

November 25, 2024

Northwest Territories Public Utilities Board 203 – 62 Woodland Drive Box 4211 Hay River, NT X0E 1G1

Attention: Gordon Van Tighem Board Chairman

RE: Naka Power Utilities (NWT) (Naka-NWT) 2025 General Rate Application (GRA) Proceeding ID 2024-020

In Decision 1-2024, the Northwest Territories Public Utilities Board (the Board) directed Naka Power Utilities (NWT) (Naka-NWT) as follows:

- a) To execute the sale of the Hay River Franchise Assets (Hay River Disposition) prior to December 31, 2024, subject to any extra time required by the utilities needed to realize economic efficiencies in order to mitigate adverse rate impacts arising from the transaction; and
- b) To file Phase I and II General Rate Applications (GRAs) for the 2024 Test Year or multiple test years to reflect and implement the Board's applicable determinations from Decision 1-2024 prior to that date.

In further correspondence dated June 11, 2024, the Board deferred the Hay River Disposition date to March 1, 2025 and, in addition to the directions contained in Decision 1-2024, directed Naka-NWT to include a 2025 Test Year, annualized both with and without Hay River. Attached herein is Naka-NWT's 2025 GRA.

Naka-NWT is seeking relief from the Board's direction to include a 2024 Test Year revenue requirement in this Application on the basis that its 2023 approved rates are sufficient to recover its forecast costs for 2024, and the sale of the Hay River Franchise Assets has been deferred to 2025. This will reduce regulatory costs and increase process efficiency. Naka-NWT has provided its 2024 forecast within this Application and does not consider it prudent to undertake a full GRA process for 2024. Accordingly, Naka-NWT respectfully requests that the Board approve Naka-NWT's existing rates as final for 2024.



For 2025, Naka-NWT has provided two revenue requirements, one annualized revenue requirement inclusive of Hay River and one without, as directed. The body of the Application focuses on the latter.

In preparation of its Application, Naka-NWT has incorporated efficiencies, including a reduction in head office support costs post-disposition and sharing of management resources with Naka Power Utilities (Yellowknife) beginning in 2024. Overall, Naka-NWT anticipates it will be able to reduce its total cost of service by more than 50 percent following the 45 percent reduction to its rate base.

Despite these efforts, all being equal under the existing rate design framework, Naka-NWT's customers would be subject to significant rate shock and harm as a result of the Hay River Disposition. This is due to lost economies of scale of service to densely populated areas in the Hydro Zone (Hay River) and retaining operational responsibility for higher cost service in remote, low populated communities served by thermal generation. Naka-NWT submits that this result is not in alignment with the Board's previous determination that the Hay River Disposition has satisfied the no harm test. Naka-NWT has significant concern with disparities between its position and those positions recently presented in NTPC's 2024-2026 General Rate Application. Naka-NWT does not believe that NTPC has sufficiently accounted for the total cost of transmission services, based on existing policy and prior decisions which require costs to be allocated on the basis of energy. NTPC also proposes significant shortfalls for its revenue-to-cost ratios for a large portion of its customer base. The impact of those shortfalls is then

applied for recovery, on a postage stamp basis, across NTPC's remaining customer base, primarily Naka-NWT and Naka-YK customers, through NTPC's Wholesale rate.

Naka-NWT is generally supportive of postage-stamp concepts and is of the view that a harmonized rate structure throughout the entire NWT has significant benefit and is necessary to appropriately mitigate harm. The existing seven rate zone structure, for a small jurisdiction, has been a challenge due to significant complexity and regulatory burden. These issues are further compounded by the impacts of the Hay River Disposition – Naka-NWT has significant concerns with satisfying regulatory requirements associated



with the zone system in a cost-effective manner following the Hay River Disposition, with its two zones and sparse customer base. Harmonization of rates ensures fair and equitable rates for all customers in the Northwest Territories, increases regulatory efficiency and provides fair distribution of government subsidies for all utility customers. However, this concept must be approached in a wholistic manner to remain in the public interest.

Accordingly, Naka-NWT is requesting a bifurcated process for this Application and for NTPC's recently-filed 2024-2026 General Rate Application. The proposed process would first test and approve the utilities' respective revenue requirements. Separately, and in parallel to the testing of revenue requirements, Naka-NWT is requesting that the Board take steps, in coordination with the Government of the Northwest Territories (GNWT), to initiate a combined and collaborative process to review and reform rate design in the Northwest Territories in order to ensure that all customers in the territory are treated fairly and equitably with respect to utility rates.

Naka-NWT considers that a collaborative rate reform process involving the utilities, the Board, and the GNWT will be most efficient and effective in assessing necessary rate reform in the Northwest Territories, recognizing that GNWT involvement or policy direction may be required to implement changes to the utilities' rate design framework. Naka-NWT intends to correspond directly with the GNWT with respect to the need for a collaborative and comprehensive rate design review process pursuant to the discussion and relief requested in Sections 1 and 1B of the Application, in the near term.

Subject to whether the requested rate reform process is established, and the outcome of that proceeding, Naka-NWT has also proposed a new Taltson Zone Revenue Offset based on harmonization of the integrated Taltson Zone, as well as the implementation of Government and Non-Government base rates, in order to partially mitigate rate harm and ensure equitable treatment of all utility customers. Naka-NWT's requests in this regard are detailed in Sections 1, 1B, and 14 of the Application.

At the time of this Application, the Hay River Disposition has not yet occurred, and Naka NWT will continue to serve the Town of Hay River until at least March 1, 2025. In



order to begin collecting shortfalls and to minimize future true-ups, Naka-NWT proposes to recover <u>70 percent</u> of the shortfalls, in each zone, on an interim refundable basis. Please refer to Section 1.4 and Section 15 of the Application for further details respecting Naka-NWT's 2025 Interim refundable Rider R request.

Consistent with other small utility operations in the NWT, a light-handed approach must be contemplated for Naka-NWT. The cost of Naka-NWT's 2023 General Rate Application was nearly three times more than the approved change in revenue requirement. Due to the scope of the first iteration of the GRA, Naka-NWT's relatively small size, and in an effort to promote regulatory efficiency and to limit head office labour resources required, Naka-NWT proposes to limit the number of intervener requests to a maximum of 50, including sub-parts.¹

Accordingly, for the determination of revenue requirement, Naka-NWT proposes the following written process.

Process Step	Proposed		
File Application	November 25, 2024		
Notice of Application	December 2, 2024		
Intervener Registration	December 11, 2024		
IRs to Naka-NWT from Board & Interveners	December 20, 2024		
IR Responses from Naka-NWT	January 17, 2025 ¹		
Intervener Evidence, if necessary	January 24, 2025		
IRs to Interveners on Evidence	January 29, 2025		
IR Responses from Interveners	February 10, 2025		
Rebuttal Evidence, if necessary	February 14, 2025		
Written Argument	February 24, 2025		
Reply Argument	March 7, 2025		

Table 1: Proposed Process Step

Note 1: Key staff resources are unavailable due to year end reporting and planned vacations over the holiday season, Naka-NWT is unable to provide responses prior to this date.

Subject to the Board's approval and in accordance with Section 22(5) of the *Public Utilities Act (PUA)* and Section 13.1 of Rules of Practice and Procedure, Naka-NWT is prepared to commence the public notification process with respect to the Application.

¹ In an effort to reduce regulatory burden measures such as this have been adopted by the Alberta Utilities Commission.



Advertisements will be placed in News/North, The Hub, and any other news outlet Naka-NWT deems appropriate. Naka-NWT will provide copies of each advertisement to the Board.

If you have any questions with respect to this GRA, please contact me at <u>elizabeth.rogers@atco.com</u>.

Yours truly,

Beth Rogers CPA, CMA Director, Regulatory



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SECTION 1: INTRODUCTION

1.1 Company Background

1. Naka Power Utilities¹ (formerly Northland Utilities) is a long-standing partnership between Denendeh Investments Incorporated (DII), representing 27 Dene First Nations, and ATCO Ltd. For over 70 years, Naka Power Utilities (NWT) has provided safe and reliable power, serving customers across the Northwest Territories. The operating name Naka Power Utilities (NWT) (Naka-NWT) was launched in 2024.

2. Naka-NWT began operations in Hay River in 1951 with three small diesel engines located on Vale Island, initially serving 96 customers plus an additional 14 streetlights. In 1972, Enterprise and Fort Providence were added to Naka-NWT's service area, followed by Sambaa K'e in 1986 and Wekweèti in 1987. In 1988, Naka-NWT completed construction of a \$3.5 million transmission line from Pine Point to Hay River after Cominco completed mining operations. This transmission line allowed the Town of Hay River, the Hamlet of Enterprise, the Katl'odeeche First Nation and the community of Riverwoods to be supplied with renewable energy from the Taltson Hydro Generation Plant. Naka-NWT also operates five diesel power plants. Today, Naka-NWT provides electrical service to approximately 2,600 customers in the communities of Dory Point, Enterprise, Fort Providence, Hay River, Kakisa, K'atl'odeeche First Nation, Riverwoods, Sambaa K'e and Wekweèti.

3. On March 24, 2016, the Town of Hay River (the Town) notified Naka-NWT² that it would not be renewing its Franchise Agreement with Naka-NWT and that it intended to exercise its right to purchase the Hay River Franchise Assets. The sale of the Hay River Franchise Assets (Hay River Disposition) was approved in Board Decision 1-2024, with the transaction closing date determined to occur March 1, 2025.³ After the Hay River

¹ Northland Utilities (NWT) Limited o/a Naka Power Utilities (NWT) and its affiliate Northland Utilities (Yellowknife) Limited o/a Naka Power Utilities (Yellowknife).

² Exhibit 2023-007-075, para. 1.

³ Exhibit 2024-006-004.



Disposition, Naka-NWT will provide electrical service to approximately 700 customers in its remaining service territory.

1.2 Application Background and Process

4. Naka-NWT's last approved Test Period was 2023, initially applied for on September 22, 2022.⁴ Within that Application, Naka-NWT shared with customers significant one-time tax benefits, providing some rate relief that resulted in rate reductions for Thermal customers and smaller rate increases for Hydro customers. The Board directed that the original Naka-NWT 2023 Application be split into two proceedings, one to address the 2023 GRA and one to address the Hay River Disposition. Naka-NWT filed the 2023 Amended GRA on March 7, 2023.⁵ At the same time, Naka-NWT, in conjunction with Applications from the Town and the Northwest Territories Power Corporation (NTPC), filed its Application for Approval of the Purchase and Sale of the Hay River Franchise.⁶ Both Applications were litigated, with hearings held in January of 2024.

5. The Board approved Naka-NWT's 2023 revenue requirement in Decision 2-2024, issued on March 26, 2024,⁷ pertaining to the 2023 Amended GRA. Concurrently, the Board issued Decision 1-2024,⁸ which included directions to both Naka-NWT and NTPC to be addressed in a Compliance Filing. In response to the Compliance Filings⁹ filed on May 31, 2024, the Board issued a letter on June 11, 2024¹⁰ that set out updated directions from Decision 1-2024 based on the information in the Compliance Filings and further discussion with the parties.

- 6. The directions in the Board's June 11, 2024 letter to Naka-NWT were as follows:
 - (a) In paragraph 7(ii), assuming a March 1, 2025, closing date, Naka-NWT needs to file a 2024 Test Year with Hay River with rates, an annualized

⁴ Exhibit 2022-002-001.

⁵ Exhibit 2022-002-013.

 ⁶ Exhibit 2023-007-012.
⁷ Decision 2 2024 (Exhibit

⁷ Decision 2-2024 (Exhibit 2022-002-128).

⁸ Decision 1-2024 (Exhibit 2023-007-134).

 ⁹ Exhibits 2024-005-001 and 2024-006-003.
¹⁰ Exhibit 2024-006-004



revenue requirement and rates for 2025 pre-Hay River sale and 2025 post-Hay River sale.

- (b) In paragraph 7(iii), to the extent there are revenues or costs that do not accrue evenly over the year, both NTPC and Naka-NWT may wish to address how any partial year effects arising from the imposition of annualized rates effective March 1, 2025, may be addressed.
- (c) In paragraph 7(v):
 - (i) Naka-NWT is required to provide Zone based costs and revenues and corresponding annualized zone based rates. (Limited Phase II).
 - (ii) Naka-NWT is required to provide schedules showing rate impacts to customers, by Zone, and by customer class, arising solely from the pre and post Hay River sale transaction.

7. Naka-NWT has reviewed its operating and maintenance (O&M) costs, return on equity and other components of revenue requirement and determined that its 2023 approved rates are sufficient to recover its forecast costs for 2024. On this basis and considering that the transfer of the Hay River Franchise is assumed to take place in 2025, Naka-NWT requests relief from the Board to not include a 2024 Test Year revenue requirement in this GRA and to approve existing rates as final for 2024.

8. Naka-NWT considers that the Board's original direction in Decision 1-2024 for Naka-NWT to include a 2024 Test Year revenue requirement stems from the Board's understanding, at that time, that the Hay River Disposition was to occur in 2024. This timing subsequently changed in accordance with the Board's updated direction to assume a March 1, 2025 transfer date.

9. Naka-NWT is of the view that relief from including a 2024 Test Year, and only including the required 2025 Test Year revenue requirement amounts in this Application, will result in reduced regulatory burden and, in turn, reduced intervener and legal costs.

10. With respect to 2025, Naka-NWT is requesting a bifurcated process for both Naka-NWT and NTPC's recently filed 2024-2026 General Rate Application. The first part of the process would be to test and approve the utilities' respective revenue requirements. In



parallel, Naka-NWT requests that the Board take steps to initiate a combined process to review and reform rate design in the Northwest Territories.

11. In Naka-NWT's view, the existing seven-zone rate system is not sustainable and, for the limited number of utility customers across the Northwest Territories, it is critical for the utilities to adopt cohesive and comprehensive rate design to ensure that all customers are treated equitably and fairly. Absent reformation of rate design, Naka-NWT notes that some communities, all things being the same as today, would see rate increases of over 200 percent as direct result of the Hay River disposition. Naka-NWT has made all reasonable efforts to optimize its costs, which will be fully tested in part one of the proposed process. However, systemic reform is required to address underlying issues and mitigate potential harm from the Hay River Disposition and to satisfy the Board's determinations in Decision 1-2024. In Naka-NWT's view, this potential harm is best addressed with reformation of the existing rate structure and cost allocation methodologies.

12. In Naka-NWT's view, the necessary reform can be achieved most effectively through a collaborative process with Naka-NWT, Naka-YK, the Board, GNWT and NTPC working together on solutions to address long-standing underlying issues in the NWT with regards to the disjointed seven-zone rate system. These issues are further challenged with the disruption the Hay River Disposition poses on the existing rate design framework. It is critical for all stakeholders to develop a wholistic rate model that mitigates harm and ensures fair and equitable rates for all customers.

13. Naka-NWT has significant concern with the narrow focus of NTPC's application¹¹ and the downstream impacts it has on Naka-NWT's customers, which are further compounded by the significant reduction in Naka-NWT's overall customer base. Rather than separate approaches, and potentially costly and litigious GRA proceedings, Naka-NWT is of the view that it is in the public interest that these complex and critical issues be addressed collaboratively.

¹¹ Proceeding 2024-021.



14. Accordingly, Naka-NWT is not requesting to implement the rate increases required to enable Naka-NWT to earn a fair return and recover its prudently incurred utility costs, on a final basis, until the Territory-wide review, discussed in further detail in Section 1B of this Application, is undertaken to ensure utility rates across the NWT are equitable and in the interest of the public.

1.3 2025 Proposed Revenue Requirement Overview

15. In accordance with the above and Section 43(4) of the *Public Utilities Act*, Naka-NWT is applying to the Board for approval of its revenue requirement for the 2025 Test Year, consisting of annualized revenue requirements for 2025 of \$6.2 million excluding Hay River and \$14.3 million including Hay River. Additionally, Naka-NWT is seeking approval for deferral accounts for the 2025 Test Year as discussed below, including the Hay River Transition deferral account as discussed further in Section 1B.

16. Leading up to this Application, Naka-NWT has responded to several extraordinary events including preparation for the Hay River Disposition, wildfires in the NWT, and the extended shutdown of the Taltson Hydro Generation Plant (the Taltson Shutdown). Despite these challenges, Naka-NWT has demonstrated its ability to respond promptly and effectively to challenging circumstances while continuing to fulfill its utility obligations. This includes taking the necessary measures to maintain a reliable power supply during the Taltson Shutdown, efficient restoration of power following the wildfires, and the proactive planning efforts it continues to undertake in preparation for the Hay River Disposition, including the identification and implementation of efficiencies and cost reductions to right size the company after the Hay River Disposition. These achievements highlight the dedication and resilience of Naka-NWT's team and its frontline operations.

1.3.1 Hay River Disposition

17. In 2023, Naka-NWT filed for approval of the Hay River Disposition with an assumed 2023 transaction closure date. Application delays in 2023 prevented Board Approval and precluded this timing. On March 26, 2024, the Board issued



Decision 1-2024¹² approving the Hay River Disposition. Subsequently, a letter from the Board dated June 11, 2024¹³ established March 1, 2025 as the transaction closure date.

18. In this Application, Naka-NWT has submitted two annualized 2025 revenue requirements, one including Hay River and one excluding it. The Application primarily focuses on the revenue requirement excluding Hay River (the 2025 revenue requirement) to address the impacts after the Hay River Disposition. However, an overview of the 2025 revenue requirement including Hay River is provided below, with detailed forecasts included in the full set of schedules.

19. The assumptions used to calculate the annualized 2025 revenue requirement including Hay River are:

- Full Time Equivalent (FTE) requirements remain the same as the 2024 forecast;
- Key Assumptions (inflation, vacancies rates, etc.) outlined in Section 1.4 below remain the same in both scenarios;
- The Taltson Hydro Generation Plant resumes operations January 1, 2025 and assumptions for the Hay River Standby Generation Plant operations return to normal course;
- Hay River assets continue to make up a portion of rate base and depreciate for the full year;
- No capital additions have been forecast in relation to Hay River in 2025 (so long as the Taltson Hydro Generation Plant is operational Naka-NWT does not see any substantial capital additions requirement in Hay River).

20. Although the Hay River Disposition significantly impacts all aspects of Naka-NWT's 2025 revenue requirement, Section 1B specifically addresses the following aspects of the Application pertaining to the Board Decision 1-2024¹⁴ and the subsequent letter issued June 11, 2024:¹⁵

¹² Decision 1-2024 (Exhibit 2023-007-134).

¹³ Exhibit 2024-006-004, para. 8.

¹⁴ Decision 1-2024 (Exhibit 2023-007-134).

¹⁵ Exhibit 2024-006-004, para. 8.



- (i) Administrative and General cost efficiencies and allocation methodology;
- (ii) An alternative approach to recovering Transmission services in the Taltson Zone; and
- (iii) A proposed method for recovering the partial year differences arising from the timing of the Hay River Disposition.

1.3.2 NWT Wildfire Recovery

21. While the proceeding with respect to Naka-NWT's 2023 Amended GRA¹⁶ was underway, wildfires directly impacted Naka-NWT's service area causing extensive damage to the electrical infrastructure in the Hamlet of Enterprise and significant damage in the Town, including damage to the Pine Point transmission line.

22. Throughout the wildfire, Naka-NWT remained steadfast in its commitment to support its communities, customers and employees, working tirelessly to ensure supply of critical power services and protecting its facilities. Once it was safe to do so, Naka NWT's top priority was to assess and repair damage to its utility infrastructure. The Naka-NWT team repaired and replaced 363 structures, restoring critical infrastructure and power for the entire community by March of 2024.

23. Naka-NWT filed an update to the 2023 Amended GRA on November 24, 2023,¹⁷ detailing the damage to Naka-NWT's assets caused by the wildfires and the estimated costs not covered by insurance. Repairs and reconstruction (the Wildfire Recovery) were still in progress when the hearing took place in January 2024 and were completed in March of 2024. Additional details pertaining to the wildfire recovery as it applies to this Application are provided in Section 7.

1.3.3 Taltson Shutdown

24. The aging equipment and infrastructure within the Taltson Hydro Generation Plant required substantial maintenance and upgrades to ensure a continued reliable and sustainable energy supply to the region. Naka-NWT provides backup power to Hay River

¹⁶ Exhibit 2022-002-013.

¹⁷ Exhibits 2022-002-078, 079, and 080.



and the surrounding communities through its backup diesel generation plant in Hay River (the Hay River Standby Generation Plant). As a result of the Taltson Shutdown, the Hay River Standby Generation Plant has been running day and night for over 18 months.

25. NTPC initially indicated to Naka-NWT that the Taltson Shutdown was expected to last six months, compared to its typical annual shutdown of two weeks.¹⁸ However, since the Taltson Shutdown commenced in May 2023, the Taltson Hydro Generation Plant has remained offline.

26. The continuous operation of the Hay River Standby Generation Plant has significantly increased Naka-NWT's operational workload. The standby plant now requires full-time supervision and hands-on operation compared to the previous standby mode in which it had been operating since 1988. The extended use of the generators has led to higher fuel, maintenance, and engine overhaul costs, putting pressure on rates in the Hydro Zone. To cover these additional expenses, Naka-NWT has had to secure considerable short-term financing, resulting in even higher costs from carrying charges.

27. As clarified by the Board,¹⁹ the costs incurred by Naka-NWT, including fuel, operations and maintenance, and carrying charges, related to providing back-up generation during the Taltson Shutdown are to be reflected in the existing Rider A mechanism. Any unrecovered Rider A balances would be transferred to NTPC as of the Hay River Disposition transaction closing date.

28. The successful operation of the Hay River Standby Generation Plant has been instrumental in maintaining reliable electricity services for Naka-NWT customers in the Hydro Zone. Despite the challenges of operating the backup facility, Naka-NWT has been able to minimize interruptions and ensure a seamless transition from the hydro power source to the Hay River Standby Generation Plant. This is evidenced by the low number of outages since 2023 and the rapid response time of Naka-NWT technicians. In 2023 there were only three interruptions, and in 2024 to date, there have been only two.

¹⁸ <u>https://www.ntpc.com/about-ntpc/news-releases/2023/02/23/taltson-overhaul-begin-april-2023.</u>

¹⁹ Decision 9-2024, para. 9.



Naka-NWT technicians have worked diligently to achieve this high level of reliability by completing proactive maintenance and addressing issues promptly. This demonstrates Naka-NWT's commitment to providing safe and reliable electricity services to customers.

29. Additional details pertaining to the Taltson Shutdown as it applies to this Application are provided in Section 4.4.2.

1.3.4 Applied-For Revenue Requirement

30. Schedule 2.0 and Schedule 2.1 of the Application detail Naka-NWT's applied for Tariffs for the 2025 Test Year, summarized in Table 1.1 below. Increases over existing rates in 2025 are largely driven by the removal of one-time tax benefits given to customers in 2023 as discussed in Section 8 of the Application, as well as lower sales volumes due to the Hay River Disposition.

	Total Company *			
	2023 Approved	2025 without Hay River	2025 with Hay River	
Naka-NWT Revenue Requirement (before Taltson Zone Revenue Offset and Fuel Prices)	\$12,478	\$6,172	\$14,157	
Impact versus Existing Rates	\$654	\$2,286	\$1,569	

Table 1.1: Applied-For Revenue Requirement – Naka-NWT(\$000)

*Note: For detailed revenue requirement by Zone, please refer to Naka-NWT 2025 GRA, Schedule 3.1.

1.4 Rate Adjustment Rider (Rider R)

31. As outlined in Section 15, Naka-NWT is requesting interim approval to update its Rate Adjustment Rider (Rider R) for implementation effective January 1, 2025 to begin collecting its 2025 revenue requirement shortfall while continuing to serve the Town of Hay River. Although Naka-NWT has calculated 2025 revenue requirements, both including and excluding costs related to serving the Town of Hay River, Naka-NWT has calculated the proposed Rider R based on the shortfall related to the 2025 revenue requirement with Hay River.

32. At the time of this Application, the Hay River Disposition has not yet occurred and Naka-NWT will continue to serve the Town of Hay River until at least March 1, 2025. Naka-NWT has reviewed its cash flow requirements and impacts on customer bills and proposes to recover <u>70 percent</u> of the shortfalls, in each zone, on an interim refundable basis effective January 1, 2025 in order to minimize future true-ups,

33. Naka-NWT is of the view that recovering 70 percent of the outstanding revenue requirement shortfall balances will strike a reasonable balance between funding capital and operational requirements and mitigating rate volatility, while continuing to serve the Town of Hay River in 2025.

34. To implement Rider R on January 1, 2025, Board approval is required on or before December 17, 2024. Naka-NWT submits that any adjustments respecting Rider R, following a Board Decision, will be finalized in a subsequent Compliance Filing, as well as after the Hay River Disposition.

35. The impacts of the proposed Rider R changes on sample residential and commercial customer monthly bills have been determined for each rate zone. The changes reported in Table 1.2 below include the impacts, as applicable, of the Government of the Northwest Territories (GNWT) Rate Equalization Program (GREP) and the Territorial Power Subsidy Program (TPSP) for Non-Government residential and commercial customers.



Table 1.2: Impact on Customers' Bills by Rate ZoneEffective January 1, 2025

	Hydro Zone		Thermal Zone	
Rate Class	(\$)	(%)	(\$)	(%)
Residential ¹				
Non-Government ²	\$1.49	+0.6%	(\$0.00)	-0.0%
Government	\$17.64	+6.4%	\$65.36	+13.6%
General Service ³				
Non-Government	\$22.58	+6.1%	\$85.74	+13.1%
Government	\$22.58	+6.1%	\$94.49	+13.8%

Residential Customer using 600 kWh per month.

For Non-Government Customers:

• Residential includes GREP (Thermal Zone only) and TPSP; and

General Service includes GREP (Thermal Zone only).

General Service Customer using 1,000 kWh & 5 kW per month.

1.5 Deferral Accounts

1. 2.

3.

36. The previously accepted criteria for establishing a deferral account have not changed since Naka-NWT's 2023 Amended GRA. The criteria are:

- (i) not under the control of the company and not reasonably forecastable; or
- (ii) an error in forecasting could produce a loss or gain of substantial magnitude.

37. Naka-NWT is requesting approval for the following Deferral Accounts during the 2025 Test Year, as shown in Table 1.3.

Table 1.3: Defer	ral Accounts
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Deferral Account	Section	Previously Approved
Hay River Transition	Section 1B	N/A
Purchase Power Flow Through	Section 3	9-2014
Diesel Fuel Price Variance	Section 4	9-2014
Hay River Diesel Generation Variance	Section 1 & 4	2-2024; 22-2024; 9-2014
Defined Benefit Pension Plan	Section 5	9-2014
Income Tax Rate Deferral Account	Section 8	9-2014



38. A comprehensive explanation of the Hay River Transition deferral can be found in Section 1B.

39. In addition to the previously approved costs (fuel, operating and maintenance costs, and carrying charges) included in the Hay River Diesel Generation Variance, Naka-NWT is seeking approval to include the return on capital and depreciation expenses should there be any required 2025 capital maintenance additions directly related to operating the Hay River Standby Generation Plant during the Taltson Shutdown in this deferral.

40. As outlined in Section 4.4.2, Naka-NWT has been unable to earn a fair return on or incorporate depreciation expenses from 2023 or 2024 additions in its 2023 revenue requirement. In addition to recovering its prudently incurred costs, a utility is entitled to earn a fair return on and of capital. Pursuant to sections 49 and 50 of the *Public Utilities Act*, the Board shall fix just and reasonable rates and shall fix a fair return on the rate base of a public utility. Naka-NWT submits that the requested deferral is needed in order to allow Naka-NWT to earn a fair return on the above-noted expenses.

41. As well as the deferral accounts listed above, Naka-NWT is requesting approval to continue its deferral account used to record amounts associated with any Board Decisions, or changes to statutory or legislative provisions, that result in changes to the rules or parameters under which Naka-NWT operates, including such areas as the billing system, collection practices or the frequency of meter reading, and that impact Naka-NWT's 2025 revenues and/or revenue requirement amounts. For clarity, no such recorded amounts would be approved by the Board as part of this Application. Rather, the balance(s) would be brought forward by Naka-NWT for consideration in a future application to the Board.

42. As many of the deferral accounts will continue and will be impacted by the timing of the Hay River Disposition, Naka-NWT respectfully requests that the Board approve, in the interim, the placeholder amounts and then review and test the prudency of the deferred balances as part of a separate proceeding following the Hay River Disposition.



1.6 Key Assumptions

43. Table 1.4 below outlines the key assumptions made in the preparation of this Application. The assumptions used are derived from publicly available economic forecasts, historic trends, and information used in recent Alberta regulatory proceedings.

	2025
Labour Inflation – In Scope	3.5
Labour Inflation – Out of Scope	3.5
Other Inflation	2.5
Vacancy Rate	0.0
Long-Term Rate	N/A
Short-Term Borrowing Rate	N/A

Table 1.4: Key Assumptions (%)

44. With respect to In-Scope labour (meaning labour subject to a Collective Agreement) in the Test Period, the Canadian Energy Workers Association (CEWA) has a Collective Agreement in place for the period January 1, 2022 to December 31, 2024.²⁰ The 3.5 percent increase that Naka-NWT is forecasting for the 2025 Test Year is based on the 2025 increase awarded in August 2024 by an arbitrator to In-Scope employees of Naka-NWT's affiliate company, ATCO Electric Yukon (AEY), which operates in similar Northern utility union market conditions.

45. Out-of-Scope (not subject to a Collective Agreement) labour increases are forecast at 3.5 percent in 2025 Test Year. Due to the timing of this Application, the escalation rate for 2024 forecast is based on actual increases for 2024. For 2025, the forecast increase is the same as that forecast for In-Scope labour, which is required to prevent wage compression and to help ensure that Naka-NWT can attract and retain personnel in a challenging and evolving labour market.

²⁰ Agreement between Northland Utilities and Canadian Energy Workers Association January 1, 2022 to December 31, 2024, dated April 19, 2023.



46. For non-labour costs, the forecast rate that has been applied to the Test Year is based on the Bank of Canada (BoC)'s inflation rate of 2.5 percent, per its Monetary Policy Report dated April 2024.²¹

47. Regarding vacancy rates, Naka-NWT has not forecast any vacancies for the Test Year since the forecast includes the minimum number of FTEs possible to operate the system safely and reliably, recognizing that vacancies, or leave time, must be filled with contractors or external resources.

48. With respect to long-term debt requirements, Naka-NWT is not forecasting any new long-term debt to be issued in the Test Year.

1.7 Return on Equity (ROE) and Capital Structure

49. With respect to return on rate base, as outlined in Section 7, Naka-NWT requests establishing an approved ROE and common equity ratio based on the Generic Cost of Capital (GCOC) for Alberta utilities approved by the Alberta Utilities Commission (Commission), with adjustments to reflect the characteristics and circumstances of Naka-NWT as a small, northern jurisdiction utility.

50. In Alberta, the Commission approved a 2024 ROE of 9.28 percent for Alberta's electric and gas utilities in GCOC Decision 28585-D01-2023. Naka-NWT requests that its ROE be set based on a rate of 9.28 percent plus an equity risk premium of 100 basis points for 2025. The increased equity risk premium in 2025 reflects Naka-NWT's increased risk following the Hay River Disposition and the significant decrease in Naka-NWT's customer base. With respect to the common equity ratio, Naka-NWT is not requesting a change to the previously approved five percent adder. Please refer to Section 7 of the Application for more information.

²¹ <u>https://www.bankofcanada.ca/2024/04/mpr-2024-04-10/</u>



51. Due to the delay in the Hay River Disposition transaction closing date to 2025, Naka-NWT continues utilizing short-term borrowing from ATCO Electric to finance the additional capital costs forecast in 2024 rather than issuing additional long-term debt.

1.8 Changes in Accounting Practices and Procedures

52. Naka-NWT is requesting to remove contributions related to work in progress from the computation of rate base.

53. Historically, Naka-NWT has included contribution work in progress within its rate base computations, which has resulted in a temporary reduction to rate base balances due to the exclusion of the corresponding in-progress capital spend. An offsetting amount of allowance for funds used during construction (AFUDC) is accumulated within the corresponding projects, to be later added to rate base and collected over the life of the asset in service. This treatment was appropriate because the implications of contributions has historically been negligible to Naka-NWT's rate base and it was consistent with Naka-NWT's affiliate companies, including ATCO Electric and AEY, which was administratively efficient.

54. However, since Naka-NWT's last GRA, both ATCO Electric and AEY have both been directed by their regulators to exclude contribution work in progress from their rate bases.²² A driver for the change was increased frequency of net zero capital expenditures eligible for significant government funding, which could potentially be available to Naka-NWT in the future.²³ If that were the case, the inclusion of contribution work in progress in Naka-NWT's rate base could result in significant fluctuations in rate base balances and corresponding revenue requirement amounts.

55. Excluding contribution work in progress from rate base smooths out revenue requirement trends (over the long term), reduces AFUDC accumulated on related projects, and more accurately represents Naka-NWT's annual returns and rate base

²² ATCO Electric in AUC Decision 20272-D01-2016, para. 88; ATCO Electric Yukon in YUB Board Order 2024-01, Appendix A, para. 271.

ATCO Electric in AUC Decision 20272-D01-2016, para. 88; ATCO Electric Yukon in YUB Board Order 2024-01, Appendix A, para. 271.



balances. Also, this proposed change in accounting treatment is consistent with ATCO Electric and AEY, Naka-NWT's affiliate companies, with which it shares an accounting system, reducing administrative burden.

1.9 Rate Adjustments Post Hay River Disposition

56. Further to Naka-NWT's 2024 final rates request (in Section 1.3) and 2025 Interim refundable rate request, pre-Hay River Franchise transfer (in Section 1.4), Naka-NWT notes that the applied for revenue requirement for 2025 under the current framework has the potential to result in material rate impacts following the Hay River Disposition. As shown in Total Revenue Requirement Schedule 3.0, the rate impact is 33 percent on a total basis and 60 percent before applying the Taltson Zone Revenue Offset, as outlined in Section 1B.1. Naka-NWT considers that these rate impacts will pose significant rate shock and harm for its remaining customers, and present an outcome that is not in the public interest.

57. For these reasons, Naka-NWT requests that its pending rate adjustments, post the Hay River disposition, are held in abeyance until all possible rate mitigation/harmonization mechanisms are explored and reviewed. While the inclusion of Government and Non-Government rates (discussed in Section 1B.7 and Section 14.2) will help reduce some of the rate impacts, Naka-NWT considers additional Rate Reform measures are required in the Northwest Territories. Please refer to Section 1B.8 for further details.

1.10 Limited Phase II Rates by Zone

58. As outlined in the Board's June 6, 2024 letter,²⁴ Naka-NWT was directed to provide zone-based costs and revenues and corresponding annualized zone-based rates (Limited Phase II), with corresponding schedules showing rate impacts to customers, by zone and by customer class, arising solely from the pre- and post- Hay River Disposition. Accordingly, please refer to Section 14.1 for Naka-NWT's Phase II studies (on a limited

²⁴ Exhibit 2024-006-004, para. 7(v).



basis) and Phase II results based on 2025 revenue requirements, pre- and post- the Hay River Disposition.

59. Additionally, Naka-NWT has reviewed potential solutions to mitigate harm and uphold the Board's "No Harm" determination of the Hay River Disposition. As part of the review and restructuring of rate design in the NWT, Naka-NWT and NTPC should consistently implement Government and Non-Government rate structures to ensure equitable distribution of subsidy programs in place to all customers.

1.10.1 Government and Non-Government Rates

60. As discussed in Section 1B.7, Naka-NWT considers that, in order to help minimize rate shock and prevent undue harm for its remaining customers following the Hay River Disposition, alternative approaches to cost recovery and rate design are required. In this regard, Naka-NWT requests creating Government and Non-Government base rates.

61. The creation of Government and Non-Government rates, similar to NTPC's approach to revenue recovery, aligns with the GNWT's 2017 Electricity Rate Policy Direction (GNWT Policy Direction) which was developed to promote rate stability, gradualism and to allow for greater flexibility in rate design. Please refer to Section 14.2 and Section 14.2 Attachment 1 for further details, explanations, and calculations respecting the methodology utilized in creating Government and Non-Government base rates and the resulting rate impacts by zone and by customer segment.

1.11 Approvals Requested from the Board

62. Naka-NWT seeks the following approvals from the Board:

Process Approvals:

- Relief from Board direction to include a 2024 Test Year and approval to set existing rates as final rates for 2024, as discussed in Section 1.3;
- Approval to bifurcate this Application process and NTPC's 2024-26 General Rate Application to:



a. Establish approved revenue requirements; and

b. Initiate a combined process for the establishment of an approved territory-wide rate design model for equitable rates across the Territory, as discussed in Section 1B.8, in coordination with the GNWT;

63. Final rates would be determined by applying approved revenue requirements to the approved rate design model.

Revenue Requirement Approvals:

- Approval of Naka-NWT's revenue requirement amounts and opening rate base for the 2025 Test Year, pre and post the Hay River Disposition;
- Approval for 2025 Interim refundable Rider R, while continuing to serve Hay River, as discussed in Section 1.4;
- Approval for continuation of existing deferral accounts listed in Section 1.5;
- Approval for a new deferral account to address the timing of the transfer of Hay River assets included in Section 1B.5;
- Approval to continue to recover costs associated with the Taltson Shutdown, in addition to the recovery of related unanticipated capital maintenance expenditures in 2025, included in Section 1.5 and Section 4.4.2;
- Approval to remove contributions related to work in progress from the computation of rate base, included in Section 1.8;
- Approval of updated depreciation parameters discussed in Section 6 and supported by the Depreciation Study conducted by Concentric included as Attachment 1;
- Approval to modify the amortization of reserve difference amounts in technical updates and complete depreciation studies discussed in Section 6;
- Approval for updated Maximum Investment Levels (MILs) discussed in Section 11;
- Subject to the outcome of Naka-NWT's request for a Territory-wide rate strategy, approval for a new Taltson Zone Revenue Offset included in Section 1B.6;



- Subject to the outcome of Naka-NWT's request for a Territory-wide rate strategy, approval for new Government and Non-Government base rates included in Section 1B.7 and Section 14.2;
- Direction for Naka and NTPC to undertake a collaborative Territory-wide review of rate design with a combined application for equitable rates across the Territory, as discussed in 1B.8; and
- Such further and other relief as the Board may determine is appropriate until a subsequent Application.



SECTION 1B: HAY RIVER DISPOSITION

1B.1 Summary

64. The loss of the majority of Naka-NWT's customer base in Hay River will lead to profound operational and financial challenges. This mass departure has disrupted economies of scale that were previously relied upon, as the unavoidable costs of ongoing operations are now distributed across a much smaller pool of users. This has necessitated a substantial adjustment in pricing strategy to sustain operational viability. Absent reformed rate design in the NWT, Naka-NWT's remaining customers are now facing considerable upward pressure on rates, which reflects the increased per capita costs to maintain service quality, infrastructure integrity, and meet regulatory requirements, given the underlying NWT policy for a seven-zone rate system. Accordingly, this Application addresses operations post-disposition and offers a principled and reasoned solution to maintaining safe and reliable service and supporting customers.

65. In Decision 1-2024, the Board approved the Hay River Disposition, finding that the "no harm" test had been met. The Board issued further correspondence pertaining to the Hay River Disposition on June 11, 2024,¹ directing a transaction close date of March 1, 2025. Additionally, Naka-NWT was directed to:

- (a) file a 2024 revenue requirement including Hay River, an annualized 2025 revenue requirements including Hay River and an annualized 2025 revenue requirement excluding Hay River;
- (b) reflect efficiencies that would permit the A&G cost allocation to the transmission function without undue rate impacts to Naka-NWT's remaining Hydro Zone customers;
- (c) address how any partial year effects arising from imposition of annualized rates effective March 1, 2025 may be addressed; and
- (d) provide a Limited Phase II for the 2025 revenue requirement excluding Hay River.

¹ Exhibit 2024-006-004.



66. The remainder of this section outlines Naka-NWT's response and proposal to these directives, considering the impacts of the Hay River Disposition on this Application (with the exception of Naka-NWT's Limited Phase II, which is included in Section 14 of this Application).

1B.2 2025 Revenue Requirement

67. Naka-NWT has provided Minimum Filing Requirement (MFR) schedules for its 2025 Test Year with and without Hay River. The narratives, as noted in Section 1 of this Application, focus on the 2025 Test Year excluding Hay River. The only difference between the two versions of the 2025 Test Year is the removal of the rate base associated with the Hay River Franchise Assets as well as cost reductions Naka-NWT is able to achieve absent the operation of Hay River.

68. Naka-NWT's rate base will be reduced by \$9,102,000, or approximately 45 percent, as a result of the Hay River Disposition. This reduction lowers revenue requirement by \$1,301,000 for depreciation and return in addition to lowering tax expenses by \$78,000. Operating costs, including administrative costs, for the reduced customer and asset base are \$2,609,000, or approximately 51 percent, lower than the 2025 Test Year including Hay River, which reflects increases over the approved 2023 revenue requirement aligned with inflation. This includes reductions to operational and head office FTEs and sharing of management and supervision resources with Naka-NWT's affiliates.

69. In addition to reductions to Naka-NWT's capital and operating costs, without the Hay River Franchise Assets, Naka-NWT requires a lower supply of electric power to serve its distribution customers which results in lower diesel and/or purchased power costs of \$4,088,000.

1B.3 Administrative and General (A&G) Efficiencies

70. Naka-NWT has made all reasonable efforts to minimize its administrative and general costs before and after the Hay River Disposition. These efforts extend beyond the most recent 2023 Amended GRA. Upon receipt of notice of the Town's intent to award



its Franchise to NTPC, Naka-NWT began evaluating its costs and operations to find efficiencies that would ensure sustainable long-term operations upon disposition of its largest franchise.

71. These efforts have resulted in a cumulative reduction of more than 25 percent of its total A&G costs as of 2024 compared to the Approved 2015 forecast, after adjusting for inflation. The benefit of these efficiencies has largely been passed onto customers already, including Hay River customers, through the 2023 Amended GRA. Following the Hay River Disposition, Naka-NWT anticipates being able to reduce administrative costs by an additional 25 percent in 2025 for a total reduction of over 51 percent since notification of the Town's intent.

72. Naka-NWT anticipates that, even post-Disposition, it will (as will NTPC) incur significant administrative burden including, but not limited to, the transition of customers, settlement of final bills and customer accounts, transfer of inventory balances, and settlement and reconciliation of regulatory and financial accounts. It is not practicable for Naka-NWT to realize all potential efficiencies upon or immediately following the transaction closing date. This is not uncommon or unexpected – when Naka-NWT's Alberta-based affiliates transitioned their customer bases to new retailers in 2004, the customer-related post-transaction processes took months to transition and settle.

73. Naka-NWT continues to assess and will realize efficiencies over the next several years, but anticipates that the post-disposition processes will take place over a one to two year transition period beginning in 2025. The legal amalgamation of Naka-NWT with its Yellowknife affiliate is a feasible opportunity to realize further efficiencies in the future. Naka-NWT does not have available staffing resources to effect such a transaction in early 2025 on top of the continued stabilization of its new billing system, high workload and transaction volumes associated with the ongoing operation of the Hay River Standby Generation Plant, and ongoing commercial and administrative matters associated with the Hay River Disposition.



74. In addition to resource constraints, Naka-NWT is waiting for matters related to the Hay River Disposition to settle in an effort to protect Yellowknife ratepayers from unintended negative consequences of the Hay River Disposition and to ensure that if there are benefits to be passed on to customers as a result of an amalgamation, those benefits are also shared with customers in Yellowknife. It must also be noted that, while cost savings can be realized through an amalgamation, these savings would not be significant enough to entirely offset the reduction in economies of scale that Naka-NWT faces due to the Hay River Disposition. Many of the A&G costs Naka-NWT has applied for in the Test Year are fixed costs that are not relative to the size of Naka-NWT's system, nor the number of customers the utility serves.

75. To optimize the cost of an amalgamation, it would be most prudent to effect the transaction on Naka-NWT's fiscal year end (December 31). As such, Naka-NWT plans to obtain the necessary approvals and commence the necessary processes to amalgamate effective January 1, 2026. An Application for the Board's approval to do so will be filed separately at a later date.

1B.4 Hydro and Thermal Cost Allocations

76. To assist the Board in addressing the directions per paragraph 7(v) of the Board's June 11, 2024 letter,² Naka-NWT provides Table 1B.1 below to outline the complete list of allocators used in developing the Hydro Zone and Thermal Zone revenue requirement amounts. Naka-NWT notes the allocation of indirect costs may be impacted by the outcome of the requested Territory-wide review and reformation of rate design in the NWT.

² Exhibit 2024-006-004.



	2024		2025	
Allocator	Hydro Zone	Thermal Zone	Hydro Zone	Thermal Zone
Number of Customers	79	21	23	77
Total System Load (incl. Transmission)	87	13	88	12
Distribution Energy Sales	87	13	32	68
85% Energy/15% Average # of Customers ³	86	14	30	70
Mid-year Gross PP&E	74	26	57	43
Mid-year Gross Generation PP&E	47	53	0	100
Mid-year Gross Transmission PP&E	100	0	100	0
Mid-year Gross Distribution PP&E	80	20	63	37
Mid-year Rate Base	72	28	46	54

Table 1B.1: Summary of Allocators (%)

77. As a result of the Hay River Disposition, all of the allocators, with the exception of Total System Load (including Transmission), result in a higher ratio of indirect costs being apportioned to the Thermal Zone. In an effort to preserve the Board's "no harm" determination with respect to the Hay River Disposition, Naka-NWT has applied the Total System Load (including Transmission) allocator to its A&G costs to mitigate increases in the Thermal Zone revenue requirement as a direct result of the Hay River Disposition. With this mitigation in place, the proportionate revenue requirement following the Hay River Disposition is \$193,000 higher in the Thermal Zone. Absent this mitigation, this would be a proportionate increase of \$486,000.

78. In addition to mitigating undue harm to Naka-NWT's Thermal Zone customers, this approach aligns with the intent of the GNWT's May 2010 Efficient, Affordable and Equitable: Creating a Brighter Future for the Northwest Territories' Electricity System report. The report determined that "Allocating administrative and general operational costs system-wide, on a kilowatt-hour basis, is equitable, transparent and a key step in simplifying the complex system in places".⁴ Naka-NWT's system includes its Pine Point

³ This allocator relates to the allocation methodology of Public Information costs as determined in Decision 1-2016, whereby 85% of the costs are allocated based on Distribution Energy Sales and 15% of the costs are allocated based on the average number of customers.

⁴ <u>https://www.ntlegislativeassembly.ca/sites/default/files/legacy/10-05-14td41-165.pdf</u> (PDF p. 26).



Transmission Line, and it is fair and reasonable for costs to be apportioned in a way that acknowledges Naka-NWT's whole system and mitigates undue harm.

79. For all other indirect cost allocations, Naka-NWT has utilized the previouslyapproved allocation methodologies notwithstanding the impacts of the Hay River Disposition.

1B.5 Hay River Transition Deferral

80. In Decision 1-2024, the Board approved Naka-NWT's recovery of certain expenses arising from the Hay River Disposition, including debt break fees, employee severance and segregation-related costs.⁵ Because Naka-NWT and NTPC continue to work through the logistics of the Hay River Disposition and the final amount of these costs remain unknown, Naka-NWT has not included any of these costs in this Application. Naka-NWT requests approval for a Hay River Transition Deferral to track and recover these costs, as they are outside of Naka-NWT's control and any unforeseen delay in the timing of the Hay River Disposition may have a material impact on the costs incurred.

81. In addition, Naka-NWT proposes utilizing this Deferral Account to address the change in the 2025 revenue requirement, as a result of the timing of the Hay River Disposition. In this Application, Naka-NWT has provided annualized revenue requirements for 2025 both including Hay River and excluding Hay River. Naka-NWT's final revenue requirement for 2025 will depend on the actual date of the Hay River Disposition, based on the sum of the revenue requirements including and excluding Hay River on a partial year basis.

82. Naka-NWT has provided 2025 total monthly revenue requirement amounts, including and excluding Hay River in Section 1B.5 Attachment 1, and by zone in Section 1B.5 Attachment 2. The monthly revenue requirements detailed in Section 1B.5 Attachment 2 will be combined to calculate a total 2025 revenue requirement by zone which will be utilized to calculate the net revenue surplus or shortfall to be trued-up with

⁵ Decision 1-2024.



customers as final rates. Based on the monthly revenue requirement forecasts and based on a transaction close date of March 1, 2025, Naka-NWT's combined revenue requirement in 2025 would be \$7,696,000.

83. Naka-NWT proposes to true up the balance in this Deferral subsequent to the Hay River Disposition, which will form part of a separate application for approval from the Board.

1B.6 Taltson Zone Revenue Offset

84. Following the Hay River Disposition, the Taltson Hydro Zone is significantly more complex with shared ownership of an integrated system. Electricity generated at NTPC's Taltson Hydro Generation Plant will flow into Hay River over Naka-NWT's transmission line, and then will be wheeled (transported) over the Hay River distribution system to serve Naka-NWT retail distribution customers in the remaining Hydro Zone communities.

85. Naka-NWT maintains that there are outstanding transmission and other related costs forecast in its 2025 revenue requirement that must be recovered from all customers, including Hay River customers, following the Hay River Disposition. These costs relate to serving Naka-NWT's remaining customers in the Taltson Zone, as well as to serving customers in the Town of Hay River. In addition, the proportionate revenue requirement for the Hydro Rate Zone increases by \$524,000 with the removal of Hay River, which would significantly (more than 200 percent) impact the rates for Naka-NWT's remaining 168 Hydro Zone customers. Naka-NWT submits that a harmonization of Taltson Zone revenue requirements following the Hay River Disposition is necessary with respect to mitigating material rate impacts and minimizing undue harm to Naka-NWT's remaining customers. Naka-NWT notes that the Taltson harmonization proposal is subject to change pending the outcome of the requested Territory-wide rate reform.

86. On this basis, Naka-NWT has reviewed its costs and rates in the Hydro Zone and has calculated a Taltson Zone Revenue Offset to its 2025 revenue requirement that will fairly distribute costs across the Taltson Zone, create regulatory efficiencies that all customers will benefit from, and ensure that Naka-NWT is able to recover its remaining



costs. Naka-NWT's proposed Taltson Zone Revenue Offset methodology essentially harmonizes rates across the zone and, thus, distributes costs fairly and largely mitigates rate impacts for Naka-NWT's remaining customers following the Hay River Disposition. Please refer to Section 1B.6.1 below for the rationale and methodology respecting the Taltson Zone Revenue Offset calculations. Additionally, detailed calculations have been provided in Naka-NWT GRA Schedule 13.0 and a corresponding price schedule is provided in Section 1B.6 Attachment 1.

1B.6.1 Rationale/Benefits

87. Naka-NWT submits that the Taltson Zone Revenue Offset is a reasonable, equitable, and efficient approach to value the costs that should be shared by all customers in the Taltson Zone. When determining its approach to the Taltson Zone Revenue Offset, Naka-NWT relied on Bonbright's Principles of Rate Design⁶ to help guide the creation of a fair, impartial, and effective mechanism to share costs within the integrated Taltson Zone. Bonbright's rate design principles consider that rates should be simple, understandable, and feasible. Additionally, Bonbright's principles aim to avoid undue discrimination and promote rate stability based on the efficient use of energy and existing systems. Naka-NWT submits that its Taltson Zone Revenue Offset calculation achieves Bonbright's rate design objectives.

88. Both Naka-NWT and NTPC include underlying assumptions that the Town of Hay River will be served by Naka-NWT for the entirety of 2024. However, following the Hay River Disposition to NTPC, expected in March 2025, the Taltson Zone Revenue Offset calculation would recognize that the Revenue Requirement and Total Energy associated with the Town of Hay River will shift from Naka-NWT to NTPC and, as such, the Taltson Zone Revenue Offset should reflect that change. This approach is equitable to Naka-NWT, NTPC, and the Town of Hay River following the disposition of the franchise and minimizes harm to any party.

⁶ 'Principles of Public Utility Rates', James C Bonbright, Columbia University, 1961.



89. Naka-NWT's Taltson Zone Revenue Offset will enable fair and equitable rates for customers and allow Naka-NWT to recover its costs related to the transmission function, without undue discrimination to any customers served on the integrated system. Naka-NWT submits that this proposal will also ensure rate stability and fairness to all customers in the future, especially following the Hay River Disposition.

90. As shown in Schedule 3.1, and with the inclusion of the Taltson Zone Revenue Offset of \$1.3 million (included in Schedule 3.1, Line 4), the proportionate Hydro Zone rate impact for 2025, per Line 30, is 33.0 percent. If the Taltson Zone Revenue Offset is not included, Naka-NWT's remaining customers in the Hydro Zone would experience a far more significant rate impact of approximately 221 percent in 2025 upon the transfer of the Hay River franchise. In other terms, every \$100,000 in costs allocated to the remaining Hydro Zone ratepayers (versus recovered by the Taltson Zone Revenue Offset amount) will result in a rate impact of approximately 15 percent. This outcome clearly demonstrates the level of materiality and potential harm to remaining customers if Naka-NWT is not able to fully recover outstanding costs following the Hay River Disposition.

1B.6.2 Calculation/Methodology

91. Detailed calculations and supporting notes/explanations of Naka-NWT's proposed Taltson Zone Revenue Offset of \$1.3 million (included per Schedule 3.1, Line 4) are outlined in Schedule 13.0. In the first Section (Lines 1 to 5), Naka-NWT has calculated what the average rate (\$0.977/kWh, per Line 5) is for remaining customers in Naka-NWT's Taltson Zone (i.e., post Hay River Disposition) by dividing total revenue requirement (excluding purchase power) by total energy for Naka-NWT's Taltson Zone.

92. In the next Section, per lines 6 to 12, Naka-NWT has calculated NTPC's Taltson Zone average rate of \$0.299/kWh (per Line 12), based on revenue requirement and total energy (Lines 7 and 11, respectively) per NTPC's 2024 Interim Refundable Rates Application, approved in Decision 15-2024, as well as based on including the Town of Hay River's forecast revenue requirement (Line 8), total energy (Line 10) and total Taltson Zone Purchase Power costs (Line 9). The information used for NTPC's



Taltson Zone is a placeholder amount and subject to being updated as part of NTPC's Taltson zone revenue requirement forecast upon transfer of the Hay River Franchise to NTPC.

93. Per Lines 13 to 16, the combined total revenue requirement and total energy from each utility results in a combined rate, for the entire Taltson Zone, of \$0.324/kWh (Line 16) and, per Lines 18 and 19, Naka-NWT has calculated the difference between the revenue requirement of each utility and the calculated revenue, based on the harmonized rate for the entire Taltson Zone. The resulting revenue differential of +/-\$1.3 million on Lines 18 and 19 represent the costs that can be shared between Naka-NWT and NTPC and the corresponding Taltson Zone Revenue Offset amounts.

94. Please note that the inputs and information included in the Taltson Zone Revenue Offset calculations are based on the latest revenue requirement and billing determinant forecast information and are subject to being updated based on final amounts approved by the Board for both Naka-NWT and NTPC.

95. Naka-NWT submits that implementing the proposed Taltson Zone Revenue Offset can be achieved easily and efficiently. The Taltson Zone Revenue Offset, calculated in Schedule 13.0, represents the annual costs that can be shared between Naka-NWT and NTPC. Naka-NWT proposes that the annualized amounts be recovered via monthly invoicing from Naka-NWT to NTPC, whereby the annual costs are divided by twelve to determine the monthly fixed charges. Please refer to Section 1B.6 Attachment 1 for the proposed price schedule related to the Taltson Zone Revenue Offset.

1B.7 Government and Non-Government Rates

96. In addition to the Taltson Zone Revenue Offset, which is necessary for Naka-NWT to be able to recover outstanding transmission and other related costs and to fairly distribute costs across the Taltson Zone, Naka-NWT considers that additional changes are required to its rate design framework, such as implementing Government and Non-Government rates, to help minimize rate impacts for customers in both the Hydro and Thermal Zones.



97. The creation of Government and Non-Government rates, similar to NTPC's approach to revenue recovery, aligns with the GNWT's 2017 Electricity Rate Policy Direction (GNWT Policy Direction), which was developed to promote rate stability, gradualism and to allow for greater flexibility in rate design. Please refer to Section 14.3 and Section 14.3 Attachment 1 for further details, explanations, and calculations respecting the methodology utilized in creating Government and Non-Government base rates and the resulting rate impacts by zone and by customer segment.

98. Naka-NWT notes that the proposed Government/Non-Government rate structure is subject to change pending the outcome of the requested Territory-wide review of rate design.

1B.8 Rate Reform in the Northwest Territories

99. Irrespective of the above-requested Taltson Zone Revenue Offset and Government and Non-Government rate design frameworks, as outlined per Table 1.1 of Section 1, the applied-for revenue requirement for 2025 results in material rate impacts, especially after the Hay River Disposition occurs, where the rate impact is 33 percent, on a total basis, and 60 percent, before applying the Taltson Zone Revenue Offset. These rate impacts pose significant rate shock and harm for Naka-NWT's remaining customers and present an outcome that is not in the public interest.

100. As outlined in Section 1B.1, these material rate impacts would result even after reviewing and reflecting all possible efficiencies and minimizing all administrative and general costs, before and after the Hay River Disposition. Further, any cost savings that may be gained from amalgamation with Naka-NWT's Yellowknife affiliate would not be large enough to offset the reduction in economies of scale that Naka-NWT faces due to the Hay River Disposition. In addition to the significant rate impact implications outlined above, NTPC, in its 2024-2025 and 2025-2026 GRA submitted on October 30, 2024,⁷ proposes material rate increases, averaging 25 percent. These rate increases are

⁷ Proceeding 2024-021


subsequent to NTPC not adopting the results of its Phase II study, which include rate increases as high as 67 percent in the Taltson Zone, before rate smoothing is applied.

101. Both Naka-NWT and NTPC's proposed revenue requirements for the upcoming Test Year clearly demonstrate that all customers between the two utilities may potentially experience material rate impacts. In addition, Naka-NWT notes that there are material differences in how Phase II methodologies and Revenue to Cost (R/C) ratios are applied amongst rate zones between the utilities, the availability of Government vs Non-Government rates and so forth.

102. In this regard, Naka-NWT requests that the Board take steps to initiate a combined process to review all three NWT utilities (NTPC, Naka-NWT, as well as Naka-YK) rate design frameworks with a focus on harmonizing and creating Postage Stamp rates in the Northwest Territories (NWT) across the three zones for both utilities. Naka-NWT requests that this process be initiated and conducted in coordination with the Government of the Northwest Territories (GNWT).

103. Postage Stamp rates, or Harmonized rates, are a framework whereby utility rates are the same for similar groups of utility customers (e.g., residential, commercial) throughout the NWT, regardless of which utility serves those customers. This framework is based on the premise that the benefits of the system should be shared with all citizens to the maximum extent possible.

104. Likewise, the framework reflects the belief that the electricity grid generally serves and supports the broader economy and provides a societal good that should benefit all residents in the Territory. For example, transmission assets connect various regions with each other and enable broader economic development, and benefits of legacy hydro generation should be shared with all citizens, instead of disproportionately benefiting customers who live in close proximity to those resources.

105. In the NWT, a certain degree of Harmonized rates currently exists for residential customers, by virtue of the NWT's Territorial Power Support Program (TPSP) whereby customers pay the same rates, up to a threshold, based on Yellowknife's residential rates.

While the TPSP is effective for reducing rate differentials for customer rates that are greater than Yellowknife's, the TPSP does not apply to customer rates that are less than Yellowknife's residential rate (for example, residential rates in NTPC's Taltson Zone are less than Yellowknife rates). Also, commercial customer rates are only Harmonized in the Thermal Zone, leaving commercial customers in the Hydro Zone with varying rates.

106. Harmonized rates for both utilities will provide consistent price signals throughout the NWT and could follow a similar coordinated rate structure as in the neighboring Yukon Territory. To implement these new rate structures, the utilities could collaborate to develop and implement Harmonized rates across the Territory. The framework and process for establishing Postage Stamp rates and coordinating revenue collections between utilities could mirror the established process currently in place for the Yukon.

107. Naka-NWT recognizes the direction from the GNWT provided in the 2011 *Revised Electricity Rate Policy Guidelines* with respect to electricity rates in the Territory,⁸ and that the establishment of a comprehensive Postage Stamp or Harmonized rates framework in the Territory may require new or additional GNWT policy direction. Naka-NWT considers that a review of the utilities' rate design frameworks is necessary, in light of the material rate impact concerns noted above, and that this requested rate review process is essential to informing any required government policy direction in this regard. As noted in Section 1 of this Application, Naka-NWT considers that the necessary rate reform is best achieved through a collaborative process involving the Board, Naka Power Utilities (Yellowknife), NTPC, and the GNWT.

108. Finally, Naka-NWT submits that if the Board allows for the proposed Harmonized rate reform in the NWT to move forward, then Naka-NWT's proposed creation of Government and Non-Government rates, as well as proposed Taltson Zone Revenue Offset will not be required.

⁸ Letter to the Northwest Territories Public Utilities Board re Revised Electricity Rate Policy Guidelines, February 10, 2011.

2025 Monthly Revenue Requirement

Line No.	Description	Cross Ref.		Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
				(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
1	Revenue at Existing Rates - without Hay River	S.3.0, L.22	1	389 10.0%	350 9.0%	345 8.9%	307 7.9%	314 8.1%	291 7.5%	288 7.4%	288 7.4%	281 7.2%	316 8.1%	352 9.1%	365 9.4%	3,886 100.0%
2	Revenue at Existing Rates - with Hay River	S.3.0, L.22	2	1,243 9.9%	1,129 9.0%	1,129 <i>9.0%</i>	981 7.8%	977 7.8%	953 7.6%	960 7.6%	936 7.4%	916 7.3%	1,022 <i>8.1%</i>	1,122 8.9%	1,220 9.7%	12,588 100.0%
3	Revenue Requirement (net of Other Revenue) - with Hay River	S.3.0, L.18, 20	3	1,398	1,270	1,270	1,103	1,099	1,072	1,080	1,053	1,030	1,149	1,262	1,372	14,157
4	Revenue Requirement (net of Other Revenue and Taltson Zone Revenue Offset) - without Hay River	S.3.0, L.2	4	491	442	436	388	396	367	364	364	355	399	444	461	4,907
5	Taltson Zone Revenue Offset	S.3.0, L.21	5	105	105	105	105	105	105	105	105	105	105	105	105	1,265
6	Revenue Requirement (net of Other Revenue) - without Hay River	S.3.0, L.18, 20	6	597	547	541	493	502	473	469	469	460	504	550	566	6,172
7	Combined Revenue Requirement (excluding other Revenues) with Hay River Dispostion March 1, 2025		7	1,398	1,270	541	493	502	473	469	469	460	504	550	566	7,696
				(A)3	(B)3	(C)6	(D)6	(E)6	(F)6	(G)6	(H)6	(I)6	(J)6	(K)6	(L)6	

2025 Monthly Revenue Requirement - Hydro

Line No.	Description	Cross Ref.		Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
				(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
1	Revenue at Existing Rates - without Hay River	S.3.1, L.22	1	65 9.6%	61 9.0%	63 9.4%	53 7.8%	54 8.1%	53 7.9%	48 7.2%	46 6.9%	49 7.3%	56 8.3%	56 8.3%	68 10.1%	672 100.0%
2	Revenue at Existing Rates - with Hay River	S.3.1, L.22	2	917 9.8%	839 <i>9.0%</i>	847 9.0%	727 7.8%	717 7.6%	715 7.6%	720 7.7%	694 7.4%	685 7.3%	762 8.1%	827 8.8%	923 9.8%	9,374 100.0%
3	Revenue Requirement (net of Other Revenue) - with Hay River	S.3.1, L.18, 20	3	1,012	926	934	801	791	788	794	766	755	840	911	1,018	10,337
4	Revenue Requirement (net of Other Revenue and Taltson Zone Revenue Offset) - without Hay River	S.3.1, L.2	4	86	81	84	70	72	71	64	62	65	74	74	91	894
5	Taltson Zone Revenue Offset	S.3.1, L.21	5	105	105	105	105	105	105	105	105	105	105	105	106	1,265
6	Revenue Requirement (net of Other Revenue) - without Hay River	S.3.1, L.18, 20	6	192	186	189	175	178	176	170	167	171	180	180	196	2,159
7	Combined Revenue Requirement (excluding other Revenues) with Hay River Dispostion March 1, 2025		7	1,012	926	189	175	178	176	170	167	171	180	180	196	3,719
				(A)3	(B)3	(C)6	(D)6	(E)6	(F)6	(G)6	(H)6	(I)6	(J)6	(K)6	(L)6	

2025 Monthly Revenue Requirement - Thermal

Description	Ref.		Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
			(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Revenue at Existing Rates - without Hay River	S.3.1, L.52	1	324 10.1%	290 9.0%	282 8.8%	254 7.9%	260 8.1%	238 7.4%	240 7.5%	242 7.5%	232 7.2%	261 8.1%	296 9.2%	297 9.2%	3,214 100.0%
Revenue at Existing Rates - with Hay River	S.3.1, L.52	2	324 10.1%	290 9.0%	282 8.8%	254 7.9%	260 8.1%	238 7.4%	240 7.5%	242 7.5%	232 7.2%	261 8.1%	296 9.2%	297 9.2%	3,214 100.0%
Revenue Requirement (net of Other Revenue) - with Hay River	S.3.1, L.48, 50	3	386	344	335	302	309	282	285	287	275	310	352	353	3,820
Revenue Requirement (net of Other Revenue and Taltson Zone Revenue Offset) - without Hay River	S.3.1, L.48, 50	4	405	362	352	318	325	297	299	302	289	325	369	370	4,013
Taltson Zone Revenue Offset		5	-	-	-	-	-	-	-	-	-	-	-	-	-
Revenue Requirement (net of Other Revenue) - without Hay River	S.3.0, L.18, 20	6	405	362	352	318	325	297	299	302	289	325	369	370	4,013
Combined Revenue Requirement (excluding other Revenues) with Hay River Dispostion March 1, 2025		7	386	344 (B)3	352	318 (D)6	325 (E)6	297	299	302	289	325	369 (K)6	370	3,976
	Description Revenue at Existing Rates - without Hay River Revenue at Existing Rates - with Hay River Revenue Requirement (net of Other Revenue) - with Hay River Revenue Requirement (net of Other Revenue and Taltson Zone Revenue Offset) - without Hay River Taltson Zone Revenue Offset Revenue Requirement (net of Other Revenue) - without Hay River Combined Revenue Requirement (excluding other Revenues) with Hay River Disposition March 1, 2025	Description Closs Ref. 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Effective: March 1, 2025 Supersedes: _____

HYDRO RATE ZONE TALTSON ZONE RATE SCHEDULE

Available

• In the Northwest Territories for the operator of the distribution system in the Town of Hay River.

Applicable

• For electricity delivered over the transmission line from Pine Point to the Town of Hay River.

Rates

- Fixed Charge of: \$105,438 per month
- Energy Charge of: \$0.00 per kWh
- Demand Charge of: \$0.00 per kW
- The minimum monthly charge is the Fixed Charge.

Options and Riders

Price Adjustments – the following Price Adjustments (Riders) may apply:

- Diesel Fuel Cost Adjustment (Rider A);
- Temporary Refund/Surcharge (Rider E);
- Purchase Power Cost Adjustment (Rider F);
- Cost Recovery/Refund (Rider H);
- Interim Refundable Rate (Rider K);
- Rate Adjustment Rider (Rider R); and
- Franchise Tax.

The Terms and Conditions of Service for Naka Power Utilities (NWT) have the approval of the Public Utilities Board of the Northwest Territories. They form part of this rate schedule and apply to the Company and every Customer supplied with electric service by the Company. Copies of the Terms and Conditions are available for reference in the offices of Naka Power Utilities (NWT) during normal business hours and can be accessed at www.nakapower.com.



SECTION 2: SALES AND REVENUE

2.1 Sales

2.1.1 Overview

109. In 2023, Naka-NWT experienced an overall temporary drop in energy sales, largely due to losses and evacuations due to wildfires in the Northwest Territories. Sales are expected to recover in 2024, assuming no wildfire evacuations. As discussed in Section 1, Naka-NWT is anticipating the Hay River Disposition to close on March 1, 2025. Therefore, the 2024 sales and revenue forecasts include Hay River, while the 2025 forecast excludes Hay River. In accordance with Board direction,¹ Naka-NWT has also included a pre-Hay River sale forecast for 2025 with Hay River included. Table 2.1 below provides the breakdown of sales by customer class.

	2021	2022	2023	2024	2025	2023
Customer Class		Actual		Forecast	Test Year	Approved
Residential	12,188	11,903	10,900	11,016	2,769	11,338
Commercial	20,441	20,180	18,730	19,879	3,162	21,546
Streetlights	546	547	454	541	135	547
Sentinel Lights	198	188	153	170	42	194
Total Company	33.373	32.816	30.236	31.606	6.108	33.624

Table 2.1: Naka-NWT Energy Sales by Customer Class (MWh)

110. Naka-NWT's detailed energy sales by customer class, along with the corresponding revenue for 2021-2023 (Actual), 2024 (Forecast) and 2025 (Test Year), are provided in Schedule 2.0 and 2.1.

2.1.2 Background

111. In 2023, Naka-NWT's service territory covered the Town of Hay River, Enterprise, K'atl'odeeche First Nation Reserve, Fort Providence, Wekweèti, Sambaa K'e, Kakisa, and Dory Point. As Table 2.2 below indicates, sales to residential customers in the Hydro Zone communities (the Town of Hay River, Enterprise, and K'atl'odeeche First Nation Reserve) accounted for 82 percent of Naka-NWT's total residential sales in 2023, with

¹ Exhibit 2024-006-004, para 7(ii).



Fort Providence accounting for 13 percent and the remaining communities accounting for five percent. Likewise, commercial sales in the Hydro Zone communities accounted for 89 percent of Naka-NWT's total commercial sales in 2023, with sales to Fort Providence accounting for seven percent and the remaining communities accounting for four percent.

112. In terms of the distribution of energy sales by rate class, residential customers accounted for 36 percent of Naka-NWT's total energy sales in 2023, while sales to commercial customers and lighting customers accounted for 62 percent and two percent, respectively. Table 2.2, below, provides the 2023 annual average customer numbers and the associated energy sales by community for residential and commercial classes.

Table 2.2: 2023 Naka-NWT Residential and Commercial Customers andSales by Community

			Residen	tial		Commercial					
Community	Rate Zone	Customers ¹	Share (%)	Energy (MWh)	Share (%)	Customers ¹	Share (%)	Energy (MWh)	Share (%)		
Hay River	Hydro	1,457	73	8,111	74	437	69	15,630	83		
Ft. Providence	Thermal	294	15	1,395	13	78	12	1,368	7		
Katl'odeeche	Hydro	78	4	535	5	27	4	652	3		
Enterprise	Hydro	48	2	314	3	39	6	350	2		
Wekweèti	Thermal	44	2	262	2	20	3	385	2		
Sambaa K'e	Thermal	41	2	200	2	17	3	215	1		
Dory Point/Kakisa	Thermal	21	1	83	1	16	3	131	1		
Total		1,984	100	10,900	100	634	100	18,730	100		

1. Annual Averages.

2.1.3 Forecast Process

113. Similar to the methodology used in the past, the sales forecasts for 2024 and 2025 are prepared by customer class. The 2024 forecast includes actual data for the months of January to October.

2.1.3.1 Residential

114. The residential sales forecast has two key inputs: the net customer additions and the UPC. The energy sales forecast is calculated by multiplying the forecast number of customers by the UPC forecast.



115. The number of customer additions is based on information collected from the municipal/community officials, local developers in each community, and historical customer additions.

116. Residential energy consumption in normal circumstances is typically very similar for most families. Temperature can play a role in residential energy consumption, although other factors such as the size of the dwelling, the size of household, and economic factors also influence residential energy consumption. The 2024 residential sales forecast includes ten months of actual data. Energy for the remaining months of 2024 and 2025 is forecast by multiplying the monthly customer forecast by the corresponding forecast of UPC. The Residential UPC forecast is calculated using the community's three-year average UPC from the pre-pandemic period of 2017 to 2019. Naka-NWT relied on a pre-pandemic period because using the most recent three-year period (2021-2023) would have produced atypical results due to the impact of ongoing pandemic restrictions in 2021 and the wildfire evacuations in 2023. The historical UPC is weather-normalized for communities where temperature is found to have an impact on usage.

2.1.3.2 Commercial

117. The forecast of commercial customer additions is derived using information collected from Naka-NWT's customers, the communities, and local developers, as well as historical customer additions. The energy sales forecast is calculated by multiplying the forecast number of customers by the UPC forecast.

118. The 2024 commercial sales forecast includes ten months of actual data. Energy for the remaining months in 2024 and 2025 for each community is forecast by multiplying the monthly customer forecast by the UPC forecast. The Commercial UPC forecast is calculated using the community's three-year average UPC from the pre-pandemic period of 2017 to 2019.

119. Section 2, Attachment 1, provides the data and the detailed calculations of the Residential and Commercial UPC forecast by community.



