full-time employees on the Management team for NOW
27 Inc. The management staff work extra hours but do not qualify for overtime.

28
29 NOW Inc. also hires students as temporary staff to assist in the office during the summer
30 months as well as power powerline technician students to work with the line crew to assist
31 the students in gaining experience and allowing for the training of potential future line crew.



1
2 The management team has assumed greater responsibility and workloads in order to meet
3 the requirements placed upon NOW Inc. At times, however, due to the limited resources
4 in house, NOW Inc. needs to contract out certain functions to complete regulatory
5 requirements. Such areas include support services related to regulatory requirements and
6 software testing.

7
8 **WORKFORCE PLANNING**

9
10 NOW Inc.'s primary workforce planning entails sharing resources and office space with an
11 affiliated company. This allowed for some efficiencies with keeping the FTE level even.
12 This dynamic has changed in the last few years as the direction of the affiliated company
13 has changed as a result of a partial divestiture. The inside office staff are no longer shared
14 and NOW Inc. has had to assume more FTEs in order to ensure that staffing levels are
15 able to manage holiday and other absences. The employees are cross trained and are
16 able to perform a variety of functions.

17
18 The outside staff levels are planned to be with a safe working complement with the ability
19 to handle operation and maintenance activities. The staffing level has been at a skeleton
20 state for several years and new factors exacerbated the issue with personal leaves, staff
21 turnover, and the inability to attract qualified applicants. Newly hired personnel including
22 Level 1 Apprentices have left for neighboring utilities and contractors.

23
24 NOW Inc. has had to shift focus to hire and train local people that are interested in the
25 Powerline Technician Apprenticeship Program in hopes that with the local ties will assist
26 with retention and they will stay with the utility long-term. As more retirements occur, this
27 strategy cannot be the only option as we need to attract qualified candidates and retain
28 current staff. The need to be competitive is not limited to the outside staff, but essential
29 for all groups.

30
31



Succession Planning

NOW Inc.'s succession plan must be managed carefully and is a key challenge for the utility. Areas of concern are the expected Outside Staff retirements that will be occurring in the coming years. These staff positions will need to be replaced before retirements occur so that new hires can be trained prior to experienced staff hanging up the tools. This is an added cost to the utility as wages make up a significant portion of the annual budget. The plan is for the current staffing level to be maintained after retirements, resulting in hiring for those vacancies.

There is increased competition for limited resources in the utility industry. As a result it has been more difficult to attract and retain key individuals that are in demand throughout the industry.

TRAINING INITIATIVES

As NOW Inc. is a small utility, there are not extensive internal developed training programs. Office and management staff take part in external training through a variety of providers. Regulatory training is provided through MEARIE and the EDA and there are also collaborative meetings and discussions with other LDCs.

NOW Inc. has ongoing health and safety training and skills upgrades for employees. Mandated training by the Occupational Health & Safety Act (OHSA) and other standards that apply to daily operations are monitored to ensure compliance. Training may include, but is not limited to:

- Legislative and industry requirements e.g. MTO, MOE, OHSA etc.
- Mandatory training as prescribed by OSHA and its regulations e.g. WHIMIS, PPE specific training, equipment safety training, etc.
- CPR and First Aid

Outside staff training has ramped up with more supervisor training and skills upgrading since the last rebasing.



1

2 **HEALTH AND SAFETY**

3 NOW Inc.'s commitment to Health and Safety is significant and involves monitoring
4 conformance to established standards and policies, determining the effectiveness of
5 safety training and monitoring the resolution of safety recommendations/audits;
6 commitment to continuous improvement in training; and identifying and correcting root
7 causes for system deficiencies.

8

9 **BENEFITS PROGRAM**

10

11 **OVERVIEW**

12 Employer-paid benefits are a key piece of NOW Inc.'s total compensation package. A
13 reasonable level of benefits serve to attract, retain and motivate employees and the added
14 security allows for overall health, wellness and productivity.

15

16 NOW Inc. maintains and offers employees a comprehensive and competitive benefit
17 package that includes, Extended Health, Dental, Life Insurance, AD&D, LTD, STD, and a
18 defined benefit retirement plan (OMERS). This package is consistent among management
19 and PWU employees with minor variances.

20

21 NOW Inc. also contributes to mandatory programs including Employers Health Tax,
22 Canada Pension Plan, the Enhanced Canada Pension Plan, Employment Insurance, and
23 Workers Safety Insurance Board premiums.

24

25 Benefits are paid for retirees with 30 years employment until 65 and then can convert to a
26 personally funded plan. Life benefits are provided until death at a reducing rate as is
27 common among LDC's.

28

29 **BENEFITS**

30 Benefits premiums are fully paid by NOW Inc. for both union and management employees.

31 This allows for healthier workforce and helps to ensure that employees receive the



treatment necessary which in turn benefits the employer. Benefits are subject to a maximum and are result of the collective agreement.

PENSION PLAN

Pension costs have increased approximately 8.5% since 2017. NOW Inc. is a member of the OMERS group and matches member contributions 100%. In 2021, there was a decrease in contributions due to staff vacancies.

OMERS Contributions: 2017 to 2023 are shown in the Table 5 below:

Table 5
OMERS Contributions 2017 to 2023

Year	2017	2018	2019	2020	2021	2022	2023
Total Management & Union	\$ 134,280	\$ 137,789	\$ 142,384	\$ 143,316	\$ 132,384	\$ 135,118	\$ 145,721

LIFE INSURANCE

The NOW Inc. Life Insurance provisions allow for basic and optional coverage. Basic Life benefits are paid by the employer while any optional coverage elected by the employees are paid for by the employees.

Life coverage for PWU members is 1.5 times the annual basic earnings. This is a taxable benefit to the employee as it is paid by the employer. This benefit with reduced coverage will continue until death.

Life coverage for management is 2 times the basic annual earnings subject to a maximum. This coverage is reduced and paid until death. This benefit is taxable as it is paid by the employer.

OPTIONAL LIFE INSURANCE



Optional coverage can be obtained by the employees through the company plan, but premiums are paid by employees. This benefit continues until the employee reaches the age 65 at which time the Optional Life coverage will terminate.

POST RETIREMENT BENEFITS

Employees that retire with a defined level of service are eligible for employer paid post-retirement benefits. The extended health and dental plan continue until the retiree reaches age 65 at which time they can covert to personal coverage under a separate individual plan. Life coverage is provided until death at a reducing rate until a floor is reached. NOW Inc. receives and actuarial report every few years. The actuarial valuations will continue to be done taking into account the IFRS requirements. OPEB's are to be recovered on the accrual method. OPEB's for management staff are recorded in OM&A, while those for the union staff are charged between OM&A and capital based on the direct payroll allocation. There are no material changes or variances in the historic, bridge, or test years or last OEB approved rebasing application.

BENEFITS SUMMARY

Health benefit costs have increased approximately 20% over the 2017-2023 period, and are a result of premium increases by the insurance provider. This is a combination of the passing along of provider costs as well as increasing in the wage rate which increase benefits that are tied to level of compensation.

NOW Inc. has retained a service provider that provides benefits to all Town of Cochrane affiliate in an effort to reduce costs by utilizing economies of scale. Periodically benefits are put out to tender in order to obtain the most competitive rates.

OVERTIME

Overtime is exclusive to the unionized employees as management is not entitled to overtime pay. The overtime pay results from approximately 60% emergency work (storms, damages and outages) and 40% from planned work and coordinating outages with Hydro One.



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The collective agreement outlines the rules for overtime in determining what time is eligible. Time is either paid at time and a half or double time depending on the day of the week. Union employees also have the ability to bank overtime hours at the appropriate rate to a maximum of eighty hours for outside staff and seventy hours for inside staff.

Overtime is monitored by the General Manager to ensure projects and costs are done on a priority basis while increasing efficiencies.

SHORT-TERM INCENTIVE COMPENSATION

NOW Inc. does not have any form of STI compensation.

TOTAL COMPENSATION COSTS

Tables 6a & 6b outline the total compensation costs for NOW Inc. from 2017 to 2025.



Table 6a
Employee Cost Overview

Appendix 2-K
Employee Costs

	Last Rebasings Year 2017 - OEB Approved	Last Rebasings Year 2017 Actuals	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year
Number of Employees (FTEs including Part-Time)¹										
Management (including executive)	3.5	3.5	3.5	3.7	3.4	3.4	3.9	4.4	3.0	3.0
Non-Management (union and non-union)	12.2	13.2	12.5	13.4	13.1	12.5	12.0	11.7	16.2	16.6
Total	15.7	16.7	16.0	17.1	16.5	15.9	15.9	16.1	19.2	19.6
Total Salary and Wages including overtime and incentive pay										
Management (including executive)										
Non-Management (union and non-union)	\$ 1,270,914	\$ 1,266,305	\$ 1,286,196	\$ 1,361,281	\$ 1,372,226	\$ 1,300,645	\$ 1,427,912	\$ 1,517,422	\$ 1,699,634	\$ 2,004,573
Total	\$ 1,270,914	\$ 1,266,305	\$ 1,286,196	\$ 1,361,281	\$ 1,372,226	\$ 1,300,645	\$ 1,427,912	\$ 1,517,422	\$ 1,699,634	\$ 2,004,573
Total Benefits (Current + Accrued)										
Management (including executive)										
Non-Management (union and non-union)	\$ 376,266	\$ 366,795	\$ 370,892	\$ 400,869	\$ 407,230	\$ 391,154	\$ 395,055	\$ 432,420	\$ 505,184	\$ 588,011
Total	\$ 376,266	\$ 366,795	\$ 370,892	\$ 400,869	\$ 407,230	\$ 391,154	\$ 395,055	\$ 432,420	\$ 505,184	\$ 588,011
Total Compensation (Salary, Wages, & Benefits)										
Management (including executive)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Management (union and non-union)	\$ 1,647,180	\$ 1,633,100	\$ 1,657,088	\$ 1,762,150	\$ 1,779,456	\$ 1,691,799	\$ 1,822,967	\$ 1,949,843	\$ 2,204,818	\$ 2,592,584
Total	\$ 1,647,180	\$ 1,633,100	\$ 1,657,088	\$ 1,762,150	\$ 1,779,456	\$ 1,691,799	\$ 1,822,967	\$ 1,949,843	\$ 2,204,818	\$ 2,592,584
Total Compensation Breakdown (Capital, OM&A)										
OM&A	\$ 1,471,615	\$ 1,374,285	\$ 1,390,839	\$ 1,520,226	\$ 1,585,406	\$ 1,491,700	\$ 1,592,802	\$ 1,761,026	\$ 2,039,882	\$ 2,359,799
Capital	\$ 175,565	\$ 258,815	\$ 266,250	\$ 241,924	\$ 194,051	\$ 200,099	\$ 230,165	\$ 188,817	\$ 164,936	\$ 232,785
Total	\$ 1,647,180	\$ 1,633,100	\$ 1,657,088	\$ 1,762,150	\$ 1,779,456	\$ 1,691,799	\$ 1,822,967	\$ 1,949,843	\$ 2,204,818	\$ 2,592,584

Table 6b
Employee Benefits Details

Description	2017	2018	2019	2020	2021	2022	2023	2024 Bridge Year	2025 Test Year
Employee Benefit Expense									
EI - Employer Portion	\$ 20,565	\$ 20,272	\$ 21,235	\$ 19,871	\$ 19,489	\$ 18,896	\$ 23,232	\$ 26,144	\$ 30,295
CPP - Employer Portion	\$ 44,289	\$ 42,401	\$ 47,651	\$ 47,510	\$ 48,859	\$ 52,862	\$ 60,351	\$ 69,762	\$ 80,702
WSIB Premiums	\$ 12,118	\$ 12,658	\$ 12,870	\$ 16,916	\$ 23,481	\$ 25,815	\$ 25,384	\$ 35,747	\$ 44,212
OMERS	\$ 134,280	\$ 137,789	\$ 142,384	\$ 143,316	\$ 132,384	\$ 135,118	\$ 145,721	\$ 160,372	\$ 195,870
Health Care Benefits*	\$ 128,756	\$ 129,060	\$ 141,129	\$ 143,516	\$ 138,555	\$ 120,963	\$ 133,061	\$ 171,131	\$ 188,780
Employer Health Tax	\$ 25,337	\$ 25,935	\$ 26,904	\$ 25,933	\$ 25,919	\$ 27,741	\$ 29,349	\$ 32,522	\$ 38,359
Other (Eg. Health & Fitness, Phone/Internet)	\$ 1,450	\$ 2,777	\$ 8,696	\$ 10,168	\$ 2,467	\$ 13,659	\$ 15,323	\$ 9,506	\$ 9,793
Total Management & Union	\$ 366,795	\$ 370,892	\$ 400,869	\$ 407,230	\$ 391,154	\$ 395,055	\$ 432,420	\$ 505,184	\$ 588,011
* Includes OPEB's									

Management (including executive) costs in Appendix 2-K include NOW Inc. management and Board of Director costs are aggregated with the Non-Management employees due to the FTE count of 3 and confidentiality.

The following tables summarize the year over year changes in total compensation and staffing levels:



Table 7 below summarizes 2017 Actual over 2017 OEB Approved changes:

Table 7
2017 Actual vs 2017 OEB Approved Variance

	Last Rebasing Year 2017 - OEB Approved	Last Rebasing Year (2017 Actuals)	Variance
Number of Employees (FTEs including Part-Time)¹			
Management (including executive)	3.5	3.5	-
Non-Management (union and non-union)	12.2	13.8	1.6
Total	15.7	17.3	1.6
Total Salary and Wages including overtime and incentive pay			
Total	\$1,270,914	\$1,266,305	-\$ 4,609
Total Benefits (Current + Accrued)			
Total	\$ 376,266	\$ 366,795	-\$ 9,471
Total Compensation (Salary, Wages, & Benefits)			
Total	\$1,647,180	\$1,633,100	-\$ 14,080
Total Compensation Breakdown (Capital, OM&A)			
OM&A	\$1,471,615	\$1,374,285	-\$ 97,330
Capital	\$ 175,565	\$ 258,815	\$ 83,250
Total	\$1,647,180	\$1,633,100	-\$ 14,080

The staffing level approved in the 2017 Approved year was based on actual staffing without any anticipated changes. In 2017 there was a Powerline technician that retired and was not replaced. This was offset because of the hiring of an apprentice.

Table 8 below summarizes 2018 Actual over 2017 Actual changes:



Table 8
2018 Actual vs 2017 Actual Variance

	Last Rebasing Year (2017 Actuals)	2018 Actuals	Variance
Number of Employees (FTEs including Part-Time)¹			
Management (including executive)	3.5	3.5	-
Non-Management (union and non-union)	13.8	12.5	- 1.3
Total	17.3	16.0	- 1.3
Total Salary and Wages including overtime and incentive pay			
Total	\$1,266,305	\$1,286,196	\$ 19,891
Total Benefits (Current + Accrued)			
Total	\$ 366,795	\$ 370,892	\$ 4,097
Total Compensation (Salary, Wages, & Benefits)			
Total	\$1,633,100	\$1,657,088	\$ 23,988
Total Compensation Breakdown (Capital, OM&A)			
OM&A	\$1,374,285	\$1,390,839	\$ 16,553
Capital	\$ 258,815	\$ 266,250	\$ 7,434
Total	\$1,633,100	\$1,657,088	\$ 23,988

In 2018, Management staff FTE count remained unchanged, while union staff FTEs decreased by 1.3 FTE. The reduction was a result of a Powerline Technician retiring that was not replaced, personal leave by another Powerline Technician, and an apprentice quitting. The reduction in FTE mitigated some of the union escalation increases. Total compensation increased by \$23,988.