2.1.3.3 Street and Sentinel Lighting

120. The energy forecast for street and sentinel lighting is obtained by multiplying the forecast number of customers by the average usage per light. Average usage is calculated based on wattage characteristics and light types. The customer additions forecast is based on discussions with developers in the community and consultation with community officials as well as historical customer additions.

2.1.4 2024-2025 Forecast

2.1.4.1 Residential

121. Energy sales to residential customers are expected to remain relatively flat in 2024 and decrease by 75 percent in 2025, largely due to the discontinuation of the Hay River Franchise Agreement. In the remaining communities, energy sales are expected to remain relatively flat in 2025.

	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Hay River	9,133	8,853	8,111	8,185	-	8,448
Remaining Hydro Zone	1,108	1,059	849	776	745	1,013
Thermal Zone	1,946	1,991	1,940	2,056	2,024	1,877
Total	12,188	11,903	10,900	11,016	2,769	11,338

Table 2.3: Naka-NWT Residential Energy Sales (MWh) by Area

2.1.4.2 2024-2025 Commercial

122. Energy sales to commercial customers decreased in 2023 due to the wildfire evacuations and damages. Sales are expected to rebound in 2024 and then decrease by 85 percent in 2025, mainly due to the discontinuation of the Hay River Franchise Agreement, as well as wildfire damages in a remaining community.



	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Hay River	17,104	16,757	15,630	16,756	-	18,306
Remaining Hydro	1,251	1,240	1,002	1,053	1,067	1,274
Thermal	2,085	2,183	2,098	2,069	2,095	1,966
Total	20,441	20,180	18,730	19,879	3,162	21,546

2.1.4.3 Street and Sentinel Lighting

123. Energy sales to lighting customers are forecast to decrease in 2025 due to the discontinuation of the Franchise Agreement. In the remaining communities, lighting customers and sales are expected to remain flat.

2.2 Revenue

2.2.1 Base Rate Revenue

124. To forecast revenue on existing rates, the current rates in place effective September 1, 2024, were applied to the sales forecast. Details of revenue by rate class are provided in Schedule 2.1.

2.2.2 Other Revenue

	2021	2022	2023	2024	2025	2023
Other Revenue		Actual		Forecast	Test Year	Approved
Penalty Revenue	65	54	32	50	14	79
Reconnect Revenue	30	28	22	27	10	34
Joint Use Revenue	112	112	112	112	33	123
Services to Other Parties (flowthrough)	40	44	3	-	-	-
Total	247	237	170	189	57	235

Table 2.5: Naka-NWT Other Revenue (\$000)

125. Naka-NWT's other revenues have been included with retail sales revenues as part of the revenue requirement. These amounts are detailed in Schedule 10.0.

126. Penalty and reconnect revenue are based on 2021 to 2023 three-year historical averages. Joint use revenues are based on forecast pole attachments and attachment rates.

NWT Definition of the variables used in the regression equation Name Definition MHDD Monthly Heating Degree Days MCCNT Monthly Commercial Customer Count **MCENCNS** Monthly Commercial Energy Consumption MCUPC Monthly Commercial Average Use Per Customer (UPC) MRCNT Monthly Residential Customer Count **MRENCNS** Monthly Residential Energy Consumption Monthly Residential Average Use Per Customer (UPC) MRUPC "Normal" (20-yr Average) HDD N_MHDD

Hay River Regression Statistics

Hay River Regression Statistics

Hay River Residential		
	(1) NORMA	LIZATION
	HDD	Intercept
X Coefficient	0.22	381.36
Std Err of Coef.	0.01	7.27
R2, & Std Err of Y Estimate	0.74	54.86
F-stat, & d of f	516	178
Sum of squares(ss), Resid ss	1,553,973	535,767
t Stat	22.72	52.47
P-value	1.699E-54	3.265E-110

	(1) NORMA	LIZATION
	Row	Date
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

	(1) NORMALIZATION						
	Row	Date					
Start	24	Jan-05					
End	203	Dec-19					
Months	180						
Years	15						

		Residential						Annual	
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	
Year	Month #	Date		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)	
2005	1	Jan-05	1,453	1,181	813	1,260	801		
2005	2	Feb-05	1,453	952	655	1,034	663		
2005	3	Mar-05	1,456	867	596	949	607		
2005	4	Apr-05	1,449	813	561	542	583		
2005	5	May-05	1,450	735	507	407	497		
2005	6	Jun-05	1,464	675	461	209	449		
2005	7	Jul-05	1,454	663	456	86	450		
2005	8	Aug-05	1,449	658	454	143	446		
2005	9	Sep-05	1,458	727	499	308	487		
2005	10	Oct-05	1,457	711	488	474	496		
2005	11	Nov-05	1,465	799	545	767	567		
2005	12	Dec-05	1,459	873	599	866	660	6,706	

Hay River (Rate 2380)					
	(1) NORM	LIZATION			
	HDD	Intercept			
X Coefficient	0.46	1717.66			
Std Err of Coef.	0.03	22.20			
R2, & Std Err of Y Estimate	0.57	167.56			
F-stat, & d of f	234	178			
Sum of squares(ss), Resid ss	6,557,912	4,997,475			
t Stat	15.28	77.38			
P-value	3.150E-34	5.821E-139			

	(1) NORM	ALIZATION
	Row	Date
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

Hay River (Rate 2390)										
	(1) NORMALIZATION									
	HDD	Intercept								
X Coefficient	5.23	29080.04								
Std Err of Coef.	0.61	449.30								
R2, & Std Err of Y Estimate	0.29	3391.39								
F-stat, & d of f	73	178								
Sum of squares(ss), Resid ss	844,270,082	2,047,272,953								
t Stat	8.57	64.72								
P-value	4.919E-15	1.248E-125								

	(1) NORM	ALIZATION
	Row	Date
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

Commercial	Rate 2380		
MCCNT	MCENCNS	UPC	Annual
	(MWh)	(kWh)	UPC (kWh)
412	1,006	2,441	
409	883	2,159	
414	844	2,039	
412	817	1,983	
422	753	1,783	
429	797	1,858	
427	779	1,824	
430	799	1,857	
430	815	1,895	
419	706	1,685	
420	783	1,865	
420	790	1,881	23,270

Commercial MCCNT	Rate 2390 MCENCNS (MWh)	UPC (kWh)	Annual UPC (kWh)
20	834	41,711	
20	621	31,066	
20	658	32,909	
20	618	30,897	
20	592	29,586	
20	563	28,170	
20	565	28,235	
20	529	26,455	
20	641	32,072	
20	613	30,660	
20	629	31,465	
20	626	31,292	

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		Resi	idential						Annual	Commercial	F	Rate 2380			Commercia	al R	ate 2390		
				MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	n n	VCENCNS	UPC	Annual	MCCNT	N	ICENCNS	UPC	Annual
Year I	Nonth #	# Date	e		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2006		1	Jan-06	1,467	1,048	714	1,165	723			417	967	2,320		2	20	678	33,916	
2006		2	Feb-06	1,462	882	603	927	635			421	852	2,025		2	20	566	28,297	
2006		3	Mar-06	1,471	909	618	904	639			418	930	2,225		2	20	855	42,766	
2006		4	Apr-06	1,472	760	516	497	548			420	781	1,861		2	20	633	31,666	
2006		5	May-06	1,475	673	456	312	468			422	763	1,808		2	20	564	28,220	
2006		6	Jun-06	1,474	677	459	98	472			422	868	2,057		2	20	675	33,774	
2006		7	Jul-06	1,474	708	480	85	474			422	980	2,322		2	20	641	32,057	
2006	;	8	Aug-06	1,478	631	427	90	430			422	774	1,833		2	20	547	27,334	
2006	1	9	Sep-06	1,477	670	454	203	465			423	816	1,930		2	20	609	30,452	
2006	1	0	Oct-06	1,490	753	505	524	502			423	808	1,909		2	20	668	33,408	
2006	1	1	Nov-06	1,490	884	593	1,042	553			423	876	2,070		2	20	675	33,771	
2006	1	2	Dec-06	1,486	965	649	925	698	6,608		423	911	2,154	24,514	2	20	638	31,912	
2007		1	Jan-07	1,480	1,109	749	1,108	771			426	895	2,101		2	20	561	28,072	
2007		2	Feb-07	1,481	1,054	711	1,168	689			427	999	2,339		2	20	774	38,680	
2007	1	3	Mar-07	1,487	1,010	679	1,100	657			423	940	2,223		2	20	690	34,494	
2007		4	Apr-07	1,490	859	576	560	594			423	883	2,087		2	20	592	29,619	
2007	1	5	May-07	1,496	691	462	368	461			423	758	1,791		2	20	669	33,470	
2007		6	Jun-07	1,489	715	480	161	478			423	830	1,961		2	20	642	32,083	
2007		7	Jul-07	1,490	696	467	38	472			424	896	2,112		2	20	678	33,909	
2007	1	8	Aug-07	1,488	664	446	187	428			424	833	1,965		2	20	548	27,380	
2007	1	9	Sep-07	1,491	687	461	366	436			424	812	1,916		2	20	564	28,195	
2007	1	0	Oct-07	1,486	721	485	489	490			424	774	1,827		2	20	636	31,804	
2007	1	1	Nov-07	1,495	876	586	850	589			424	920	2,171		2	20	705	35,245	
2007	1	2	Dec-07	1,514	927	612	1,188	602	6,667		424	852	2,010	24,502	2	20	604	30,195	
2008		1	Jan-08	1,527	1,264	828	1,215	825			432	1,052	2,435		2	20	695	34,747	
2008		2	Feb-08	1,523	1,149	754	1,202	725			407	998	2,452		1	19	676	35,605	
2008	1	3	Mar-08	1,525	974	638	1,091	618			408	893	2,189		1	41	925	48,696	
2008		4	Apr-08	1,534	800	522	689	510			403	761	1,888		2	21	567	27,005	
2008	1	5	May-08	1,519	784	516	358	518			403	858	2,129		2	20	508	25,397	
2008		6	Jun-08	1,544	693	449	155	449			405	745	1,839		2	20	572	28,590	
2008		7	Jul-08	1,547	629	407	35	412			401	840	2,095		2	20	528	26,390	
2008	;	8	Aug-08	1,555	722	464	103	465			402	923	2,295		2	20	506	25,311	
2008	1	9	Sep-08	1,557	651	418	315	405			404	695	1,720		2	20	607	30,348	
2008	1	0	Oct-08	1,562	686	439	478	447			400	804	2,010		2	20	574	28,703	
2008	1	1	Nov-08	1,548	890	575	778	594			382	940	2,460		1	⊥7	670	39,425	
2008	1	2	Dec-08	1,564	907	580	1,281	549	6,515		386	842	2,182	25,694	2	21	715	34,042	
2009		1	Jan-09	1,562	1,363	872	1,238	865			381	1,017	2,669		2	?1	790	37,598	
2009		2	Feb-09	1,564	1,018	651	1,085	648			380	848	2,231		2	20	655	32,766	
2009		3	Mar-09	1,564	1,031	659	1,116	632			387	939	2,425		2	21	801	38,164	
2009		4	Apr-09	1,559	877	563	623	566			394	859	2,181		2	?1	729	34,733	
2009	1	5	May-09	1,562	689	441	490	413			393	718	1,827		2	?1	629	29,945	
2009		6	Jun-09	1,560	687	440	193	431			396	768	1,940		2	:1	627	29,852	
2009		7	Jul-09	1,558	694	445	101	436			401	809	2,018		2	21	648	30,860	
2009	:	8	Aug-09	1,550	663	428	88	432			402	761	1,893		2	20	575	28,745	
2009	1	9	Sep-09	1,550	703	454	177	471			400	772	1,930		2	20	611	30,540	
2009	1	0	Oct-09	1,558	710	456	560	445			401	745	1,857		2	20	654	32,698	
2009	1	1	Nov-09	1,568	857	546	825	555			391	834	2,134		2	!1	709	33,775	
2009	1	2	Dec-09	1,561	919	589	1,163	584	6,479		385	839	2,179	25,284	2	!1	634	30,198	
2010		1	Jan-10	1,563	1,238	792	1,229	786			390	1,020	2,615		2	!1	736	35,068	
2010		2	Feb-10	1,560	934	599	900	637			393	855	2,174		2	21	665	31,647	
2010		3	Mar-10	1,563	794	508	719	571			394	784	1,989		2	21	680	32,393	
2010		4	Apr-10	1,569	831	529	491	563			394	818	2,076		2	:1	685	32,613	
2010	1	5	May-10	1,560	710	455	402	447			396	727	1,837		2	:1	640	30,465	
2010		6	Jun-10	1,563	674	431	120	439			401	803	2,001		2	:1	691	32,926	
2010		7	Jul-10	1,562	674	431	45	435			408	739	1,812		2	!1	638	30,380	
2010	1	8	Aug-10	1,566	687	439	109	437			407	762	1,873		2	!1	616	29,319	
2010	1	9	Sep-10	1,538	676	440	294	431			360	542	1,506		1	.7	530	31,176	
2010	1	0	Oct-10	1,577	738	468	464	479			401	839	2,092		2	!1	712	33,890	
2010	1	1	Nov-10	1,573	847	539	810	550			383	764	1,996		1	.8	703	39,081	
2010	1	2	Dec-10	1,578	971	615	1,215	599	6,252		390	893	2,289	24,259	2	.1	747	35,590	394,548

Residential							Annual	Commercial	R	ate 2380			Commercial	Rate 2390			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	N	ICENCNS	UPC	Annual	MCCNT	MCENCNS	UPC	Annual
Year	Month #	# Date		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2011		1 Jan-11	1.572	1.135	722	1.289	703		3	389	892	2.293		21	660	31.434	
2011		2 Feb-11	1 579	1,056	669	1 007	683			888	906	2 335		21	671	31 965	
2011		2 100 11 2 Mar 11	1,575	1,030	665	1,007	663		-	202	057	2,555		21	727	25 102	
2011		3 IVId1-11	1,550	1,038	409	1,041	490			204	357	2,434		21	634	33,102	
2011		4 Apr-11	1,555	//5	498	720	460		3	594	750	1,919		21	624	29,717	
2011		5 May-11	l 1,551	721	465	361	466		4	100	705	1,763		21	592	28,206	
2011		6 Jun-11	1,545	664	430	168	427		3	398	686	1,723		18	557	30,951	
2011		7 Jul-11	1,547	650	420	37	425		4	102	761	1,892		21	657	31,267	
2011		8 Aug-11	1,540	667	433	86	437		4	104	719	1,780		21	546	26,019	
2011		9 Sep-11	1.536	660	429	206	440		4	104	672	1.663		21	577	27.457	
2011	1	0 Oct-11	1 537	705	458	471	468		3	887	748	1 932		21	677	32 223	
2011	1	1 Nov 11	1 520	000	E24	052	E14		-	00F	000	2,000		21	679	22,220	
2011	1	1 NOV-11	1,559	822	534	952	514	6.264	3		808	2,099	24.040	21	678	52,275	267.050
2011	1	2 Dec-11	1,538	966	628	978	664	6,364	3	\$79	828	2,184	24,018	20	627	31,344	367,958
2012		1 Jan-12	1,539	1,028	668	1,184	673		3	386	931	2,411		21	672	32,011	
2012		2 Feb-12	1,541	985	639	913	674		3	380	886	2,331		20	660	33,017	
2012		3 Mar-12	1,542	909	590	992	591		3	380	882	2,321		21	737	35,096	
2012		4 Apr-12	1,534	820	535	676	526		3	381	804	2,111		21	651	30,983	
2012	1	5 Mav-12	1.541	677	439	277	459		3	392	692	1.765		21	588	27,977	
2012		6 lun-12	1 539	657	427	156	427		3	892	734	1 872		21	629	29 935	
2012		7 Jul 12	1,555	600	427	10	427			000	754	1,072		21	615	20,000	
2012		7 Jui-12	1,538	083	444	13	455			100	731	1,880		21	550	29,300	
2012		8 Aug-12	1,542	6/4	437	60	447		4	+00	/15	1,787		21	559	26,639	
2012	1	9 Sep-12	1,540	679	441	178	458		3	399	692	1,735		21	575	27,400	
2012	1	0 Oct-12	1,538	709	461	575	447		3	389	698	1,794		20	588	29,402	
2012	1	1 Nov-12	1,545	822	532	1,011	499		3	383	800	2,087		21	642	30,569	
2012	1	2 Dec-12	1,546	1,016	657	1,328	615	6,271	3	376	851	2,264	24,364	21	722	34,400	366,729
2013		1 Jan-13	1.545	1.171	758	1,292	738			384	985	2,564		21	615	29,282	
2013		2 Feb-13	1 5 3 8	1 030	670	928	702		-	281	028	2 / 3/		21	671	31 976	
2013		2 100-13	1,558	1,030	570	1 077	502			202	010	2,434		21	660	21.047	
2015		5 IVId1-15	5 1,527	640	554	1,077	557		3	200	010	2,150		21	669	51,647	
2013		4 Apr-13	1,531	830	542	/85	509		ć	383	812	2,121		21	652	31,065	
2013		5 May-13	3 1,534	707	461	333	468		3	389	751	1,931		21	631	30,029	
2013		6 Jun-13	1,533	639	417	135	421		4	101	755	1,882		21	617	29,395	
2013		7 Jul-13	1,526	688	451	83	446		3	398	757	1,902		21	625	29,762	
2013	;	8 Aug-13	1,537	652	424	78	430		3	399	723	1,813		21	572	27,217	
2013		9 Sen-13	1 550	622	401	180	418		4	100	676	1 690		21	568	27.061	
2013	1	0 Oct-13	1,550	714	459	158	420		3	201	742	1 898		21	710	33 878	
2013	1	0 00015	1,558	055	455	450	4/1			200	050	1,000		21	710	35,620	
2013	1	1 NOV-13	1,552	855	551	887	545		3	590	860	2,204		21	744	35,451	
2013	1	2 Dec-13	1,557	1,124	722	1,340	678	6,371	3	373	961	2,578	25,153	21	755	35,963	372,877
2014		1 Jan-14	1,555	1,158	745	1,200	746		3	381	873	2,292		21	726	34,586	
2014		2 Feb-14	1,554	879	566	1,188	539		3	382	864	2,261		21	718	34,207	
2014		3 Mar-14	1,557	895	575	1,121	547		3	389	868	2,232		22	722	32,820	
2014		4 Apr-14	1.554	697	449	691	437		3	386	747	1.936		22	622	28.255	
2014		5 May-14	1 1555	673	433	380	429		3	897	730	1 839		21	607	28 922	
2014		6 lun-14	1 5/9	569	367	158	366		-	103	730	1 833		22	615	27,922	
2014		7 1.114	1,545	729	471	150	476			101	830	2,003		22	600	21,555	
2014		/ Jui-14	1,546	/26	4/1	35	476		4	+01	659	2,092		22	698	51,/10	
2014	-	8 Aug-14	1,540	659	428	104	428		4	101	677	1,687		22	563	25,583	
2014	1	9 Sep-14	1,550	629	406	274	402		3	399	700	1,755		22	583	26,481	
2014	1	0 Oct-14	1,552	706	455	521	453		3	378	816	2,159		23	679	29,510	
2014	1	1 Nov-14	1,549	861	556	910	545		3	391	855	2,188		23	712	30,936	
2014	1	2 Dec-14	1,549	995	642	1,144	641	6,010	3	382	937	2,452	24,727	23	779	33,869	364,817
2015		1 Jan-15	1,544	1,103	714	1,225	710		3	388	880	2,268		23	847	36,811	·
2015		2 Feb-15	1 543	914	593	1,104	585		-	386	835	2,163		23	803	34,927	
2015		3 Mar 15	1 5 45	80C	500	1,104	500			282	783	2,105		23	750	35 852	
2015		4 Apr 15	, 1,J40 1 E 40	050	300	535	J50 A10		3	200	703	2,043		21	735	21 471	
2015		- Apr-15	1,549	023	402	5/1	418		5	203	/52	1,934		23	724	51,4/1	
2015		5 May-15	5 1,541	621	403	305	417		4	+U3	752	1,866		23	723	31,450	
2015		6 Jun-15	1,542	622	403	126	409		4	100	727	1,817		21	699	33,303	
2015		7 Jul-15	1,543	602	390	67	388		4	102	662	1,647		23	637	27,695	
2015		8 Aug-15	1,536	636	414	98	415		4	105	687	1,696		23	661	28,736	
2015	1	9 Sep-15	1,541	586	380	264	378		4	105	668	1,649		22	642	29,200	
2015	1	0 Oct-15	1.541	713	463	508	463		4	101	811	2.022		23	780	33,916	
2015	1	1 Nov-15	15/1	879	570	762	591		7	104	773	1 912		23	743	35 402	
2015	1	2 Doc 15	1,341	017	5,5	1 0 2 5	610	E 084		200	200	2,515	22.225	21	000	42 254	402.019
2015	1	2 Dec-15	1,546	91/	293	1,025	619	3,964	3	103	933	2,511	23,333	20	200	45,254	402,018
2016		i Jan-16	1,536	886	577	1,087	603		4	+02	886	2,203		23	871	37,881	
2016		2 Feb-16	1,541	818	531	1,050	536		4	+01	790	1,970		23	777	33,792	
2016		3 Mar-16	5 1,540	819	532	925	548		4	100	769	1,922		22	756	34,383	
2016		4 Apr-16	1,538	662	430	683	421		4	104	673	1,665		23	662	28,769	
2016		5 May-16	5 1,532	636	415	312	427		4	111	705	1,716		23	694	30,163	
2016		6 lun-16	1.532	644	421	105	431		Δ	118	658	1.575		22	648	29.438	
2016		7 Jul-16	1 53/	585	382	_05 _47	385			114	748	1 807		22	736	33 455	
2016		8 Aug 10	1,554	505	200	70	204			118	660	1 EOC		22	250	20,220	
2010		o Aug-16	1,526	592	200	79	354		4	122	640	1,560		22	602	29,039	
2010		- Sep-16	1,536	610	39/	250	398		4	+22	048	1,534		21	63/	30,334	
2016	1	U Oct-16	1,530	700	457	566	445		4	107	726	1,784		21	714	34,009	

		Resident	ial						Annual	Commercial	R	ate 2380			Commercial	Rate 2390		
			M	IRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	M	ICENCNS	UPC	Annual	MCCNT	MCENCNS	UPC	Annual
Year	Month #	# Date			(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2016	1	1 Nov	v-16	1,542	775	503	722	534			404	712	1,763		21	701	33,370	
2016	1	2 Dec	c-16	1,537	1,131	736	1,191	725	5,846	:	366	855	2,335	21,861	16	841	52,553	407,785
2017		1 Jan	1-17	1.532	886	579	1.072	608	<u> </u>		404	1.035	2.561		21	694	33.045	
2017		2 Feb	n-17	1,536	789	513	948	541		-	398	826	2.075		20	640	32.021	
2017		3 Ma	r-17	1 544	905	586	1 033	578			404	913	2 261		21	694	33,066	
2017		4 Ani	r 17	1 5 4 1	628	407	1,055	401			104	601	1 677		21	595	27 840	
2017		4 Арі Г Ман	1-17	1,541	628	407	20/	401			400	761	1,077		21	202	27,640	
2017		5 IVId	y-17	1,545	504	450	264	446			412	761	1,647		21	702	55,409	
2017		6 Jun	1-1/	1,539	583	379	152	380			418	699	1,6/1		21	688	32,777	
2017		/ Jul	-1/	1,547	643	416	56	41/			419	/14	1,705		21	/56	36,014	
2017	:	8 Aug	g-17	1,530	632	413	60	423			421	717	1,702		21	703	33,473	
2017	1	9 Sep	o-17	1,530	611	399	205	410			420	661	1,574		21	657	31,305	
2017	1	0 Oct	t-17	1,536	699	455	507	456			404	750	1,856		20	682	34,119	
2017	1	1 Nov	v-17	1,536	798	519	976	494			401	848	2,115		21	764	36,371	
2017	1	2 Dec	c-17	1,539	921	598	1,084	611	5,767	:	396	886	2,237	23,282	23	730	31,749	395,190
2018		1 Jan	1-18	1.550	1.037	669	1.265	656			404	914	2.262		23	717	31.170	
2018		2 Feb	n-18	1 543	805	522	1 044	528			402	909	2 261		22	689	31 317	
2018		2 No.	r-18	1 5 3 9	803	522	007	520			106	823	2,202		22	692	31 / 69	
2010		4 4.00	- 10	1,555	200	460	732	450			401	704	1,027		22	967	37,405	
2018		4 Api 5 Mar	1-10	1,541	725	409	725	450			401	764	1,955		25	807	37,094	
2018		5 IVId	y-18	1,556	594	367	527	395			415	704	1,705		23	//6	33,632	
2018		6 Jun	1-18	1,525	620	407	157	406			412	668	1,622		23	784	34,106	
2018		7 Jul	-18	1,532	621	405	74	402			416	728	1,750		23	698	30,349	
2018	1	8 Aug	g-18	1,529	602	394	119	391			416	686	1,649		23	701	30,480	
2018	1	9 Sep	p-18	1,521	571	375	425	337			409	650	1,590		23	697	30,307	
2018	1	0 Oct	t-18	1,539	712	463	566	451			409	746	1,824		22	763	34,700	
2018	1	1 Nov	v-18	1,534	760	496	880	492			400	873	2,182		22	927	42,138	
2018	1	2 Dec	c-18	1,533	874	570	1,046	591	5,622	:	393	786	2,001	22,828	19	724	38,109	405,672
2019		1 Jan	1-19	1.535	945	616	1,223	612	· · · ·		408	910	2,231		23	950	41.304	
2019		2 Feb	p-19	1,536	902	588	1,153	569			402	857	2,133		23	812	35,306	
2019		3 Ma	r-19	1 530	770	503	710	568			402	824	2 050		23	800	34 789	
2010		4 40	r 10	1 496	E08	402	F 67	410			207	675	1 700		20	675	20,666	
2019		ч Арі Г Ман		1,460	538	402	422	413			357 41C	602	1,700		22	666	30,000	
2019		5 IVIA	y-19	1,400	620	427	455	412			410	065	1,042		23	000	28,978	
2019		6 Jun	1-19	1,460	592	406	196	396			416	/25	1,742		19	608	31,989	
2019		/ Jul	-19	1,460	597	409	100	400			416	694	1,668		22	705	32,025	
2019	-	8 Aug	g-19	1,461	593	406	153	395			417	663	1,590		22	618	28,103	
2019	1	9 Sep	p-19	1,464	588	402	265	400			418	677	1,621		22	668	30,357	
2019	1	0 Oct	t-19	1,461	654	448	516	447			414	734	1,774		22	819	37,238	
2019	1	1 Nov	v-19	1,461	716	490	849	493			414	814	1,966		23	893	38,826	
2019	1	2 Dec	c-19	1,459	1,088	745	1,227	726	5,836		390	959	2,460	22,576	17	692	40,718	410,295
2020		1 Jan	1-20	1,457	902	619	1,289	600			404	889	2,200		23	1,009	43,873	
2020		2 Feb	o-20	1,460	900	616	1,106	608		:	398	822	2,066		22	771	35,046	
2020		3 Ma	r-20	1,460	796	545	1,078	527			404	838	2,074		23	804	34,962	
2020		4 Api	r-20	1,452	772	532	734	511			401	636	1,587		22	602	27,379	
2020		5 Ma	v-20	1.454	620	426	460	405			402	610	1.518		23	642	27.913	
2020		6 Jun	1-20	1.456	647	445	207	433			404	556	1.377		23	650	28,277	
2020		7 Iul	-20	1 4 5 9	669	459	76	455			420	619	1 475		22	645	29 304	
2020		8 A	a-20	1 457	637	138	116	135			418	525	1 300		22	470	20 4 40	
2020			5 20	1 457	670	450	272	455			421	672	1,555		23	670	20,440	
2020		9 3eh	-20	1,437	070	400	2/3	455			421	072	1,337		23	070	23,132	
2020	1	1 001		1,460	/05	483	580	400			422 411	080	1,612		23	780	33,903	
2020	1	1 NO	v-20	1,462	829	567	927	552	<i></i>		411	/82	1,902	20.055	23	803	34,924	
2020	1	∠ Deo	c-20	1,469	999	680	1,077	694	6,143		411	883	2,148	20,956	21	754	35,915	381,069
2021		1 Jan	1-21	1,469	993	676	1,099	700			411	770	1,874		23	775	33,711	
2021		2 Feb	o-21	1,462	971	664	1,227	629			412	867	2,104		23	758	32,962	
2021		3 Ma	r-21	1,472	889	604	1,031	597			412	826	2,004		23	773	33,622	
2021		4 Арі	r-21	1,468	694	473	698	460			404	688	1,704		23	647	28,133	
2021		5 Ma	y-21	1,471	627	426	403	418			408	667	1,634		23	649	28,196	
2021		6 Jun	1-21	1,471	626	425	146	427			422	637	1,511		22	659	29,936	
2021		7 Jul	-21	1,463	683	467	64	466			425	679	1,597		23	641	27,852	
2021		8 Au	g-21	1,465	641	438	118	435			424	652	1.538		22	571	25,939	
2021		9 Ser	- -21	1.467	589	401	233	406			427	620	1.452		22	593	26,960	
2021	1		 t-21	1 / 69	671	156	159	469			425	675	1 5 8 9		22	677	20,000	
2021	1	1 No.	1	1 469	740	400	004P	400 E10		-	116	70/	1,000		25	710	22,424	
2021	1	1 NO	v-21	1,400	1 001	509	1 227	518	6 159		410 /15	/ 04	1,005	21 246	21	/12	33,900	265 720
2021	1	∠ Deo	. 22	1,470	1,001	6/8	1,33/	634	0,158		+10	9/8	2,355	21,240	23	807	35,097	305,/38
2022		⊥ Jan	1-22	1,472	1,155	/84	1,263	//1			405	836	2,063		22	686	31,169	
2022		∠ Feb	0-22	1,468	854	582	1,200	553		:	387	851	2,199		23	720	31,325	
2022		з Ma	r-22	1,474	810	549	1,047	538			409	900	2,200		22	727	33,039	
2022		4 Арі	r-22	1,472	644	437	707	422			412	712	1,727		22	604	27,447	
2022		5 Ma	y-22	1,443	632	438	393	432		:	397	605	1,524		22	526	23,910	
2022		6 Jun	1-22	1,447	621	429	111	439			417	519	1,245		22	628	28,567	
2022		7 Jul	-22	1,456	629	432	54	433			417	649	1,557		20	631	31,543	
2022	:	8 Aug	g-22	1,464	569	389	65	398			426	690	1,620		21	606	28,848	
			-															

		Residen	ntial						Annual	Commercial	R	ate 2380			Commercia	al Ra	ate 2390		
				MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	M	CENCNS	UPC	Annual	MCCNT	M	ICENCNS	UPC	Annual
Year	Month #	# Date			(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)			MWh)	(kWh)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2022	9	9 Se	ep-22	1,460	554	379	175	397		4	124	621	1,466		2	22	549	24,948	
2022	10	0 0	ct-22	1,460	662	454	449	468		4	112	694	1,684		2	20	670	33,507	
2022	1	1 No	ov-22	1,458	714	490	873	487		4	110	766	1,868		2	22	831	37,795	
2022	12	2 De	ec-22	1,470	1,010	687	1,273	657	5,995	4	114	943	2,278	21,432	2	23	792	34,438	366,537
2023	:	1 Ja	an-23	1,463	983	672	1,048	707		4	110	835	2,037		2	22	680	30,914	
2023	:	2 Fe	eb-23	1,466	782	533	1,148	516		4	106	936	2,306		2	22	712	32,384	
2023	3	3 M	lar-23	1,464	915	625	1,052	613		4	109	829	2,027		2	20	688	34,382	
2023	4	4 Aj	pr-23	1,463	596	407	517	435		4	112	721	1,751		2	22	609	27,686	
2023	1	5 M	lay-23	1,463	467	319	155	366		4	123	579	1,369		2	22	523	23,795	
2023		5 Ju	un-23	1,458	601	412	114	421		4	124	630	1,485		2	22	509	23,133	
2023	1	7 Ju	ul-23	1,460	759	520	36	525		4	131	582	1,351		2	22	540	24,557	
2023	1	8 Au	ug-23	1,460	791	541	59	552		4	131	284	658		2	22	249	11,321	
2023	9	9 Se	ep-23	1,447	787	544	164	564		4	131	176	408		2	22	155	7,058	
2023	10	0 0	ct-23	1,447	169	117	445	132		4	100	1079	2,697		2	22	1042	47,351	
2023	1:	1 No	ov-23	1,447	182	126	741	153		4	100	786	1,965		2	22	853	38,792	
2023	1	2 De	ec-23	1,447	797	550	888	607	5,591	4	100	851	2,128	20,182	2	22	715	32,494	333,869
2024	:	1 Ja	an-24	1354	932	689	1,290	670		3	366	952	2,601		1	8	775	43,074	
2024		2 Fe	eb-24	1441	717	497	978	518		3	399	889	2,228		2	22	677	30,755	
2024	3	3 M	lar-24	1447	730	504	990	506		4	112	817	1,984		2	22	678	30,812	
2024	4	4 Aj	pr-24	1447	643	444	554	463		4	112	611	1,484		2	22	490	22,268	
2024	5	5 M	lay-24	1447	483	333	320	343		4	113	700	1,696		2	22	561	25,508	
2024		5 Ju	un-24	1447	606	419	203	408		4	122	705	1,671		2	22	565	25,675	
2024	1	7 Ju	ul-24	1447	613	424	36	429		4	122	697	1,652		2	22	559	25,387	
2024	5	8 Au	ug-24	1449	637	440	69	448		4	122	570	1,352		2	22	457	20,774	
2024	9	9 Se	ep-24	1451	499	344	200	356		4	122	654	1,549		2	22	524	23,805	
2024	10	0 0	ct-24	1453	672	462	518	461		4	113	788	1,908		2	22	631	28,693	
2024	1	1 No	ov-24					493					2,088					39,112	
2024	12	2 De	ec-24					643	5,737				2,232	22,444				36,859	352,722
2025	:	1 Ja	an-25					625					2,352					35,173	
2025	1	2 Fe	eb-25					546					2,156					32,881	
2025	3	3 M	lar-25					557					2,113					33,108	
2025	4	4 Aj	pr-25					423					1,777					32,067	
2025	5	5 M	lay-25					418					1,731					32,072	
2025	6	5 Ju	un-25					394					1,678					32,957	
2025		7 Ju	ul-25					406					1,708					32,796	
2025	1	3 Au	ug-25					403					1,647					30,685	
2025	9	9 Se	ep-25					382					1,595					30,656	
2025	10	0 0	ct-25					451					1,818					35,352	
2025	1	1 No	ov-25					493					2,088					39,112	
2025	12	2 De	ec-25					643	5,742				2,232	22,895				36,859	403,719

Enterprise Regression Statistics

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Hay River Enterprise Regression Statistics

Hay River Enterprise Residential

	(1) NORMALIZATION							
	HDD	Intercept						
X Coefficient	0.25	351.51						
Std Err of Coef.	0.01	9.94						
R2, & Std Err of Y Estimate	0.65	75.01						
F-stat, & d of f	337	178						
Sum of squares(ss), Resid ss	1,895,354	1,001,634						
t Stat	18.35	35.37						
P-value	6.559E-43	1.970E-82						

	(1) NORM	ALIZATION
	Row	<u>Date</u>
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

Hay River Enterprise Commercial	

	(1) NORMA	LIZATION
	HDD	Intercept
X Coefficient	0.37	691.23
Std Err of Coef.	0.03	21.57
R2, & Std Err of Y Estimate	0.47	162.84
F-stat, & d of f	158	178
Sum of squares(ss), Resid ss	4,199,352	4,719,936
t Stat	12.58	32.04
P-value	2.177E-26	7.989E-76

	(1) NORM	ALIZATION
	Row	Date
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month#	Date		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2005	1	Jan-05	35	30	847.1	1259.5	833.5		36	53	1,479	
2005	2	Feb-05	35	29	819.8	1034.4	828.6		36	62	1,723	
2005	3	Mar-05	35	21	599.7	949.1	611.9		36	51	1,416	
2005	4	Apr-05	36	20	560.6	542.4	584.6		36	52	1,447	
2005	5	May-05	36	17	472.8	407.1	462.3		39	40	1,038	
2005	6	Jun-05	36	14	386.4	208.8	372.8		39	35	907	
2005	7	Jul-05	36	13	354.7	86.0	348.2		39	42	1,079	
2005	8	Aug-05	36	15	403.1	143.2	393.5		39	45	1,144	
2005	9	Sep-05	38	14	371.5	308.0	358.2		42	44	1,043	
2005	10	Oct-05	37	15	394.1	473.7	403.5		35	36	1,035	
2005	11	Nov-05	37	17	460.4	767.1	483.8		35	43	1,233	
2005	12	Dec-05	37	22	587.5	866.3	655.5	6,337	35	38	1,072	

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		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month#	Date		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2006	1	Jan-06	37	23	623.3	1164.8	633.2		35	53	1,523	
2006	2	Feb-06	37	22	582.2	927.4	617.5		35	42	1,202	
2006	3	Mar-06	37	22	582.1	904.4	605.3		35	46	1,304	
2006	4	Apr-06	37	19	521.7	497.2	556.9		37	41	1,120	
2006	5	May-06	37	15	412.6	312.1	425.6		39	31	798	
2006	6	Jun-06	38	15	396.0	98.3	409.8		39	32	814	
2006	7	Jul-06	37	16	441.8	85.2	435.6		40	36	891	
2006	8	Aug-06	37	13	348.8	90.1	352.3		40	29	737	
2006	9	Sep-06	37	13	343.4	203.1	356.0		40	29	728	
2006	10	Oct-06	38	14	377.1	524.3	373.9		43	38	872	
2006	11	Nov-06	38	19	508.3	1042.4	463.7		37	42	1,134	
2006	12	Dec-06	39	24	607.5	925.2	661.0	5,891	37	47	1,269	
2007	1	Jan-07	39	23	601.3	1108.2	625.2		37	48	1,286	
2007	2	Feb-07	39	23	583.2	1168.2	558.9		37	44	1,193	
2007	3	Mar-07	39	28	711.9	1099.9	686.7		37	44	1,192	
2007	4	Apr-07	37	20	533.3	559.6	553.1		37	39	1,066	
2007	5	May-07	40	16	404.4	368.0	403.6		37	31	832	
2007	6	Jun-07	39	16	399.5	161.2	397.7		40	47	1,180	
2007	7	Jul-07	38	17	452.3	37.8	457.8		40	46	1,154	
2007	8	Aug-07	38	12	326.3	187.3	305.9		40	25	617	
2007	9	Sep-07	38	14	380.8	365.5	353.3		41	32	769	
2007	10	Oct-07	40	15	385.3	489.4	390.7		39	28	729	
2007	11	Nov-07	41	21	511.7	849.8	514.7		37	35	945	
2007	12	Dec-07	42	21	489.1	1188.0	477.5	5,725	41	38	921	
2008	1	Jan-08	40	27	673.6	1215.4	671.0		42	51	1,215	
2008	2	Feb-08	40	27	670.7	1201.8	638.0		38	47	1,227	
2008	3	Mar-08	42	26	608.1	1090.8	585.1		43	45	1,038	
2008	4	Apr-08	41	20	481.2	689.4	468.9		40	44	1,092	
2008	5	May-08	41	18	439.1	358.0	440.7		40	37	926	
2008	6	Jun-08	43	16	367.4	154.9	367.2		39	34	876	
2008	7	Jul-08	44	13	301.8	35.2	307.9		40	31	765	
2008	8	Aug-08	43	16	376.6	102.8	377.0		41	33	799	
2008	9	Sep-08	45	16	346.2	315.4	331.0		40	36	896	
2008	10	Oct-08	43	15	349.0	477.7	357.4		41	29	718	
2008	11	Nov-08	41	20	496.0	777.7	516.8		28	30	1,060	
2008	12	Dec-08	44	21	480.8	1280.6	446.2	5,507	36	41	1,145	
2009	1	Jan-09	44	30	690.8	1237.6	682.7		34	48	1,408	
2009	2	Feb-09	44	21	486.6	1084.9	482.9		34	39	1,161	
2009	3	Mar-09	44	24	554.5	1116.3	525.3		36	48	1,340	
2009	4	Apr-09	44	20	455.2	623.2	459.3		36	42	1,172	
2009	5	May-09	44	17	392.2	489.9	361.2		41	29	718	
2009	6	Jun-09	42	18	430.7	192.7	421.1		42	33	794	
2009	7	Jul-09	43	15	359.9	101.3	349.7		42	33	781	

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	R	tesidential						Annual	(Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized		MCCNT	MCENCNS	UPC	Annual
Year	Month# D	Jate		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)	_		(MWh)	(kWh)	UPC (kWh)
2009	8	Aug-09	43	14	334.4	87.7	338.5			42	33	775	
2009	9	Sep-09	43	17	384.5	176.8	403.6			42	36	851	
2009	10	Oct-09	43	17	392.4	559.7	380.5			42	35	837	
2009	11	Nov-09	43	17	397.4	824.5	406.7			37	23	611	
2009	12	Dec-09	43	22	511.0	1163.4	505.4	5,317		37	34	923	
2010	1	Jan-10	43	28	640.0	1229.1	634.0		_	37	40	1,073	
2010	2	Feb-10	43	23	535.1	900.2	577.1			37	36	978	
2010	3	Mar-10	43	20	458.4	718.9	527.5			37	35	957	
2010	4	Apr-10	43	19	436.1	491.0	472.9			37	31	844	
2010	5	May-10	43	17	388.5	401.5	379.3			37	22	592	
2010	6	Jun-10	43	18	417.8	120.0	426.2			41	30	723	
2010	7	Jul-10	43	15	349.6	45.3	353.3			42	27	652	
2010	8	Aug-10	45	17	381.2	109.4	380.0			42	32	768	
2010	9	Sep-10	46	17	362.8	293.5	353.1			42	31	728	
2010	10	Oct-10	46	18	387.9	463.7	399.8			42	30	709	
2010	11	Nov-10	45	23	507.4	810.3	520.2			39	34	876	
2010	12	Dec-10	45	27	591.4	1214.7	573.2	5,597		39	39	994	9,892

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2013 8 Aug-13 50 23 452.5 77.7 459.2 44 32 727	
2013 9 Sep-13 50 23 455.5 179.7 473.9 44 33 747	
2013 10 Oct-13 50 22 435.4 458.2 448.6 38 24 633	
2013 11 Nov-13 50 29 577.7 886.6 571.6 38 33 859	
2013 12 Dec-13 50 42 840.0 1339.9 790.8 6.800 38 52 1.365 10.813	
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2014 2 Feb-14 50 27 535.0 1.188 505.7 38 41 1.083	
2014 3 Mar-14 49 38 777.0 1.121 746.5 38 46 1.210	
2014 4 Apr-14 49 22 455.8 691 443.2 38 38 997	
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	F	Residential	MOCNIT			MUDD	Normalized	Annual	Commercial	MOTHICHIC	UDC	Annual
Voor	Month# F		WIRCINT	IVIREINCINS				Normalized	WICCINT	IVICEINCINS (MANA/b)		
1ear			40		(KWN)	(Hay River)	0PC (KWN) 452.7			(101001)	(KWN)	UPC (KWN)
2014	0	Aug-14	49	10	433.0	104	433.7		43	21	735	
2014	9 10	Sep-14	49	19	376.1	521	373.3		20	25	715	
2014	10	Nov 14	49	23	407.2	910	404.8 506.6		20	23	051	
2014	12	Nov-14	40	42	960 A	1 1 4 4	960.0	6 640	20	33	1 110	10 762
2014	12	Jan-15	50	43	748.6	1,144	7/13 7	0,040	39	44	1,118	10,702
2015	2	Feb-15	50	27	548.0	1,225	530.8		30	45	1,150	
2015	2	Mar-15	50	27	657.2	955	667.9		39	46	1 187	
2015	4	Apr-15	50	19	388.0	571	404.9		39	40 30	765	
2015	5	May-15	50	21	419.9	305	434.7		39	26	663	
2015	5	lun-15	50	21	413.9	126	450.8		35	35	795	
2015	7	Jul-15	50	15	308.2	67	306.4		45	31	679	
2015	, 8	Δυσ-15	50	19	385.3	98	387.0		45	34	761	
2015	9	Sen-15	50	31	605.4	264	602.9		45	37	822	
2015	10	Oct-15	52	22	432.4	508	433.3		38	23	614	
2015	11	Nov-15	54	31	583.0	768	405.5 606.4		30	39	990	
2015	12	Dec-15	54	34	632.8	1 025	661.6	6 239	39	38	987	10 349
2015	1	lan-16	54	31	569.4	1,023	598.4	0,235	39	35	900	10,040
2010	2	Feb-16	54	31	576.7	1,007	581.7		38	39	1 014	
2016	2	Mar-16	54	29	544.3	925	562.4		30	37	956	
2016	4	Apr-16	54	23	415.2	683	404.6		39	30	778	
2010		May-16	53	22	459.6	312	472.6		39	32	833	
2016	6	lun-16	53	27	433.0	105	472.0		45	34	752	
2016	7	Jul-16	53	16	295.9	47	299.2		45	27	608	
2016	, 8	Aug-16	54	18	341.9	79	348.1		43	33	703	
2016	9	Sen-16	54	28	510.3	250	511 5		48	32	674	
2016	10	Oct-16	54	20	310.5	566	367.8		40	30	718	
2016	11	Nov-16	54	21	510.3	722	545.0		43	36	828	
2016	12	Dec-16	54	36	671.8	1 191	659.3	5 775	43	51	1 185	9 951
2010	1	lan-17	54	28	527.6	1,131	560 5	3,773	43	42	972	5,551
2017	2	Feb-17	53	30	562.1	948	592.3		43	43	1.027	
2017	3	Mar-17	54	31	566.9	1 033	552.0		42	54	1 280	
2017	4	Apr-17	54	22	401.6	667	394.8		42	29	695	
2017	5	May-17	54	27	503.3	284	523.2		42	34	805	
2017	6	Jun-17	54	21	381.7	152	382.2		48	31	640	
2017	7	Jul-17	54	20	362.0		363.1		48	30	619	
2017	8	Aug-17	56	19	335.9	60	346.8		48	33	681	
2017	9	Sep-17	56	24	423.2	205	435.4		48	41	849	
2017	10	Oct-17	55	26	473.6	507	474 7		40	30	722	
2017	11	Nov-17	55	30	542.8	976	514.7		42	42	996	
2017	12	Dec-17	55	35	636.9	1.084	651.0	5,797	42	46	1.086	10.373
2018	1	Jan-18	56	39	692.8	1.265	677.8	5,757	42	47	1,116	20,070
2018	2	Feb-18	56	35	624.0	1.044	630.5		42	44	1.036	
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		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month#	Date		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2018	3	Mar-18	56	34	605.1	992	606.6		42	46	1,085	
2018	4	Apr-18	56	26	470.0	723	449.3		42	36	862	
2018	5	May-18	56	28	504.0	327	513.4		42	35	839	
2018	6	Jun-18	56	23	412.3	157	411.5		48	33	677	
2018	7	Jul-18	57	23	398.0	74	394.5		47	31	656	
2018	8	Aug-18	57	23	400.5	119	397.0		47	34	729	
2018	9	Sep-18	59	24	403.5	425	361.3		47	31	662	
2018	10	Oct-18	59	32	536.2	566	522.7		46	34	736	
2018	11	Nov-18	59	33	558.1	880	553.7		40	36	912	
2018	12	Dec-18	59	42	711.0	1,046	734.4	6,253	40	47	1,183	10,495
2019	1	Jan-19	59	40	682.3	1,223	677.8		40	47	1,175	
2019	2	Feb-19	59	40	673.7	1,153	653.0		40	38	960	
2019	3	Mar-19	59	35	591.5	710	662.9		39	37	955	
2019	4	Apr-19	59	27	453.4	567	471.5		40	20	511	
2019	5	May-19	59	30	504.1	433	487.2		41	33	797	
2019	6	Jun-19	59	28	480.7	196	470.2		45	37	818	
2019	7	Jul-19	59	26	448.5	100	438.6		45	22	487	
2019	8	Aug-19	59	23	392.9	153	381.0		45	28	624	
2019	9	Sep-19	59	25	419.2	265	416.5		46	29	636	
2019	10	Oct-19	58	29	498.7	516	497.5		46	31	671	
2019	11	Nov-19	59	31	519.0	849	522.3		40	31	774	
2019	12	Dec-19	59	47	800.6	1,227	779.5	6,458	38	41	1,087	9,495
2020	1	Jan-20	59	45	764.2	1,289	743.3		39	46	1,185	
2020	2	Feb-20	59	42	711.8	1,106	702.9		40	37	917	
2020	3	Mar-20	59	33	563.3	1,078	543.5		39	34	861	
2020	4	Apr-20	59	34	577.4	734	554.0		41	31	768	
2020	5	May-20	59	27	456.8	460	433.1		37	39	1,045	
2020	6	Jun-20	59	29	486.2	207	473.2		41	32	783	
2020	7	Jul-20	59	28	470.8	76	467.0		47	30	631	
2020	8	Aug-20	59	25	416.3	116	413.5		48	22	455	
2020	9	Sep-20	59	30	512.9	273	508.1		48	31	648	
2020	10	Oct-20	59	29	491.4	586	473.0		48	32	658	
2020	11	Nov-20	58	36	621.2	927	605.1		39	36	918	
2020	12	Dec-20	58	41	706.0	1,077	721.9	6,639	39	42	1,089	9,959
2021	1	Jan-21	58	45	772.3	1,099	798.5		38	38	988	
2021	2	Feb-21	58	39	674.8	1,227	635.9		39	46	1,169	
2021	3	Mar-21	59	42	708.2	1,031	700.2		40	41	1,026	
2021	4	Apr-21	59	33	564.3	698	549.7		41	38	928	
2021	5	Mav-21	59	28	472.2	403	462.7		41	35	845	
2021	6	, Jun-21	59	27	458.2	146	460.1		47	37	777	
2021	7	Jul-21	59	28	469.9	64	468.9		47	32	691	
2021	8	Aug-21	59	24	404.1	118	400.8		47	33	697	
2021	9	Sep-21	60	24	396.7	233	401.9		47	37	792	

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		Residential						Annual	Commercial				
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual	
Year	Month#	Date		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)	
2021	10	Oct-21	60	27	456.1	458	469.4		42	30	713		
2021	11	Nov-21	60	30	492.5	822	502.4		43	31	717		
2021	12	Dec-21	60	41	687.5	1,337	639.1	6,490	40	33	825	10,168	
2022	1	Jan-22	60	52	870.6	1,263	856.2		43	48	1,114		
2022	2	Feb-22	60	39	656.4	1,200	624.2		42	38	898		
2022	3	Mar-22	60	37	610.7	1,047	598.6		43	51	1,192		
2022	4	Apr-22	60	29	477.3	707	460.6		43	39	905		
2022	5	May-22	59	26	442.3	393	435.2		42	37	870		
2022	6	Jun-22	59	28	467.0	111	477.6		48	40	826		
2022	7	Jul-22	59	25	415.3	54	416.9		48	35	730		
2022	8	Aug-22	59	22	365.1	65	375.0		48	33	687		
2022	9	Sep-22	59	24	399.7	175	419.3		48	36	754		
2022	10	Oct-22	59	25	422.1	449	437.6		42	30	716		
2022	11	Nov-22	59	28	469.6	873	466.9		42	33	790		
2022	12	Dec-22	59	45	755.2	1273	722.4	6,291	42	51	1,209	10,691	
2023	1	Jan-23	59	43	728.2	1048	767.1		42	41	980		
2023	2	Feb-23	59	38	641.2	1148	622.0		42	43	1,032		
2023	3	Mar-23	59	46	780.0	1052	766.7		42	46	1,099		
2023	4	Apr-23	59	27	459.4	517	489.8		43	35	823		
2023	5	May-23	59	21	357.2	155	409.2		49	30	613		
2023	6	Jun-23	59	31	528.3	114	538.1		49	49	998		
2023	7	Jul-23	60	29	483.6	36	489.5		49	27	554		
2023	8	Aug-23	60	41	681.3	59	692.6		49	37	763		
2023	9	Sep-23	26	1	28.9	164	51.4		26	6	212		
2023	10	Oct-23	26	1	32.2	445	48.7		26	0	14		
2023	11	Nov-23	26	21	821.6	741	851.5		26	15	558		
2023	12	Dec-23	26	28	1077.2	888	1139.9	6,867	26	35	1,355	9,002	
2024	1	Jan-24	26	22	836.6	1290	815.5		26	48	1,832		
2024	2	Feb-24	26	19	747.9	978	770.6		28	27	972		
2024	3	Mar-24	26	21	817.8	990	819.9		29	31	1,053		
2024	4	Apr-24	26	15	564.5	554	585.6		29	35	1,193		
2024	5	May-24	26	12	479.9	320	490.8		29	27	917		
2024	6	Jun-24	26	14	533.1	203	521.0		36	23	635		
2024	7	Jul-24	26	15	577.4	36	583.4		36	27	742		
2024	8	Aug-24	26	15	577.0	69	585.7		37	32	855		
2024	9	Sep-24	26	12	454.0	200	467.5		37	28	755		
2024	10	Oct-24	26	18	705.4	518	703.8		30	30	1,001		
2024	11	Nov-24					530.2				774		
2024	12	Dec-24					721.6	7,596			1,087	11,816	
2025	1	Jan-25					638.7				1,175		
2025	2	Feb-25					625.3				960		
2025	3	Mar-25					609.2				955		
2025	4	Apr-25					438.5				511		

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		Residential						Annual	Commercial				
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual	
Year	Month#	Date		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)	
2025	5	May-25					507.9				797		
2025	6	Jun-25					421.3				818		
2025	7	Jul-25					398.8				487		
2025	8	Aug-25					374.9				624		
2025	9	Sep-25					404.4				636		
2025	10	Oct-25					498.3				671		
2025	11	Nov-25					530.2				774		
2025	12	Dec-25					721.6	6,169			1,087	9,495	
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Katl'odeeche First Nation Reserve Regression Statistics

Katl'odeeche First Nation Reserve Regression Statistics

KFN Residential

	(1) NORM	IALIZATION
	HDD	Intercept
X Coefficient	0.26	525.02
Std Err of Coef.	0.01	9.56
R2, & Std Err of Y Estimate	0.69	72.19
F-stat, & d of f	406	178
Sum of squares(ss), Resid ss	2,113,307	927,525
t Stat	20.14	54.90
P-value	9.115E-48	1.644E-113

	(1) NOR	MALIZATION
	Row	<u>Date</u>
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

KFN Commercial		
	(1) NORM	ALIZATION
	HDD	Intercept
X Coefficient	0.80	2665.68
Std Err of Coef.	0.09	64.38
R2, & Std Err of Y Estimate	0.32	485.98
F-stat, & d of f	83	178
Sum of squares(ss), Resid ss	19,673,625	42,038,988
t Stat	9.13	41.40
P-value	1.517E-16	2.722E-93

	(1) NORN	ALIZATION					
	Row Date						
Start	24	Jan-05					
End	203	Dec-19					
Months	180						
Years	15						

		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2005	1	Jan-05	81	82	1,013	1,260	999.0			24 93	3,883	
2005	2	Feb-05	81	59	731	1,034	740.5		:	23 80	3,489	
2005	3	Mar-05	80	58	722	949	734.6		:	23 80	3,472	
2005	4	Apr-05	80	52	646	542	671.3		:	23 78	3,378	
2005	5	May-05	78	54	691	407	679.6		:	23 82	3,545	
2005	6	Jun-05	78	46	591	209	577.0		:	23 74	3,230	
2005	7	Jul-05	79	43	544	86	537.5		:	25 70	2,804	
2005	8	Aug-05	80	46	576	143	565.8		:	25 69	2,769	
2005	9	Sep-05	80	45	567	308	552.8		:	24 81	3,385	
2005	10	Oct-05	79	55	698	474	707.8		:	27 92	3,424	
2005	11	Nov-05	80	57	718	767	742.4		:	25 87	3,461	
2005	12	Dec-05	82	63	768	866	839.4	8,348	:	25 90	3,617	40,457

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		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2006	1	Jan-06	83	76	913	1,165	923.2		24	94	3,929	
2006	2	Feb-06	81	62	767	927	803.9		24	87	3,633	
2006	3	Mar-06	80	58	725	904	749.6		24	104	4,339	
2006	4	Apr-06	80	52	646	497	682.9		23	88	3,830	
2006	5	May-06	80	50	626	312	639.5		24	86	3,604	
2006	6	Jun-06	88	50	571	98	585.1		22	73	3,340	
2006	7	Jul-06	88	52	591	85	584.3		23	82	3,550	
2006	8	Aug-06	90	49	550	90	553.6		24	67	2,802	
2006	9	Sep-06	89	50	563	203	576.2		23	77	3,341	
2006	10	Oct-06	89	61	681	524	678.1		23	87	3,791	
2006	11	Nov-06	89	69	772	1,042	724.5		23	89	3,850	
2006	12	Dec-06	89	68	764	925	820.4	8,321	23	85	3,704	43,713
2007	1	Jan-07	90	86	957	1,108	981.9	,	22	92	4,184	· · ·
2007	2	Feb-07	90	73	812	1.168	785.8		22	87	3.954	
2007	3	Mar-07	90	69	771	1.100	744.5		22	92	4.198	
2007	4	Apr-07	90	71	784	560	805.0		22	86	3,894	
2007	5	May-07	91	53	584	368	582.7			76	3 452	
2007	6	lun-07	92	54	585	161	583.4		22	82	3 734	
2007	7	Jul-07	92	54	584	38	589.6		22	79	3 595	
2007	, 8	Aug-07	91	/5	/93	187	/71.8		22	73	3 218	
2007	٥ ۵	Sen-07	93	57	455 613	366	583.5		22	8/	3 832	
2007	10	Oct-07	95	50	613	480	619.0		22	87	2 7/18	
2007	10	Nov 07	50	55	6013	469	696.0		22	82	2,094	
2007	11	NOV-07	33	64	729	1 100	715.2	9 140	22	00	3,364	
2007	12	Dec-07	93	08	1 020	1,188	/15.3	8,149	22	83 107	3,774	45,507
2008	1	Jan-08	93	97	1,039	1,215	1035.7		22	107	4,870	
2008	2	Feb-08	92	/8	843	1,202	808.7		22	88	4,010	
2008	3	Iviar-08	91	68	747	1,091	722.5		22	89	4,053	
2008	4	Apr-08	91	68	/52	689	/38.6		23	88	3,842	
2008	5	May-08	91	61	6/1	358	6/3.0		23	86	3,739	
2008	6	Jun-08	91	57	624	155	624.1		23	/1	3,066	
2008	7	Jul-08	92	47	512	35	518.3		23	80	3,484	
2008	8	Aug-08	90	53	594	103	594.7		24	77	3,194	
2008	9	Sep-08	91	50	547	315	530.9		24	72	2,998	
2008	10	Oct-08	91	55	609	478	618.1		24	78	3,259	
2008	11	Nov-08	91	72	794	778	816.1		24	92	3,839	
2008	12	Dec-08	91	71	780	1,281	743.9	8,425	24	83	3,441	43,800
2009	1	Jan-09	91	100	1,100	1,238	1091.3		24	91	3,794	
2009	2	Feb-09	91	74	810	1,085	805.9		24	83	3,479	
2009	3	Mar-09	91	84	918	1,116	886.8		24	94	3,933	
2009	4	Apr-09	90	67	750	623	754.0		24	83	3,448	
2009	5	May-09	91	53	584	490	551.6		22	72	3,277	
2009	6	Jun-09	90	57	637	193	626.9		24	83	3,469	
2009	7	Jul-09	90	52	583	101	571.9		24	72	3,007	
2009	8	Aug-09	88	51	574	88	578.6		24	68	2,841	
2009	9	Sep-09	87	50	575	177	595.0		24	71	2,961	
2009	10	Oct-09	89	53	590	560	577.4		24	75	3,144	
2009	11	Nov-09	93	70	748	825	758.0		24	95	3,979	
2009	12	Dec-09	93	71	769	1,163	762.9	8,560	24	90	3,752	41,082

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		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2010	1	Jan-10	93	95	1,021	1,229	1014.5		24	108	4,489	
2010	2	Feb-10	93	70	754	900	798.4		24	88	3,668	
2010	3	Mar-10	93	63	682	719	755.5		24	88	3,669	
2010	4	Apr-10	94	63	675	491	713.8		24	85	3,528	
2010	5	May-10	92	57	623	402	613.0		24	87	3,635	
2010	6	Jun-10	91	50	551	120	559.5		25	76	3,031	
2010	7	Jul-10	89	48	542	45	546.3		25	69	2,777	
2010	8	Aug-10	89	51	571	109	570.1		24	66	2,747	
2010	9	Sep-10	88	49	555	294	545.2		25	68	2,720	
2010	10	Oct-10	89	56	631	464	643.0		25	86	3,444	
2010	11	Nov-10	90	59	653	810	666.0		25	90	3,590	
2010	12	Dec-10	90	69	765	1,215	746.0	8,171	26	98	3,778	41,076
2011	1	Jan-11	91	79	866	1,289	844.2	<u> </u>	26	94	3,603	
2011	2	Feb-11	90	75	831	1.007	847.7		26	101	3.901	
2011	3	Mar-11	90	72	803	1.041	791.3		26	99	3.801	
2011	4	Apr-11	89	55	617	720	595.7		26	80	3.069	
2011	5	May-11	88	57	647	361	648 3		25	87	3 466	
2011	6	lun-11	88	50	568	168	563.9		25	75	2 992	
2011	7	Jul-11	84	45	532	37	537.6		25	63	2,532	
2011	, 8	Δυσ-11	84	50	599	86	603.7		23	65	2,334	
2011	0	Sop-11	85	50	590	206	602.2		24	70	2,737	
2011	10	Oct-11	83	52	622	471	6/2.2		24	70	2,919	
2011	10	Nov 11	00	53	760	4/1	726 4		24	7 <i>5</i>	3,310	
2011	11	N0V-11	00	60	700	932	730.4 951.0	0 766	24	03	3,709	20 700
2011	12	Jap 12	04	70	840	1 19/	031.0	8,200	24	00	3,007	59,709
2012	1	Jall-12	60	70	049	1,104	054.5		24	63 05	3,474	
2012	2	FeD-12	63	77	932	913	9/3.2		24	95	3,948	
2012	3	Iviar-12	83	67	802	992	803.5		24	91	3,779	
2012	4	Apr-12	83	58	/01	6/6	691.7		24	83	3,453	
2012	5	May-12	81	55	681	2//	/04.3		24	8/	3,610	
2012	6	Jun-12	82	48	588	156	587.9		24	/6	3,181	
2012	/	Jul-12	81	49	605	13	617.2		24	70	2,909	
2012	8	Aug-12	81	47	575	60	586.6		24	64	2,669	
2012	9	Sep-12	81	47	582	178	601.8		24	67	2,789	
2012	10	Oct-12	80	55	689	575	672.7		24	83	3,445	
2012	11	Nov-12	81	58	721	1,011	682.7		24	83	3,458	
2012	12	Dec-12	81	69	847	1,328	797.9	8,574	23	85	3,696	40,412
2013	1	Jan-13	81	83	1,025	1,292	1001.8		23	91	3,942	
2013	2	Feb-13	80	72	900	928	937.3		23	88	3,845	
2013	3	Mar-13	84	66	780	1,077	759.5		24	82	3,405	
2013	4	Apr-13	85	65	763	785	724.8		24	83	3,441	
2013	5	May-13	84	54	640	333	648.4		24	77	3,222	
2013	6	Jun-13	81	49	610	135	614.9		24	74	3,100	
2013	7	Jul-13	80	47	592	83	586.0		24	60	2,509	
2013	8	Aug-13	80	46	578	78	585.1		24	62	2,563	
2013	9	Sep-13	81	50	613	180	632.9		24	58	2,397	
2013	10	Oct-13	82	52.2	637.1	458.2	651.1		24	70	2,915	
2013	11	Nov-13	81	66.9	825.8	886.6	819.4		24	75	3,145	
2013	12	Dec-13	82	79.3	966.9	1339.9	914.9	8,886	24	80	3,319	37,802

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		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2014	1	Jan-14	82	81.8	997.3	1,200	998.6		23	72	3,141	
2014	2	Feb-14	82	62.5	762.0	1,188	731.1		23	67	2,934	
2014	3	Mar-14	81	75.9	937.1	1,121	905.0		23	83	3,620	
2014	4	Apr-14	81	51.8	638.9	691	625.6		23	61	2,669	
2014	5	May-14	81	48.4	597.6	380	593.4		23	61	2,652	
2014	6	Jun-14	76	42.8	563.7	158	562.7		23	54	2,344	
2014	7	Jul-14	77	47.2	613.2	35	619.9		23	54	2,340	
2014	8	Aug-14	78	48.3	619.7	104	619.7		23	58	2,528	
2014	9	Sep-14	79	47.5	601.6	274	596.4		24	52	2,158	
2014	10	Oct-14	80	50.9	636.0	521	633.4		24	65	2,719	
2014	11	Nov-14	80	67.1	838.4	910	826.0		24	80	3,322	
2014	12	Dec-14	80	69.9	874.2	1,144	873.4	8,585	25	76	3,040	33,467
2015	1	Jan-15	81	71.6	884.1	1,225	878.9	· · · ·	25	77	3,066	· · · · · ·
2015	2	Feb-15	81	64.9	800.9	1,104	792.0		25	70	2,805	
2015	3	Mar-15	81	74.3	916.9	955	928.2		25	92	3.683	
2015	4	Apr-15	81	40.3	497.2	571	515.1		25	60	2.397	
2015	5	May-15	81	46.2	570.8	305	586.4		25	66	2 656	
2015	6	lun-15	78	49.6	636.2	126	643 5		25	56	2 2 2 9	
2015	7	Jul-15	78	38.4	492.1	67	490.2		25	45	1 810	
2015	, 8	Δυσ-15	78	46.0	589 5	98	591 /		25	52	2,094	
2015	9	Sen-15	70	40.0	586.0	264	583.4		25	52	2,054	
2015	10	Oct-15	76	52.6	602.3	508	602.2		25	72	2,075	
2015	10	Nov 15	70	52.0 62.6	702.2	760	916.0		25	70	2 061	
2015	11	NOV-15	79	02.0 60.6	792.3	1 025	010.9	8 207	25	77	3,001	22.074
2015	12	Jan 16	80	50.0 E8 E	737.0	1,025	760.2	8,307	25		3,008	52,074
2010	1	Jail-10	80 70	58.5	730.7	1,067	701.4		25	09	2,779	
2016	2	Feb-10	79	62.2	/8/.9	1,050	793.1		25	11	3,087	
2010	3	Ivial-10	70	33.4	005.2	925	704.5		23	67	2,077	
2016	4	Apr-16	78	47.2	604.8	242	593.0		25	64	2,552	
2016	5	Iviay-16	79	48.9	619.1	312	632.8		25	63	2,509	
2016	6	Jun-16	/8	45.7	585.7	105	598.4		25	53	2,126	
2016	/	Jul-16	//	39.3	510.1	47	513.5		25	43	1,702	
2016	8	Aug-16	/8	45.3	581.0	/9	587.6		25	50	1,993	
2016	9	Sep-16	/8	45.0	577.4	250	5/8./		25	50	2,006	
2016	10	Oct-16	11	47.9	621.5	566	607.1		25	61	2,459	
2016	11	Nov-16	78	55.5	711.5	722	748.1		25	76	3,054	
2016	12	Dec-16	78	71.6	917.4	1,191	904.2	8022.84	25	96	3,837	30,781
2017	1	Jan-17	78	60.8	779.8	1,072	814.5		25	72	2,873	
2017	2	Feb-17	79	53.2	673.2	948	705.2		25	70	2,803	
2017	3	Mar-17	78	56.3	721.4	1,033	712.2		25	75	3,007	
2017	4	Apr-17	77	41.2	535.4	667	528.2		25	58	2,310	
2017	5	May-17	77	53.2	690.5	284	711.6		25	74	2,957	
2017	6	Jun-17	75	37.5	500.1	152	500.7		24	54	2,235	
2017	7	Jul-17	74	41.1	555.5	56	556.6		24	53	2,223	
2017	8	Aug-17	74	44.8	605.2	60	616.8		24	55	2,304	
2017	9	Sep-17	75	40.5	539.9	205	552.8		24	53	2,214	
2017	10	Oct-17	75	53.8	718.0	507	719.1		24	77	3,206	
2017	11	Nov-17	74	51.5	696.0	976	666.4		23	69	3,020	
2017	12	Dec-17	75	60.0	800.3	1,084	815.1	7899.24	24	76	3,159	32,311

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		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2018	1	Jan-18	75	72.3	963.9	1,265	948.1		24	75	3,104	
2018	2	Feb-18	75	48.0	639.4	1,044	646.3		24	62	2,575	
2018	3	Mar-18	75	51.4	685.5	992	687.1		24	72	3,011	
2018	4	Apr-18	75	46.9	625.0	723	603.2		24	70	2,933	
2018	5	May-18	76	46.6	612.6	327	622.5		24	62	2,602	
2018	6	Jun-18	76	42.9	564.5	157	563.6		24	58	2,421	
2018	7	Jul-18	74	40.8	551.9	74	548.2		26	56	2,169	
2018	8	Aug-18	75	46.9	625.6	119	621.9		26	62	2,397	
2018	9	Sep-18	75	42.4	564.7	425	520.1		26	64	2,456	
2018	10	Oct-18	76	50.5	663.9	566	649.6		26	79	3,032	
2018	11	Nov-18	77	48.9	635.3	880	630.6		26	79	3,039	
2018	12	Dec-18	77	53.1	689.0	1,046	713.8	7754.93	25	78	3,111	32,850
2019	1	Jan-19	77	55.5	720.4	1,223	715.5		26	85	3,255	
2019	2	Feb-19	78	56.1	718.8	1,153	697.0		26	73	2,789	
2019	3	Mar-19	78	51.0	653.6	710	729.0		26	74	2,861	
2019	4	Apr-19	78	45.0	577.1	567	596.2		26	71	2,749	
2019	5	Mav-19	84	46.6	555.0	433	537.2		26	75	2.888	
2019	6	Jun-19	84	44.9	534.6	196	523.6		26	67	2.585	
2019	7	Jul-19	86	44.9	522.0	100	511.6		26	59	2.285	
2019	8	Aug-19	85	35.6	419.4	153	406.8		26	51	1,955	
2019	9	Sen-19	90	42.3	469.7	265	466.9		26	57	2,335	
2019	10	Oct-19	90	51.7	575.0	516	573.8		26	74	2,200	
2019	11	Nov-19	90	51.0	566.9	849	570.4		26	66	2,535	
2019	12	Dec-19	90	73.8	819.6	1 227	797.2	7 125	26	84	3 227	32 168
2020		lan-20	90	63.1	701.6	1 289	679.6	7,125	26	72	2 782	02,200
2020	2	Feb-20	90	60.9	676 5	1 106	667.2		27	69	2 5 7 3	
2020	3	Mar-20	90	61.2	679.9	1 078	659.0		27	81	2,986	
2020	4	Apr-20	90	54.9	610 5	734	585.8		27	61	2,500	
2020	5	May-20	90	46.0	511.1	460	486.2		27	51	1 888	
2020	6	lun-20	90	40.0	545.7	207	531.0		27	54	1 993	
2020	7	Jul-20	90	52.2	580.1	76	576.1		28	50	1 790	
2020	, 8	Aug-20	90	46.6	517 5	116	514.6		28	13	1,730	
2020	9	Sen-20	90	57.2	635.6	273	630.6		28	43	2 278	
2020	10	Oct-20	90	56.4	626.3	586	606.9		20	73	2,270	
2020	11	Nov-20	90	50.4 61.4	681.0	500	664.9		29	73	2,521	
2020	12	Dec-20	90	68.2	750.2	1 077	767.1	7 270	25	75	2,045	28 017
2020	12	Jan-21	91	80.6	885.9	1,077	913.6	7,370	27	87	3,005	28,017
2021	2	5ah 21	90	74.9	821.2	1,000	700.2		29	79	3,005	
2021	2	Mar-21	90	74.8 64.4	715 2	1,227	790.3		29	78	2,070	
2021	1	Apr-21	90	58.2	647.5	1,031	622.1		29	74	2,508	
2021		Apr-21	90	J8.J	548.0	403	528.0		29	67	2,432	
2021	5	Ividy-21	90	49.4	546.9	403	530.9		25	67	2,510	
2021	0	Jun-21	90	48.0	540.3	140	542.3		28	50	2,375	
2021	/	Jui-21	88	52.8	000.5 E40.4	04 110	599.4		28	54	1,912	
2021	8	Aug-21	87	47.0	540.4	118	536.9		28	50	1,776	
2021	9	Sep-21	88	50.1	569.8	233	575.4		28	55	1,962	
2021	10	0ct-21	88	54.8	022.8	458	030.8		28	/0	2,494	
2021	11	NOV-21	89	62.7	/04.9	822	/15.3	0.000	29	/2	2,468	20 525
2021	12	Dec-21	89	//.3	868.9	1,337	817.8	8,006	30	78	2,590	28,595