Table 9 below summarizes 2019 Actual over 2018 Actual changes:



1

Table 9

2

2019 Actual vs 2018 Actual Variance

	2018 Actuals	2019 Actuals	Variance
Number of Employees (FTEs including Part-Time)¹			
Management (including executive)	3.5	3.7	0.2
Non-Management (union and non-union)	12.5	13.4	0.9
Total	16.0	17.1	1.1
Total Salary and Wages including overtime and incentive pay			
Total	\$1,286,196	\$1,361,281	\$ 75,085
Total Benefits (Current + Accrued)			
Total	\$ 370,892	\$ 400,869	\$ 29,977
Total Compensation (Salary, Wages, & Benefits)			
Total	\$1,657,088	\$1,762,150	\$ 105,062
Total Compensation Breakdown (Capital, OM&A)			
OM&A	\$1,390,839	\$1,520,226	\$ 129,387
Capital	\$ 266,250	\$ 241,924	-\$ 24,325
Total	\$1,657,088	\$1,762,150	\$ 105,062

3

4

5 At the end of 2019, the management staff increased by 0.2 FTE as the Billing Manager
 6 position had retired and new employee was hired to train alongside the retiring manager.
 7 Additionally, the Executive Assistant position allocation was reduced by 0.1 FTE.

8

9 The union FTEs increased in 2019 by 0.9 FTE as a result an apprentice hire, shared
 10 incremental IT staff, and succession Stores Manager hires. The union collective
 11 agreement expired in June 2019 without a new agreement in place. As a result, there were
 12 no rate increases in 2019. There was a delay, as the union was changed from CUPE 71
 13 to the PWU with a new contract that went into effect July 1, 2022. Total compensation
 14 resulting from change in staffing level resulted in an increase of \$105,062.



Table 10 below summarizes 2020 Actual over 2019 Actual changes:

Table 10
2020 Actual 2019 Actual Variance

	2019 Actuals	2020 Actuals	Variance
Number of Employees (FTEs including Part-Time)¹			
Management (including executive)	3.7	3.4	- 0.3
Non-Management (union and non-union)	13.4	13.1	- 0.3
Total	17.1	16.5	- 0.6
Total Salary and Wages including overtime and incentive pay			
Total	\$1,361,281	\$1,372,226	\$ 10,945
Total Benefits (Current + Accrued)			
Total	\$ 400,869	\$ 407,230	\$ 6,362
Total Compensation (Salary, Wages, & Benefits)			
Total	\$1,762,150	\$1,779,456	\$ 17,306
Total Compensation Breakdown (Capital, OM&A)			
OM&A	\$1,520,226	\$1,585,406	\$ 65,180
Capital	\$ 241,924	\$ 194,051	-\$ 47,873
Total	\$1,762,150	\$1,779,456	\$ 17,306

Management staff reduction is a result of the elimination of training overlap for the Billing Manager position.

The union staff level was reduced by 0.3 FTE's a result of the Stores Manager quitting after training and the retirement of the previous Stores Manager. This position was combined with the existing stockkeeper due to internal efficiencies and reorganization of work responsibilities. The overall change in total compensation for is in line with the



reduction of FTE count, more overtime and the zero increase in wage rate as there was no collective agreement in place.

Table 11 below summarizes 2021 Actual over 2020 Actual changes:

Table 11
2021 Actual vs 2020 Actual Variance

	2020 Actuals	2021 Actuals	Variance
Number of Employees (FTEs including Part-Time)¹			
Management (including executive)	3.4	3.4	-
Non-Management (union and non-union)	13.1	12.5	- 0.6
Total	16.5	15.9	- 0.6
Total Salary and Wages including overtime and incentive pay			
Total	\$1,372,226	\$1,300,645	-\$ 71,581
Total Benefits (Current + Accrued)			
Total	\$ 407,230	\$ 391,154	-\$ 16,076
Total Compensation (Salary, Wages, & Benefits)			
Total	\$1,779,456	\$1,691,799	-\$ 87,657
Total Compensation Breakdown (Capital, OM&A)			
OM&A	\$1,585,406	\$1,491,700	-\$ 93,706
Capital	\$ 194,051	\$ 200,099	\$ 6,049
Total	\$1,779,456	\$1,691,799	-\$ 87,657

Management staff FTE count did not change from 2020 levels whereas the union FTE count was reduced by 0.6 due to personal leave taken that reduced cost for NOW Inc.. This, coupled with the lack of rate increase because of no new collective agreement and the personal leave, the wages declined in the year.



Table 12 below summarizes 2022 Actual over 2021 Actual changes:

Table 12
2022 Actual vs 2021 Actual Variance

	2021 Actuals	2022 Actuals	Variance
Number of Employees (FTEs including Part-Time)¹			
Management (including executive)	3.4	3.9	0.5
Non-Management (union and non-union)	12.5	12.0	- 0.5
Total	15.9	15.9	-
Total Salary and Wages including overtime and incentive pay			
Total	\$1,300,645	\$1,427,912	\$ 127,267
Total Benefits (Current + Accrued)			
Total	\$ 391,154	\$ 395,055	\$ 3,901
Total Compensation (Salary, Wages, & Benefits)			
Total	\$1,691,799	\$1,822,967	\$ 131,168
Total Compensation Breakdown (Capital, OM&A)			
OM&A	\$1,491,700	\$1,592,802	\$ 101,102
Capital	\$ 200,099	\$ 230,165	\$ 30,066
Total	\$1,691,799	\$1,822,967	\$ 131,168

Management staff FTE count increased from 2021 level because of the pending retirement of the Billing Manger. The new Billing Manager was hired from the union employees. Both Billing Mangers were employed at year end.

The union FTE count was reduced by 0.5 as a result of the loss of a senior Powerline technician that quit to go to a competing utility, additionally there was a delay in the ability to hire the replacement Billing Clerk. This was offset in part by the return of the employee from personal leave the year before. The loss of the Powerline technician began the



difficult task of trying to recruit qualified replacements. The replacement apprentice only lasted a quarter of the way into the 2023 year. The Collective Agreement with the new union came into effect on July 1, 2022. As a result, the union wages began to increase after a long hiatus. The base increase was 6.6% with additional increases for lead hand, acting and standby rates. Overall compensation increased by \$131,168 as a result of the FTE changes and the union contract taking effect.

Table 13 below summarizes 2023 Actual over 2022 Actual changes:

Table 13
2023 Actual vs 2022 Actual Variance

	2022 Actuals	2023 Actuals	Variance
Number of Employees (FTEs including Part-Time)¹			
Management (including executive)	3.9	4.4	0.5
Non-Management (union and non-union)	12.0	11.7	- 0.3
Total	15.9	16.1	0.2
Total Salary and Wages including overtime and incentive pay			
Total	\$1,427,912	\$1,517,422	\$ 89,510
Total Benefits (Current + Accrued)			
Total	\$ 395,055	\$ 432,420	\$ 37,365
Total Compensation (Salary, Wages, & Benefits)			
Total	\$1,822,967	\$1,949,843	\$ 126,876
Total Compensation Breakdown (Capital, OM&A)			
OM&A	\$1,592,802	\$1,761,026	\$ 168,224
Capital	\$ 230,165	\$ 188,817	-\$ 41,348
Total	\$1,822,967	\$1,949,843	\$ 126,876

Management staff FTE count increased by 0.5 FTE from 2022 as a result of the retirement of the General Manger. There was overlap in the pay for the new General Manager and



1 previous General Manager. This was partially offset by the elimination of the Executive
2 Assistant who left employment. Additionally, the retiring Billing Manager had to stay on as
3 a result of the many projects in the industry, notably the Green Button implementation.

4
5 The union FTE count was reduced by 0.3 as a result of the inability to replace a senior
6 Powerline technician that quit to go to a competing utility in 2022. NOW Inc. had 2
7 replacements hired for the vacancy quit in 2023 and go to competing companies. The third
8 hired replacement that began in 2023 quit early into 2024 to work for an area contractor.
9 Additionally in the year, an existing Powerline technician went on personal leave for more
10 than half the year. An additional Billing/General clerk was hired due to the increasing
11 demand in regulation and lack of resources. There was no ability to effectively complete
12 the work when there was an absence from the office for any leaves. The overall
13 compensation increase of \$126,876 is consistent with the FTE's change along with the full
14 year impacts of the union contract being in effect for 2023.

15



Table 14 below summarizes 2024 Bridge Year over 2023 Actual changes:

Table 14
2024 Bridge Year vs 2023 Actual Variance

	2023 Actuals	2024 Bridge Year	Variance
Number of Employees (FTEs including Part-Time)¹			
Management (including executive)	4.4	3.0	- 1.4
Non-Management (union and non-union)	11.7	16.2	4.5
Total	16.1	19.2	3.1
Total Salary and Wages including overtime and incentive pay			
Total	\$1,517,422	\$1,699,634	\$ 182,212
Total Benefits (Current + Accrued)			
Total	\$ 432,420	\$ 505,184	\$ 72,764
Total Compensation (Salary, Wages, & Benefits)			
Total	\$1,949,843	\$2,204,818	\$ 254,975
Total Compensation Breakdown (Capital, OM&A)			
OM&A	\$1,761,026	\$2,039,882	\$ 278,856
Capital	\$ 188,817	\$ 164,936	-\$ 23,881
Total	\$1,949,843	\$2,204,818	\$ 254,975

Management staff FTE count decreased by 1.4 FTE from 2023 as a result of the retirement of the General Manager and Billing Manager who left the payroll by the end of 2023. As a result the compensation for management has reduced.

The union FTE count has increased by 4.5 FTE as a result of the need to increase the Powerline Technician complement. 3.5 FTE increased in 2024 vs 2023, of that 0.52 of an FTE was the return of an existing Powerline technician who was on personal leave. An incremental FTE was added in the most remote service area that has had historic standby



issues and high turnover; another employee was hired to replace the apprentice lost in 2023 that was to replace the initial lost Powerline technician from 2022. Another FTE was added to the Iroquois Falls crew to train and bolster the need for potential retirements. 0.5 FTE was added in 2024 for an additional staff to the Cochrane crew as a result of the internal reorganization for the outside crew. All these staff members are hired as of July 1, 2024, and are filling critical roles within the utility. If these were not added, safety and reliability would be put at risk. The increase in wages is a consistent with the net increase in FTE's filling critical roles within the utility.

Table 15 below summarizes 2025 Test Year over 2024 Bridge Year changes:

Table 15
2025 Test Year vs 2024 Bridge Year Variance

	2024 Bridge Year	2025 Test Year	Variance
Number of Employees (FTEs including Part-Time)¹			
Management (including executive)	3.0	3.0	-
Non-Management (union and non-union)	16.2	16.6	0.4
Total	19.2	19.6	0.4
Total Salary and Wages including overtime and incentive pay			
Total	\$1,699,634	\$2,004,573	\$ 304,939
Total Benefits (Current + Accrued)			
Total	\$ 505,184	\$ 588,011	\$ 82,827
Total Compensation (Salary, Wages, & Benefits)			
Total	\$2,204,818	\$2,592,584	\$ 387,766
Total Compensation Breakdown (Capital, OM&A)			
OM&A	\$2,039,882	\$2,359,799	\$ 319,917
Capital	\$ 164,936	\$ 232,785	\$ 67,849
Total	\$2,204,818	\$2,592,584	\$ 387,766



1 Management staff FTE count is anticipated to be consistent with 2024. New benefit
2 additions include the increase in CPP as well as other statutory provisions that are
3 included in the forecasts for both management and union employees.

4
5 The union FTE count is anticipated to increase by 0.4 FTE as a result of the full year
6 impact of the Powerline Technicians hired in 2024. The increase in wages is a result of
7 the increase in FTE count in the highest paying union positions. Additionally, NOW Inc.
8 will be undertaking collective bargaining to be effective in 2025 and has included estimates
9 to help ensure that NOW Inc. is competitive and can retain current staff and being able to
10 attract future staff. It is essential that the high turnover of NOW Inc. skilled staff stop
11 occurring as it jeopardizes safety, reliability and efficiency for the organization and
12 customers. Overall compensation is expected to increase by \$387,766 as a result of the
13 above-mentioned factors.

14
15 The pension rate charged by OMERS of which NOW Inc. is a member has been stable
16 since 2017. As a result, and the good standing of OMERS, it is anticipated that this
17 contribution rate will remain unchanged for the 2025 Test Year. The contribution rates will
18 however change effective January 1, 2027.

19
20 **Table 16** below shows the pension contribution rate has been stable since 2017.
21



1
2

3
4
5

Table 16
Pension Contribution Rate

	YMPE	NRA 65 Up to YMPE	over YMPE
2027	74,852	8.6%	15.7%
2026	72,672	9.0%	14.6%
2025	70,555	9.0%	14.6%
2024	68,500	9.0%	14.6%
2023	66,600	9.0%	14.6%
2022	64,900	9.0%	14.6%
2021	61,600	9.0%	14.6%
2020	58,700	9.0%	14.6%
2019	57,400	9.0%	14.6%
2018	55,900	9.0%	14.6%
2017	55,300	9.0%	14.6%
	Estimate		



Northern Ontario Wires Inc.
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Tab 4
Schedule 2
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Attachment 1 (of 2):

OEB Appendix 2-K

File Number: EB-2024-0046
Exhibit: 4
Tab: 4
Schedule: 2
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TO BE UPDATED AT THE DRAFT RATE ORDER STAGE

Appendix 2-K Employee Costs

	Last Rebasing Year 2017 - OEB Approved	Last Rebasing Year (2017 Actuals)	2018 Actuals	2019 Actuals	2020 Actuals	2021 Actuals	2022 Actuals	2023 Actuals	2024 Bridge Year	2025 Test Year
Number of Employees (FTEs including Part-Time)¹										
Management (including executive)	3.5	3.5	3.5	3.7	3.4	3.4	3.9	4.4	3.0	3.0
Non-Management (union and non-union)	12.2	13.2	12.5	13.4	13.1	12.5	12.0	11.7	16.2	16.6
Total	15.7	16.7	16.0	17.1	16.5	15.9	15.9	16.1	19.2	19.6
Total Salary and Wages including overtime and incentive pay										
Management (including executive)										
Non-Management (union and non-union)	\$ 1,270,914	\$ 1,266,305	\$ 1,286,196	\$ 1,361,281	\$ 1,372,226	\$ 1,300,645	\$ 1,427,912	\$ 1,517,422	\$ 1,699,634	\$ 2,004,573
Total	\$ 1,270,914	\$ 1,266,305	\$ 1,286,196	\$ 1,361,281	\$ 1,372,226	\$ 1,300,645	\$ 1,427,912	\$ 1,517,422	\$ 1,699,634	\$ 2,004,573
Total Benefits (Current + Accrued)										
Management (including executive)										
Non-Management (union and non-union)	\$ 376,266	\$ 366,795	\$ 370,892	\$ 400,869	\$ 407,230	\$ 391,154	\$ 395,055	\$ 432,420	\$ 505,184	\$ 588,011
Total	\$ 376,266	\$ 366,795	\$ 370,892	\$ 400,869	\$ 407,230	\$ 391,154	\$ 395,055	\$ 432,420	\$ 505,184	\$ 588,011
Total Compensation (Salary, Wages, & Benefits)										
Management (including executive)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Management (union and non-union)	\$ 1,647,180	\$ 1,633,100	\$ 1,657,088	\$ 1,762,150	\$ 1,779,456	\$ 1,691,799	\$ 1,822,967	\$ 1,949,843	\$ 2,204,818	\$ 2,592,584
Total	\$ 1,647,180	\$ 1,633,100	\$ 1,657,088	\$ 1,762,150	\$ 1,779,456	\$ 1,691,799	\$ 1,822,967	\$ 1,949,843	\$ 2,204,818	\$ 2,592,584
Total Compensation Breakdown (Capital, OM&A)										
OM&A	\$ 1,471,615	\$ 1,374,285	\$ 1,390,839	\$ 1,520,226	\$ 1,585,406	\$ 1,491,700	\$ 1,592,802	\$ 1,761,026	\$ 2,039,882	\$ 2,359,799
Capital	\$ 175,565	\$ 258,815	\$ 266,250	\$ 241,924	\$ 194,051	\$ 200,099	\$ 230,165	\$ 188,817	\$ 164,936	\$ 232,785
Total	\$ 1,647,180	\$ 1,633,100	\$ 1,657,088	\$ 1,762,150	\$ 1,779,456	\$ 1,691,799	\$ 1,822,967	\$ 1,949,843	\$ 2,204,818	\$ 2,592,584

Note:

1. If an applicant wishes to use headcount, it must also file the same schedule on an FTE basis.
2. If Management includes employees in a bargaining unit, this should be disclosed separately for the test year.



Northern Ontario Wires Inc.
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Exhibit 4
Tab 4
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Attachment 2 (of 2):

Actuarial Report



March 12, 2024

Geoff Sutton
Chief Financial Officer
Northern Ontario Wires Inc.
153 Sixth Avenue
Cochrane, ON P0L 1C0

sent by email only

Dear Geoff:

Re: Northern Ontario Wires Inc. Post-Employment Benefits Accounting (revised)

Note: This report replaces our report dated February 29, 2024.

Northern Ontario Wires Inc. (the "Corporation") has retained the services of Mondelis Corporation to perform a valuation of post-employment benefits as at December 31, 2023. The results have been prepared in accordance with our understanding of International Financial Reporting Standards ("IFRS").

In accordance with instructions provided, results for certain employees of Northern Ontario Wires (NOW), have been excluded from this report, and disclosed in the Fiscal 2023 report for the Town of Cochrane under the IT Manager and General Utilities groups instead.

This document contains the accounting results to be disclosed in the December 31, 2023 financial statements as well as a projection for fiscal years 2024 and 2025.

SUMMARY OF RESULTS

The following table summarize the results for fiscal year 2023.

	Fiscal 2023
	\$
Net periodic benefit cost	██████
Total effects recognized as OCI	██████
Total cost recognized	██████
Financial position – Dec 31, 2023	
Benefit obligation	██████
Fair value of plan assets	—
Funded (unfunded) status	██████
Accrued Benefit Asset/(Liability) – Dec 31, 2023	██████

BENEFIT OBLIGATION AS AT DECEMBER 31, 2023

Extended Health	██████
Dental	██████
Life	██████
Total	██████

Benefit obligation is based on a discount rate of 4.6%.

RECONCILIATION OF BENEFIT OBLIGATION

Benefit Obligation at December 31, 2023 – before assumption changes and experience (2.5% discount rate)	██████
Change in membership demographics	██████
Claim costs experience	██████
Change in discount rate assumption	██████
Benefit Obligation Dec 31, 2023 (4.6% discount rate)	██████

ASSUMPTIONS AND METHODS**Actuarial Assumptions**

	Fiscal 2023
Economic Factors	
Discount rate for calculation of Fiscal 2023 Benefit Expense	2.5%
Discount rate for calculation of December 31, 2023 disclosures and estimate of Fiscal 2024 and Fiscal 2025 Benefit Expense	4.6%
Salary Increase Rate	████ per year
Dental Cost Trend Rates	4.0% per year
Extended Health Care Trend Rates	5.5% in 2025; decreasing to an ultimate rate of 4.0% per year over 15 years
Demographic Factors	
Retirement age	Later of age 60 and age that employee will attain 30 years of service
Mortality	Canadian Pensioners' Mortality Table Public Sector projected on a generational basis using CPM Improvement Scale B (CPM2014Publ)
Termination of employment	Ontario Medium Termination Rates for actives under age 55
Disability	No provision for future disability was made.
Loadings - Sales tax - Life Insurance expenses	8.0% 10.0%
Age difference between retiree and spouse	Female spouse is assumed to be 3 years younger
Members electing coverage at retirement	100%
Percentage electing family coverage	
Current retirees	Current elected coverage
Future retirees	80%

In the table above, all rates and percentages are annualized unless otherwise noted.

Discount Rate used under IFRS

A discount rate of 4.6% per year is used to determine the value of obligations at December 31, 2023; this is the single rate which equates to values determined using the CIA-Fiera Capital spot rate yield curve in effect at that date.

Actuarial Methods

The following list outlines the methods that have been used to value the plan for accounting purposes.

- the benefit obligation and the current service cost were calculated using the projected benefit method pro-rated on service.
- the attribution period is from the date of hire to the date employee is first eligible for post-employment benefits.

Claims Costs

Claims costs for extended health and dental benefits were based on 2024 monthly premium rates provided by the Corporation as follows (including taxes):

	Extended Health	Dental
Single	148.63	63.20
Family	381.70	196.45

MEMBERSHIP

We have based our valuation on membership data effective December 31, 2023 as supplied by the Corporation. Member demographics are summarized in the following table:

Number of employees	█
Average age	██
Average service	██
Average earnings	████
Number of retirees	█
Average age	██
Average life insurance	████

PLAN PROVISIONS

The following summarizes the provisions of the plan for retiree benefit coverage. The summary is based on information provided by the Corporation.

Benefits	Extended Health and Dental Life Insurance 50% of earnings at retirement, reducing by 2.5% of earnings per year to an ultimate benefit of 25% of pre-retirement earnings
Eligibility	Full-time employees that retire from active service with a minimum of 30 years of service
Coverage Period	Extended health and dental to age 65, ultimate life insurance amount is for the lifetime of the retiree
Survivor Coverage	To age 65
Retiree cost share (as % of premium)	0%

CERTIFICATION

I confirm the following:

- The plan's benefits are defined benefits for purposes of IFRS.
- The valuation and extrapolations thereof were performed in accordance with the standards of the Canadian Institute of Actuaries. The financial statement items resulting from this valuation and extrapolations were determined in accordance with my understanding of IFRS.
- The results were prepared using the Corporation's best-estimate assumptions as at December 31, 2023.
- I am not aware of any events subsequent to December 31, 2023 which, in my opinion, would have a material impact on the results of the valuations and extrapolations.
- I am a member in good standing of the Canadian Institute of Actuaries. I understand that this report will be used for audit evidence and may be relied on under the terms of the Joint Policy Statement approved by the Actuarial Standards Board (Canada) and the Auditing and Assurance Standards Board (Canada) as described in Section 1520 of the Canadian Institute of Actuaries Standards of Practice.
- I am, and Mondelis Corporation is, independent with respect to the Corporation.
- The data upon which this valuation is based are sufficient and reliable for the purposes of the valuation and extrapolations.
- This report has been prepared, and my opinion given, in accordance with generally accepted actuarial practice.

Emerging experience differing from assumptions will result in gains and losses which will be recognized in future valuations.

Please let me know if you have any questions.

Sincerely,



Rick Johnston
Fellow, Society of Actuaries
Fellow, Canadian Institute of Actuaries
rick.johnston@mondelis.com
226.336.8962

Att.

APPENDIX A: NORTHERN ONTARIO WIRES INC. – IFRS EXHIBITS**NOW – IFRS**

Fiscal period ending December 31 in

Division

Discount Rate

At start of period

At end of period

Interest rate on assets

2023

NOW

Projected

2024

NOW

Projected

2025

NOW

2.5%

4.6%

0.0%

4.6%

4.6%

0.0%

4.6%

4.6%

0.0%

Reconcile Obligation

Obligation at start of period

Plan improvements in period

Current service accrual cost

Benefit payments

Interest on obligation

Obligation at end of period

Actual obligation at end of period

Total (Gains) & Losses

Reconcile Plan Funds

Fund at start of period

Company contributions

Benefit payments

Interest on fund

Expected fund at end of period

Actual fund at end of period

(Gains) & Losses

Balance Sheet Asset (Liability)

Asset/(Liability) at start of period

Adjustment to obligation at start of period

Gain/(loss) recognized

Income/(Expense) in period

Company contributions

Asset/(Liability) at end of period

Reconcile Balance Sheet Asset to Funded Status

Funded Status - Surplus/(Deficit) at end of period

Unamortized transition (asset)

Unamortized prior service costs

Unamortized (gains) & losses

Prepaid (Accrued) Liability

NOW – IFRS		Projected	Projected
Fiscal period ending December 31 in	2023	2024	2025
Division	NOW	NOW	NOW
Amounts recognized in accumulated other comprehensive income:			
Net actuarial loss/(gain)	██████████	██████████	██████████
Prior service cost/(credit)	██████████	██████████	██████████
Transition obligation/(asset)	██████████	██████████	██████████
Total	██████████	██████████	██████████
Components of Net Periodic Pension Cost and other amounts recognized on other comprehensive income			
Current service cost	██████████	██████████	██████████
Interest on obligation	██████████	██████████	██████████
Interest on assets	██████████	██████████	██████████
Amortize transition amount	██████████	██████████	██████████
Amortize prior service cost	██████████	██████████	██████████
Amortize gains and losses	██████████	██████████	██████████
Net periodic benefit cost	██████████	██████████	██████████
Other changes recognized in other comprehensive income			
Net loss (gain)	██████████	██████████	██████████
Prior service cost (credit)	██████████	██████████	██████████
Amortize transition amount	██████████	██████████	██████████
Amortize prior service cost	██████████	██████████	██████████
Amortize gains and losses	██████████	██████████	██████████
Total recognized in other comprehensive income	██████████	██████████	██████████
Total recognized in net periodic benefit cost and other comprehensive income	██████████	██████████	██████████
Impact of 1% change in discount rate			
Actual obligation at end of period	██████████		
Change in obligation for 1% decrease in discount rate	██████████		
Change in obligation for 1% increase in discount rate	██████████		
Expected benefit payments			
in 1st year following fiscal year	██████████		
in 2nd year following fiscal year	██████████		
in 3rd year following fiscal year	██████████		
in 4th year following fiscal year	██████████		
in 5th year following fiscal year	██████████		
in 6th through 10th years following fiscal year	██████████		



SHARED SERVICES & CORPORATE COST ALLOCATIONS

SERVICES PROVIDED BY THE CORPORATION OF THE TOWN OF COCHRANE GENERAL UTILITIES (TOC GU) TO NOW INC.

The Shared Services Agreement between TOC GU and NOW Inc. (E4/T4/S3/Att2) enables NOW Inc. to receive comprehensive business support from the town including operations staff, HR, IT functions, and purchasing power on joint services. This cost sharing arrangement is beneficial to NOW Inc. as the services help drive efficiencies for the organization. There are no material variances to the services from the last approved OEB approved rebasing application to the test year.

TOC GU Labour Resources Allocation Methodology

Powerline technicians and billing clerks are charged based on actual time worked to NOW Inc.. Powerline technicians provide a daily timesheet to indicate where their costs are to be coded.

Labour costs for six administrative and support services employees are also allocated to NOW Inc. These positions allocate time to each affiliate based on actual time spent to ensure that there is no cross subsidization. The payroll system then allocates the fully burdened costs to the appropriate general ledger account.

Office Rent and Service Centre Rent

NOW Inc. continues to share a service center and administrative building with Cochrane Telecom Services. This administration building is owned by Cochrane Telecom Services and the service center is owned by the Corporation of the Town of Cochrane. Annual rental charge is allocated to NOW Inc. based on square footage occupied and usage of the facilities by NOW Inc.



1
2 NOW Inc. is allocated 50% of actual costs of operating and maintaining the
3 administration building (referred to as Office Rent). Office rent costs include building
4 operations, maintenance and annual depreciation, and shared computer hardware and
5 software costs (including general ledger, payroll and inventory).

6
7 NOW Inc. is allocated 50% of actual costs of operating and maintaining the service
8 centre (referred to as Service Centre Rent) based on square footage occupied and
9 usage of the facilities by NOW Inc. This has increased from 35% based on the additional
10 needs driven by NOW Inc.

11
12 In total in 2025, CTS and ToC General Utilities are forecast to provide NOW Inc. with
13 \$46,538 and \$2,102,433 of direct service charges. Historical years are summarized in
14 OEB Appendix 2-N Shared Services Corporate Cost Allocation (E4/T4/S3/Att1).

15
16 **SERVICES PROVIDED BY NOW INC. TO CTS**

17
18 As of the end of 2022, the Executive Assistant position was vacated and associated
19 responsibilities were transferred to the NOW Inc. Chief Financial Officer, Billing Manger
20 and Accounts Payable/Payroll Clerk. In 2025, services provided by NOW Inc. to CTS are
21 forecast to be \$0. Historical years are summarized in OEB Appendix 2-N Shared
22 Services Corporate Cost Allocation (E4/T4/S3/Att1).



**SERVICES BY NORTHERN ONTARIO WIRES INC. TO NORTHERN ONTARIO
ENERGY INC. (NOE Inc.)**

NOE Inc. is 100% owned by the Corporation of the Town of Cochrane. It has a separate Board of Directors. The General Manager and Chief Financial Officer for NOW Inc. provide basic oversight and financial services for NOE Inc. The General Manager and CFO allocate time spent on NOE Inc. activity as it is performed. Truck time and equipment rentals are also charged to NOE for use. Forecast costs to be charged are \$12,000 in 2025. Historical years are summarized in OEB Appendix 2-N Shared Services Corporate Cost Allocation (E4/T4/S3/Att1).

**CORPORATE COST ALLOCATION FROM NORTHERN ONTARIO WIRES INC. TO
THE CORPORATION OF THE TOWN OF COCHRANE (ToC)**

NOW Inc. charges rent for the shared usage of the TGB infrastructure. The ToC began using Sensus water meters and the water reads are provided by a shared vendor using NOW Inc. infrastructure. NOW Inc. charges the actual cost for the Base Station Services provided by the third party. These costs are unavoidable to NOW Inc. if the ToC stopped using Sensus. The forecasted charges for 2025 as estimated to be \$20,345. Historical years are summarized in OEB Appendix 2-N Shared Services Corporate Cost Allocation (E4/T4/S3/Att1).

MANAGEMENT FEE

Direct labour and facility costs charged by TOC GU to NOW Inc. are subject to a 12% Management Fee. The Management Fee includes TOC costs associated with management and supervision of support staff, labour relations, human resources and other costs not directly charged to NOW Inc.



SHARED SERVICES VARIANCE ANALYSIS

The following table summarizes the variances for shared services and corporate cost allocation.