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		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2022	1	Jan-22	89	81.2	912.6	1,263	897.5		30	73	2,433	
2022	2	Feb-22	89	64.8	728.4	1,200	694.4		30	70	2,335	
2022	3	Mar-22	89	63.4	712.5	1,047	699.7		30	69	2,301	
2022	4	Apr-22	89	48.1	540.7	707	523.1		29	59	2,052	
2022	5	May-22	80	49.3	616.4	393	609.0		15	21	1,418	
2022	6	Jun-22	88	40.4	459.3	111	470.5		30	104	3,467	
2022	7	Jul-22	89	45.5	511.7	54	513.4		29	49	1,699	
2022	8	Aug-22	89	43.9	492.9	65	503.4		30	44	1,476	
2022	9	Sep-22	88	50.0	568.4	175	589.0		30	54	1,789	
2022	10	Oct-22	87	56.0	644.2	449	660.6		30	70	2,318	
2022	11	Nov-22	87	65.4	752.3	873	749.4		30	77	2,550	
2022	12	Dec-22	87	73.4	844.2	1,273	809.6	7,720	30	80	2,668	26,506
2023	1	Jan-23	87	70.4	809.7	1,048	850.8	· · · · ·	30	65	2,182	
2023	2	Feb-23	87	60.8	698.4	1,148	678.1		30	74	2,468	
2023	3	Mar-23	87	70.5	810.0	1.052	795.9		30	77	2.574	
2023	4	Apr-23	86	42.6	495.4	517	527.6		30	60	1.994	
2023	5	May-23	86	34.8	405.1	155	460.0		30	51	1,708	
2023	6	lun-23	72	11.0	152.1	114	162.6		23	15	655	
2023	7	Jul-23	72	42.6	591.1	36	597.4		25	44	1 742	
2023	, 8	Aug-23	72	112.8	1566.2	59	1578.2		25	29	1 175	
2023	a	Sen-23	72	130.2	1807.9	164	1831.6		25	/3	1 723	
2023	10	Oct-23	72	1/5 9	2026.0	104	2043 4		25	45	1,725	
2023	10	Nov-23	72	24.7	174 0	741	506.5		25	22	1 2 2 9	
2023	12	Dec-23	73	50.4	681.7	200	748.0	10 780	25	33	2 0 2 1	25 027
2025	12	Dec-23	27	25.4	061.7	1 200	746.0	10,780	25	30	3,931	25,921
2024	2	Jan-24 Eab 24	37	55.0	770.1	1,230	902.1		25	/4	2,370	
2024	2	Feb-24	73	56.4	779.1	978	005.1		24	42	1,741	
2024	3	Ividi-24	74	07.8	913.9	990	910.0		20	09	2,050	
2024	4	Apr-24	74	48.9	000.0	224	083.0		20	55	2,109	
2024	5	iviay-24	74	32.9	445.1	320	456.6		26	46	1,770	
2024	6	Jun-24	74	41.2	556.1	203	543.3		26	53	2,044	
2024	/	Jui-24	74	42.0	567.1	36	5/3.5		26	59	2,262	
2024	8	Aug-24	76	44.5	585.2	69	594.4		26	44	1,692	
2024	9	Sep-24	/8	36.8	4/2.3	200	486.5		26	42	1,604	
2024	10	Oct-24	80	59.3	740.9	518	/39.1		26	67	2,560	
2024	11	Nov-24					570.4				2,552	
2024	12	Dec-24					/9/.2	8,104			2,820	26,780
2025	1	Jan-25					/15.5				2,742	
2025	2	Feb-25					697.0				2,425	
2025	3	Mar-25					729.0				2,637	
2025	4	Apr-25					596.2				2,373	
2025	5	May-25					537.2				2,509	
2025	6	Jun-25					523.6				2,150	
2025	7	Jul-25					511.6				1,983	
2025	8	Aug-25					406.8				1,977	
2025	9	Sep-25					466.9				2,034	
2025	10	Oct-25					573.8				2,701	
2025	11	Nov-25					570.4				2,552	
2025	12	Dec-25					797.2	7,125			2,820	28,904

Fort Providence Regression Statistics

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Residential

	(1) NORM	ALIZATION
	<u>HDD</u>	Intercept
X Coefficient	0.15	340.83
Std Err of Coef.	0.01	5.63
R2, & Std Err of Y Estimate	0.67	42.50
F-stat, & d of f	363	178
Sum of squares(ss), Resid ss	656,472	321,578
t Stat	19.06	60.53
P-value	7.377E-45	1.132E-120

	(1) NORI	MALIZATION		
	Row	Date		
Start	24	Jan-05		
End	203	Dec-19		
Months	180			
Years	15			

Commercial		
	(1) NORM	ALIZATION
	HDD	Intercept
X Coefficient	0.02	105.67
Std Err of Coef.	0.00	1.63
R2, & Std Err of Y Estimate	0.38	12.34
F-stat, & d of f	110	178
Sum of squares(ss), Resid ss	16,768	27,092
t Stat	10.50	64.65
P-value	2.288E-20	1.500E-125

	(1) NORN	ALIZATION
	Row	<u>Date</u>
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2005	1	Jan-05	249	140	561	1,260	552.9		73	7 181	2,356	
2005	2	Feb-05	250	121	486	1,034	491.2		77	7 113	1,472	
2005	3	Mar-05	250	115	461	949	468.2		80) 166	2,073	
2005	4	Apr-05	247	122	494	542	508.0		83	3 79	949	
2005	5	May-05	248	75	301	407	295.3		82	2 113	1,377	
2005	6	Jun-05	247	93	375	209	367.1		80) 110	1,381	
2005	7	Jul-05	248	88	357	86	352.8		78	3 104	1,333	
2005	8	Aug-05	249	85	342	143	336.1		78	3 112	1,441	
2005	9	Sep-05	253	105	415	308	407.3		76	5 126	1,653	
2005	10	Oct-05	251	102	406	474	411.4		77	7 103	1,333	
2005	11	Nov-05	251	124	494	767	507.5		83	L 118	1,453	
2005	12	Dec-05	251	106	421	866	461.2	5,159	83	3 120	1,450	

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		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2006	1	Jan-06	248	143	576	1,165	582.3		8) 148	1,846	
2006	2	Feb-06	249	122	491	927	511.5		8) 135	1,682	
2006	3	Mar-06	250	117	469	904	482.8		7	5 128	1,678	
2006	4	Apr-06	250	106	422	497	443.0		7	7 120	1,560	
2006	5	May-06	250	94	375	312	382.2		7	5 103	1,379	
2006	6	Jun-06	254	89	349	98	357.2		7	5 108	1,441	
2006	7	Jul-06	253	93	369	85	365.6		7	5 95	1,261	
2006	8	Aug-06	255	89	348	90	350.2		7:	3 125	1,707	
2006	9	Sep-06	254	99	389	203	396.8		7:	3 115	1,573	
2006	10	Oct-06	256	105	409	524	406.8		74	112	1,509	
2006	11	Nov-06	253	120	476	1,042	449.3		7:	3 132	1,803	
2006	12	Dec-06	255	135	528	925	559.5	5,287	7.	2 108	1,500	
2007	1	Jan-07	257	143	555	1,108	569.4		71	2 151	2,098	
2007	2	Feb-07	254	126	497	1,168	482.2		7.	2 140	1,945	
2007	3	Mar-07	253	128	504	1,100	489.3		7:	3 121	1,654	
2007	4	Apr-07	253	112	444	560	455.4		7	5 110	1,466	
2007	5	May-07	249	97	388	368	387.9		7	7 138	1,789	
2007	6	Jun-07	251	97	385	161	383.6		80) 119	1,493	
2007	7	Jul-07	252	87	344	38	347.1		8	5 114	1,346	
2007	8	Aug-07	251	101	403	187	390.5		9:	L 112	1,233	
2007	9	Sep-07	254	99	391	366	374.7		9	L 106	1.161	
2007	10	Oct-07	252	113	450	489	453.0		8	5 125	1.455	
2007	11	Nov-07	262	137	525	850	526.3		7	9 143	1.812	
2007	12	Dec-07	259	156	603	1.188	595.9	5.455	7	5 135	1.799	
2008	1	Jan-08	276	159	575	1.215	573.9	· · · ·	7	7 145	1.884	
2008	2	Feb-08	278	143	516	1.202	496.6		7	5 149	1.966	
2008	3	Mar-08	282	129	457	1.091	443.2		7	5 120	1.581	
2008	4	Apr-08	283	128	452	689	444.4		7	7 111	1.441	
2008	5	Mav-08	278	110	397	358	398.0		7) 114	1.443	
2008	6	Jun-08	278	114	409	155	408.8		8	L 118	1,451	
2008	7	Jul-08	277	84	302	35	305.6		8	2 99	1,210	
2008	8	Aug-08	276	109	394	103	394.6		8	L 132	1,628	
2008	9	Sep-08	278	110	395	315	385.7		7	97	1,223	
2008	10	Oct-08	277	108	390	478	394.6		7	5 108	1.421	
2008	11	Nov-08	273	144	529	778	541.6		7	5 138	1.843	
2008	12	Dec-08	276	134	484	1,281	464.0	5,251	7	5 122	1,623	
2009	1	Jan-09	274	176	644	1.238	639.2		73	3 154	2.107	
2009	2	Feb-09	275	141	513	1.085	511.1		7:	3 131	1.789	
2009	3	Mar-09	277	132	476	1.116	458.9		74	1 129	1.748	
2009	4	Apr-09	276	132	478	623	480.5		7	3 113	1.553	
2009	5	Mav-09	276	107	387	490	368.8		7	7 124	1.613	
2009	6	Jun-09	279	99	354	193	347.9		7	5 102	1.365	
2009	7	Jul-09	279	108	386	101	379.9		7	7 110	1.432	
2009	, 8	Aug-09	276	104	378	88	380.2		7	5 122	1.629	
2009	9	Sep-09	272	109	401	177	412.7		7	5 114	1.524	
2009	10	Oct-09	275	118	431	560	423.9		6) 110	1.594	
2000	10	500 05	2/5	110	-51	500	423.3		0.		1,554	

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		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2009	11	Nov-09	280	140	499	825	504.3		69	125	1,814	
2009	12	Dec-09	270	136	503	1,163	500.0	5,408	67	106	1,580	
2010	1	Jan-10	279	171	614	1,229	610.1		71	178	2,507	
2010	2	Feb-10	278	135	485	900	509.5		73	130	1,777	
2010	3	Mar-10	281	125	446	719	486.9		72	112	1,554	
2010	4	Apr-10	284	133	470	491	491.6		73	117	1,607	
2010	5	May-10	282	125	445	402	439.6		74	117	1,579	
2010	6	Jun-10	280	118	420	120	424.6		75	116	1,552	
2010	7	Jul-10	281	113	402	45	404.5		74	129	1,739	
2010	8	Aug-10	283	98	347	109	346.4		74	108	1,464	
2010	9	Sep-10	286	106	370	294	364.8		74	125	1,689	
2010	10	Oct-10	286	121	424	464	431.1		74	108	1,457	
2010	11	Nov-10	284	121	425	810	432.5		69	104	1,512	
2010	12	Dec-10	288	145	503	1,215	492.4	5,434	68	128	1,882	20,319

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		Residential						Annual	(Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized		MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)	_		(MWh)	(kWh)	UPC (kWh)
2011	1	l Jan-11	291	181	621	1,289	608.7			69	151	2,196	
2011	2	2 Feb-11	287	156	544	1,007	553.6			69	133	1,934	
2011	3	8 Mar-11	290	159	547	1,041	541.0			69	141	2,040	
2011	4	Apr-11	289	135	468	720	456.4			69	120	1,746	
2011	5	5 May-11	288	133	462	361	462.1			69	107	1,558	
2011	e	5 Jun-11	286	104	362	168	360.0			73	95	1,297	
2011	7	7 Jul-11	288	110	382	37	385.1			73	114	1,559	
2011	8	B Aug-11	286	104	364	86	366.9			74	108	1,460	
2011	ç	9 Sep-11	288	102	356	206	362.7			73	99	1,355	
2011	10) Oct-11	287	112	390	471	396.2			69	95	1,382	
2011	11	Nov-11	291	119	409	952	395.9			69	93	1,342	
2011	12	2 Dec-11	291	144	495	978	519.2	5,408	-	69	109	1,582	19,449
2012	1	L Jan-12	290	172	594	1,184	596.6			67	134	2,002	
2012	2	2 Feb-12	285	156	547	913	569.8			68	120	1,770	
2012	3	8 Mar-12	289	152	528	992	528.6			68	126	1,856	
2012	4	Apr-12	290	140	482	676	476.4			69	126	1,832	
2012	5	5 May-12	292	128	440	277	452.9			69	111	1,603	
2012	e	5 Jun-12	292	106	363	156	363.1			72	92	1,282	
2012	7	7 Jul-12	285	105	369	13	375.5			72	107	1,487	
2012	8	3 Aug-12	287	110	384	60	390.2			72	116	1,613	
2012	ç	9 Sep-12	286	97	339	178	350.1			73	110	1,512	
2012	10	0 Oct-12	285	104	365	575	355.9			70	94	1,346	
2012	11	Nov-12	285	116	408	1,011	386.0			70	100	1,427	
2012	12	2 Dec-12	289	142	490	1,328	463.0	5,308	_	70	137	1,951	19,680
2013	1	L Jan-13	289	160	555	1,292	542.1			70	150	2,149	
2013	2	2 Feb-13	287	168	584	928	605.1			70	147	2,101	
2013	З	8 Mar-13	285	126	443	1,077	431.2			74	123	1,667	
2013	4	Apr-13	284	120	421	/85	400.0			74	119	1,614	
2013	5	May-13	284	138	485	333	489.5			74	120	1,616	
2013	-	5 JUN-13	281	110	390	135	393.1			//	109	1,410	
2013		y Jui-13	276	96	347	83	343.0			//	114	1,480	
2013		Aug-15	282	107	376	78	301.0 201.2			77	122	1,591	
2013	10	3 Sep-13	281	107	300	160	391.3			70	110	1,525	
2013	11	0 000-13	282	111	393	456.2	400.3			74	111	1,497	
2015	13		284	150	4/9 E47	000.0 1220.0	4/4.9 E10.0	E 271		74	150	1,700	20 504
2015	12	L Dec-15	285	155	547	1 200	516.2	5,571	-	75	104	2,180	20,394
2014	2		283	137	475	1,200	331.4 457.8			75	140	1,947	
2014	2	2 Feb-14	200	134	475	1,100	437.8			70	130	1,712	
2014	-	Δnr_{-14}	282	116	403	601	445.4			75	112	1,745	
2014	4	+ Api-14	282	110	412	380	404.3			73	115	1,313	
2014	2	5 ividy=14	204 270	101	400	50U 159	403.2 267 E			70	110	1,413	
2014	-	5 Juli-14 7 Jul_17	278	101	303	3E T20	302.5 202.5			79	110	1,430	
2014	/ 2	Ω Διισ_1/	2/0 201	100	329	55 104	302.5			70 77	172	1,040	
2014	c c) Sen_1/	201 201	100	2//	274	3,11 7			77	112	1 /19/	
2014	10	-5 - 14	201 201	132	344 170	274 501	741.2			73	102	1 /11	
2014	10	000-14	201	192	470	521	409.0			/5	102	1,411	

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		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2014	11	Nov-14	280	131	469	910	461.6		75	5 129	1,722	
2014	12	Dec-14	283	148	522	1,144	522.1	5,137	75	5 134	1,789	19,455
2015	1	Jan-15	284	157	554	1,225	551.2		74	1 138	1,863	
2015	2	Feb-15	283	140	493	1,104	488.4		74	4 126	1,697	
2015	3	Mar-15	282	126	447	955	453.0		74	1 128	1,728	
2015	4	Apr-15	283	107	377	571	386.7		74	1 118	1,596	
2015	5	May-15	283	112	396	305	404.9		72	1 113	1,522	
2015	6	Jun-15	281	98	348	126	352.1		7.	/ 124	1,617	
2015	7	Jul-15	282	90	318	67	316.8		79) 121	1,535	
2015	8	Aug-15	283	108	382	98	382.6		78	3 112	1,435	
2015	9	Sep-15	280	93	332	264	330.9		80) 120	1,503	
2015	10	Oct-15	282	115	409	508	409.5		76	5 117	1,533	
2015	11	Nov-15	281	125	445	768	459.0	5.000	76	5 126	1,659	
2015	12	Dec-15	284	145	511	1,025	527.9	5,063	76	5 133	1,756	19,445
2016	1	Jan-16	285	145	507	1,087	524.2		76	5 136	1,/8/	
2016	2	Feb-16	286	135	472	1,050	4/5.2		76	5 122	1,611	
2016	3	Mar-16	284	119	419	925	429.7		76	5 130	1,708	
2016	4	Apr-16	285	114	400	683	393.4		76	5 11/	1,544	
2016	5	May-16	286	110	383	312	390.8		/5	5 105	1,397	
2016	6	Jun-16	283	103	364	105	370.9		/9	108	1,363	
2016	/	Jul-16	286	94	330	4/	332.3		/9	9 116	1,470	
2016	8	Aug-16	286	102	357	/9	361.1		/8	3 111	1,429	
2016	9	Sep-16	287	100	347	250	347.4		80	108	1,346	
2016	10	Oct-16	286	121	424	566	415.8		/5	5 116	1,551	
2016	11	NOV-16	287	126	440	/22	460.1	5 004	76	5 120	1,574	40 577
2016	12	Dec-16	287	145	507	1,191	499.6	5,001	7	- 135	1,796	18,577
2017	1	Jan-17	287	149	518	1,072	537.3		/:	- 131	1,751	
2017	2	Feb-17	287	118	410	948	428.2		/:	- 123	1,037	
2017	3	Iviar-17	28/	129	449	1,033	443.5		/:	5 133	1,777	
2017	4	Apr-17	20/	105	309	284	304.0		7:	5 104	1,364	
2017	5	lvidy-17	200	117	407	150	419.2		1.) 107	1,475	
2017	7	Juli-17	204	90 01	545 210	132	545.0 210 A		80	107	1,555	
2017	/	Jui-17	265	91 104	210	50	310.4 271 0		80) 105	1,412	
2017	0	Aug-17	200	104	202	205	371.0 222.1		75) 103	1,520	
2017	10	Sep-17	207	95 111	220	203	200 7		73	107 112	1,331	
2017	10	Nov 17	203	111	303	076	303.7 12E 7		80	112	1,405	
2017	12	NOV-17	200	129	432	1 094	455.7	1 956	80	125	1,540	17.062
2017	12	Det-17	203	135	E12	1,064	401.4 E02.0	4,830	8) 120) 125	1,370	17,902
2010	1	Jall-10 Eab 19	203	140	312	1,203	302.9		83	D 155	1,031	
2010	2	Feb-10	203	121	423	1,044	427.3		83	D 121	1,405	
2010	3	IVIdI-10	285	100	18c 07c	252 202	302.4 266 2		82	119 2 175	1,440 1 600	
2010	4 r	May 10	200	110	378	725 725	200.2		/ (2 00	1,002	
2010	5	ividy-10	284	114	403	32/	406./		/2) 98) 106	1,200	
2010	0 7	JUII-10	281	94	534 545	12/	223.L 241 2		82 01	LUD	1,290	
2010	/	Jui-18	284	97	343	/4	541.Z		84	<u> </u>	1,30/	
2018	8	Aug-18	282	100	355	119	353.3		84	2 103	1,202	
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Fort Providence Regression Statistics

		Residential						Annual	Commercial				
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCN	Г	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2018	9	Sep-18	284	86	302	425	277.0			82	103	1,253	
2018	10	Oct-18	284	115	404	566	395.7			79	114	1,437	
2018	11	Nov-18	285	141	495	880	492.2			79	145	1,836	
2018	12	Dec-18	285	105	370	1,046	383.8	4,664		79	124	1,573	17,420
2019	1	Jan-19	285	140	493	1,223	490.0			79	130	1,643	
2019	2	Feb-19	283	124	437	1,153	424.9			79	123	1,559	
2019	3	Mar-19	287	116	403	/10	444.6			79	119	1,507	
2019	4	Apr-19	280	97	346	567	356.3			//	112	1,449	
2019	5	May-19	286	104	363	433	352.8			//	105	1,362	
2019	6	Jun-19	278	91	326	196	319.5			82	108	1,319	
2019	/	Jul-19	279	88	314	100	308.4			82	118	1,434	
2019	8	Aug-19	279	96	346	153	338.7			81	101	1,249	
2019	9	Sep-19	283	95	334	265	332.5			82	99	1,210	
2019	10	Oct-19	280	107	381	516	380.3			/8	111	1,422	
2019	11	Nov-19	285	123	430	849	431.9			//	109	1,414	47.004
2019	12	Dec-19	283	135	4/8	1,227	465.6	4,645		76	138	1,822	17,391
2020	1	Jan-20	285	145	507	1,289	495.2			77	138	1,790	
2020	2	Feb-20	287	125	434	1,106	429.0			78	116	1,485	
2020	3	Iviar-20	285	114	400	1,078	388.1			78	130	1,001	
2020	4	Apr-20	284	107	3//	/34	303.4			77	104	1,347	
2020	5	Iviay-20	284	111	391	460	377.5			77	90	1,174	
2020	0 7	Jun-20	284	109	384	207	3/5.9			//	8/	1,134	
2020	/	Jui-20	203	102	300	70	357.8			80	105	1,515	
2020	0	Aug-20	203	100	352	110	350.2			80	107	1,356	
2020	9	Sep-20	204	105	303	2/3	300.0			80	104	1,504	
2020	10	Nov 20	200	114	400	000	309.0			80 76	117	1,405	
2020	11	N0V-20	203	124	434 E11	927 1 077	424.4 E10.0	1 921		70	124	1,030	17 266
2020	12	Jan-21	280	140	507	1,077	519.9	4,031		75	123	1,710	17,500
2021	2	Feb-21	280	145	446	1,033	422.9			76	125	1,014	
2021	2	Mar-21	285	127	440	1,227	422.3			76	133	1,771	
2021	4	Anr-21	285	123	431	698	471.5			76	96	1 268	
2021	5	May-21	285	98	344	403	338.2			76	113	1,485	
2021	6	lun-21	285	101	353	146	353.8			76	98	1,405	
2021	7	Jul-21	281	95	338	64	337.1			81	115	1,417	
2021	8	Aug-21	285	100	350	118	347.9			81	102	1.262	
2021	9	Sep-21	283	99	349	233	352.2			81	104	1.280	
2021	10	Oct-21	281	111	394	458	401.7			81	126	1.555	
2021	11	Nov-21	284	136	480	822	485.5			82	107	1.308	
2021	12	Dec-21	285	138	483	1.337	454.7	4.880		82	148	1.809	17.658
2022		Jan-22	285	159	557	1.263	548.7	.,		77	132	1.718	
2022	2	Feb-22	285	142	498	1.200	479.4			81	107	1.319	
2022	3	Mar-22	285	144	505	1,047	498.1			76	105	1,386	
2022	4	Apr-22	284	91	322	707	311.9			77	133	1,724	
2022	5	May-22	285	109	382	393	377.4			77	117	1,518	
2022	6	Jun-22	285	103	363	111	368.9			80	108	1,356	
												, -	

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Fort Providence Regression Statistics

		Residential						Annual	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Normalized	Normalized	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2022	7	Jul-22	283	103	363	54	363.9		77	121	1,574	
2022	8	Aug-22	283	81	286	65	291.8		82	127	1,552	
2022	9	Sep-22	284	106	372	175	383.4		81	100	1,236	
2022	10	Oct-22	288	118	410	449	418.9		75	104	1,391	
2022	11	Nov-22	287	113	395	873	393.1		74	140	1,886	
2022	12	Dec-22	287	153	532	1,273	512.5	4,948	75	142	1,898	18,559
2023	1	Jan-23	288	169	587	1,048	610.3		75	112	1,487	
2023	2	Feb-23	285	110	386	1,148	374.7		75	157	2,088	
2023	3	Mar-23	291	148	509	1,052	500.9		75	121	1,611	
2023	4	Apr-23	291	82	283	517	300.6		75	81	1,077	
2023	5	May-23	301	115	383	155	413.1		77	129	1,677	
2023	6	Jun-23	300	99	331	114	337.0		82	106	1,298	
2023	7	Jul-23	294	107	364	36	367.6		82	108	1,319	
2023	8	Aug-23	294	94	321	59	327.8		82	120	1,459	
2023	9	Sep-23	294	146	496	164	509.3		82	51	622	
2023	10	Oct-23	295	78	265	445	274.6		78	147	1,886	
2023	11	Nov-23	296	115	388	741	405.6		78	117	1,494	
2023	12	Dec-23	297	130	439	888	476.1	4,897	78	120	1,537	17,555
2024	1	Jan-24	304	162	532	1,290	519.8		82	132	1,611	
2024	2	Feb-24	316	111	350	978	363.5		73	132	1,810	
2024	3	Mar-24	309	194	628	990	629.5		78	59	760	
2024	4	Apr-24	309	99	319	554	331.5		78	99	1,264	
2024	5	May-24	309	130	421	320	427.0		78	130	1,666	
2024	6	Jun-24	309	103	335	203	327.7		82	103	1,262	
2024	7	Jul-24	309	93	302	36	305.5		82	93	1,138	
2024	8	Aug-24	309	90	291	69	296.0		82	119	1,456	
2024	9	Sep-24	309	108	350	200	358.4		82	100	1,222	
2024	10	Oct-24	309	124	401	518	400.1		78	128	1,643	
2024	11	Nov-24					453.3				1,597	
2024	12	Dec-24					443.6	4,856			1,655	17,082
2025	1	Jan-25					510.1				1,675	
2025	2	Feb-25					426.8				1,553	
2025	3	Mar-25					423.5				1,577	
2025	4	Apr-25					359.0				1,478	
2025	5	May-25					393.5				1,366	
2025	6	Jun-25					332.2				1,315	
2025	7	Jul-25					322.7				1,404	
2025	8	Aug-25					354.6				1,279	
2025	9	Sep-25					313.9				1,272	
2025	10	Oct-25					388.6				1,421	
2025	11	Nov-25					453.3				1,597	
2025	12	Dec-25					443.6	4,722			1,655	17,591

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Dory Point/Kakisa Regression Statistics

Dory Point/Kakisa Regression Statistics

Residential

	(1) NORMA	LIZATION
	<u>HDD</u>	Intercept
X Coefficient	0.06	367.96
Std Err of Coef.	0.02	13.88
R2, & Std Err of Y Estimate	0.05	104.75
F-stat, & d of f	10	178
Sum of squares(ss), Resid ss	106,175	1,953,118
t Stat	3.11	26.51
P-value	2.174E-03	1.020E-63

	(1) NORM	ALIZATION
	Row	Date
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

		Residential	MOCNIT			MUDD	٥٩٩٠٠٩
Voar	Month	monthly	IVIRCINI	(MWb)	(L)(L)	(Hay River)	
1601	wonun	montiny			(KVVII)	(Hay Niver)	
2005	1	Jan-05	21	12	576	1,260	
2005	2	Feb-05	21	8	395	1,034	
2005	3	Mar-05	21	8	384	949	
2005	4	Apr-05	21	11	523	542	
2005	5	May-05	21	10	464	407	
2005	6	Jun-05	21	9	447	209	
2005	7	Jul-05	21	9	413	86	
2005	8	Aug-05	21	8	392	143	
2005	9	Sep-05	21	11	512	308	
2005	10	Oct-05	21	10	474	474	
2005	11	Nov-05	21	11	527	767	
2005	12	Dec-05	21	13	596	866	5,704

Commercial		
	(1) NORM	ALIZATION
	HDD	Intercept
X Coefficient	0.01	9.60
Std Err of Coef.	0.00	0.71
R2, & Std Err of Y Estimate	0.38	5.35
F-stat, & d of f	108	178
Sum of squares(ss), Resid ss	3,098	5,103
t Stat	10.40	13.54
P-value	4.430E-20	3.673E-29

	(1) NORM	IALIZATION
	Row	<u>Date</u>
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

Commercial			
MCCNT	MCENCNS	UPC	Annual
	(MWh)	(kWh)	UPC (kWh)
18	25	1,384	-
18	17	931	
18	17	919	
17	17	1,027	
17	16	922	
22	13	583	
22	11	513	
23	11	479	
19	14	732	
17	14	800	
18	16	901	
19	18	944	_

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Dory Point/Kakisa Regression Statistics

		Residential						Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2006	1	Jan-06	21	15	722	1,165		19	22	1,175	
2006	2	Feb-06	20	9	468	927		19) 19	1,003	
2006	3	Mar-06	21	9	430	904		18	3 15	834	
2006	4	Apr-06	21	8	399	497		19) 17	905	
2006	5	May-06	21	9	432	312		19) 12	643	
2006	6	Jun-06	21	11	517	98		22	2 13	589	
2006	7	Jul-06	21	11	500	85		19) 12	636	
2006	8	Aug-06	21	8	402	90		19) 10	511	
2006	9	Sep-06	21	11	511	203		20) 14	704	
2006	10	Oct-06	21	11	508	524		18	3 14	759	
2006	11	Nov-06	21	14	667	1,042		20) 26	1,307	
2006	12	Dec-06	21	13	613	925	6,169	20) 23	1,148	
2007	1	Jan-07	21	12	575	1,108		2:	18	881	
2007	2	Feb-07	23	11	494	1,168		18	3 21	1,190	
2007	3	Mar-07	23	10	427	1,100		18	3 18	992	
2007	4	Apr-07	23	10	445	560		20) 15	727	
2007	5	May-07	24	12	485	368		20) 15	732	
2007	6	Jun-07	25	9	371	161		20) 11	528	
2007	7	Jul-07	24	9	391	38		20) 9	472	
2007	8	Aug-07	24	9	369	187		20) 10	482	
2007	9	Sep-07	24	10	427	366		20) 12	606	
2007	10	Oct-07	24	10	418	489		18	3 14	795	
2007	11	Nov-07	24	14	564	850		18	3 19	1,077	
2007	12	Dec-07	24	12	486	1,188	5,450	19) 19	1,024	
2008	1	Jan-08	25	17	698	1,215		24	↓ 25	1,053	
2008	2	Feb-08	24	11	478	1,202		23	3 21	895	
2008	3	Mar-08	24	10	417	1,091		23	3 25	1,087	
2008	4	Apr-08	25	10	396	689		23	3 26	1,120	
2008	5	May-08	25	10	409	358		26	i 21	814	
2008	6	Jun-08	25	9	358	155		29) 13	442	
2008	7	Jul-08	25	7	279	35		29) 8	278	
2008	8	Aug-08	25	12	489	103		28	3 16	567	
2008	9	Sep-08	25	8	301	315		28	3 17	610	
2008	10	Oct-08	25	10	414	478		26	i 20	772	
2008	11	Nov-08	25	14	548	778		22	2 30	1,386	
2008	12	Dec-08	26	14	531	1,281	5,318	22	22	1,012	
2009	1	Jan-09	26	16	610	1,238		20) 33	1,652	
2009	2	Feb-09	26	10	373	1,085		2:	53	2,520	
2009	3	Mar-09	26	9	347	1,116		23	3 41	1,771	
2009	4	Apr-09	26	10	399	623		25	i 27	1,084	
2009	5	May-09	26	10	366	490		28	3 22	798	
2009	6	Jun-09	26	9	344	193		27	/ 14	523	
2009	7	Jul-09	26	10	395	101		28	3 12	439	

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Dory Point/Kakisa Regression Statistics

		Residential							Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual		MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2009	8	Aug-09	26	9	350	88		-	28	14	486	
2009	9	Sep-09	26	9	348	177			25	11	459	
2009	10	Oct-09	26	11	418	560			28	17	622	
2009	11	Nov-09	26	12	477	825			23	15	671	
2009	12	Dec-09	26	13	481	1,163	4,909		20	16	786	
2010	1	Jan-10	26	16	606	1,229		-	20	30	1,504	
2010	2	Feb-10	26	10	376	900			20	16	794	
2010	3	Mar-10	26	8	293	719			19	13	706	
2010	4	Apr-10	26	10	376	491			19	16	862	
2010	5	May-10	26	11	423	402			22	17	770	
2010	6	Jun-10	26	11	419	120			24	17	697	
2010	7	Jul-10	24	11	446	45			24	12	519	
2010	8	Aug-10	26	10	387	109			24	10	432	
2010	9	Sep-10	26	10	387	294			24	11	456	
2010	10	Oct-10	26	11	440	464			24	14	578	
2010	11	Nov-10	26	10	396	810			19	16	816	
2010	12	Dec-10	26	12	453	1,215	5,003	-	20	21	1,045	9,17

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Dory Point/Kakisa Regression Statistics

Interpresent Interpresent<			Residential						Commercial			
View Month Month Hay Rev UPC (Wh) (WH) (WW) (W) (WW) (W) (WW) (W) (W) <th></th> <th></th> <th></th> <th>MRCNT</th> <th>MRENCNS</th> <th>UPC</th> <th>MHDD</th> <th>Annual</th> <th>MCCNT</th> <th>MCENCNS</th> <th>UPC</th> <th>Annual</th>				MRCNT	MRENCNS	UPC	MHDD	Annual	MCCNT	MCENCNS	UPC	Annual
2011 1 Jan-1 26 14 52 1,28 2011 2 Feb.11 26 9 361 1.001 19 25 1.316 2011 3 Mar.11 26 9 38 720 19 24 1.237 2011 5 May.11 26 10 403 361 21 26 1,217 2011 5 May.11 26 9 350 36 21 42 12 25 2011 7 Jul.11 26 9 350 266 24 11 677 2011 10 Oct.31 26 10 366 92 19 16 630 2011 10 Nort.1 26 10 366 92 19 16 630 2012 1 Jan-12 26 10 378 277 19 24 123 2012 5 May.12 26 10 378 277 21 23 1072	Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2011 2 Feb.11 26 12 478 1.007 20 31 1.550 2011 4 Apr.11 26 9 361 1.041 19 22 1.237 2011 4 Apr.11 26 9 361 1.041 26 1.237 2011 6 Jun.31 26 10 400 188 24 19 24 1.237 2011 7 Jul.11 26 9 350 86 24 10 426 2011 8 Aug.11 26 9 350 86 24 10 426 2011 10 0x1.1 26 10 382 471 39 10 426 2012 1 bx1.1 26 9 377 4,815 19 10 42 1238 2012 1 bx1.1 26 10 378 277 21 21 12 12 12 12 13 358 22 1,577 21 <t< td=""><td>2011</td><td>1</td><td>Jan-11</td><td>26</td><td>14</td><td>523</td><td>1,289</td><td></td><td>18</td><td>28</td><td>1,576</td><td></td></t<>	2011	1	Jan-11	26	14	523	1,289		18	28	1,576	
2011 3 Mar-11 26 9 361 1,041 99 25 1,316 2011 5 May-11 26 10 403 361 21 23 24 1,237 2011 5 May-11 26 10 403 361 21 26 1,217 2011 7 Mu+11 26 9 350 86 24 12 25 2011 7 Mu+11 26 9 359 206 24 11 657 2011 10 Oct-11 26 12 43 978 4,415 19 16 680 2012 1 an-12 26 12 459 913 105 11 577 2012 1 an-12 26 13 978 4,415 19 22 1,150 2012 1 an-12 26 13 93 277 12	2011	2	Feb-11	26	12	478	1,007		20	31	1,550	
2011 4 Apr.11 26 9 338 770 19 24 1,237 2011 6 Aur.11 26 10 403 361 21 26 1,217 2011 6 Aur.11 26 10 403 361 24 12 26 1,217 2011 8 Aug.11 26 9 350 86 24 10 426 10 426 2011 10 0x11 26 10 382 4,815 29 13 4,815 29 16 833 2011 10 0x11 26 12 453 978 4,815 19 16 10 301 2012 10 10x12 26 12 453 978 4,815 19 16 833 2012 10 10x12 26 13 378 156 19 16 353 2012 10 10x12 26 13 378 57 10 13 353 <	2011	3	Mar-11	26	9	361	1,041		19	25	1,316	
2011 5 May.11 26 10 403 361 21 26 1,217 2011 7 Jul.11 25 9 373 37 24 12 515 2011 8 May.11 26 9 350 266 24 10 426 2011 9 Sep.11 26 9 350 266 24 10 426 2011 9 Sep.11 26 10 352 471 19 16 577 2011 11 Nov.11 26 10 356 952 19 19 24 1,328 2012 1 Jan.12 26 12 459 913 19 24 1,338 2012 1 Jan.12 26 10 378 277 19 22 1,152 2012 7 Jul.12 26 10 379 775 20 11 433 361 2012 7 Jul.12 26 11 423	2011	4	Apr-11	26	9	338	720		19	24	1,237	
2011 6 Juni 1 26 10 400 108 24 19 782 2011 8 Augi 1 26 9 350 86 24 10 446 10 446 2011 9 58p 11 26 9 350 86 24 10 467 10 46 10 46 10 10 10 0c11 26 10 382 471 19 10 6 830 10	2011	5	May-11	26	10	403	361		21	26	1,217	
2011 7 Juli 1 25 9 373 37 24 12 515 2011 9 Sep11 26 9 359 86 24 10 425 2011 9 Sep11 26 9 359 86 24 11 457 2011 10 Orct 11 26 10 382 471 19 15 830 2012 1 Inc12 26 12 453 978 4.815 19 9 102 1,505 2012 1 Inc12 26 12 459 913 19 22 1,152 2012 7 Huh12 26 10 378 156 19 22 1,152 2012 7 Jul12 26 10 377 57 20 11 435 2012 7 Jul12 26 10 377 57 20 11 435 2012 9 Sep12 26 11 423 4,894 </td <td>2011</td> <td>6</td> <td>Jun-11</td> <td>26</td> <td>10</td> <td>400</td> <td>168</td> <td></td> <td>24</td> <td>19</td> <td>782</td> <td></td>	2011	6	Jun-11	26	10	400	168		24	19	782	
8 Aug.11 26 9 350 86 24 10 426 2011 0 Oc-11 26 10 382 471 19 11 577 2011 10 Nov-11 26 10 382 471 19 11 577 2011 10 Nov-11 26 12 453 978 4.815 19 19 10 833 2012 1 Jan-12 26 10 383 992 19 22 1,157 2012 5 Mar-12 26 10 378 277 19 22 1,167 2012 6 Mar-12 26 10 376 277 20 21 23 1,072 2012 7 Jui-12 26 11 434 60 24 13 552 2012 9 Sep-12 26 11 429 1,31 55 </td <td>2011</td> <td>7</td> <td>Jul-11</td> <td>25</td> <td>9</td> <td>373</td> <td>37</td> <td></td> <td>24</td> <td>12</td> <td>515</td> <td></td>	2011	7	Jul-11	25	9	373	37		24	12	515	
2011 9 Sep-11 26 9 359 206 24 11 457 2011 10 Oct-11 26 10 396 952 19 11 577 2011 12 Dec-11 26 10 396 952 19 19 102 1.1 580 2012 1 Ian-12 26 14 537 1.184 19 26 1.343 2012 2 Feb-12 26 10 378 277 21 23 1.072 2012 4 Apr-12 26 10 374 13 24 13 522 2012 6 Jun-12 26 10 374 13 24 13 522 2012 6 Jun-12 26 10 374 13 24 13 522 2012 8 Aug-12 26 11 434 60 24 13 525 2012 10 Oct-12 26 11 423	2011	8	Aug-11	26	9	350	86		24	10	426	
2011 10 0ct-11 26 10 382 471 19 11 577 2011 12 0ct-11 26 12 433 978 4,815 19 19 10 201 10 386 952 19 19 10 201 11 577 2012 1 1an-12 26 12 459 913 19 24 1,34 2012 7 Mar-12 26 10 378 277 19 22 1,157 2012 6 Mar-12 26 10 378 277 21 23 1,07 2012 7 Mar-12 26 10 374 13 24 13 538 2012 7 Mar-12 26 11 434 60 24 13 538 2012 9 Sep-12 26 11 432 1,011 20 11 4557 2012 10 0ct-12 26 14 439 1,228 4,894	2011	9	Sep-11	26	9	359	206		24	11	457	
2011 11 Nov.11 26 10 396 952 19 16 830 2012 1 Jan-12 26 14 537 1,184 19 26 1,43 2012 2 Feb-12 26 10 388 992 19 20 1,23 2012 3 Mar-12 26 10 388 992 19 22 1,152 2012 4 Apr-12 26 10 378 277 21 23 10,72 20 10 378 156 24 17 7,14 2012 6 Jun-12 26 10 374 13 24 13 522 2012 6 Jun-12 26 10 374 75 20 21 358 10,49 2012 10 Oct-12 26 11 423 10,11 20 17 825 2012 10 Navi3 26 13 489 928 10,49 10,49 10,49 10	2011	10	Oct-11	26	10	382	471		19	11	577	
2011 12 bec.11 26 12 43 978 4,815 2012 1 Jan-12 26 14 537 1,184 19 26 1,343 2012 2 Feb-12 26 12 459 913 19 22 1,167 2012 4 Apr-12 26 9 347 676 19 22 1,152 2012 5 May-12 26 10 378 277 21 23 1,072 2012 6 Jun-12 26 10 374 13 24 13 552 2012 7 Jul-12 26 11 433 101 24 13 532 2012 9 Sep-12 26 11 423 1,011 20 11 455 2012 10 Oct-12 26 11 423 1,011 20 18 10,479 2013 1 Jan-13 26 13 4,894 20 18 10,479	2011	11	Nov-11	26	10	396	952		19	16	830	
2012 1 Jar.12 26 14 57 1,184 2012 2 Feb.12 26 12 459 913 19 24 1,238 2012 3 Mar.12 26 10 388 992 19 22 1,167 2012 4 Apr.12 26 10 378 277 21 22 1,072 2012 6 Jun.12 26 10 378 156 24 13 552 2012 7 Jul.12 26 10 387 575 20 11 435 2012 10 Oct.12 26 11 429 1,328 4,894 20 11 557 2012 11 Nov.12 26 14 50 1,227 20 14 1,017 2013 1 Jan.13 26 14 50 1,228 10 1,221 1,201 1,21 1,201 1,21 1,21 1,21 1,21 1,21 1,21 1,21 1,21	2011	12	Dec-11	26	12	453	978	4,815	19	19	1,022	11,505
2012 2 Feb:12 26 12 459 913 19 24 1,238 2012 3 Mar:12 26 9 347 676 19 22 1,157 2012 5 May:12 26 10 378 277 21 23 1,072 2012 6 Jun:12 26 10 378 277 21 23 1,072 2012 7 Jul:12 26 10 378 277 24 13 532 2012 7 Jul:12 26 11 434 60 24 13 532 2012 9 Sep:12 26 11 423 1,011 20 18 916 10,79 2013 1 Jan:13 26 14 530 1,292 20 18 916 10,019 2013 2 Feb:13 26 13 495 928 19 15 584 2013 4 Apr:13 26 13 495<	2012	1	Jan-12	26	14	537	1,184		19	26	1,343	
2012 3 Mar-12 26 10 388 992 19 22 1,167 2012 4 Apr-12 26 10 378 277 21 23 1,072 2012 6 Jun-12 26 10 378 156 24 17 7,14 2012 6 Jun-12 26 10 378 156 24 13 522 2012 8 Aug-12 26 11 434 60 24 13 538 2012 9 Sep-12 26 11 433 575 20 20 11 557 2012 10 Oct-12 26 11 423 1,011 20 18 916 10.479 2013 1 Jan-13 26 13 4,59 59.8 20 20 24 1,200 2013 4 Apr-13 26 13 4,50 9 36 22 15 584 2013 5 May-13 26	2012	2	Feb-12	26	12	459	913		19	24	1,238	
2012 4 Apr-12 26 9 347 676 19 22 1,152 2012 5 May-12 26 10 378 277 21 23 1,072 2012 7 Jul-12 26 10 378 156 24 13 522 2012 7 Jul-12 26 10 374 13 24 13 552 2012 9 Sep-12 26 9 359 178 20 11 435 2012 10 Oct-12 26 11 429 1,228 4,894 20 17 825 2012 12 Oct-12 26 11 429 1,228 4,894 20 18 916 10,479 2013 1 Jan-13 26 10 381 1,07 19 16 830 2013 1 Jan-13 26 10 388 78 19 15 785 2013 5 May-13 26 7 <td>2012</td> <td>3</td> <td>Mar-12</td> <td>26</td> <td>10</td> <td>388</td> <td>992</td> <td></td> <td>19</td> <td>22</td> <td>1,167</td> <td></td>	2012	3	Mar-12	26	10	388	992		19	22	1,167	
2012 5 May-12 26 10 378 277 21 23 1,072 2012 6 Jun-12 26 10 378 156 24 13 522 2012 7 Jul-12 26 10 374 13 24 13 522 2012 8 Aug-12 26 11 434 60 24 13 538 2012 10 Oct-12 26 11 434 60 26 11 435 2012 10 Oct-12 26 11 423 1,011 20 11 557 2012 12 Oct-12 26 11 423 1,021 20 24 1,202 2013 1 Jan-13 26 13 4,894 20 18 916 10,479 2013 1 Mar-13 26 13 4,994 1,292 19 16 838 2013 4 Mar-13 26 13 1,292 19 1	2012	4	Apr-12	26	9	347	676		19	22	1,152	
2012 6 Jul-12 26 10 378 156 24 17 714 2012 7 Jul-12 26 10 374 13 24 13 522 2012 8 Aug-12 26 11 434 60 24 13 532 2012 9 5ep-12 26 9 359 178 25 11 435 2012 10 Oct-12 26 11 423 1,011 20 17 825 2012 12 Dec-12 26 11 429 1,292 20 24 1,007 2013 1 Jan-13 26 14 530 1,292 20 24 1,201 2013 3 Mar-13 26 10 368 785 19 15 584 2013 4 Apr-13 26 11 412 333 25 15 584 2013 5 Mary13 26 7 285 83 25	2012	5	May-12	26	10	378	277		21	23	1,072	
2012 7 Jul-12 26 10 374 13 24 13 522 2012 8 Aug-12 26 11 434 60 24 13 538 2012 9 Sep-12 26 9 359 178 20 11 435 2012 11 Nov-12 26 10 387 575 20 20 11 455 2012 12 Dec-12 26 11 429 1,328 4,894 20 18 916 10,479 2013 1 Jan-13 26 14 530 1,292 20 18 916 10,479 2013 3 Mar-13 26 10 381 1,077 19 16 830 2013 4 Apr-13 26 11 412 33 25 15 584 2013 6 Jun-13 26 8 312 135 25 12 488 2013 7 Jul-13 26	2012	6	Jun-12	26	10	378	156		24	17	714	
2012 8 Aug-12 26 11 434 60 24 13 538 2012 9 Sep-12 26 9 359 178 25 11 435 2012 10 Oxt-12 26 11 423 1,011 20 17 857 2012 12 Nov-12 26 11 429 1,328 4,894 20 18 916 10,479 2013 1 Jan-13 26 14 430 1,292 20 18 916 10,479 2013 3 Mar-13 26 10 381 1,077 19 16 830 2013 4 Apr-13 26 11 412 333 25 15 584 2013 5 May-13 26 11 412 333 25 12 488 2013 6 Jun-13 26 8 312 135 25 12 488 2013 10 Oct-13 24 12	2012	7	Jul-12	26	10	374	13		24	13	522	
2012 9 Sep-12 26 9 359 178 25 11 435 2012 10 Oct-12 26 10 387 57 20 11 55 2012 11 Nov-12 26 11 423 1,011 20 17 825 2013 1 Jan-13 26 14 530 1,292 20 28 10 368 77 202 24 1,207 2013 2 Feb-13 26 10 381 1,077 19 16 830 2013 4 Apr.13 26 11 412 333 15 785 12 488 2013 6 Jun-13 26 7 285 83 25 9 366 2013 7 Jul-13 26 7 307 188 24 9 376 2013 9 Sep-13 24 7 307 188 24 13 521 2013 10 Oc	2012	8	Aug-12	26	11	434	60		24	13	538	
2012 10 0ct-12 26 10 387 575 20 11 557 2012 11 Nov-12 26 11 423 1,011 20 17 825 2013 1 Jan-13 26 14 530 1,222 20 20 24 1,200 2013 2 Feb-13 26 13 495 928 19 19 10.1 2013 3 Mar-13 26 10 381 1,077 19 16 830 2013 4 Apr-13 26 11 412 333 25 19 15 785 2013 5 May-13 26 1 412 135 25 12 488 2013 7 Jul-13 26 7 285 83 25 9 368 2013 8 Aug-13 24 7 207 18 24 9 376 2013 10 Oct-13 24 12 56 <t< td=""><td>2012</td><td>9</td><td>Sep-12</td><td>26</td><td>9</td><td>359</td><td>178</td><td></td><td>25</td><td>11</td><td>435</td><td></td></t<>	2012	9	Sep-12	26	9	359	178		25	11	435	
2012 11 Nov-12 26 11 423 1,011 20 17 825 2012 12 Dec-12 26 11 423 1,011 20 18 916 10,479 2013 1 Jan-13 26 13 495 928 20 19 19 10 330 2013 3 Mar-13 26 10 381 1,077 19 16 830 2013 4 Apr-13 26 10 381 1,077 19 15 785 2013 5 May-13 26 11 412 333 25 12 488 2013 6 Jun-13 26 8 312 135 25 12 488 2013 7 Jul-13 26 7 285 83 24 9 367 2013 9 Sep-13 24 7 307 180 24 13 521 2013 10 Oct-13 24 12	2012	10	Oct-12	26	10	387	575		20	11	557	
2012 12 Dec-12 26 11 429 1,328 4,894 20 18 916 10,479 2013 1 Jan-13 26 13 495 20 24 1,201 20 24 1,201 2013 2 Feb-13 26 13 495 20 19 16 830 2013 4 Apr-13 26 10 381 1,077 19 16 830 2013 4 Apr-13 26 11 412 333 19 5 584 2013 5 May-13 26 8 312 135 25 12 488 2013 7 Jul-13 26 7 285 78 24 9 367 2013 7 Jul-13 24 7 307 180 24 9 378 2013 10 Oct-13 24 12 56 485 24 13 521 2014 1 Nar-14 24	2012	11	Nov-12	26	11	423	1,011		20	17	825	
2013 1 Jan-13 26 14 530 1,292 2013 2 Feb-13 26 13 495 928 19 19 1,201 2013 3 Mar-13 26 10 381 1,077 19 16 630 2013 4 Apr-13 26 10 388 785 19 15 584 2013 5 May-13 26 11 412 333 25 12 488 2013 6 Jun-13 26 7 285 83 25 9 366 2013 7 Jul-13 26 7 307 180 24 9 367 2013 9 Sep-13 24 7 307 180 24 13 321 2013 10 Oct-13 24 11 450 887 24 13 321 2013 12 Dec-13 24 11 450 887 18 12 1,156 8,396	2012	12	Dec-12	26	11	429	1,328	4,894	20	18	916	10,479
2013 2 Feb-13 26 13 495 928 19 19 1,021 2013 3 Mar-13 26 10 381 1,077 19 16 830 2013 4 Apr-13 26 10 368 785 19 15 584 2013 5 May-13 26 8 312 135 25 12 488 2013 6 Jun-13 26 7 285 83 25 12 488 2013 7 Jul-13 26 7 285 83 25 9 368 2013 9 Sep-13 24 8 323 78 24 9 367 2013 10 Oct-13 24 12 506 458 24 13 521 2013 11 Nov-13 24 12 506 4852 18 21 1,156 8,396 2014 1 Jan-14 24 11 450 1,120	2013	1	Jan-13	26	14	530	1,292		20	24	1,200	
2013 3 Mar-13 26 10 381 1,077 19 16 830 2013 4 Apr-13 26 10 368 785 19 15 785 2013 5 May-13 26 11 412 333 25 15 584 2013 6 Jul-13 26 7 285 83 25 12 488 2013 7 Jul-13 26 7 285 83 25 9 368 2013 8 Aug-13 24 7 307 180 24 9 367 2013 10 Oct-13 24 12 506 458 24 13 521 2013 12 Dec-13 24 12 485 1,340 4,852 18 21 1,156 8,396 2014 1 Jan-14 24 11 459 1,88 18 16 902 2014 3 Mar-14 24 8 325	2013	2	Feb-13	26	13	495	928		19	19	1,021	
2013 4 Apr-13 26 10 368 785 2013 5 May-13 26 11 412 333 25 15 584 2013 6 Jun-13 26 8 312 135 25 9 488 2013 7 Jul-13 26 8 312 135 25 9 368 2013 7 Jul-13 24 8 323 78 24 9 367 2013 9 Sep-13 24 7 307 180 24 9 367 2013 10 Oct-13 24 12 566 458 24 13 521 2013 10 Oct-13 24 12 56 4852 24 17 697 2013 12 Ner-13 24 14 49 1,200 18 21 1,156 8,396 2014 1 Jan-14 24 7 287 1,121 18 13 734	2013	3	Mar-13	26	10	381	1,077		19	16	830	
2013 5 May-13 26 11 412 333 2013 6 Jun-13 26 8 312 135 25 12 488 2013 7 Jul-13 26 7 285 83 25 9 368 2013 7 Jul-13 26 7 285 83 24 9 367 2013 9 Sep-13 24 7 307 180 24 9 367 2013 10 Oct-13 24 12 506 458 24 13 521 2013 11 Nov-13 24 11 450 887 24 13 521 2013 12 Dec-13 24 11 450 887 24 17 697 2014 1 Nov-13 24 11 449 1,200 18 21 1,156 8,396 2014 2 Feb-14 24 1 459 1,21 18 17 948	2013	4	Apr-13	26	10	368	785		19	15	785	
2013 6 Jun-13 26 8 312 135 25 12 488 2013 7 Jul-13 26 7 285 83 25 9 368 2013 8 Aug-13 24 8 323 78 24 9 367 2013 9 Sep-13 24 7 307 180 24 9 378 2013 0 Oct-13 24 12 506 458 24 13 521 2013 11 Nov-13 24 11 450 887 24 13 521 2013 12 Dec-13 24 11 450 887 18 21 1,156 8,396 2014 1 Jan-14 24 11 459 1,189 18 11 19 12 18 11 19 12 18 12 118 13 14 14 11 12 11 11 11 11 11 11 11	2013	5	May-13	26	11	412	333		25	15	584	
2013 7 Jul-13 26 7 285 83 2013 8 Aug-13 24 8 323 78 24 9 367 2013 9 Sep-13 24 7 307 180 24 9 367 2013 10 Oct-13 24 12 506 458 24 13 521 2013 11 Nor-13 24 11 450 887 24 17 697 2013 12 Dec-13 24 12 485 1,340 4,852 18 21 1,156 8,396 2014 1 Jan-14 24 11 459 1,120 18 21 1,189 2014 2 Feb-14 24 11 459 1,121 18 16 902 2014 3 Mar-14 24 8 325 691 18 13 734 2014 4 Apr-14 24 8 326 15 23 10	2013	6	Jun-13	26	8	312	135		25	12	488	
2013 8 Aug-13 24 8 323 78 24 9 367 2013 9 Sep-13 24 7 307 180 24 9 378 2013 10 Oct-13 24 12 506 458 24 13 521 2013 11 Nov-13 24 11 450 887 24 17 697 2013 12 Dec-13 24 12 485 1,340 4,852 18 21 1,156 8,396 2014 1 Jan-14 24 11 449 1,200 18 21 1,189 2014 1 Jan-14 24 11 459 1,121 18 16 902 2014 Apr-14 24 8 325 691 18 13 734 2014 Mar-14 24 8 326 158 19 12 634 2014 Jul-14 25 9 354 35 23 23 <td>2013</td> <td>7</td> <td>Jul-13</td> <td>26</td> <td>7</td> <td>285</td> <td>83</td> <td></td> <td>25</td> <td>9</td> <td>368</td> <td></td>	2013	7	Jul-13	26	7	285	83		25	9	368	
2013 9 Sep-13 24 7 307 180 24 9 378 2013 10 Oct-13 24 12 506 458 24 13 521 2013 11 Nov-13 24 11 450 887 24 17 697 2013 12 Dec-13 24 12 485 1,340 4,852 18 21 1,156 8,396 2014 1 Jan-14 24 11 449 1,200 18 21 1,189 2014 2 Feb-14 24 11 459 1,121 18 16 902 2014 3 Mar-14 24 7 287 1,121 18 13 734 2014 4 Apr-14 24 7 278 380 19 12 634 2014 5 May-14 24 8 328 158 23 10 416 2014 7 Jul-14 25 9 354 <td>2013</td> <td>8</td> <td>Aug-13</td> <td>24</td> <td>8</td> <td>323</td> <td>78</td> <td></td> <td>24</td> <td>9</td> <td>367</td> <td></td>	2013	8	Aug-13	24	8	323	78		24	9	367	
2013 10 Oct-13 24 12 506 458 24 13 521 2013 11 Nov-13 24 11 450 887 24 24 17 697 2013 12 Dec-13 24 12 485 1,340 4,852 18 21 1,156 8,396 2014 1 Jan-14 24 11 449 1,200 18 21 1,189 2014 2 Feb-14 24 11 459 1,121 18 16 902 2014 3 Mar-14 24 7 287 1,121 18 13 734 2014 4 Apr-14 24 7 278 380 19 12 634 2014 5 May-14 24 8 328 158 23 10 416 2014 7 Jul-14 25 9 354 35 23 7 304	2013	9	Sep-13	24	7	307	180		24	9	378	
2013 11 Nov-13 24 11 450 887 24 17 697 2013 12 Dec-13 24 12 485 1,340 4,852 18 21 1,156 8,396 2014 1 Jan-14 24 11 449 1,200 18 21 1,189 2014 2 Feb-14 24 11 459 1,181 18 16 902 2014 3 Mar-14 24 7 287 1,121 18 17 948 2014 4 Apr-14 24 7 278 380 19 12 634 2014 5 May-14 24 7 278 380 19 12 634 2014 6 Jun-14 24 8 328 158 23 10 416 2014 7 Jul-14 25 9 354 35 23 7 304	2013	10	Oct-13	24	12	506	458		24	13	521	
201312Dec-1324124851,3404,85220141Jan-1424114491,20018211,1568,39620142Feb-1424114591,181816902181020143Mar-142472871,12118179481373420144Apr-14248325691181373411 </td <td>2013</td> <td>11</td> <td>Nov-13</td> <td>24</td> <td>11</td> <td>450</td> <td>887</td> <td></td> <td>24</td> <td>17</td> <td>697</td> <td></td>	2013	11	Nov-13	24	11	450	887		24	17	697	
20141Jan-1424114491,20018211,18920142Feb-1424114591,188181690220143Mar-142472871,121181794820144Apr-14248325691181373420145May-14247278380191263420146Jun-14248328158231041620147Jul-1425935435237304	2013	12	Dec-13	24	12	485	1,340	4,852	18	21	1,156	8,396
20142Feb-1424114591,1881690220143Mar-142472871,121181794820144Apr-14248325691181373420145May-14247278380191263420146Jun-14248328158231041620147Jul-1425935435237304	2014	1	Jan-14	24	11	449	1,200		18	21	1,189	
20143Mar-142472871,121181794820144Apr-14248325691181373420145May-14247278380191263420146Jun-14248328158231041620147Jul-1425935435237304	2014	2	Feb-14	24	11	459	1,188		18	16	902	
20144Apr-14248325691181373420145May-14247278380191263420146Jun-14248328158231041620147Jul-1425935435237304	2014	3	Mar-14	24	7	287	1,121		18	17	948	
2014 5 May-14 24 7 278 380 19 12 634 2014 6 Jun-14 24 8 328 158 23 10 416 2014 7 Jul-14 25 9 354 35 23 7 304	2014	4	Apr-14	24	8	325	691		18	13	734	
2014 6 Jun-14 24 8 328 158 23 10 416 2014 7 Jul-14 25 9 354 35 23 7 304	2014	5	May-14	24	7	278	380		19	12	634	
2014 7 Jul-14 25 9 354 35 23 7 304	2014	6	Jun-14	24	8	328	158		23	10	416	
	2014	7	Jul-14	25	9	354	35		23	7	304	

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Dory Point/Kakisa Regression Statistics

	F	Residential						Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual	MCCNT	MCENCNS	UPC	Annual
Year	Month r	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2014	8	Aug-14	24	8	314	104		23	9	402	
2014	9	Sep-14	24	7	312	274		23	9	399	
2014	10	Oct-14	24	10	429	521		19	10	528	
2014	11	Nov-14	24	8	326	910		20	16	812	
2014	12	Dec-14	24	8	344	1,144	4,206	20	20	1,014	8,283
2015	1	Jan-15	24	10	422	1,225		19	23	1,205	
2015	2	Feb-15	24	8	334	1,104		19	28	1,451	
2015	3	Mar-15	24	4	182	955		19	25	1,309	
2015	4	Apr-15	24	6	253	571		19	15	799	
2015	5	May-15	24	6	254	305		20	12	607	
2015	6	Jun-15	24	8	350	126		23	8	331	
2015	7	Jul-15	24	8	315	67		23	6	282	
2015	8	Aug-15	24	7	305	98		24	9	387	
2015	9	Sep-15	23	7	299	264		24	11	469	
2015	10	Oct-15	23	9	402	508		19	10	537	
2015	11	Nov-15	23	9	379	768		19	13	681	
2015	12	Dec-15	23	8	337	1,025	3,832	18	16	908	8,966
2016	1	Jan-16	23	10	424	1,087		18	18	1,013	
2016	2	Feb-16	23	7	306	1,050		18	17	934	
2016	3	Mar-16	23	9	385	925		18	14	792	
2016	4	Apr-16	23	6	278	683		18	15	830	
2016	5	May-16	23	7	304	312		17	13	762	
2016	6	Jun-16	23	1	51	105		22	-4	(201)	
2016	7	Jul-16	23	17	740	47		22	21	964	
2016	8	Aug-16	23	8	351	79		22	9	422	
2016	9	Sep-16	23	8	335	250		22	11	479	
2016	10	Oct-16	23	12	517	566		17	10	572	
2016	11	Nov-16	23	7	299	722		17	17	1,021	
2016	12	Dec-16	23	4	177	1,191	4,169	17	15	880	8,468
2017	1	Jan-17	23	10	431	1,072		17	18	1,072	
2017	2	Feb-17	23	8	333	948		17	15	897	
2017	3	Mar-17	23	8	363	1,033		17	16	934	
2017	4	Apr-17	22	5	240	667		17	12	724	
2017	5	May-17	22	7	334	284		17	11	663	
2017	6	Jun-17	22	10	440	152		22	7	296	
2017	7	Jul-17	22	8	361	56		22	9	399	
2017	8	Aug-17	22	7	327	60		22	10	459	
2017	9	Sep-17	22	6	254	205		22	11	520	
2017	10	Oct-17	22	11	478	507		17	10	604	
2017	11	Nov-17	22	6	277	976		17	19	1,121	
2017	12	Dec-17	22	7	328	1,084	4,165	17	15	897	8,586
2018	1	Jan-18	21	10	459	1,265		17	19	1,107	
2018	2	Feb-18	21	8	372	1,044		17	16	915	

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Dory Point/Kakisa Regression Statistics

		Residential						Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2018	3	Mar-18	20	4	221	992		17	17	978	
2018	4	Apr-18	20	7	345	723		17	15	871	
2018	5	May-18	20	5	272	327		19	13	664	
2018	6	Jun-18	20	13	647	157		21	3	125	
2018	7	Jul-18	20	4	224	74		22	13	578	
2018	8	Aug-18	20	6	294	119		22	9	413	
2018	9	Sep-18	20	4	198	425		21	12	572	
2018	10	Oct-18	19	11	565	566		16	6	396	
2018	11	Nov-18	19	10	552	880		16	20	1,257	
2018	12	Dec-18	18	2	117	1,046	4,267	16	10	653	8,530
2019	1	Jan-19	18	8	428	1,223		16	15	942	
2019	2	Feb-19	18	10	548	1,153		16	10	609	
2019	3	Mar-19	18	6	315	710		16	13	801	
2019	4	Apr-19	18	5	300	567		16	11	702	
2019	5	May-19	18	9	514	433		20	8	423	
2019	6	Jun-19	18	8	454	196		20	6	316	
2019	7	Jul-19	19	9	467	100		21	5	250	
2019	8	Aug-19	19	12	625	153		20	3	171	
2019	9	Sep-19	19	7	356	265		21	12	581	
2019	10	Oct-19	19	7	356	516		16	6	402	
2019	11	Nov-19	19	5	285	849		14	19	1,277	
2019	12	Dec-19	19	5	255	1,227	4,903	14	10	664	7,137
2020	1	Jan-20	19	11	587	1,289		14	12	865	
2020	2	Feb-20	19	8	406	1,106		14	12	843	
2020	3	Mar-20	19	8	431	1,078		14	11	776	
2020	4	Apr-20	19	9	462	734		14	9	662	
2020	5	May-20	19	6	316	460		14	11	762	
2020	6	Jun-20	19	10	550	207		14	4	307	
2020	7	Jul-20	19	6	304	76		19	9	454	
2020	8	Aug-20	19	10	506	116		19	6	310	
2020	9	Sep-20	19	4	216	273		19	12	615	
2020	10	Oct-20	20	10	523	586		19	7	355	
2020	11	Nov-20	20	9	469	927		14	9	658	
2020	12	Dec-20	21	8	363	1,077	5,133	14	16	1,109	7,715
2021	1	Jan-21	20	11	559	1,099		14	9	676	
2021	2	Feb-21	20	7	365	1,227		14	13	940	
2021	3	Mar-21	20	8	404	1,031		12	10	866	
2021	4	Apr-21	20	6	319	698		12	12	980	
2021	5	May-21	20	6	305	403		14	10	749	
2021	6	Jun-21	20	11	544	146		19	4	226	
2021	7	Jul-21	21	7	344	64		19	9	447	
2021	8	Aug-21	21	7	311	118		19	9	449	
2021	9	Sep-21	21	16	762	233		19	12	712	

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Dory Point/Kakisa Regression Statistics