Table 1
Shared Services Variance Summary

Service Offered			2017 OEB Approved	2023 Actual	2025 Test Year	2025 TY vs. 2017 OEB Appr.	2025 TY vs. 2023 Actual	
Shared Services:								
	From:	To:						
	ToC GU	NOW Inc.	Wages and Benefits	1,189,978	1,303,059	1,856,172	666,194	553,113
	CTS	NOW Inc.	Office Rental	27,295	41,634	46,538	19,243	4,904
	ToC GU	NOW Inc.	Service Centre Rental	25,214	20,703	21,000	(4,214)	297
	NOW Inc.	NOE Inc.	Truck/Eq. Rental	9,872	9,167	10,000	128	833
	NOW Inc.	NOE Inc.	Wages and Benefits	3,897	835	2,000	(1,897)	1,165
	NOW Inc.	CTS	Wages and Benefits	52,676	-	-	(52,676)	-
Corporate Cost Allocation								
	From:	To:						
	NOW Inc.	ToC	Tower Rental	-	18,178	13,179	13,179	(4,999)

Variance Explanations

2025 TY vs. 2017 OEB Approved

- Wages and Benefits purchased from the Town of Cochrane (General Utilities) are \$666,194 higher due to an increase in the number of staff (15.7 FTE to 19.6 FTE) in support of billing and collecting and outside operations staff, as well as an increase in wages due to inflation
- Rental of office space from CTS is \$19,243 higher due to general escalation in shared costs due to inflation
- Rental of Service Centre space is \$4,214 lower due to reduced shared costs for service centre upkeep
- Truck rental charges to NOE Inc. were essentially on plan
- Wages and Benefits charged to NOE Inc. are \$1,897 lower due to reduced chargeable time spent on NOE Inc. work
- Wages and Benefits charged to CTS are \$52,676 lower due to the elimination of support provided to CTS



1 - Tower rental received from the Town of Cochrane are \$13,179 higher as arrangement
2 was not in place at last Cost of Service

3
4 **2025 TY vs. 2023 Actual**
5

6 - Wages and Benefits purchased from the Town of Cochrane (General Utilities) are
7 \$553,113 higher due to an increase in the number of staff (16.1 FTE to 19.6 FTE) in
8 support of billing and collecting and outside operations staff, as well as an increase in
9 wages due to inflation

10 - Rental of office space from CTS is \$4,904 higher due to general escalation in shared
11 costs due to inflation

12 - Rental of Service Centre space is \$297 higher (essentially the same)

13 - Truck rental charges to NOE Inc. are \$833 higher due to general escalation due to
14 inflation

15 - Wages and Benefits charged to NOE Inc. are \$1,165 higher due to expected increase
16 in support provided NOE Inc. work

17 - Tower rental received from the Town of Cochrane are \$4,999 due to lower estimate



Northern Ontario Wires Inc.
Filed: August 30, 2024
EB-2024-0046
Exhibit 4
Tab 4
Schedule 3
Attachment 1
Page 1 of 1

Attachment 1 (of 2):

OEB Appendix 2-N

Page: 2

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Date: 30-Aug-24

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Northern Ontario Wires Inc.
Filed: August 30, 2024
EB-2024-0046
Exhibit 4
Tab 4
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Attachment 2
Page 1 of 1

Attachment 2 (of 2):

***Services Agreement with The Corporation of the Town
of Cochrane***

SERVICES AGREEMENT

THIS AGREEMENT made as of the 1st day of November, 2000.
REVISED January 1, 2016 and as of June 26th, 2020.

BETWEEN:

NORTHERN ONTARIO WIRES INC.,
a business corporation governed by
the laws of the Province of Ontario

("NOW")

OF THE FIRST PART

-and-

NORTHERN ONTARIO ENERGY INC.,
a business corporation governed by
the laws of the Province of Ontario

("NOE")

OF THE SECOND PART

-and-

THE CORPORATION OF THE TOWN OF COCHRANE,

Governed under the laws of the Province of Ontario

("TOC")

OF THE THIRD PART

RECITALS:

- A. The Corporation of the Town of Cochrane and the Corporation of the Town of Iroquois Falls entered into a Merger Agreement dated October 27, 2000, pursuant to which they established the terms and conditions upon which each Town would merge the businesses of the electricity portion of the Cochrane Public Utilities Commission and the Iroquois Falls Hydro-Electric Commission.
- B. The Town of Cochrane and the Town of Iroquois Falls created NOW and NOE (collectively the "Corporations") and transferred to the Corporations pursuant to transfer by-laws substantially all of the assets and liabilities of each Town, the Iroquois Falls Hydro-Electric Commission and the electricity portion of the Cochrane Public Utilities

Commission associated with the generation, distribution, transmission and retailing of electricity and associated businesses.

- C. Section 6 of the said Merger Agreement provided that NOW and NOE did enter into a services agreement with the Cochrane Public Utilities Commission, pursuant to which the Cochrane Public Utilities Commission did agree to carry out substantially all of the day-to-day activities of NOW and NOE, including the operations, administration and operational support of NOW and NOE. In 2003, the Cochrane Public Utilities Commission changed its name to Cochrane Telecom Services of the Corporation of the Town of Cochrane.
- D. As of July 31st, 2020 this agreement will be reassigned from Cochrane Telecom Services of the Corporation of the Town of Cochrane (CTS) directly to the Corporation of the Town of Cochrane (TOC). CTS is released from offering Managed Services to NOE. The Corporation of the Town of Cochrane (TOC) will take over this agreement. NOE accepts this reassignment. ^{① and NOW)}
- E. NOW and NOE require the services of a contractor to provide certain management services to NOW and NOE;
- F. In 2007 NOW created its own management team, wherein all outside personnel listed in Schedule "A" of the Collective Agreement as "Electrical Department" are now under the direct supervision of a NOW manager.
- G. Notwithstanding Section F, NOW and NOE wish to now appoint the TOC to provide certain management services to NOW and NOE, and the TOC wishes to accept such appointment, upon and subject to the terms and conditions set forth in this Agreement;

NOW THEREFORE THIS AGREEMENT WITNESSES THAT in consideration of the fees, other payments and mutual covenants provided for in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is acknowledged by each of the Parties, the Parties covenant and agree as follows:

1. INTERPRETATION

Words or phrases defined in Schedule "A" to this Agreement shall have the meaning ascribed to them in that Schedule unless the context expressly or by necessary implication otherwise requires. In this Agreement, where the context so admits, words importing the singular include the plural and vice-versa and words importing gender include all genders.

2. APPOINTMENT OF TOC

2.1 Appointment by NOW and NOE

NOW and NOE appoint the TOC to provide certain management services to NOW and NOE upon and subject to the terms and conditions of this Agreement.

2.2 Acceptance by TOC

TOC accepts its appointment to provide certain management services to NOW and NOE upon and subject to the terms and conditions of this Agreement.

2.3 TOC a Municipality

Nothing in this Agreement shall be construed as or shall constitute a partnership or joint venture between the TOC and the Corporations and each Party expressly disclaims any intention to create a partnership or joint venture. Except as otherwise expressly provided in this Agreement, the duties to be performed and the obligations assumed by the TOC under this Agreement shall be performed and assumed by TOC as a municipality and not as the agent or otherwise as the representative of the Corporations. The Corporations acknowledge and agree that the operations of the TOC includes the management of the business affairs of TOC and that this Agreement shall not be construed as in any way restricting the business of the TOC.

3. REPRESENTATION AND WARRANTY BY TOC

The TOC represents and warrants that it has, and throughout the Term will continue to have, the required expertise, skill, personnel and experience to fulfill its obligations and duties under this Agreement. The TOC acknowledges and agrees that the Corporations are relying on the truthfulness and accuracy of this representation and warranty in entering into this Agreement.

4. TERM

4.1 Initial Term

This Agreement, and the appointment of the TOC, shall commence on the 1st day of August, 2020 and, subject to early termination in accordance with the provisions of Article 9, shall continue for a term of five (5) years until the 31st day of July, 2025 (the "Term").

4.2 Renewal

This Agreement may be renewed by NOW and/or NOE after the initial five (5) year term for successive renewal terms of five (5) years upon NOW and NOE giving written notice to the TOC to that effect at least one (1) year prior to the termination of the initial term or renewal term, as the case may be. The Management Fees payable hereunder for any renewal term shall be negotiated and agreed to by the Corporations and the TOC prior to the commencement of such renewal term, failing which the matter shall be referred to arbitration in accordance with the provisions of section 10 hereof.

5. DUTIES OF TOC

5.1 Standard of Performance of TOC

The TOC shall perform and carry out all its obligations and duties under this Agreement honestly, in good faith, competently, efficiently, with due care and attention and in a business-like manner. The TOC shall make appropriate employees of the TOC available to the Corporations from time

to time as is necessary to discharge TOC's management and administration responsibilities under this Agreement. The TOC shall select employees that are suitable and qualified to perform the acts or provide the services for which they are appointed or retained by the TOC and TOC shall properly supervise all such employees, provided that NOW or NOE shall have the right to notify the TOC that any such employee selected by TOC and providing senior management services is not acceptable to NOW or NOE, in which case TOC shall not utilize such employee in providing services to NOW or NOE pursuant to this Agreement and shall provide alternate personnel to perform such services.

5.2 General Duties and Obligations of TOC

5.2.1 Management and Administration

Upon and subject to the terms of this Agreement and, in particular, but without limitation, Section 5.1 and Article 6, the TOC shall administer and manage aspects of the day-to-day operations of NOW and NOE that are not administered directly by NOW staff.

5.2.2 Value Enhancement Strategies

The TOC shall develop for review and consideration by the Corporations and advise the Corporations with respect to strategies, opportunities, policies and programs for the development and improvement of the operations of the Corporations. Such advice will be submitted by TOC to the Boards of Directors of NOW and NOE, as applicable.

5.3 Specific Duties and Obligations of TOC

The specific duties and obligations of the TOC, under this Agreement shall include, without limiting Section 5.2, the following:

5.3.1 Administrative Services

Provide budgetary, accounting, billing, collecting, payroll and financial services, including assisting the Corporations in their financial planning.

5.3.2 Management Services

Carry out invoicing and collection of accounts for customers of the Corporations; respond to customer concerns and complaints; provide such marketing services, as are deemed advantageous by the Corporations; provide management of the human resources activities of the Corporations; provide information systems and system analysis services; ensure that payments in lieu of taxes are properly calculated and paid on time. A detailed description of these services is set forth in Schedule "B" hereto.

5.3.3 Collections

It is agreed that, that the TOC shall maintain a separate cash and transaction journal to record daily payments received from customers and applied to customer accounts.

5.4 Personnel

5.4.1 Required Personnel

The TOC shall engage employees and properly instruct all personnel as may be required for the satisfactory performance of the joint responsibilities under this Agreement.

5.4.2 Responsibility for Personnel

All of the personnel required to provide management services hereunder shall be employees of the TOC. The remuneration of all of TOC's personnel shall be solely for the account of TOC.

5.4.3 Compliance With Laws

The TOC, NOW and NOE shall at all times comply with all applicable collective agreements and other applicable employment standards, occupational health and safety, Highway Traffic Act, workers' compensation and human rights legislation relating to employees and personnel working at the Corporations.

5.4.4 Disclosure

At the request of NOW or NOE, the TOC shall provide the Corporations with any and all information and documentation relating to the employees of the TOC working at NOW or NOE.

5.4.5 Utilization of Others

For greater certainty, the parties hereby expressly agree that in providing the Management services hereunder TOC may utilize the advice and assistance and may engage the services of such other firms, professionals, persons or third parties, as it may reasonably determine necessary or appropriate and the costs and expenses of such services shall, without duplication, be recoverable from the Corporations in accordance with the provisions of this Agreement, provided, however, that the TOC shall be liable for the acts and omissions of such third parties.

5.5 Conduct of Work

5.5.1 The TOC agrees that when performing its services in connection with this Agreement, that it shall ensure:

- (a) that its services to the Corporations are in compliance with all of the applicable requirements of the Energy Competition Act, 1998, the Independent Electricity System Operator ("IESO") and of the OEB, including the Affiliate Relationship Code for Electricity Distributors and Transmitters issued by the OEB and any amendments or additions thereto;

- (b) that sharing personnel and information between NOW and NOE will not disadvantage potential or actual competitors of NOW, thereby placing NOW at risk of violation of the OEB's Affiliate Relationship Code for Electricity Distributors and Transmitters.
- (c) that its employees, contractors and subcontractors are Qualified;
- (d) that safe working practices are used in carrying out the services; and
- (e) that any and all of its employees, workers, agents, contractors and subcontractors and servants, at all times, comply with Applicable Laws including applicable rules of the Electric Utilities Safety Association (EUSA), the Workplace Safety and Insurance Act, 1997 and the Occupational Health and Safety Act and any amendments or additions thereto.

5.5.2 All services shall comply with Applicable Law and be in accordance with Good Utility Practice.

5.6 Changes

NOW or NOE may from time to time request changes in the scope of the services to be performed hereunder by the TOC, and such requests are subject to the following procedure:

- 5.6.1 NOW or NOE shall advise TOC in writing of the desired change or modification;
- 5.6.2 TOC will assess the impact of the desired changes or modifications on the total cost of the services, the time frame for completion and any further areas which, in the opinion of TOC, is likely to be affected by the desired changes;
- 5.6.3 TOC shall notify NOW or NOE, as applicable, in writing of its estimates and shall await instructions from NOW or NOE on whether or not to proceed with the changes or modifications;
- 5.6.4 any changes or modifications which increase the fee to be charged to NOW or NOE hereunder shall be implemented only with the prior written approval of the Board of Directors of NOW or NOE;
- 5.6.5 any increased fee caused by the desired changes or modifications shall be billed to NOW or NOE, as applicable, and are recoverable outside any limit of maximum fees under this Agreement.

6. CONTROL BY THE CORPORATIONS

6.1 General Control by the Corporations

The TOC shall not take any action unless that action:

6.1.1 is authorized by the terms of this Agreement; or

6.1.2 has been approved by NOW or NOE, as applicable,

provided that in the event of an emergency, where NOW or NOE, as applicable, or their duly authorized representatives cannot be reasonably located for the purpose of giving its approval, TOC may take such actions as it reasonably determines if in TOC's opinion the failure to act could:

- (a) result in a hazardous situation which could cause personal injury or damage to property, or
- (b) impair the value of NOW or NOE's investment, as applicable, or
- (c) expose any of the TOC, NOW or NOE, as applicable, to the imposition of penalties, fines, imprisonment or any other liability,

and shall notify the Corporations in writing of any such actions as soon as practicable thereafter.

6.2 The Corporations' Right to Issue Directives

NOW or NOE may, from time to time, at TOC's request or at NOW or NOE's own initiative, issue written directives and instructions and establish written policies and procedures governing the duties and obligations of TOC and the performance by TOC of its duties and obligations under this Agreement and shall provide those directives, instructions, policies and procedures to TOC. The TOC shall at all times act in accordance with such directives, instructions, policies and procedures provided that such directives, instructions and policies shall not oblige TOC to perform any duty or obligation not provided for in this Agreement and shall not have the effect of putting TOC into default under this Agreement.

6.3 Approval of the Corporations

Notwithstanding, and without limiting, any other provisions in this Agreement, TOC in its capacity as manager shall not undertake any of the following matters without the prior approval of NOW or NOE:

6.3.1 those matters specifically identified in this Agreement as requiring the approval of either of the Corporations.

6.3.2 those matters requiring the approval of the IESO or the OEB.

6.4 Approval and Response Time

In the event that approval of NOW or NOE is required pursuant to this Agreement, TOC shall deliver written notice in the manner set forth in section 11.6 setting forth particulars of the matter and requesting approval of NOW or NOE. NOW or NOE shall endeavour to respond to any request by TOC for the approval of NOW or NOE or for the directions or instructions of NOW or NOE within five (5) Business Days, or such other period as is expressly provided for in this Agreement.

7. MANAGEMENT FEES

7.1 Level of Management Fees

- (a) It is acknowledged that NOW is regulated by the OEB and that the management fees payable by NOW will be calculated and paid in accordance with the OEB's regulatory requirements in force from time to time. Currently, such fees must be calculated, at the TOC's long run incremental cost, plus a reasonable mark-up for fixed common costs (the "Mark-up"). The fees that NOE pays the TOC for its services are unregulated, but, because NOE must also make payments in lieu of taxes, management fees must be reasonable for such tax purposes.
- (b) NOW and NOE, as applicable, will pay TOC the cost of the services (as hereinafter defined) and a fee of 12% on items (i), (iv) and (v) of the cost of the services, being a reasonable Mark-up for fixed common costs.
- (c) The cost of the services shall include cost recoveries for:
 - (i) expenditures for wages and for salaries and a reasonable portion of employee future liabilities of outdoor workers, clerks and other personnel of the TOC while engaged in providing services to the Corporations;
 - (ii) expenditures for material used in or required in connection with the performance of the services hereunder;
 - (iii) the cost of all the expendable materials, supplies and tools;
 - (iv) the cost of office and other commercial space utilized in the operations of NOW and NOE; and
 - (v) such other expenditures in connection with the services hereunder as may be approved by NOW or NOE as applicable.
- (d) ~~It is acknowledged by the parties hereto that the reduction of costs by the TOC is a direct benefit to the Corporations because these reductions will be passed through to NOW and NOE. Accordingly, the Corporations and the TOC agree to negotiate in good faith within the six month period after the execution of this Agreement to agree upon a bonus to be earned by TOC as an incentive to the TOC, out of the cost savings passed through to NOW and NOE, for reducing the cost of the services.~~

7.2 Payment

7.2.1 Estimate

Prior to the commencement of each Fiscal Year, NOW, NOE and TOC shall discuss the anticipated services required by the Corporations from TOC for the next Fiscal Year. Each annual budget of the Corporations shall contain an estimate of the Management Fees payable to TOC for the ensuing Fiscal Year based upon the anticipated time to be expended by the TOC's personnel in rendering the services hereunder. The Management Fees for any Fiscal Year (or portion thereof, if such is the case) shall be paid to TOC monthly, in advance, in equal monthly installments, on the basis of the estimate referred to above.

7.2.2 Time Sheets or Estimates

The TOC shall cause its personnel providing services to NOW to maintain daily time sheets or estimates describing the time expended by such personnel of the TOC in rendering the management services and detailing the actual services provided.

7.2.3 Actual Fees

The actual Management Fees for any Fiscal Year shall be calculated by TOC utilizing the time sheets maintained pursuant to Section 7.2.2. The TOC's time charges shall not exceed by more than 10% in any Fiscal Year the Management Fees payable under Section 7.1.1 estimated in the applicable annual budget of the Corporations, without obtaining the prior written approval of the Corporations. Within thirty (30) days after the completion of each Fiscal Year, TOC shall submit a final statement to the Corporations which shall present the management services provided during the prior Fiscal Year, a summary of the time expended by the personnel of TOC, the other items forming part of the cost of the services, the Mark-up charged on the cost of the services and applicable taxes, and state the actual Management Fee payable.

7.2.4 Adjustment

If the amount which has been paid on account of the estimated Management Fees for any Fiscal Year differs from the actual Management Fees, the necessary adjusting payment shall be made by the Corporations or the TOC, as the case may be, within thirty (30) days after the actual Management Fees payable have been determined in accordance with Section 7.2.3.

7.2.5 Records and Audit

- (a) TOC and NOW shall keep complete and accurate documentation supporting the final audited statements. The Corporation, through their representatives, employees, auditors and authorized persons, shall have the right, at the Corporations' expense, to inspect and audit the documentation at any time during the Term and for one (1) year thereafter during reasonable business

hours, for the purpose of determining the sufficiency and accuracy thereof and the final annual statements.

- (b) TOC shall maintain NOW's books in conformity with the OEB's Uniform System of Accounts. These accounts will be summarized and reported to the OEB in accordance with the OEB's requirements, and to NOW for use for its planning activities. If the OEB's requirements for NOW also requires the TOC to keep its books in accordance with the OEB's Uniform System of Accounts, the TOC will comply.

7.2.6 Determination by Auditors

If required, the auditors of the Corporations shall determine the amount paid on account of Management Fees and the actual Management Fees payable by the Corporations. If the Corporations and TOC do not agree with the determination of the auditors of the Corporations, the issue shall be submitted to final and binding arbitration as provided for in the last paragraph of section 10 hereof.

7.3 Expenses

7.3.1 General

Except as otherwise expressly approved by NOW or NOE, TOC shall pay all of its own costs and expenses incurred in fulfilling its obligations under this Agreement.

7.3.2 Travel and Lodging

TOC shall be entitled to be reimbursed, in accordance with its policy, for the travel and lodging expenses it has incurred in the course of providing services under this Agreement.

7.3.3 Invoices for Permitted Expenses

TOC shall provide invoices for all out-of-pocket costs and expenses in respect of which TOC is entitled to be reimbursed together with such supporting materials as may be appropriate.

7.4 Hardship

If, during the Term of this Agreement, a situation arises which is beyond the reasonable anticipation or control of either party and which results in a material disadvantage to one party, the Parties will endeavour in good faith to renegotiate the terms of this Agreement to the end that this Agreement shall operate between the Parties with fairness. The party disadvantaged shall make a request for revision within a reasonable time from the moment it becomes aware of the event and of its effect on the economy of this Agreement. The request shall indicate the grounds on which it is based. The Parties shall then consult one another with a view to revising this Agreement on an equitable basis in order to ensure that neither party suffers excessive prejudice. The request for revision does not of itself suspend performance of this Agreement. If the Parties are unable to agree on the revision to this Agreement within sixty (60) days of the

request, the matter shall be referred to binding arbitration pursuant to Section 10.3 of this Agreement.

8. REPORTS BY TOC

8.1 In furtherance of its obligation to provide management services to the Corporations, TOC shall do the following:

8.1.1 maintain appropriate books of account and records to be maintained at the offices of NOW, with respect to all activities undertaken by TOC in performance of this Agreement.

9. TERMINATION OF TOC' APPOINTMENT

9.1 Event of Default

9.1.1 Notice of Default

If an Event of Default occurs, NOW or NOE, as applicable, may provide a notice to TOC (the "Default Notice") of such Event of Default which shall specify in reasonable detail the Event of Default.

9.1.2 Return Notice

Within five (5) Business Days after delivery by NOW or NOE of the Default Notice, TOC shall provide notice to NOW or NOE which shall specify whether or not TOC believes that it will be reasonably able to cure the Event of Default within thirty (30) days and a proposed timetable and course of action for curing the Event of Default.

9.1.3 Right of Termination

NOW or NOE, as applicable, shall have the right to terminate this Agreement by notice to TOC stating that this Agreement is terminated and the reason for termination if TOC fails to:

- (a) commence diligent efforts to rectify the Event of Default within ten (10) days after the date of receipt by TOC of the Default Notice; or
- (b) either,
 - (i) rectify the Event of Default within thirty (30) days after the date of receipt by TOC of the Default Notice; or
 - (ii) if TOC is not able to rectify the Event of Default within such thirty (30) day period, notwithstanding its diligent efforts to do so, and TOC requests by notice in writing to NOW or NOE, as applicable prior to the expiry of the

thirty (30) day period a longer period to rectify the Event of Default, such longer period to which NOW or NOE may consent in writing prior to the end of the thirty (30) day period, such consent not be unreasonably or arbitrarily withheld.

Such termination shall be effective as of the last day of the month following the month in which the notice of termination is delivered by NOW or NOE to TOC.

9.1.4 Liquidated Damages

If NOW terminates this Agreement pursuant to this section 9.1.1, upon the effective date of such termination, TOC shall pay to NOW or NOE, as applicable, as liquidated damages and not as a penalty an amount equal to the management fees payable by NOW to TOC pursuant to this Agreement for the previous six completed calendar months. The parties acknowledge that in terminating this Agreement by virtue of an Event of Default, NOW or NOE will suffer significant business losses and costs and expenses in searching for and retaining new management services for its business operations. The parties accordingly acknowledge that the amount of the liquidated damages set forth above is a bona fide and reasonable estimate of the damages, costs and expenses which would be incurred by NOW or NOE upon such a termination.

9.2 Termination for Insolvency

The TOC shall forthwith provide written notice to NOW or NOE, as applicable, in the event that an Event of Insolvency occurs, whereupon NOW or NOE, as applicable, may elect, in its sole and unfettered discretion, to terminate this Agreement by notice to TOC stating that this Agreement is terminated. In the event that TOC receives a notice of a petition in bankruptcy, it shall forthwith deliver a copy thereof to NOW or NOE and provide such information with respect thereto as may be required by NOW or NOE, so that NOW or NOE may decide if an Event of Insolvency has occurred.

9.3 Termination by TOC

If NOW or NOE fails to:

9.3.1 Payments

Make any payment which it is obliged to make or provide under this Agreement; or

9.3.2 Directions

Give such directions as were properly requested by TOC for the performance of its obligations under this Agreement in the time provided to give such directions,

The TOC may give written notice to NOW or NOE, as applicable, specifying in reasonable detail the matter complained of. If, in the case of a monetary default, within ten (10) days after receipt of such notice NOW fails to cure the matter complained of, or, in the case of a non-monetary default, if NOW fails to begin to cure such failure within thirty (30) days after receipt of such

notice TOC may terminate this Agreement upon providing written notice to NOW and NOE and the termination of this Agreement shall be effective as of the date which is thirty (30) days after the date on which the notice of termination is given by TOC.

9.4 Obligations on Termination

9.4.1 If this Agreement is terminated, by expiration or otherwise, TOC shall, upon the termination becoming effective:

(a) Deliver Books and Records

deliver to NOW and NOE all records and documents relating to NOW and NOE which are then in the possession or control of TOC;

(b) Vacate

peacefully leave and cause its personnel to peacefully leave any sites of the Corporations and return and cause its personnel to return all keys to the Corporations;

(c) Computer Records

deliver to NOW and NOE a hard copy and an electronic copy of all files and records maintained by TOC with respect to NOW and NOE and that are stored electronically and return to NOW and NOE all records, books, papers, data, notes, memoranda, reports, proposals, software, discs and other electronic or computer data, improvements, drawings, storage, media, manuals, lists, correspondence, specifications, materials or any other documents properly belonging to NOW and NOE, together with any copies or reproductions which have come into TOC's possession prior to or during the term of this Agreement (collectively, the "Computer Records"). TOC shall use its reasonable best efforts to provide the electronic copy in a format which is compatible with NOW's and NOE's electronic data maintenance system. TOC shall ensure that it does not give NOE any information that is the property of NOW and that is not also available to actual or potential competitors of NOW.

(d) Otherwise Assist

otherwise instruct its personnel to promptly provide all reasonable assistance and information requested by NOW and NOE, in order to settle all matters outstanding under this Agreement, and to enable the smooth transition of management of NOW and NOE from TOC to the Corporations or any other TOC appointed by NOW.

9.4.2 If this Agreement is terminated by expiration or otherwise, NOW shall, unless otherwise agreed to by TOC, upon the termination becoming effective:

- (a) offer employment to those employees of TOC who have provided substantial services hereunder to NOW (the "Employees") as determined by TOC acting reasonable on substantially the same terms of employment as enjoyed by the Employees on the effective date of termination of this Agreement; or
- (b) designate to TOC those Employees which NOW does not wish to employ, whereupon TOC shall terminate the employment of such designated Employees and NOW shall be responsible for and immediately pay to TOC all termination and other severance costs incurred by TOC in relation to any such terminations of employment.

9.5 Rights on Termination

Any termination of this Agreement shall terminate all rights and obligations of the Parties to this Agreement except:

- 9.5.1 rights and obligations with respect to amounts owing or to remedies, if either TOC or the Corporations shall be entitled to an accounting as to the fees or other monies payable to TOC or by TOC;
- 9.5.2 rights and obligations with respect to any event which occurred prior to the effective date of the termination of this Agreement;
- 9.5.3 Sections 9.4, 9.5, 9.6, 9.7, 11.1 and 11.2 of this Agreement,

which shall survive any termination of this Agreement and shall remain in full force and effect thereafter.

9.6 Confidentiality

- 9.6.1 The TOC acknowledges that it has and will have access to confidential and proprietary information relating to each of the Corporations and their operations and agrees that such confidential and proprietary information shall not be used by it for any purpose other than the purposes of this Agreement and shall not be disclosed by TOC to any third party without the prior written consent of NOW or NOE, as applicable, except to employees or the Directors of TOC who have entered into an agreement with TOC to ensure the confidentiality and security of the Confidential Information. TOC agrees that it will not provide any confidential and proprietary information of NOW to NOE without NOW's prior written consent. TOC further acknowledges that it is aware of the provisions of the Shareholders Agreement relating to the Corporations and agrees to be bound by the confidential provisions of such Shareholders Agreement. All confidential and proprietary information that TOC has access to or acquires in the course of providing the services hereunder shall be used by TOC only for the benefit of the Corporations. TOC will promptly notify the Corporations in the event any unauthorized person obtains access to the Confidential Information. If any of the provisions of this Section 9.6 are violated in any material respect by TOC or its agents or employees, the Corporations shall have the right, in addition to any other right hereunder, to

terminate this Agreement immediately upon notice thereof to TOC. The parties agree that injunctive relief in addition to any other right or remedy is an appropriate remedy to enforce the provisions of this Section 9.6 and the Corporations' proprietary rights, should the need arise.

9.6.2 Upon termination of this Agreement, TOC will deliver to the Corporations the Computer Records referred to in Section 9.4.3 of this Agreement.

9.6.3 TOC's obligations under this Section 9.6 shall survive the termination of the Agreement.

9.7 Non Solicitation

During the term of this Agreement and for a period of one (1) year from the date of termination of this Agreement, TOC agrees that it will not, without the prior written consent of the Corporations, which consent may be unreasonably or arbitrarily withheld, directly or indirectly through any of its affiliates or associates (as such terms are defined in the Business Corporations Act, Ontario), solicit, offer employment to or employ any of the employees of the Corporations.