Note Note <th< th=""><th></th><th></th><th>Residential</th><th></th><th></th><th></th><th></th><th></th><th>Commercial</th><th></th><th></th><th></th></th<>			Residential						Commercial			
twicethe monthy(bAWh)(by We)(by We)UPC (MM)(by We)(by We) <th></th> <th></th> <th></th> <th>MRCNT</th> <th>MRENCNS</th> <th>UPC</th> <th>MHDD</th> <th>Annual</th> <th>MCCNT</th> <th>MCENCNS</th> <th>UPC</th> <th>Annual</th>				MRCNT	MRENCNS	UPC	MHDD	Annual	MCCNT	MCENCNS	UPC	Annual
10 0 0.4.2 1 3 12 4.88 11 1 0.4.21 21 6 7.3 5.2 1.4 6.6 7.3 5.2 1.4 6.6 7.3 5.2 1.4 6.6 7.3 5.2 1.4 1.5 1.2.84 8.502 2022 1 1.4 4.65 1.2.60 1.4 1.3 9.952 2022 2 7.6-2.2 2.1 1.4 4.55 7.7 1.4 1.3 9.952 2022 4 Apr.27 2.1 8 3.91 5.4 1.9 7.4 1.0 7.7 3.62 2.0 2.0 1.1 1.9 1.4 1.0 7.7 3.62 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 1.0 1.0 7.7 3.62 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2021 11 Nov.21 21 9 473 1.32 1.4 9 762 2022 2 Feb.22 21 1.4 656 1.7.63 1.3 1.3 1.3 1.5 1.5 1.5 1.5 1.6 1.5 1.24 8.502 2022 3 Mar.22 21 7 356 1.047 1.4 1.3 9.92 1.4 1.3 9.92 1.4 1.3 9.92 1.2 1.4 1.9 1.1 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.4 1.0 7.3 1.1 1.1 1.1 1.4 1.0	2021	10	Oct-21	21	3	122	458		13	7	411	
2021 1 9 437 1.337 4.745 2021 1 1.4 656 1.263 1.337 4.745 2022 2 1.6-22 21 1.4 656 1.263 1.337 4.745 2022 2 1.6-22 21 1.0 485 1.200 1.4 1.3 9.99 2022 4 Apr-22 21 1.4 205 7.07 1.4 1.3 9.99 2022 6 Jan-22 20 2 1.99 1.11 1.0 1.4 1.0 7.2 2022 6 Jan-22 21 1.4 6.9 1.75 1.9 1.7 7.6 2022 1.0 Oct-22 21 1.4 4.49 1.0 7.6 2.0 2.0 7.6 1.0 7.6 2.0 2.0 7.6 2.0 2.0 7.6 2.0 7.6 2.0 7.6 2.0 7.6 2.0 7.6 2.0 7.6 7.7 7.6 7.6 7.6 7.6 7.6	2021	11	Nov-21	21	6	273	822		14	9	762	
2022 1 Jan.22 21 14 6.66 1.263 2022 1 Peb22 21 10 448 12 959 2022 3 Mar-22 21 7 366 1.047 14 13 959 2022 5 May-22 21 8 366 393 14 10 7.72 2022 6 May-22 20 21 8 361 449 19 91 14 7.66 2022 7 Ju/22 21 8 361 449 10 7.76 202 2022 10 Oct 22 21 8 361 449 10 7.76 202 2022 10 Oct 22 21 363 873 14 10 7.76 4.022 2023 1 Mar23 10 52 1.144 11 1.775 6.921 2023 1 Mar23 11 52 1.144 14 12 1.564 2023	2021	12	Dec-21	21	9	437	1,337	4,745	14	15	1,284	8,502
2022 2 Feb.2 2.1 10 465 1,200 14 13 959 2022 4 Apr.22 2.1 4 205 707 14 13 959 2022 4 Apr.22 2.1 4 205 707 14 10 732 2022 6 Jun-2 20 2 119 111 19 14 732 2022 6 Jun-22 20 2 119 111 19 7 362 2022 6 Jun-22 2.1 8 361 449 10 776 2022 10 Otr.22 2.1 8 361 449 14 11 77 2022 10 Nov-22 2.1 8 361 449 14 11 77 2023 1 Nov-22 2.1 8 361 1.449 14 14 16 1.475 2023 4 Apr.23 2.1 5 2.5 5.17 14 <t< td=""><td>2022</td><td>1</td><td>Jan-22</td><td>21</td><td>14</td><td>656</td><td>1,263</td><td></td><td>13</td><td>13</td><td>1,021</td><td></td></t<>	2022	1	Jan-22	21	14	656	1,263		13	13	1,021	
2022 3 Mar.22 21 7 356 1,047 14 13 926 2022 4 Apr.22 21 4 256 77 14 10 732 2022 5 Mary.22 20 2 19 911 14 10 732 2022 7 Jul.22 20 2 19 914 7 362 2022 7 Jul.22 21 8 391 154 19 7 362 2022 9 Sep.22 21 14 659 175 19 1 74 2022 10 Oct.22 21 16 631 449 14 10 75 2022 12 Oct.22 21 1 52 1.062 14 11 1.75 2023 1 1.023 1.043 1.043 1.043 1.043 1.044 10 3.3 2023 1 1.042 1.043 1.043 1.04 1.013 1.013 1.0	2022	2	Feb-22	21	10	485	1,200		14	13	959	
2022 4 Apr.22 21 4 205 707 14 13 999 2022 6 May-22 21 8 396 393 14 10 732 2022 6 Jul-22 20 2 19 111 19 14 74 2022 6 Jul-22 21 8 391 54 19 3 176 2022 8 Aug-22 21 8 361 449 14 10 776 2022 10 Oct-22 21 7 342 1,273 5,136 14 11 776 2023 1 Mar-23 21 9 412 1,048 14 15 148 15 14 15 14 15 14 15 14 15 14 15 14 10 33 15 14 16 14 15 16 16 16 16 16 16 16 16 16 16 17 16 16	2022	3	Mar-22	21	7	356	1,047		14	13	926	
2022 5 May.22 21 8 393 14 10 732 2022 7 Ju/22 20 2 119 11 19 14 760 2022 7 Ju/22 21 8 391 54 19 7 362 2022 7 Ju/22 21 12 565 65 19 1 74 2022 0 0-1-22 21 8 861 449 14 10 732 2022 11 Nov22 21 13 603 673 14 11 775 2022 12 0 42 1,048 14 14 14 10 732 203 4 Apr-23 21 1 52 116 743 155 14 0 33 203 6 Jur23 21 8 361 164 18 6 313 203 6 Jur23 21 8 361 164 18 16	2022	4	Apr-22	21	4	205	707		14	13	939	
2022 6 Jun-22 20 2 19 111 19 74 2022 7 Jul-22 21 8 391 54 19 3 376 2022 8 Aug-22 21 14 659 175 19 3 376 2022 10 0c-22 21 13 669 873 14 10 736 2021 1 Nov-22 21 7 342 1,73 5,136 14 12 1,475 6,921 2033 1 Iar-33 21 9 412 1,048 14 22 1,564 2033 3 Mar-33 21 1 52 1,048 14 22 1,564 2033 5 Mar/33 21 16 743 155 144 23 374 2033 7 Jul-23 21 8 361 164 18 6 313 2033 9 Sep-33 21 8 361 164 <	2022	5	May-22	21	8	396	393		14	10	732	
2022 7 jul-22 21 8 391 54 19 7 362 2022 8 Aug-22 21 12 565 65 19 3 176 2022 9 Sep-22 21 18 663 473 19 1 76 2022 10 0ct.22 21 8 861 449 14 10 736 2022 10 0ct.22 21 8 861 449 14 11 775 2023 1 18-73 21 9 422 1,544 14 12 1,544 2023 2 r6b-23 21 1 52 1,55 14 0 35 2023 3 Mar-23 21 8 400 114 11 619 2023 6 Jur.33 21 8 400 114 13 13 2023 6 Jur.33 21 8 361 164 18 8 457	2022	6	Jun-22	20	2	119	111		19	14	746	
2222 8 Aug.22 21 12 565 65 19 3 176 2022 10 0ct.22 21 14 659 175 19 1 74 2022 11 Nov.22 21 13 603 873 14 10 736 2022 12 Dec.22 21 7 342 1,273 5,136 14 21 1,475 8,921 2023 1 Jan.23 21 1 52 1,148 14 22 1,564 2023 2 feb.23 21 1 52 1,148 14 22 1,564 2023 3 Mar.33 21 1 52 517 14 22 1,564 2023 6 Mar.33 21 8 36 114 16 360 2023 7 Jul-23 21 8 361 164 18 6 313 2023 9 Sep.32 21 8 361 164	2022	7	Jul-22	21	8	391	54		19	7	362	
2022 9 Sep-22 21 14 659 175 19 1 74 2022 10 0ct-22 21 13 603 873 14 10 75 2022 12 Dec-22 21 7 342 1,273 5,136 14 11 77 2023 1 Jan-23 21 9 412 1,475 8,921 2023 1 Jan-23 21 9 1,273 5,136 14 22 1,664 2023 Feb-23 21 1 52 1,148 14 0 35 2023 5 Mar-23 21 1 52 1,162 14 22 1,564 2023 6 Jun-33 21 8 400 114 5 374 2033 7 Mar-23 21 8 371 59 18 6 313 2023 8 Aug-23 21 8 361 144 18 8 457	2022	8	Aug-22	21	12	565	65		19	3	176	
2022 10 0ct-22 21 8 361 449 10 736 2022 12 Nov-22 21 7 342 1,273 5,136 14 11 775 2023 1 Jan-23 21 9 412 1,048 14 21 1,475 8,921 2023 1 Jan-23 21 1 52 1,652 14 22 1,564 2023 4 Apr-23 21 5 245 517 14 0 35 2023 5 May-23 21 6 743 155 14 0 35 2023 6 Jun/23 21 4 198 36 18 11 619 2023 7 Jul/23 21 8 361 164 18 8 457 2023 10 Oct-32 21 8 361 164 18 8 457 2023 11 Nov-23 21 8 361 164 <td< td=""><td>2022</td><td>9</td><td>Sep-22</td><td>21</td><td>14</td><td>659</td><td>175</td><td></td><td>19</td><td>1</td><td>74</td><td></td></td<>	2022	9	Sep-22	21	14	659	175		19	1	74	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2022	10	Oct-22	21	8	361	449		14	10	736	
2022 12 9 21 7 342 1,273 5,136 14 21 1,475 8,921 2023 1 1an-23 21 1 52 1,148 14 12 1,564 2023 3 Mar-23 21 1 52 1,052 14 22 1,564 2023 4 Apr-23 21 5 245 517 14 0 35 2023 5 May-23 21 16 743 155 14 5 374 2023 6 Jun-23 21 8 400 114 5 374 2023 7 Jul-23 21 8 400 14 5 374 2023 7 Jul-23 21 8 361 144 18 8 457 2023 10 Oct-23 21 8 361 445 18 8 457 2023 11 Nov-23 21 8 361 445 18 8 <td>2022</td> <td>11</td> <td>Nov-22</td> <td>21</td> <td>13</td> <td>603</td> <td>873</td> <td></td> <td>14</td> <td>11</td> <td>775</td> <td></td>	2022	11	Nov-22	21	13	603	873		14	11	775	
2023 1 9 412 1,048 2023 2 Feb-23 21 1 52 1,148 14 22 1,564 2023 3 Mar-23 21 1 52 1,052 14 0 35 2023 4 Apr-23 21 5 245 517 14 0 35 2023 6 Mar-23 21 8 400 114 18 6 360 2023 6 Jur-23 21 8 400 114 18 6 360 2023 7 Jul-23 21 8 361 164 18 8 457 2023 9 Sep-23 21 8 361 164 18 8 457 2023 10 Oct-23 21 8 361 164 18 8 457 2023 12 Oc-23 21 7 345 394 13 18 13 18 529 2024	2022	12	Dec-22	21	7	342	1,273	5,136	14	21	1,475	8,921
2023 2 feb-23 21 1 52 1,148 14 22 1,564 2023 3 Mar-23 21 1 52 1,052 14 22 1,564 2023 4 Apr-23 21 1 52 1,052 14 0 35 2023 5 May-23 21 16 743 155 14 0 14 0 14 0 14 0 14 16 14 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 16 17 16 17 16 18 8 457 17 16 14 18 8 457 17 18 16 18 18 18 18 18 18 18 18 18 14 14 14 14 14 14 14 14 14 14 11 11 11 11 11 11 11 11 11<	2023	1	Jan-23	21	9	412	1,048		14	15	1,083	
2023 3 Mar-23 21 1 52 1,052 14 22 1,564 2023 4 Apr-23 21 5 245 517 14 0 35 2023 6 Jur-23 21 16 743 155 14 5 374 2023 6 Jur-23 21 8 400 114 18 6 360 2023 7 Jul-23 21 8 361 164 18 11 60 313 2023 9 Sep-23 21 8 361 164 18 8 457 2023 10 Oct-23 21 8 361 445 18 8 457 2023 12 Dec-32 21 7 345 978 18 13 11 831 2024 1 Jan-24 21 7 345 978 13 11 831 2024 4 Apr-24 21 7 318 554	2023	2	Feb-23	21	1	52	1,148		14	22	1,564	
2023 4 Apr-23 21 5 243 517 14 0 35 2023 5 May-23 21 16 743 155 14 5 374 2023 6 Jun-23 21 8 400 114 18 6 313 2023 7 Jul-23 21 8 361 164 18 6 313 2023 10 Oct-23 21 8 361 164 18 8 457 2023 11 Nov-23 21 8 361 445 18 8 457 2023 11 Nov-23 21 8 361 445 18 8 457 2024 1 Nov-23 21 8 361 741 18 13 93 93 2024 1 Apr-24 21 7 315 393 13 93 14 900 13 11 831 2024 Mar-24 21 7 <t< td=""><td>2023</td><td>3</td><td>Mar-23</td><td>21</td><td>1</td><td>52</td><td>1,052</td><td></td><td>14</td><td>22</td><td>1,564</td><td></td></t<>	2023	3	Mar-23	21	1	52	1,052		14	22	1,564	
2023 5 May-23 21 16 743 155 14 5 374 2023 6 Jun-23 21 8 400 114 18 6 360 2023 7 Jul-23 21 8 371 59 18 6 313 2023 9 Sep-23 21 8 361 164 18 8 457 2023 10 Oct-23 21 8 361 445 18 8 457 2023 11 Nov-23 21 8 400 741 18 12 654 2023 12 Oct-23 21 7 345 888 3,941 18 13 13 981 2024 1 Jan-24 20 10 471 1290 13 11 833 653 2024 Apr-24 21 7 339 320 13 8 653 2024 May-24 21 7 319 69 18	2023	4	Apr-23	21	5	245	517		14	0	35	
2023 6 Jun-23 21 8 400 114 18 6 360 2023 7 Jul-23 21 4 198 36 18 11 619 2023 9 Sep-23 21 8 371 Sp 18 6 313 2023 9 Sep-23 21 8 361 164 18 8 457 2023 10 Oct-23 21 8 361 445 18 8 457 2023 11 Nov-23 21 8 400 741 18 12 654 2024 1 Jan-24 21 7 345 888 3.941 18 13 981 2024 4 Apr-24 21 7 315 978 13 13 981 2024 4 Apr-24 21 7 318 554 13 9 70 2024 5 May-24 21 7 319 50 18 <	2023	5	May-23	21	16	743	155		14	5	374	
2023 7 Jul-23 21 4 198 36 18 11 619 2023 8 Aug-23 21 8 371 59 18 6 313 2023 9 5ep-23 21 8 361 164 18 8 457 2023 10 Oct-23 21 8 400 741 18 12 654 2023 12 Occ-23 21 7 345 888 3,941 18 13 981 2024 1 Jan-24 20 10 491 1,290 13 13 981 2024 2 Feb-24 21 7 345 978 13 13 981 2024 4 Apr-24 21 7 318 554 13 13 98 653 2024 6 Jun-24 21 7 39 320 18 8 653 2024 7 Jul-24 21 8 36 16	2023	6	Jun-23	21	8	400	114		18	6	360	
2023 8 Aug-23 21 8 371 59 18 6 313 2023 9 Sep-23 21 8 361 164 18 8 457 2023 10 Oct-23 21 8 361 445 18 12 654 2023 11 Nov-23 21 7 345 888 3,941 18 12 654 2024 1 Jan-24 21 7 345 978 13 13 981 2024 2 Feb-24 21 7 345 978 13 11 831 2024 4 Apr-24 21 7 318 554 13 11 831 2024 5 Mar-24 21 7 319 320 13 18 8 425 2024 6 Jun-24 21 6 298 203 18 8 438 2024 7 Jul-24 21 8 33 36	2023	7	Jul-23	21	4	198	36		18	11	619	
2023 9 Sep-33 21 8 361 164 18 8 457 2023 10 Oct-32 21 8 361 445 18 8 457 2023 11 Nov-32 21 8 400 741 18 8 457 2023 12 Dec-33 21 7 345 888 3,941 18 8 457 2024 1 Jan-24 20 10 491 1,290 13 13 98 8,294 2024 2 Feb-24 21 7 345 978 12 13 11 831 2024 4 Apr-24 21 7 318 554 13 9 710 2024 5 May-24 21 7 319 350 13 8 6425 2024 7 Jul-24 21 8 363 36 18 8 433 2024 9 Sep-4 21 9 437	2023	8	Aug-23	21	8	371	59		18	6	313	
2023 10 Oct-23 21 8 361 445 18 8 457 2023 11 Nov-23 21 8 400 741 18 12 654 2023 12 Pec-3 21 7 345 888 3,941 18 13 981 2024 1 Jan-24 20 10 491 1,290 13 13 981 2024 2 Feb-24 21 7 345 978 12 13 1,076 2024 4 Apr-24 21 7 339 320 13 9 70 2024 5 May-24 21 7 339 320 18 8 425 2024 6 Jun-24 21 8 363 36 18 8 8 425 2024 8 Aug-24 21 7 319 69 18 7 381 2024 9 Sep-24 21 9 437 518	2023	9	Sep-23	21	8	361	164		18	8	457	
2023 11 Nov-23 21 8 400 741 18 12 654 2024 1 Jan-24 20 10 491 1,290 18 15 8,15 8,294 2024 2 Feb-24 21 7 435 978 12 13 1,07 2024 4 Apr-24 21 7 318 554 13 9 7,10 2024 4 Apr-24 21 7 339 320 13 13 8 653 2024 5 May-24 21 7 339 320 18 8 435 2024 6 Jur-24 21 7 339 320 18 8 435 2024 7 Jul-24 21 8 363 36 18 8 433 2024 9 Sep-24 21 9 418 200 18 6 359 2024 10 Oct-24 21 9 437 358	2023	10	Oct-23	21	8	361	445		18	8	457	
2023 12 Dec-23 21 7 345 888 3,941 18 15 815 8,294 2024 1 Jan-24 20 10 491 1,290 13 13 981 2024 2 Feb-24 21 7 345 978 12 13 11 831 2024 3 Mar-24 21 7 318 554 13 9 710 2024 4 Apr-24 21 7 339 320 13 8 653 2024 6 Jun-24 21 6 298 203 18 8 438 2024 7 Jul-24 21 8 36 36 18 8 438 2024 9 Sep-24 21 9 437 518 13 11 843 2024 10 Oct-24 21 9 437 518 13 11 843 2024 12 Dec-24 25 4,309 143	2023	11	Nov-23	21	8	400	741		18	12	654	
2024 1 Jan-24 20 10 491 1,290 13 13 981 2024 2 Feb-24 21 7 345 978 12 13 1,076 2024 3 Mar-24 21 9 441 990 13 11 831 2024 4 Apr-24 21 7 318 554 13 9 70 2024 5 May-24 21 7 319 320 13 8 653 2024 6 Jun-24 21 6 298 203 18 8 425 2024 7 Jul-24 21 8 363 36 18 7 381 2024 9 Sep-24 21 9 418 200 18 6 359 2024 10 Oct-24 21 9 437 518 13 11 843 2024 12 Dec-24 255 4,309 16 369 1277 <	2023	12	Dec-23	21	7	345	888	3,941	18	15	815	8,294
2024 2 Feb-24 21 7 345 978 12 13 1,076 2024 3 Mar-24 21 9 441 990 13 11 831 2024 4 Apr-24 21 7 318 554 13 9 700 2024 6 Jur-24 21 7 339 320 18 8 425 2024 6 Jur-24 21 6 298 203 18 8 425 2024 7 Jul-24 21 7 319 69 18 8 438 2024 9 Sep-24 21 9 437 518 18 6 353 2024 9 Sep-24 21 9 437 518 12 12 143 143 2024 10 Oct-24 21 9 437 518 12 12 143 143 2025 1 Jan-25 4309 564 569 564	2024	1	Jan-24	20	10	491	1,290		13	13	981	
2024 3 Mar-24 21 9 44 990 13 11 831 2024 4 Apr-24 21 7 318 554 13 9 710 2024 5 May-24 21 7 339 320 13 8 653 2024 6 Jun-24 21 6 298 203 18 8 425 2024 7 Jul-24 21 6 363 36 18 8 438 2024 9 Sep-24 21 9 418 200 18 6 359 2024 9 Sep-24 21 9 418 200 18 6 359 2024 10 Oct-24 21 9 437 518 13 11 843 2024 12 Dec-24 25 4,309 13 11 843 2025 1 Jan-25 25 4,309 14 90 90 90 90 90	2024	2	Feb-24	21	7	345	978		12	13	1,076	
2024 4 Apr-24 21 7 318 554 13 9 710 2024 5 May-24 21 7 339 320 13 8 653 2024 6 Jun-24 21 6 298 203 18 8 425 2024 7 Jul-24 21 8 363 36 18 8 438 2024 7 Jul-24 21 7 319 69 18 7 381 2024 9 Sep-24 21 9 418 200 18 6 359 2024 10 Oct-24 21 9 437 518 13 11 843 2024 11 Nov-24 25 4,309 13 11 843 2024 12 Dec-24 20 255 4,309 16 1,277 2025 1 Jan-25 548 609 10 10 10 2025 4 Apr-25 30	2024	3	Mar-24	21	9	441	990		13	11	831	
2024 5 May-24 21 7 339 320 13 8 653 2024 6 Jun-24 21 6 298 203 18 8 425 2024 7 Jul-24 21 8 363 36 18 8 438 2024 8 Aug-24 21 7 319 69 18 8 438 2024 9 Sep-24 21 9 418 200 18 6 359 2024 10 Oct-24 21 9 437 518 13 11 843 2024 11 Nov-24 25 4,309 13 11 843 2024 12 Dec-24 255 4,309 13 11 843 2025 1 Jan-25 548 54 609 501 2025 3 Mar-25 300 301 702 702	2024	4	Apr-24	21	7	318	554		13	9	710	
2024 6 Jun-24 21 6 298 203 18 8 425 2024 7 Jul-24 21 8 363 36 18 8 438 2024 8 Aug-24 21 7 319 69 18 8 438 2024 9 Sep-24 21 9 418 200 18 6 359 2024 10 Oct-24 21 9 437 518 13 11 843 2024 11 Nov-24 21 9 437 518 13 11 843 2024 12 Dec-24 255 4,309 664 8,637 2025 1 Jan-25 255 4,309 664 8,637 2025 2 Feb-25 548 609 609 609 2025 4 Apr-25 300 702 702	2024	5	May-24	21	7	339	320		13	8	653	
2024 7 Jul-24 21 8 363 36 18 8 438 2024 8 Aug-24 21 7 319 69 18 7 381 2024 9 Sep-24 21 9 418 200 18 6 359 2024 10 Oct-24 21 9 437 518 13 11 843 2024 11 Nov-24 21 9 437 518 13 11 843 2024 12 Dec-24 255 4,309 664 8,637 2025 1 Jan-25 428 942 942 943 943 2025 2 Feb-25 548 609 943 943 943 943 943 943 943 2025 3 Mar-25 548 609 801 943 943 943 943 943 943 943 943 943 943 943 943 943 943 943 943 <td>2024</td> <td>6</td> <td>Jun-24</td> <td>21</td> <td>6</td> <td>298</td> <td>203</td> <td></td> <td>18</td> <td>8</td> <td>425</td> <td></td>	2024	6	Jun-24	21	6	298	203		18	8	425	
2024 8 Aug-24 21 7 319 69 18 7 381 2024 9 Sep-24 21 9 418 200 18 6 359 2024 10 Oct-24 21 9 437 518 13 11 843 2024 11 Nov-24 21 9 437 518 13 11 843 2024 12 Dec-24 255 4,309 664 8,637 2025 1 Jan-25 428 942 942 942 942 2025 2 Feb-25 548 609 664 8,637 2025 3 Mar-25 315 801 801 2025 4 Apr-25 300 702 702	2024	7	Jul-24	21	8	363	36		18	8	438	
2024 9 Sep-24 21 9 418 200 18 6 359 2024 10 Oct-24 21 9 437 518 13 11 843 2024 11 Nov-24 285 1,277 1,277 2024 12 Dec-24 255 4,309 664 8,637 2025 1 Jan-25 428 942 942 942 942 2025 2 Feb-25 548 609 664 8,637 2025 3 Mar-25 315 801 801 801 2025 4 Apr-25 300 702 702 702	2024	8	Aug-24	21	7	319	69		18	7	381	
2024 10 Oct-24 21 9 437 518 13 11 843 2024 11 Nov-24 285 1,277 2024 12 Dec-24 664 8,637 2025 1 Jan-25 428 942 2025 2 Feb-25 548 609 2025 3 Mar-25 315 801 2025 4 Apr-25 300 702	2024	9	Sep-24	21	9	418	200		18	6	359	
2024 11 Nov-24 1,277 2024 12 Dec-24 255 4,309 664 8,637 2025 1 Jan-25 428 942 942 2025 2 Feb-25 548 609 2025 3 Mar-25 315 801 2025 4 Apr-25 300 702	2024	10	Oct-24	21	9	437	518		13	11	843	
2024 12 Dec-24 664 8,637 2025 1 Jan-25 428 942 2025 2 Feb-25 548 609 2025 3 Mar-25 315 801 2025 4 Apr-25 300 702	2024	11	Nov-24			285					1,277	
2025 1 Jan-25 428 942 2025 2 Feb-25 548 609 2025 3 Mar-25 315 801 2025 4 Apr-25 300 702	2024	12	Dec-24			255		4,309			664	8,637
2025 2 Feb-25 548 609 2025 3 Mar-25 315 801 2025 4 Apr-25 300 702	2025	1	Jan-25			428					942	
2025 3 Mar-25 315 801 2025 4 Apr-25 300 702	2025	2	Feb-25			548					609	
2025 4 Apr-25 300 702	2025	3	Mar-25			315					801	
	2025	4	Apr-25			300					702	

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Dory Point/Kakisa Regression Statistics

		Residential						c	ommercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual		MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2025	5	May-25			514			_			423	
2025	6	Jun-25			454						316	
2025	7	Jul-25			467						250	
2025	8	Aug-25			625						171	
2025	9	Sep-25			356						581	
2025	10	Oct-25			356						402	
2025	11	Nov-25			285						1,277	
2025	12	Dec-25			255		4,903				664	7,137

Sambaa K'e Regression Statistics

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Sambaa K'e Regression Statistics

Residential

	(1) NORMA	LIZATION
	HDD	Intercept
X Coefficient	0.12	332.86
Std Err of Coef.	0.01	7.67
R2, & Std Err of Y Estimate	0.41	57.91
F-stat, & d of f	122	178
Sum of squares(ss), Resid ss	408,854	596,933
t Stat	11.04	43.39
P-value	6.346E-22	1.388E-96

	(1) NORM	ALIZATION
	Row	Date
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

		Residential	MRCNT	1000 MRENCNS	UPC	MHDD	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)
2005	1	Jan-05	33	20	605	1,260	
2005	2	Feb-05	33	14	428	1,034	
2005	3	Mar-05	32	13	394	949	
2005	4	Apr-05	32	15	460	542	
2005	5	May-05	32	12	377	407	
2005	6	Jun-05	32	11	348	209	
2005	7	Jul-05	34	12	348	86	
2005	8	Aug-05	33	14	426	143	
2005	9	Sep-05	34	11	332	308	
2005	10	Oct-05	35	13	371	474	
2005	11	Nov-05	33	14	420	767	
2005	12	Dec-05	33	16	479	866	4,986

Commercial		
	(1) NORMA	LIZATION
	HDD	Intercept
X Coefficient	0.01	14.60
Std Err of Coef.	0.00	0.46
R2, & Std Err of Y Estimate	0.29	3.46
F-stat, & d of f	73	178
Sum of squares(ss), Resid ss	879	2,135
t Stat	8.56	31.82
P-value	5.162E-15	2.258E-75

	(1) NORM	ALIZATION
	Row	Date
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

Commercial			
MCCNT	MCENCNS	UPC	Annual
	(MWh)	(kWh)	UPC (kWh)
15	21	1,417	
15	16	1,062	
15	14	929	
15	14	963	
15	11	759	
15	12	811	
15	12	782	
15	11	719	
16	9	586	
16	10	634	
16	14	856	
15	17	1,101	10,621

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		Residential		1000				Comm	ercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual	N	ICCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2006	1	Jan-06	33	21	632	1,165			15	20	1,302	
2006	2	Feb-06	33	13	385	927			15	13	842	
2006	3	Mar-06	33	13	408	904			15	15	1,022	
2006	4	Apr-06	33	15	440	497			15	15	971	
2006	5	May-06	33	12	359	312			19	13	660	
2006	6	Jun-06	34	13	389	98			14	15	1,045	
2006	7	Jul-06	35	14	394	85			15	15	984	
2006	8	Aug-06	35	16	454	90			14	13	932	
2006	9	Sep-06	34	9	267	203			14	10	679	
2006	10	Oct-06	35	12	354	524			14	11	760	
2006	11	Nov-06	34	15	432	1,042			14	15	1,040	
2006	12	Dec-06	36	18	501	925	5,014		15	17	1,134	11,370
2007	1	Jan-07	38	19	497	1,108			15	17	1,148	
2007	2	Feb-07	36	15	420	1,168			16	20	1,269	
2007	3	Mar-07	36	16	441	1,100			1/	15	907	
2007	4	Apr-07	36	16	456	560			16	22	1,350	
2007	5	May-07	36	12	331	368			16	14	8/8	
2007	6	Jun-07	36	13	355	161			16	16	1,003	
2007	/	Jui-07	42	13	321	38			16	19	1,200	
2007	8	Aug-07	38	14	364	187			16	12	769	
2007	9	Sep-07	39	15	379	300			16	10	985	
2007	10	0CL-07	40	14	344	489			10	13	1 042	
2007	11		39	10	454	000 1 100	1 920		16	17	1,042	12 612
2007	12	Lap 08	20	10	408	1,100	4,025		10	10	1,230	12,012
2008	2	Feb-08	35 /1	20	482	1,215			16	15	1,104	
2008	2	Mar-08	41	20	530	1,202			16	27	1,015	
2000	4	Apr-08	43	15	369	689			16	2,	581	
2008	5	May-08	42	13	305	358			16	13	802	
2008	6	lun-08	41	12	288	155			16	11	693	
2008	7	Jul-08	41	13	323	35			16	13	836	
2008	8	Aug-08	41	17	409	103			16	23	1.423	
2008	9	Sep-08	40	16	408	315			16	18	1.101	
2008	10	Oct-08	40	14	339	478			16	15	956	
2008	11	Nov-08	40	17	421	778			16	17	1,069	
2008	12	Dec-08	41	18	428	1,281	4,790		16	16	998	12,326
2009	1	Jan-09	41	20	496	1,238			16	18	1,130	
2009	2	Feb-09	40	22	550	1,085			16	22	1,349	
2009	3	Mar-09	41	17	420	1,116			16	16	1,027	
2009	4	Apr-09	42	17	397	623			15	19	1,251	
2009	5	May-09	42	18	431	490			16	18	1,131	
2009	6	Jun-09	42	15	348	193			16	17	1,045	
2009	7	Jul-09	42	16	382	101			16	18	1,147	
2009	8	Aug-09	42	13	298	88			16	13	823	

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		Residential		1000				Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2009	9	Sep-09	42	14	329	177		16	16	1,016	
2009	10	Oct-09	42	16	379	560		16	17	1,051	
2009	11	Nov-09	42	21	493	825		16	21	1,322	
2009	12	Dec-09	42	16	387	1,163	4,909	16	19	1,158	13,450
2010	1	Jan-10	42	23	546	1,229		16	25	1,593	
2010	2	Feb-10	42	17	408	900		15	18	1,222	
2010	3	Mar-10	43	17	387	719		16	20	1,226	
2010	4	Apr-10	42	18	431	491		17	22	1,275	
2010	5	May-10	42	13	304	402		17	16	953	
2010	6	Jun-10	41	13	325	120		17	17	1,017	
2010	7	Jul-10	42	16	389	45		17	22	1,318	
2010	8	Aug-10	43	13	301	109		17	16	945	
2010	9	Sep-10	43	13	291	294		17	16	932	
2010	10	Oct-10	43	16	377	464		17	20	1,159	
2010	11	Nov-10	43	18	409	810		17	21	1,262	
2010	12	Dec-10	43	19	451	1,215	4,620	17	23	1,327	14,230

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		Residential		1000				Commerc	ial			
			MRCNT	MRENCNS	UPC	MHDD	Annual	MCC	NT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2011	1	Jan-11	43	22	509	1,289			17	26	1,515	
2011	2	Feb-11	44	23	530	1,007			17	23	1,357	
2011	3	Mar-11	44	17	396	1,041			17	20	1,184	
2011	4	Apr-11	43	22	518	720			17	23	1,379	
2011	5	May-11	43	16	362	361			17	18	1,041	
2011	6	Jun-11	43	15	355	168			17	16	966	
2011	7	Jul-11	43	16	382	37			17	18	1,051	
2011	8	Aug-11	43	11	266	86			17	15	869	
2011	9	Sep-11	43	16	361	206			1/	18	1,085	
2011	10	Oct-11	43	13	305	4/1			17	14	831	
2011	11	NOV-11	43	14	334	952	4.75.0		17	15	906	10 001
2011	12	Jap 12	43	21	430	1 1 97 0	4,750		15	22	1,140	15,551
2012	1 2	Jan-12 Feb-12	43	21	494 51/	1,104 013			10	10	1,355	
2012	2	Mar-12	43	17	397	992			10	15	1,170	
2012	ے ۲	Δnr-12	43	18	424	676			15	17	1,125	
2012	5	May-12	43	16	364	277			15	10	1,200	
2012	6	lun-12	43	18	422	156			15	18	1,225	
2012	7	Jul-12	44	14	310	13			16	16	978	
2012	8	Aug-12	42	13	318	60			16	15	941	
2012	9	Sep-12	44	16	370	178			16	19	1,166	
2012	10	Oct-12	44	12	268	575			16	14	891	
2012	11	Nov-12	44	19	439	1,011			15	22	1,454	
2012	12	Dec-12	44	22	502	1,328	4,822		15	25	1,674	14,298
2013	1	Jan-13	44	21	479	1,292			15	22	1,439	
2013	2	Feb-13	44	22	507	928			15	23	1,565	
2013	3	Mar-13	44	20	454	1,077			16	33	2,087	
2013	4	Apr-13	45	20	435	785			15	24	1,598	
2013	5	May-13	45	14	306	333			15	18	1,174	
2013	6	Jun-13	45	17	369	135			16	19	1,181	
2013	7	Jul-13	45	17	371	83			16	18	1,141	
2013	8	Aug-13	44	15	340	78			16	17	1,052	
2013	9	Sep-13	44	19	424	180			16	21	1,326	
2013	10	Oct-13	44	17	384	458			16	20	1,234	
2013	11	Nov-13	43	19	435	887	4 000		16	20	1,254	46 540
2013	12	Dec-13	44	21	488	1,340	4,993		17	25	1,467	16,519
2014	1	Jan-14	44	21	483	1,200			17	22	1,291	
2014	2	Feb-14	44	18	418	1,188			17	21	1,225	
2014	3	Nor 14	44	19	422	1,121			17	20	1,192	
2014	4	Apr-14 May 14	44	10	304 246	200			17	17	1,070	
2014	5	ividy-14	44 12	15	340 227	38U 159			16	17	1,014	
2014	0 7	Juli-14	42	19	557 101	3E 720			16	10	1 112	
2014	י צ	Διισ-1 <i>Δ</i>	43 42	10	416	104			16	10	202	
2014	0	Aug-14	42	1/	410	104			10	14	0.0	

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	1	Residential		1000				Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual	MCCNT	MCENCNS	UPC	Annual
Year	Month _	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2014	9	Sep-14	42	14	322	274		17	18	1,082	
2014	10	Oct-14	42	18	424	521		17	19	1,103	
2014	11	Nov-14	42	19	454	910		17	21	1,234	
2014	12	Dec-14	42	22	515	1,144	4,922	17	25	1,491	13,806
2015	1	Jan-15	42	23	550	1,225		17	25	1,448	
2015	2	Feb-15	42	17	409	1,104		17	23	1,345	
2015	3	Mar-15	43	23	543	955		16	26	1,638	
2015	4	Apr-15	43	8	182	571		16	12	755	
2015	5	May-15	43	15	342	305		16	1/	1,050	
2015	6	Jun-15	43	14	333	126		16	1/	1,051	
2015	/	JUI-15	43	15	350	67		16	16	1,003	
2015	8	Aug-15	42	15	348	98		10	10	1,028	
2015	9 10	Sep-15	43	10	307	204		10	1/	1,054	
2015	10	Nov 15	45	17	591 421	508		10	10	1,147	
2015	12	NOV-15	43	19	431	1 025	4 677	15	10	1,219	1/ 102
2015	1	Jan-16	43	21	425	1,025	4,077		23	1,454	14,152
2010	2	Feb-16	43	17	397	1,007		16	19	1 177	
2016	3	Mar-16	42	16	376	925		16	18	1,105	
2016	4	Apr-16	42	16	389	683		16	18	1.108	
2016	5	Mav-16	42	15	355	312		16	15	957	
2016	6	, Jun-16	42	14	339	105		16	14	857	
2016	7	Jul-16	42	14	330	47		16	13	840	
2016	8	Aug-16	42	15	349	79		15	15	970	
2016	9	Sep-16	42	13	308	250		16	15	965	
2016	10	Oct-16	41	18	437	566		16	16	1,003	
2016	11	Nov-16	42	15	362	722		16	21	1,304	
2016	12	Dec-16	42	17	405	1,191	4,533	16	22	1,390	13,137
2017	1	Jan-17	42	18	440	1,072		16	21	1,310	
2017	2	Feb-17	42	15	361	948		16	20	1,234	
2017	3	Mar-17	42	17	402	1,033		16	22	1,392	
2017	4	Apr-17	42	13	306	667		16	17	1,060	
2017	5	May-17	42	15	369	284		16	19	1,184	
2017	6	Jun-17	42	14	341	152		16	16	973	
2017	7	Jul-17	42	15	366	56		16	16	1,004	
2017	8	Aug-17	42	15	361	60		16	16	982	
2017	9	Sep-17	42	13	318	205		16	15	944	
2017	10	Oct-17	41	15	365	507		16	18	1,145	
2017	11	Nov-17	41	17	410	976		16	20	1,252	
201/	12	Dec-1/	41	16	385	1,084	4,425	16	24	1,522	14,002
2018	1	Jan-18	41	20	490	1,265		16	21	1,322	
2018	2	Feb-18	41	15	365	1,044		16	22	1,347	
2018	3	iviar-18	41	1/	406	992		16	19	1,201	
2018	4	Abt-19	41	18	442	723		16	20	1,238	

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		Residential		1000				Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual	MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2018	5	May-18	41	16	390	327		16	, 19	1,179	
2018	6	Jun-18	41	16	386	157		17	17	1,001	
2018	7	Jul-18	41	18	443	74		17	17	1,004	
2018	8	Aug-18	41	18	437	119		17	16	968	
2018	9	Sep-18	41	18	436	425		17	16	945	
2018	10	Oct-18	41	18	428	566		17	25	1,455	
2018	11	Nov-18	41	11	260	880		17	13	775	
2018	12	Dec-18	41	28	678	1,046	5,159	17	32	1,898	14,333
2019	1	Jan-19	41	20	498	1,223		18	, 28	1,557	
2019	2	Feb-19	40	24	598	1,153		16	. 20	1,222	
2019	3	Mar-19	41	13	321	710		18	. 22	1,202	
2019	4	Apr-19	41	15	373	567		17	14	829	
2019	5	May-19	41	15	370	433		1/	16	941	
2019	6	Jun-19	41	16	379	196		1/	14	804	
2019	/	Jul-19	37	15	404	100		17	13	791	
2019	8	Aug-19	38	14	369	153			. 12	//2	
2019	9	Sep-19	38	13	341	265			9	585	
2019	10	Uct-19	38	13	541	210		16	10	1,029	
2019	12	NOV-19	20	21	545	049 1 227	5 096	16	10	1,020	11 757
2019	12	Jan-20	38	21	578	1,227	5,080	16	10	1,001	11,757
2020	2	Feb-20	38	18	473	1,205		16	15 5 16	987	
2020	2	Mar-20	39	10	475	1,100		16	; 17	1 060	
2020	4	Apr-20	39	16	408	734		16	; 14	864	
2020	5	May-20	40	16	404	460		16	i 13	827	
2020	6	Jun-20	40	16	390	207		16	i 12	747	
2020	7	Jul-20	40	18	443	76		16	j 14	874	
2020	8	Aug-20	41	14	342	116		16	5 15	931	
2020	9	Sep-20	41	19	462	273		17	, 14	821	
2020	10	Oct-20	41	17	414	586		17	, 16	955	
2020	11	Nov-20	41	19	459	927		17	. 18	1,075	
2020	12	Dec-20	41	26	642	1,077	5,463	16	13	825	11,162
2021	1	Jan-21	41	22	532	1,099			20	1,231	
2021	2	Feb-21	41	20	479	1,227		16	19	1,178	
2021	3	Mar-21	40	13	315	1,031		17	22	1,287	
2021	4	Apr-21	41	18	427	698		17	13	747	
2021	5	May-21	41	15	358	403		17	16	939	
2021	6	Jun-21	41	16	380	146		17	13	771	
2021	7	Jul-21	40	14	340	64		17	15	865	
2021	8	Aug-21	40	14	355	118		17	14	849	
2021	9	Sep-21	40	16	410	233		17	13	746	
2021	10	Oct-21	40	16	405	458		17	18	1,036	
2021	11	Nov-21	40	19	464	822		17	17	1,009	
2021	12	Dec-21	40	19	473	1,337	4,938	17	23	1,359	12,017

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		Residential		1000				Com	mercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual		MCCNT	MCENCNS	UPC	Annual
Year	Month	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2022	1	Jan-22	40	25	615	1,263			16	18	1,150	
2022	2	Feb-22	40	15	374	1,200			17	24	1,403	
2022	3	Mar-22	39	18	457	1,047			17	18	1,045	
2022	4	Apr-22	40	16	394	707			15	17	1,146	
2022	5	May-22	40	11	277	393			17	20	1,175	
2022	6	Jun-22	38	18	479	111			17	12	719	
2022	7	Jul-22	40	15	376	54			17	16	938	
2022	8	Aug-22	41	15	376	65			17	16	924	
2022	9	Sep-22	41	16	385	175			17	14	811	
2022	10	Oct-22	41	16	390	449			17	19	1,111	
2022	11	Nov-22	41	18	438	8/3			17	20	1,184	
2022	12	Dec-22	41	18	450	1,2/3	5,011		17	21	1,256	12,864
2023	1	Jan-23	41	21	520	1,048			17	23	1,332	
2023	2	Feb-23	41	15	356	1,148			17	26	1,536	
2023	3	Mar-23	41	20	498	1,052			17	19	1,132	
2023	4	Apr-23	41	12	300	517			17	10	615	
2023	5	Iviay-23	41	19	468	155			17	19	1,141	
2023	0 7	Jun-23	41	10	230	114			17	15	908	
2025	/ 0	Jui-25	41	17	407	50			17	17	977	
2025	0	Aug-25	41	15	515	164			17	20	1,151	
2025	10	Oct 22	41	24	410 577	104			17	14	609	
2023	10	Nov 22	41	12	207	741			17	10	1 208	
2023	12	Dec-23	42	20	470	288	4 870		17	10	1,308	12 658
2023	12	Jan-24	42	1/	470	1 290	4,870		17	20	1,140	12,038
2024	2	Feb-24	43	27	630	978			10	10	1,002	
2024	2	Mar-24	43	26	612	990			18	10	694	
2024	4	Apr-24	42	14	332	550			18	12	1.038	
2024	5	May-24	42	17	395	320			18	16	909	
2024	6	Jun-24	42	14	324	203			18	17	939	
2024	7	Jul-24	42	15	366	36			18	15	860	
2024	8	Aug-24	42	16	387	69			18	17	940	
2024	9	Sep-24	42	14	343	200			18	17	972	
2024	10	Oct-24	42	17	397	518			18	21	1,162	
2024	11	Nov-24			404						1,026	
2024	12	Dec-24			536		5,194				1,001	11,709
2025	1	Jan-25			476						1,557	
2025	2	Feb-25			441						1,222	
2025	3	Mar-25			376						1,202	
2025	4	Apr-25			374						829	
2025	5	May-25			376						941	
2025	6	Jun-25			369						804	
2025	7	Jul-25			404						791	
2025	8	Aug-25			389						772	

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		Residential		1000					Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual		MCCNT	MCENCNS	UPC	Annual
Year	Month I	monthly		(MWh)	(kWh)	(Hay River)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2025	9	Sep-25			365			-			585	
2025	10	Oct-25			378						1,029	
2025	11	Nov-25			404						1,026	
2025	12	Dec-25			536		4,890				1,001	11,757

Wekweèti Regression Statistics

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Wekweèti Regression Statistics

Residential

	(1) NORMA	LIZATION
	HDD	Intercept
X Coefficient	0.12	418.78
Std Err of Coef.	0.01	9.65
R2, & Std Err of Y Estimate	0.36	73.40
F-stat, & d of f	101	178
Sum of squares(ss), Resid ss	544,051	959,012
t Stat	10.05	43.38
P-value	4.207E-19	1.419E-96

	(1) NORM	ALIZATION
	Row	Date
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

		Residential		1000			
			MRCNT	MRENCNS	UPC	MHDD	Annual
Year	Month	monthly		(MWh)	(kWh)	(Yellowknife)	UPC (kWh)
2005	1	Jan-05	38	23	605	1,376	
2005	2	Feb-05	41	24	586	1,140	
2005	3	Mar-05	45	21	477	1,027	
2005	4	Apr-05	43	23	534	613	
2005	5	May-05	41	22	535	459	
2005	6	Jun-05	42	19	444	165	
2005	7	Jul-05	43	20	454	84	
2005	8	Aug-05	43	18	414	155	
2005	9	Sep-05	44	20	462	364	
2005	10	Oct-05	42	21	492	547	
2005	11	Nov-05	43	20	460	812	
2005	12	Dec-05	44	28	633	967	6,095

Commercial					
	(1) NORMALIZATION				
	HDD	Intercept			
X Coefficient	0.01	20.40			
Std Err of Coef.	0.00	0.55			
R2, & Std Err of Y Estimate	0.62	4.16			
F-stat, & d of f	294	178			
Sum of squares(ss), Resid ss	5,101	3,085			
t Stat	17.16	37.26			
P-value	1.429E-39	5.681E-86			

	(1) NORM	ALIZATION
	Row	<u>Date</u>
Start	24	Jan-05
End	203	Dec-19
Months	180	
Years	15	

Commercial			
MCCNT	MCENCNS	UPC	Annual
	(MWh)	(kWh)	UPC (kWh)
16	30	1,857	
15	29	1,923	
14	29	2,063	
14	31	2,181	
14	26	1,854	
14	23	1,608	
14	22	1,573	
14	18	1,293	
14	23	1,654	
14	22	1,600	
14	24	1,744	
14	39	2,761	22,109

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	F	Residential		1000				Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual	MCCNT	MCENCNS	UPC	Annual
Year	Month r	monthly		(MWh)	(kWh)	(Yellowknife)	UPC (kWh)		(MWh)	(kWh)	UPC (kWh)
2006	1	Jan-06	43	23	545	1,239			14 29	2,066	
2006	2	Feb-06	43	21	498	994			14 27	1,905	
2006	3	Mar-06	43	20	468	896			14 27	1,935	
2006	4	Apr-06	43	23	534	597			14 28	1,997	
2006	5	May-06	43	20	474	307			14 30	2,142	
2006	6	Jun-06	43	20	469	81			14 24	1,687	
2006	7	Jul-06	44	18	402	59			14 15	1,056	
2006	8	Aug-06	43	19	433	85			14 17	1,179	
2006	9	Sep-06	42	19	461	244			15 22	1,460	
2006	10	Oct-06	42	20	478	582			15 24	1,569	
2006	11	Nov-06	42	20	482	1,063			15 26	1,702	
2006	12	Dec-06	42	31	729	1,015	5,971		15 40	2,686	21,384
2007	1	Jan-07	42	19	449	1,221			15 30) 2,019	
2007	2	Feb-07	42	25	594	1,205			15 28	3 1,850	
2007	3	Mar-07	42	17	415	1,180			15 37	2,473	
2007	4	Apr-07	41	21	506	629			15 25	5 1,644	
2007	5	May-07	41	17	407	386			15 25	5 1,674	
2007	6	Jun-07	41	18	433	149			15 26	5 1,766	
2007	7	Jul-07	42	17	396	20			15 23	3 1,511	
2007	8	Aug-07	42	13	298	181			15 19) 1,277	
2007	9	Sep-07	43	16	364	392			15 22	1,401	
2007	10	Oct-07	42	18	419	562			15 22	1,498	
2007	11	Nov-07	43	23	531	908			15 31	2,060	
2007	12	Dec-07	42	22	522	1,306	5,336		15 33	3 2,213	21,386
2008	1	Jan-08	42	24	568	1,365			15 36	5 2,418	
2008	2	Feb-08	41	25	603	1,297			15 32	2,145	
2008	3	Mar-08	42	25	599	1,184			15 35	2,358	
2008	4	Apr-08	41	18	451	761			15 32	2,118	
2008	5	May-08	41	18	445	335			15 26	5 1,735	
2008	6	Jun-08	41	18	450	133			15 23	1,552	
2008	7	Jul-08	41	17	407	33			15 21	1,395	
2008	8	Aug-08	41	15	360	115			15 20) 1,337	
2008	9	Sep-08	40	17	429	369			15 22	1,481	
2008	10	Oct-08	40	17	425	518			17 23	3 1,324	
2008	11	Nov-08	40	22	544	827			16 28	3 1,750	
2008	12	Dec-08	40	20	497	1,420	5,778		16 28	3 1,734	21,346
2009	1	Jan-09	39	24	614	1,353		1	.5 33	3 2,181	
2009	2	Feb-09	39	24	625	1,161		1	.4 28	3 2,007	
2009	3	Mar-09	40	19	469	1,188		1	.6 33	3 2,087	
2009	4	Apr-09	37	22	598	691		1	.2 25	5 2,120	
2009	5	May-09	40	19	467	516		1	.6 36	5 2,250	
2009	6	Jun-09	39	17	433	175		1	.6 25	5 1,567	

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	R	Residential		1000				c	Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual		MCCNT	MCENCNS	UPC	Annual
Year	Month m	nonthly		(MWh)	(kWh)	(Yellowknife)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2009	7	Jul-09	39	17	446	80		_	16	18	1,132	
2009	8	Aug-09	38	16	414	102			16	17	1,054	
2009	9	Sep-09	40	15	376	227			17	22	1,271	
2009	10	Oct-09	40	17	430	603			17	24	1,407	
2009	11	Nov-09	40	23	567	867			17	33	1,933	
2009	12	Dec-09	40	21	526	1,238	5,965		17	36	2,113	21,122
2010	1	Jan-10	38	26	671	1,307		_	17	36	2,090	
2010	2	Feb-10	40	23	564	960			17	33	1,932	
2010	3	Mar-10	40	21	524	866			16	22	1,405	
2010	4	Apr-10	40	22	553	515			17	43	2,515	
2010	5	May-10	40	17	426	384			17	23	1,342	
2010	6	Jun-10	40	18	462	109			17	23	1,342	
2010	7	Jul-10	40	18	449	40			17	21	1,238	
2010	8	Aug-10	39	19	485	90			15	15	985	
2010	9	Sep-10	40	20	494	308			17	27	1,596	
2010	10	Oct-10	40	16	389	544			17	22	1,283	
2010	11	Nov-10	39	22	562	899			16	22	1,391	
2010	12	Dec-10	39	23	591	1,238	6,168	_	17	30	1,768	18,887

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	F	Residential		1000				Commercial				
			MRCNT	MRENCNS	UPC	MHDD	Annual	MCCNT		MCENCNS	UPC	Annual
Year	Month r	nonthly		(MWh)	(kWh)	(Yellowknife)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2011	1	Jan-11	40	26	652	1,394			17	35	2,054	
2011	2	Feb-11	40	27	687	1,140			18	34	1,906	
2011	3	Mar-11	40	22	557	1,109			18	34	1,916	
2011	4	Apr-11	40	23	570	817			18	29	1,594	
2011	5	May-11	40	21	523	327			18	29	1,597	
2011	6	Jun-11	39	19	488	148			17	21	1,264	
2011	7	Jul-11	40	19	467	26			18	22	1,248	
2011	8	Aug-11	40	15	378	88			18	21	1,144	
2011	9	Sep-11	40	16	408	242			18	18	1,001	
2011	10	Oct-11	40	19	469	514			17	27	1,608	
2011	11	Nov-11	40	19	482	985			18	27	1,477	
2011	12	Dec-11	41	24	586	1,100	6,268		18	31	1,716	18,525
2012	1	Jan-12	41	29	699	1,252			18	38	2,107	
2012	2	Feb-12	41	22	533	1,013			17	25	1,466	
2012	3	Mar-12	41	20	496	1,059			18	35	1,933	
2012	4	Apr-12	41	19	462	723			18	33	1,810	
2012	5	May-12	41	18	440	311			18	26	1,434	
2012	6	Jun-12	41	18	439	79			19	25	1,329	
2012	7	Jul-12	41	18	447	7			19	21	1,089	
2012	8	Aug-12	41	19	465	64			19	21	1,117	
2012	9	Sep-12	40	18	449	203			19	18	929	
2012	10	Oct-12	41	18	440	601			19	26	1,355	
2012	11	Nov-12	41	23	564	1,066			19	29	1,552	
2012	12	Dec-12	41	27	653	1,402	6,087		19	37	1,931	18,052
2013	1	Jan-13	41	32	775	1,428			19	42	2,222	
2013	2	Feb-13	41	31	745	1,035			18	37	2,033	
2013	3	Mar-13	41	22	526	1,128			19	36	1,881	
2013	4	Apr-13	41	20	491	809			19	31	1,615	
2013	5	May-13	41	20	497	353			19	30	1,585	
2013	6	Jun-13	41	21	517	105			19	29	1,547	
2013	7	Jul-13	41	18	434	80			19	23	1,188	
2013	8	Aug-13	41	18	434	99			19	22	1,180	
2013	9	Sep-13	41	18	439	245			19	19	990	
2013	10	Oct-13	41	25	599	518			19	26	1,363	
2013	11	Nov-13	41	26	639	963			19	32	1,665	
2013	12	Dec-13	41	28	678	1,501	6,774		18	39	2,189	19,458
2014	1	Jan-14	41	26	646	1,343			19	34	1,805	
2014	2	Feb-14	41	28	683	1,234			19	32	1,664	
2014	3	Mar-14	40	23	569	1,192			19	33	1,743	
2014	4	Apr-14	40	19	482	769			19	29	1,536	
2014	5	May-14	40	19	477	408			19	27	1,430	
2014	6	Jun-14	40	18	461	114			19	19	1,010	

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	F	Residential		1000					Commercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual		MCCNT	MCENCNS	UPC	Annual
Year	Month r	nonthly		(MWh)	(kWh)	(Yellowknife)	UPC (kWh)	_		(MWh)	(kWh)	UPC (kWh)
2014	7	Jul-14	38	16	409	40			19	23	1,193	
2014	8	Aug-14	39	21	541	136			17	18	1,051	
2014	9	Sep-14	39	11	286	346			19	32	1,674	
2014	10	Oct-14	39	25	645	559			19	24	1,248	
2014	11	Nov-14	39	19	488	1,036			19	39	2,058	
2014	12	Dec-14	39	25	635	1,213	6,321		19	41	2,182	18,595
2015	1	Jan-15	39	22	564	1,340			19	40	2,087	
2015	2	Feb-15	39	26	673	1,230			19	38	2,010	
2015	3	Mar-15	39	21	527	1,039			19	37	1,946	
2015	4	Apr-15	39	18	453	661			19	36	1,889	
2015	5	May-15	39	18	464	323			19	29	1,541	
2015	6	Jun-15	39	17	436	114			19	23	1,185	
2015	7	Jul-15	39	16	406	64			19	20	1,074	
2015	8	Aug-15	39	17	444	102			18	18	978	
2015	9	Sep-15	39	21	544	302			19	24	1,240	
2015	10	Oct-15	39	17	432	595			19	33	1,733	
2015	11	Nov-15	39	23	587	841			18	30	1,693	
2015	12	Dec-15	39	24	620	1,106	6,150		19	40	2,099	19,474
2016	1	Jan-16	41	23	555	1,172			19	35	1,819	
2016	2	Feb-16	41	22	542	1,199			19	40	2,082	
2016	3	Mar-16	41	23	562	985			18	33	1,826	
2016	4	Apr-16	41	19	461	754			18	33	1,824	
2016	5	May-16	41	15	366	304			18	27	1,494	
2016	6	Jun-16	41	17	418	90			18	23	1,298	
2016	7	Jul-16	40	19	466	41			17	23	1,341	
2016	8	Aug-16	40	23	579	87			19	17	885	
2016	9	Sep-16	40	21	532	301			19	24	1,242	
2016	10	Oct-16	40	19	472	615			19	32	1,684	
2016	11	Nov-16	40	25	622	757			19	30	1,553	
2016	12	Dec-16	40	22	555	1,263	6,130	-	18	33	1,858	18,907
2017	1	Jan-17	40	23	586	1,195			19	39	2,073	
2017	2	Feb-17	40	23	583	1,082			19	36	1,912	
2017	3	Mar-17	40	16	395	1,131			19	34	1,790	
2017	4	Apr-17	40	18	440	726			19	29	1,524	
2017	5	May-17	40	18	439	298			19	30	1,563	
2017	6	Jun-17	40	18	442	144			19	22	1,143	
2017	7	Jul-17	40	16	408	52			19	18	954	
2017	8	Aug-17	41	17	410	65			19	18	922	
2017	9	Sep-17	41	20	489	232			18	20	1,130	
2017	10	Oct-17	41	16	397	591			19	31	1,657	
2017	11	Nov-17	41	20	491	1,026			19	34	1,770	
2017	12	Dec-17	41	22	532	1,218	5,613	-	19	36	1,904	18,342

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	F	Residential		1000				Commercia	al			
			MRCNT	MRENCNS	UPC	MHDD	Annual	MCCN	т	MCENCNS	UPC	Annual
Year	Month r	nonthly		(MWh)	(kWh)	(Yellowknife)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2018	1	Jan-18	41	21	518	1,303			19	37	1,942	
2018	2	Feb-18	41	19	470	1,154			19	36	1,918	
2018	3	Mar-18	41	19	453	1,032			19	28	1,497	
2018	4	Apr-18	41	19	459	762			19	34	1,784	
2018	5	May-18	41	22	539	369			18	22	1,242	
2018	6	Jun-18	41	11	263	132			19	27	1,437	
2018	7	Jul-18	39	17	447	64			19	21	1,089	
2018	8	Aug-18	39	20	513	157			18	18	1,020	
2018	9	Sep-18	39	15	386	464			19	27	1,404	
2018	10	Oct-18	40	21	517	623			19	30	1,576	
2018	11	Nov-18	40	22	544	940			19	35	1,829	
2018	12	Dec-18	41	20	494	1,135	5,603		19	43	2,288	19,025
2019	1	Jan-19	41	24	584	1,354			19	34	1,778	
2019	2	Feb-19	40	16	392	1,233			18	34	1,913	
2019	3	Mar-19	41	24	583	862			19	32	1,707	
2019	4	Apr-19	41	19	452	681			19	31	1,608	
2019	5	May-19	41	19	460	449			19	30	1,590	
2019	6	Jun-19	41	17	424	174			19	24	1,286	
2019	7	Jul-19	40	16	401	106			19	21	1,107	
2019	8	Aug-19	40	17	434	163			19	20	1,058	
2019	9	Sep-19	40	17	413	302			19	21	1,125	
2019	10	Oct-19	40	17	413	572			18	29	1,598	
2019	11	Nov-19	41	30	730	927			19	23	1,196	
2019	12	Dec-19	41	9	224	1,375	5,509		19	49	2,591	18,557
2020	1	Jan-20	42	29	682	1,362			16	30	1,853	
2020	2	Feb-20	42	17	399	1,216			19	40	2,097	
2020	3	Mar-20	42	21	491	1,163			19	34	1,782	
2020	4	Apr-20	42	22	515	789			19	27	1,445	
2020	5	May-20	41	19	460	466			19	24	1,255	
2020	6	Jun-20	42	19	449	159			19	18	962	
2020	7	Jul-20	42	20	488	58			19	17	877	
2020	8	Aug-20	42	21	495	104			18	16	909	
2020	9	Sep-20	42	22	516	332			18	22	1,216	
2020	10	Oct-20	42	22	514	615			18	32	1,779	
2020	11	Nov-20	42	20	477	1,003			19	36	1,920	
2020	12	Dec-20	42	25	590	1,219	6,075		19	37	1,958	18,051
2021	1	Jan-21	42	24	582	1,115			19	35	1,839	
2021	2	Feb-21	42	22	531	1,248			19	39	2,032	
2021	3	Mar-21	42	28	666	1,116			17	30	1,780	
2021	4	Apr-21	42	9	226	583			19	41	2,182	
2021	5	May-21	42	23	540	192			18	28	1,569	
2021	6	Jun-21	42	16	392	118			19	29	1,524	

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	F	Residential		1000				Comm	ercial			
			MRCNT	MRENCNS	UPC	MHDD	Annual	M	ICCNT	MCENCNS	UPC	Annual
Year	Month r	monthly		(MWh)	(kWh)	(Yellowknife)	UPC (kWh)			(MWh)	(kWh)	UPC (kWh)
2021	7	Jul-21	42	20	475	15			19	24	1,271	
2021	8	Aug-21	43	19	435	54			19	20	1,039	
2021	9	Sep-21	42	18	440	218			19	27	1,401	
2021	10	Oct-21	44	24	546	503			18	27	1,498	
2021	11	Nov-21	44	24	553	828			19	31	1,655	
2021	12	Dec-21	44	22	506	980	5,892		18	44	2,461	20,251
2022	1	Jan-22	44	29	656	1,432			19	39	2,030	
2022	2	Feb-22	44	17	388	1,304			19	45	2,366	
2022	3	Mar-22	44	24	555	1,105			19	35	1,820	
2022	4	Apr-22	44	22	510	775			19	35	1,832	
2022	5	May-22	44	33	756	380			19	5	253	
2022	6	Jun-22	44	4	87	67			19	38	1,996	
2022	7	Jul-22	43	18	430	32			19	25	1,324	
2022	8	Aug-22	44	20	464	73			19	21	1,119	
2022	9	Sep-22	43	17	405	250			19	30	1,561	
2022	10	Oct-22	44	24	541	536			19	33	1,750	
2022	11	Nov-22	44	29	669	894			19	38	1,981	
2022	12	Dec-22	44	17	397	1,344	5,859		20	57	2,837	20,869
2023	1	Jan-23	44	33	760	1,115			20	34	1,704	
2023	2	Feb-23	44	25	567	1,248			20	41	2,060	
2023	3	Mar-23	44	23	528	1,116			20	41	2,053	
2023	4	Apr-23	44	9	194	583			20	21	1,046	
2023	5	May-23	44	24	554	192			20	35	1,769	
2023	6	Jun-23	44	20	454	118			20	27	1,326	
2023	7	Jul-23	44	21	478	15			20	25	1,227	
2023	8	Aug-23	44	21	483	54			20	24	1,217	
2023	9	Sep-23	44	27	604	218			20	21	1,040	
2023	10	Oct-23	44	15	347	503			20	38	1,922	
2023	11	Nov-23	44	25	567	828			20	33	1,666	
2023	12	Dec-23	44	18	410	980	5,946		20	44	2,213	19,243
2024	1	Jan-24	31	8	260	1,409			20	61	3,032	
2024	2	Feb-24	43	30	705	1,122			18	29	1,602	
2024	3	Mar-24	43	28	640	1,073			20	31	1,551	
2024	4	Apr-24	43	18	409	620			20	30	1,521	
2024	5	May-24	44	14	326	291			20	33	1,653	
2024	6	Jun-24	44	27	608	159			20	16	816	
2024	7	Jul-24	44	20	453	28			20	32	1,589	
2024	8	Aug-24	44	26	582	92			20	22	1,122	
2024	9	Sep-24	44	21	480	240			20	30	1,502	
2024	10	Oct-24	44	25	578	593			20	33	1,645	
2024	11	Nov-24			588						1,598	
2024	12	Dec-24			417		6,045				2,261	19,892
											1	

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	R	Residential		1000				(Commercial			
Voor	Month n	nonthly	MRCNT			MHDD (Vollowknife)	Annual		MCCNT			Annual
Tear				(1010011)		(renowknine)	UPC (KWII)			(1010011)	(KVVII)	OPC (KWII)
2025	1	Jan-25			563						1,931	
2025	2	Feb-25			482						1,914	
2025	3	Mar-25			477						1,665	
2025	4	Apr-25			450						1,638	
2025	5	May-25			480						1,465	
2025	6	Jun-25			376						1,289	
2025	7	Jul-25			419						1,050	
2025	8	Aug-25			452						1,000	
2025	9	Sep-25			429						1,220	
2025	10	Oct-25			442						1,610	
2025	11	Nov-25			588						1,598	
2025	12	Dec-25			417		5,575				2,261	18,641

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Hay River Heating Degree Days (HDD) Degree Days Below 18.0 °C

Hay River																									
Heating Degree Day	rs (H	DD)																							20-year
Degree Days Below	18.0)ºC																							N_MHDD
Month		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	(2004-2023)
JAN	1	1,225.8	1,217.8	1,345.8	1,259.5	1,164.8	1,108.2	1,215.4	1,237.6	1,229.1	1,289.0	1,184.0	1,291.6	1,199.7	1,224.6	1,087.4	1,072.0	1,265.3	1,223.3	1,289.1	1,099.0	1,262.7	1,047.6	1,289.8	1,204.8
FEB	2	1,069.3	1,152.0	1,066.5	1,034.4	927.4	1,168.2	1,201.8	1,084.9	900.2	1,007.4	913.4	927.5	1,188.5	1,104.0	1,049.9	947.7	1,043.5	1,153.3	1,105.6	1,227.0	1,199.9	1,147.6	978.2	1,069.9
MAR	3	1,141.5	1,054.1	1,030.1	949.1	904.4	1,099.9	1,090.8	1,116.3	718.9	1,041.3	991.7	1,076.5	1,121.2	954.7	924.9	1,033.4	991.8	709.7	1,078.1	1,030.5	1,047.1	1,052.0	989.8	998.1
APR	4	791.0	575.7	651.2	542.4	497.2	559.6	689.4	623.2	491.0	720.1	676.1	785.1	690.5	571.3	682.6	667.3	723.0	566.6	734.2	698.4	706.9	516.6	554.1	639.6
MAY	5	524.8	357.4	532.3	407.1	312.1	368.0	358.0	489.9	401.5	360.5	276.5	332.8	380.4	304.6	312.2	283.9	326.6	432.8	459.8	402.8	393.1	154.6	320.2	364.5
JUN	6	146.7	201.4	211.4	208.8	98.3	161.2	154.9	192.7	120.0	168.2	155.5	134.7	157.8	126.0	105.1	151.5	157.2	196.2	206.6	146.2	111.0	114.0	202.9	153.9
JUL	7	93.3	68.9	69.8	86.0	85.2	37.8	35.2	101.3	45.3	36.6	13.3	82.6	34.6	67.2	47.0	55.7	74.2	100.1	75.6	64.2	53.6	36.0	35.8	60.1
AUG	8	156.0	118.4	177.6	143.2	90.1	187.3	102.8	87.7	109.4	85.7	59.5	77.7	104.4	97.5	79.4	60.3	118.7	152.7	115.8	118.0	64.5	58.6	69.4	104.5
SEP	9	274.5	285.4	331.1	308.0	203.1	365.5	315.4	176.8	293.5	205.7	178.2	179.7	273.8	264.3	249.5	204.8	424.7	265.0	273.3	233.0	175.3	163.5	199.8	254.2
ОСТ	10	612.8	459.3	614.7	473.7	524.3	489.4	477.7	559.7	463.7	470.8	574.9	458.2	521.3	507.9	566.3	507.0	565.8	516.2	585.7	457.7	449.0	444.9	518.2	511.4
NOV	11	778.9	884.4	852.4	767.1	1,042.4	849.8	777.7	824.5	810.3	952.1	1,010.5	886.6	909.6	767.7	721.8	975.5	879.9	848.6	927.2	822.1	872.9	741.0		862.0
DEC	12	923.4	1,024.2	1,244.4	866.3	925.2	1,188.0	1,280.6	1,163.4	1,214.7	978.4	1,328.4	1,339.9	1,143.9	1,024.8	1,191.4	1,084.2	1,046.4	1,226.5	1,076.9	1,336.5	1,273.4	887.6		1,141.0
TOTAL		7,738.0	7,399.0	8,127.3	7,045.6	6,774.5	7,582.9	7,699.7	7,658.0	6,797.6	7,315.8	7,362.0	7,572.8	7,725.5	7,014.6	7,017.5	7,043.3	7,617.1	7,391.0	7,927.9	7,635.4	7,609.4	6,364.0	5,158.2	7,364.1

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Hay River Heating Degree Days (HDD) Degree Days Below 18.0 °C

Yellowknife																								
Heating Degree	e Days (H	DD)																						20-year
Degree Days I	Below 18.0)°C																						N_MHDD
Month	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	(2004-2023)
JAN	1,342.1	1,365.4	1,470.0	1,376.2	1,239.0	1,220.9	1,364.8	1,352.9	1,307.3	1,394.2	1,251.6	1,427.8	1,342.7	1,340.3	1,172.4	1,194.6	1,303.1	1,354.0	1,362.4	1,232.5	1,431.7	1,115.2	1,409.2	1,312.7
FEB	1,164.8	1,288.2	1,139.2	1,140.3	993.7	1,205.4	1,297.2	1,160.8	960.1	1,139.9	1,013.4	1,035.4	1,233.9	1,229.7	1,198.6	1,082.3	1,154.0	1,233.3	1,216.1	1,302.1	1,303.8	1,247.6	1,122.3	1,164.3
MAR	1,228.5	1,163.7	1,151.2	1,027.3	895.9	1,180.2	1,183.6	1,187.9	866.0	1,109.0	1,059.1	1,128.0	1,191.5	1,038.9	985.3	1,131.0	1,032.0	862.2	1,163.0	1,109.0	1,104.6	1,116.4	1,073.2	1,076.1
APR	885.7	620.0	801.1	612.5	597.2	629.2	760.5	691.0	514.9	816.5	723.4	809.1	768.6	660.7	753.6	725.6	762.1	680.5	788.9	799.4	775.3	583.4	619.7	712.7
MAY	554.9	402.8	605.9	459.1	306.8	385.9	334.9	516.3	384.4	327.3	310.8	353.2	408.2	323.0	304.3	297.6	369.4	448.9	465.6	457.0	380.2	192.0	290.6	381.5
JUN	130.9	166.4	188.8	165.1	80.6	149.0	132.6	174.8	109.0	148.0	79.2	105.0	114.3	114.3	89.7	143.5	132.2	173.5	158.9	132.9	67.3	117.7	158.9	128.8
JUL	62.3	45.0	49.5	84.1	59.3	20.2	32.8	79.7	40.3	25.7	7.1	80.1	40.2	63.5	40.8	52.3	63.5	106.2	58.4	76.0	32.2	14.7	28.2	51.3
AUG	176.2	119.5	177.9	154.5	84.8	180.9	114.6	101.7	89.8	88.2	63.9	98.6	136.1	101.8	87.1	65.1	157.0	162.9	104.3	149.5	72.5	54.1	91.5	112.3
SEP	310.4	289.5	373.3	363.8	243.9	392.0	369.3	227.0	307.6	241.7	202.9	244.9	346.4	301.7	301.2	231.7	464.0	302.0	331.5	280.5	250.3	217.6	239.9	299.7
OCT	671.3	479.3	681.0	546.9	581.8	561.8	518.0	603.0	544.3	514.3	600.6	517.8	558.9	595.0	614.8	591.1	623.1	571.5	615.3	478.5	535.7	503.0	593.0	567.8
NOV	878.9	937.6	988.6	811.5	1,063.0	907.7	826.9	866.5	899.1	985.0	1,065.8	962.8	1,035.6	841.1	756.5	1,026.2	940.3	927.1	1,002.8	873.1	893.6	827.7		925.0
DEC	993.6	1,118.3	1,383.3	966.7	1,015.1	1,305.9	1,420.4	1,238.3	1,237.8	1,099.5	1,401.9	1,500.9	1,213.4	1,106.0	1,263.4	1,217.7	1,135.2	1,375.2	1,218.5	1,408.0	1,343.9	980.4		1,241.6
TOTAL	8,399.6	7,995.7	9,009.8	7,708.0	7,161.1	8,139.1	8,355.6	8,199.9	7,260.6	7,889.3	7,779.7	8,263.6	8,389.8	7,716.0	7,567.7	7,758.7	8,135.9	8,197.3	8,485.7	8,298.5	8,191.1	6,969.8	5,626.5	7,973.9



SECTION 3: PURCHASE POWER

3.1 Overview

127. The Purchase Power included in this Application is outlined in Schedule 4.3 and is set out in Table 3.1 below. Naka-NWT purchases power from NTPC when the Taltson Hydro Generation Plant is operational. Naka-NWT has assumed that the Taltson Hydro Generation Plant will be offline for the entirety of 2024. Naka-NWT has a Purchase Power Cost Adjustment Rider (Rider F) in place for the Hydro Zone only, which is an interim-refundable flow-through rider designed to reflect changes in purchase power prices charged to Naka-NWT by NTPC, adjusted for system losses.

128. In Board Decision 21-2024, the Purchase Power Cost Adjustment Rider was adjusted from \$0.0130 per kWh to a credit of \$0.0405 per kWh. The rate change was due to an over collection in the Rider F deferral account because Naka-NWT was unable to purchase power from NTPC since April 2023 as a result of the Taltson Shutdown.

	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Purchase Power Expense	3,704	3,476	1,376	-	267	3,877

Table 3.1: Purchase Power (\$000)

129. Purchase Power decreases in 2023 and 2024 are due to the extended Taltson Shutdown and the reliance on diesel generators to supply energy to the Hydro Zone communities.

130. The 2025 forecast assumes that the Taltson Hydro Generation Plant is operational as of January 1, 2025. Due to the Hay River Disposition, expected energy usage in 2025 is lower than in previous years.

3.2 Deferral Account

131. Naka-NWT is requesting continued approval of the purchase power deferral.



132. Consistent with previously approved methodology, the purchase price is based on NTPC's approved rates that were in effect on July 1, 2024. Subsequent increases or decreases to these rates approved by the Board for 2024, and subsequent years, will be flowed through to Naka-NWT's customers using the existing Rider F, as approved by the Board.¹

3.3 Forecast Process

133. The energy component of the purchase power cost is determined by applying NTPC's rates to the total forecast energy (kWh) purchases as shown on Schedule 4.3. Line losses have been forecast using the methodology described in Section 4. Total forecast purchases are determined by applying line loss percentages to Naka-NWT's sales load forecast.

¹ Most recent approved adjustment to Rider F – Decision 21-2024.



SECTION 4: DIESEL FUEL COSTS

4.1 Overview

134. The diesel fuel costs included in this Application are outlined in Schedule 4.1 and are set out in Table 4.1, below.

	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Hay River	270	1,119	5,826	10,280	-	376
Fort Providence	755	1,237	1,088	1,100	1,126	1,292
Wekweèti	226	315	353	376	378	333
Sambaa K'e	123	157	163	171	180	154
Dory Point/Kakisa	89	139	126	120	123	153
Total	1,463	2,966	7,556	12,047	1,807	2,308

Table 4.1: Diesel Fuel Costs (Schedule 4.1) (\$000)

135. The actual diesel fuel cost increase of \$1.5 million from 2021 to 2022 was due to a 45 percent increase in the price of diesel fuel and an extension of the annual Taltson Shutdown for additional inspections and work required for planning purposes for the 2023 Taltson Upgrade Project. This resulted in the Hay River Standby Generation Plant generating two and a half times as much energy, in MWh, as was contemplated in rates for 2022.

136. Diesel fuel costs are higher in 2023 and 2024 due to the Taltson Shutdown, which began in May 2023 and is expected to continue throughout 2024. As discussed in Sections 1 and 3, as a result of the shutdown, Naka-NWT's power supply in its Taltson Zone has been solely sourced from diesel generation as opposed to purchasing power supplied by NTPC from the Taltson Hydro Generation Plant. The 2025 forecast diesel fuel cost assumes that the Taltson Hydro Generation Plant is operational as of January 1, 2025.

137. Please refer to Schedule 4.1 for the details associated with the calculation of diesel fuel costs for 2021 to 2025.



4.2 Background

138. Naka-NWT purchases diesel fuel for each of the diesel plants that it operates. Naka-NWT conducts a fuel tendering process through which a vendor is selected to be the exclusive provider of fuel to Naka-NWT.

139. Fuel costs are recorded as the diesel fuel is consumed by the diesel plant.

4.3 Forecasting Fuel Costs

140. Diesel fuel costs are a function of forecast sales, station service, line losses, plant efficiencies, and delivered fuel prices.

4.3.1 Station Service

141. In accordance with Board Direction 18 in Decision 25-2008, forecast station service has been calculated using a weighted average of three years of actual data with a weighting of "3" given to the lowest station service year, a weighting of "2" to the middle station service year, and a weighting of "1" to the highest station service year.

4.3.2 Line Losses

142. In accordance with past practice, forecast line losses were determined for the level of line losses in each community.

4.3.3 Plant Efficiencies

143. In accordance with Board Directions 14 and 15 in Decision 25-2008, forecast plant efficiencies were calculated using a weighted average of three years of actual data with a weighting of "3" given to the highest efficiency year, a weighting of "2" to the middle efficiency year and a weighting of "1" given to the lowest efficiency year, adjusted for the forecast fuel efficiencies of any new engines forecast to be in service.

4.3.4 Fuel Price Forecasts

144. Price forecasts for each community are based on the current prices in place for diesel fuel as of April 2024. The respective fuel prices for each location are shown in Schedule 4.1.



4.4 Deferral Accounts

4.4.1 Diesel Fuel Price Variance

145. Consistent with the previously approved deferral account, Naka-NWT proposes to continue to refund, or collect from, customers the variance between actual and forecast fuel prices via the Rider A mechanism.

4.4.2 Hay River Diesel Generation Variance

146. Consistent with the previously approved deferral account, Naka-NWT proposes to continue to refund, or collect from, customers the variance between actual and forecast fuel and O&M costs associated with operating the Hay River Standby Generation Plant. Incremental fuel costs are determined based on the difference between Hydro Zone fuel costs in this Application and theoretical purchase power costs calculated on the assumption that the Taltson Hydro Generation Plant was operational all of 2024.

147. Furthermore, Naka-NWT proposes to continue to utilize the deferral to recover all incremental costs related to the extended Taltson Shutdown. In Decision 22-2024,¹ the Board granted approval for Naka-NWT to begin recovering costs related to the extended Taltson Shutdown and overhaul through its approved Rider A mechanism. The costs approved to be recovered in Naka-NWT's Rider A included fuel, operations and maintenance, and carrying charges.