10. DISPUTE RESOLUTION

Except as otherwise provided in this Agreement, the Corporations and TOC will act reasonably in exercising their rights and discharging their duties pursuant to this Agreement. At any time while this Agreement and any of its provisions are in force, should any dispute, difference of opinion, computation, or question arise between any of the parties hereto (the "Disputing Parties") touching this Agreement or any part thereof (other than the provisions of sections 9.6 and 9.7 hereof) which cannot be resolved by the provisions hereof or by the agreement of the parties, then such dispute, difference of opinion, computation, or question (collectively a "Dispute") shall be arrived at and settled as herein provided:

- 10.1 within two (2) Business Days of written notice by any party hereto of a Dispute, each party shall designate in writing to the other a Representative. The Representatives shall meet as often as necessary during a twenty (20) Business Day period following notice of the Dispute (or such other time period as the Representatives may agree) to gather and furnish to the other all information with respect to the Dispute which is appropriate and germane to its resolution. The Representatives shall negotiate in good faith in an effort to resolve the Dispute without the necessity of any proceedings. The specific format for such discussions will be left to the discretion of the Representatives;
- 10.2 if the Representatives cannot resolve the Dispute within that twenty (20) Business Day period, the dispute will be immediately referred by the Representatives to the following individuals (or their designated representatives) for a period of ten (10) Business Days for further good faith efforts to resolve the Dispute: for NOW or NOE, the Chairman of the Board and, for TOC, a member of senior management of TOC (who is not on the Board of either NOW or NOE);
- 10.3 if the Dispute is not resolved by those individuals within a ten (10) Business Day period, then either of the parties may initiate proceedings as set forth below; provided, however,

that such proceedings for resolution of any Dispute may not be commenced until the earlier of thirty (30) Business Days after the initial notice of the Dispute or thirty (30) Business Days before the statute of limitations governing any cause of action or relating to the dispute would expire, unless preliminary or temporary relief of an emergency nature is sought by one of the parties.

If the parties are not successful in resolving the Dispute informally, they agree to submit the matter to final and binding arbitration in accordance with the provisions of the Arbitration Act, 1991 (Ontario), as amended. Arbitration hereunder shall be held in Cochrane, Ontario or such other place in Ontario as the parties may agree. The substantive and procedural law of the Province of Ontario shall apply to the proceedings. Equitable remedies shall be available in any arbitration. Neither punitive damages nor trebled or otherwise escalated damages shall be awarded. Judgement upon the award rendered in any arbitration may be entered in any court having jurisdiction thereof, or application may be to such court for a judicial acceptance of the award and enforcement thereof, as the law of such jurisdiction may require or allow. Nothing contained herein shall prejudice the right of any party to apply to any court of appropriate jurisdiction for temporary or preliminary injunctive or other equitable relief. The costs of the arbitration will be determined by the arbitrator in his sole discretion.

11. GENERAL

11.1 Indemnity by NOW and NOE

Both during and after the termination of this Agreement, NOW and NOE shall indemnify and save TOC and its employees, officers and directors harmless from any action, cause of action, suit, debt, cost, expense, liability, claim or demand whatsoever at law or in equity, in connection with the performance by TOC of any and all of its obligations under this Agreement or pursuant to the policies, instructions and procedures of NOW and NOE including, without limitation, any damage or injury whatsoever to any employee or other Person or property arising out of the administration of NOW and NOE, or any assets of NOW and NOE during the Term of this Agreement, provided the indemnity provided under this Section 11.1 shall not extend to any negligence or malfeasance of TOC or its employees, officers, directors, agents or any other Person for whom it is responsible at law other than those caused by a peril or event against which NOW and NOE is liable to insure, in which event the indemnity is limited to the portion of the cost, damage or loss not recovered pursuant to insurance.

11.2 Indemnity by TOC

Both during and after the termination of this Agreement, TOC shall indemnify and save NOW and NOE and their employees, officers and directors harmless in respect of any action, cause of action, suit, debt, cost, expense, liability, claim or demand whatsoever, at law or in equity, arising by reason of any,

- 11.2.1 negligence or malfeasance of TOC or its employees, officers, directors, agents or any other Person for whom it is responsible at law; or
- 11.2.2 breach by TOC of any provision under this Agreement.

other than those caused by a peril or event against which NOW and NOE is liable to insure, in which event the indemnity is limited to the portion of the cost, damage or loss not recovered pursuant to insurance.

11.3 Insurance

NOW and NOE will maintain, at their expense, insurance on its real and personal property and public liability insurance and carry TOC as an additional insured. The insurance policy shall contain a waiver of any subrogation rights which the Corporations' insurers may have against TOC whether any such damage is caused by the act, omission or negligence of TOC.

The TOC will maintain, at its expense, fidelity bond insurance covering its employees who handle or are responsible for handling the Corporations' funds, insuring against loss, theft, embezzlement, or other fraudulent acts on the part of employees. TOC will carry the Corporations as an additional insured and loss payee on such policy. TOC shall provide the Corporations with copies of all such insurance policies. TOC will also maintain at all times throughout the term of this Agreement, public liability and property damage insurance with respect to TOC's operations at the sites of the Corporations in such reasonable amounts and with such reasonable deductibles as determined from time to time by the Corporations. The insurance policy shall contain a waiver of any subrogation rights which TOC's insurers may have against the Corporations, whether any such damage is caused by the act, omission or negligence of the Corporations.

11.4 Environment

11.4.1 The Corporations shall in respect of the assets and operations which are the subject of this Agreement be responsible for all environmental liability which results from:

- (a) the operations of the Corporations;
- (b) any products, goods or materials brought onto property or used by the Corporations.

11.4.2 TOC shall in respect of the assets and operations which are the subject of this Agreement be responsible for all environmental liability which results from:

- (a) TOC's operations; or
- (b) any products, goods or materials brought onto property or used by TOC or by a person with the express or implied consent of TOC.

11.5 Regulatory Matters

11.5.1 Nothing in this Agreement shall derogate from, restrict or limit the rights and obligations of the parties under applicable law including, without limitation, the Electricity Act, 1998 (Ontario), ~~and the Telecommunications Act~~

~~(Canada) and any conflict or inconsistency shall be resolved in favour of applicable law.~~

- 11.5.2 The parties acknowledge that the subject matter of this Agreement may be subject to ruling of one or more governmental bodies including the OEB, the IMO, ~~and CRTC~~ from time to time. The parties agree to consult and negotiate in good faith, in the event that any term of this Agreement is affected by such ruling.

11.6 Notice

Any notice or other communication required or permitted to be given under or for the purposes of this Agreement shall be in writing and shall be sufficiently given if delivered personally to the Party to whom the notice or other communication is to be given, or if transmitted by telecopier or other form of recorded communication during the transmission of which no indication of failure of receipt is communicated to the sender;

- 11.6.1 in the case of a notice to the Corporations:

153 Sixth Avenue
~~P.O. Box 640~~
COCHRANE, ON P0L 1C0

- 11.6.2 in the case of a notice to TOC at:

~~Cochrane Telecom Services~~
~~153 Sixth Avenue~~
~~P.O. Box 640~~
COCHRANE, ON P0L 1C0

Town of Cochrane
171 Fourth Ave,

or at such other address as the Party to whom such notice is to be given shall have last notified to the Party giving the same in the manner provided in this Section. Any notice delivered to a Party in accordance with this Section shall be deemed to have been given and received on the day it is so delivered at such address, provided that if such day is not a Business Day, then the notice shall be deemed to have been given and received on the Business Day next following such day. Any notice transmitted by telecopier or other form of recorded communication to a Party in accordance with this Section shall be deemed to be given and received on the day of its transmission if such day is a Business Day and the transmission is completed before 6:00 p.m. and, if not, on the next following Business Day.

11.7 Further Assurances

Each of the Parties hereto shall promptly do, make, execute and deliver, or cause to be done, made, executed and delivered, all such further acts, documents and things as the other Party hereto may reasonably require from time to time for the purpose of giving effect to this

Agreement and shall use reasonable efforts and take all such steps as may be reasonably within its power to implement to its full extent the provisions of this Agreement.

11.8 Assignment

11.8.1 By TOC

This Agreement and all rights, entitlements, duties and obligations arising from it shall not be assigned in whole or in part by TOC unless the assignment is approved by NOW and NOE, which approval may be arbitrarily withheld.

11.8.2 By the Corporations

This Agreement and all rights, entitlements, duties and obligations arising from it shall not be assigned in whole or in part by NOW or NOE without the prior written consent of TOC, which consent shall not be arbitrarily or unreasonably withheld.

11.8.3 Transfer of Utility or Dissolution of TOC

Without the prior written consent of NOW, which consent shall not be arbitrarily or unreasonably withheld, there shall be no transfer of any utility from TOC to the Corporation of the Town of Cochrane, and no dissolution of TOC. *Circular reference.*

11.8.4 Change of Control of NOW or NOE

Without the prior written consent of TOC, which consent shall not be arbitrarily or unreasonably withheld, there shall be no effective change in the voting control of NOW or NOE.

11.9 Extended Meanings

Words importing persons shall include individuals, partnerships, associations, trusts, unincorporated organizations and corporations.

11.10 Time of Essence

Time is of the essence in this Agreement.

11.11 Severability

Any provision of this Agreement which is illegal, prohibited or unenforceable in any jurisdiction shall as to such jurisdiction, be ineffective to the extent of such illegality, prohibition or unenforceability without invalidating the remaining provisions hereof or affecting the validity or enforceability of such provision in any jurisdiction.

11.12 Force Majeure

Notwithstanding anything to the contrary contained herein, if any Party hereto is bona fide delayed or hindered in or prevented from the performance of any work, term, covenant or act required hereunder by reason of strikes, labour disputes, lock outs, power failures, riots, insurrections, sabotage, rebellions, war, acts of God, or any other cause beyond the reasonable control of the Party delayed in the performance of any work, term, covenant or act required hereunder, then performance of the same is excused for the period of the delay and the Party so delayed shall be entitled to perform such work, term, covenant or act within a reasonable time period after the expiration of the period of such delay; provided however that the Party so delayed is acting and continues at all times to act in good faith and in a reasonable manner with respect to such condition or cause and provided that, if the delay exceeds thirty (30) days and the cause of the delay is personal to TOC then at any time after the expiry of such period, the Party in whose favour the work, term, covenant or act was to be performed may terminate this Agreement forthwith by notice in writing.

The Party delayed will notify the other Party as soon as practicable after becoming aware of an event giving rise to a delay under this Section and will, from time to time, notify the other Party of the expected duration of the period of the delay.

The financial condition of a Party or any lack of funds on the part of a Party shall be deemed not to be a condition or cause beyond the reasonable control of that Party unless the lack of funds is on the part of TOC and is caused by the failure of NOW or NOE to pay TOC any sums to be provided by NOW or NOE hereunder.

11.13 Change in Laws

The rights and obligations of the Parties hereto under this Agreement shall be subject to all Applicable Law having jurisdiction over the Parties hereto. In the event, however, that any Applicable Law shall change and, in the judgement of either party hereto such change substantially alters the relationship between the Parties under this Agreement, or the advantage derived from such relationship, either party may request the other party hereto to modify this Agreement, and if, within thirty (30) days subsequent to making such requests, the Parties hereto are unable to agree upon a mutually satisfactory modification hereof, then the adversely affected party may either refer the matter to binding arbitration pursuant to Section 10.3 hereof or terminate this Agreement on 30 days prior written notice to the other party.

11.14 No Waiver

No consent or waiver, express or implied, by a Party to or of any breach or default by the other Party in the performance of such other Party of its obligations hereunder shall be deemed or construed to be a consent or waiver to or of any other breach or default in the performance by such other Party hereunder. Failure on the part of a Party to complain of any act or failure to act by the other or to declare the other Party in default, irrespective of how long such failure continues, shall not constitute a waiver by such first mentioned Party of its rights hereunder.

11.15 Governing Law

This Agreement is made pursuant to and shall be governed and interpreted in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

11.16 Entire Agreement

This Agreement constitutes the entire agreement between the Parties respecting the subject matter herein and supersedes all prior agreements, undertakings, negotiations and discussions between the Parties, whether oral or written, and there are no warranties, representations or other agreements between the Parties in connection with the subject matter hereof except as specifically set forth herein. All amendments to this Agreement shall be made in writing and executed by the Parties hereto.

11.17 Accounting Principles

All accounting terms not specifically defined herein shall be construed in accordance with generally accepted accounting principles in Canada, *Now follows International Financial Reporting Standards (IFRS).*

11.18 Enurement

This Agreement shall enure to the benefit of and be binding upon the parties hereto and their respective successors and permitted assigns.

IN WITNESS WHEREOF the Parties have duly executed this Agreement as of the day, month and year first above written.

NORTHERN ONTARIO WIRES INC.

Per: 
Name: Dan Boucher
Title: General Manager

Per: 
Name: Monika Malherbe
Title: Chair

NORTHERN ONTARIO ENERGY INC.

Per: 
Name: Geoffrey Sutton
Title: Chief Financial Officer

Per: 
Name: Jean-Luc Brousseau *a.m.*
Title: Chair

Dan Boucher

CORPORATION OF THE TOWN OF COCHRANE

Per: 
Name: Alice Mercier
Title: Clerk

SCHEDULE "A"

DEFINITIONS

In this Agreement, unless there is something in the subject matter or context inconsistent therewith, the following words shall have the respective meanings ascribed to them as follows:

1. **"Affiliate"** of any party hereto means any corporation which is an affiliate of the applicable party within the meaning of the Business Corporations Act, R.S.O. 1990, c. B.16.
2. **"Agreement", "this Agreement", "the Agreement", "hereto", "hereof", "herein", "hereby", "hereunder"** and similar expressions means or refer to this Agreement, as amended or supplemented from time to time in writing by the Parties.
3. **"Applicable Law"** means any and all applicable laws, including environmental laws, statutes, codes, licensing requirements, treaties, directives, rules, regulations, protocols, policies, by-laws (of general application), orders, injunctions, rulings, awards, judgements, or decrees or any requirements or decision or agreement with or by any government or governmental department, commission board, court authority or agency and includes the standards of the Town and codes, licenses and rulings issued by the OEB, the IMO and the CRTC.
4. **"Business Day"** means any day which is not a Saturday, Sunday or statutory holiday under the laws of the Province of Ontario or the laws of Canada applicable therein.
5. **"Corporations"** means NOW and NOE collectively.
6. **"Event of Default"** means any default under this Agreement including, without limitation, either of the following:
 - 6.1 any failure by TOC to perform or comply with its duties and obligations under this Agreement; and
 - 6.2 a situation in which the personnel of TOC who are providing services hereunder do not have the requisite skills or experience to provide management services to the Corporations.
7. **"Event of Insolvency"** means the occurrence of any one of the following events:
 - 7.1 if any Party:
 - 7.1.1 other than in connection with a bona fide corporate reorganization which does not otherwise contravene this Agreement, is wound up, dissolved, liquidated or has its existence terminated or has any resolution passed therefore or makes a general assignment for the benefit of its creditors or a proposal under the Bankruptcy and Insolvency Act, as amended or re-enacted from time to time;

- 7.1.2 makes an application to the applicable court for a compromise or arrangement under the Companies' Creditors Arrangement Act (Canada), as amended or re-enacted from time to time; or
 - 7.1.3 files any written request, application, answer or other document seeking or consenting to any re-organization, arrangement, composition, re-adjustment, liquidation or similar relief for itself under any present or future law relating to bankruptcy, insolvency or other relief for or against debtors generally including, without limitation, any notice of intention to make a proposal pursuant to the Bankruptcy and Insolvency Act;
 - 7.1.4 if a court of competent jurisdiction enters an order, judgement or decree against such Party which approves or provides for any reorganization, arrangement, composition, re-adjustment, liquidation, dissolution, winding-up, termination of existence, declaration of bankruptcy or insolvency or similar relief with respect to such Party, under any present or future law relating to bankruptcy, insolvency or other relief for or against debtors generally and such order, judgement or decree remains unvacated and unstayed for an aggregate period of thirty (30) days (whether or not consecutive) from the date it is made;
 - 7.1.5 if any trustee in bankruptcy, receiver, receiver and manager, liquidator or any other officer with similar powers is appointed for or with respect to such Party and that appointment remains in effect for an aggregate period of thirty (30) days (whether or not consecutive) from the date of the appointment; or
 - 7.1.6 if an encumbrancer or anyone acting on behalf of an encumbrancer takes possession of all or substantially all of the property of TOC and remains in possession for an aggregate period of thirty (30) days (whether or not consecutive) from the first date of the taking of possession.
8. **"Fiscal Year"** means a period of twelve (12) consecutive months ending on December 31, or such other date as designated in writing by the Corporations, or such other period as may be designated in writing from time to time by the Corporations, provided that any such other period shall not be effective unless TOC receives written notice of such period at least ninety (days) prior to the first day of such period; provided that the initial Fiscal Year shall be the period commencing on the date of this Agreement and ending on December 31, 2001.
9. **"Good Utility Practice"** means any of the practices, methods and acts engaged in or approved by a significant portion of the electrical utilities of comparable numbers of customers and geographic area in North America during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgement in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be

limited to optimum practices or methods, or act to the exclusion of all others, but rather to include all practices, methods, or acts generally accepted in North America.