148. When Naka-NWT filed its Rider A Application on July 26, 2024,² the Taltson Shutdown was expected to continue until the end of September 2024. However, since that time and as of the date of this Application, the Taltson Shutdown is expected to continue until early 2025. As shown in Table 4.2 below, the total costs incurred related to the Taltson Shutdown, excluding carrying costs, have totaled \$5.8 million in 2023 and are forecast to total \$11.2 million in 2024.

¹ Decision 22-2024, para. 14.

² Exhibit 2024-018-001.



		2023	2024
	Schedule Reference	Actual	Forecast
Diesel Fuel	Sch 4.1, Line 62	3,353	6,393
Plant Operating & Maintenance	Sch 5.0, Line 60	2,458	4,770
Total Costs		5,811	11,162
Rider A Recovery	Sch 2.0, Lines 34-35	(5,811)	(11,162)

Table 4:2: Taltson Shutdown Incremental Costs(\$000)

149. In addition to the previously approved costs (fuel, operating and maintenance costs, and carrying charges), Naka-NWT is seeking approval to include incremental depreciation expenses and return on rate base for any incremental capital maintenance expenditures incurred in 2025 that are directly related to operating the Hay River Standby Generation Plant during the Taltson Shutdown.

150. Naka-NWT has included a reasonable forecast of these costs in the 2024 forecast; however, as the Taltson Shutdown is expected to continue until January 2025, no forecast for incremental capital maintenance in the Hay River Standby Generation Plant has been forecast for 2025. Naka-NWT management has no control on the timing of the Taltson Shutdown, and should it be extended beyond January of 2025 and, for unforeseen circumstances the Hay River Disposition be delayed beyond March 1, 2025, Naka-NWT may be required to incur additional capital maintenance costs in order to ensure continued safe and reliable operation of the Hay River Standby Generation Plant. These costs may have a material impact on Naka-NWT's ability to earn a fair return, similar to what occurred in 2023.



SECTION 5: OPERATIONS AND MAINTENANCE (O&M) EXPENSES

5.1 Overview

151. Total Operations and Maintenance (O&M) expenses included in this Application, as outlined in detail in Schedules 5.0, 5.1 and 5.2, are as follows. As discussed in Section 1, the 2025 forecast excludes O&M costs and other taxes attributable to the Hay River Disposition, effective January 1, 2025. Variances between 2024 and 2025, excluding Hay River, are due to the Hay River Disposition unless otherwise stated.

Operations and	2021	2022	2023	2024	2025	2023
Maintenance Expense		Actual		Forecast	Test Year	Approved
Generation	1,015	1,009	3,517	5,826	749	1,024
Transmission	67	109	83	126	71	122
Distribution	1,319	1,306	1,290	1,397	558	1,353
General	128	134	120	181	138	32
Public Information	73	74	73	193	73	82
Customer Accounting	319	381	393	552	300	453
Administration and General	1,408	1,292	1,584	1,724	577	1,462
Other Taxes	369	358	381	392	8	382
Less Donations	(9)	(5)	(2)	(4)	(5)	(10)
Total	4,689	4,657	7,439	10,386	2,470	4,836

Table 5.1: Operations and Maintenance (O&M) Expenses(\$000)

5.2 Forecast Process

152. The development of Naka-NWT's O&M forecast for the 2025 Test Year involved a detailed review of the business requirements to continue the provision of a safe and reliable electricity service. Functional areas within Naka-NWT perform an annual assessment of resources to ensure that activities performed are relevant and required to fulfill legislative and regulatory obligations, provide ongoing safe and reliable distribution services to customers, and meet business needs during the Test Year. Separate forecasts were developed for labour and non-labour costs.

153. Total forecast labour costs are calculated by multiplying the number of staff per job class by the rate of pay for each job class. These labour costs are then distributed to O&M



accounts or capital accounts depending on the nature of work being performed by staff in that job class.

154. Non-labour costs are forecast in two parts: (i) ongoing operational and administrative activities, based on historic spending requirements; and (ii) adjustments for known changes to work to be completed in the 2025 Test Year.

155. Naka-NWT's year-over-year variances between actual and forecast costs during the 2021 to 2025 period are outlined below by category.

5.3 Generation

156. The Generation function includes routine preventative (scheduled) and restorative (unscheduled) maintenance costs, including oil and filter changes, inspections, and receiving fuel. Monitoring and maintenance activities are necessary to ensure the continued reliability and efficiency of the power generation equipment. The Generation function also contains costs related to managing and storing required spare parts and consumables, maintaining documentation and records of maintenance activities, developing and updating maintenance procedures, and required activity to comply with safety regulations and environmental standards.

	2021	2022	2023	2024	2025	2023
Generation		Actual		Forecast	Test Year	Approved
Supervision and						
Engineering	55	156	192	160	116	67
Generation	914	812	3,297	5,600	603	895
Diesel	-	-	-	-	-	
Maintenance	45	40	27	66	30	62
Total	1,015	1,009	3,517	5,826	749	1,024
Total Excluding Costs Related to Taltson Shutdown	1,015	1,009	1,059	1,056	749	1,024

Table 5.2: Generation Expenses (\$000)

157. Generation costs increase in 2023 and 2024 due to the extended Taltson Shutdown, which increases costs by \$2,458,000 and \$4,770,000, respectively.


Normalizing for the Taltson expenses, 2023 and 2024 generation costs are similar compared to prior years.

5.4 Transmission

158. The Transmission function includes costs to perform routine preventative (scheduled) and restorative (unscheduled) maintenance on the various components within the transmission infrastructure.

	2021	2022	2023	2024	2025	2023
Transmission		Actual		Forecast	Test Year	Approved
Supervision and Training	10	11	9	8	8	13
Line Brushing	11	14	11	62	12	52
Overhead Line	15	20	26	23	22	11
Substation Structures	32	65	36	32	30	47
Total	67	109	83	126	71	122

Table 5.3: Transmission Expenses (\$000)

159. Substation Structures costs are higher in 2022 due to maintenance performed on the Pine Point transformer. Brushing increases in 2024 as planned work from 2023 could not be completed due to the wildfires.

5.5 Distribution

160. The Distribution function includes costs to perform routine preventative (scheduled) and restorative (unscheduled) maintenance on the various components within the distribution infrastructure, including maintenance, brushing, meter requirements, and streetlight maintenance, which are detailed in Table 5.4 as follows:

Distribution	2021	2022	2023	2024	2025	2023
	Actual			Forecast	Test Year	Approved
Meter Reading	164	167	157	175	57	176
Supervision	69	75	79	89	29	82
Brushing	124	120	75	79	113	130
Vehicle Depreciation	(47)	(40)	(43)	(42)	(14)	(42)
Maintenance	844	717	875	923	320	859

Table 5.4: Distribution Expenses (\$000)



Distribution	2021	2022 2023		2024	2025	2023
		Actual		Forecast	Test Year	Approved
Service to Outside Parties	40	44	-	-	-	-
Underground Line Maintenance	46	112	63	74	23	54
Meter and Meter Testing	8	19	9	11	3	12
Transformer Repair and Replacement	10	15	13	15	5	13
Street Light Maintenance	62	77	62	73	23	70
Total	1,319	1,306	1,290	1,397	558	1,353

161. Brushing costs decreased in 2023 due to Naka-NWT's inability to bring contractors into the area due to the wildfires that occurred during the year. Brushing costs will remain lower in 2024 due to funding transferred to brush the Transmission line, as outlined in Table 5-3 and paragraph 9 above.

5.6 General

162. The General Costs function includes costs related to internal communication systems and maintenance activities for company-owned properties and warehouses.

Table 5.5:	General	Expenses
	(\$000)	

	2021	2022	2023	2024	2025	2023
General	Actual			Forecast	Test Year	Approved
Communication	-	-	-	-	-	-
Maintenance Warehouse						
and Office	128	134	120	181	138	32
Material Management	-	-	-	-	-	-
Total	128	134	120	181	138	32

5.7 Public Information

163. The public information function includes labour costs for the communications advisor and costs related to external public information activities.



Table 5.6: Public Information Expenses(\$000)

	2021	2022	2023	2024	2025	2023
Public Information		Actual		Forecast	Test Year	Approved
Public Information						
Administration	27	28	21	55	10	41
General Public Information	45	46	53	138	63	40
Total	73	74	73	193	73	82

164. In addition to inflationary increases, Public Information costs are \$0.1 million higher in 2024 than in 2023 due to updating public-facing signage and materials (billings, website etc.) to reflect the name Naka Power Utilities (NWT) and raising public awareness of the operating name change. These costs are one-time costs that are not included in the 2025 forecast.

165. The above mentioned costs in 2024 are shared costs between Naka-NWT and Naka-YK allocated based on number of customers. The costs include, but are not limited to:

- Design fees for creating a new logo, color scheme, typography, and other visual elements.
- Printing costs for new business cards, letterheads, brochures, signage, and other physical marketing materials featuring the new brand identity.
- Expenses related to redesigning the company website to reflect the new brand, including web development, graphic design, and content creation.
- Costs for updating digital assets such as social media profiles, email templates, digital advertisements, and online banners to align with the new brand identity.
- Expenses for trademark searches, filing for new trademarks or copyrights related to the rebranded assets, and updating legal documents and contracts.



5.8 Customer Accounting

166. The Customer Accounting function includes costs related to work on customer applications, contracts, orders, credit investigations, billing and accounting, meter reading, collections and complaints.

	2021	2022	2023	2024	2025	2023
Customer Accounting		Actual		Forecast	Test Year	Approved
Supervision	81	66	72	86	57	90
Customer Applications & Service Orders	107	130	107	126	84	122
Customer Billing and Accounting	73	40	63	195	75	85
Revenue Collections	31	42	30	35	23	36
Collection of Delinquent Accounts	76	99	66	78	52	76
Uncollectible Accounts	(50)	5	55	33	7	44
Total	319	381	393	552	300	453

Table 5.7: Customer Accounting Expenses (\$000)

167. In addition to inflationary increases, Customer Accounting costs are forecast to increase in 2024 due to an increase in costs related to the annual subscription fees required to operate the new CCS billing software, which was implemented in August 2023. The new CCS system replaced the old ATCO CIS, as outlined and approved¹ in the 2023 Amended GRA, Business Case 09.

168. The ATCO CIS was an on-premises business Application for which Naka-NWT purchased and capitalized licenses. These licenses were capitalized and amortized over a period of time. As technology advances, more and more systems are cloud-based, like CCS, and are licensed on an annual subscription fee basis, which cannot be capitalized under accounting standards. Please refer to Sections 5.10 and 5.13 below for details on the Full-time Equivalent Employees (FTE) changes with respect to Customer Accounting costs.

¹ Decision 2-2024.



5.9 Administrative and General

169. The Administrative and General (A&G) functions include costs that are forecast in connection with the general administration of Naka-NWT's operations or costs that are not specifically assignable to a particular operating function. These costs include both Naka-NWT's internal administrative costs and costs related to administrative services provided by ATCO Electric (i.e., Financial Reporting, Regulatory Support, Governance).

Administrative and	2021	2022	2023	2024	2025	2023
General Expenses		Actual		Forecast	Test Year	Approved
Administrative	592	552	637	622	93	723
Head Office Fees	305	341	565	648	217	348
Insurance	117	120	121	129	49	118
Employee Expenses	58	66	60	62	37	79
Training and Safety	130	151	143	139	84	134
Relocation and Recruitment Costs	-	-	-	30	30	-
Audit/Legal Fees & Special Studies	205	61	59	95	66	59
Total	1,408	1,292	1,584	1,724	577	1,462

Table 5.8: Administrative and General Expenses(\$000)

5.9.1 Administrative

170. Administrative costs include costs related to administrative labour and expenses as well as information technology expenses. The increase in 2023 and 2024 administrative costs is due to additional overtime costs related to the administrative burden of the extended Taltson Shutdown. Please refer to Section 5.10 - Labour Costs for details on FTE changes.

5.9.2 Head Office Fees

171. Head Office costs relate to administrative services provided by ATCO Electric (i.e., Financial Reporting, Regulatory Support, Governance). These costs are explained further in Section 5.13 - Related Party Transactions.



5.9.3 Insurance

172. The decrease in insurable assets following the Hay River Disposition results in lower insurance expense in 2025.

5.9.4 Employee Expenses

173. Employee expenses will fluctuate with the number of FTEs and inflation. The reduction in FTEs following the Hay River Disposition results in a decrease in employee expenses in 2025.

5.9.5 Training and Safety

174. The increase in training and safety expenses from 2021 to 2022 is primarily due to the easing of health restrictions following the COVID-19 pandemic and a return to activity closer to pre-pandemic in-person levels. Training and safety costs will fluctuate with the number of FTE and inflation.

5.9.6 Relocation and Recruitment Costs

175. Naka-NWT is forecasting relocation costs related to the Hay River Disposition and the potential relocation of Hay River employees to other communities due to employee retirement or turnover.

5.9.7 Audit/Legal Fees & Special Studies

176. This category includes expenses for audit and accounting fees, legal fees, and other external consultants. Naka-NWT is forecasting that costs in this category will increase from 2023 due to the ongoing Hay River Disposition and Regulatory filings related to the Purchase and Sale of the Hay River Disposition Proceeding and Compliance Filing, the 2023 Amended GRA Proceeding and Compliance Filing, and the Naka-NWT 2025 GRA.



5.10 Labour Costs

177. Labour costs are calculated based on the rate of pay for each required job class. These labour costs are then distributed to O&M accounts or capital accounts, depending on the nature of the work being performed by staff in that job class.

178. To continue to provide safe and reliable service to customers, Naka-NWT will require 7.06 FTEs in 2025. This complement ensures that Naka-NWT has the right skillsets available at all times of the year; however, this is the minimum number of FTEs possible to operate the system safely and reliably, recognizing that vacancies or leave time must be filled with contractors or external resources going forward. The term FTE refers to the number of Full-time Equivalent Employees (FTE) at the end of a fiscal year. Please refer to Table 5.7 below and Section 5.10, Attachment 1 for the 2025 Organization Chart.

179. In addition, Naka-NWT will receive services from ATCO Electric, equating to 1.49 FTEs in 2025, further discussed in Section 5.13 - Related Party Transactions.



		2021	2022	2023	2024	2025
Position Name ²	Ref.		Actual		Forecast	Test Year
Vice President, Northern Development		0.14	0.14	0.14	0.14	0.02
Administrative Assistant		0.14	0.14	0.14	0.14	0.02
Senior Manager, Government Relations & Initiatives	5.10.1.1	-	-	0.33	0.20	0.02
Marketing & Communications	5.10.1.2	0.25	0.25	0.25	-	-
Director, Operations	5.10.1.3	-	-	-	0.20	0.02
Manager	5.10.1.4	1.00	1.00	1.00	0.25	0.25
Engineer	5.10.1.5	0.23	0.24	0.39	0.30	0.13
Supervisor, Customer Service & Administration		-	0.20	0.20	0.25	0.25
Customer Billings Support		0.13	0.13	0.13	0.13	0.02
Billing / Accounts Payable Clerks	5.10.1.6	3.00	2.00	2.00	2.00	2.00
Supervisor, Operations	5.10.1.4	-	-	-	0.30	0.13
PLT Lead / PLTs		2.00	2.00	2.00	2.00	2.00
Electrical Technologist	5.10.1.7	0.30	0.33	0.40	0.40	0.20
Diesel Operator	5.10.1.8	1.00	1.00	1.00	-	-
Meter Reader	5.10.1.8	1.00	1.00	1.00	1.00	-
Maintenance Technician		3.00	2.00	2.00	2.00	2.00
Total		12.19	10.43	10.98	9.31	7.06

Table 5.9: Naka-NWT FTE

5.10.1 FTE Changes

5.10.1.1 Senior Manager, Government Relations & Initiatives

180. The Senior Manager, Government Relations & Initiatives position was added in 2023 and is a shared position between AEY, Naka-NWT and Naka-YK. This position is required for building relationships with all levels of government, participating in and prioritizing cross-functional policy discussions, pursuing government grant funding to offset capital projects, and providing support for businesses, as required. Coordinated government relations activities are important to ensure that impacts to Naka-NWT and its customers are broadly considered and understood by policymakers, as various levels of government develop policies and regulations that affect the reliability, affordability, and sustainability of electricity. This position ensures that Naka-NWT is aware of and increases engagement with GNWT regarding the evolving policies around energy transformation to shape the Territories' energy future.

² Refer to Section 5.10, Attachment 1.0 for FTEs that are ATCO Electric Yukon based.



5.10.1.2 Marketing & Communications

181. In 2024, Marketing & Communications support transitioned from Naka-NWT to ATCO Electric. Please refer to Section 5.13 – Related Party Transactions for more information.

5.10.1.3 Director, Operations

182. The Director, Operations is a shared position between AEY, Naka-NWT, and Naka-YK and was added in 2024 to support each company's customer service strategy, streamline operations, optimize processes, and improve overall efficiency. Furthermore, this position provides a dedicated senior leader to oversee day-to-day operations.

5.10.1.4 Manager & Supervisor, Operations

183. The Manager and Supervisor, Operations FTEs are shared positions between Naka-NWT and Naka-YK. Following the Hay River Disposition, full-time positions will no longer be required to be based in Hay River. As a result, after the retirement of the Naka NWT Manager in early 2024, these management positions based in Yellowknife have been utilized to ensure the efficiency of Naka-NWT.

5.10.1.5 Engineer

184. The Engineer position is shared with Naka-YK and is primarily a capital-based FTE. The FTE is expected to fluctuate year-over-year based on the level of work required in each company. The 2025 Test Year assumes 13 percent of the position's time will be spent on Naka-NWT, based on the current projected workload in that company.

5.10.1.6 Billing / Accounts Payable Clerks

185. The number of Billing and Accounts Payable FTEs will remain at 2.00 in 2025 due to the additional work related to the Taltson Shutdown and the anticipated work required to support the Hay River Disposition, including, but not limited to, the following:

• Ensuring accurate final billing between Naka-NWT to NTPC;



- Supporting any billing adjustments following the transition related to customer account;
- Supporting customer calls and walk-ins regarding the disposition transfer and customer billing;
- Supporting questions and investigations that may arise if customers make payments to Naka-NWT instead of NTPC;
- Work related to final budget payment plans; and
- Management and application of customer deposits.

5.10.1.7 Electrical Technologist

186. The Electrical Technologist FTE decreased by 0.20 in 2025 due to the Hay River Disposition and the reduction of work required to support Naka-NWT.

5.10.1.8 Diesel Operator and Meter Reader

187. The Diesel Operator and Meter Reader positions will no longer be required following the Hay River Disposition. The work performed by the Diesel Operator will be contracted out until the Taltson Shutdown is complete, at which time Naka-NWT's Maintenance Technicians will take over the Diesel Operator's work requirements.

5.11 Defined Benefit and Defined Contribution Pension Plans Cash Contributions and Defined Benefit Deferral Account

188. As a result of actuarial valuations of assets and liabilities, Naka-NWT's defined benefit pension funding requirements fluctuate from year to year. The required contributions for 2021-2023 are shown in Table 5.10 below. Consistent with Naka-NWT's most recent GRA, the forecast pension expense for the 2025 Test Year is based on a cash basis.

Year	Defined Benefit (Annual Lump Sum)
2021	52
2022	53
2023	38

Table 5.10: Defined Benefit (\$000)



189. For purposes of this Application, the forecast for the 2025 Test Year assumes the same defined benefit contribution rates as 2023.

190. Naka-NWT also has a defined contribution pension plan that applies to employees that were hired after January 1, 1997. The company's contribution to the defined contribution plan is six percent and is embedded in the employee's standard labour rates.

5.12 Non-Labour Costs

191. Non-labour costs are forecast in two parts: (i) ongoing operational and administrative activities; and (ii) new programs or projects.

192. In the 2025 Test Year, ongoing operational and administrative costs were forecast based on activities required to provide safe and reliable service. Cost drivers were examined and used. For example, costs that closely follow the FTE count (training and staff expenses, etc.) were based on the FTE count. Other drivers used include remoteness of communities, number of customers and energy consumption. There are also fixed A&G costs that do not vary according to FTE (e.g., Audit Fees, Financial Services, etc.).

5.13 Related Party Transaction Costs

193. Naka-NWT continues to outsource certain administrative functions to related companies, such as ATCO Electric, to take advantage of the economies of scale associated with obtaining services from a larger utility. The costs for these services are detailed in Schedule 12.0 and are based on a fully allocated cost methodology that does not contain any element of profit or return.

	2021	2022	2023	2024	2025	2023
Related Party Transaction Costs		Actual		Forecast	Test Year	Approved
Operations & Maintenance						
Powerline Technician	861	977	856	1,015	-	795
Wildfire Rebuild Support	-	-	144	-	-	-
Contractor Services	11	-	-	-	-	-
Metering Services	3	2	2	2	2	3

Table 5.11: Related Party Ti	ransaction Costs
(\$000)	



1

	2021	2022	2023	2024	2025	2023
Related Party Transaction Costs Actual		Actual		Forecast	Test Year	Approved
After Hours Support	20	24	26	38	38	36
Public Information	28	-	-	35	5	7
Customer Billing Support	7	7	10	31	32	7
Various – ATCO North Companies ¹	61	95	115	191	28	
Administrative						
Health, Safety & Environment	3	-	-	14	12	3
Aircraft usage	-	72	15	15	15	-
Head Office						
Finance & Regulatory Support	273	308	544	609	195	314
Human Resources	21	22	11	27	9	22
Governance	12	12	12	12	13	12
Business Technology	-	-	-	-	-	2
Total	1,299	1,518	1,733	1,989	349	1,202

Not included in Schedule 12.0 Related Party to O&M in the 2023 Amended GRA. These costs would have been embedded within Schedule 5.0 – O&M Expenses.

5.13.1 Operations and Maintenance

194. Naka-NWT purchases labour support from ATCO Electric for various services, including metering services, after-hours assistance, public information and customer billing support.

195. Naka-NWT did not receive Public Information support from ATCO Electric in 2022 and 2023, as the position was staffed in the North, so there were no related party transaction costs associated with public information support in those years. Naka-NWT will utilize ATCO Electric support for this work in 2024 and 2025. As outlined above, Related Party costs are based on a fully allocated cost methodology that does not contain any element of profit or return; therefore, the overall costs of the Communications Specialist do not increase when provided by ATCO Electric.

196. Customer Billing support costs increase in 2024 due to the implementation of the CCS billing software in August 2023, as outlined in the Customer Billing Section. Naka-NWT requires ongoing support for the system during the project's implementation phase.



5.13.2 Administration

197. Health, Safety and Environment (HSE) costs increase in 2024 for HSE support from ATCO Electric. This support will assist Naka-NWT in ensuring continued compliance with HSE laws, regulations, and compliance with Occupational Health and Safety (OHS) legislation, including internal and external audits related to OHS management system conformity, National Safety Codes (NSC) and Corporate Stewardship and Sustainability performance reporting compliance. Furthermore, the HSE team provides programs such as Safety Excellence for Supervisors and Managers (SEFSAM), SafeStart, Move Safe, and driver's training.

5.13.3 Head Office

198. Head Office increases in 2024 are mainly due to an increase in Financial Reporting and Regulatory support costs. Due to Naka-NWT's requirement for increased support due to matters related to the Hay River Disposition, resources that were previously shared between Naka-NWT and Naka-YK have been fully dedicated to each company in 2023 and 2024. In 2025, Head Office support decreases assuming that the Hay River Disposition matter is concluded.

199. Please refer to Schedule 12.0 for Related Party Costs in O&M.

5.14 Common Costs – Post Hay River Disposition

200. Naka-NWT has allocated common costs in accordance with Decision 1-2016. For the 2025 Test Year, all operating and administrative costs, including common costs, were reduced to reflect reductions in the cost drivers as a result of the Hay River Disposition. As noted above, the portion of Naka-NWT's administrative costs are fixed in nature, regardless of the size of the customer base Naka-NWT serves. Naka-NWT is a taxable, legal entity and will continue to incur costs associated with financial reporting, management reporting, asset management, taxation and regulatory requirements following the Hay River Disposition. Naka-NWT will review these costs and seek ways to reduce them, if possible, as part of a potential Naka-YK and Naka-NWT amalgamation.



Organizational Chart Naka Power Utilities (NWT) 2025





SECTION 6: DEPRECIATION

6.1 Overview

201. The depreciation expense included in this Application is detailed in Schedules 6.0 through 6.2 and summarized in Table 6.1 below.

Table	6.1:	Depreciati	ion	Expense
		(\$000)		

	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Depreciation Expense*	1,481	1,497	1,586	1,057	1,031	1,438

* The depreciation rates used to calculate actual depreciation expenses for 2021 through 2024 were determined using the Board approved depreciation parameters from Naka-NWT's 2014-2015 GRA.¹

202. As shown, Naka-NWT's actual depreciation expense for 2023 exceeded the 2023 approved amount primarily due to unexpected maintenance and repairs at the Hay River Standby Generation Plant, necessitated by the Taltson Shutdown.

203. The 2024 forecast depreciation expense is lower than 2023 actuals mainly due to a one-time depreciation adjustment for depreciation accumulated on assets subject to a square-curve parameter that retired in 2019.

204. Excluding the one-time adjustment in 2024, the 2025 Test Year depreciation expense is lower than the 2024 forecast, mainly due to the Hay River Disposition, which will result in a reduction in Naka-NWT's overall depreciable asset base.

205. Naka-NWT has engaged Concentric Advisors, ULC (Concentric) to complete a full depreciation study on Naka-NWT's assets located outside of the Hay River Franchise, and recommends updated depreciation parameters for the 2025 Test Year based on plant balances, excluding the Hay River Franchise Assets, as of December 31, 2022 (Concentric Depreciation Study). Naka-NWT did not consider it to be cost-effective for Concentric to recommend updated depreciation parameters for the Hay River Franchise Assets given their pending sale. Accordingly, Naka-NWT proposes to use the

¹ Decision 9-2014.

depreciation parameters approved in its 2011-2013 GRA for the Hay River Franchise Assets for the purposes of the 2025 Test Year including Hay River included in this Application. Please refer to Section 6.1 Attachment 1 for the Depreciation Study Report.

206. The outcome of the Concentric Depreciation Study resulted in a slight reduction to the overall composite depreciation rate (life and net salvage) from 3.91 percent to 3.43 percent and updated amortization of reserve differences amounts in the 2025 Test Year. The reduction in the overall composite depreciation rate is mainly due to longer asset lives for transmission and distribution assets, partially offset by shorter lives for heavy-duty vehicles compared to the previous depreciation parameters.²

207. Additionally, the Transportation and Mobile Equipment category, has been proposed to be split into two categories to more accurately reflects the different lifespans of the various vehicle types Naka-NWT owns.

208. The proposed decrease in the depreciation rates in 2025 is offset by the lower proposed recalculated Amortization of Differences (ARD) credit, compared to the previously approved ARD calculation.³

209. Naka-NWT's current practice is to recalculate the amortization of reserve difference true-up amounts only when a full depreciation study is completed. Naka-NWT requests approval in this Application to modify this practice and update the amortization of reserve difference amounts in technical updates in addition to depreciation studies. This change aims to reduce fluctuations in refunded or collected amounts in the future.

² Decision 9-2014.

³ Decision 9-2014.



2022 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES APPLICABLE TO ELECTRIC DISTRIBUTION PLANT IN SERVICE

Prepared for Naka Power Utilities (NWT) October, 2024

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Section 6.1 Attachment 1 PDF Page 2 of 238



October 10, 2024

Naka Power Utilities (NWT) 10035 105th Street Edmonton, AB, Canada

Attention: Beth Rogers <u>Director, Regulatory</u> <u>North of 60</u>

Dear Ms. Rogers;

Pursuant to your request, we have conducted a depreciation study related to the electrical system of Naka Power Utilities (NWT) as of December 31, 2022. Our report presents a description of the methods used in the estimation of depreciation and net salvage, the statistical analysis of service life and the summary and detailed tabulations of annual and accrued depreciation.

We gratefully acknowledge the assistance of Naka-NWT personnel in the completion of the review.

Should you have any questions or concerns, please do not hesitate to contact me directly at 587.997.6489

Yours truly,

Concentric Advisors, ULC

Amande Nori

Amanda Nori Senior Project Manager

Project: 100504

Donna Bourne Project Manager



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SECTION 1

1 STUDY HIGHLIGHTS

Pursuant to Naka Power Utilities (NWT) ("Naka-NWT" or the "Company") request, Concentric Advisors, ULC ("Concentric") conducted a depreciation study related to the Naka-NWT electric generation, transmission, distribution and general plant accounts, as of December 31, 2022. The purpose of the study is to determine the annual depreciation accrual rates and amounts applicable to the original cost of electric utility plant, as of December 31, 2022.

The depreciation rates are based on the Straight-Line method using the Equal Life Group procedure and were applied on a Whole Life basis. The calculations were based on attained ages and estimated average service life and forecasted net salvage characteristics for each depreciable group of assets. Variances between the calculated accrued depreciation and the book accumulated depreciation, as at December 31, 2022, are amortized over the composite remaining life of assets.

Concentric recommends the calculated annual depreciation accrual rates set forth herein apply specifically to electric plant in service, as of December 31, 2022, summarized in Tables 1 and 2, and in Section 5 of this report by account detail. Supporting data and calculations are provided as well.

Finally, this study results in an annual depreciation expense accrual related to the recovery of original cost and net salvage requirement of \$750 thousand, when applied to depreciable plant study balances, as of December 31, 2022, of \$21.9 million (not including the true up related to the amortization of reserve differences). The study results are summarized at an aggregate functional group level as follows:

SUMMARY OF ORIGINAL COST, ACCRUAL PERCENTAGES AND AMOUNTS

Plant Group / Accounts	Original Cost	Annual Accrual Rate	Annual Accrual Amount
Production Plant	\$6,141,892	4.33%	\$265,775
Transmission Plant	\$4,243,700	2.43%	\$103,062
Distribution Plant	\$9,878,037	2.99%	\$295,260
General Plant	\$1,637,778	5.28%	\$86,483
TOTAL DEPRECIABLE PLANT STUDY BALANCE	\$21,901, 4 06	3.43%	\$750,580



1.1 Executive Summary





SECTION 2

2 BASIS OF THE STUDY

2.1 Scope

Concentric has been retained by Naka-NWT to develop reasonable and appropriate depreciation amounts based on plant in service as of December 31, 2022, and applied specifically to plant in service as of December 31, 2022, as summarized by Tables 1, 1A, 1B, 2, 2A, and 2B. This report also describes the concepts, methods and judgments that underlie the recommended annual depreciation accrual rates. The rates and amounts are based on the Straight-Line method of depreciation, incorporating the ELG procedure applied on a Whole Life basis.

Continued monitoring and maintenance of the accumulated depreciation reserve at the account level is recommended. Concentric has determined an amortization amount to correct the present booked accumulated depreciation variance with the calculated accrued depreciation ("theoretical reserve") over the composite remaining life of each account. Tables 2, 2A and 2B, presented in Section 5 of the report, sets forth the amortization of the reserve variance at the account level, as of December 31, 2022. This adjustment mechanism, whether determined separately as an amortization amount or incorporated in the calculation of remaining life accruals, is widely accepted throughout North America. Concentric recommends that Naka-NWT continue the use of an amortization account to correct any book accumulated depreciation variance. An explanation of the monitoring of the accumulated depreciation reserve and the calculation of the true-up provision is presented on page 5-2 of this report.

The Straight-Line method, as described in Section 3.1, ELG procedure is a commonly used depreciation calculation procedure that has been widely accepted in jurisdictions throughout North America and has been approved for use by Naka-NWT by the Northwest Territories Public Utilities Board ("PUB"). Concentric recommends its continued use.

Amortization accounting is used for certain accounts because of the disproportionate plant accounting effort required to process retirements in these accounts. Many regulated utilities in North America have received approval to adopt amortization accounting for these types of accounts.



2.2 Plan of Study

This study is presented in the following order:

Section 1:	Study Highlights, presents a brief summary of the depreciation study and results
Section 2:	Contains statements with respect to the plan and the Basis of the Study
Section 3:	Development of the Required Depreciation Rates, presents descriptions of the methods used and factors considered in the service life study
Section 4:	Calculation of Annual and Accrued Depreciation, presents the methods and procedures used in the calculation of depreciation
Section 5:	Results of Study, presents summaries by depreciable group of annual and accrued depreciation in Tables 1, 1A, 1B, 2, 2A, and 2B.
Section 6:	Retirement Rate Analysis, presents the results of the Retirement Rate Statistics
Section 7:	Net Salvage, presents the results of the Net Salvage Study
Section 8:	Detailed Depreciation Calculations, presents the results of the Detailed Depreciation Calculations
Section 9:	Estimation of Survivor Curves, is an overview of Iowa curves and the Retirement Rate Analysis
Section 10:	Estimation of Net Salvage discusses the methodology used in calculating net salvages

2.3 Depreciation

A full and comprehensive depreciation study includes the following components:

- 1. supported recommendations regarding Average Service Life estimates for each account;
- 2. supported recommendations regarding estimated Net Salvage requirements for each account;
- 3. selection of an appropriate grouping procedure;
- **4.** detailed calculation of the depreciation rate utilizing the estimated Average Service Life and Net Salvage requirements; and
- 5. a report explaining the procedures followed and justifying the results in a format suitable for submission to senior management and regulatory authorities.

2.4 Information Provided by Naka-NWT

Naka-NWT has provided Concentric with the required information, as of December 31, 2022. This information has been compiled from the plant accounting records and includes the following:

 Current balances by vintage year for each account (aged balances) through December 31, 2022. The balances provide the amount of investment sorted by installation year. This file is only inclusive of plant in service and does not include any retirement information;



- retirement transactions for all accounts through December 31, 2022. The transactions include information regarding the transaction year of the retirement, the installation year of the asset being retired, and the original cost of the asset being retired; and
- cost of removal and gross salvage transactions for all accounts requiring the recovery of net salvage through December 31, 2022. The transactions include information regarding the transaction year of the retirement, the costs associated with the retirement, and any gross salvage proceeds from the sale or reuse of the property.

Naka-NWT's service territory can be seen below:



Service Areas and Facilities



2.5 Data Reconciliation

The above data was reviewed and reconciled to Company control schedules to ensure accuracy and reasonableness in use of the calculations developed in this study. These checks include:

- that the surviving investment by account equals (or can be reconciled to) the Company's gross plant in service and accumulated depreciation ledger balances;
- that the surviving investment in each vintage is not negative. In other words, this check confirms that the sum of retirements from any given vintage have not exceeded the amount of plant additions to the vintage; and
- that any adjusting transactions are properly accounted for within the databases.

Account numbers were updated subsequent to the last depreciation study. The updated account numbers and titles are listed below:

Previous Account	Previous Title	New Account	New Title
442.00	Structures and Improvements - Other	341.20	INT Combust Structures
444.00	Fuel Holder, Producers & Acc. Equipment - Other	342.20	INT Combust Fuel Holders, Producers and Accessories
445.00	Generating Equipment and Prime Movers - Others	343.20	INT Combust Generators
446.00	Accessory Electric Equipment - Other	345.20	INT Combust Accessory
447.00	Misc. Power Plant Equipment	346.20	INT Combust Miscellaneous
457.00	Substation Equipment	353.00	Station Equipment
453.00	Poles Towers and Fixtures	355.00	Poles and Fixtures
454.00	Overhead Conductor	356.00	Overhead Conductors and Devices Poles
471.00	Land Rights	360.10	Land Rights
477.10	Distribution Substation Equipment	362.00	Station Equipment
486.00	Communication Structures and Equipment	362.10	System Communication & Control
473.00	Poles, Towers and Fixtures	364.00	Poles, Towers and Fixture's
474.00	Overhead Conductor	365.00	Overhead Conductors and Devices
474.10	Services - Overhead	365.10	Overhead Services
475.00	Underground Conductor	367.00	Underground Conductor and Devices
475.10	Services - Underground	367.10	Underground Services
479.10	Transformers	368.00	Line Transformers
476.10	Meters	370.00	Conventional Meters
478.10	Street Lights	373.00	Street Lights
478.20	Sentinel Lights	373.10	Sentinel Lights
482.00	Structures and Improvements	390.00	Structures and Improvements



Previous Account	Previous Title	New Account	New Title
		391.22	Computer Software and Applications Major (10 YR)
484.01	Transportation and Mobile Equipment	392.20	Transportation Equipment, Fleet Vehicles Category 2
484.03	Transportation and Mobile Equipment	392.30	Transportation Equipment, Fleet Vehicles Category 3
485.00	Tools and Work Equipment	394.00	Tools, Shop, Garage, Stores and Laboratory Equipment



SECTION 3

3 DEVELOPMENT OF THE REQUIRED DEPRECIATION RATES

3.1 Depreciation

The development of the depreciation calculations requires the input of an average service life, a retirement dispersion curve (i.e., Iowa curve) and net salvage recommendations (i.e., collectively, the depreciation parameters). Additionally, to complete the depreciation calculations, the calculation methods must be established. Specifically, the selection of the depreciation method must establish three types of additional input:

- 1. the choice of a depreciation method;
- 2. a basis upon which to apply the method, and
- 3. in the case of group assets, a procedure to use in grouping the assets.

In this study, the depreciation rates for Naka-NWT have been calculated in accordance with the Straight-Line method, the ELG procedure and applied using the Whole Life technique, with any accumulated depreciation variances trued-up over the composite remaining life of each account.

Depreciation, as applied to depreciable plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of electric plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art and changes in demand and requirements of public authorities.¹

When considering the action of the elements, the average service life and net salvage calculations have considered large catastrophic events that have occurred and impacted the life estimates of utilities across North America. The average service life of utilities has been influenced by events including:

other natural forces of nature.

- forest fires;
- earthquakes;
- tornadoes;
- ice storms;
- wind-storms;
- large scale flooding;
- fires;
- lightning;
- intentional actions of third parties;
- hoar frost; and

¹ The National Association of Railroad and Utilities Commissioners, Uniform System of Accounts for Class A and B Electric Utilities. The Definition used by the Federal Energy Regulatory Commission for Electric is essentially the same.



Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing electric distribution utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service - that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the Straight-Line method of depreciation.

The calculation of annual and accrued depreciation based on the Straight-Line method requires the estimation of survivor curves and is described in the following sections of this report. The development of the proposed depreciation rates also requires the selection of group depreciation procedures, as discussed below.

3.1.1 Study Depreciation Methods and Procedures

When more than a single item of property is under consideration, a group procedure for depreciation is appropriate because normally all of the items within a group do not have identical service lives but have lives that are dispersed over a range of time. There are two primary group procedures, namely, the Average Life Group ("ALG") and Equal Life Group ("ELG") procedures.

In the ALG Procedure, the rate of annual depreciation is based on the average service life of the group. This rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to the average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

In the ELG Procedure, also known as the Unit Summation Procedure, the property group is subdivided according to service life. That is, each equal life group includes that portion of the property which experiences the life of that specific group. The relative size of each equal life group is determined from the property's life dispersion curve. The calculated depreciation for the property group is the summation of the calculated depreciation based on the service life of each equal life unit.

For most accounts, the annual and accrued depreciation were calculated by the Straight-Line Method using the ELG Procedure with an ALG procedure remaining life true-up. For certain General plant accounts, the annual and accrued depreciation are based on amortization accounting. Both types of calculations were based on original cost, attained ages and an estimate of service lives.

The ELG Procedure provides an enhanced matching of depreciation expense to the consumption of service value, and is a commonly used depreciation calculation that has been widely accepted in jurisdictions throughout North America including for NWT in prior studies. Concentric recommends its continued use.

Amortization accounting is used for certain general plant accounts because of the disproportionate plant accounting effort required in these accounts. Many regulated utilities in North America have received approval to adopt amortization accounting for these accounts.



Continued monitoring and maintenance of the accumulated depreciation reserve at the account level is recommended. Concentric has determined an amortization amount to correct the present variance with the calculated accrued depreciation (theoretical reserve) over the composite remaining life of each account.

The depreciation rates calculated in this study were calculated on the same manner as used in the prior full depreciation study (i.e., using the straight-line method, the ELG Procedure applied on a whole life basis, with an ALG procedure remaining life calculation for the provision for true-up). The vintaged remaining life approach weighs the calculations of remaining life on an allocation of the actual book accumulated depreciation account by the Calculated Accumulated Depreciation ("CAD") factor determined for each vintage of plant in service. This method is described as a CAD weighted calculation in the Depreciation Systems textbook by Frank K. Wolf and W. Chester Fitch, published by the Iowa State University in 1994 under the title "Adjustments" within the Broad Group Model.

When depreciation rates are calculated utilizing a remaining life technique, the depreciation rate is established by dividing the undepreciated value of each group of assets (after consideration to the net salvage requirements) by the composite remaining life of the group of assets. This calculation is made for each vintage surviving investment as of the date of the study (December 31, 2022), and then composited into a calculation for the account or group as a whole. This calculation requires two estimates:

1. The allocation of the actual booked accumulated depreciation for each vintage within each account.

Naka-NWT does not track the booked accumulated depreciation reserve by vintage within each account. Rather, the depreciation expense is calculated at an account level and booked to accumulated depreciation at the same account level. Concentric notes that this is the practice employed by virtually all regulated utilities. As such, the accumulated depreciation by account is allocated within the account to each vintage, on the basis of the calculated accumulated depreciation by vintage. The calculated accumulated depreciation is a function of the estimated survivor curve, the average service life estimate, the net salvage estimates and the achieved age of each vintage.

2. The remaining life of each vintage with each account.

The estimated remaining life of each vintage is a direct function of the achieved age of each vintage, the estimated survivor curve and the average service life estimate.

Once the above two estimates are determined (the allocated booked reserve by vintage and the average remaining life of each vintage), an annual accrual requirement for each vintage is determined by dividing the net book value for each vintage (considering the estimated future salvage requirements) by the average remaining life of the vintage. The annual requirement for each vintage is summed at the account level and divided into the sum of the accounts original cost surviving as of December 31, 2022.



This process results in each vintage's calculated net book value to be depreciated over an appropriate remaining life. This vintage weighting on CAD approach to the remaining life calculations is widely considered to be the most accurate. Concentric agrees and views this methodology as the correct and most appropriate calculation.

3.1.2 Truncation Cuts

It is commonly accepted within depreciation texts that some data points, particularly towards the end of the Iowa curve, may be less reliable due to the lower amount of exposures that the retirements are calculated on. It is widespread practice to place lesser weighting on these data points through the use of a Truncation Cut (or "T-Cut"). This practice is described in detail in the text "Public Utility Depreciation Practices" compiled and edited by the Staff Subcommittee on Depreciation of the Finance and Technology Committee of the National Association of Regulatory Utility Commissioners on page 122 where it is stated:

A T-cut is used to mathematically perform a function that is automatic in visual fitting (i.e., setting a point beyond which the observed data are considered irrelevant or unreliable and are, therefore, ignored).

Careful selection of a T-cut can greatly enhance the reliability of the resulting analysis. Conversely, since the use of a T-cut involves truncating the observed data, careless selection can impair the reliability of subsequent work.

Concentric has utilized T-cuts throughout the Iowa curve selection where necessary. Where a T-cut has been utilized, Concentric has indicated such in Section 3.2.2 below.

3.2 Estimation of Survivor Curves and Net Salvage

3.2.1 Survivor Curves

The use of an average service life or a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units, or by constructing a survivor curve plotting the number of units which survive at successive ages using the retirement rate method of analysis.

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. The Iowa curves "...were sorted into three groups according to whether the mode was to the left, approximately coincident with, or to the right of the average-life ordinate. The curves in each of these three groups were then sub-classified in accordance with the height of the mode, taking also into consideration the distance of the mode to the left or right of the average life."² The Iowa curves are described as L-type (i.e., left-moded), R-type (i.e., right-moded), and S-type (i.e., symmetrical). Further development resulted in the introduction of O-type (i.e., origin-moded curves) where the greatest frequency of

² Robley Winfrey, Statistical Analyses of Industrial Property Retirements, Bulletin 125 revised (Engineering Research Institute, Iowa State University, 1935) 65



retirement occurs at the origin, or immediately after age zero. Individual type curves are further depicted with numerical subscripts which represent the relative heights of the modes of the frequency curves within each family.

The program that is used by Concentric for statistical smooth curve fitting utilizes an internal "goodness-of-fit" criterion known as the Residual Measure. This Residual Measure is based on a least squares solution of the differences between the stub curve (or original data points) and smooth survivor curve which also requires a balancing of the differences above and below the stub curve.

The criterion of goodness-of-fit is the mean square of the differences between the points on the stub and fitted smooth survivor curves. The Residual Measure, or standard error of estimate, shown in the output format is the square root of this mean square. As such, the lower the Residual Measure the better the statistical fit between the analyzed Iowa curve and the observed data points. Concentric follows the widely used practice of fitting Iowa curves up to one percent of the maximum exposures. This standard practice is utilized to minimize the influence of typically small retirements applied to similarly small exposures which may unduly affect the Iowa curve fitting process. However, Concentric will recognize the observed data points beyond the one percent of maximum exposures if it is determined that the additional data is a valid consideration for life recommendation.

A discussion of the general concept of survivor curves and retirement rate method is presented in Section 9.

3.2.2 Survivor Curve and Net Salvage Judgments

The service life and net salvage estimates used in the depreciation and amortization calculations were based on informed professional judgment which incorporated a review of management's plans, policies and outlook, a general knowledge of the electric utility industry, and comparisons of the service life and net salvage estimates from Concentric's studies of other electric utilities. A detailed peer review is compiled to establish a range of reasonableness for the Iowa curve and net salvage estimate for each account. While the peer review is considered an appropriate test of the estimates, it should never be viewed as definitive. Differences in characteristics such as the account structure, climate conditions, regulatory environment, and area of service must always be considered when reviewing a peer study.

The following utilities with similar characteristics to Naka-NWT were considered in the peer review:

- ATCO Electric Distribution ("AED") Selected for peer review as AED has an extensive distribution network in large municipalities powering north and east central Alberta and is subject to similar forces of retirement and cost of removal. Additionally, the most recent depreciation study was completed by Concentric.
- ATCO Electric Transmission ("AET") Selected for peer review as AET operates transmission assets throughout north and east central Alberta and is subject to similar forces of retirement and costs of removal. Additionally, the most recent depreciation study was completed by Concentric.



- ATCO Electric Yukon ("AEY") Selected for peer review as AEY has distribution networks located throughout the territory and is subject to similar forces of retirement and cost of removal. Additionally, the most recent depreciation study was completed by Concentric.
- BC Hydro Selected for peer review as BC Hydro has an extensive electric distribution network located throughout the province of British Columbia and is subject to similar forces of retirement and cost of removal. Additionally, the most recent depreciation study was completed by Concentric.
- ENMAX Power Corporation ("ENMAX") Selected for peer review as ENMAX has an extensive distribution network throughout the metro area of the city of Calgary and is subject to similar forces of retirement and cost of removal. Additionally, the most recent depreciation study was completed by Concentric.
- FortisAlberta Selected for peer review as Fortis Alberta has an extensive distribution network located in both urban and metro areas of Alberta and is subject to similar forces of retirement and cost of removal. Additionally, the most recent depreciation study was done by Concentric.
- FortisBC Electric Selected for peer review as FortisBC has a distribution network located in both urban and metro areas of British Columbia and is subject to similar forces of retirement and cost of removal. Additionally, the most recent depreciation study was done by Concentric.
- Manitoba Hydro Selected for peer review as Manitoba Hydro has a distribution network located in both urban and metro areas of Manitoba and is subject to similar forces of retirement and cost of removal. Additionally, the most recent depreciation study was done by Concentric.
- Northwest Territories Power Corp. ("NTPC") Selected for peer review as NTPC has an extensive distribution network in the Northwest Territories and is subject to similar forces of retirement and removal. Additionally, the most recent depreciation study was done by Concentric.
- Naka Power Utilities (Yellowknife) ("Naka-YK") Selected for peer review as Naka-YK shares a similar climate and forces of retirement as NWT while operating a distribution network in Yellowknife in the Northwest Territories. Additionally, the last depreciation study was performed by Concentric.

The use of survivor curves, to reflect the expected dispersion of retirement, provides a consistent method of estimating depreciation for electric plant. Iowa type survivor curves were used to depict the estimated survivor curves for the plant accounts not subject to amortization accounting.

The procedure for estimating service lives consisted of compiling historical data for the plant accounts or depreciable groups, analyzing this history through the use of widely accepted techniques, and forecasting the survivor characteristics for each depreciable group on the basis of interpretations of the historical data and the probable future. The forecasting of the probable future included management and operational staff interviews. The combination of the historical experience and the



probable future yielded estimated survivor curves from which the average service lives were derived. The recommended depreciation rates are summarized in the applicable tables of this study (Section 5).

The depreciation rates should be reviewed periodically to reflect the changes that result from plant and reserve account activity. A depreciation reserve deficiency or surplus will develop if future capital expenditures vary significantly from those anticipated in this study.

The estimates of net salvage for the mass property accounts were based in part on historical data related to actual retirement activity for the years 1969 through 2022, for most accounts. Gross salvage and cost of removal as recorded to the depreciation reserve account and related to experienced retirements were used. Percentages of the cost of plant retired were calculated for each component of net salvage on an annual, three-year, five-year, and on a cumulative moving average basis.

The following discussion presents an overview of the factors considered by Concentric in the determination of the average service life and net salvage estimates for the major accounts studied.



ACCOUNT 341.20 – INT	COMBUST STRUCTURES

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$330,532	1.51%	50-\$1.5	50-\$1.5	-10%	-10%

The investment in INT Combust Structures is approximately \$300 thousand, representing just over 1.5 percent of the total depreciable plant studied. This account primarily includes buildings and structures associated with Naka-NWT's production plant assets. The retirements, additions, and other plant transactions, for the period 1965 through 2022, were analyzed by the retirement rate method. This account did not utilize a T-Cut and retirements of \$29,369 were recorded for the period 1976 through 2022.



The currently approved and proposed Iowa 50-S1.5 produced a fit with a related Residual Measure of 0.5323 as depicted above and on page 6-2. There are very few retirements throughout this account, and in discussions with Naka-NWT management and operations staff, this account should have a retirement dispersion in the future that is similar to what has been experienced in the data presented in this report.

The previous study weighted average age of retirement was 31.20 years and the current weighted average age of retirement is 31.48 years. A review of peer Canadian electric distribution utilities indicates a life of between 35 and 50 years, with a mean average service life recommendation of 44 years. Although this account is at the top of the peer range, there are no indications that an adjustment to the average service life recommendation is necessary at this time. Based on the above



discussion and considerations, and on Concentric's experience, an Iowa 50-S1.5 is a reasonable expectation for the investment in this account.



The historical net salvage activity for this account shows a range from negative nine to negative fourteen. The three-year rolling band produces a range from negative four percent to negative nineteen percent and the five-year rolling band shows a range from negative four percent to negative seventeen percent. The full depth band shows an amount of negative nine percent. The previously approved net salvage for this account was negative 10 percent. The peer group for this account have net salvage recommendations between negative 10 and negative 185 percent, placing Naka-NWT on the lower end of peers. This peer range is unduly influenced by peer comparators that have used Economic Planning Horizons in their calculations for like accounts, therefore Concentric has placed less weighting on the peer review for this account.

As seen above, the historical net salvage percentage has been around negative nine percent since 2009. Due to the above discussion, Concentric proposes to continue the use of a negative 10 percent net salvage rate in the depreciation calculations for this account.



Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$1,734,616	7.92%	23-L2	30-R2	-10%	-10%

The investment in INT Combust Fuel Holders, Producers and Accessories is approximately \$1.7 million, representing just over 7.9 percent of the total depreciable plant studied. This account includes the cost installed of fuel handling and storage equipment used between the point of fuel delivery to the station and the intake pipe through which fuel is directly drawn to the engine. It includes items like blowers, fans, boilers, pumps, economizers, exhaust outfits, producers, pipe system, steam injectors, and tanks for oil and gasoline storage. The retirements, additions, and other plant transactions, for the period 1957 through 2022, were analyzed by the retirement rate method. This account did not utilize a T-Cut and retirements of \$135,052 were recorded for the period 1980 through 2022.



The currently approved Iowa 23-L2 produced a fit with a related Residual Measure of 3.2132. An Iowa 30-R2 produced a fit with a related Residual Measure of 2.1755, as depicted above and on page 6-5. The Iowa 30-R2 also produces a better visual fit than the Iowa 23-L2, mainly through the portion of the survivor curve where most of the retirement experience has occurred. The Iowa 30-R2 displays a fit and an average service life that aligns with the expectations of Naka-NWT management and


operations staff. At the time of the last study, the weighted average age of retirement was 13.40 years, and the current weighted average age of retirement is 13.64 years.

A review of peer Canadian electric distribution utilities indicates a life of between 27 and 40 years, with a mean average service life recommendation of 34 years. With a life extension, this account now falls within the range of peer companies studied. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 30-R2 is a reasonable expectation for the investment in this account.



The historical net salvage activity for this account shows a range from zero to negative one percent. The three-year rolling band produces a range from zero to negative two percent and the five-year rolling band shows a range from zero to negative two percent. The full depth band shows an amount of negative one percent. The previously approved net salvage for this account was negative ten percent. The peer group for this account have net salvage recommendations between negative seven and negative 172. The peer data for this account has been afforded limited weighting as it is impacted by peers who have had terminal retirement dates (also referred to as Economic Planning Horizons) applied to this account.

Conversations with the Naka-NWT management and operations staff indicated that the cost of removal activity in this account has not changed since the time of the last study, therefore, more weighting was placed on the operational interviews than on the data seen above. Therefore, even as the data shows a consistent negative one percent net salvage rate, Concentric proposes to continue to use a negative 10 percent net salvage rate in the depreciation calculations for this account.



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Naka Power Utilities (NWT) 2022 Depreciation Study

ACCOUNT 343.2	0 – INT COMBUST G	SENERATORS			
Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$2,850,934	13.02%	25-R1.5	20-50	-5%	-5%

The investment in INT Combust Generators is approximately \$2.9 million, representing just over 13 percent of the total depreciable plant studied. This account includes all diesel combustion generators associated with the production plant. The retirements, additions, and other plant transactions, for the period 1960 through 2022, were analyzed by the retirement rate method. Retirements that occurred between 1972 and 2022 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-Cut at age 33. As such, retirements of \$2,819,527 were recorded for this period.



The currently approved Iowa 25-R1.5 produced a fit with a related Residual Measure of 1.1649. An Iowa 20-S0 produced a fit with a related Residual Measure of 0.521, as depicted above and on page 6-8. The Iowa 20-S0 produces a better visual and mathematical fit than the Iowa 25-R1.5, mainly between 50 and 20 percent of plant surviving. As the most important portion of the exposures to fit the Iowa curve to is between 80 and 20 percent, this robust fit between 50 and 20 creates a strong mathematical fit which lends itself to a life shortening. The previous study weighted average age of retirement was 13.14 years and the current weighted average age of retirement is 12.44 years. This represents a subtle decrease in the weighted average age of retirements since the time of the last



study, and there have been considerable retirements recorded in this account, with a majority of these retirements occurring before age 20.

Given the robust fit to data, with large retirements occurring before age 15 (where the percent of plant surviving drops below 50 percent), Concentric recommends an Iowa 20-S0 to represent the future investment in this account. A review of peer Canadian electric distribution utilities indicates a life of between 25 and 32 years, with a mean average service life recommendation of 28 years. Concentric is aware that this recommendation moves the account further out of the peer range. However, given the robust fit to the observed data and conversations with Naka-NWT management and operations personnel, along with Concentric's experience, Concentric believes an Iowa 20-S0 is a reasonable expectation for the investment in this account.



The historical net salvage activity for this account shows a range from negative one percent to negative three percent. The three-year rolling band produces a range from positive one percent to negative nineteen percent and the five-year rolling band shows a range from negative one percent to negative ten percent. The full depth band shows an amount of negative four percent. The peer group for this account have net salvage recommendations between negative five and negative 12 placing Naka-NWT on the lower end and outside of the peer range studied. As the rolling average of salvage is trending up, and the cost of removal activity for this account is expected to stay consistent with historical percentages used in the depreciation calculations, Concentric is recommending continuing the use of a negative five percent net salvage rate in the calculations for this account.



	0 15 00		O O L I DI IOT	
ACCOUNT	345.20 -	INI	COWROZI	ACCESSORY

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$1,175,517	5.37%	30-R1.5	30-R1.5	-5%	-5%

The investment in INT Combust Accessory is approximately \$1.2 million, representing just under 5.4 percent of the total depreciable plant studied. This account includes the cost installed of auxiliary generating apparatus, conversion equipment and equipment primarily used in connection with the control and switching of electric energy produced in other power generating stations. It includes items such as auxiliary generators, excitation system, generator main connections, station control system, and station buses. The retirements, additions, and other plant transactions, for the period 1964 through 2022, were analyzed by the retirement rate method. This account did not utilize a T-Cut and retirements of \$191,530 were recorded for the period 1972 through 2022.



The currently approved and proposed life parameter for this account is an Iowa 30-R.1.5 which provides a fit to the observed data with a Residual Measure of 2.722, as seen above and on page 6-11. There are few retirements after age 15, with only 20 percent of the total retirements being experienced after that age.



The previous study weighted average age of retirement was 8.92 years and the current weighted average age of retirement is 10.28 years. Conversations with Naka-NWT management and operational staff indicated that the retirement patterns experienced in this account should not materially change moving forward. A review of peer Canadian electric distribution utilities indicates a life of between 28 and 35 years, with a mean average service life recommendation of 33 years. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 30-R1.5 is still a reasonable expectation for the investment in this account.



The historical net salvage activity for this account shows a range from negative three percent to negative nine percent. The three-year rolling band produces a range from negative nine percent to negative twenty five percent and the five-year rolling band shows a range from negative nine percent to negative thirty one percent. The full depth band shows an amount of negative nine percent. The peer group for this account have net salvage recommendations between negative five and negative 17. As seen in the graph above, the rolling average of net salvage in this account has not varied widely since 2007. At this time, Concentric recommends continuing the use of a negative five percent net salvage rate in the depreciation calculations for this account.



ACCOUNT 353 – STATION EQUIPMENT

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$1,153,005	5.26%	45-R4	45-R4	-10%	-15%

The investment in Station Equipment is approximately \$1.2 million, representing just under 5.3 percent of the total depreciable plant studied. This account primarily includes substation transformers and other related equipment. The retirements, additions, and other plant transactions, for the period 1988 through 2022, were analyzed by the retirement rate method. This account did not utilize a T-Cut and retirements of \$21,984 were recorded for the period 2003 through 2022.



The currently approved and proposed life parameter for this account is an Iowa 45-R4 which provides a fit to the observed data with a Residual Measure of 0.1523, as seen above and on page 6-17. At the time of the last study, there were less than \$1,000 in retirements in this account. That has now increased to the amount indicated above, however they are spread amongst ages 1 through to age 33. This is a stub curve that only drops to 96 percent surviving at the latest age interval recorded, and as such, the retirement experience has been giving limited weighting, relative to other factors.

The previous study weighted average age of retirement was 15 years and the current weighted average age of retirement is 22.16 years. With the limited number of retirements going into the analysis of the weighted average age, this analysis has been given limited weighting for this account.



A review of peer Canadian electric distribution utilities indicates a life of between 25 and 55 years, with a mean average service life recommendation of 42 years. Based on the above discussion, conversations with Naka-NWT management and operational staff, and on Concentric's experience, an Iowa 45-R4 is still a reasonable expectation for the investment in this account.



The historical net salvage activity for this account shows a range from negative twenty percent to negative twenty nine percent. The three-year rolling band produces a range from negative twenty seven percent to negative one hundred and eight percent and the five-year rolling band shows a range from negative twenty one percent to negative one hundred and eight percent. The full depth band shows an amount of negative 29 percent. The peer group for this account have net salvage recommendations between negative five and negative 30 percent, placing Naka-NWT reasonably within that range. As the experienced average net salvage over the nine years displayed above has been above or equal to negative 20 percent, Concentric no longer finds that a negative 10 percent net salvage rate captures the experience in this account appropriately. Due to the above discussion and Concentric's experience, Concentric proposes a change to a negative 15 percent net salvage rate.



ACCOUNT 355 – POLES AND FIXTURES

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$948,295	4.33%	50-R4	50-R2	-35%	-35%

The investment in Poles and Fixtures is approximately \$950 thousand, representing just over 4.3 percent of the total depreciable plant studied. This account includes all the poles and related cross arms and fixtures on the poles in NWT's transmission system. The retirements, additions, and other plant transactions for the period 1988 through 2022 were analyzed by the retirement rate method. This account did not utilize a T-Cut and retirements of \$138,743 were recorded for the period 2005 through 2022.



The currently approved Iowa 50-R4 produced a fit with a related Residual Measure of 0.5566. An Iowa 50-R2 produced a fit with a related Residual Measure of 0.2885, as depicted above and on page 6-20. The Iowa 50-R2 produces a better visual and mathematical fit than the Iowa 50-R4. The previous study and current weighted average age of retirement is 14 years, which has been considered as part of the analysis as there have been an additional \$134,075 in retirements since the last study. However, the curve is still a stub curve with over 86 percent of plant surviving at age 34.

Conversations with Naka-NWT operational and management staff indicated that the recommended 50-year life for this account is still a good representation of the historical life and future expectations and that there is no need to change the average service life. A review of peer Canadian electric



distribution utilities indicates a life of between 45 and 55 years, with a mean average service life recommendation of 52 years. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 50-R2 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 50-R2 to represent the future expectations for the investment in this account.



The historical net salvage activity for this account shows a range from negative 30 percent to negative 538 percent. The three-year rolling band produces a range from negative 30 percent to negative 508 percent and the five-year rolling band shows a range from negative 73 percent to negative 204 percent. The full depth band shows an amount of negative 77 percent. The previously approved net salvage for this account was negative 35 percent. The peer group for this account have net salvage recommendations of negative 10 to negative 90.

All of the data points referenced above, especially the rolling average historical percent, are swayed by the activity in 2007. As seen above, there were two years that caused the rolling average to increase well above the numbers in 2006 and 2009-onward. Analyzing this large increase reveals it was mainly due to timing differences in the retirements and costs of removal between 2007-2009 and was not indicative of large unforeseen costs of removal in 2007. As such, Concentric recommends continuing the use of a negative 35 percent net salvage rate in the depreciation calculations for this account.



	55 04 -			FIXTURES	T/15
ACCOUNT 3	55.04 -	F OLES	AND	LIVIOLES	1413

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$382,168	1.74%	40-R4	50-R2	-35%	-35%

The investment in Poles and Fixtures T415 is approximately \$400 thousand, representing just over 1.7 percent of the total depreciable plant studied. The poles in this account are built using salvaged materials from the old Pine Point mine and are otherwise similar to the assets within Account 355.00. The retirements, additions, and other plant transactions for the period 1988 through 2022 were analyzed by the retirement rate method. This account did not utilize a T-Cut and retirements of \$84,298 were recorded for the period 2013 through 2022.



The currently approved Iowa 40-R4 produced a fit with a related Residual Measure of 0.1719. An Iowa 50-R2 produced a fit with a related Residual Measure of 0.2692, as depicted above and on page 6-23. Although the fit to the Iowa 50-R2 curve is worse than the previously approved, conversations with Naka-NWT management staff indicated that the assets in these accounts behave akin to those in Account 355.00 and that the retirement experience in the future will likely be similar. The previous study and current weighted average age of retirement is 14 years. The fact that this weighted average has not changed has been considered in the analysis but given less weighting due to the curve being a stub curve which still has over 80 percent of plant surviving at the last age interval of 34.



Conversations with Naka-NWT operational and management staff indicated that the recommended 50-year life for this account is a good representation of the historical life and future expectations. As indicated above, NWT staff also agreed that aligning the average service life recommendation with Account 355.00 makes sense from a future retirement experience perspective. A review of peer Canadian electric distribution utilities indicates a life of between 45 and 55 years, with a mean average service life recommendation of 51 years. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 50-R2 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 50-R2 to represent the future expectations for the investment in this account



The historical net salvage activity for this account shows a range from negative 11 percent to negative 199 percent. The three-year rolling band produces a range from 25 percent to negative 404 percent and the five-year rolling band shows a range from negative 62 percent to over negative 1,000 percent. The full depth band shows an amount of negative 70 percent. The previously approved net salvage for this account was negative 35 percent and the peer group for this account have net salvage recommendations of negative 10 and negative 90 percent.

As was done for Account 355.00, Concentric analyzed the jump in the rolling average percent in 2014 to determine whether or not it has a material impact moving forward. This jump was deemed to be a timing difference in Account 355.04 as well and has not presented itself in the same manner in any years since 2014. Thus, the jump was considered as less important for the net salvage expectations for the account in the future. Therefore, Concentric recommends that the net salvage percentage used in the depreciation calculations for this account remain at negative 35 percent, reflecting the more recent history of the account.



Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$1,045,760	4.77%	50-R4	50-R4	-20%	-10%

The investment in Overhead Conductors and Devices Poles is approximately \$1 million, representing 4.77 percent of the total depreciable plant studied. This account includes all overhead conductor in the Naka-NWT transmission system that is not classified as T415. The retirements, additions, and other plant transactions for the period 1988 through 2022 were analyzed by the retirement rate method. This account did not utilize a T-Cut as no retirements have been recorded for this period.



The currently approved and proposed life parameter for this account is an Iowa 50-R4 which provides a strong fit to the observed data with a Residual Measure of 0.1465, as seen above and on page 6-26. As there are no retirements in this account, Concentric relied heavily on the conversations with Naka-NWT management and operations staff. These conversations revealed that there is no reason to change the average service life recommendation as Naka-NWT has no immediate plans for any retirements/replacements.

As a result of these conversations, Concentric believes that a 50-year average service life for this account is still a good representation of the historical life and future expectations. A review of peer Canadian electric distribution utilities indicates a life of between 45 and 65 years, with a mean average service life recommendation of 55 years. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 50-R4 is still a reasonable expectation for the investment in



this account. As such, Concentric recommends an Iowa 50-R4 to represent the future expectations for the investment in this account.

There has been no net salvage activity recorded since the last study, and therefore, Concentric recommends reducing the net salvage rate used for calculations within this study to negative 10 percent.



Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$714,471	3.26%	40-R4	50-R4	-20%	-10%

	CONDUCTOPS				T/15
ACCOUNT 336.04 -	CONDUCIORS	AND	DEVICES	POLES	1413

The investment in Overhead Conductors and Devices Poles T415 is approximately \$700 thousand, representing 3.26 percent of the total depreciable plant studied. This account includes all overhead conductor within the Naka-NWT system that have utilized salvaged materials from the old Pine Point mine and are otherwise similar to the assets within Account 356.00. The retirements, additions, and other plant transactions for the period 1988 through 2022 were analyzed by the retirement rate method. This account did not utilize a T-Cut as no retirements have been recorded for this period.



The currently approved life parameter for this account is an Iowa 40-R4 with produces a Residual Measure of 0.4047. The proposed life parameter for this account is an Iowa 50-R4 which provides a fit to the observed data with a Residual Measure of 0.1465, as seen above and on page 6-29. As was the case for Account 356.00, this account has zero retirements and therefore the statistical analysis of the data has been given less weighting in Concentric's analysis for average life selection.

Conversations with Naka-NWT operational and management staff indicated that there is no reason why the life of these assets on average should be materially different than the assets within Account 356.00 at a 50-year average service life. The peer companies analyzed by Concentric did not have



accounts broken out in this manner. The peer range studied for Account 356.00 was considered as part of the analysis of this account. As such, Concentric recommends an Iowa 50-R4 to represent the future expectations for the investment in this account.

There has been no net salvage activity recorded since the last study, and therefore, Concentric recommends reducing the net salvage rate used for calculations within this study to negative 10 percent.



ACCOUNT 362.00 - STATION EQUIPMENT

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$305,301	1.39%	50-R2	45-R2	-5%	-5%

The investment in Station Equipment is approximately \$300 thousand, representing 1.39 percent of the total depreciable plant studied. This account primarily includes substation transformers and other related equipment. The retirements, additions, and other plant transactions for the period 1951 through 2022 were analyzed by the retirement rate method. This account did not utilize a T-Cut and retirements of \$12,657 were recorded for the period 1969 through 2022.



The currently approved Iowa 50-R2 produced a fit with a related Residual Measure of 3.1869. An Iowa 45-R2 produced a fit with a related Residual Measure of 3.8236, as depicted above and on page 6-35. The fit to the mathematical data with the proposed curve is not as strong as the previously approved curve, however neither curve produces a strong Residual Measure due to the stub curve presented. The curve only drops to 93 percent of plant surviving at age interval 71, the last interval recorded. The previous study weighted average age of retirement was 9.75 years and the current weighted average age of retirement is 5.67 years. With such a small number of retirements across the life of the account to date, the actuarial analysis and weighted average age of retirement were given limited weighting in the selection of the average service life.



Conversations with Naka-NWT operational and management staff indicated that the recommended 45-year life for this account is a good representation of the historical life and future expectations. A review of peer Canadian electric distribution utilities indicates a life of between 25 and 55 years, with a mean average service life recommendation of 43 years. With less weighting being placed on the actuarial analysis, Concentric placed more emphasis on the peer range studied for the life for this account. As such, in trying to reasonably align with the mean average service life recommendation of 43 years, Concentric recommends an Iowa 45-R2 to represent the future expectations for the investment in this account.



The historical net salvage activity for this account shows a range from negative 24 percent to negative 56 percent. The three-year rolling band produces a range from negative 35 percent to negative 612 percent and the five-year rolling band shows a range from negative 35 percent to negative 612 percent. The full depth band shows an amount of negative 52 percent. The previously approved net salvage for this account was negative five percent. The peer group for this account have net salvage recommendations between negative five and negative 30 percent.

As indicated above, there are sparse amounts of retirements in this account and none over \$1,000 since the 2012 transaction year. There has also been no increase in the costs of removal spent in absolute dollars in recent years that would necessitate an increase in the rate applied to the original cost for recovery of this account. Therefore, Concentric recommends maintaining the currently approved net salvage rate for this account of negative five percent.



ACCOUNT 364 – POLES AND FIXTURES

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$3,830,481	17.49%	44-R4	50-R4	-50%	-55%

The investment in Poles and Fixtures is approximately \$4 million, representing just under 17.5 percent of the total depreciable plant studied. This account includes poles within the Naka-NWT system, most of which are direct buried rather than rock buried. The retirements, additions, and other plant transactions for the period 1951 through 2022 were analyzed by the retirement rate method. Retirements that occurred between 1969 and 2022 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-Cut at age 52. As such, retirements of \$211,866 were recorded for this period.



The currently approved Iowa 44-R4 produced a fit with a related Residual Measure of 0.9272. An Iowa 50-R4 produced a better mathematical fit with a related Residual Measure of 0.1516, as depicted above and on page 6-42. The Iowa 50-R4 also produces a better visual fit than the Iowa 44-R4, with the curve aligning with almost all of the experienced retirements through to the last surviving age interval at the T-Cut. These retirements, as seen above, are spread quite evenly across all age intervals, resulting in a curve that drops below 60 percent surviving. The previous study weighted average age of retirement was 22.76 years and the current weighted average age of



retirement is 27.61 years. At the time of the last study, there were approximately \$157,000 in retirements studied, compared to the \$211,866 studied now, representing a roughly 35 percent increase. The increase in the weighted average age of retirement, along with the increase in retirement experience, aligns with the recommendation to extend the average service life recommendation by six years.

Conversations with Naka-NWT operational and management staff indicated that the recommended 50-year life for this account is a good representation of the historical life and future expectations. A review of peer Canadian electric distribution utilities indicates a life of between 45 and 60 years, with a mean average service life recommendation of 50 years. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 50-R4 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 50-R4 to represent the future expectations for the investment in this account



The historical net salvage activity for this account shows a range from positive 72 percent to negative 69 percent. The three-year rolling band produces a range from positive 579 percent to over negative 1,000 percent and the five-year rolling band shows a range from positive 197 percent to negative 630 percent. The full depth band shows an amount of negative 69 percent. The previously approved net salvage for this account was negative 50 percent. The peer group for this account have net salvage recommendations between negative five and negative 65 percent, placing Naka-NWT within that range.

As seen in the rolling averages above, the historical net salvage does not turn to a negative position until 2016. However, conversations with the Naka-NWT operations staff indicated that the historical gross salvage experienced from 1988-2003 that is driving the positive salvage averages seen



between 1992 and 2015 is not expected in the future. Therefore, knowing that the costs of removal have significantly outpaced the gross salvage in the last 10 years, Concentric proposes a change to a negative 55 percent net salvage rate for use within the depreciation calculations for this account.



Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$1,652,251	7.54%	50-R3	55-R3	-55%	-55%

ACCOUNT 365 – OVERHEAD CONDUCTORS AND DEVICES

The investment in Overhead Conductors and Devices is approximately \$1.7million, representing 7.54 percent of the total depreciable plant studied. This account contains overhead conductor and related devices within the distribution system of Naka-NWT. Most of the conductor in the system is 25kV. The retirements, additions, and other plant transactions for the period 1951 through 2022 were analyzed by the retirement rate method. Retirements that occurred between 1969 and 2022 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-Cut at age 58. As such, retirements of \$48,402 were recorded for this period.



The currently approved Iowa 50-R3 produced a related Residual Measure of 1.7303, whereas the proposed Iowa 55-R3 produced a stronger mathematical fit with a related Residual Measure of 1.2226, as depicted above and on page 6-45. The exposures analyzed for this account create a stub curve that does not surpass 93 percent surviving. As such, the retirements were analyzed using the retirement rate method, however given less weighting as the total retirement dollars are minimal compared to the surviving plant in service. The previous study weighted average age of retirement was 15.13 years and the current weighted average age of retirements is 16.81 years.



Conversations with Naka-NWT operational and management staff indicated that the recommended 55-year life for this account is a good representation of the historical life and future expectations. A review of peer Canadian electric distribution utilities indicates a life of between 40 and 65 years, with a mean average service life recommendation of 54 years. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 55-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 55-R3 to represent the future expectations for the investment in this account.



The currently approved net salvage percentage for this account is negative 55 percent. The historical net salvage activity for this account shows a range from positive 89 to negative 66. The three-year rolling band produces a range from positive 762 percent to over negative 1,000 percent and the five-year rolling band shows a range from positive 484 percent to over negative 1,000 percent. The full depth band shows an amount of negative 66 percent. The peer group for this account have net salvage recommendations between negative five and negative 65 percent, placing Naka-NWT reasonably within that range.

Similar to Account 364.00, the above graph displays positive net salvage rolling averages through a large section of the graph, ending in 2018. These rolling average amounts are unduly influenced by large gross salvage amounts recorded between 1988-2003 that are not indicative of the salvage activity in the account moving forward. Since 2007, costs of removal have outpaced gross salvage proceeds, and particularly in recent years, have risen while the associated retirements have remained quite level. This has led to the overall historical rolling average rising to the negative 66 percent seen above. Noting the historical indications, and the conversations with the Naka-NWT management and operations staff on future estimates, Concentric recommends maintaining the net salvage used for this account at negative 55 percent. This estimate may need to be increased in future studies if the recent indications turn into a trend of larger costs of removal relative to retirements.



ACCOUNT 365.10 - OVERHEAD SERVICES

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$676,015	3.09%	50-R3	50-R3	-10%	-15%

The investment in Overhead Services is approximately \$700 thousand, representing 3.09 percent of the total depreciable plant studied. This account includes all overhead services connecting to homes within the Naka-NWT operating territory. The retirements, additions, and other plant transactions, for the period 1945 through 2022, were analyzed by the retirement rate method. Retirements that occurred between 1977 and 2022 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-Cut at age 55. As such, retirements of \$38,835 were recorded for this period.



The currently approved and proposed life parameter for this account is an Iowa 50-R3 which provides a fit to the observed data with a Residual Measure of 0.9319, as seen above and on page 6-49. The previous study weighted average age of retirement was 21.55 years and the current weighted average age of retirement in this account is 22.99 years.

Conversations with Naka-NWT operational and management staff indicated that the recommended 50-year life for this account is a good representation of the historical life and future expectations. A review of peer Canadian electric distribution utilities indicates a life of between 45 and 55 years, with a mean average service life recommendation of 50 years. Based on the above discussion and



considerations, and on Concentric's experience, an Iowa 50-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 50-R3 to continue to represent the future expectations for the investment in this account.



This account currently has an approved net salvage of negative ten percent. The historical net salvage activity for this account shows a range from negative 15 to negative 29 percent. The three-year rolling band produces a range from positive one percent to negative 84 percent and the five-year rolling band shows a range from positive one percent to negative 62 percent. The full depth band shows an amount of negative 27 percent. A review of peer Canadian electric distribution utilities indicates a range of zero to negative ten percent. With the increase in costs of removal in the period since the last study, Concentric recommends an increase to a negative 15 percent net salvage estimate for use in the depreciation calculations in this study.



Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$1,234,683	5.64%	59-R3	55-R3	-5%	-15%

ACCOUNT 367 – UNDERGROUND CONDUCTOR AND DEVICES

The investment in Underground Conductor and Devices is approximately \$1.2 million, representing 5.64 percent of the total depreciable plant studied. This account contains underground conductor and related devices throughout the Naka-NWT operating territory, in locations such as Fort Providence and Enterprise. There has not been cable injections on these assets in many years. The retirements, additions, and other plant transactions for the period 1970 through 2022 were analyzed by the retirement rate method. This account did not utilize a T-Cut and retirements of \$18,148 were recorded for the period 1977 through 2022.



The currently approved Iowa 59-R3 produced a fit with a related Residual Measure of 0.4951. An Iowa 55-R3 produced a fit with a related Residual Measure of 0.6925, as depicted above and on page 6-52. The mathematical fit to the data is stronger for the currently approved curve, however the curve does not drop below 90 percent of plant surviving, so Concentric has placed less weighting on the actuarial analysis. The previous study weighted average age of retirements was 23.72 years and the current weighted average age of retirements is 23.69 years.

Discussions with Naka-NWT operational and management staff indicated that the 55-year average service life recommendation is a good representation of the historical life and future expectations. Due to third-party strikes, the assets in this account tend to need replacement or repairs more



frequently. A review of peer Canadian electric distribution utilities indicates a range of between 30 to 58 years, with a mean average service life recommendation of 46 years. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 55-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 55-R3 to represent the future expectations for the investment in this account.



This account has a currently approved net salvage of negative five percent. This account has shown a range in the historical net salvage activity of positive 105 percent to negative 287 percent. The three-year band has ranged from positive 168 percent to over negative 1,000 percent. The five-year band has ranged from positive 159 to over negative 1,000 percent. The full depth band indicates negative 287 percent. A review of peer Canadian electric distribution utilities indicates a range of negative five percent to negative 50 percent.

The data above is influenced by larger than average costs of removal recorded since the time of the last study. However, it is the understanding of Concentric that the costs of removal since the last study may not be representative of future expectations. Therefore, Concentric is taking a measured approach to increasing the salvage rate used within the depreciation calculations for this account, adjusting it to a negative 15 percent rate. This rate captures the increase in costs spent since the last study, which has raised the rolling averages seen above, but considering the peer range for similar accounts, and these conversations Concentric had with Naka-NWT staff necessitate moderation for the overall increase. As such, Concentric recommends the use of a negative 15 percent net salvage rate estimate for use in this study.



ACCOUNT 368 – LINE TRANSFORMERS

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$1,145,103	5.23%	33-R3	40-S0	-5%	-15%

The investment in Line Transformers is approximately \$1.1 million, representing 5.23 percent of the total depreciable plant studied. The assets in this account relate to line transformers within the Naka-NWT system responsible for stepping the voltage down to each house. The retirements, additions, and other plant transactions, for the period 1951 through 2022, were analyzed by the retirement rate method. This account did not utilize a T-Cut and retirements of \$251,811 were recorded for the period 1969 through 2022.



The currently approved Iowa 33-R3 produced a related Residual Measure of 2.0811, whereas the proposed Iowa 40-S0 produced a stronger mathematical fit with a related Residual Measure of 0.9428, as depicted above and on page 6-58. The previous study weighted average age of retirement was 11.44 years and the current weighted average age of retirement is 16.18 years. Additionally, by moving the curve from an Iowa R3 to an Iowa S0, the shape of the curve now better matches with the observed retirement experienced from age 0 through to age 25.

Discussions with Naka-NWT operational and management staff indicated that the 40-year average service life recommendation is a good representation of the historical life and future expectations. A review of peer Canadian electric distribution utilities indicates a range of between 28 to 50 years, with a mean average service life recommendation of 41 years. Based on the above discussion and



considerations, and on Concentric's experience, an Iowa 40-S0 is a reasonable expectation for the investment in this account. As such, Concentric recommends an Iowa 40-S0 to represent the future expectations for the investment in this account.



This account currently has an approved net salvage of negative 5 percent. This account has shown a range in the historical net salvage activity since 1969 from positive five percent to negative 25 percent. As shown on page 7-22 of this report, the three-year band has ranged from positive 81 percent to negative 537 percent. Also shown on page 7-22 of this report, the five-year band has ranged from positive 55 percent to negative 414 percent. The full depth band indicates negative 25 percent. In recent years, the rolling average as increased to as high as negative 25 percent, and in the last ten years, the rolling average has only stayed below negative 10 percent for one year. There have been larger costs of removal in the last 10 years, compared to gross salvage which has decreased in recent years.

A review of peer Canadian electric distribution utilities indicates a range of positive 5 percent to negative 50 percent. Considering the above results and conversations with Naka-NWT operational staff, Concentric considers an increase to negative 15 percent reasonable. Concentric views that negative 15 percent is an appropriate net salvage recommendation to implement within the depreciation calculations in this study.



ACCOUNT 370 - CONVENTIONAL METERS

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$83,577	0.38%	16-L0	16-L0	0%	0%

The investment in Conventional Meters is approximately \$84 thousand, representing 0.38 percent of the total depreciable plant studied. Naka-NWT utilizes meters that are AMR capable due to the lack of availability of non-AMR meters. There are no plans to implement and utilize the AMR functionality. The retirements, additions, and other plant transactions, for the period 1950 through 2022, were analyzed by the retirement rate method. This account did not utilize a T-Cut and retirements of \$356,744 were recorded for the period 1983 through 2022.



The currently approved and proposed life parameter for this account is an Iowa 16-L0 which provides a fit to the observed data with a Residual Measure of 0.2302, as seen above and on page 6-61. The previous study weighted average age of retirements was 14.27 years and the current weighted average age of retirements is 13.26 years. The strong fit to the retirement experience, along with company discussions on meter replacement policy, lead Concentric to recommend no change to the average service life or curve of this account.

These discussions with Naka-NWT operational and management staff indicated that the 16-year average service life recommendation is still a good representation of the historical life and future expectations. The Iowa 16-L0 is within the band of Canadian electric utility peers used for comparison, where the average service life ranges from 15 to 18 years, with a mean average service



life recommendation of 16 years. Based on the above, Concentric recommends the Iowa 16-L0 to represent the future expectations for the investment in this account.

This account currently has an approved net salvage percentage of zero percent. Based on conversations with Naka-NWT management and operations staff about the cost of removal and gross salvage expectations, Concentric does not recommend a net salvage percentage for use in the depreciation calculations at this time.



ACCOUNT 373 – STREET LIGHTS

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$443,292	2.02%	35-\$3	30-51	0%	-15%

The investment in Street Lights is approximately \$440 thousand, representing just over two percent of the total depreciable plant studied. The street light poles in the Naka-NWT system are pole based, and the bulbs have been switched from High Pressure Sodium to LED. Retirements that occurred between 1951 and 2022 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-Cut at age 51. As such, retirements of \$139,033 were recorded for the period 1970 to 2022.



The currently approved life parameter for this account is an Iowa 35-S3 with a Residual Measure of 1.2846. The Iowa 30-S1 provides a better mathematical fit with a Residual Measure of 0.8051 as seen above and on page 6-64. As seen above on the Iowa 30-S1 curve, the curve intersects with the observed retirement experience from age 0, all the way through to age 35 with a robust fit. This captures almost all of the retirement experience, absent some late life retirements that are not mathematically relevant for the actuarial analysis.

The previous study weighted average age of retirement was 15.60 years in this account, and the current weighted average age of retirement is 20.17 years. Although the weighted average age of the retirements has increased by five years, based on the visual fit to data, mathematical fit to data, and



conversations with company personnel, Concentric does not see it fit to extend the average service life for this account.

Discussions with Naka-NWT operational and management staff indicated that the 30-year average service life recommendation is a good representation of the historical life and future expectations. A review of peer Canadian electric distribution utilities indicates a range of between 20 to 51 years, with a mean average service life recommendation of 36 years. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 30-S1 is a reasonable expectation for the investment in this account. Based on the above, Concentric recommends the Iowa 30-S1 to represent the future expectations for the investment in this account.



This account currently has an approved net salvage of zero percent. This account has shown a wide range in the historical net salvage activity since 1970. As seen in the graph above, the range has been from positive 15 percent to negative 26 percent. The three-year band has ranged from over positive 1,000 percent to over negative 1,000 percent and the five-year band has ranged from over positive 1,000 percent to over negative 1,000 percent. The full depth band indicates negative 21 percent. A Canadian peer comparison for electric distribution utilities of net salvage values indicates a range between negative eight and negative 35 percent.

There has been a decrease in gross salvage recorded to this account, along with an increase in the costs of removal in recent years. As such, Concentric believes it no longer prudent to have a zero percent net salvage rate for this account and recommends a negative 15 percent net salvage rate for use in the depreciation calculations in this account moving forward.



Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$483,910	2.21%	45-R3	45-R3	0%	0%

ACCOUNT 390 - STRUCTURES AND IMPROVEMENTS

The investment in Structures and Improvements is approximately \$480 thousand representing 2.2 percent of the total depreciable plant studied. This account includes buildings and structures such as office buildings. The retirements, additions, and other plant transactions, for the period 1978 through 2022, were analyzed by the retirement rate method. This account did not utilize a T-Cut and retirements of \$23,222 were recorded for the period 2003 through 2022.



The currently approved and proposed life parameter for this account is an Iowa 45-R3 which provides a fit to the observed data with a Residual Measure of 0.7599, as seen above and on page 6-70. The previous and current weighted average age of retirements is 17.09 years.

Discussions with Naka-NWT operational and management staff indicated that the 45-year average service life recommendation is still a good representation of the historical life and future expectations. A review of peer Canadian electric distribution utilities indicates a range of between 25 to 65 years, with a mean average service life recommendation of 48 years. Based on the above discussion and considerations, and on Concentric's experience, an Iowa 45-R3 is a reasonable expectation for the investment in this account. Based on the above, Concentric recommends the Iowa 45-R3 to represent the future expectations for the investment in this account.



This account currently has an approved net salvage percentage of zero percent. Based on conversations with Naka-NWT management and operations staff about the cost of removal and gross salvage expectations, Concentric does not recommend a net salvage percentage for use in the depreciation calculations at this time.



Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Previously Approved Salvage	Concentric Recommended Salvage
\$387,743	1.77%	20-L1	10-L3	20%	15%

The investment in Transportation Equipment, Fleet Vehicles, Category 2 is approximately \$400 thousand, representing 1.77 percent of the total depreciable plant studied. This account includes vehicles used by Naka-NWT, that are driven frequently given the breadth of the service area. The retirements, additions, and other plant transactions, for the period 1987 through 2022, were analyzed by the retirement rate method. This account did not utilize a T-Cut and retirements of \$650,569 were recorded for the period 2008 through 2022.



The currently approved life parameter for this account is an Iowa 20-L1 with a Residual Measure of 1.3769. The Iowa 10-L3 provides a better mathematical fit with a Residual Measure of 0.7139 as seen above and on page 6-73. The previous study weighted average age of retirement was 11.63 years and the current study weighted average age of retirement is 12.20 years. Concentric has placed higher weighting on the operational and management interviews when it comes to this account, given the few vehicles within the account and the amount of use those vehicles get. It is the understanding of Concentric that the current replacement policy dictates trade-in or repairs at 10 years, aligning that with a 10-year average service life recommendation.

These discussions with Naka-NWT operational and management staff indicated that the 10-year average service life recommendation is a good representation of the historical life and future expectations. A review of peer Canadian electric distribution utilities indicates a range of between 9



to 13 years, with a mean average service life recommendation of 11 years. Based on the above, Concentric recommends the Iowa 10-L3 to represent the future expectations for the investment in this account.



This account currently has an approved net salvage of positive 20 percent. As seen in the graph above, the range in net salvage has been from positive six percent to positive nine percent. The three-year band has ranged from positive 18 percent to zero percent, with the most recent three-year band showing positive six percent. The five-year band has ranged from positive 16 percent to zero percent, and the most recent five-year band also showing positive seven percent. The full depth band indicates positive six percent. A Canadian peer comparison for electric distribution utilities of net salvage values indicates a range between positive five and positive 20 percent.

Concentric recommends moderating the currently approved net salvage percent of positive 20 percent to positive 15 percent due to the decrease in gross salvage recorded in recent years.


Investment \$	Investment %	Previously Approved Curves	Concentric Recommended Curves	Previously Approved Salvage	Concentric Recommended Salvage
\$577,476	2.64%	20-L1	20-R3	20%	20%

The investment in Transportation Equipment, Fleet Vehicles, Category 3 is approximately \$575 thousand, representing 2.6 percent of the total depreciable plant studied. This account includes heavy machinery used by Naka-NWT, and there are few assets within this account. Retirements that occurred between 1987 and 2022 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-Cut at age 33. As such, retirements of \$170,109 were recorded for the period 2020 through 2022.



The currently approved life parameter for this account is an Iowa 20-L1 with a Residual Measure of 1.5874. The Iowa 20-R3 provides a better mathematical fit with a Residual Measure of 1.4758 as seen above and on page 6-75. The current study weighted average age of retirement is 26.50 years. The Iowa 20-R3 curve was adopted as the recommendation from Concentric due to the stronger visual fit to the retirement experience. Conversations with the Naka-NWT operations and management staff indicated that the 20-year average service life recommendation is still a good representation of the historical life and future expectations for this account. Therefore, Concentric is recommending no change to the average service life, but only an adjustment to the curve to better overlay with the experienced data.

A review of peer Canadian electric distribution utilities indicates a range of between 9 to 20 years, with a mean average service life recommendation of 14 years. Based on the above, Concentric





recommends the Iowa 20-R3 to represent the future expectations for the investment in this account.

As there are so few assets within this account, the net salvage data is sparse and does not provide an adequate level of analysis necessary to make changes to the currently approved net salvage parameters. As such, Concentric is recommending a continuation of the currently approved positive 20 percent for use within the depreciation calculations.



SECTION 4

4 CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

4.1 Group Depreciation Procedures

When more than a single item of property is under consideration, a group procedure for depreciation is appropriate because, usually all of the items within a group do not have identical service lives but have lives that are dispersed over a range of time. There are two primary group procedures: Average Life Group ("ALG") and Equal Life Group ("ELG").

In the ELG procedure, the property group is subdivided according to service life. That is, each ELG includes that portion of the property which experiences the life of that specific group. The relative size of each ELG is determined from the property's life dispersion curve. The calculated depreciation for the property group is the summation of the calculated depreciation based on the service life of each ELG.

The table on the following page presents an illustration of the calculation of ELG depreciation in a mass property account using the Iowa 13-R2 survivor curve, zero percent net salvage and a December 31, 2022, calculation date. Each ELG, in the table, is defined by the age interval shown in columns 1 and 2. These are the ages at which the first and last retirement of each group occurs, and the group's equal life, shown in column 3, is the midpoint of the interval. For purposes of the calculation, each vintage is divided into ELGs arranged so that the midpoint of each one-year age interval coincides with the calculation date (e.g., in this case December 31). This enables the calculation of annual accruals for a twelve-month period centered on the date of calculation.

The retirement during the age interval, shown in column 4, is the size of each ELG derived from the Iowa 13-R2 survivor curve and zero percent net salvage. It is the difference between the percentage surviving at the beginning and end of the age interval. Each ELG's annual accrual, shown in column 5, equals the group's size (column 4) divided by its life (column 3), except in the circumstance of age 0.5 due to the use of the mid-year convention.

Columns 7 through 10, show the derivation of the annual and accrued factors for each vintage based on the information developed in the first five columns. The year installed is shown in column 6. For all vintages other than 2022, the summation of annual accruals for each year installed, shown in column 7, is calculated by adding one-half of the group annual accrual (column 5) for that vintage's current age interval plus the group annual accruals for all succeeding age intervals. For example, the figure 9.36279122771 for 2014, equals one-half of 0.69931333333 plus all of the succeeding figures in column 5. Only one-half of the annual accrual for the vintage's current age interval group is included in the summation because the ELG for that interval has reached the year during which it is expected to be retired.

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DETAILED COMPLITATION OF ANNUAL	AND ACCRIED	FACTORS USING T	HE FOULAL LIFE GR	
DETAILED COMINIATION OF ANNUAL	AND ACCROLD	TACIONS USING I	THE EQUAL LIFE ON	JOI I KOCLDOKL

Input Parameters: Calculation Date = 12-21-2022			2-21-2022	Survivor Curve = 13-R2							
	Beg.	Age Inte	rval End	Life	Retirements During Age Interval	Group Annual Accrual	Year Inst.	Summation of Annual Accruals	Average Percent Surviving	Annual Factor	Accrued Factor
	(1) '	(2)	(3)	(4)	(5) = (4)/(3)	(6)	(7)	(8)	(9) = (7)/(8)	(10) = (9)*(3)
		0.000	1 000	0.500	0.818/3	0.81843000000	2022	10 53087789/37	99 607313	0 1057	0.0529
		1.000	2,000	1.500	1.04897	0.69931333333	2022	9.36279122770	98 657081	0.0949	0.1424
		2.000	3,000	2.500	1.32665	0.53066000000	2020	8.74780456104	97 469276	0.0897	0.2244
		3.000	4.000	3.500	1.65967	0.47419142857	2019	8.24537884675	95,976118	0.0859	0.3007
		4.000	5.000	4.500	2.05317	0.45626000000	2018	7.78015313246	94.119697	0.0827	0.3720
		5.000	6.000	5.500	2.51363	0.45702363636	2017	7.32351131428	91.836296	0.0797	0.4386
		6.000	7.000	6.500	3.05106	0.46939384615	2016	6.86030257302	89.053950	0.0770	0.5007
		7.000	8.000	7.500	3.66989	0.48931866667	2015	6.38094631661	85.693474	0.0745	0.5585
	;	8.000	9.000	8.500	4.36997	0.51411411765	2014	5.87922992446	81.673542	0.0720	0.6119
		9.000	10.000	9.500	5.14410	0.54148421053	2013	5.35143076037	76.916510	0.0696	0.6610
	10	0.000	11.000	10.500	5.97129	0.56869428571	2012	4.79634151225	71.358816	0.0672	0.7058
	1	1.000	12.000	11.500	6.79860	0.59118260870	2011	4.21640306504	64.973866	0.0649	0.7463
	1:	2.000	13.000	12.500	7.54947	0.60395760000	2010	3.61883296070	57.799833	0.0626	0.7826
	13	3.000	14.000	13.500	8.12298	0.60170222222	2009	3.01600304959	49.963612	0.0604	0.8149
	1.	4.000	15.000	14.500	8.39246	0.57879034483	2008	2.42575676606	41.705891	0.0582	0.8434
	1.	5.000	16.000	15.500	8.25458	0.53255354839	2007	1.87008481945	33.382372	0.0560	0.8683
	1	6.000	17.000	16.500	7.66186	0.46435515152	2006	1.37163046950	25.424151	0.0539	0.8902
	1	7.000	18.000	17.500	6.66225	0.38070000000	2005	0.94910289374	18.262094	0.0520	0.9095
	18	8.000	19.000	18.500	5.40212	0.29200648649	2004	0.61274965050	12.229909	0.0501	0.9269
	11	9.000	20.000	19.500	4.06774	0.20860205128	2003	0.36244538162	7.494980	0.0484	0.9430
	2	0.000	21.000	20.500	2.81382	0.13725951220	2002	0.18951459988	4.054203	0.0467	0.9583
	2	1.000	22.000	21.500	1.70757	0.07942186047	2001	0.08117391355	1.793508	0.0453	0.9731
	2	2.000	23.000	22.500	0.78015	0.03467333333	2000	0.02412631665	0.549647	0.0439	0.9876
	2	3.000	24.000	23.500	0.15903	0.00676723404	1999	0.00340603296	0.080054	0.0425	0.9998
	2	4.000	24.180	24.090	0.00054	0.00002241594	1998	0.00000201743	0.000049	0.0412	1.0000
				TOTAL	100 00000						

Column 4 represents the retirements at each of the Age Intervals listed in Column 3, for the Iowa survivor curve chosen

Column 7 is derived by calculating, for all Life Intervals except the first and last, by dividing the Group Annual Accrual in Column 5 by 2, and adding this result to the Group Annual Accrual amounts from all older Life Intervals

(e.g. Summation of Annual Accruals at Life 21.500 = (0.07942186047/2) + 0.03467333333 + 0.00676723404 + 0.00002241594)

Column 8 is derived from the Iowa 13-R2 survivor curve, with zero percent net salvage

The summation of annual accruals (column 7) for installations during 2022 is calculated on the basis of an in-service date at the midpoint of the year (i.e., June 30). In as much as the overall calculation is centered on December 31, 2022, the first figure in column 7, for vintage 2022, equals all of the group annual accrual for the first equal life group plus the accruals for all of the subsequent equal life groups.



The average percent surviving derived from the Iowa 13-R2 survivor curve and zero percent net salvage, is shown in column 8 for each age interval. The annual factor, shown in column 9, is the result of dividing the summation of annual accruals (column 7) by the average percent surviving (column 8). The accrued factor, shown in column 10, equals the annual factor multiplied by the age of the group at December 31, 2022.

4.2 Calculation of Annual and Accrued Amortization

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is proposed for a number of accounts that represent numerous units of property, but a very small portion of depreciable electric plant in service. The accounts, their amortization periods, and the mean of the average service life (ASL) recommendations amongst the peer group are as follows:

Account	Title	Investment	Investment Percentage	Previously Approved	Recommended Amortization Period in Years	Mean ASL of Peer Group Studied
391.22	Computer Software and Applications Major (10 YR)	\$164,649	0.75%	10-SQ	10	10
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	\$24,000	0.11%	10-SQ	10	14

For the purpose of calculating annual amortization amounts, as of December 31, 2022, the book depreciation reserve for each plant account (or sub-account) is assigned or allocated to vintages. The book reserve assigned to vintages with an age greater than the amortization period is equal to the vintage's original cost. The remaining book reserve is allocated among vintages with an age less than the amortization period in proportion to the calculated accrued amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period. The annual amortization amount is determined by dividing the future amortizations (original cost less allocated book reserve) by the remaining period of amortization for the vintage.



4.3 Monitoring of Book Accumulated Depreciation

The calculated accrued depreciation or amortization represents that portion of the depreciable cost which will not be allocated to expense through future depreciation accruals, if current forecasts of service life characteristics materialize and are used as a basis for depreciation accounting. Thus, the calculated accrued depreciation provides a Measure of the book accumulated depreciation. The use of this Measure is recommended in the amortization of book accumulated depreciation variances to insure complete recovery of capital over the life of the property.

The recommended amortization of the variance between the book accumulated depreciation and the calculated accrued depreciation is based on an amortization period equal to the composite remaining life for each property group where the variance exceeds five percent of the calculated accrued depreciation.

The composite remaining life for use in the calculation of accumulated depreciation variances is derived by developing the composite sum of the individual remaining lives in accordance with the following equation:

$$Composite Remaining Life = \frac{\sum (\frac{Book \ Cost}{Life} x \ Remaining \ Life)}{\sum \frac{Book \ Cost}{Life}}$$
(1)

The book costs and lives of the several vintages, which are summed in the foregoing equation, are defined by the estimated future survivor curve. In as much as book cost divided by life equals the Whole Life annual accrual, the foregoing equation reduces to the following form:

$$Composite Remaining Life = \frac{\sum Whole Life Future Accruals}{\sum Whole Life Annual Accrual}$$
(2)

or

$$Composite Remaining Life = \frac{\sum IIII BookCost - Calc, Reserve}{\sum Whole Life Annual Accrual}$$
(3)

This approach was applied to the calculation of probable remaining life and annual provision for trueup in Tables 2A and 2B of this study.



SECTION 5

5 RESULTS OF THE STUDY

5.1 Qualification of Results

The calculated annual and accrued depreciation, along with the amortization of reserve differences (ARD) amounts are the principal results of the study are the principal results of the study and are shown in Tables 1, 1A, 1B, 2, 2A, and 2B, related to investment as of December 31, 2022. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and salvage and for the change of the composition of property in service. The annual accrual rates and the accrued depreciation were calculated in accordance with the Straight-Line method, using the ELG procedure, based on estimates which reflect considerations of current historical evidence and expected future conditions.

5.2 Description of Detailed Tabulations

The following tables provides summaries by account of the original cost of investment, calculated and booked accumulated depreciation amounts, the required amount of annual depreciation expense, the required depreciation rate to be applied against the original cost of the account and the estimated composite remaining life of the surviving plant in service.

The detailed calculations of annual depreciation applicable to depreciable assets, as of December 31, 2022, are presented in account sequence starting in Section 8 – Page 8-2. The tables indicate the estimated average survivor curves used in the calculations. The tables set forth (for each installation year) the original cost, calculated accrued depreciation and the calculated annual accrual.

TABLE 1. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN ELECTRIC PLANT BASED ON ORIGINAL COSTS AS OF DECEMBER 31, 2022

"TOTAL"

Account	Description	Estimated Survivor Curve	Net Salvage Percent	Investment Percentage	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Annual Accrual Amount	Annual Accrual Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PLANT I	N SERVICE							
PRODUC	CTION PLANT							
341.20	INT Combust Structures	50-\$1.5	-10	1.51% *	330,532	166,675	7,663	2.32%
342.20	INT Combust Fuel Holders, Producers and Accessories	30-R2	-10	7.92% *	1,734,616	945,713	63,505	3.66%
343.20	INT Combust Generators	20-S0	-5	13.02% *	2,850,934	1,383,390	154,738	5.43%
345.20	INT Combust Accessory	30-R1.5	-5	5.37% *	1,175,517	735,287	38,086	3.24%
346.20	INT Combust Miscellaneous	27-R3	-5	0.23%	50,293	36,651	1,783	3.55%
TOTAL P	RODUCTION PLANT				6,141,892	3,267,715	265,775	4.33%
TRANSM	ISSION PLANT							
353.00	Station Equipment	45-R4	-15	5.26% *	1,153,005	643,552	29,810	2.59%
355.00	Poles and Fixtures	50-R2	-35	4.33% *	948,295	682,850	25,128	2.65%
355.04	Poles and Fixtures T415	50-R2	-35	1.74% *	382,168	315,500	9,685	2.53%
356.00	Overhead Conductors and Devices Poles	50-R4	-10	4.77% *	1,045,760	714,558	22,922	2.19%
356.04	Overhead Conductors and Devices Poles T415	50-R4	-10	3.26% *	714,471	531,650	15,518	2.17%
TOTAL T	RANSMISSION PLANT				4,243,700	2,888,111	103,062	2.43%
DISTRIBU	JTION PLANT							
360.10	Land Rights	75-R3	0	0.09%	18,935	2,890	283	1.49%
362.00	Station Equipment	45-R2	-5	1.39% *	305,301	170,815	6,862	2.25%
362.10	System Communication & Control	15-R4	0	0.91%	199,786	185,400	7,127	3.57%
364.00	Poles, Towers and Fixtures	50-R4	-55	17.49% *	3,830,481	2,397,576	122,209	3.19%
365.00	Overhead Conductors and Devices	55-R3	-55	7.54% *	1,652,251	1,061,153	48,375	2.93%
365.10	Overhead Services	50-R3	-15	3.09% *	676,015	307,727	16,299	2.41%
367.00	Underground Conductor and Devices	55-R3	-15	5.64% *	1,234,683	460,227	27,548	2.23%
367.10	Underground Services	35-R2.5	0	0.73%	160,510	78,770	4,610	2.87%
368.00	Line Transformers	40-S0	-15	5.23% *	1,145,103	547,673	35,473	3.10%
370.00	Conventional Meters	16-L0	0	0.38% *	83,577	55,874	3,665	4.38%
373.00	Street Lights	30-S1	-15	2.02% *	443,292	212,539	18,110	4.09%

TABLE 1. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN ELECTRIC PLANT BASED ON ORIGINAL COSTS AS OF DECEMBER 31, 2022

"TOTAL"

Account	Description	Estimated Survivor Curve	Net Salvage Percent	Investment Percentage	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Annual Accrual Amount	Annual Accrual Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
373.10	Sentinel Lights	30-S1	0	0.58%	128,102	42,288	4,699	3.67%
TOTAL D	ISTRIBUTION PLANT				9,878,037	5,522,933	295,260	2.99%
GENERA	L PLANT							
390.00	Structures and Improvements	45-R3	0	2.21% *	483,910	200,141	11,268	2.33%
391.22	Computer Software and Applications Major (10 YR)	10-SQ	0	0.75%	164,649	98,204	16,465	10.00%
392.20	Transportation Equipment, Fleet Vehicles, Category 2	10-L3	15	1.77% *	387,743	138,865	33,409	8.62%
392.30	Transportation Equipment, Fleet Vehicles, Category 3	20-R3	20	2.64% *	577,476	264,365	22,942	3.97%
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	10-SQ	0	0.11%	24,000	4,112	2,400	10.00%
TOTAL G	ENERAL PLANT				1,637,778	705,688	86,483	5.28%
TOTAL P	LANT STUDIED				21,901,406	12,384,447	750,580	3.43%

TABLE 1A. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN ELECTRIC PLANT BASED ON ORIGINAL COSTS AS OF DECEMBER 31, 2022

"LIFE"

Account	Description	Estimated Survivor Curve	Net Salvage Percent	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Annual Accrual Amount	Annual Accrual Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PLANT I	N SERVICE						
PRODUC	CTION PLANT						
341.20	INT Combust Structures	50-S1.5	0	330,532	151,523	6,966	2.11%
342.20	INT Combust Fuel Holders, Producers and Accessories	30-R2	0	1,734,616	859,739	57,732	3.33%
343.20	INT Combust Generators	20-S0	0	2,850,934	1,317,514	147,370	5.17%
345.20	INT Combust Accessory	30-R1.5	0	1,175,517	700.274	36.272	3.09%
346.20	INT Combust Miscellaneous	27-R3	0	50,293	34,906	1.698	3.38%
TOTAL D	IESEL GENERATION			6.141.892	3.063.955	250.038	4.07%
				•,,•	0,000,000		
TRANSM	ISSION PLANT						
353.00	Station Equipment	45-R4	0	1,153,005	559,611	25,922	2.25%
355.00	Poles and Fixtures	50-R2	0	948,295	505,815	18,613	1.96%
355.04	Poles and Fixtures T415	50-R2	0	382,168	233,704	7,174	1.88%
356.00	Overhead Conductors and Devices Poles	50-R4	0	1,045,760	649,598	20,838	1.99%
356.04	Overhead Conductors and Devices Poles T415	50-R4	0	714,471	483,318	14,107	1.97%
TOTAL T	RANSMISSION PLANT			4.243.700	2.432.046	86,653	2.04%
				, , , , , , , , , , , , , , , , , , , ,	, , , , , ,		
DISTRIBU	ITION PLANT						
360.10	Land Rights	75-R3	0	18,935	2,890	283	1.49%
362.00	Station Equipment	45-R2	0	305,301	162,681	6,535	2.14%
362.10	System Communication & Control	15-R4	0	199,786	185,400	7,127	3.57%
364.00	Poles, Towers and Fixtures	50-R4	0	3,830,481	1,546,823	78,844	2.06%
365.00	Overhead Conductors and Devices	55-R3	0	1,652,251	684,615	31,210	1.89%
365.10	Overhead Services	50-R3	0	676,015	267,589	14,173	2.10%
367.00	Underground Conductor and Devices	55-R3	0	1,234,683	400,198	23,955	1.94%
367.10	Underground Services	35-R2.5	0	160,510	78,770	4,610	2.87%
368.00	Line Transformers	40-S0	0	1,145,103	476,238	30,846	2.69%
370.00	Conventional Meters	16-L0	0	83,577	55,874	3,665	4.38%
373.00 tric Adviso	Street Lights ors, ULC	30-S1 Naka Powe	0 er Utilities (NW	443,292 T)	184,816	15,748	3.55% Pa

TABLE 1A. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN ELECTRIC PLANT BASED ON ORIGINAL COSTS AS OF DECEMBER 31, 2022

"LIFE"

Account	Description	Estimated Survivor Curve	Net Salvage Percent	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Annual Accrual Amount	Annual Accrual Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
373.10	Sentinel Lights	30-S1	0	128,102	42,288	4,699	3.67%
TOTAL D	ISTRIBUTION PLANT			9,878,037	4,088,182	221,696	2.24%
GENERA	L PLANT						
390.00	Structures and Improvements	45-R3	0	483,910	200,141	11,268	2.33%
391.22	Computer Software and Applications Major (10 YR)	10-SQ	0	164,649	98,204	16,465	10.00%
392.20	Transportation Equipment, Fleet Vehicles, Category 2	10-L3	0	387,743	163,371	39,305	10.14%
392.30	Transportation Equipment, Fleet Vehicles, Category 3	20-R3	0	577,476	330,456	28,677	4.97%
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	10-SQ	0	24,000	4,112	2,400	10.00%
TOTAL G	SENERAL PLANT			1,637,778	796,285	98,115	5.99%
TOTAL PL	ANT STUDIED			21,901,406	10,380,467	656,502	3.00%

TABLE 1B. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN ELECTRIC PLANT BASED ON ORIGINAL COSTS AS OF DECEMBER 31, 2022

"NET SALVAGE"

		Estimated Survivor	Net Salvage	Surviving Original Cost	Calculated Accrued	Annual Accrual	Annual Accrual
Account	Description (2)	(3)	(4)	(5)		(7)	(8)
(1)	(2)	(3)	(4)	(3)	(0)	(7)	(0)
PLANT I	N SERVICE						
PRODUC	CTION PLANT						
341.20	INT Combust Structures	50-\$1.5	-10	330,532	15,152	697	0.21%
342.20	INT Combust Fuel Holders, Producers and Accessories	30-R2	-10	1,734,616	85,974	5,773	0.33%
343.20	INT Combust Generators	20-S0	-5	2,850,934	65,876	7,368	0.26%
345.20	INT Combust Accessory	30-R1.5	-5	1,175,517	35,014	1,814	0.15%
346.20	INT Combust Miscellaneous	27-R3	-5	50,293	1,745	85	0.17%
TOTAL D	IESEL GENERATION			6,141,892	203,761	15,737	0.26%
TRANSM	ISSION PLANT						
353.00	Station Equipment	45-R4	-15	1,153,005	83,942	3,888	0.34%
355.00	Poles and Fixtures	50-R2	-35	948,295	177,035	6,515	0.69%
355.04	Poles and Fixtures T415	50-R2	-35	382,168	81,796	2,511	0.66%
356.00	Overhead Conductors and Devices Poles	50-R4	-10	1,045,760	64,960	2,084	0.20%
356.04	Overhead Conductors and Devices Poles T415	50-R4	-10	714,471	48,332	1,411	0.20%
TOTAL T	RANSMISSION PLANT			4,243,700	456,065	16,408	0.39%
DISTRIBU	JTION PLANT						
360.10	Land Rights	75-R3	0	18,935	-	-	0.00%
362.00	Station Equipment	45-R2	-5	305,301	8,134	327	0.11%
362.10	System Communication & Control	15-R4	0	199,786	-	-	0.00%
364.00	Poles, Towers and Fixtures	50-R4	-55	3,830,481	850,753	43,364	1.13%
365.00	Overhead Conductors and Devices	55-R3	-55	1,652,251	376,538	17,165	1.04%
365.10	Overhead Services	50-R3	-15	676,015	40,138	2,126	0.31%
367.00	Underground Conductor and Devices	55-R3	-15	1,234,683	60,030	3,593	0.29%
367.10	Underground Services	35-R2.5	0	160,510	-	-	0.00%
368.00	Line Transformers	40-S0	-15	1,145,103	71,436	4,627	0.40%
370.00	Conventional Meters	16-L0	0	83,577	-	-	0.00%
373.00	Street Lights	30-S1	-15	443,292	27,722	2,362	0.53%
373.10	Sentinel Lights	30-S1	0	128,102	-	-	0.00%
TOTAL D	ISTRIBUTION PLANT			9,878,037	1,434,751	73,565	0.74%

TABLE 1B. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO THE RECOVERY OF AVERAGE ORIGINAL COST IN ELECTRIC PLANT BASED ON ORIGINAL COSTS AS OF DECEMBER 31, 2022

"NET SALVAGE"

Account	Description	Estimated Survivor Curve	Net Salvage Percent	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Annual Accrual Amount	Annual Accrual Rate
(1)	(2)	(3)	(4)	(5)	. (6)	(7)	(8)
390.00	Structures and Improvements	45-R3	0	483,910	-	-	0.00%
391.22	Computer Software and Applications Major (10 YR)	10-SQ	0	164,649	-	-	0.00%
392.20	Transportation Equipment, Fleet Vehicles, Category 2	10-L3	15	387,743	(24,506)	(5,896)	-1.52%
392.30	Transportation Equipment, Fleet Vehicles, Category 3	20-R3	20	577,476	(66,091)	(5,735)	-0.99%
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	10-SQ	0	24,000	-	-	0.00%
TOTAL G	ENERAL PLANT			1,637,778	(90,597)	(11,631)	-0.71%
TOTAL PL	ANT STUDIED			21,901,406	2,003,980	94,079	0.43%

TABLE 2. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AS OF DECEMBER 31, 2022

"TOTAL"

		Surviving	Calculated	Book	Accumulated	Accumulated	Probable	Annual
	Desertation	Original Cost as of 12/31/2022	Accrued	Accumulated Depreciation	Depreciation	Depreciation	Remaining	Provision for True-up
ACCOUNT (1)		(3)	(4)	(5)	(6) = (4) - (5)	(7)=(6)/(4)	(8)	(8)/(4)=(9)
(1)	(-)	(0)	(-)	(0)	(0) - (4) (0)	(7)-(0)/(4)	(0)	(/)-(0)/(0)
PLANT I	N SERVICE							
BBODUC								
241.20		220 522	177 475	104 701	(28,104)	14 0407	20.2	(007)
341.20	INI Compusi Silucioles	1 724 414	100,0/3	1 207 901	(20,106)	-10.00%	30.3	(727)
342.20	INT Combust Concreters	2 850 934	1 383 300	1,307,001	(362,000)	-30.27/0	17.0	(20,362)
345.20		1 175 517	735 287	473,033	(144 344)	10 00%	12.0	(0 7/3)
345.20	INT Combust Accessory	50 293	36 651	44 461	(140,340)	-17.70%	9.5	(7,743)
	ISEL GENERATION	6 141 892	3 267 715	2 922 329	345 387	-21.01/6	7.5	37 183
		•,,•.=	0,201,110	_,,	0 10,001			.,
TRANSM	ISSION PLANT							
353.00	Station Equipment	1,153,005	643,552	658,265	(14,712)	-2.29%	24.3	(606)
355.00	Poles and Fixtures	948,295	682,850	678,084	4,766	0.70%	27.4	-
355.04	Poles and Fixtures T415	382,168	315,500	328,546	(13,046)	-4.13%	23.7	(551)
356.00	Overhead Conductors and Devices Poles	1,045,760	714,558	877,558	(163,000)	-22.81%	20.4	(8,005)
356.04	Overhead Conductors and Devices Poles T415	714,471	531,650	741,902	(210,253)	-39.55%	17.7	(11,878)
TOTAL T	RANSMISSION PLANT	4,243,700	2,888,111	3,284,356	(396,245)			(21,041)
DISTRIBU	TION PLANT							
360.10	Land Rights	18,935	2,890	2,891	(1)	-0.04%	64.9	-
362.00	Station Equipment	305,301	170,815	184,286	(13,471)	-7.89%	24.2	(556)
362.10	System Communication & Control	199,786	185,400	197,668	(12,268)	-6.62%	5.0	+ (2,454)
364.00	Poles, Towers and Fixtures	3,830,481	2,397,576	2,734,096	(336,519)	-14.04%	30.8	(10,926)
365.00	Overhead Conductors and Devices	1,652,251	1,061,153	1,279,780	(218,626)	-20.60%	34.3	(6,378)
365.10	Overhead Services	676,015	307,727	326,374	(18,647)	-6.06%	32.1	(581)
367.00	Underground Conductor and Devices	1,234,683	460,227	404,562	55,665	12.10%	38.9	1,801
367.10	Underground Services	160,510	78,770	87,378	(8,608)	-10.93%	20.0	(431)
368.00	Line Transformers	1,145,103	547,673	681,484	(133,810)	-24.43%	28.0	(4,776)
370.00	Conventional Meters	83,577	55,874	47,596	8,278	14.82%	9.2	898
373.00	Street Lights	443,292	212,539	178,013	34,526	16.24%	19.6	2,181
373.10	Sentinel Lights	128,102	42,288	41,487	800	1.89%	21.7	37
TOTAL D	ISTRIBUTION PLANT	9,878,037	5,522,933	6,165,615	(642,682)			(21,185)

TABLE 2. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AS OF DECEMBER 31, 2022

"TOTAL"

Account	Description	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Book Accumulated Depreciation	Accumulated Depreciation Variance Amount	Accumulated Depreciation Variance Percent	Probable Remaining Life	Annual Provision for True-up
(1)	(2)	(3)	(4)	(5)	(6) = (4)-(5)	(7)=(6)/(4)	(8)	(9)=(6)/(8)
GENERA	L PLANT							
390.00	Structures and Improvements	483,910	200,141	228,904	(28,763)	-14.37%	28.4	(1,012)
391.22	Computer Software and Applications Major (10 YR)	164,649	98,204	110,659	(12,454)	-12.68%	5.0	+ (2,491)
392.20	Transportation Equipment, Fleet Vehicles, Category 2	387,743	138,865	95,604	43,262	31.15%	6.3	6,797
392.30	Transportation Equipment, Fleet Vehicles, Category 3	577,476	264,365	295,340	(30,975)	-11.72%	9.6	(3,224) **
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	24,000	4,112	10,413	(6,300)	-153.21%	8.3	(760)
TOTAL G	ENERAL PLANT	1,637,778	705,688	740,919	(35,232)			(690)
TOTAL P	LANT STUDIED	21,901,406	12,384,447	13,113,219	(728,773)			(5,733)

5

0.05

+ Remaining life is limited to be no less than 5 years.

* True-up is calculated only when the variance exceeds +/- 5%.

** True-up relates to Life only, Cost of Removal only or partially offsetting Life and Cost of Removal true-up amounts.

TABLE 2A. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AS OF DECEMBER 31, 2022

"LIFE"

		Surviving	Calculated	Book	Accumulated	Accumulated Depreciation	Probable	Annual
Account	Description	Original Cost as of 12/31/2022	Accrued Depreciation	Accumulated Depreciation	Depreciation Variance Amount	Variance Percent	Remaining Life	Provision for True-up
(1)	(2)	(3)	. (4)	(5)	(6) = (4)-(5)	(7)=(6)/(4)	(8)	(9)=(6)/(8)
PLANT I	N SERVICE							
BRODUC								
241.20		220 522	151 502	195.041	(22 520)	00 1207	20.2	(1.104)
342.20	INT Combust Such Helderr, Broducerr and Accessories	1 734 414	850 730	1 194 020	(334 281)	-22.13%	17.4	(1,100)
342.20	INT Combust Congraters	2,850,934	1 317 514	1,176,020	(336,201)	-37.11%	17.0	(17,113)
345.20		1 175 517	700 274	851.057	(150 783)	21 537	12.0	(10.038)
346.20		50,293	34 906	42,499	(130,703)	-21.35%	9.5	(10,000)
		6 141 892	3 043 955	2 756 179	307 776	-21.7576	7.5	34 013
IUIALD		0,141,072	0,000,700	2,700,177	007,770			04,010
TRANSM	IISSION PLANT							
353.00	Station Equipment	1,153,005	559,611	609,142	(49,532)	-8.85%	24.3	(2,040)
355.00	Poles and Fixtures	948,295	505,815	498,643	7,172	1.42%	27.4	- *
355.04	Poles and Fixtures T415	382,168	233,704	306,467	(72,763)	-31.13%	23.7	(3,075)
356.00	Overhead Conductors and Devices Poles	1,045,760	649,598	738,013	(88,415)	-13.61%	20.4	(4,342)
356.04	Overhead Conductors and Devices Poles T415	714,471	483,318	625,218	(141,900)	-29.36%	17.7	(8,017)
TOTAL T	RANSMISSION PLANT	4,243,700	2,432,046	2,777,483	(345,437)			(17,473)
DISTRIBU	JTION PLANT							
360.10	Land Rights	18,935	2,890	2,891	(1)	-0.04%	64.9	- *
362.00	Station Equipment	305,301	162,681	188,524	(25,843)	-15.89%	24.2	(1,066)
362.10	System Communication & Control	199,786	185,400	198,270	(12,871)	-6.94%	5.0	+ (2,574)
364.00	Poles, Towers and Fixtures	3,830,481	1,546,823	1,962,142	(415,319)	-26.85%	30.8	(13,485)
365.00	Overhead Conductors and Devices	1,652,251	684,615	872,072	(187,457)	-27.38%	34.3	(5,469)
365.10	Overhead Services	676,015	267,589	303,419	(35,830)	-13.39%	32.1	(1,117)
367.00	Underground Conductor and Devices	1,234,683	400,198	414,513	(14,315)	-3.58%	38.9	- *
367.10	Underground Services	160,510	78,770	83,483	(4,713)	-5.98%	20.0	(236)
368.00	Line Transformers	1,145,103	476,238	671,993	(195,756)	-41.10%	28.0	(6,987)
370.00	Conventional Meters	83,577	55,874	48,260	7,615	13.63%	9.2	826
373.00	Street Lights	443,292	184,816	192,937	(8,120)	-4.39%	19.6	- *
373.10	Sentinel Lights	128,102	42,288	56,639	(14,352)	-33.94%	21.7	(663)
TOTAL D	ISTRIBUTION PLANT	9,878,037	4,088,182	4,995,144	(906,962)			(30,770)

TABLE 2A. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AS OF DECEMBER 31, 2022

"LIFE"

Account	Description	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Book Accumulated Depreciation	Accumulated Depreciation Variance Amount	Accumulated Depreciation Variance Percent	Probable Remaining Life		Annual Provision for True-up
(1)	(2)	(3)	(4)	(5)	(6) = (4)-(5)	(7)=(6)/(4)	(8)		(9)=(6)/(8)
GENERAL PLANT									
390.00	Structures and Improvements	483,910	200,141	234,628	(34,486)	-17.23%	28.4		(1,213)
391.22	Computer Software and Applications Major (10 YR)	164,649	98,204	110,659	(12,454)	-12.68%	5.0	+	(2,491)
392.20	Transportation Equipment, Fleet Vehicles, Category 2	387,743	163,371	120,800	42,571	26.06%	6.3		6,797
392.30	Transportation Equipment, Fleet Vehicles, Category 3	577,476	330,456	373,506	(43,050)	-13.03%	9.6		(4,481)
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	24,000	4,112	9,798	(5,686)	-138.26%	8.3		(686)
TOTAL G	ENERAL PLANT	1,637,778	796,285	849,390	(53,105)				(2,074)
TOTAL PLANT STUDIED		21,901,406	10,380,467	11,378,195	(997,728)				(16,304)

+ Remaining life is limited to be no less than 5 years.

** True up relates to either Net Salvage or Life only

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TABLE 2B. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AS OF DECEMBER 31, 2022

"NET SALVAGE"

Account	Description	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Book Accumulated Depreciation	Accumulated Depreciation Variance Amount	Accumulated Depreciation Variance Percent	Probable Remaining Life	Annual Provision for True-up
(1)	(2)	(3)	(4)	(5)	(6) = (4)-(5)	(7)=(6)/(4)	(8)	(9)=(6)/(8)
PLANT	IN SERVICE							
PRODUC	CTION PLANT							
341.20	INT Combust Structures	330,532	15,152	9,720	5,433	36%	30.3	179
342.20	INT Combust Fuel Holders, Producers and Accessories	1,734,616	85,974	111,780	(25,807)	-30%	17.6	(1,467)
343.20	INT Combust Generators	2,850,934	65,876	12,112	53,764	82%	12.8	4,185
345.20	INT Combust Accessory	1,175,517	35,014	30,576	4,438	13%	15.0	295
346.20	INT Combust Miscellaneous	50,293	1,745	1,962	(217)	-12%	9.5	(23)
TOTAL D	DIESEL GENERATION	6,141,892	203,761	166,150	37,611			3,170
TRANSA								
353.00	Station Equipment	1,153,005	83 942	49,122	34.819	41%	24.3	1.434
355.00	Poles and Fixtures	948 295	177.035	179 442	(2,406)	-1%	27.4	- *
355.04	Poles and Fixtures T415	382.168	81.796	22.079	59.717	73%	23.7	2.523
356.00	Overhead Conductors and Devices Poles	1,045,760	64,960	139,545	(74,586)	-115%	20.4	(3,663)
356.04	Overhead Conductors and Devices Poles T415	714,471	48,332	116,685	(68,353)	-141%	17.7	(3,862)
TOTAL T	RANSMISSION PLANT	4,243,700	456,065	506.873	(50.809)			(3,567)
	ITION PLANT							
360.10	Land Rights	18 935	_	-	_	100%	64.9	-
362.00	Station Equipment	305.301	8.134	(4.238)	12.372	1.52%	24.2	510
362.10	System Communication & Control	199.786	-	(602)	602	100%	5.0 +	120
364.00	Poles. Towers and Fixtures	3.830.481	850.753	771,953	78,799	9%	30.8	2.558
365.00	Overhead Conductors and Devices	1,652,251	376,538	407,708	(31,170)	-8%	34.3	(909)
365.10	Overhead Services	676,015	40,138	22,956	17,183	43%	32.1	536
367.00	Underground Conductor and Devices	1,234,683	60,030	(9,951)	69,981	117%	38.9	1,801
367.10	Underground Services	160,510	-	3,895	(3,895)	100%	20.0	(195)
368.00	Line Transformers	1,145,103	71,436	9,490	61,946	87%	28.0	2,211
370.00	Conventional Meters	83,577	-	(663)	663	100%	9.2	72
373.00	Street Lights	443,292	27,722	(14,924)	42,646	154%	19.6	2,181
373.10	Sentinel Lights	128,102	-	(15,152)	15,152	100%	21.7	700
TOTAL D	DISTRIBUTION PLANT	9,878,037	1,434,751	1,170,471	264,280			9,585

TABLE 2B. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AS OF DECEMBER 31, 2022

"NET SALVAGE"

Account	Description	Surviving Original Cost as of 12/31/2022	Calculated Accrued Depreciation	Book Accumulated Depreciation	Accumulated Depreciation Variance Amount	Accumulated Depreciation Variance Percent	Probable Remaining Life	Annual Provision for True-up	
(1)	(2)	(3)	(4)	(5)	(6) = (4)-(5)	(7)=(6)/(4)	(8)	(9)=(6)/(8)	
GENERAL PLANT									
390.00	Structures and Improvements	483,910	-	(5,723)	5,723	100%	28.4	201	
391.22	Computer Software and Applications Major (10 YR)	164,649	-	-	-	100%	5.0 +	-	
392.20	Transportation Equipment, Fleet Vehicles, Category 2	387,743	(24,506)	(25,196)	691	-3%	6.3	- *	
392.30	Transportation Equipment, Fleet Vehicles, Category 3	577,476	(66,091)	(78,166)	12,075	-18%	9.6	1,257	
394.00	Tools, Shop, Garage, Stores and Laboratory Equipment	24,000	-	615	(615)	100%	8.3	(74)	
TOTAL G	ENERAL PLANT	1,637,778	(90,597)	(108,471)	17,874			1,384	
TOTAL PLANT STUDIED		21,901,406	2,003,980	1,735,024	268,956			10,571	

+ Remaining life is limited to be no less than 5 years.

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** True up relates to either Net Salvage or Life only

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Naka Power Utilities (NWT) 2022 Depreciation Study

SECTION 6

6 RETIREMENT RATE ANALYSIS

Naka Power Utilities (NWT) Account 341.20 - INT Combust Structures Placement Band - 1965 - 2022 Experience Band - 1976 - 2022 Actual and Smooth Survivor Curves — Iowa 50-S1.5 (RM 0.5323) Actual — Iowa 50-S1.5 (RM 0.5323) 100 80 **Percent Surviving** 60 40 20 0 20 40 60 80 100 0 Age (Years)

Account 341.20 - INT Combust Structures

Placement Band - 1965 - 2022 Experience Band - 1976 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	359,901	0	0.00000	1.00000	100.00
0.5	359,901	0	0.00000	1.00000	100.00
1.5	359,901	0	0.00000	1.00000	100.00
2.5	359,901	0	0.00000	1.00000	100.00
3.5	359,901	0	0.00000	1.00000	100.00
4.5	359,901	0	0.00000	1.00000	100.00
5.5	359,901	0	0.00000	1.00000	100.00
6.5	359,901	0	0.00000	1.00000	100.00
7.5	358,322	0	0.00000	1.00000	100.00
8.5	358,322	0	0.00000	1.00000	100.00
9.5	310,232	515	0.00166	0.99834	100.00
10.5	309,717	773	0.00250	0.99750	99.83
11.5	308,944	0	0.00000	1.00000	99.58
12.5	308,944	0	0.00000	1.00000	99.58
13.5	302,536	0	0.00000	1.00000	99.58
14.5	299,303	1,468	0.00490	0.99510	99.58
15.5	262,138	0	0.00000	1.00000	99.09
16.5	247,018	0	0.00000	1.00000	99.09
17.5	173,933	515	0.00296	0.99704	99.09
18.5	171,442	0	0.00000	1.00000	98.80
19.5	171,442	0	0.00000	1.00000	98.80
20.5	171,442	285	0.00166	0.99834	98.80
21.5	163,761	0	0.00000	1.00000	98.64
22.5	163,761	3,360	0.02052	0.97948	98.64
23.5	156,276	0	0.00000	1.00000	96.62
24.5	127,805	0	0.00000	1.00000	96.62
25.5	127,805	0	0.00000	1.00000	96.62
26.5	127,805	0	0.00000	1.00000	96.62

Account 341.20 - INT Combust Structures

	Placement Band - 19	65 - 2022 Experien	ice Band - 1	L976 - 2022	
27.5	122,113	257	0.00210	0.99790	96.62
28.5	121,856	0	0.00000	1.00000	96.42
29.5	121,856	549	0.00451	0.99549	96.42
30.5	121,307	0	0.00000	1.00000	95.99
31.5	121,307	2,000	0.01649	0.98351	95.99
32.5	116,807	0	0.00000	1.00000	94.41
33.5	116,807	80	0.00068	0.99932	94.41
34.5	87,323	4,327	0.04955	0.95045	94.35
35.5	40,496	14,718	0.36344	0.63656	89.67
36.5	15,772	0	0.00000	1.00000	57.08
37.5	15,772	0	0.00000	1.00000	57.08
38.5	15,772	0	0.00000	1.00000	57.08
39.5	15,772	0	0.00000	1.00000	57.08
40.5	15,772	0	0.00000	1.00000	57.08
41.5	15,772	0	0.00000	1.00000	57.08
42.5	15,772	0	0.00000	1.00000	57.08
43.5	15,772	0	0.00000	1.00000	57.08
44.5	14,414	0	0.00000	1.00000	57.08
45.5	10,159	0	0.00000	1.00000	57.08
46.5	9,950	522	0.05246	0.94754	57.08
47.5	2,555	0	0.00000	1.00000	54.09
48.5	0	0	0.00000	0.00000	54.09
	Totals:	29,369			

Naka Power Utilities (NWT) Account 342.20 - INT Combust Fuel Holders, Producers and Accessories Placement Band - 1957 - 2022 Experience Band - 1980 - 2022 Actual and Smooth Survivor Curves



Account 342.20 - INT Combust Fuel Holders, Producers and Accessories

Placement Band - 1957 - 2022 Experience Band - 1980 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	1,869,667	0	0.00000	1.00000	100.00
0.5	1,869,667	0	0.00000	1.00000	100.00
1.5	1,869,667	0	0.00000	1.00000	100.00
2.5	1,869,667	0	0.00000	1.00000	100.00
3.5	1,869,667	0	0.00000	1.00000	100.00
4.5	1,869,667	0	0.00000	1.00000	100.00
5.5	1,869,667	0	0.00000	1.00000	100.00
6.5	1,869,667	0	0.00000	1.00000	100.00
7.5	1,869,667	0	0.00000	1.00000	100.00
8.5	1,855,607	0	0.00000	1.00000	100.00
9.5	1,504,902	0	0.00000	1.00000	100.00
10.5	1,391,772	6,255	0.00449	0.99551	100.00
11.5	1,385,517	0	0.00000	1.00000	99.55
12.5	1,148,109	115,858	0.10091	0.89909	99.55
13.5	673,971	0	0.00000	1.00000	89.50
14.5	643,140	0	0.00000	1.00000	89.50
15.5	573,284	9,297	0.01622	0.98378	89.50
16.5	498,497	0	0.00000	1.00000	88.05
17.5	498,497	0	0.00000	1.00000	88.05
18.5	498,497	0	0.00000	1.00000	88.05
19.5	468,688	0	0.00000	1.00000	88.05
20.5	468,688	0	0.00000	1.00000	88.05
21.5	313,193	375	0.00120	0.99880	88.05
22.5	250,701	1,500	0.00598	0.99402	87.94
23.5	130,946	0	0.00000	1.00000	87.41
24.5	71,393	0	0.00000	1.00000	87.41
25.5	71,393	0	0.00000	1.00000	87.41
26.5	71,393	0	0.00000	1.00000	87.41

Account 342.20 - INT Combust Fuel Holders, Producers and Accessories

	Placement Band - 1957 - 2022 Experience Band - 1980 - 2022								
27.5	71,393	0	0.00000	1.00000	87.41				
28.5	1,767	0	0.00000	1.00000	87.41				
29.5	1,767	0	0.00000	1.00000	87.41				
30.5	1,767	0	0.00000	1.00000	87.41				
31.5	1,767	0	0.00000	1.00000	87.41				
32.5	1,767	0	0.00000	1.00000	87.41				
33.5	1,767	0	0.00000	1.00000	87.41				
34.5	1,767	0	0.00000	1.00000	87.41				
35.5	1,767	0	0.00000	1.00000	87.41				
36.5	1,767	0	0.00000	1.00000	87.41				
37.5	1,767	0	0.00000	1.00000	87.41				
38.5	1,767	0	0.00000	1.00000	87.41				
39.5	1,767	0	0.00000	1.00000	87.41				
40.5	1,767	0	0.00000	1.00000	87.41				
41.5	1,767	0	0.00000	1.00000	87.41				
42.5	1,767	1,767	0.99991	0.00009	87.41				
43.5	0	0	0.00000	0.00000	0.01				
	Totals:	135,052							

Naka Power Utilities (NWT) Account 343.20 - INT Combust Generators Placement Band - 1960 - 2022 Experience Band - 1972 - 2022 Actual and Smooth Survivor Curves



Account 343.20 - INT Combust Generators

Placement Band - 1960 - 2022 Experience Band - 1972 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	5,670,462	514	0.00009	0.99991	100.00
0.5	5,425,939	110,346	0.02034	0.97966	99.99
1.5	5,289,865	33,737	0.00638	0.99362	97.96
2.5	5,075,775	58,940	0.01161	0.98839	97.34
3.5	4,880,864	17,658	0.00362	0.99638	96.21
4.5	4,786,614	235,656	0.04923	0.95077	95.86
5.5	4,136,450	67,217	0.01625	0.98375	91.14
6.5	3,986,073	515,057	0.12921	0.87079	89.66
7.5	3,122,466	124,779	0.03996	0.96004	78.08
8.5	2,997,687	209,513	0.06989	0.93011	74.96
9.5	2,502,561	92,161	0.03683	0.96317	69.72
10.5	2,327,300	265,156	0.11393	0.88607	67.15
11.5	2,051,786	21,334	0.01040	0.98960	59.50
12.5	2,021,876	26,287	0.01300	0.98700	58.88
13.5	1,995,589	293,587	0.14712	0.85288	58.11
14.5	1,688,531	68,145	0.04036	0.95964	49.56
15.5	1,197,799	17,235	0.01439	0.98561	47.56
16.5	1,180,564	6,129	0.00519	0.99481	46.88
17.5	1,092,536	4,798	0.00439	0.99561	46.64
18.5	1,071,484	18,090	0.01688	0.98312	46.44
19.5	1,053,394	3,437	0.00326	0.99674	45.66
20.5	1,011,591	0	0.00000	1.00000	45.51
21.5	1,011,591	64,540	0.06380	0.93620	45.51
22.5	947,051	81,990	0.08657	0.91343	42.61
23.5	865,061	68,224	0.07887	0.92113	38.92
24.5	796,837	179,607	0.22540	0.77460	35.85
25.5	617,230	1,484	0.00240	0.99760	27.77
26.5	550,648	64,237	0.11666	0.88334	27.70

Account 343.20 - INT Combust Generators

	Placement Band - 1960 - 2022 Experience Band - 1972 - 2022							
27.5	482,908	69,526	0.14397	0.85603	24.47			
28.5	413,382	48,807	0.11807	0.88193	20.95			
29.5	364,575	37,385	0.10254	0.89746	18.48			
30.5	325,980	0	0.00000	1.00000	16.59			
31.5	325,980	7,500	0.02301	0.97699	16.59			
32.5	317,396	6,451	0.02032	0.97968	16.21			
	Totals:	2,819,527						

Naka Power Utilities (NWT) Account 345.20 - INT Combust Accessory Placement Band - 1964 - 2022 Experience Band - 1972 - 2022 Actual and Smooth Survivor Curves Actual — Iowa 30-R1.5 (RM 2.722) Iowa 30-R1.5 (RM 2.722) 100 80 Percent Surviving 60 40 20 0 10 20 30 40 50 60 70 0 Age (Years)

Account 345.20 - INT Combust Accessory

Placement Band - 1964 - 2022 Experience Band - 1972 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	1,367,045	0	0.00000	1.00000	100.00
0.5	1,320,211	0	0.00000	1.00000	100.00
1.5	1,273,833	0	0.00000	1.00000	100.00
2.5	1,250,675	89,366	0.07145	0.92855	100.00
3.5	1,161,310	0	0.00000	1.00000	92.86
4.5	1,161,310	0	0.00000	1.00000	92.86
5.5	1,155,676	0	0.00000	1.00000	92.86
6.5	1,154,085	0	0.00000	1.00000	92.86
7.5	1,135,962	27,513	0.02422	0.97578	92.86
8.5	1,104,341	2,900	0.00263	0.99737	90.61
9.5	1,101,441	0	0.00000	1.00000	90.37
10.5	1,101,441	6,480	0.00588	0.99412	90.37
11.5	1,094,962	50	0.00005	0.99995	89.84
12.5	1,087,925	0	0.00000	1.00000	89.84
13.5	1,046,659	8,194	0.00783	0.99217	89.84
14.5	1,038,465	11,484	0.01106	0.98894	89.14
15.5	984,003	6,683	0.00679	0.99321	88.15
16.5	925,826	0	0.00000	1.00000	87.55
17.5	867,105	7,529	0.00868	0.99132	87.55
18.5	790,072	6,600	0.00835	0.99165	86.79
19.5	773,127	8,000	0.01035	0.98965	86.07
20.5	676,150	0	0.00000	1.00000	85.18
21.5	674,150	0	0.00000	1.00000	85.18
22.5	576,334	5,295	0.00919	0.99081	85.18
23.5	275,237	0	0.00000	1.00000	84.40
24.5	247,338	0	0.00000	1.00000	84.40
25.5	246,894	0	0.00000	1.00000	84.40
26.5	241,806	0	0.00000	1.00000	84.40

Account 345.20 - INT Combust Accessory

	Placement Band - 19	64 - 2022 Experien	ce Band -	1972 - 2022	
27.5	230,603	0	0.00000	1.00000	84.40
28.5	226,748	0	0.00000	1.00000	84.40
29.5	226,748	0	0.00000	1.00000	84.40
30.5	226,748	0	0.00000	1.00000	84.40
31.5	226,748	0	0.00000	1.00000	84.40
32.5	206,548	0	0.00000	1.00000	84.40
33.5	206,548	0	0.00000	1.00000	84.40
34.5	175,597	0	0.00000	1.00000	84.40
35.5	144,773	8,727	0.06028	0.93972	84.40
36.5	27,896	0	0.00000	1.00000	79.31
37.5	27,896	0	0.00000	1.00000	79.31
38.5	27,896	0	0.00000	1.00000	79.31
39.5	27,896	0	0.00000	1.00000	79.31
40.5	27,896	0	0.00000	1.00000	79.31
41.5	27,896	0	0.00000	1.00000	79.31
42.5	27,896	0	0.00000	1.00000	79.31
43.5	27,896	0	0.00000	1.00000	79.31
44.5	27,896	0	0.00000	1.00000	79.31
45.5	27,896	1,207	0.04327	0.95673	79.31
46.5	3,416	0	0.00000	1.00000	75.88
47.5	3,416	0	0.00000	1.00000	75.88
48.5	3,416	0	0.00000	1.00000	75.88
49.5	3,416	0	0.00000	1.00000	75.88
50.5	3,416	1,502	0.43970	0.56030	75.88
51.5	0	0	0.00000	0.00000	42.52
	Totals:	191,530			

Naka Power Utilities (NWT) Account 346.20 - INT Combust Miscellaneous Placement Band - 1971 - 2022 Experience Band - 2009 - 2022 Actual and Smooth Survivor Curves

— Iowa 27-R3 (RM 4.3122) Actual lowa 27-R3 (RM 4.3122) 80 Percent Surviving 60 40 20 0 30 10 20 40 50 0 60 Age (Years)

Account 346.20 - INT Combust Miscellaneous

Placement Band - 1971 - 2022 Experience Band - 2009 - 2022

RETIREMENT RATE ANALYSIS

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	51,258	0	0.00000	1.00000	100.00
0.5	51,258	0	0.00000	1.00000	100.00
1.5	51,258	0	0.00000	1.00000	100.00
2.5	51,258	285	0.00556	0.99444	100.00
3.5	50,973	0	0.00000	1.00000	99.44
4.5	50,973	0	0.00000	1.00000	99.44
5.5	50,973	0	0.00000	1.00000	99.44
6.5	50,973	0	0.00000	1.00000	99.44
7.5	50,973	0	0.00000	1.00000	99.44
8.5	50,973	0	0.00000	1.00000	99.44
9.5	48,492	0	0.00000	1.00000	99.44
10.5	42,541	0	0.00000	1.00000	99.44
11.5	42,541	0	0.00000	1.00000	99.44
12.5	42,541	0	0.00000	1.00000	99.44
13.5	41,437	0	0.00000	1.00000	99.44
14.5	40,121	0	0.00000	1.00000	99.44
15.5	38,001	0	0.00000	1.00000	99.44
16.5	33,630	0	0.00000	1.00000	99.44
17.5	33,630	0	0.00000	1.00000	99.44
18.5	33,630	0	0.00000	1.00000	99.44
19.5	33,630	0	0.00000	1.00000	99.44
20.5	33,630	0	0.00000	1.00000	99.44
21.5	33,630	680	0.02022	0.97978	99.44
22.5	10,225	0	0.00000	1.00000	97.43
23.5	10,225	0	0.00000	1.00000	97.43
24.5	8,237	0	0.00000	1.00000	97.43
25.5	8,237	0	0.00000	1.00000	97.43
26.5	8,237	0	0.00000	1.00000	97.43

Account 346.20 - INT Combust Miscellaneous

Placement Band - 1971 - 2022 Experience Band - 2009 - 2022					
27.5	8,237	0	0.00000	1.00000	97.43
28.5	8,237	0	0.00000	1.00000	97.43
29.5	8,237	0	0.00000	1.00000	97.43
30.5	8,237	0	0.00000	1.00000	97.43
31.5	8,237	0	0.00000	1.00000	97.43
32.5	8,237	0	0.00000	1.00000	97.43
33.5	8,237	0	0.00000	1.00000	97.43
34.5	7,990	0	0.00000	1.00000	97.43
35.5	109	0	0.00000	1.00000	97.43
36.5	109	0	0.00000	1.00000	97.43
37.5	109	0	0.00000	1.00000	97.43
38.5	109	0	0.00000	1.00000	97.43
39.5	109	0	0.00000	1.00000	97.43
40.5	109	0	0.00000	1.00000	97.43
41.5	109	0	0.00000	1.00000	97.43
42.5	109	0	0.00000	1.00000	97.43
43.5	109	0	0.00000	1.00000	97.43
44.5	109	0	0.00000	1.00000	97.43
45.5	109	0	0.00000	1.00000	97.43
46.5	109	0	0.00000	1.00000	97.43
47.5	109	0	0.00000	1.00000	97.43
48.5	109	0	0.00000	1.00000	97.43
49.5	109	0	0.00000	1.00000	97.43
50.5	109	0	0.00000	1.00000	97.43
	Totals:	965			

Account 353.00 - Station Equipment

Placement Band - 1988 - 2022 Experience Band - 2003 - 2022

Actual and Smooth Survivor Curves


Account 353.00 - Station Equipment

Placement Band - 1988 - 2022 Experience Band - 2003 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	1,174,989	0	0.00000	1.00000	100.00
0.5	1,174,989	4,228	0.00360	0.99640	100.00
1.5	1,170,761	0	0.00000	1.00000	99.64
2.5	1,166,889	0	0.00000	1.00000	99.64
3.5	1,166,889	0	0.00000	1.00000	99.64
4.5	1,166,889	0	0.00000	1.00000	99.64
5.5	1,166,889	0	0.00000	1.00000	99.64
6.5	1,166,889	0	0.00000	1.00000	99.64
7.5	1,166,889	0	0.00000	1.00000	99.64
8.5	1,134,241	0	0.00000	1.00000	99.64
9.5	1,072,526	0	0.00000	1.00000	99.64
10.5	1,072,526	3,407	0.00318	0.99682	99.64
11.5	869,714	0	0.00000	1.00000	99.32
12.5	628,662	0	0.00000	1.00000	99.32
13.5	628,662	0	0.00000	1.00000	99.32
14.5	628,662	571	0.00091	0.99909	99.32
15.5	623,346	0	0.00000	1.00000	99.23
16.5	575,272	0	0.00000	1.00000	99.23
17.5	575,272	0	0.00000	1.00000	99.23
18.5	561,133	0	0.00000	1.00000	99.23
19.5	561,133	0	0.00000	1.00000	99.23
20.5	557,789	0	0.00000	1.00000	99.23
21.5	557,789	0	0.00000	1.00000	99.23
22.5	552,733	0	0.00000	1.00000	99.23
23.5	552,733	11,906	0.02154	0.97846	99.23
24.5	535,396	0	0.00000	1.00000	97.09
25.5	535,396	0	0.00000	1.00000	97.09
26.5	519,562	0	0.00000	1.00000	97.09