10. **“IESO”** has the same meaning as in subsection 2 (1) of the Electricity Act, 1998.
11. **“Management Fees”** means the aggregate of all net fees payable to TOC pursuant to Sections 7.1.1 and 7.1.2.
12. **“OEB”** means the Ontario Energy Board and any successor or other governmental regulatory authority in respect of the electricity industry in Ontario.
13. **“Parties”** means TOC, NOW and NOE and their respective permitted successors and assigns.
14. **“Person”** means an individual, partnership, corporation, government or any department or agency thereof, trustee, or unincorporated organization and the heirs, executors, administrators or legal representatives or an individual.
15. **“Qualified”** means the worker or workers in question are duly qualified under Applicable Law (including the requirements of the Occupational Health and Safety Act, with respect to working near electrical hazards) or the entity uses only such qualified workers, to carry on the work in question, as applicable.
16. **“Term”** has the meaning ascribed to it in Section 4.

SCHEDULE "B"

Description of Services. The Management Services provided by TOC to the Corporations pursuant to Section 5.3.2 shall consist of the following categories:

- (a) **General Corporate.** TOC shall provide to the Corporations general office, corporate and other management services including, without limitation, the following services (collectively, the "General Corporate Services"):
 - (i) Corporate accounting, including, without limitation, fixed asset accounting, maintenance of accounting books and records, review, preparation and consolidation of corporate financial information, including financial information of all subsidiaries and preparation of monthly, quarterly and annual financial reports and the review, analysis, consultation and recommendation concerning special projects;
 - (ii) Finance, including, without limitation, treasury and cash management services (including reconciliation of bank accounts), monitoring and preparation for payment of accounts payable, maintenance of bank relationships
 - (iii) Transportation, including, without limitation, fleet maintenance, fleet replacement management, analysis of inbound and outbound freight costs, verification of payment of freight and warehousing charges, damage prevention activities, monitoring of warehousing / distribution operations;
 - (iv) Taxation, including, without limitation, , compliance with federal and provincial tax requirements, computations of tax payments and filings of required declarations and vouchers, preparation and filing of any applicable federal and provincial tax or payment in lieu of tax returns, preparation of monthly sales tax returns, advising purchasing department personnel regarding proper sales tax procedures, auditing of accounts payable, listing invoices to ensure proper tax liability, monitoring progress on outstanding tax audits, preparation and filing of any compliance reporting to regulators, and monitoring of evolving regulatory requirements to ensure continuing compliance;
 - (v) Management information systems services such as implementation, maintenance and servicing of various information systems and programs related to payroll matters, human resources, management reporting, roll outs, ordering and shipping, statistical quality control, statistic process control, order fulfillment system, and periodic review of the effectiveness of the information systems;
 - (vi) Internal audit services, including without limitation, evaluation of the adequacy, application and effectiveness of internal financial controls, internal controls relating to computer operations, systems and security, monitoring and preservation of corporate assets, monitoring of compliance

with corporate policies, guidelines and procedures, co-ordination with external auditors, and reporting of audit findings and follow-up;

- (vii) Risk management and insurance, including, without limitation, ensuring the adequacy of, provision and maintenance of insurance coverage for property, business interruption, automobile, general liability, employee fidelity, bonds and other types of exposures as are required and/ or standard in the industry, assistance in the filing and negotiations of claims and their follow-up, and administrative services in relation to the foregoing;
 - (viii) Administrative services, including, without limitation, communications and public relations, commercial property leases, filing, records and archive services, management of the Corporations' real and immoveable property, wherever situated, whether such real and immoveable property is owned or leased.
 - (ix) Such other general management services as are ancillary to the provision of any of the above or upon which the Parties may from time to time agree.
- (b) **Human Resources.** TOC shall provide to the Corporations general human resources services, including, without limitation, the following (collectively, the "Human Resources Services"): corporate employee relations, labour relations services including negotiation and management of collective agreements and grievances and co-ordination of related legal matters, management of employee/ pension and benefits plans, including payroll services for non-unionized employees and coordination of employee health and safety plans and the TOC shall report on a regular basis to the Operations, Health, Safety and Environmental Committee in connection with such services.
- (c) **Distribution Facilities Operations.** TOC shall provide to the Corporations general services required to ensure the continued operations of the Corporations' facilities (the "**Facilities**"), at levels of service quality and reliability that are the higher of OEB prescribed levels and Good Utility Practice, such operations to include, without limitation, the following (collectively the "**Facilities Operation Services**"); general management and maintenance of the Facilities, purchasing and procurement services including supply chain management, the negotiation of supply contracts and management of computerized purchasing, inventory and invoice matching systems, technical support and testing services, general administration and personnel services including the use and operation of computer programs, including monitoring of information systems, system engineering and planning services and technical services.



PURCHASING POLICY

NOW Inc. purchases equipment, materials and services in a cost-effective manner with full consideration given to price as well as product quality, the ability to deliver on time, reliability, compliance with engineering specifications and quality of services. Vendors are screened to ensure knowledge, reputation, and the capability to meet NOW Inc.'s needs. The procurement of goods and services for NOW Inc. is carried out with the highest of ethical standards and consideration to the public nature of the expenditures.

NOW Inc.'s procurement policy is provided in E4/T4/S4/Att1 and NOW Inc. confirms that purchases are in compliance with this policy.

NOW Inc. is also a member of the North-East District Buying Consortium (NEDBC). The NEDBC is a group of nine utilities that have entered into a Joint Venture Agreement that solicits price quotations from appropriate potential supplies in respect of goods and services. The purpose of this group is to facilitate cooperative efforts with a view to obtaining volume discounts from suppliers by reason of aggregated purchases.



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Attachment 1 (of 1):

Procurement Policy

Policies and Procedures			
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Approved by:		Revised:	Apr 22 2021

1. POLICY

1.0 Northern Ontario Wires Inc. shall implement a policy to ensure safe purchasing and that procedures for acquiring goods are within accounting standards.

2. PURPOSE

2.0 The purpose of this statement of policy and procedure is to ensure that products purchased met the requirements of Ontario Regulation 22/04, Electrical Distribution Safety for major and non-major equipment

2.1 Additionally, this policy will ensure that accounting guidelines are followed.

3. SCOPE

3.0 This statement of policy and procedure is applicable to all purchases made for Northern Ontario Wires Inc.

4. RESPONSIBILITY

4.0 Purchasing Agent

The Purchasing Agent (or designate) is responsible for maintaining stock / project inventory for Northern Ontario Wires Inc. He/she will conduct the necessary planning that addresses NOW's existing distribution system, current needs and future needs, as provided to him/her by the representatives of department heads

The Purchasing Agent (or designate) has the authority to issue Purchase Orders (POs) for the maintenance of stock, service centre and vehicles. Purchase Orders must be issued:

- For all purchases of goods and services;
- Prior to the date of the goods being ordered or services being rendered;
- Signed by the Purchasing Agent

Purchase Orders for **special order stock** must also be signed by the department supervisor.

Purchase Orders for orders with **individual item cost in excess of \$500.00** and/or a **total cost in excess of \$2,500.00** must also be signed by the Department Supervisor.

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Purchase Orders for an **individual items cost in excess of \$1,000.00** and/or a **total cost in excess of \$5,000.00** must also be signed by the Chief Financial Officer or General Manager.

4.1 Supervisors

Request by supervisors for materials and services which are not part of the core Vadim material management system must be submitted by a purchase requisition

- For all purchases of goods and services.
- Prior to the date of the goods being orders or services being rendered.

Purchase Orders for orders with an **individual item cost in excess of \$1,000.00** and/or a **total cost in excess of \$5,000.00** must also be signed by the Chief Financial Officer or General Manager.

5. PROCEDURE

5.0 Approved Equipment Inventory

Inventory that is held in stores for the distribution system, covered under Regulation 22/04, will be approved and documented as outlined in the regulation.

5.1 Approved Equipment

Equipment for use in NOW's distribution system will be certified by one of the following methods:

- The equipment has been certified by a certification organization; or
- The equipment has been field-evaluated and approved by an accredited field-evaluation agency; or
- The equipment has been field-evaluated and approved by the *Electrical Safety Authority (ESA)*.

In addition, equipment is certified by meeting the following conditions:

- A certification organization has issued a report certifying that the equipment conforms to applicable standards.
- The above report(s) is available to *ESA* from the certification organization.

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- (c) The equipment purchases complies with all standards of design and construction and all terms and conditions set out in the report; and/or
- (d) The equipment bears the certification organization's mark for use in Canada.

5.2 Product Changes

The Purchasing Agent shall provide the supplier with a list of approved NOW part numbers. The supplier or NOW may initiate changes to the part description.

Supplier changes are provided to the Purchasing Agent and NOW changes are made known to the supplier. Purchasing Specifications are updated or a new part number and Purchasing Specification created are subject to the same aforementioned approval process. Following approval, the inventory control database is updated. All original and revised specifications are kept.

5.3 Purchasing Process

The Purchasing Agent (or designate) shall review all Purchase Orders, which are then faxed or mailed to the supplier (if required). The Purchasing Agent shall retain a hard copy of the Purchase Order on file. Formal acknowledgement of contract acceptance from the supplier is maintained where applicable.

All equipment falling under Regulation 22/04 shall have an equipment approval sheet outlining the above stated requirements. This includes all product(s) kept in inventory. Inventory is tracked through Vadim material management program. Vadim material management program. is consistent with production description and product numbering found in the equipment approval sheets. The Purchasing Agent shall maintain a binder with a complete list of all approved products, which includes a part number cross-reference to the Vadim material management program.

Equipment ordered for the electrical distribution system not found in inventory is subject to the same requirements under Regulation 22/04. Non-inventory products and the applicable approval documentation shall be attached to the corresponding Purchase Order and will be tracked for two (2) years. New additions shall also be tracked for a period of two (2) years.

Note: Northern Ontario Wires Inc. does not normally perform product verification at their supplier's premises; verification is conducted at the receiving/ inspection stage. In the event product verification is required to be

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performed at the supplier's premises, the requirements will be identified on the Purchase Order.

Verification of sub-contracted product by a customer is permitted only where contracted and shall not absolve Northern Ontario Wires Inc. of the responsibility to provide acceptable product, nor shall it preclude subsequent rejection by the customer. Verification of products used by contractors shall fall to the contractor administrator (*refer to Contractor Safety Policy*).

All non-major equipment that is purchased will be inspected for a safety rating (i.e. CSA, ANSI, etc.) and if not approved will NOT be introduced into inventory or general use.

5.4 Store Activities

Receipt and Inspection of Product

Purchased material is delivered to the receiving area or to a NOW designated location. For products delivered to the receiving area, the Purchasing Agent (or designate) shall conduct the following activities:

- (a) Check the received product(s) against the Bill of Lading (B/L); identify any anomalies and provide a copy of the Bill of Lading to the carrier;
- (b) Perform receiving inspection in conjunction with the individual assigning the requisition, where applicable;
- (c) Compare delivery against the packing slip and Purchase Order;
- (d) Document anomalies on the packing slip;
- (e) Count the product(s) or item(s) delivered;
- (f) Spot check the contents;
- (g) The Purchasing Agent shall be made aware of any anomalies in order to resolve issues with suppliers.
- (h) Forward certification, if provided by the supplier to the individual assigning the requisition for review and approval before accepting product(s) (i.e. transformer manufacturer's test results, inspection certificates for electricity meters, etc.);
- (i) Identify accepted product on the Purchase Order, date and initial;
- (j) For hazardous materials, obtain a current copy of MSDS and any other relevant information and add to MSDS binder;
- (k) Transport accepted and inventoried product(s) to storage location, ensuring the product bears appropriate identification;
- (l) Transport non-accepted product(s) to requisitioner's storage location;

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Product delivered directly to a NOW designated location (i.e. concrete, poles, etc.) is inspected by the individual assigning the requisition or an authorized person. The date and initials of the recipient receiving the product(s) acknowledges that the above tasks have been completed. The receiving personnel must input receipt of product(s) into inventory.

Release and Delivery of Inventoried Product

All product(s) may be picked up from storage, or if urgently needed, may be delivered to personnel on site.

Release of inventoried product(s) to users is facilitated by the completion of a material requisition. A work order number must also be provided. The material requisition must be signed and dated by the user or supervisor.

Inventoried product(s) may be released to a contractor (i.e. Construction Company). The material requisition must be initiated and authorized by NOW personnel prior to loading the product(s).

The Purchasing Agent (or designate) is not authorized to substitute product(s) listed on the material requisition. Substitutions may only be made at the discretion of a competent person or the engineering department, consistent with approved drawings.

Unused and undamaged inventoried product(s) or product removed from installations may be returned to inventory.

6. DEFINITIONS

Material requisitions: a form used to keep track of materials charged to a particular job or department. The form contains such items as job number, department, description of the material, and quantity.

Purchase Order: a document used to approve, track, and process purchased items. A purchase order is used to communicate a purchase to a supplier. It is also used as an authorization to purchase. A purchase order will state quantities, costs, and delivery dates. The purchase order is also used to process and track receipts and supplier invoices/ payments associated with the purchase.

7. REVISION

Policies and Procedures

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Name/ Position	Signed	Date
Dan Boucher GM/Operations supervisor		April 22 2021
Geoffrey Sutton CFO		April 22 2021
Marc Tremblay Purchasing Agent		April 22 2021



ONE TIME COSTS

NOW Inc. has incurred one-time costs in the preparation for the 2025 Cost of Service Application. These incremental costs are projected to be \$432,549 and are summarized in the **Table 1**.