Account 353.00 - Station Equipment

	Placement Band - 19	88 - 2022 Experier	ice Band -	2003 - 2022	
27.5	516,472	0	0.00000	1.00000	97.09
28.5	435,418	0	0.00000	1.00000	97.09
29.5	435,418	0	0.00000	1.00000	97.09
30.5	435,418	0	0.00000	1.00000	97.09
31.5	435,418	0	0.00000	1.00000	97.09
32.5	435,418	1,872	0.00430	0.99570	97.09
33.5	433,376	0	0.00000	1.00000	96.67
	Totals:	21,984			

Account 355.00 - Poles and Fixtures

Placement Band - 1988 - 2022 Experience Band - 2005 - 2022

Actual and Smooth Survivor Curves



Account 355.00 - Poles and Fixtures

Placement Band - 1988 - 2022 Experience Band - 2005 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	1,087,039	0	0.00000	1.00000	100.00
0.5	1,087,039	0	0.00000	1.00000	100.00
1.5	1,087,039	0	0.00000	1.00000	100.00
2.5	1,087,039	0	0.00000	1.00000	100.00
3.5	1,087,039	0	0.00000	1.00000	100.00
4.5	1,087,039	0	0.00000	1.00000	100.00
5.5	1,087,039	0	0.00000	1.00000	100.00
6.5	1,087,039	0	0.00000	1.00000	100.00
7.5	1,087,039	87,651	0.08063	0.91937	100.00
8.5	910,228	0	0.00000	1.00000	91.94
9.5	877,272	29,546	0.03368	0.96632	91.94
10.5	812,933	667	0.00082	0.99918	88.84
11.5	812,266	0	0.00000	1.00000	88.77
12.5	812,266	0	0.00000	1.00000	88.77
13.5	812,266	12,328	0.01518	0.98482	88.77
14.5	783,565	2,001	0.00255	0.99745	87.42
15.5	768,093	3,320	0.00432	0.99568	87.20
16.5	725,052	0	0.00000	1.00000	86.82
17.5	725,052	0	0.00000	1.00000	86.82
18.5	721,499	0	0.00000	1.00000	86.82
19.5	721,499	3,230	0.00448	0.99552	86.82
20.5	718,269	0	0.00000	1.00000	86.43
21.5	717,860	0	0.00000	1.00000	86.43
22.5	716,618	0	0.00000	1.00000	86.43
23.5	716,618	0	0.00000	1.00000	86.43
24.5	681,008	0	0.00000	1.00000	86.43
25.5	681,008	0	0.00000	1.00000	86.43
26.5	676,585	0	0.00000	1.00000	86.43

Account 355.00 - Poles and Fixtures

	Placement Band - 19	88 - 2022 Experier	ice Band -	2005 - 2022	
27.5	672,446	0	0.00000	1.00000	86.43
28.5	672,446	0	0.00000	1.00000	86.43
29.5	671,147	0	0.00000	1.00000	86.43
30.5	671,147	0	0.00000	1.00000	86.43
31.5	671,147	0	0.00000	1.00000	86.43
32.5	548,915	0	0.00000	1.00000	86.43
33.5	548,915	0	0.00000	1.00000	86.43
	Totals:	138,743			

Naka Power Utilities (NWT) Account 355.04 - Poles and Fixtures T415 Placement Band - 1988 - 2022 Experience Band - 2013 - 2022 Actual and Smooth Survivor Curves — Iowa 40-R4 (RM 0.1719) Actual - Iowa 50-R2 (RM 0.2692) 100 80 Percent Surviving 60 40 20 0 50 10 20 30 40 60 70 80 90 100 0 Age (Years)

Account 355.04 - Poles and Fixtures T415

Placement Band - 1988 - 2022 Experience Band - 2013 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	466,467	0	0.00000	1.00000	100.00
0.5	460,227	0	0.00000	1.00000	100.00
1.5	460,227	0	0.00000	1.00000	100.00
2.5	460,227	0	0.00000	1.00000	100.00
3.5	452,860	0	0.00000	1.00000	100.00
4.5	452,860	0	0.00000	1.00000	100.00
5.5	452,860	0	0.00000	1.00000	100.00
6.5	452,860	0	0.00000	1.00000	100.00
7.5	452,860	0	0.00000	1.00000	100.00
8.5	452,860	0	0.00000	1.00000	100.00
9.5	452,860	0	0.00000	1.00000	100.00
10.5	452,860	0	0.00000	1.00000	100.00
11.5	452,860	0	0.00000	1.00000	100.00
12.5	452,860	0	0.00000	1.00000	100.00
13.5	452,860	0	0.00000	1.00000	100.00
14.5	452,860	0	0.00000	1.00000	100.00
15.5	452,860	0	0.00000	1.00000	100.00
16.5	452,860	0	0.00000	1.00000	100.00
17.5	452,860	0	0.00000	1.00000	100.00
18.5	452,860	0	0.00000	1.00000	100.00
19.5	452,860	0	0.00000	1.00000	100.00
20.5	452,860	0	0.00000	1.00000	100.00
21.5	452,860	0	0.00000	1.00000	100.00
22.5	446,270	0	0.00000	1.00000	100.00
23.5	446,270	0	0.00000	1.00000	100.00
24.5	446,270	45,655	0.10230	0.89770	100.00
25.5	400,177	0	0.00000	1.00000	89.77
26.5	400,177	30,840	0.07707	0.92293	89.77

Account 355.04 - Poles and Fixtures T415

	Placement Band - 19	88 - 2022 Experier	nce Band -	2013 - 2022	
27.5	369,337	0	0.00000	1.00000	82.85
28.5	369,337	0	0.00000	1.00000	82.85
29.5	369,337	0	0.00000	1.00000	82.85
30.5	369,337	0	0.00000	1.00000	82.85
31.5	369,337	5,144	0.01393	0.98607	82.85
32.5	364,193	0	0.00000	1.00000	81.70
33.5	364,193	2,659	0.00730	0.99270	81.70
	Totals:	84,298			

Naka Power Utilities (NWT) Account 356.00 - Overhead Conductors and Devices Poles Placement Band - 1988 - 2022 Experience Band - 2022 - 2022 Actual and Smooth Survivor Curves



Account 356.00 - Overhead Conductors and Devices Poles

Placement Band - 1988 - 2022 Experience Band - 2022 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	1,045,760	0	0.00000	1.00000	100.00
0.5	1,045,760	0	0.00000	1.00000	100.00
1.5	1,045,760	0	0.00000	1.00000	100.00
2.5	1,045,760	0	0.00000	1.00000	100.00
3.5	1,045,760	0	0.00000	1.00000	100.00
4.5	1,045,760	0	0.00000	1.00000	100.00
5.5	1,045,760	0	0.00000	1.00000	100.00
6.5	1,045,760	0	0.00000	1.00000	100.00
7.5	1,045,760	0	0.00000	1.00000	100.00
8.5	1,010,524	0	0.00000	1.00000	100.00
9.5	958,797	0	0.00000	1.00000	100.00
10.5	931,550	0	0.00000	1.00000	100.00
11.5	931,550	0	0.00000	1.00000	100.00
12.5	931,550	0	0.00000	1.00000	100.00
13.5	931,550	0	0.00000	1.00000	100.00
14.5	931,550	0	0.00000	1.00000	100.00
15.5	931,550	0	0.00000	1.00000	100.00
16.5	931,550	0	0.00000	1.00000	100.00
17.5	931,550	0	0.00000	1.00000	100.00
18.5	928,771	0	0.00000	1.00000	100.00
19.5	928,771	0	0.00000	1.00000	100.00
20.5	928,771	0	0.00000	1.00000	100.00
21.5	927,251	0	0.00000	1.00000	100.00
22.5	922,631	0	0.00000	1.00000	100.00
23.5	921,914	0	0.00000	1.00000	100.00
24.5	898,938	0	0.00000	1.00000	100.00
25.5	898,938	0	0.00000	1.00000	100.00
26.5	898,938	0	0.00000	1.00000	100.00

Account 356.00 - Overhead Conductors and Devices Poles

	Placement Band - 19	88 - 2022 Experier	ice Band -	2022 - 2022	
27.5	898,938	0	0.00000	1.00000	100.00
28.5	897,699	0	0.00000	1.00000	100.00
29.5	897,699	0	0.00000	1.00000	100.00
30.5	897,699	0	0.00000	1.00000	100.00
31.5	897,699	0	0.00000	1.00000	100.00
32.5	868,811	0	0.00000	1.00000	100.00
33.5	868,811	0	0.00000	1.00000	100.00
	Totals:	0			

Naka Power Utilities (NWT) Account 356.04 - Overhead Conductors and Devices Poles T415 Placement Band - 1988 - 2022 Experience Band - 2022 - 2022 Actual and Smooth Survivor Curves



Account 356.04 - Overhead Conductors and Devices Poles T415

Placement Band - 1988 - 2022 Experience Band - 2022 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	714,471	0	0.00000	1.00000	100.00
0.5	714,471	0	0.00000	1.00000	100.00
1.5	714,471	0	0.00000	1.00000	100.00
2.5	709,821	0	0.00000	1.00000	100.00
3.5	709,821	0	0.00000	1.00000	100.00
4.5	709,821	0	0.00000	1.00000	100.00
5.5	709,821	0	0.00000	1.00000	100.00
6.5	709,821	0	0.00000	1.00000	100.00
7.5	709,821	0	0.00000	1.00000	100.00
8.5	709,821	0	0.00000	1.00000	100.00
9.5	709,821	0	0.00000	1.00000	100.00
10.5	709,821	0	0.00000	1.00000	100.00
11.5	709,821	0	0.00000	1.00000	100.00
12.5	709,821	0	0.00000	1.00000	100.00
13.5	709,821	0	0.00000	1.00000	100.00
14.5	709,821	0	0.00000	1.00000	100.00
15.5	709,821	0	0.00000	1.00000	100.00
16.5	709,821	0	0.00000	1.00000	100.00
17.5	709,821	0	0.00000	1.00000	100.00
18.5	709,821	0	0.00000	1.00000	100.00
19.5	709,821	0	0.00000	1.00000	100.00
20.5	709,821	0	0.00000	1.00000	100.00
21.5	709,821	0	0.00000	1.00000	100.00
22.5	709,821	0	0.00000	1.00000	100.00
23.5	709,821	0	0.00000	1.00000	100.00
24.5	709,821	0	0.00000	1.00000	100.00
25.5	709,821	0	0.00000	1.00000	100.00
26.5	708,568	0	0.00000	1.00000	100.00

Account 356.04 - Overhead Conductors and Devices Poles T415

	Placement Band - 1988 - 2022 Experience Band - 2022 - 2022						
27.5	708,568	0	0.00000	1.00000	100.00		
28.5	708,568	0	0.00000	1.00000	100.00		
29.5	708,568	0	0.00000	1.00000	100.00		
30.5	708,568	0	0.00000	1.00000	100.00		
31.5	708,568	0	0.00000	1.00000	100.00		
32.5	708,568	0	0.00000	1.00000	100.00		
33.5	708,568	0	0.00000	1.00000	100.00		
	Totals:	0					

Account 360.10 - Land Rights

Placement Band - 1970 - 2022 Experience Band - 2022 - 2022

Actual and Smooth Survivor Curves



Account 360.10 - Land Rights

Placement Band - 1970 - 2022 Experience Band - 2022 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	18,935	0	0.00000	1.00000	100.00
0.5	18,935	0	0.00000	1.00000	100.00
1.5	18,935	0	0.00000	1.00000	100.00
2.5	18,935	0	0.00000	1.00000	100.00
3.5	8,700	0	0.00000	1.00000	100.00
4.5	8,700	0	0.00000	1.00000	100.00
5.5	8,605	0	0.00000	1.00000	100.00
6.5	8,605	0	0.00000	1.00000	100.00
7.5	8,605	0	0.00000	1.00000	100.00
8.5	8,605	0	0.00000	1.00000	100.00
9.5	8,418	0	0.00000	1.00000	100.00
10.5	8,418	0	0.00000	1.00000	100.00
11.5	8,418	0	0.00000	1.00000	100.00
12.5	8,418	0	0.00000	1.00000	100.00
13.5	8,418	0	0.00000	1.00000	100.00
14.5	8,418	0	0.00000	1.00000	100.00
15.5	8,418	0	0.00000	1.00000	100.00
16.5	7,851	0	0.00000	1.00000	100.00
17.5	7,851	0	0.00000	1.00000	100.00
18.5	183	0	0.00000	1.00000	100.00
19.5	183	0	0.00000	1.00000	100.00
20.5	183	0	0.00000	1.00000	100.00
21.5	183	0	0.00000	1.00000	100.00
22.5	183	0	0.00000	1.00000	100.00
23.5	183	0	0.00000	1.00000	100.00
24.5	183	0	0.00000	1.00000	100.00
25.5	183	0	0.00000	1.00000	100.00
26.5	183	0	0.00000	1.00000	100.00

Account 360.10 - Land Rights

	Placement Band - 19	70 - 2022 Experien	ice Band -	2022 - 2022	
27.5	183	0	0.00000	1.00000	100.00
28.5	183	0	0.00000	1.00000	100.00
29.5	183	0	0.00000	1.00000	100.00
30.5	183	0	0.00000	1.00000	100.00
31.5	183	0	0.00000	1.00000	100.00
32.5	183	0	0.00000	1.00000	100.00
33.5	183	0	0.00000	1.00000	100.00
34.5	183	0	0.00000	1.00000	100.00
35.5	183	0	0.00000	1.00000	100.00
36.5	183	0	0.00000	1.00000	100.00
37.5	183	0	0.00000	1.00000	100.00
38.5	183	0	0.00000	1.00000	100.00
39.5	183	0	0.00000	1.00000	100.00
40.5	183	0	0.00000	1.00000	100.00
41.5	181	0	0.00000	1.00000	100.00
42.5	181	0	0.00000	1.00000	100.00
43.5	49	0	0.00000	1.00000	100.00
44.5	49	0	0.00000	1.00000	100.00
45.5	42	0	0.00000	1.00000	100.00
46.5	21	0	0.00000	1.00000	100.00
47.5	19	0	0.00000	1.00000	100.00
48.5	19	0	0.00000	1.00000	100.00
49.5	18	0	0.00000	1.00000	100.00
50.5	3	0	0.00000	1.00000	100.00
51.5	3	0	0.00000	1.00000	100.00
	Totals:	0			

Account 362.00 - Station Equipment

Placement Band - 1951 - 2022 Experience Band - 1969 - 2022

Actual and Smooth Survivor Curves



Account 362.00 - Station Equipment

Placement Band - 1951 - 2022 Experience Band - 1969 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	317,958	0	0.00000	1.00000	100.00
0.5	317,958	7,125	0.02241	0.97759	100.00
1.5	306,919	0	0.00000	1.00000	97.76
2.5	305,290	0	0.00000	1.00000	97.76
3.5	305,290	0	0.00000	1.00000	97.76
4.5	303,692	424	0.00140	0.99860	97.76
5.5	303,268	0	0.00000	1.00000	97.62
6.5	303,268	2,535	0.00836	0.99164	97.62
7.5	300,733	1,371	0.00456	0.99544	96.80
8.5	299,362	0	0.00000	1.00000	96.36
9.5	226,032	1	0.00000	1.00000	96.36
10.5	225,971	102	0.00045	0.99955	96.36
11.5	225,615	145	0.00064	0.99936	96.32
12.5	225,470	0	0.00000	1.00000	96.26
13.5	225,470	0	0.00000	1.00000	96.26
14.5	225,470	0	0.00000	1.00000	96.26
15.5	206,502	0	0.00000	1.00000	96.26
16.5	206,502	0	0.00000	1.00000	96.26
17.5	206,502	200	0.00097	0.99903	96.26
18.5	184,134	0	0.00000	1.00000	96.17
19.5	178,179	0	0.00000	1.00000	96.17
20.5	173,838	0	0.00000	1.00000	96.17
21.5	173,838	0	0.00000	1.00000	96.17
22.5	173,838	0	0.00000	1.00000	96.17
23.5	138,006	0	0.00000	1.00000	96.17
24.5	106,375	0	0.00000	1.00000	96.17
25.5	106,375	571	0.00537	0.99463	96.17
26.5	105,734	0	0.00000	1.00000	95.65

Account 362.00 - Station Equipment

	Placement Band - 19	51 - 2022 Experien	ice Band -	1969 - 2022	
27.5	103,836	0	0.00000	1.00000	95.65
28.5	103,836	0	0.00000	1.00000	95.65
29.5	103,836	0	0.00000	1.00000	95.65
30.5	103,836	0	0.00000	1.00000	95.65
31.5	103,836	0	0.00000	1.00000	95.65
32.5	103,836	0	0.00000	1.00000	95.65
33.5	103,836	0	0.00000	1.00000	95.65
34.5	103,836	0	0.00000	1.00000	95.65
35.5	103,836	0	0.00000	1.00000	95.65
36.5	103,836	0	0.00000	1.00000	95.65
37.5	103,836	0	0.00000	1.00000	95.65
38.5	103,836	0	0.00000	1.00000	95.65
39.5	103,836	0	0.00000	1.00000	95.65
40.5	103,836	0	0.00000	1.00000	95.65
41.5	103,836	0	0.00000	1.00000	95.65
42.5	103,836	0	0.00000	1.00000	95.65
43.5	103,836	0	0.00000	1.00000	95.65
44.5	50,223	0	0.00000	1.00000	95.65
45.5	50,223	0	0.00000	1.00000	95.65
46.5	50,223	0	0.00000	1.00000	95.65
47.5	50,223	0	0.00000	1.00000	95.65
48.5	50,223	0	0.00000	1.00000	95.65
49.5	47,774	0	0.00000	1.00000	95.65
50.5	40,655	0	0.00000	1.00000	95.65
51.5	36,989	0	0.00000	1.00000	95.65
52.5	33,486	0	0.00000	1.00000	95.65
53.5	31,658	0	0.00000	1.00000	95.65
54.5	24,760	0	0.00000	1.00000	95.65
55.5	24,598	0	0.00000	1.00000	95.65
56.5	16,334	0	0.00000	1.00000	95.65
57.5	9,293	0	0.00000	1.00000	95.65

Account 362.00 - Station Equipment

Placement Band - 1951 - 2022 Experience Band - 1969 - 2022					
58.5	9,293	0	0.00000	1.00000	95.65
59.5	9,293	0	0.00000	1.00000	95.65
60.5	9,293	0	0.00000	1.00000	95.65
61.5	9,293	0	0.00000	1.00000	95.65
62.5	9,293	0	0.00000	1.00000	95.65
63.5	9,293	0	0.00000	1.00000	95.65
64.5	9,293	0	0.00000	1.00000	95.65
65.5	9,293	0	0.00000	1.00000	95.65
66.5	9,293	0	0.00000	1.00000	95.65
67.5	9,293	183	0.01969	0.98031	95.65
68.5	9,110	0	0.00000	1.00000	93.77
69.5	9,110	0	0.00000	1.00000	93.77
70.5	0	0	0.00000	0.00000	93.77
	Totals:	12,657			



Account 362.10 - System Communication & Control

Placement Band - 1975 - 2022 Experience Band - 1990 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	237,057	0	0.00000	1.00000	100.00
0.5	237,057	0	0.00000	1.00000	100.00
1.5	237,057	50	0.00021	0.99979	100.00
2.5	237,007	0	0.00000	1.00000	99.98
3.5	237,007	0	0.00000	1.00000	99.98
4.5	237,007	0	0.00000	1.00000	99.98
5.5	233,965	0	0.00000	1.00000	99.98
6.5	233,965	0	0.00000	1.00000	99.98
7.5	233,965	0	0.00000	1.00000	99.98
8.5	232,521	457	0.00197	0.99803	99.98
9.5	226,025	0	0.00000	1.00000	99.78
10.5	226,025	0	0.00000	1.00000	99.78
11.5	226,025	21,787	0.09639	0.90361	99.78
12.5	204,238	0	0.00000	1.00000	90.16
13.5	177,051	7,502	0.04237	0.95763	90.16
14.5	169,549	1,943	0.01146	0.98854	86.34
15.5	159,158	0	0.00000	1.00000	85.35
16.5	159,158	0	0.00000	1.00000	85.35
17.5	128,238	0	0.00000	1.00000	85.35
18.5	123,246	0	0.00000	1.00000	85.35
19.5	104,256	0	0.00000	1.00000	85.35
20.5	92,855	5,533	0.05959	0.94041	85.35
21.5	87,323	0	0.00000	1.00000	80.26
22.5	66,696	0	0.00000	1.00000	80.26
23.5	52,019	0	0.00000	1.00000	80.26
24.5	52,019	0	0.00000	1.00000	80.26
25.5	48,221	0	0.00000	1.00000	80.26
26.5	41,973	0	0.00000	1.00000	80.26

Account 362.10 - System Communication & Control

	Placement Band - 1975 - 2022 Experience Band - 1990 - 2022						
27.5	41,973	0	0.00000	1.00000	80.26		
28.5	34,499	0	0.00000	1.00000	80.26		
29.5	30,786	0	0.00000	1.00000	80.26		
30.5	30,786	0	0.00000	1.00000	80.26		
31.5	28,446	0	0.00000	1.00000	80.26		
32.5	24,448	0	0.00000	1.00000	80.26		
33.5	19,360	0	0.00000	1.00000	80.26		
34.5	12,567	0	0.00000	1.00000	80.26		
35.5	12,567	0	0.00000	1.00000	80.26		
36.5	10,282	0	0.00000	1.00000	80.26		
37.5	10,282	0	0.00000	1.00000	80.26		
38.5	4,306	0	0.00000	1.00000	80.26		
39.5	4,306	0	0.00000	1.00000	80.26		
40.5	3,886	0	0.00000	1.00000	80.26		
41.5	2,397	0	0.00000	1.00000	80.26		
42.5	2,397	0	0.00000	1.00000	80.26		
43.5	127	0	0.00000	1.00000	80.26		
44.5	0	0	0.00000	0.00000	80.26		
	Totals:	37,272					

Naka Power Utilities (NWT) Account 364.00 - Poles, Towers and Fixtures Placement Band - 1951 - 2022 Experience Band - 1969 - 2022 Actual and Smooth Survivor Curves



Account 364.00 - Poles, Towers and Fixtures

Placement Band - 1951 - 2022 Experience Band - 1969 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	4,046,827	55	0.00001	0.99999	100.00
0.5	3,942,154	3,946	0.00100	0.99900	100.00
1.5	3,851,325	5,329	0.00138	0.99862	99.90
2.5	3,776,625	2,676	0.00071	0.99929	99.76
3.5	3,659,874	4,643	0.00127	0.99873	99.69
4.5	3,565,886	690	0.00019	0.99981	99.56
5.5	3,438,079	4,389	0.00128	0.99872	99.54
6.5	3,376,790	3,181	0.00094	0.99906	99.41
7.5	3,274,455	7,054	0.00215	0.99785	99.32
8.5	3,132,931	2,020	0.00064	0.99936	99.11
9.5	3,001,043	5,051	0.00168	0.99832	99.05
10.5	2,942,229	3,800	0.00129	0.99871	98.88
11.5	2,709,187	8,822	0.00326	0.99674	98.75
12.5	2,634,839	2,339	0.00089	0.99911	98.43
13.5	2,570,916	3,871	0.00151	0.99849	98.34
14.5	2,407,835	802	0.00033	0.99967	98.19
15.5	2,352,282	4,588	0.00195	0.99805	98.16
16.5	2,276,173	590	0.00026	0.99974	97.97
17.5	2,147,977	353	0.00016	0.99984	97.94
18.5	2,114,753	4,953	0.00234	0.99766	97.92
19.5	2,083,508	7,311	0.00351	0.99649	97.69
20.5	2,009,544	825	0.00041	0.99959	97.35
21.5	1,953,442	251	0.00013	0.99987	97.31
22.5	1,841,924	365	0.00020	0.99980	97.30
23.5	1,720,227	15,502	0.00901	0.99099	97.28
24.5	1,599,185	2,017	0.00126	0.99874	96.40
25.5	1,489,235	3,176	0.00213	0.99787	96.28
26.5	1,287,588	137	0.00011	0.99989	96.07

Account 364.00 - Poles, Towers and Fixtures

	Placement Band - 1951 - 2022 Experience Band - 1969 - 2022						
27.5	1,015,662	6,811	0.00671	0.99329	96.06		
28.5	927,907	2,571	0.00277	0.99723	95.42		
29.5	898,772	275	0.00031	0.99969	95.16		
30.5	831,899	4,790	0.00576	0.99424	95.13		
31.5	767,384	12,838	0.01673	0.98327	94.58		
32.5	691,434	8,722	0.01261	0.98739	93.00		
33.5	676,457	3,012	0.00445	0.99555	91.83		
34.5	592,442	4,822	0.00814	0.99186	91.42		
35.5	525,053	5,610	0.01068	0.98932	90.68		
36.5	499,687	1,554	0.00311	0.99689	89.71		
37.5	435,037	1,978	0.00455	0.99545	89.43		
38.5	222,104	7,949	0.03579	0.96421	89.02		
39.5	209,933	2,408	0.01147	0.98853	85.83		
40.5	206,203	7,321	0.03550	0.96450	84.85		
41.5	174,099	1,932	0.01110	0.98890	81.84		
42.5	169,817	5,801	0.03416	0.96584	80.93		
43.5	150,252	4,587	0.03053	0.96947	78.17		
44.5	140,479	1,782	0.01269	0.98731	75.78		
45.5	131,441	1,384	0.01053	0.98947	74.82		
46.5	119,423	22,843	0.19128	0.80872	74.03		
47.5	74,413	838	0.01126	0.98874	59.87		
48.5	65,785	237	0.00360	0.99640	59.20		
49.5	54,887	828	0.01509	0.98491	58.99		
50.5	44,868	1,818	0.04052	0.95948	58.10		
51.5	35,445	419	0.01182	0.98818	55.75		
	Totals:	211,866					



Account 365.00 - Overhead Conductors and Devices

Placement Band - 1951 - 2022 Experience Band - 1969 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	1,701,610	16	0.00001	0.99999	100.00
0.5	1,689,569	2,609	0.00154	0.99846	100.00
1.5	1,681,675	1,823	0.00108	0.99892	99.85
2.5	1,604,469	548	0.00034	0.99966	99.74
3.5	1,578,829	1,894	0.00120	0.99880	99.71
4.5	1,557,368	485	0.00031	0.99969	99.59
5.5	1,553,474	2,937	0.00189	0.99811	99.56
6.5	1,537,212	1,039	0.00068	0.99932	99.37
7.5	1,485,082	4,871	0.00328	0.99672	99.30
8.5	1,462,448	1,500	0.00103	0.99897	98.97
9.5	1,416,578	841	0.00059	0.99941	98.87
10.5	1,396,387	707	0.00051	0.99949	98.81
11.5	1,303,031	7,297	0.00560	0.99440	98.76
12.5	1,258,774	568	0.00045	0.99955	98.21
13.5	1,216,436	4,206	0.00346	0.99654	98.17
14.5	1,174,544	248	0.00021	0.99979	97.83
15.5	1,133,517	92	0.00008	0.99992	97.81
16.5	1,076,734	953	0.00089	0.99911	97.80
17.5	1,000,766	206	0.00021	0.99979	97.71
18.5	979,571	0	0.00000	1.00000	97.69
19.5	893,368	1,963	0.00220	0.99780	97.69
20.5	861,669	286	0.00033	0.99967	97.48
21.5	846,381	184	0.00022	0.99978	97.45
22.5	785,649	2,860	0.00364	0.99636	97.43
23.5	767,675	586	0.00076	0.99924	97.08
24.5	727,272	462	0.00064	0.99936	97.01
25.5	674,980	877	0.00130	0.99870	96.95
26.5	623,403	384	0.00062	0.99938	96.82

Account 365.00 - Overhead Conductors and Devices

	Placement Band - 19	51 - 2022 Experier	ice Band -	1969 - 2022	
27.5	515,103	492	0.00096	0.99904	96.76
28.5	481,320	27	0.00006	0.99994	96.67
29.5	465,914	32	0.00007	0.99993	96.66
30.5	436,556	669	0.00153	0.99847	96.65
31.5	416,286	1,529	0.00367	0.99633	96.50
32.5	363,270	273	0.00075	0.99925	96.15
33.5	357,632	132	0.00037	0.99963	96.08
34.5	236,872	988	0.00417	0.99583	96.04
35.5	195,225	489	0.00250	0.99750	95.64
36.5	184,028	174	0.00095	0.99905	95.40
37.5	159,807	4	0.00003	0.99997	95.31
38.5	131,288	376	0.00286	0.99714	95.31
39.5	128,821	957	0.00743	0.99257	95.04
40.5	121,969	332	0.00272	0.99728	94.33
41.5	113,865	17	0.00015	0.99985	94.07
42.5	112,714	16	0.00014	0.99986	94.06
43.5	102,045	63	0.00062	0.99938	94.05
44.5	99,610	91	0.00091	0.99909	93.99
45.5	97,075	138	0.00142	0.99858	93.90
46.5	91,540	0	0.00000	1.00000	93.77
47.5	82,225	0	0.00000	1.00000	93.77
48.5	80,289	119	0.00148	0.99852	93.77
49.5	69,724	0	0.00000	1.00000	93.63
50.5	61,656	0	0.00000	1.00000	93.63
51.5	51,598	81	0.00157	0.99843	93.63
52.5	42,259	0	0.00000	1.00000	93.48
53.5	37,347	0	0.00000	1.00000	93.48
54.5	35,647	0	0.00000	1.00000	93.48
55.5	31,417	0	0.00000	1.00000	93.48
56.5	21,904	0	0.00000	1.00000	93.48
57.5	21,904	961	0.04387	0.95613	93.48

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Naka Power Utilities (NWT) Account 365.00 - Overhead Conductors and Devices Placement Band - 1951 - 2022 Experience Band - 1969 - 2022 Totals: 48,402

Account 365.10 - Overhead Services

Placement Band - 1945 - 2022 Experience Band - 1977 - 2022

Actual and Smooth Survivor Curves



Account 365.10 - Overhead Services

Placement Band - 1945 - 2022 Experience Band - 1977 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	717,737	0	0.00000	1.00000	100.00
0.5	716,689	7	0.00001	0.99999	100.00
1.5	713,181	223	0.00031	0.99969	100.00
2.5	681,028	1,258	0.00185	0.99815	99.97
3.5	676,371	83	0.00012	0.99988	99.79
4.5	650,582	144	0.00022	0.99978	99.78
5.5	634,283	1,786	0.00282	0.99718	99.76
6.5	611,926	1,155	0.00189	0.99811	99.48
7.5	579,434	1,740	0.00300	0.99700	99.29
8.5	557,944	2,162	0.00387	0.99613	98.99
9.5	542,101	1,282	0.00236	0.99764	98.61
10.5	531,448	881	0.00166	0.99834	98.38
11.5	518,581	542	0.00105	0.99895	98.22
12.5	483,725	880	0.00182	0.99818	98.12
13.5	459,813	500	0.00109	0.99891	97.94
14.5	402,167	348	0.00087	0.99913	97.83
15.5	357,772	4,233	0.01183	0.98817	97.74
16.5	344,619	2,426	0.00704	0.99296	96.58
17.5	325,981	694	0.00213	0.99787	95.90
18.5	317,466	752	0.00237	0.99763	95.70
19.5	301,588	1,037	0.00344	0.99656	95.47
20.5	292,253	521	0.00178	0.99822	95.14
21.5	284,788	313	0.00110	0.99890	94.97
22.5	275,750	295	0.00107	0.99893	94.87
23.5	264,289	1,252	0.00474	0.99526	94.77
24.5	251,315	244	0.00097	0.99903	94.32
25.5	239,188	3,032	0.01268	0.98732	94.23
26.5	217,170	1,485	0.00684	0.99316	93.04

Account 365.10 - Overhead Services

	Placement Band - 19	45 - 2022 Experien	ice Band -	1977 - 2022	
27.5	209,632	1,759	0.00839	0.99161	92.40
28.5	192,363	33	0.00017	0.99983	91.62
29.5	171,850	454	0.00264	0.99736	91.60
30.5	146,854	452	0.00308	0.99692	91.36
31.5	128,670	1,348	0.01048	0.98952	91.08
32.5	108,770	584	0.00537	0.99463	90.13
33.5	94,174	1,109	0.01178	0.98822	89.65
34.5	78,079	435	0.00557	0.99443	88.59
35.5	69,589	753	0.01082	0.98918	88.10
36.5	61,096	199	0.00326	0.99674	87.15
37.5	55,043	225	0.00409	0.99591	86.87
38.5	48,450	294	0.00607	0.99393	86.51
39.5	41,476	910	0.02194	0.97806	85.98
40.5	33,056	50	0.00151	0.99849	84.09
41.5	31,557	49	0.00155	0.99845	83.96
42.5	30,074	46	0.00153	0.99847	83.83
43.5	29,121	32	0.00110	0.99890	83.70
44.5	27,212	36	0.00132	0.99868	83.61
45.5	25,204	16	0.00063	0.99937	83.50
46.5	22,896	27	0.00118	0.99882	83.45
47.5	21,853	9	0.00041	0.99959	83.35
48.5	17,996	15	0.00083	0.99917	83.32
49.5	15,201	8	0.00053	0.99947	83.25
50.5	13,419	510	0.03801	0.96199	83.21
51.5	11,086	6	0.00054	0.99946	80.05
52.5	10,004	149	0.01489	0.98511	80.01
53.5	8,504	48	0.00564	0.99436	78.82
54.5	7,522	4	0.00053	0.99947	78.38
	Totals:	38,835			





Account 367.00 - Underground Conductor and Devices

Placement Band - 1970 - 2022 Experience Band - 1977 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	1,252,831	0	0.00000	1.00000	100.00
0.5	1,228,368	0	0.00000	1.00000	100.00
1.5	1,209,345	0	0.00000	1.00000	100.00
2.5	1,171,741	0	0.00000	1.00000	100.00
3.5	1,165,667	0	0.00000	1.00000	100.00
4.5	1,131,869	1,782	0.00157	0.99843	100.00
5.5	1,062,641	0	0.00000	1.00000	99.84
6.5	1,035,945	0	0.00000	1.00000	99.84
7.5	865,959	286	0.00033	0.99967	99.84
8.5	751,870	0	0.00000	1.00000	99.81
9.5	710,400	0	0.00000	1.00000	99.81
10.5	693,541	83	0.00012	0.99988	99.81
11.5	678,612	242	0.00036	0.99964	99.80
12.5	651,451	0	0.00000	1.00000	99.76
13.5	636,579	0	0.00000	1.00000	99.76
14.5	628,486	1,127	0.00179	0.99821	99.76
15.5	595,676	0	0.00000	1.00000	99.58
16.5	595,676	0	0.00000	1.00000	99.58
17.5	576,314	0	0.00000	1.00000	99.58
18.5	523,162	555	0.00106	0.99894	99.58
19.5	483,230	510	0.00106	0.99894	99.47
20.5	459,285	3,542	0.00771	0.99229	99.36
21.5	418,223	2	0.00000	1.00000	98.59
22.5	406,843	0	0.00000	1.00000	98.59
23.5	394,748	0	0.00000	1.00000	98.59
24.5	385,324	3,472	0.00901	0.99099	98.59
25.5	367,600	272	0.00074	0.99926	97.70
26.5	346,047	0	0.00000	1.00000	97.63
Account 367.00 - Underground Conductor and Devices

	Placement Band - 19	70 - 2022 Experien	ice Band -	1977 - 2022	
27.5	286,020	393	0.00137	0.99863	97.63
28.5	268,806	0	0.00000	1.00000	97.50
29.5	229,442	796	0.00347	0.99653	97.50
30.5	199,114	0	0.00000	1.00000	97.16
31.5	165,689	142	0.00086	0.99914	97.16
32.5	104,956	0	0.00000	1.00000	97.08
33.5	96,918	4,705	0.04855	0.95145	97.08
34.5	90,354	0	0.00000	1.00000	92.37
35.5	84,997	0	0.00000	1.00000	92.37
36.5	65,011	163	0.00251	0.99749	92.37
37.5	64,754	0	0.00000	1.00000	92.14
38.5	63,182	0	0.00000	1.00000	92.14
39.5	63,182	0	0.00000	1.00000	92.14
40.5	61,742	0	0.00000	1.00000	92.14
41.5	59,880	0	0.00000	1.00000	92.14
42.5	59,479	0	0.00000	1.00000	92.14
43.5	50,358	40	0.00079	0.99921	92.14
44.5	50,318	0	0.00000	1.00000	92.07
45.5	33,161	0	0.00000	1.00000	92.07
46.5	24,643	36	0.00146	0.99854	92.07
47.5	13,106	0	0.00000	1.00000	91.94
48.5	10,764	0	0.00000	1.00000	91.94
49.5	5,629	0	0.00000	1.00000	91.94
50.5	5,629	0	0.00000	1.00000	91.94
51.5	3,364	0	0.00000	1.00000	91.94
	Totals:	18,148			

Naka Power Utilities (NWT) Account 367.10 - Underground Services

Placement Band - 1971 - 2022 Experience Band - 2010 - 2022

Actual and Smooth Survivor Curves



Account 367.10 - Underground Services

Placement Band - 1971 - 2022 Experience Band - 2010 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	188,147	0	0.00000	1.00000	100.00
0.5	188,147	43	0.00023	0.99977	100.00
1.5	187,551	7	0.00004	0.99996	99.98
2.5	186,444	812	0.00436	0.99564	99.98
3.5	185,632	167	0.00090	0.99910	99.54
4.5	184,794	100	0.00054	0.99946	99.45
5.5	177,454	516	0.00291	0.99709	99.40
6.5	175,970	845	0.00480	0.99520	99.11
7.5	171,013	1,303	0.00762	0.99238	98.63
8.5	166,605	1,379	0.00828	0.99172	97.88
9.5	161,628	858	0.00531	0.99469	97.07
10.5	156,309	610	0.00390	0.99610	96.55
11.5	154,412	496	0.00321	0.99679	96.17
12.5	149,719	443	0.00296	0.99704	95.86
13.5	148,255	484	0.00326	0.99674	95.58
14.5	80,589	240	0.00298	0.99702	95.27
15.5	77,140	303	0.00393	0.99607	94.99
16.5	73,970	441	0.00596	0.99404	94.62
17.5	68,955	421	0.00611	0.99389	94.06
18.5	66,661	7,961	0.11942	0.88058	93.49
19.5	53,149	849	0.01597	0.98403	82.33
20.5	50,571	334	0.00660	0.99340	81.02
21.5	48,674	329	0.00676	0.99324	80.49
22.5	46,959	91	0.00194	0.99806	79.95
23.5	45,844	137	0.00299	0.99701	79.79
24.5	43,613	810	0.01857	0.98143	79.55
25.5	39,211	5,208	0.13282	0.86718	78.07
26.5	30,601	71	0.00232	0.99768	67.70

Account 367.10 - Underground Services

Placement Band - 1971 - 2022 Experience Band - 2010 - 2022					
27.5	30,530	153	0.00501	0.99499	67.54
28.5	26,779	23	0.00086	0.99914	67.20
29.5	23,713	116	0.00489	0.99511	67.14
30.5	23,589	125	0.00530	0.99470	66.81
31.5	19,671	0	0.00000	1.00000	66.46
32.5	15,359	48	0.00313	0.99687	66.46
33.5	11,444	49	0.00428	0.99572	66.25
34.5	8,730	10	0.00115	0.99885	65.97
35.5	7,952	248	0.03119	0.96881	65.89
36.5	7,705	219	0.02842	0.97158	63.83
37.5	7,475	116	0.01552	0.98448	62.02
38.5	6,163	802	0.13014	0.86986	61.06
39.5	4,789	192	0.04010	0.95990	53.11
40.5	2,983	66	0.02212	0.97788	50.98
41.5	2,481	34	0.01370	0.98630	49.85
42.5	2,149	32	0.01489	0.98511	49.17
43.5	1,732	33	0.01905	0.98095	48.44
44.5	1,537	65	0.04229	0.95771	47.52
45.5	1,168	0	0.00000	1.00000	45.51
46.5	480	47	0.09792	0.90208	45.51
	Totals:	27.636			

Account 368.00 - Line Transformers

Placement Band - 1951 - 2022 Experience Band - 1969 - 2022

Actual and Smooth Survivor Curves



Account 368.00 - Line Transformers

Placement Band - 1951 - 2022 Experience Band - 1969 - 2022

Exposures at Beginning	Retirements During	Retmt		
of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
1,396,913	0	0.00000	1.00000	100.00
1,396,913	58,669	0.04200	0.95800	100.00
1,338,244	9,314	0.00696	0.99304	95.80
1,311,958	910	0.00069	0.99931	95.13
1,311,048	6,482	0.00494	0.99506	95.06
1,253,563	2,960	0.00236	0.99764	94.59
1,226,348	1,867	0.00152	0.99848	94.37
1,074,249	5,412	0.00504	0.99496	94.23
1,013,348	4,686	0.00462	0.99538	93.76
926,630	1,219	0.00132	0.99868	93.33
902,795	4,705	0.00521	0.99479	93.21
856,424	923	0.00108	0.99892	92.72
815,121	4,502	0.00552	0.99448	92.62
779,997	8,965	0.01149	0.98851	92.11
723,250	2,753	0.00381	0.99619	91.05
684,618	28,992	0.04235	0.95765	90.70
636,528	5,345	0.00840	0.99160	86.86
587,820	1,776	0.00302	0.99698	86.13
567,001	6,268	0.01105	0.98895	85.87
560,733	4,376	0.00780	0.99220	84.92
552,005	34,730	0.06292	0.93708	84.26
494,367	4,032	0.00816	0.99184	78.96
469,682	1,722	0.00367	0.99633	78.32
423,218	1,634	0.00386	0.99614	78.03
409,608	2,487	0.00607	0.99393	77.73
379,696	2,269	0.00598	0.99402	77.26
344,139	194	0.00056	0.99944	76.80
322,808	2,250	0.00697	0.99303	76.76
	Exposures at Beginning of Age Interval 1,396,913 1,396,913 1,338,244 1,311,958 1,311,048 1,253,563 1,226,348 1,074,249 1,074,249 1,074,249 926,630 902,795 856,424 815,121 779,997 723,250 684,618 636,528 567,001 560,733 552,005 494,367 4494,367 4494,367 4409,608 379,696 344,139	Exposures at Beginning Of Age IntervalRetirements During Age Interval1.396,913	Exposures at Beginning of Age Interval Retirements During Age Interval Retmit Ratio 1,396,913 0.00000 0.00000 1,396,913 58,669 0.04200 1,338,244 9,314 0.00069 1,311,048 6,482 0.00420 1,1,311,048 6,482 0.00420 1,253,563 2,960 0.00236 1,1,226,348 1,867 0.00152 1,074,249 5,412 0.00541 1,013,348 4,686 0.00423 1,013,348 4,685 0.00152 1,013,348 4,685 0.00541 1,013,348 4,685 0.00162 1,013,348 4,685 0.00162 1,013,348 4,685 0.00162 1,013,348 4,685 0.00162 1,013,348 4,685 0.00162 1,013,348 4,685 0.00163 1,013,348 4,685 0.00163 1,013,348 1,634 0.00362 1,013,345 1,013 0.00363	Exposures at Beginning of Age IntervalReturReturiReturiAge IntervalAge IntervalRatioSurvivor Ratio1,396,91358,6690.040000.958001,338,2449,3140.006960.993041,313,82449,3140.006960.993041,311,05890100.000260.999311,311,0486,4820.004260.999361,253,5632,9600.002360.997641,253,5632,9600.001220.998481,074,2495,4120.00520.998481,013,3484,6860.00420.999381,013,3484,6860.00420.999381,013,3484,6860.00420.998881,013,3484,6860.00420.99496902,7954,7050.00520.99448902,7954,7050.00520.99448902,7954,7050.001420.998921,013,3482,8090.01490.99892902,7954,7050.001420.99892902,7954,7050.001420.998921,013,3482,8090.01490.998921,013,3482,8090.01490.998921,013,3482,8090.991610.991611,013,3482,8090.01490.991611,013,451,0140.00360.991611,014,451,0140.00360.991611,015,55,0053,47300.004670.993631,014,451,0141,

Account 368.00 - Line Transformers

	Placement Band - 19	51 - 2022 Experien	ice Band -	1969 - 2022	
27.5	288,571	2,294	0.00795	0.99205	76.22
28.5	236,178	212	0.00090	0.99910	75.61
29.5	195,314	674	0.00345	0.99655	75.54
30.5	172,480	403	0.00234	0.99766	75.28
31.5	163,503	0	0.00000	1.00000	75.10
32.5	146,677	3,922	0.02674	0.97326	75.10
33.5	97,059	6,343	0.06535	0.93465	73.09
34.5	79,773	0	0.00000	1.00000	68.31
35.5	72,817	0	0.00000	1.00000	68.31
36.5	63,492	205	0.00323	0.99677	68.31
37.5	55,795	1,446	0.02592	0.97408	68.09
38.5	51,018	142	0.00278	0.99722	66.33
39.5	50,876	0	0.00000	1.00000	66.15
40.5	50,876	221	0.00434	0.99566	66.15
41.5	50,654	0	0.00000	1.00000	65.86
42.5	48,624	0	0.00000	1.00000	65.86
43.5	47,515	0	0.00000	1.00000	65.86
44.5	43,066	0	0.00000	1.00000	65.86
45.5	42,463	0	0.00000	1.00000	65.86
46.5	41,288	0	0.00000	1.00000	65.86
47.5	38,420	0	0.00000	1.00000	65.86
48.5	33,466	3,311	0.09894	0.90106	65.86
49.5	25,118	1,158	0.04610	0.95390	59.34
50.5	23,526	22,038	0.93675	0.06325	56.60
51.5	0	0	0.00000	0.00000	3.58
	Totals:	251,811			

Account 370.00 - Conventional Meters

Placement Band - 1950 - 2022 Experience Band - 1983 - 2022

Actual and Smooth Survivor Curves



Account 370.00 - Conventional Meters

Placement Band - 1950 - 2022 Experience Band - 1983 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	440,323	1,025	0.00233	0.99767	100.00
0.5	438,661	2,245	0.00512	0.99488	99.77
1.5	435,973	3,150	0.00723	0.99277	99.26
2.5	432,823	13,356	0.03086	0.96914	98.54
3.5	419,467	21,628	0.05156	0.94844	95.50
4.5	397,821	17,126	0.04305	0.95695	90.58
5.5	380,696	9,923	0.02607	0.97393	86.68
6.5	370,772	11,494	0.03100	0.96900	84.42
7.5	359,278	16,433	0.04574	0.95426	81.80
8.5	341,535	15,605	0.04569	0.95431	78.06
9.5	325,930	24,340	0.07468	0.92532	74.49
10.5	300,709	47,292	0.15727	0.84273	68.93
11.5	253,417	25,343	0.10001	0.89999	58.09
12.5	200,514	9,940	0.04957	0.95043	52.28
13.5	172,025	18,018	0.10474	0.89526	49.69
14.5	148,096	13,813	0.09327	0.90673	44.49
15.5	128,939	5,652	0.04383	0.95617	40.34
16.5	123,287	7,867	0.06381	0.93619	38.57
17.5	115,420	6,234	0.05401	0.94599	36.11
18.5	109,174	13,593	0.12451	0.87549	34.16
19.5	95,538	16,580	0.17354	0.82646	29.91
20.5	78,836	6,900	0.08752	0.91248	24.72
21.5	71,685	6,400	0.08928	0.91072	22.56
22.5	56,675	6,758	0.11924	0.88076	20.55
23.5	48,497	7,842	0.16170	0.83830	18.10
24.5	40,655	2,351	0.05783	0.94217	15.17
25.5	38,304	3,410	0.08902	0.91098	14.29
26.5	34,352	2,865	0.08340	0.91660	13.02

Account 370.00 - Conventional Meters

	Placement Band - 19	50 - 2022 Experien	ice Band - 1	L983 - 2022	
27.5	31,475	1,770	0.05624	0.94376	11.93
28.5	20,317	901	0.04435	0.95565	11.26
29.5	19,304	3,219	0.16675	0.83325	10.76
30.5	15,695	1,973	0.12571	0.87429	8.97
31.5	13,695	1,834	0.13392	0.86608	7.84
32.5	11,527	153	0.01327	0.98673	6.79
33.5	11,138	2,736	0.24564	0.75436	6.70
34.5	8,328	0	0.00000	1.00000	5.05
35.5	8,232	446	0.05418	0.94582	5.05
36.5	7,712	1,648	0.21368	0.78632	4.78
37.5	6,065	107	0.01764	0.98236	3.76
38.5	5,771	626	0.10846	0.89154	3.69
39.5	4,895	3,819	0.78019	0.21981	3.29
40.5	1,001	329	0.32868	0.67132	0.72
41.5	672	0	0.00000	1.00000	0.48
42.5	672	0	0.00000	1.00000	0.48
43.5	592	0	0.00000	1.00000	0.48
44.5	592	0	0.00000	1.00000	0.48
45.5	488	0	0.00000	1.00000	0.48
46.5	395	0	0.00000	1.00000	0.48
47.5	395	0	0.00000	1.00000	0.48
48.5	0	0	0.00000	0.00000	0.48
	Totals:	356,744			

Account 373.00 - Street Lights

Placement Band - 1951 - 2022 Experience Band - 1970 - 2022

Actual and Smooth Survivor Curves



Account 373.00 - Street Lights

Placement Band - 1951 - 2022 Experience Band - 1970 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	582,567	0	0.00000	1.00000	100.00
0.5	581,537	0	0.00000	1.00000	100.00
1.5	571,675	0	0.00000	1.00000	100.00
2.5	570,158	61	0.00011	0.99989	100.00
3.5	564,453	0	0.00000	1.00000	99.99
4.5	491,426	9,644	0.01962	0.98038	99.99
5.5	481,418	1,307	0.00271	0.99729	98.03
6.5	480,086	0	0.00000	1.00000	97.76
7.5	474,712	2,086	0.00439	0.99561	97.76
8.5	293,600	772	0.00263	0.99737	97.33
9.5	292,068	5,315	0.01820	0.98180	97.07
10.5	284,286	567	0.00199	0.99801	95.30
11.5	264,351	7,237	0.02738	0.97262	95.11
12.5	254,179	2,016	0.00793	0.99207	92.51
13.5	239,719	6,662	0.02779	0.97221	91.78
14.5	209,022	4	0.00002	0.99998	89.23
15.5	201,883	1,614	0.00799	0.99201	89.23
16.5	198,897	0	0.00000	1.00000	88.52
17.5	197,416	19,441	0.09848	0.90152	88.52
18.5	175,536	9,857	0.05615	0.94385	79.80
19.5	164,274	10,139	0.06172	0.93828	75.32
20.5	153,228	297	0.00194	0.99806	70.67
21.5	151,738	10,537	0.06944	0.93056	70.53
22.5	137,168	6,966	0.05078	0.94922	65.63
23.5	130,201	3,707	0.02847	0.97153	62.30
24.5	116,811	734	0.00628	0.99372	60.53
25.5	113,798	5,860	0.05149	0.94851	60.15
26.5	107,795	1,079	0.01001	0.98999	57.05

Account 373.00 - Street Lights

Placement Band - 1951 - 2022 Experience Band - 1970 - 2022					
27.5	98,836	4,842	0.04899	0.95101	56.48
28.5	79,795	21,007	0.26326	0.73674	53.71
29.5	57,340	3,174	0.05535	0.94465	39.57
30.5	45,441	0	0.00000	1.00000	37.38
31.5	44,407	0	0.00000	1.00000	37.38
32.5	39,626	1,953	0.04929	0.95071	37.38
33.5	36,333	0	0.00000	1.00000	35.54
34.5	36,333	0	0.00000	1.00000	35.54
35.5	35,489	657	0.01851	0.98149	35.54
36.5	31,356	0	0.00000	1.00000	34.88
37.5	30,921	0	0.00000	1.00000	34.88
38.5	22,439	0	0.00000	1.00000	34.88
39.5	18,746	0	0.00000	1.00000	34.88
40.5	18,746	0	0.00000	1.00000	34.88
41.5	18,489	0	0.00000	1.00000	34.88
42.5	18,489	0	0.00000	1.00000	34.88
43.5	18,389	0	0.00000	1.00000	34.88
44.5	17,677	0	0.00000	1.00000	34.88
45.5	13,228	312	0.02359	0.97641	34.88
46.5	10,977	1,186	0.10804	0.89196	34.06
47.5	9,164	0	0.00000	1.00000	30.38
48.5	6,612	0	0.00000	1.00000	30.38
49.5	6,588	0	0.00000	1.00000	30.38
50.5	6,471	0	0.00000	1.00000	30.38
	Totals:	139,033			

Account 373.10 - Sentinel Lights

Placement Band - 1964 - 2022 Experience Band - 1969 - 2022

Actual and Smooth Survivor Curves



Account 373.10 - Sentinel Lights

Placement Band - 1964 - 2022 Experience Band - 1969 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	146,193	140	0.00096	0.99904	100.00
0.5	142,440	0	0.00000	1.00000	99.90
1.5	142,402	0	0.00000	1.00000	99.90
2.5	74,501	403	0.00541	0.99459	99.90
3.5	74,057	2,112	0.02852	0.97148	99.36
4.5	71,945	0	0.00000	1.00000	96.53
5.5	71,737	0	0.00000	1.00000	96.53
6.5	69,866	385	0.00551	0.99449	96.53
7.5	65,892	513	0.00779	0.99221	96.00
8.5	63,967	0	0.00000	1.00000	95.25
9.5	63,753	0	0.00000	1.00000	95.25
10.5	60,434	1,155	0.01911	0.98089	95.25
11.5	58,836	3,645	0.06195	0.93805	93.43
12.5	54,966	2,833	0.05154	0.94846	87.64
13.5	51,896	555	0.01069	0.98931	83.12
14.5	48,786	814	0.01669	0.98331	82.23
15.5	47,417	2,400	0.05061	0.94939	80.86
16.5	35,938	385	0.01071	0.98929	76.77
17.5	35,009	772	0.02205	0.97795	75.95
18.5	33,662	1,809	0.05374	0.94626	74.28
19.5	30,274	0	0.00000	1.00000	70.29
20.5	28,704	0	0.00000	1.00000	70.29
21.5	25,997	0	0.00000	1.00000	70.29
22.5	23,969	0	0.00000	1.00000	70.29
23.5	22,500	0	0.00000	1.00000	70.29
24.5	19,975	0	0.00000	1.00000	70.29
25.5	19,771	0	0.00000	1.00000	70.29
26.5	15,917	170	0.01068	0.98932	70.29

Account 373.10 - Sentinel Lights

	Placement Band - 19	64 - 2022 Experien	ce Band -	1969 - 2022	
27.5	11,848	0	0.00000	1.00000	69.54
28.5	11,848	0	0.00000	1.00000	69.54
29.5	11,828	0	0.00000	1.00000	69.54
30.5	11,631	0	0.00000	1.00000	69.54
31.5	10,414	0	0.00000	1.00000	69.54
32.5	9,999	0	0.00000	1.00000	69.54
33.5	9,907	0	0.00000	1.00000	69.54
34.5	9,897	0	0.00000	1.00000	69.54
35.5	9,105	0	0.00000	1.00000	69.54
36.5	9,089	0	0.00000	1.00000	69.54
37.5	9,077	0	0.00000	1.00000	69.54
38.5	9,008	0	0.00000	1.00000	69.54
39.5	5,367	0	0.00000	1.00000	69.54
40.5	4,874	0	0.00000	1.00000	69.54
41.5	3,619	0	0.00000	1.00000	69.54
42.5	3,619	0	0.00000	1.00000	69.54
43.5	3,619	0	0.00000	1.00000	69.54
44.5	2,933	0	0.00000	1.00000	69.54
45.5	2,933	0	0.00000	1.00000	69.54
46.5	2,933	0	0.00000	1.00000	69.54
47.5	2,924	0	0.00000	1.00000	69.54
48.5	2,090	0	0.00000	1.00000	69.54
49.5	1,812	0	0.00000	1.00000	69.54
50.5	1,418	0	0.00000	1.00000	69.54
51.5	421	0	0.00000	1.00000	69.54
52.5	0	0	0.00000	0.00000	69.54
	Totals:	18,091			

Naka Power Utilities (NWT) Account 390.00 - Structures and Improvements Placement Band - 1978 - 2022 Experience Band - 2003 - 2022

A shared Gase site Gase and - 2003 - 20

Actual and Smooth Survivor Curves



Account 390.00 - Structures and Improvements

Placement Band - 1978 - 2022 Experience Band - 2003 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	507,132	0	0.00000	1.00000	100.00
0.5	507,132	0	0.00000	1.00000	100.00
1.5	507,132	0	0.00000	1.00000	100.00
2.5	507,132	0	0.00000	1.00000	100.00
3.5	507,132	0	0.00000	1.00000	100.00
4.5	507,132	0	0.00000	1.00000	100.00
5.5	507,132	1,812	0.00357	0.99643	100.00
6.5	505,320	0	0.00000	1.00000	99.64
7.5	505,320	0	0.00000	1.00000	99.64
8.5	501,726	2,188	0.00436	0.99564	99.64
9.5	499,538	0	0.00000	1.00000	99.21
10.5	499,538	704	0.00141	0.99859	99.21
11.5	498,834	0	0.00000	1.00000	99.07
12.5	497,546	0	0.00000	1.00000	99.07
13.5	487,330	0	0.00000	1.00000	99.07
14.5	307,368	7,634	0.02484	0.97516	99.07
15.5	258,880	3,124	0.01207	0.98793	96.61
16.5	232,463	0	0.00000	1.00000	95.44
17.5	232,463	0	0.00000	1.00000	95.44
18.5	200,839	0	0.00000	1.00000	95.44
19.5	156,129	0	0.00000	1.00000	95.44
20.5	139,431	0	0.00000	1.00000	95.44
21.5	108,969	0	0.00000	1.00000	95.44
22.5	52,533	0	0.00000	1.00000	95.44
23.5	23,799	0	0.00000	1.00000	95.44
24.5	18,957	7,710	0.40672	0.59328	95.44
25.5	6,344	50	0.00788	0.99212	56.62
26.5	6,294	0	0.00000	1.00000	56.17

Account 390.00 - Structures and Improvements

Placement Band - 1978 - 2022 Experience Band - 2003 - 2022

27.5 5,041 0 0.00000 1.00000 28.5 5,041 0 0.00000 1.00000 29.5 0 0 0.00000 0.00000
27.5 5,041 0 0.00000 1.00000 28.5 5,041 0 0.00000 1.00000
27.5 5,041 0 0.00000 1.00000

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Naka Power Utilities (NWT) Account 392.20 - Transportation Equipment, Fleet Vehicles Category 2 Placement Band - 1987 - 2022 Experience Band - 2008 - 2022 Actual and Smooth Survivor Curves



Account 392.20 - Transportation Equipment, Fleet Vehicles Category 2

Placement Band - 1987 - 2022 Experience Band - 2008 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	1,038,313	0	0.00000	1.00000	100.00
0.5	957,732	0	0.00000	1.00000	100.00
1.5	896,203	4,989	0.00557	0.99443	100.00
2.5	820,031	0	0.00000	1.00000	99.44
3.5	820,031	0	0.00000	1.00000	99.44
4.5	820,031	0	0.00000	1.00000	99.44
5.5	791,652	29,974	0.03786	0.96214	99.44
6.5	761,678	5,740	0.00754	0.99246	95.68
7.5	702,887	76,891	0.10939	0.89061	94.96
8.5	581,168	47,925	0.08246	0.91754	84.57
9.5	533,243	123,749	0.23207	0.76793	77.60
10.5	409,494	47,376	0.11569	0.88431	59.59
11.5	362,118	46,950	0.12965	0.87035	52.70
12.5	266,976	29,124	0.10909	0.89091	45.87
13.5	237,852	0	0.00000	1.00000	40.87
14.5	237,852	103,955	0.43706	0.56294	40.87
15.5	133,897	78,089	0.58320	0.41680	23.01
16.5	55,808	0	0.00000	1.00000	9.59
17.5	55,808	389	0.00697	0.99303	9.59
18.5	55,419	37,003	0.66770	0.33230	9.52
19.5	18,416	0	0.00000	1.00000	3.16
20.5	18,416	0	0.00000	1.00000	3.16
21.5	18,416	1,301	0.07065	0.92935	3.16
22.5	17,114	0	0.00000	1.00000	2.94
23.5	17,114	17,114	0.99999	0.00001	2.94
24.5	0	0	0.00000	0.00000	0.00
	Totals:	650,569			

Naka Power Utilities (NWT) Account 392.30 - Transportation Equipment, Fleet Vehicles Category 3 Placement Band - 1987 - 2022 Experience Band - 2020 - 2022 Actual and Smooth Survivor Curves



Account 392.30 - Transportation Equipment, Fleet Vehicles Category 3

Placement Band - 1987 - 2022 Experience Band - 2020 - 2022

Age at Begin of	Exposures at Beginning	Retirements During	Retmt		
Interval	of Age Interval	Age Interval	Ratio	Survivor Ratio	% Surviving
0	751,589	0	0.00000	1.00000	100.00
0.5	751,589	0	0.00000	1.00000	100.00
1.5	751,589	0	0.00000	1.00000	100.00
2.5	751,589	0	0.00000	1.00000	100.00
3.5	751,589	0	0.00000	1.00000	100.00
4.5	751,589	0	0.00000	1.00000	100.00
5.5	751,589	0	0.00000	1.00000	100.00
6.5	751,589	0	0.00000	1.00000	100.00
7.5	751,589	0	0.00000	1.00000	100.00
8.5	751,589	0	0.00000	1.00000	100.00
9.5	747,046	0	0.00000	1.00000	100.00
10.5	487,643	0	0.00000	1.00000	100.00
11.5	299,529	0	0.00000	1.00000	100.00
12.5	219,556	0	0.00000	1.00000	100.00
13.5	219,556	0	0.00000	1.00000	100.00
14.5	219,556	0	0.00000	1.00000	100.00
15.5	219,556	0	0.00000	1.00000	100.00
16.5	174,112	3,235	0.01858	0.98142	100.00
17.5	170,877	5,188	0.03036	0.96964	98.14
18.5	165,689	0	0.00000	1.00000	95.16
19.5	165,689	187	0.00113	0.99887	95.16
20.5	165,502	15,622	0.09439	0.90561	95.05
21.5	149,880	31,324	0.20899	0.79101	86.08
22.5	118,556	0	0.00000	1.00000	68.09
23.5	118,556	4,281	0.03611	0.96389	68.09
24.5	114,276	0	0.00000	1.00000	65.63
25.5	114,276	21,851	0.19121	0.80879	65.63
26.5	92,425	0	0.00000	1.00000	53.08

Account 392.30 - Transportation Equipment, Fleet Vehicles Category 3

	Placement Band - 19	87 - 2022 Experien	ce Band -	2020 - 2022	
27.5	92,425	40,314	0.43618	0.56382	53.08
28.5	52,111	0	0.00000	1.00000	29.93
29.5	52,111	0	0.00000	1.00000	29.93
30.5	52,111	38,886	0.74622	0.25378	29.93
31.5	13,225	204	0.01543	0.98457	7.60
32.5	13,021	9,017	0.69250	0.30750	7.48
	Totals:	170,109			



Naka Power Utilities (NWT) 2022 Depreciation Study



SECTION 7

7 NET SALVAGE

Naka Power Utilities (NWT) ACCOUNT 341.20 INT Combust Structures SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	C Reco	oncentric mmendat ion
1976	773		0		0	0							0	-	10.00
1977			0		0	0							0	-	10.00
1978			0		0	0		0	0				0	-	10.00
1979			0		0	0		0	0				0	-	10.00
1980	112		0		0	0		0	0	0	0		0	-	10.00
1981			0		0	0		0	0	0	0		0	-	10.00
1982	1,356		0		0	0		0	0	0	0		0	-	10.00
1983			0		0	0		0	0	0	0		0	-	10.00
1984			0		0	0		0	0	0	0		0	-	10.00
1985			0		0	0		0	0	0	0		0	-	10.00
1986	515		0		0	0		0	0	0	0		0	-	10.00
1987			0		0	0		0	0	0	0		0	-	10.00
1988			0		0	0		0	0	0	0		0	-	10.00
1989			0		0	0		0	0	0	0		0	-	10.00
1990			0		0	0		0	0	0	0		0	-	10.00
1991			0		0	0		0	0	0	0		0	-	10.00
1992			0		0	0		0	0	0	0		0	-	10.00
1993			0		0	0		0	0	0	0		0	-	10.00
1994			0		0	0		0	0	0	0		0	-	10.00
1995			0		0	0		0	0	0	0		0	-	10.00
1996			0		0	0		0	0	0	0		0	-	10.00
1997			0		0	0		0	0	0	0		0	-	10.00
1998			0		0	0		0	0	0	0		0	-	10.00
1999			0		0	0		0	0	0	0		0	-	10.00
2000			0		0	0		0	0	0	0		0	-	10.00
2001			0		0	0		0	0	0	0		0	-	10.00
2002			0		0	0		0	0	0	0		0	-	10.00
2003			0		0	0		0	0	0	0		0	-	10.00
2004	1,322		0		0	0		0	0	0	0		0	-	10.00
2005			0		0	0		0	0	0	0		0	-	10.00
2006	3,260	729	22		0	-729		-243	-16	-146	-16	-729	-10	-	10.00
2007	8,425	1,500	18		0	-1,500		-743	-19	-446	-17	-1,115	-14	-	10.00
2008			0		0	0	0	-743	-19	-446	-17	-1,115	-14	-	10.00
2009	13,085	500	4		0	-500	-4	-667	-9	-546	-11	-910	-9	-	10.00
2010			0		0	0	0	-167	-4	-546	-11	-910	-9	-	10.00
2011			0		0	0	0	-167	-4	-400	-9	-910	-9	-	10.00
2012			0		0	0	0	0	0	-100	-4	-910	-9	-	10.00
2013			0		0	0	0	0	0	-100	-4	-910	-9	-	10.00
2014			0		0	0	0	0	0	0	0	-910	-9	-	10.00
2015			0		0	0	0	0	0	0	0	-910	-9	-	10.00
2016			0		0	0	0	0	0	0	0	-910	-9	-	10.00
2017			0		0	0	0	0	0	0	0	-910	-9	-	10.00
2018			0		0	0	0	0	0	0	0	-910	-9	-	10.00
2019			0		0	0	0	0	0	0	0	-910	-9	-	10.00
2020			0		0	0	0	0	0	0	0	-910	-9	-	10.00
2021			0		0	0	0	0	0	0	0	-910	-9	-	10.00
2022	522		0		0	0	0	0	0	0	0	-910	-9	-	10.00
TOTAL	29,369	2,729	9.29	0	0.00	-2,729	(9.29)								

Naka Power Utilities (NWT) ACCOUNT 342.20 INT Combust Fuel Holders, Producers and Accessories SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Reco	Concentric ommendat ion
1980	10,797		0		0	0	0						0	-	10.00
1981			0		0	0	0						0	-	10.00
1982			0		0	0	0	0	0				0	-	10.00
1983			0		0	0	0	0	0				0	-	10.00
1984			0		0	0	0	0	0	0	0		0	-	10.00
1985			0		0	0	0	0	0	0	0		0	-	10.00
1986			0		0	0	0	0	0	0	0		0	-	10.00
1987			0		0	0	0	0	0	0	0		0	-	10.00
1988			0		0	0	0	0	0	0	0		0	-	10.00
1989			0		0	0	0	0	0	0	0		0	-	10.00
1990			0		0	0	0	0	0	0	0		0	-	10.00
1991			0		0	0	0	0	0	0	0		0	-	10.00
1992			0		0	0	0	0	0	0	0		0	-	10.00
1993			0		0	0	0	0	0	0	0		0	-	10.00
1994			0		0	0	0	0	0	0	0		0	-	10.00
1995			0		0	0	0	0	0	0	0		0	-	10.00
1996			0		0	0	0	0	0	0	0		0	-	10.00
1997			0		0	0	0	0	0	0	0		0	-	10.00
1998			0		0	0	0	0	0	0	0		0	-	10.00
1999			0		0	0	0	0	0	0	0		0	-	10.00
2000			0		0	0	0	0	0	0	0		0	-	10.00
2001	73,958		0		0	0	0	0	0	0	0		0	-	10.00
2002			0		0	0	0	0	0	0	0		0	-	10.00
2003			0		0	0	0	0	0	0	0		0	-	10.00
2004			0		0	0	0	0	0	0	0		0	-	10.00
2005			0		0	0	0	0	0	0	0		0	-	10.00
2006	630		0		0	0	0	0	0	0	0		0	-	10.00
2007			0		0	0	0	0	0	0	0		0	-	10.00
2008			0		0	0	0	0	0	0	0		0	-	10.00
2009			0		0	0	0	0	0	0	0		0	-	10.00
2010			0		0	0	0	0	0	0	0		0	-	10.00
2011			0		0	0	0	0	0	0	0		0	-	10.00
2012			0		0	0	0	0	0	0	0		0	-	10.00
2013			0		0	0	0	0	0	0	0		0	-	10.00
2014	49,667	1,250	3	-375	-1	-875	-2	-292	-2	-175	-2	-875	-1	-	10.00
2015			0		0	0	0	-292	-2	-175	-2	-875	-1	-	10.00
2016			0		0	0	0	-292	-2	-175	-2	-875	-1	-	10.00
2017			0		0	0	0	0	0	-175	-2	-875	-1	-	10.00
2018			0		0	0	0	0	0	-175	-2	-875	-1	-	10.00
2019			0		0	0	0	0	0	0	0	-875	-1	-	10.00
2020			0		0	0	0	0	0	0	0	-875	-1	-	10.00
2021			0		0	0	0	0	0	0	0	-875	-1	-	10.00
2022			0		0	0	0	0	0	0	0	-875	-1	-	10.00
TOTAL	135,052	1,250	0.93	-375	(0.28)	-875	(0.65)								

Naka Power Utilities (NWT) ACCOUNT 343.20 INT Combust Generators SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	C Reco	Concentric ommendat ion
1972	17.539		0		0	0							0	-	5.00
1973			0		0	0							0	-	5.00
1974			0		0	0		0	0				0	-	5.00
1975			0		0	0		0	0				0	-	5.00
1976			0		0	0		0	0	0	0		0	-	5.00
1977			0		0	0		0	0	0	0		0	_	5.00
1978	800		0		0	0		0	0	0	0		0	-	5.00
1979	118.333		0		0	0		0	0	0	0		0	_	5.00
1980	2,400		0		0	0		0	0	0	0		0	-	5.00
1981	2,100		0		0	0		0	0	0	0		0	_	5.00
1982			0		0	0		0	0	0	0		0	-	5.00
1983			0		0	0		0	0	0	0		0	_	5.00
1984			0		0	0		0	0	0	0		0	-	5.00
1985	23 099		0		0	0		0	0	0	0		0	-	5.00
1986	88,600		0		0	0		0	0	0	0		0	-	5.00
1987	111 747		0		0	0		0	0	0	0		0	_	5.00
1988	27 933		0		0	0		0	0	0	0		0	-	5.00
1989	74 261		0		0	0		0	0	0	0		0	_	5.00
1990	77,201		0		0	0		0	0	0	0		0	-	5.00
1991	6 265		0		0	0		0	0	0	0		0	_	5.00
1992	42 870		0		0	0		0	0	0	0		0	-	5.00
1993	42,070		0		0	0		0	0	0	0		0	_	5.00
1994			0		0	0		0	0	0	0		0	-	5.00
1995	53 121		0		0	0		0	0	0	0		0	_	5.00
1996	35,955		0		0	0		0	0	0	0		0	-	5.00
1997	00,700		0		0	0		0	0	0	0		0	_	5.00
1998	7 500		0		0	0		0	0	0	0		0	-	5.00
1999	7,500		0		0	0		0	0	0	0		0	_	5.00
2000			0		0	0		0	0	0	0		0	-	5.00
2001	17 139		0		0	0		0	0	0	0		0	_	5.00
2002	3 937		0		0	0		0	0	0	0		0		5.00
2002	0,707		0		0	0		0	0	0	0		0	_	5.00
2004	281 962		0		0	0		0	0	0	0		0	-	5.00
2005	22 030		0		0	0		0	0	0	0		0	_	5.00
2006	22,000		0		0	0		0	0	0	0		0	-	5.00
2007	9 275	700	8		0	-700		-233	-2	-140	0	-700	0	_	5.00
2008	4 800	297	6		0	-297	-6	-332	-7	-199	0	-199	0	-	5.00
2009	111 345	2360	2		0	-2.340	-0	-1119	-7	-471	-2	-4//	0		5.00
2005	25,839	2,500	10		0	-2,500	-10	-1,732	-3	-1 179	-2	-1.474	-1	-	5.00
2010	53 719	2,040	10		0	-2,540	-10	-1,732	-4	-1.227	-4	-1,227	-1		5.00
2011	55,717	240	0		0	-240	0	-1,713	-3	-1,227	-5	-1,227	-1	-	5.00
2012	141.052	1 000	1		0	1 000	1	-72/	-5	-1,007	-5	-1,227	-1	-	5.00
2014	37.012	1,000	3	-3 305	9	2 025	-1	-413	- 1	-1,220	-2	-730	-1		5.00
2015	3/2 505	1,200	0	-3,303	-7	-1.150	5	10	0	-331	-1	-730	0		5.00
2016	95 040	2,000	2	-2.000	-2	-1,150	0	-42	0	-73	0	-703	0	_	5.00
2017	173 541	2,000	2	-2,000	-2	-7 500	-4	-2.883	-1	-2.5	-1	-1 529	-1	_	5.00
2018	170,001	7,500	4		0	-,500	-4	-2,000	_3	-1 325	-1	-1 529	-1	-	5.00
			0		0	0	0	2,000	-0	1,020	- 1	1,027	- 1		5.00