Table 1
One-Time Costs

<i>Description</i>	<i>Sum of Historical Years (2018-2023)</i>	<i>Bridge Year 2024</i>	<i>Test Year 2025</i>	<i>Total</i>
Consultant Costs		\$ 145,950	\$ 77,481	\$ 223,431
Legal Costs		\$ 3,500	\$ 25,000	\$ 28,500
Special Studies (DSP, Customer Eng.)		\$ 120,000		\$ 120,000
Incremental Operating Expenses	650	\$ 18,718		\$ 19,368
Intervenor/OEB Costs			\$ 41,250	\$ 41,250
Total One-Time Costs	\$ 650	\$ 288,168	\$ 143,731	\$ 432,549

NOW Inc. does not have a large staff (19.6 FTE in the 2025 Test Year), and none are exclusive to regulatory work. As such, there is reliance on consultant support to assist in preparation of the Cost-of-Service Application. The Application is a significant undertaking and requires resources in addition to regular NOW Inc. staff. In order to meet the requirements, the hiring of consultants for the Distribution System Plan and Asset Condition Assessment was essential in addition to consultants for the application process.

NOW Inc. also retained a strategic consulting firm that provided guidance on customer engagement requirements and assisted in ensuring NOW Inc.'s survey would meet the requirements and assist the DSP.

Legal costs are forecasted based on NOW Inc.'s last Cost of Service Application. These services are external as NOW Inc. does not have in-house counsel.

Intervenor and Board costs are anticipated to be similar to what was actually incurred during the 2017 Cost of Service Application and have been forecasted as such. The



1 complexity and additional requirements have influenced the budgeted spend for one-
2 time costs for the application.
3
4 NOW Inc. is requesting approval for one-time incremental costs associated with this
5 proceeding (\$432,549) to be recovered over a five-year period. Accordingly, the 2025
6 Test Year Regulatory Expense includes \$86,510 which represents 1/5th of the Total One
7 Time Costs related to the 2025 Cost of Service Application.



REGULATORY COSTS

The most significant regulatory cost relates to preparation and support for the 2025 Cost of Service rate application and associated process. Other regulatory costs consist of the OEB annual assessments as well, Section 30 cost awards, ongoing regulatory activities and other costs incurred to implement regulatory requirements.

NOW Inc. does not have a regulatory department. Ongoing regulatory accounting, RRR filings and other regulatory matters are the responsibility of the Chief Financial Officer. In addition, the Chief Financial Officer is also responsible for preparing and coordinating the Cost-of-Service Application. Other office staff are also used for submissions to the IESO, and to prepare sections of other regulatory reporting. All functions work together to ensure the information required is presented.

Staff costs are not allocated directly to regulatory costs as the salaries are included in the Administration work program. No overtime is provided to management for any incremental work required for the Cost of Service Application.

NOW Inc. Utilizes external consultants to assist with certain aspects of its Cost of Service Rate filings (e.g. DSP, ACA, evidence preparation).

Attachment 1 to this exhibit is OEB Appendix 2-M and identifies one-time regulatory costs. One-Time regulatory costs associated with the Cost-of-Service Application are discussed in E4/T4/S5.



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OEB Appendix 2-M

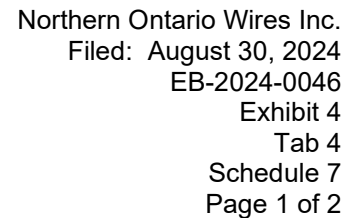
TO BE UPDATED AT THE DRAFT RATE ORDER STAGE

Appendix 2-M
Regulatory Cost Schedule

Regulatory Costs (One-Time)		Last Rebasing (2017 OEB Approved)	Last Rebasing (2017 Actual)	Sum Of Historical Years (2018-2023)	2024 Bridge Year	2025 Test Year
		(A)	(B)	(C)	(D)	(E)
1	Expert Witness costs					
2	Legal costs	53,000	15,043		3,500	25,000
3	Consultants' costs	225,119	225,513		265,950	77,481
4	Intervenor costs	44,906	31,799			31,250
5	OEB Section 30 Costs (application-related)		17,603			10,000
6	Include other items in green cells, as applicabl ¹					
7	Extra Employee for application	10,000			18,718	
8	Training Cost			650		
9						
10						
11						
12						
13						
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17						
18						
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21						
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23						
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25						
26						
27						
28						
Sub-total - One-time Costs		\$ 333,025	\$ 289,958	\$ 650	\$ 288,168	\$ 143,731
Application-Related One-Time Costs		Total (F =C+D+E)				
Total One-Time Costs Related to Application to be		\$ 432,549				
Amortized over IRM Period						
1/5 of Total One-Time Costs		\$ 86,510				

Notes:

¹ For incremental operating expenses with staff/other resources allocated to this application use one of the other categories to record the cost



The March 2009 report issued by the OEB entitled “Report of the Board: Low Income Energy Assistance Program” (LEAP Report) determined that “the greater of 0.12% of the distributor’s Board Approved distribution revenue requirement, or \$2,000 is a reasonable commitment of distributors to LEAP.” Accordingly, NOW Inc. has included in this application, a LEAP funding amount of \$6,821 calculated by multiplying the Service Revenue Requirement of \$5,684,074 by 0.12% for the period 2025 to 2029.

On February 12, 2024, the OEB announced changes to the Low-income Energy Assistance Program Emergency Financial Assistance (LEAP EFA). These changes will help ensure that LEAP EFA continues to provide an appropriate level of assistance to vulnerable consumers in a timely and effective manner. The OEB also issued an Order approving two deferral accounts intended to facilitate the implementation of the changes to the LEAP EFA by electricity and gas distributors.

These changes indicated that no eligible LEAP EFA application is denied due to funding and that LEAP EFA applications are processed within 21 days.

A summary of LEAP program expenditures is included in **Table 1**.

Table 1
LEAP Funding (2017 TO 2025)

[illegible]



1 NOW Inc. has partnered with the Cochrane District Social Services Administration Board
2 (CDSSAB) as the program administrator. As NOW Inc. services three distinct Northern
3 communities, the LEAP funds are allocated accordingly so that customers in each
4 community have a pool of funds to access.

5
6 The delivery of LEAP relies heavily on the cooperation between NOW Inc. and
7 CDSSAB. It is expected that as CDSSAB screens and assesses applicants in need, that
8 they may refer customers not only for LEAP, but also for customer service measures
9 and/or conservation programs.

10
11 NOW Inc. acknowledges that Account 6205 Donations is generally non-recoverable.
12 However, NOW Inc. has included \$6,821 in its 2025 Test Year as the LEAP funding of
13 Account 6205 is recoverable.

14
15 It is understood that the LEAP amount for 2025 will be adjusted to reflect the final
16 approved Service Revenue Requirement in this application.



1 **CHARITABLE AND POLITICAL DONATIONS**

2 NOW Inc. confirms that no charitable donations (other than LEAP funding as discussed
3 in E4/T4/S7) have been included in revenue requirement. NOW Inc. also confirms that it
4 does not make political contributions.

5

6



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Tab 5

Exhibit 4: Operating Costs

Tab 5 (of 5): Conservation and Demand Management



1 **LOST REVENUE ADJUSTMENT MECHANISM**

2 3 **LRAM Variance Account (LRAMVA)**

4
5 The Lost Revenue Adjustment Mechanism (LRAM) and associated Lost Revenue
6 Adjustment Mechanism Variance Account (LRAMVA) allow distributors to account for
7 the differences between the forecasted impacts of CDM programs and the actual results
8 of the CDM programs carried out by the distributor. NOW Inc. is including with this
9 Application a proposal for the disposition of Account 1568 - LRAMVA balances as of
10 December 31, 2024.

11
12 NOW Inc.'s LRAMVA claim for the years 2015 to 2024 is \$135,144.99, including carrying
13 charges to April 30, 2025. NOW Inc. has filed a live LRAMVA Workform with the
14 application.

15
16 NOW Inc.'s 2013 Cost of Service Application (EB-2012-0153) settlement included
17 1,816,198 kWh and 1,060 kW of savings for the 2013 LRAMVA threshold. This amount
18 includes forecast CDM savings for 2012 and 2013 and applies to actual NOW Inc.
19 savings in 2015 and 2016. NOW Inc. disposed a balance of \$29,403 for 2011 to 2014
20 lost revenues as part of its 2017 COS Application.

21
22 NOW Inc.'s 2017 Cost of Service application (EB-2016-0096) settlement included
23 2,064,737 kWh and 3,378 kW of savings for the 2017 LRAMVA threshold. This amount
24 includes forecast CDM savings for 2015 to 2017 and applies to savings in 2017 and
25 subsequent years.

26
27 NOW Inc.' savings results are based on the 2011-2015 LDC CDM Program Persistence
28 Results Report, 2017 Final Verified Annual LDC CDM Program Results report, and the
29 April 2019 Participation & Cost Report provided by the IESO. There are no new projects



in 2020 to 2024. NOW Inc. has relied on the most recent input assumptions available at the time of program evaluation.

Table 1 sets out the LRAMVA by customer class:

Table 1
LRAMVA by Customer Class

Rate Class	Total Claim	kWh / kW	Rate Rider
Residential	\$25,619.08	41,340,698	\$0.0060 /kWh
GS<50 kW	\$105,961.52	17,945,241	\$0.0059 /kWh
GS>50 kW	\$4,083.56	155,213	\$0.0263 /kW
Street Lighting	-\$443.20	1,468	-\$0.3019 /kW
USL	-\$75.98	163,953	-\$0.0005 / kWh

NOW Inc. has relied on the most recent and appropriate final CDM evaluation reports from the IESO in support of its lost revenue calculation. All net incremental and persisting kWh and kW savings for programs beginning in 2011 to 2017 are from the IESO reports. Net incremental kWh savings in 2018 and 2019 for those years and persisting to 2020 is from the April 2019 Participation & Cost Report. Persistence of those savings in other years and all kW savings are not provided by the IESO so they were calculated based on reported kWh savings, kW/kWh ratios of those programs in previous years, and persistence of those programs in previous years. All savings data is included in the '7. Persistence Report' tab in the LRAMVA model, with live formulas to demonstrate how the data not provided by the IESO was approximated.

Carrying charges totaling \$22,211.11 have been calculated to the end of April 2025 with the OEB's Approved Deferral and Variance Accounts prescribed interest rates. The rates in 2024 Q4 and 2025 Q1 & Q2 are not yet available so the 2024 Q3 rate of 5.20% is used in those periods.

NOW Inc. has not made any adjustments to previously claimed LRAMVA amounts. No changes have been made to the LRAMVA Workform, except extending carrying charges to April 2025 and correcting 2024 lost revenue cell references in tab '5. 2015-2027



1 LRAM'. Allocations to rate classes are based on allocations of those programs in prior
 2 years.

3
 4 **Table 2** sets out the detailed LRAMVA amounts for each year by customer class:

5
 6 **Table 2**
 7 **LRAMVA by Year and by Customer Class**

Year	Balance	Residential	GS<50 kW	GS>50 kW	Street Lighting	USL
2015	Actual	\$10,089.23	\$25,066.71	\$1,543.07	\$0.00	\$0.00
	Forecast	(\$10,477.59)	(\$4,751.56)	(\$927.18)	(\$179.39)	(\$30.76)
	Net Claim	(\$388.36)	\$20,315.15	\$615.89	(\$179.39)	(\$30.76)
2016	Actual	\$14,034.29	\$29,461.46	\$2,769.05	\$0.00	\$0.00
	Forecast	(\$8,896.07)	(\$4,844.13)	(\$945.12)	(\$182.86)	(\$31.34)
	Net Claim	\$5,138.22	\$24,617.33	\$1,823.92	(\$182.86)	(\$31.34)
2017	Actual	\$14,995.84	\$14,964.56	\$2,744.61	\$0.00	\$0.00
	Forecast	(\$5,526.77)	(\$6,282.95)	(\$3,520.21)	\$0.00	\$0.00
	Net Claim	\$9,469.07	\$8,681.61	(\$775.61)	\$0.00	\$0.00
2018	Actual	\$8,998.70	\$17,860.60	\$4,164.35	\$0.00	\$0.00
	Forecast	(\$3,359.41)	(\$6,540.15)	(\$3,760.39)	\$0.00	\$0.00
	Net Claim	\$5,639.29	\$11,320.45	\$403.96	\$0.00	\$0.00
2019	Actual	\$2,313.03	\$13,746.74	\$4,233.64	\$0.00	\$0.00
	Forecast	(\$866.94)	(\$6,650.37)	(\$3,813.09)	\$0.00	\$0.00
	Net Claim	\$1,446.08	\$7,096.37	\$420.55	\$0.00	\$0.00
2020	Actual	\$0.00	\$12,398.08	\$4,307.54	\$0.00	\$0.00
	Forecast	\$0.00	(\$6,797.34)	(\$3,883.01)	\$0.00	\$0.00
	Net Claim	\$0.00	\$5,600.74	\$424.53	\$0.00	\$0.00
2021	Actual	\$0.00	\$11,290.98	\$4,329.73	\$0.00	\$0.00
	Forecast	\$0.00	(\$6,944.31)	(\$3,966.11)	\$0.00	\$0.00
	Net Claim	\$0.00	\$4,346.67	\$363.62	\$0.00	\$0.00
2022	Actual	\$0.00	\$10,173.57	\$4,362.43	\$0.00	\$0.00
	Forecast	\$0.00	(\$7,128.03)	(\$4,082.65)	\$0.00	\$0.00
	Net Claim	\$0.00	\$3,045.55	\$279.78	\$0.00	\$0.00
2023	Actual	\$0.00	\$9,423.17	\$4,240.11	\$0.00	\$0.00
	Forecast	\$0.00	(\$7,385.22)	(\$4,228.24)	\$0.00	\$0.00
	Net Claim	\$0.00	\$2,037.95	\$11.87	\$0.00	\$0.00
2024	Actual	\$0.00	\$9,299.17	\$4,256.39	\$0.00	\$0.00
	Forecast	\$0.00	(\$7,715.90)	(\$4,416.06)	\$0.00	\$0.00



	Net Claim	\$0.00	\$1,583.26	(\$159.67)	\$0.00	\$0.00
	Actual Total	\$50,431.09	\$153,685.04	\$36,950.92	\$0.00	\$0.00
	Forecast Total	\$29,126.78	\$65,039.97	\$33,542.07	(\$362.25)	(\$62.10)
	Net Claim Total	\$21,304.31	\$88,645.07	\$3,408.85	(\$362.25)	(\$62.10)
	Carrying Charges	\$4,314.77	\$17,316.45	\$674.71	(\$80.95)	(\$13.88)
	Total Claim	\$25,619.08	\$105,961.52	\$4,083.56	(\$443.20)	(\$75.98)

1

2 NOW Inc. is proposing to dispose of these amounts over a 12-month period through rate
 3 riders between May 1st, 2025 to April 30th, 2026. The following table outlines the
 4 proposed disposition.

5 **Proposed Rate Riders**

Rate Class	Billing Unit	Principal	Carrying Charges	Total LRAMVA	Billing Determinant	Proposed Rate Rider
Residential	kWh	\$21,304	\$4,315	\$25,619	41,340,698	\$0.0006
GS<50 kW	kWh	\$88,645	\$17,316	\$105,962	17,945,241	\$0.0059
GS>50 kW	kW	\$3,409	\$675	\$4,084	155,213	\$0.0263
Street Lighting	kW	-\$362	-\$81	-\$443	1,468	-\$0.3019
USL	kW	-\$62	-\$14	-\$76	163,953	-\$0.0005
Total		\$112,934	\$22,211	\$135,145		

6

7 NOW Inc. is not requesting approval for prospective disposition.

8

9 NOW Inc. confirms that it no costs dedicated to CDM staff are included in the revenue
 10 requirement.