Naka Power Utilities (NWT) ACCOUNT 343.20 INT Combust Generators SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	CReco	Concentric ommendat ion
2019	438,766	8,892	2		0	-8,892	-2	-5,464	-3	-3,508	-2	-2,265	-1	-	5.00
2020		3,080	0		0	-3,080	0	-3,991	-3	-3,894	-3	-2,339	-1	-	5.00
2021	94,078	21,466	23		0	-21,466	-23	-11,146	-6	-8,188	-6	-3,933	-2	-	5.00
2022	306,721	50,975	17		0	-50,975	-17	-25,174	-19	-16,883	-10	-7,552	-3	-	5.00
TOTAL	2,819,528	103,480	3.67	-5,305	(0.19)	-98,175	(3.48)								

Naka Power Utilities (NWT) ACCOUNT 345.20 INT Combust Accessory SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Reco	Concentric ommendat ion
1972	7,420		0		0	0							0	-	5.00
1973			0		0	0							0	-	5.00
1974			0		0	0		0	0				0	-	5.00
1975			0		0	0		0	0				0	-	5.00
1976			0		0	0		0	0	0	0		0	-	5.00
1977			0		0	0		0	0	0	0		0	-	5.00
1978			0		0	0		0	0	0	0		0	-	5.00
1979	7,168		0		0	0		0	0	0	0		0	-	5.00
1980	100		0		0	0		0	0	0	0		0	-	5.00
1981			0		0	0		0	0	0	0		0	-	5.00
1982			0		0	0		0	0	0	0		0	-	5.00
1983			0		0	0		0	0	0	0		0	-	5.00
1984			0		0	0		0	0	0	0		0	-	5.00
1985			0		0	0		0	0	0	0		0	-	5.00
1986			0		0	0		0	0	0	0		0	-	5.00
1987			0		0	0		0	0	0	0		0	-	5.00
1988			0		0	0		0	0	0	0		0	-	5.00
1989	89,366		0		0	0		0	0	0	0		0	-	5.00
1990			0		0	0		0	0	0	0		0	-	5.00
1991			0		0	0		0	0	0	0		0	-	5.00
1992			0		0	0		0	0	0	0		0	-	5.00
1993			0		0	0		0	0	0	0		0	-	5.00
1994			0		0	0		0	0	0	0		0	-	5.00
1995			0		0	0		0	0	0	0		0	-	5.00
1996			0		0	0		0	0	0	0		0	-	5.00
1997			0		0	0		0	0	0	0		0	-	5.00
1998			0		0	0		0	0	0	0		0	-	5.00
1999			0		0	0		0	0	0	0		0	-	5.00
2000			0		0	0		0	0	0	0		0	-	5.00
2001			0		0	0		0	0	0	0		0	-	5.00
2002			0		0	0		0	0	0	0		0	-	5.00
2003			0		0	0		0	0	0	0		0	-	5.00
2004			0		0	0		0	0	0	0		0	-	5.00
2005			0		0	0		0	0	0	0		0	-	5.00
2006			0		0	0		0	0	0	0		0	-	5.00
2007	20,750	3,400	16		0	-3,400		-1,133	-16	-680	-16	-3,400	-3	-	5.00
2008			0		0	0	0	-1,133	-16	-680	-16	-3,400	-3	-	5.00
2009	17,695	1,100	6		0	-1,100	-6	-1,500	-12	-900	-12	-2,250	-3	-	5.00
2010		480	0		0	-480	0	-527	-9	-996	-13	-1,660	-3	-	5.00
2011			0		0	0	0	-527	-9	-996	-13	-1,660	-3	-	5.00
2012			0		0	0	0	-160	0	-316	-9	-1,660	-3	-	5.00
2013			0		0	0	0	0	0	-316	-9	-1,660	-3	-	5.00
2014			0		0	0	0	0	0	-96	0	-1,660	-3	-	5.00
2015			0		0	0	0	0	0	0	0	-1,660	-3	-	5.00
2016			0		0	0	0	0	0	0	0	-1,660	-3	-	5.00
2017	2,456	750	31		0	-750	-31	-250	-31	-150	-31	-1,433	-4	-	5.00
2018			0		0	0	0	-250	-31	-150	-31	-1,433	-4	-	5.00

Naka Power Utilities (NWT) ACCOUNT 345.20 INT Combust Accessory SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	C Recc	Concentric ommendat ior
2019			0		0	0	0	-250	-31	-150	-31	-1,433	-4	-	5.00
2020	8,194	1,602	20		0	-1,602	-20	-534	-20	-470	-22	-1,466	-5	-	5.00
2021			0		0	0	0	-534	-20	-470	-22	-1,466	-5	-	5.00
2022	38,380	9,830	26		0	-9,830	-26	-3,811	-25	-2,286	-25	-2,860	-9	-	5.00
TOTAL	191,528	17,162	8.96	0	0.00	-17,162	(8.96)								

Naka Power Utilities (NWT) ACCOUNT 346.20 INT Combust Miscellaneous SUMMARY OF BOOK SALVAGE

Vogr	Regular	Cost of Removal	Cost of Removal	Gross Salvage	Gross Salvage Borcont	Net Salvage	Net Salvage Porcont	3-Year	3-Year	5-Year	5-Year Percent	Historical	Historical	C	Concentric mmendat
2007	Kememens	200	reiceili	Amooni	reiceili	200	reiceili	Amooni	reiceili	Amooni	reiceili	200	reiceili		5.00
2007		200	0		0	-200	0					-200		_	5.00
2008			0		0	0	0					-200		-	5.00
2009	965	200	21		0	-200	-21	-133	-41			-200	-41	-	5.00
2010			0		0	0	0	-67	-21			-200	-41	-	5.00
2011			0		0	0	0	-67	-21	-80	-41	-200	-41	-	5.00
2012			0		0	0	0	0	0	-40	-21	-200	-41	-	5.00
2013			0		0	0	0	0	0	-40	-21	-200	-41	-	5.00
2014			0		0	0	0	0	0	-40	-21	-200	-41	-	5.00
2015			0		0	0	0	0	0	-40	-21	-200	-41	-	5.00
2016			0		0	0	0	0	0	0	0	-200	-41	-	5.00
2017			0		0	0	0	0	0	0	0	-200	-41	-	5.00
2018			0		0	0	0	0	0	0	0	-200	-41	-	5.00
2019			0		0	0	0	0	0	0	0	-200	-41	-	5.00
2020			0		0	0	0	0	0	0	0	-200	-41	-	5.00
2021			0		0	0	0	0	0	0	0	-200	-41	-	5.00
2022			0		0	0	0	0	0	0	0	-200	-41	-	5.00
TOTAL	965	400	41.45	0	0.00	-400	(41,45)								

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Naka Power Utilities (NWT) ACCOUNT 353.00 Station Equipment SUMMARY OF BOOK SALVAGE

	Regular	Cost of Removal	Cost of Removal	Gross Salvage	Gross Salvage	Net Salvage	Net Salvage	3-Year	3-Year	5-Year	5-Year	Historical	Historical	Reco	Concentric ommendat
Year	Retirements	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent		ion
2003	571		0		0	0	0						0	-	15.00
2004			0		0	0	0						0	-	15.00
2005			0		0	0	0	0	0				0	-	15.00
2006			0		0	0	0	0	0				0	-	15.00
2007			0		0	0	0	0	0	0	0		0	-	15.00
2008			0		0	0	0	0	0	0	0		0	-	15.00
2009			0		0	0	0	0	0	0	0		0	-	15.00
2010			0		0	0	0	0	0	0	0		0	-	15.00
2011	4,228		0		0	0	0	0	0	0	0		0	-	15.00
2012	11,906		0		0	0	0	0	0	0	0		0	-	15.00
2013			0		0	0	0	0	0	0	0		0	-	15.00
2014		3,199	0		0	-3,199	0	-1,066	-27	-640	-20	-3,199	-19	-	15.00
2015	3,407		0		0	0	0	-1,066	-94	-640	-16	-3,199	-16	-	15.00
2016			0		0	0	0	-1,066	-94	-640	-21	-3,199	-16	-	15.00
2017			0		0	0	0	0	0	-640	-94	-3,199	-16	-	15.00
2018			0		0	0	0	0	0	-640	-94	-3,199	-16	-	15.00
2019			0		0	0	0	0	0	0	0	-3,199	-16	-	15.00
2020			0		0	0	0	0	0	0	0	-3,199	-16	-	15.00
2021	1,872	2,024	108		0	-2,024	-108	-675	-108	-405	-108	-2,612	-24	-	15.00
2022			0		0	0	0	-675	-108	-405	-108	-2,612	-24	-	15.00
TOTAL	21,984	5,223	23.76	0	0.00	-5,223	(23.76)								

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Naka Power Utilities (NWT) ACCOUNT 355.00 Poles and Fixtures SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Rec	Concentric ommendat ion
2004		200	0		0	-200	0					-200		-	35.00
2005	667		0		0	0	0					-200	-30	-	35.00
2006			0		0	0	0	-67	-30			-200	-30	-	35.00
2007		3,386	0		0	-3,386	0	-1,129	-508			-1,793	-538	-	35.00
2008	1,091		0		0	0	0	-1,129	-310	-717	-204	-1,793	-204	-	35.00
2009	2,910		0		0	0	0	-1,129	-85	-677	-73	-1,793	-77	-	35.00
2010			0		0	0	0	-1,129	-85	-717	-77	-1,793	-77	-	35.00
2011			0		0	0	0	-1,129	-116	-717	-77	-1,793	-77	-	35.00
2012			0		0	0	0	0	0	-677	-73	-1,793	-77	-	35.00
2013			0		0	0	0	0	0	-677	-85	-1,793	-77	-	35.00
2014			0		0	0	0	-1,129	0	-717	-77	-1,793	-77	-	35.00
2015	134,076		0		0	0	0	-1,129	-3	-717	-3	-1,793	-3	-	35.00
2016			0		0	0	0	0	0	-677	-2	-1,793	-3	-	35.00
2017			0		0	0	0	0	0	-677	-2	-1,793	-3	-	35.00
2018			0		0	0	0	0	0	0	0	-1,793	-3	-	35.00
2019			0		0	0	0	0	0	0	0	-1,793	-3	-	35.00
2020			0		0	0	0	0	0	0	0	-1,793	-3	-	35.00
2021			0		0	0	0	0	0	0	0	-1,793	-3	-	35.00
2022			0		0	0	0	0	0	0	0	-1,793	-3	-	35.00

TOTAL	138,744	3.586	2.58	0	0.00	-3.586	(2.58)
	100,744	0,000	2.50	v	0.00	-0,500	(2.00)

Naka Power Utilities (NWT) ACCOUNT 355.04 Poles and Fixtures T415 SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year	3-Year Percent	5-Year Amount	5-Year Percent	Historical	Historical	Reco	Concentric ommendat
2013	45.655	5.040	11	Amooni	0	-5.040	-11	Antoon	i ciccim	Anooni	rereem	-5.040	-11		35.00
2014	40,000	86,000	0		0	-86,000	0					-45,520	-199	-	35.00
2015	30,840	40,536	131		0	-40,536	-131	-43,859	-172			-43,859	-172	-	35.00
2016			0		0	0	0	-42,179	-410			-43,859	-172	-	35.00
2017			0		0	0	0	-13,512	-131	-26,315	-172	-43,859	-172	-	35.00
2018			0		0	0	0	0	0	-26,315	-427	-43,859	-172	-	35.00
2019		7,291	0		0	-7,291	0	-2,430	0	-27,773	-450	-34,717	-182	-	35.00
2020	5,144	13,496	262		0	-13,496	-262	-6,929	-404	-29,465	-2,864	-30,473	-187	-	35.00
2021			0		0	0	0	-6,929	-404	-4,157	-404	-30,473	-187	-	35.00
2022	2,659		0		0	0	0	-4,499	-173	-4,157	-266	-30,473	-181	-	35.00
TOTAL	84,299	152,363	180.74	0	0.00	-152,363	(180.74)								

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Naka Power Utilities (NWT) ACCOUNT 362 Station Equipment SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	C Reco	Concentric ommendat ion
1969	200		0		0	0							0		
1970			0		0	0							0		
1971			0		0	0		0	0				0		
1972			0		0	0		0	0				0		
1973			0		0	0		0	0	0	0		0		
1974			0		0	0		0	0	0	0		0		
1975			0		0	0		0	0	0	0		0		
1976			0		0	0		0	0	0	0		0		
1977	364		0		0	0		0	0	0	0		0		
1978	4,214		0		0	0		0	0	0	0		0		
1979			0		0	0		0	0	0	0		0		
1980			0		0	0		0	0	0	0		0		
1981			0		0	0		0	0	0	0		0		
1982			0		0	0		0	0	0	0		0		
1983			0		0	0		0	0	0	0		0		
1984			0		0	0		0	0	0	0		0		
1985			0		0	0		0	0	0	0		0		
1986			0		0	0		0	0	0	0		0		
1987			0		0	0		0	0	0	0		0		
1900			0		0	0		0	0	0	0		0		
1989			0		0	0		0	0	0	0		0		
1990			0		0	0		0	0	0	0		0		
1992			0		0	0		0	0	0	0		0		
1993			0		0	0		0	0	0	0		0		
1994			0		0	0		0	0	0	0		0		
1995			0		0	0		0	0	0	0		0		
1996			0		0	0		0	0	0	0		0		
1997			0		0	0		0	0	0	0		0		
1998			0		0	0		0	0	0	0		0		
1999			0		0	0		0	0	0	0		0		
2000			0		0	0		0	0	0	0		0		
2001			0		0	0		0	0	0	0		0		
2002			0		0	0		0	0	0	0		0		
2003			0		0	0		0	0	0	0		0		
2004	571		0		0	0		0	0	0	0		0		
2005			0		0	0		0	0	0	0		0		
2006			0		0	0		0	0	0	0		0		
2007			0		0	0		0	0	0	0		0	-	5.00
2008			0		0	0	0	0	0	0	0		0	-	5.00
2009			0		0	0	0	0	0	0	0		0	-	5.00
2010			0		0	0	0	0	0	0	0		0	-	5.00
2011		3,000	0		0	-3,000	0	-1,000	0	-600	0	-3,000	-56	-	5.00
2012	7,125		0		0	0	0	-1,000	-42	-600	-42	-3,000	-24	-	5.00
2013		2,472	0		0	-2,472	0	-1,824	-77	-1,094	-77	-2,736	-44	-	5.00
2014			0		0	0	0	-824	-35	-1,094	-77	-2,736	-44	-	5.00
2015			0		0	0	0	-824	0	-1,094	-77	-2,736	-44	-	5.00
Naka Power Utilities (NWT) ACCOUNT 362 Station Equipment SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendat ion
2016			0		0	0	0	0	0	-494	-35	-2,736	-44	- 5.00
2017			0		0	0	0	0	0	-494	0	-2,736	-44	- 5.00
2018			0		0	0	0	0	0	0	0	-2,736	-44	- 5.00
2019			0		0	0	0	0	0	0	0	-2,736	-44	- 5.00
2020	183	697	381		0	-697	-381	-232	-381	-139	-381	-2,056	-49	- 5.00
2021			0		0	0	0	-232	-381	-139	-381	-2,056	-49	- 5.00
2022		424	0		0	-424	0	-374	-612	-224	-612	-1,648	-52	- 5.00
TOTAL	12,657	6,592	52.08	0	0.00	-6,592	(52.08)							

Naka Power Utilities (NWT) ACCOUNT 362.10 System Communication & Control SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendat ion
1990	24,622		0		0	0	0						0	-
1991			0		0	0	0						0	-
1992			0		0	0	0	0	0				0	-
1993			0		0	0	0	0	0				0	-
1994			0		0	0	0	0	0	0	0		0	-
1995			0		0	0	0	0	0	0	0		0	-
1996			0		0	0	0	0	0	0	0		0	-
1997			0		0	0	0	0	0	0	0		0	-
1998			0		0	0	0	0	0	0	0		0	-
1999			0		0	0	0	0	0	0	0		0	-
2000			0		0	0	0	0	0	0	0		0	-
2001			0		0	0	0	0	0	0	0		0	-
2002			0		0	0	0	0	0	0	0		0	-
2003			0		0	0	0	0	0	0	0		0	-
2004	50	660	1,320		0	-660	-1,320	-220	-1,320	-132	-1,320	-660	-3	-
2005			0		0	0	0	-220	-1,320	-132	-1,320	-660	-3	-
2006			0		0	0	0	-220	-1,320	-132	-1,320	-660	-3	-
2007			0		0	0	0	-220	-1,320	-132	-1,320	-660	-3	-
2008			0		0	0	0	-220	-1,320	-132	-1,320	-660	-3	-
2009	12,599	250	2		0	-250	-2	-83	-2	-182	-7	-455	-2	-
2010			0		0	0	0	-83	-2	-182	-7	-455	-2	-
2011			0		0	0	0	-83	-2	-50	-2	-455	-2	-
2012			0		0	0	0	0	0	-50	-2	-455	-2	-
2013			0		0	0	0	0	0	-50	-2	-455	-2	-
2014			0		0	0	0	0	0	0	0	-455	-2	-
2015			0		0	0	0	0	0	0	0	-455	-2	-
2016			0		0	0	0	0	0	0	0	-455	-2	-
2017			0		0	0	0	0	0	0	0	-455	-2	-
2018			0		0	0	0	0	0	0	0	-455	-2	-
2019			0		0	0	0	0	0	0	0	-455	-2	-
2020			0		0	0	0	0	0	0	0	-455	-2	-
2021			0		0	0	0	0	0	0	0	-455	-2	-
2022			0		0	0	0	0	0	0	0	-455	-2	-
TOTAL	37,271	910	2.44	0	0.00	-910	(2.44)							

Section 6.1 Attachment 1 PDF Page 167 of 238

Naka Power Utilities (NWT) ACCOUNT 364 - Poles, Towers & Fixtures SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Co Recorr	ncentric nmendat ion
1969	722		0		0	0	0						0		
1970	825		0		0	0	0						0		
1971	3,267		0		0	0	0	0	0				0		
1972	1,753		0		0	0	0	0	0				0		
1973	2,264		0		0	0	0	0	0	0	0		0		
1974	3,935		0		0	0	0	0	0	0	0		0		
1975	3,444		0		0	0	0	0	0	0	0		0		
1976	5,643		0		0	0	0	0	0	0	0		0		
1977	2,975		0		0	0	0	0	0	0	0		0		
1978	3,817		0		0	0	0	0	0	0	0		0		
1979	2,996		0		0	0	0	0	0	0	0		0		
1980			0		0	0	0	0	0	0	0		0		
1981	105		0		0	0	0	0	0	0	0		0		
1982	41		0		0	0	0	0	0	0	0		0		
1983	24	15	63	-307	-1,279	292	1,217	97	172	58	9	292	1	-	55.00
1984	1,658	1,230	74		0	-1,230	-74	-313	-54	-188	-51	-469	-3	-	55.00
1985	1,700	1,700	100	-231	-14	-1,469	-86	-802	-71	-481	-68	-802	-7	-	55.00
1986	7,481	5,546	74	-1,367	-18	-4,179	-56	-2,293	-63	-1,317	-60	-1,647	-15	-	55.00
1987	711	2	0		0	-2	0	-1,883	-57	-1,318	-57	-1,318	-15	-	55.00
1988	884	884	100	-13,218	-1,495	12,334	1,395	2,718	90	1,091	44	958	13	-	55.00
1989	8,710	12,475	143	-322	-4	-12,153	-140	60	2	-1,094	-28	-915	-12	-	55.00
1990	12	13	105		0	-13	-105	56	2	-803	-23	-803	-12	-	55.00
1991	3,144	2,439	78	-6,038	-192	3,599	114	-2,856	-72	753	28	-313	-5	-	55.00
1992	2,837	886	31	-5,729	-202	4,843	171	674	4	404	3	202	3	-	55.00
1993	1,713	117	7	-2,356	-138	2,239	131	1,420	8	852	7	387	7	-	55.00
1994	147	385	262	-20,479	-13,960	20,094	13,697	9,059	579	4,871	43	2,030	40	-	55.00
1995	12,966	256	2	-17,265	-133	17,009	131	13,114	265	8,273	62	3,182	56	-	55.00
1996	10,053	163	2	-10,481	-104	10,318	103	15,807	205	10,901	197	3,692	62	-	55.00
1997	6,476	685	11	-5,697	-88	5,012	77	10,780	110	10,934	174	3,780	63	-	55.00
1998	3,308	576	17	-4,692	-142	4,116	124	6,482	98	11,310	172	3,801	65	-	55.00
1999	6,025	954	16	-8,060	-134	7,106	118	5,411	103	8,712	112	3,995	68	-	55.00
2000	8,084	275	3	-5,973	-74	5,698	70	5,640	97	6,450	95	4,090	68	-	55.00
2001	1,431	141	10	-1,690	-118	1,549	108	4,784	92	4,696	93	3,956	69	-	55.00
2002	3,429	74	2	-5,482	-160	5,408	158	4,218	98	4,775	107	4,029	72	-	55.00
2003	3,042	11	0	-2,725	-90	2,714	89	3,224	122	4,495	102	3,966	72	-	55.00
2004	255		0	-2	-1	2	1	2,708	121	3,074	95	3,786	72	-	55.00
2005	16,068		0	-17	0	17	0	911	14	1,938	40	3,622	63	-	55.00
2006			0		0	0	0	6	0	1,628	36	3,622	63	-	55.00
2007	1,789	3,820	213	-115	-6	-3,705	-207	-1,229	-21	-194	-5	3,317	60	-	55.00
2008	6,154	13,026	212		0	-13,026	-212	-5,577	-211	-3,342	-69	2,663	48	-	55.00
2009	11,664	4,040	35		0	-4,040	-35	-6,924	-106	-4,151	-58	2,405	41	-	55.00
2010	5,700	16,500	289	-192	-3	-16,308	-286	-11,124	-142	-7,416	-147	1,712	29	-	55.00
2011	5,763	6,500	113	-320	-6	-6,180	-107	-8,843	-115	-8,652	-139	1,430	25	-	55.00
2012	840		0	-9	-1	9	1	-7,493	-183	-7,909	-131	1,381	24	-	55.00
2013			0		0	0	0	-2,057	-93	-5,304	-111	1,381	24	-	55.00
2014		21,300	0		0	-21,300	0	-7,097	-2,535	-8,756	-356	625	11	-	55.00
2015	3,155	6,100	193		0	-6,100	-193	-9,133	-868	-6,714	-344	408	8	-	55.00

Naka Power Utilities (NWT) ACCOUNT 364 - Poles, Towers & Fixtures SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Reco	Concentric ommendat ion
2016	3,358	18,960	565	-20	-1	-18,941	-564	-15,447	-712	-9,266	-630	-196	-4	-	55.00
2017	5,508	25,936	471		0	-25,936	-471	-16,992	-424	-14,455	-601	-976	-18	-	55.00
2018	649	6,575	1,013		0	-6,575	-1,013	-17,150	-541	-15,770	-622	-1,141	-22	-	55.00
2019	16,399	23,002	140		0	-23,002	-140	-18,504	-246	-16,111	-277	-1,766	-32	-	55.00
2020	20,006	79,767	399		0	-79,767	-399	-36,448	-295	-30,844	-336	-3,932	-66	-	55.00
2021			0		0	0	0	-34,256	-282	-27,056	-318	-3,932	-66	-	55.00
2022	3,416	6,649	195		0	-6,649	-195	-28,805	-369	-23,199	-287	-4,006	-69	-	55.00
TOTAL	216,345	261,001	120.64	-112,787	(52.13)	-148,215	(68.51)								

Naka Power Utilities (NWT) ACCOUNT 365 - Overhead Conductors and Devices SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Reco	Concentric ommendat ion
1969	251		0		0	0	0						0	-	55.00
1970	158		0		0	0	0						0	-	55.00
1971	3,041		0		0	0	0	0	0				0	-	55.00
1972	828		0		0	0	0	0	0				0	-	55.00
1973	99		0		0	0	0	0	0	0	0		0	-	55.00
1974	1,956		0		0	0	0	0	0	0	0		0	-	55.00
1975	1,985		0		0	0	0	0	0	0	0		0	-	55.00
1976	3,154		0		0	0	0	0	0	0	0		0	-	55.00
1977	1,293		0		0	0	0	0	0	0	0		0	-	55.00
1978	678		0		0	0	0	0	0	0	0		0	-	55.00
1979	795		0		0	0	0	0	0	0	0		0	-	55.00
1980			0		0	0	0	0	0	0	0		0	-	55.00
1981	87		0		0	0	0	0	0	0	0		0	-	55.00
1982	1,854		0		0	0	0	0	0	0	0		0	-	55.00
1983	633		0	-307	-48	307	48	102	12	61	9	307	2	-	55.00
1984	179	125	70	0	0	-125	-70	61	7	36	7	91	1	-	55.00
1985	550	550	100	-231	-42	-319	-58	-46	-10	-27	-4	-46	-1	-	55.00
1986	6,752	4,785	71	-1,668	-25	-3,117	-46	-1,187	-48	-651	-33	-814	-13	-	55.00
1987	291	1	0	0	0	-1	0	-1,146	-45	-651	-39	-651	-13	-	55.00
1988	2,427	2,427	100	-13,218	-545	10,791	445	2,558	81	1,446	71	1,256	28	-	55.00
1989	676	544	80	-322	-48	-222	-33	3,523	311	1,426	67	1,045	26	-	55.00
1990	407	243	60	0	0	-243	-60	3,442	294	1,442	68	884	25	-	55.00
1991	72	2,439	3,411	-6,038	-8,445	3,599	5,034	1,045	271	2,785	360	1,186	38	-	55.00
1992	695	141	20	-5,729	-825	5,588	804	2,981	762	3,903	456	1,626	56	-	55.00
1993	1,910	16	1	-2,282	-119	2,266	119	3,818	428	2,198	292	1,684	60	-	55.00
1994	22	96	447	-3,905	-18,163	3,809	17,716	3,888	444	3,004	484	1,861	73	-	55.00
1995	6,121	2,022	33	-3,462	-57	1,440	24	7,924	71	4,755	65	1,829	64	-	55.00
1996	1,953	5	0	-3,237	-166	3,232	166	9,002	78	5,401	70	1,929	69	-	55.00
1997	117	22	19	-138	-118	116	99	1,596	58	5,424	76	1,808	70	-	55.00
1998	334		0	-898	-269	898	269	1,415	177	5,604	80	1,751	71	-	55.00
1999	647	898	139	-2,491	-385	1,593	246	869	237	1,456	79	1,742	74	-	55.00
2000	1,825	21	1	-1,635	-90	1,614	88	1,368	146	1,491	153	1,735	75	-	55.00
2001	242	485	200	-836	-345	351	145	1,186	131	914	144	1,662	75	-	55.00
2002	693	3	0	-825	-119	822	119	929	101	1,056	141	1,620	76	-	55.00
2003	1,862	16	1	-6,957	-374	6,941	373	2,705	290	2,264	215	1,873	88	-	55.00
2004	56		0	-439	-784	439	784	2,734	314	2,033	217	1,808	89	-	55.00
2005	146		0	-11	-8		8	2,464	358	1,/13	286	1,/30	89	-	55.00
2006	10		0		0	0	0	150	223	1,643	298	1,/30	89	-	55.00
2007	40	2,000	5,000	-51	-127	-1,949	-4,8/3	-646	-1,042	1,088	259	1,5//	84	-	55.00
2008	0.41		0		0	0	0	-650	-4,8/3	-300	-620	1,5//	84	-	55.00
2009	961	2.000	0	100	0	0	0	-650	-195	-388	-169	1,5//	83	-	55.00
2010	852	3,000	352	-180	-21	-2,820	-331	-940	-156	-954	-257	1,401	/5	-	55.00
2011	10	7,100	0	-222	0	-6,8/8	0	-3,233	-535	-2,330	-629	1,082	60	-	55.00
2012	60		0	-50	-84	50	84	-3,216	-1,058	-1,930	-515	1,044	60	-	55.00
2013			0	-11	0	11	0	-2,2/2	-11,337	-1,72/	-313	1,007	60	_	55.00
2014	1.040	10.000	1.044		0	10,000	1.04/	2/20	103	-1,72/	-1,05/	1,007	0U 27	-	55.00
2013	1,042	10,700	1,040		U	-10,700	-1,040	-3,630	-1,043	-3,343	-1,000	37/	30	-	00.00

Naka Power Utilities (NWT) ACCOUNT 365 - Overhead Conductors and Devices SUMMARY OF BOOK SALVAGE

Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year	3-Year Percent	5-Year Amount	5-Year Percent	Historical	Historical	Cor Recom	ncentric mendat ion
Kemenienis	0.045	0	37	0	0 0 2 9	0	4 9 4 3	1 000	4 153	1 995	244	15		55.00
110	7,703	5 00 1	-37	0	-7,720	5 00 1	-0,743	-1,777	-4,100	-1,005	240	15	-	55.00
119	6,300	5,294		0	-6,300	-5,294	-9,043	-2,337	-5,423	-2,336	35	2	-	55.00
		0		0	0	0	-5,409	-13,637	-5,426	-2,337	35	2	-	55.00
		0		0	0	0	-2,100	-5,294	-5,426	-2,337	35	2	-	55.00
542	4,675	863		0	-4,675	-863	-1,558	-863	-4,181	-3,165	-112	-7	-	55.00
		0		0	0	0	-1,558	-863	-2,195	-1,662	-112	-7	-	55.00
957	29,157	3,046		0	-29,157	-3,046	-11,277	-2,257	-6,766	-2,257	-993	-66	-	55.00
40.250	07.02/	170.17	CC 100	(111 70)	20.75/	(() 2()								
	Regular Retirements 119 542 957	Regular Cost of Removal Retirements Amount 9,965 119 6,300 - 542 4,675 957 29,157 49 359 87 934	Regular Refirements Cost of Removal Amount Cost of Removal Percent 9,965 0 119 6,300 5,294 0 0 0 542 4,675 863 0 0 0 957 29,157 3,046	Regular Refirements Cost of Removal Amount Cost of Removal Percent Gross Salvage Amount 9,965 0 -37 119 6,300 5,294 0 0 0 542 4,675 863 0 0 0 957 29,157 3,046	Cost of Regular Refirements Cost of Removal Amount Cost of Removal Percent Gross Salvage Amount Gross Salvage Percent 9,965 0 -37 0 119 6,300 5,294 0 0 0 0 0 542 4,675 863 0 957 29,157 3,046 0	Cost of Regular Refirements Cost of Removal Amount Cost of Removal Percent Gross Salvage Amount Gross Salvage Percent Net Amount 9,965 0 -37 0 -9,928 119 6,300 5,294 0 -6,300 0 0 0 0 0 542 4,675 863 0 -4,675 0 0 0 0 0 957 29,157 3,046 0 -29,157	Regular Refirements Cost of Amount Cost of Removal Percent Gross Salvage Amount Gross Salvage Percent Gross Salvage Amount Net Salvage Percent 9,965 0 -37 0 -9,928 0 119 6,300 5,294 0 -6,300 -5,294 0 0 0 0 0 0 542 4,675 863 0 -4,675 -863 0 0 0 0 0 0 957 29,157 3,046 0 -29,157 -3,046	Regular Refirements Cost of Amount Cost of Removal Percent Gross Salvage Amount Gross Salvage Percent Net Salvage Amount Net Salvage Percent 9,965 0 -37 0 -9,928 0 -6,943 119 6,300 5,294 0 0 -6,300 -5,294 -9,043 0 0 0 0 0 0 -5,409 0 0 0 0 0 -2,100 542 4,675 863 0 -4,675 -863 -1,558 957 29,157 3,046 0 -29,157 -3,046 -11,277	Regular Refirements Cost of Amount Cost of Removal Percent Gross Salvage Amount Gross Salvage Percent Net Salvage Amount Net Percent 9,965 0 -37 0 -9,928 0 -6,943 -1,999 119 6,300 5,294 0 -6,300 -5,294 -9,043 -2,337 0 0 0 0 0 0 -5,409 -13,637 0 0 0 0 0 0 2,100 -5,294 542 4,675 863 0 -4,675 -863 -1,558 -863 957 29,157 3,046 0 -29,157 -3,046 -11,277 -2,257	Cost of Regular Relirements Cost of Removal Amount Gross Salvage Percent Net Salvage Amount Net Salvage Percent Net Amount S-Year Amount S-Year Percent 9,965 0 -37 0 -9,928 0 -6,943 -1,999 -4,153 119 6,300 5,294 0 -6,300 -5,294 -9,043 -2,337 -5,423 0 0 0 0 0 -5,409 -13,637 -5,426 0 0 0 0 0 -5,204 -2,337 -5,423 542 4,675 863 0 -4,675 -863 -1,558 -863 -4,181 542 4,675 863 0 -4,675 -863 -1,558 -863 -2,195 957 29,157 3,046 0 -29,157 -3,046 -11,277 -2,257 -6,766	Cost of Regular Reliferements Cost of Removal Amount Gross Salvage Percent Salvage Salvage Amount Net Salvage Percent 3-Year Amount 3-Year Percent 5-Year Amount 5-Year Percent 9,965 0 -37 0 -9,928 0 -6,943 -1,999 -4,153 -1,885 119 6,300 5,294 0 -6,300 -5,294 -9,043 -2,337 -5,423 -2,336 119 6,300 5,294 0 0 0 0 -2,307 -5,426 -2,337 542 4,675 863 0 -4,675 -863 -1,558 -863 -4,181 -3,165 542 4,675 863 0 -4,675 -863 -1,558 -863 -2,195 -1,662 957 29,157 3,046 0 -29,157 -3,046 -11,277 -2,257 -6,766 -2,257	Cost of Regular Relifements Cost of Removal Amount Gross Salvage Percent Net Salvage Amount Net Salvage Percent 3-Year Amount 3-Year Percent 5-Year Amount 5-Year Percent Historical Amount 9,965 0 -37 0 -9,928 0 -6,943 -1,999 -4,153 -1,885 246 119 6,300 5,294 0 -6,300 -5,294 -9,043 -2,337 -5,423 -2,336 35 0 0 0 0 0 -5,209 -13,637 -5,426 -2,337 35 542 4,675 863 0 -4,675 -863 -1,558 -863 -4,181 -3,165 -112 542 4,675 863 0 -4,675 -863 -1,558 -863 -2,195 -1,662 -112 957 29,157 3,046 0 -29,157 -3,046 -11,277 -2,257 -6,766 -2,257 -993	Cost of Removal Relirements Cost of Removal Amount Cost of Solvage Amount Gross Solvage Percent Net Solvage Amount Net Solvage Percent 3-Year Amount 3-Year Percent Solvage Amount Historical Percent Historical Amount Historical Percent 9,965 0 -37 0 -9,928 0 -6,943 -1,999 -4,153 -1,885 246 15 119 6,300 5,294 0 -6,943 -2,337 -5,423 -2,336 35 2 0 0 0 0 0 -5,294 -9,043 -2,337 -5,426 -2,337 35 2 542 4,675 863 0 -4,675 -863 -1,558 -863 -4,181 -3,165 -112 -7 542 4,675 863 0 -2,9,157 -3,046 -11,277 -2,257 -6,766 -2,257 -993 -66 957 29,157 3,046 0 -29,157 -3,046 -11,277 -2,257 -6,766 </th <th>Cost of Regular Relifements Cost of Removal Amount Gross Salvage Percent Salvage Salvage Amount Salvage Percent Amount Salvage Percent Percent Salvage Percent Amount Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Salvage Percent<</th>	Cost of Regular Relifements Cost of Removal Amount Gross Salvage Percent Salvage Salvage Amount Salvage Percent Amount Salvage Percent Percent Salvage Percent Amount Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Percent Salvage Percent Salvage Percent<

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Naka Power Utilities (NWT) ACCOUNT 365.10 - Overhead Services SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	C Reco	oncentric mmendat ion
1977	804		0		0	0	0						0	-	15.00
1978	516		0		0	0	0						0	-	15.00
1979	612		0		0	0	0	0	0				0	-	15.00
1980	324		0		0	0	0	0	0				0	-	15.00
1981	348		0		0	0	0	0	0	0	0		0	-	15.00
1982	1,085		0		0	0	0	0	0	0	0		0	-	15.00
1983	111		0		0	0	0	0	0	0	0		0	-	15.00
1984			0		0	0	0	0	0	0	0		0	-	15.00
1985			0		0	0	0	0	0	0	0		0	-	15.00
1986			0		0	0	0	0	0	0	0		0	-	15.00
1987			0		0	0	0	0	0	0	0		0	-	15.00
1988			0		0	0	0	0	0	0	0		0	-	15.00
1989			0		0	0	0	0	0	0	0		0	-	15.00
1990			0		0	0	0	0	0	0	0		0	-	15.00
1991			0		0	0	0	0	0	0	0		0	-	15.00
1992			0		0	0	0	0	0	0	0		0	-	15.00
1993			0		0	0	0	0	0	0	0		0	-	15.00
1994			0		0	0	0	0	0	0	0		0	-	15.00
1995			0		0	0	0	0	0	0	0		0	-	15.00
1996			0		0	0	0	0	0	0	0		0	-	15.00
1997			0		0	0	0	0	0	0	0		0	_	15.00
1996			0		0	0	0	0	0	0	0		0	-	15.00
2000			0		0	0	0	0	0	0	0		0	_	15.00
2000			0		0	0	0	0	0	0	0		0	-	15.00
2002			0		0	0	0	0	0	0	0		0	_	15.00
2003			0		0	0	0	0	0	0	0		0	-	15.00
2004	214		0		0	0	0	0	0	0	0		0	-	15.00
2005			0		0	0	0	0	0	0	0		0	-	15.00
2006			0		0	0	0	0	0	0	0		0	-	15.00
2007			0		0	0	0	0	0	0	0		0	-	15.00
2008			0		0	0	0	0	0	0	0		0	-	15.00
2009			0		0	0	0	0	0	0	0		0	-	15.00
2010	7,734		0		0	0	0	0	0	0	0		0	-	15.00
2011	8,029		0	-71	-1	71	1	24	0	14	0	71	0	-	15.00
2012	720		0		0	0	0	24	0	14	0	71	0	-	15.00
2013			0		0	0	0	24	1	14	0	71	0	-	15.00
2014			0		0	0	0	0	0	14	0	71	0	-	15.00
2015			0		0	0	0	0	0	14	1	71	0	-	15.00
2016			0		0	0	0	0	0	0	0	71	0	-	15.00
2017			0		0	0	0	0	0	0	0	71	0	-	15.00
2018	10,151	4,579	45		0	-4,579	-45	-1,526	-45	-916	-45	-2,254	-15	-	15.00
2019	7,916	4,997	63		0	-4,997	-63	-3,192	-53	-1,915	-53	-3,168	-25	-	15.00
2020	201	1,802	897		0	-1,802	-897	-3,792	-62	-2,275	-62	-2,827	-29	-	15.00
2021			0		0	0	0	-2,266	-84	-2,275	-62	-2,827	-29	-	15.00
2022	2,957		0		0	0	0	-601	-57	-2,275	-54	-2,827	-27	-	15.00
τοται	41,722	11.377	27.27	-71	(0.17)	-11.307	(27,10)								

Naka Power Utilities (NWT) ACCOUNT 367- Underground Conductor and Devices SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Reco	Concentric ommendat ion
1977	1,782		0		0	0	0						0	-	15.00
1978			0		0	0	0						0	-	15.00
1979			0		0	0	0	0	0				0	-	15.00
1980			0		0	0	0	0	0				0	-	15.00
1981			0		0	0	0	0	0	0	0		0	-	15.00
1982			0		0	0	0	0	0	0	0		0	-	15.00
1983			0		0	0	0	0	0	0	0		0	-	15.00
1984			0		0	0	0	0	0	0	0		0	-	15.00
1985			0		0	0	0	0	0	0	0		0	-	15.00
1986	144	144	100		0	-144	-100	-48	-100	-29	-100	-144	-7	-	15.00
1987			0		0	0	0	-48	-100	-29	-100	-144	-7	-	15.00
1988			0		0	0	0	-48	-100	-29	-100	-144	-7	-	15.00
1989			0		0	0	0	0	0	-29	-100	-144	-7	-	15.00
1990			0		0	0	0	0	0	-29	-100	-144	-7	-	15.00
1991			0		0	0	0	0	0	0	0	-144	-7	-	15.00
1992	2		0		0	0	0	0	0	0	0	-144	-/	-	15.00
1993			0		0	0	0	0	0	0	0	-144	-/	-	15.00
1994	0.40		0	7/4	0	0	0	0	0	0	0	-144	-/	-	15.00
1995	862		0	-/64	-89	/64	89	255	152	153	88	310	22	-	15.00
1996	3,687		0	-6,195	-168	6,195	168	2,320	153	1,392	153	2,272	105	-	15.00
1997			0		0	0	0	2,320	1.79	1,372	153	2,272	105	-	15.00
1998	241		0	E/	0	5/	0	2,065	100	1,372	133	2,2/2	103	-	15.00
2000	241		0	-36	-23	56	23	19	23	1,403	140	1,/10	102	-	15.00
2000			0		0	0	0	19	23	1,230	137	1,718	102	-	15.00
2001	142		0	-78	-55	78	55	26	55	27	35	1,710	102	_	15.00
2002	593		0	-625	-105	625	105	234	96	152	78	1,070	101	-	15.00
2004	0/0		0	020	0	0	0	234	96	141	96	1,262	102	-	15.00
2005	1,725		0		0	0	0	2.525	102	1.515	102	1,262	83	-	15.00
2006	.,. ==		0		0	0	0	2.525	102	1.515	102	1,262	83	_	15.00
2007	4,868		0		0	0	0	0	0	1,515	62	1,262	54	-	15.00
2008	,		0		0	0	0	0	0	1,515	62	1,262	54	-	15.00
2009	555		0		0	0	0	0	0	0	0	1,262	52	-	15.00
2010			0		0	0	0	0	0	0	0	1,262	52	-	15.00
2011			0		0	0	0	0	0	0	0	1,262	52	-	15.00
2012			0		0	0	0	0	0	0	0	1,262	52	-	15.00
2013			0		0	0	0	0	0	0	0	1,262	52	-	15.00
2014	2,676	36,735	1,373		0	-36,735	-1,373	-12,245	-1,373	-7,347	-1,373	-4,166	-169	-	15.00
2015			0		0	0	0	-12,245	-1,373	-7,347	-1,373	-4,166	-169	-	15.00
2016	796		0		0	0	0	-12,245	-1,058	-7,347	-1,058	-4,166	-161	-	15.00
2017	76	22,940	30,184		0	-22,940	-30,184	-7,647	-2,631	-11,935	-1,682	-6,513	-287	-	15.00
2018			0		0	0	0	-7,647	-2,631	-11,935	-1,682	-6,513	-287	-	15.00
2019			0		0	0	0	-7,647	-30,184	-4,588	-2,631	-6,513	-287	-	15.00
2020			0		0	0	0	0	0	-4,588	-2,631	-6,513	-287	-	15.00
2021			0		0	0	0	0	0	-4,588	-30,184	-6,513	-287	-	15.00
2022			0		0	0	0	0	0	0	0	-6,513	-287	-	15.00
TOTAL	18.148	59.819	329.62	-7.718	(42.53)	-52,101	(287.09)								

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Naka Power Utilities (NWT) ACCOUNT 368- Line Transformers SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Reco	Concentric ommendat ion
1969	771		0		0	0	0						0	-	15.00
1970	728		0		0	0	0						0	-	15.00
1971	2,338		0		0	0	0	0	0				0	-	15.00
1972	1,360		0		0	0	0	0	0				0	-	15.00
1973	284		0		0	0	0	0	0	0	0		0	-	15.00
1974	2.107		0		0	0	0	0	0	0	0		0	_	15.00
1975	2.134		0		0	0	0	0	0	0	0		0	-	15.00
1976	1 263		0		0	0	0	0	0	0	0		0	_	15.00
1977	5 545		0		0	0	0	0	0	0	0		0	-	15.00
1978	840		0		0	0	0	0	0	0	0		0	_	15.00
1979	5 391		0		0	0	0	0	0	0	0		0	-	15.00
1980	592		0		0	0	0	0	0	0	0		0	_	15.00
1981	839		0		0	0	0	0	0	0	0		0	-	15.00
1982	145		0		0	0	0	0	0	0	0		0	-	15.00
1983	0		0	-68	0	68	0	23	7	14	1	68	0	-	15.00
1984	2 198	99	5	00	0	-99	-5	-10	-1	-6	-1	-16	0	_	15.00
1985	2,170	,,	0	-51	0	51	0	7	1	4	1	7	0	-	15.00
1986	1 264	1 216	96	-267	-21	-949	-75	-332	-29	-186	-26	-232	-3	_	15.00
1987	1,201	249	21	207	0	-249	-21	-382	-47	-236	-25	-236	-4	-	15.00
1988	6 135	217	0	-2 937	-48	2 937	48	580	20	338	16	293	5	_	15.00
1989	3 179	701	22	-72	-2	-629	-20	686	20	232	10	161	3	-	15.00
1990	17 913	1 384	8	12	0	-1.384	-8	308	3	-55	-1	-32	0	-	15.00
1991	78.075	14 852	19	-5 546	-7	-9.306	-12	-3 773	-11	-1 726	-8	-1.062	-7	-	15.00
1992	11.801	2 268	19	-5 541	-47	3 273	28	-2 472	-7	-1.022	-4	-629	-4	-	15.00
1993	886	318	36	-1 687	-190	1.369	154	-1 555	-5	-1.335	-6	-447	-3	-	15.00
1994	584	1 237	212	-868	-149	-369	-63	1 424	32	-1 283	-6	-441	-4	-	15.00
1995	12 400	216	212	-1 864	-15	1 648	13	-1 213	-2	-728	-2	-280	-2	-	15.00
1996	35 757	32 459	91	-5 270	-15	-27 189	-76	-10 276	-16	-6 166	-16	-2 202	-16	_	15.00
1997	0	268	0	0,270	0	-268	, 0	-8 603	-54	-6 219	-16	-2.073	-16	-	15.00
1998	6 088	200	0		0	0	0	-9 1 5 2	-66	-6 219	-16	-2.073	-15	-	15.00
1999	2 407	708	29	-2 108	-88	1 400	58	377	13	-4.882	-43	-1.856	-15	-	15.00
2000	1 534	1 000	65	-1 034	-67	34	2	478	14	-5 205	-57	-1 745	-14	-	15.00
2001	/71	1,000	9	-406	-86	364	77	599	41	306	15	-1 628	-14	-	15.00
2002	565	14	2	-369	-65	355	63	251	29	431	19	-1 523	-14	-	15.00
2003	2 600	476	18	-905	-35	429	17	383	32	516	34	-1 426	-14	-	15.00
2004	2,000	170	0	-801	0	801	0	528	50	397	38	-1.320	-13	-	15.00
2005	2 213		0	-784	-35	784	35	671	42	547	47	-1 224	-13	-	15.00
2005	2,210		0	704	0	0	0	528	72	474	47	-1 224	-13	_	15.00
2007	3 872	1 100	28	-2.855	-74	1 755	45	847	12	754	43	-1.095	-12	-	15.00
2007	0	1,100	20	-2,000	-/4	1,7 33	45	585	42	648	45	-1.095	-12		15.00
2008	0	5 634	0	-454	0	-5.180	0	-1 141	-88	-528	-43	-1.265	-12		15.00
2005	0	3,034	0	-434	0	1 592	0	-1,141	-00	-344	-45	-1,205	-14	_	15.00
2011	0		0	-2 111	0	2 1 1 1	0	_/92	0	-56	-47	-1.025	-13	-	15.00
2012	0	288	0	-2,111	0		0	1 138	0	.353	0	-1,025	-12	-	15.00
2013	2 341	1 198	51	-1 759	-75	-200	24	795	101	-241	-51	-942	-13	-	15.00
2014	1 1 5 8	6363	550	-1,757	-/ 5	-6 363	.550	-2 030	-173	. 177	-51	-1 129	-12	-	15.00
2015	1,130	0,000	0		0	-0,303	-550	-2,030	-1/5	-4//	-00	-1,127	-15	-	15.00
	0		0		J	0	J	=1,704	-100	-//0	-113	-1,12/	-10		10.00

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Naka Power Utilities (NWT) ACCOUNT 368- Line Transformers SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Reco	Concentric Commendat ion
2016	22,988	969	4	-11,494	-50	10.525	46	1.387	17	887	17	-740	-9	-	15.00
2017	674	3,600	534		0	-3,600	-534	2,308	29	225	4	-833	-11	-	15.00
2018	0	21,417	0		0	-21,417	0	-4,831	-61	-4,171	-84	-1,476	-19	-	15.00
2019	6,027	10,977	182		0	-10,977	-182	-11,998	-537	-5,094	-86	-1,764	-23	-	15.00
2020	3,133	4,672	149		0	-4,672	-149	-12,355	-405	-6,028	-92	-1,849	-25	-	15.00
2021	0		0		0	0	0	-5,216	-171	-8,133	-414	-1,849	-25	-	15.00
2022	0		0		0	0	0	-1,557	-149	-7,413	-405	-1,849	-25	-	15.00
TOTAL	251,810	113,724	45.16	-50,844	(20.19)	-62,880	(24.97)								

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Naka Power Utilities (NWT) ACCOUNT 373 - Street Lights SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Rec	Concentric ommendat ion
1970	1,307		0		0	0	0						0	-	15.00
1971			0		0	0	0						0	-	15.00
1972	9		0		0	0	0	0	0				0	-	15.00
1973			0		0	0	0	0	0				0	-	15.00
1974	73		0		0	0	0	0	0	0	0		0	-	15.00
1975	928		0		0	0	0	0	0	0	0		0	-	15.00
1976	4,267		0		0	0	0	0	0	0	0		0	-	15.00
1977	3		0		0	0	0	0	0	0	0		0	-	15.00
1978	16		0		0	0	0	0	0	0	0		0	-	15.00
1979			0		0	0	0	0	0	0	0		0	-	15.00
1980			0		0	0	0	0	0	0	0		0	-	15.00
1981	61		0		0	0	0	0	0	0	0		0	-	15.00
1982			0		0	0	0	0	0	0	0		0	-	15.00
1983			0		0	0	0	0	0	0	0		0	-	15.00
1984	89		0		0	0	0	0	0	0	0		0	-	15.00
1985	2,185	2.074	95		0	-2.074	-95	-691	-91	-415	-89	-2.074	-23	-	15.00
1986	870	498	57	-271	-31	-227	-26	-767	-73	-460	-73	-1.151	-23	-	15.00
1987	4,909		0		0	0	0	-767	-29	-460	-29	-1.151	-16	-	15.00
1988	.,		0		0	0	0	-76	-4	-460	-29	-1.151	-16	-	15.00
1989			0		0	0	0	0	0	-460	-29	-1.151	-16	-	15.00
1990			0		0	0	0	0	0	-45	-4	-1,151	-16	-	15.00
1991			0		0	0	0	0	0	0	0	-1,151	-16	-	15.00
1992			0		0	0	0	0	0	0	0	-1,151	-16	-	15.00
1993			0		0	0	0	0	0	0	0	-1.151	-16	-	15.00
1994	25	25	101	-1.000	-4.032	975	3.931	325	3.931	195	3.931	-442	-9	-	15.00
1995	100	25	25	,	0	-25	-25	-450	-10	-270	-10	-338	-9	-	15.00
1996			0		0	0	0	-450	-10	-270	-10	-338	-9	-	15.00
1997	162	41	25	-278	-171	237	146	71	81	-223	-8	-223	-7	-	15.00
1998			0	-395	0	395	0	211	390	-144	-5	-120	-5	-	15.00
1999		119	0	-132	0	13	0	215	398	124	236	-101	-5	-	15.00
2000	699	85	12	-3,000	-429	2,915	417	1,108	476	712	414	276	14	-	15.00
2001			0	-115	0	115	0	1,014	436	735	427	258	15	-	15.00
2002			0		0	0	0	1,010	434	688	492	258	15	-	15.00
2003	1,953	45	2		0	-45	-2	23	4	600	113	228	13	-	15.00
2004			0		0	0	0	-15	-2	597	113	228	13	-	15.00
2005		382	0	-413	0	30	0	-5	-1	20	5	210	13	-	15.00
2006	657		0	-43	-7	43	7	24	11	6	1	196	13	-	15.00
2007			0	-44	0	44	0	39	18	14	3	184	13	-	15.00
2008			0		0	0	0	29	13	23	18	184	13	-	15.00
2009	178		0		0	0	0	15	25	23	14	184	13	-	15.00
2010			0	-76	0	76	0	25	43	33	19	177	13	-	15.00
2011		4,200	0		0	-4,200	0	-1,375	-2,317	-816	-2,292	-115	-9	-	15.00
2012	4,483		0		0	0	0	-1,375	-92	-825	-88	-115	-8	-	15.00
2013			0		0	0	0	-1,400	-94	-825	-88	-115	-8	-	15.00
2014	38,575	14,150	37		0	-14,150	-37	-4,717	-33	-3,655	-42	-992	-26	-	15.00
2015			0		0	0	0	-4,717	-37	-3,670	-43	-992	-26	-	15.00
2016	75,987	5,370	7		0	-5,370	-7	-6,507	-17	-3,904	-16	-1,250	-15	-	15.00

Naka Power Utilities (NWT) ACCOUNT 373 - Street Lights SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Reco	Concentric ommendat ion
2017			0		0	0	0	-1,790	-7	-3,904	-17	-1,250	-15	-	15.00
2018	224		0		0	0	0	-1,790	-7	-3,904	-17	-1,250	-15	-	15.00
2019	553	2,574	465		0	-2,574	-465	-858	-331	-1,589	-10	-1,323	-17	-	15.00
2020	962	4,911	511		0	-4,911	-511	-2,495	-431	-2,571	-17	-1,512	-21	-	15.00
2021			0		0	0	0	-2,495	-494	-1,497	-431	-1,512	-21	-	15.00
2022			0		0	0	0	-1,637	-511	-1,497	-431	-1,512	-21	-	15.00
TOTAL	139,275	34,499	24.77	-5,766	(4.14)	-28,733	(20.63)								

Naka Power Utilities (NWT) ACCOUNT 392.20 - Transportation Equipment - Fleet Vehicles Category 2 SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendat ion
2008	94,069		0		0	0	0						0	15.00
2009	1,301		0		0	0	0						0	15.00
2010	0		0		0	0	0	0	0				0	15.00
2011	99,523		0	-17,902	-18	17,902	18	5,967	18			17,902	9	15.00
2012	0		0		0	0	0	5,967	9	6,307	16	17,902	9	15.00
2013	166,633		0	-13,131	-8	13,131	8	10,344	9	6,507	9	15,516	9	15.00
2014	112,993		0	-500	0	500	0	4,544	5	2,926	3	10,511	7	15.00
2015	43,026		0	-1,000	-2	1,000	2	4,877	5	2,926	3	8,133	6	15.00
2016	0		0		0	0	0	500	1	300	0	8,133	6	15.00
2017	47,925		0		0	0	0	333	1	200	0	8,133	6	15.00
2018	0		0		0	0	0	0	0	1,450	1	8,133	6	15.00
2019	0		0		0	0	0	0	0	1,450	1	8,133	6	15.00
2020	85,100		0	-7,250	-9	7,250	9	2,417	9	1,450	1	7,957	6	15.00
2021	0		0		0	0	0	2,417	9	1,450	1	7,957	6	15.00
2022	0		0		0	0	0	13,261	6	9,407	7	7,957	6	15.00
TOTAL	650,570	0	0.00	-39,783	(6.12)	39,783	6.12							

Naka Power Utilities (NWT) ACCOUNT 392.30 - Transportation Equipment - Fleet Vehicles Category 3

SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendat ion
2020	8,424		0	-700	-8	700	8					700	8	20.00
2021	165,689		0	-17,800	-11	17,800	11					9,250	11	20.00
2022			0		0	0	0	6,167	11	3,700	11	9,250	11	20.00
TOTAL	174,112	0	0.00	-18,500	(10.63)	18,500	10.63							





Naka Power Utilities (NWT) 2022 Depreciation Study

SECTION 8

8 DETAILED DEPRECIATION CALCULATIONS

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Naka Power Utilities (NWT)

Account #: 341.20 - INT Combust Structures

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: S1.5 ASL: 50 Net Salvage: -10% Truncation Year:

Year	Original Cost	Calcula	ited Annual Accrual	Calcula	ted Accumulated	Average	ELG
		Rato	Amount	Easter	Amount	Age	Remaining
107/	2 55/ 01	1.62%	Anount	0 7020	2 002	19 5	12.20
1075	6 873 12	1.02%	112	0.7838	5 33/	40.5	12 71
1975	209.42	1.05%	3	0.7700	161	47.5	1/ 05
1977	A 254 37	1.05%	71	0.7000	3 232	40.5	1/ 39
1978	1 357 77	1.69%	23	0.7512	1 020	44.5	14.33
1986	10 006 73	1.84%	184	0.6722	6 727	36.5	17.80
1987	42 500 39	1 86%	791	0.6609	28 089	35.5	18 21
1988	29.403.28	1.88%	553	0.6492	19.089	34.5	18.64
1990	2,500.00	1.92%	48	0.6247	1.562	32.5	19.53
1995	5,692.00	2.02%	115	0.5564	3,167	27.5	21.92
1998	28,470.52	2.08%	593	0.5105	14,533	24.5	23.50
1999	4,125.82	2.10%	87	0.4943	2,039	23.5	24.05
2001	7,395.79	2.14%	158	0.4605	3,406	21.5	25.19
2004	1,975.00	2.20%	43	0.4066	803	18.5	27.00
2005	73,085.17	2.22%	1,619	0.3878	28,339	17.5	27.63
2006	15,120.67	2.23%	338	0.3685	5,571	16.5	28.28
2007	35,696.66	2.25%	803	0.3488	12,449	15.5	28.94
2008	3,232.74	2.27%	73	0.3286	1,062	14.5	29.62
2009	6,408.11	2.28%	146	0.3081	1,974	13.5	30.32
2013	48,090.55	2.34%	1,125	0.2221	10,683	9.5	33.27
2015	1,578.30	2.36%	37	0.1771	280	7.5	34.84
TOTA	330,531.62		6,966		151,523		
NET S	ALVAGE ADJUSTMENT		697		15,152		
TOTA	L		7,663		166,675		
COMP	OSITE ANNUAL ACCRU	AL RATE			2.32%		
COMP	OSITE ACTUAL ACCUM	ULATED DE	PRECIATION FACTOR		0.50		
COMP	OSITE AVERAGE AGE (Y	'EARS)			22.73		
ELG C	OMPOSITE REMAINING	LIFE (YEARS	5)		25.17		

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Naka Power Utilities (NWT)

Account #: 342.20 - INT Combust Fuel Holder, Producers and Accessories CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022 ELG - Whole Life Survivor Curve: R2 ASL: 30 Net Salvage: -10% Truncation Year:

Year	Original Cost	Calculat	ed Annual Accrual	Calcula	ated Accumulated	Average	ELG
				0	Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1994	69,625.43	2.72%	1,893	0.7748	53,948	28.5	8.28
1998	59,553.43	2.90%	1,727	0.7105	42,310	24.5	9.98
1999	118,255.21	2.94%	3,476	0.6907	81,675	23.5	10.53
2000	62,117.00	2.98%	1,850	0.6703	41,635	22.5	11.07
2001	155,494.66	3.03%	4,715	0.6520	101,376	21.5	11.48
2003	29,809.17	3.11%	928	0.6071	18,098	19.5	12.62
2006	65,489.80	3.25%	2,130	0.5367	35,149	16.5	14.24
2007	69,855.79	3.31%	2,313	0.5131	35,844	15.5	14.71
2008	30,831.16	3.35%	1,034	0.4864	14,995	14.5	15.31
2009	358,280.18	3.40%	12,180	0.4590	164,433	13.5	15.91
2010	237,408.08	3.46%	8,218	0.4327	102,722	12.5	16.39
2012	113,130.64	3.56%	4,026	0.3737	42,276	10.5	17.60
2013	350,704.42	3.63%	12,724	0.3447	120,876	9.5	18.06
2014	14,060.71	3.68%	518	0.3130	4,401	8.5	18.66
TOTA	1,734,615.68		57,732		859,739		
NET S	ALVAGE ADJUSTMENT		5,773		85,974		
TOTA	-		63,505		945,713		
COMP	OSITE ANNUAL ACCRUA	AL RATE			3.66%		
COMP	OSITE ACTUAL ACCUMU	JLATED DEPF	RECIATION FACTOR		0.55		
COMP	OSITE AVERAGE AGE (Y	EARS)			15.33		

14.92

ELG COMPOSITE REMAINING LIFE (YEARS)

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Naka Power Utilities (NWT)

Account #: 343.20 - INT Combust Generators

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: S0 ASL: 20 Net Salvage: -5% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calculat	ed Accumulated	Average	ELG
		Pato	Amount	De	epreciation	Age	Remaining
1071	12 020 02		Amount	1 0000	12 920	E1 E	0.00
1002	15,020.92	0.00%	0	1.0000	15,629	31.5 40 E	0.00
1006	200 10	2.64%	10	0.9644	232	26.5	1.25
1007	22 207 95	2.04%	20	0.9044	21 770	25.5	1.55
1080	263 177 61	2.09%	7 330	0.9344	245 550	22.5	2.40
1000	1 08/ /3	2.79%	21	0.9330	1 000	22 5	2.40
1992	1,004.45	2.04%	36	0.9217	1,000	30.5	2.70
1995	3 503 15	2.5470	109	0.8588	3,009	27.5	/ 52
1996	65 098 25	3 19%	2 075	0.8388	5/ 992	27.5	4.52
2002	38 365 /6	3 65%	1 399	0.7473	28 672	20.5	6.93
2002	16 253 76	3.05%	623	0.7473	11 520	18 5	7.60
2004	81 898 57	3 93%	3 220	0.6881	56 355	17 5	7.00
2003	422 586 84	4 15%	17 545	0.6435	271 947	15.5	8 59
2008	13 471 66	4 27%	576	0.6195	8 345	14 5	8.91
2010	8.575.25	4.54%	389	0.5672	4.864	12.5	9.54
2011	10.357.72	4.68%	485	0.5387	5.580	11.5	9.85
2012	83.100.10	4.84%	4.024	0.5085	42.253	10.5	10.15
2013	285.612.27	5.01%	14.319	0.4763	136.026	9.5	10.45
2015	348,550.65	5.40%	18,823	0.4050	141,175	7.5	11.02
2016	83,160.11	5.62%	4,675	0.3654	30,389	6.5	11.29
2017	414,508.46	5.87%	24,319	0.3227	133,755	5.5	11.54
2018	76,592.29	6.14%	4,703	0.2763	21,163	4.5	11.79
2019	135,969.75	6.45%	8,769	0.2257	30,690	3.5	12.01
2020	180,354.20	6.80%	12,271	0.1701	30,677	2.5	12.20
2021	25,726.79	7.22%	1,858	0.1083	2,787	1.5	12.34
2022	244,009.39	7.74%	18,886	0.0387	9,443	0.5	12.42
TOTAL	2,850,933.94		147,370		1,317,514		
NFT SA			7 368		65 876		
TOTAL			154 730		1 282 200		
IUIAL			154,738		1,383,390		
COMP	OSITE ANNUAL ACCRU	AL RATE			5.43%		
СОМР	OSITE ACTUAL ACCUM	ULATED DF	PRECIATION FACTOR		0.49		
00140					11 /3		
COIVIP	USITE AVERAGE AGE (Y	EARSJ			11.43		

ELG COMPOSITE REMAINING LIFE (YEARS)

9.64

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Naka Power Utilities (NWT)

Account #: 345.20 - INT Combust Accessory

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R1.5 ASL: 30 Net Salvage: -5% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calculated Accumulated		Average	ELG
					Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1971	1,914.48	1.85%	35	0.9549	1,828	51.5	2.43
1976	23,272.59	1.99%	463	0.9250	21,527	46.5	3.77
1986	108,149.89	2.33%	2,522	0.8513	92,067	36.5	6.38
1987	30,824.08	2.37%	729	0.8399	25,890	35.5	6.77
1988	30,950.79	2.40%	743	0.8282	25,635	34.5	7.15
1990	20,200.00	2.48%	501	0.8068	16,298	32.5	7.78
1994	3,855.88	2.64%	102	0.7528	2,903	28.5	9.36
1995	11,202.94	2.69%	302	0.7402	8,292	27.5	9.65
1996	5,087.24	2.73%	139	0.7233	3,680	26.5	10.14
1997	444.18	2.77%	12	0.7059	314	25.5	10.62
1998	27,899.04	2.82%	787	0.6910	19,279	24.5	10.95
1999	295,801.86	2.86%	8,460	0.6721	198,814	23.5	11.46
2000	97,816.23	2.90%	2,837	0.6526	63,839	22.5	11.98
2001	2,000.00	2.96%	59	0.6354	1,271	21.5	12.34
2002	88,977.10	3.00%	2,667	0.6144	54,665	20.5	12.87
2003	10,345.56	3.04%	314	0.5928	6,133	19.5	13.40
2004	69,502.94	3.10%	2,153	0.5731	39,835	18.5	13.78
2005	58,721.11	3.14%	1,845	0.5500	32,295	17.5	14.32
2006	51,494.38	3.19%	1,642	0.5262	27,096	16.5	14.86
2007	42,977.98	3.25%	1,398	0.5042	21,668	15.5	15.24
2009	41,266.82	3.35%	1,384	0.4528	18,684	13.5	16.32
2010	6,986.41	3.43%	239	0.4283	2,992	12.5	16.69
2014	4,107.96	3.70%	152	0.3148	1,293	8.5	18.50
2015	18,123.01	3.78%	685	0.2836	5,140	7.5	18.94
2016	1,591.37	3.90%	62	0.2534	403	6.5	19.15
2017	5,633.22	4.00%	225	0.2199	1,239	5.5	19.51
2020	23,157.84	4.49%	1,040	0.1123	2,600	2.5	19.77
2021	46,378.25	4.76%	2,209	0.0715	3,314	1.5	19.49
2022	46,834.20	5.47%	2,562	0.0274	1,281	0.5	17.78

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Naka Power Utilities (NWT)

Account #: 345.20 - INT Combust Accessory

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R1.5 ASL: 30 Net Salvage: -5% Truncation Year:

Year	Original Cost	Calculated Ar	inual Accrual	Calculated A	ccumulated	Average	ELG
				Depre	ciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
TOTA	1,175,517.35		36,272		700,274		
NET S	ALVAGE ADJUSTMENT		1,814		35,014		
ΤΟΤΑ			38,086		735,287		
COMF	OSITE ANNUAL ACCRU	AL RATE		3.2	24%		
	00112700000			012	- 170		
COMF	OSITE ACTUAL ACCUM	ULATED DEPRECIA	TION FACTOR	C).63		
COMF	OSITE AVERAGE AGE (Y	(EARS)		21	1.48		
ELG C	OMPOSITE REMAINING	LIFE (YEARS)		12	2.34		

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Naka Power Utilities (NWT)

Account #: 346.20 - INT Combust Miscellaneous

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R3 ASL: 27 Net Salvage: -5% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG
					Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1971	108.78	0.00%	0	1.0000	109	51.5	0.00
1987	7,881.36	2.63%	208	0.9347	7,367	35.5	2.48
1988	246.56	2.69%	7	0.9280	229	34.5	2.67
1998	1,988.45	3.25%	65	0.7972	1,585	24.5	6.23
2000	22,724.32	3.35%	762	0.7546	17,148	22.5	7.32
2006	4,371.03	3.64%	159	0.6001	2,623	16.5	11.00
2007	2,120.75	3.69%	78	0.5712	1,211	15.5	11.64
2008	1,316.17	3.73%	49	0.5411	712	14.5	12.30
2009	1,103.43	3.77%	42	0.5084	561	13.5	13.05
2012	5,951.00	3.90%	232	0.4091	2,435	10.5	15.17
2013	2,481.34	3.93%	97	0.3730	926	9.5	15.97
ΤΟΤΑΙ	50,293.19		1,698		34,906		
NET S/	ALVAGE ADJUSTMENT		85		1,745		
ΤΟΤΑΙ			1,783		36,651		
СОМР	OSITE ANNUAL ACCRU	AL RATE			3.55%		
СОМР	OSITE ACTUAL ACCUM	ULATED DEF	RECIATION FACTOR		0.73		
сомр	OSITE AVERAGE AGE (Y	'EARS)			21.45		

8.59

ELG COMPOSITE REMAINING LIFE (YEARS)

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Naka Power Utilities (NWT)

Account #: 353.00 - Station Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R4 ASL: 45 Net Salvage: -15% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ted Accumulated	Average	ELG
				C	Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1988	433,376.27	2.14%	9,260	0.7372	319,470	34.5	12.30
1989	169.97	2.15%	4	0.7203	122	33.5	13.01
1994	81,054.47	2.22%	1,797	0.6320	51,229	28.5	16.59
1995	3,089.99	2.23%	69	0.6128	1,894	27.5	17.38
1996	15,833.35	2.24%	355	0.5945	9,412	26.5	18.08
1998	5,430.98	2.26%	123	0.5539	3,008	24.5	19.73
2000	5,056.74	2.28%	115	0.5123	2,591	22.5	21.42
2002	3,343.48	2.29%	77	0.4702	1,572	20.5	23.10
2004	14,139.23	2.30%	326	0.4264	6,029	18.5	24.88
2006	48,074.41	2.32%	1,114	0.3822	18,375	16.5	26.67
2007	4,744.08	2.32%	110	0.3597	1,706	15.5	27.60
2010	241,052.40	2.33%	5,620	0.2914	70,250	12.5	30.39
2011	199,404.94	2.33%	4,654	0.2684	53,520	11.5	31.35
2013	61,714.66	2.34%	1,443	0.2221	13,709	9.5	33.27
2014	32,648.00	2.34%	764	0.1990	6,496	8.5	34.22
2020	3,872.16	2.35%	91	0.0587	227	2.5	40.07
ΤΟΤΑ	1,153,005.13		25,922		559,611		
NET S	ALVAGE ADJUSTMENT		3,888		83,942		
ΤΟΤΑ	L		29,810		643,552		
COMP	OSITE ANNUAL ACCRUA	AL RATE			2.59%		
COMP	OSITE ACTUAL ACCUMU	JLATED DEP	RECIATION FACTOR		0.56		

COMPOSITE AVERAGE AGE (YEARS)	22.03
ELG COMPOSITE REMAINING LIFE (YEARS)	22.53

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Naka Power Utilities (NWT)

Account #: 355.00 - Poles and Fixtures

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R2 ASL: 50 Net Salvage: -35% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG
				I	Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1988	548,915.29	1.84%	10,108	0.6353	348,738	34.5	19.80
1990	122,231.34	1.87%	2,291	0.6092	74,458	32.5	20.85
1993	1,299.66	1.92%	25	0.5677	738	29.5	22.46
1995	4,139.00	1.96%	81	0.5386	2,229	27.5	23.56
1996	4,422.86	1.98%	87	0.5236	2,316	26.5	24.11
1998	35,609.39	2.01%	716	0.4928	17,547	24.5	25.22
2000	1,242.81	2.05%	25	0.4607	573	22.5	26.34
2001	408.77	2.07%	8	0.4442	182	21.5	26.90
2004	3,552.57	2.12%	75	0.3929	1,396	18.5	28.58
2006	39,720.36	2.16%	860	0.3572	14,188	16.5	29.69
2007	13,471.52	2.19%	295	0.3389	4,565	15.5	30.24
2008	16,372.27	2.21%	362	0.3202	5,242	14.5	30.78
2012	34,793.15	2.31%	802	0.2421	8,424	10.5	32.87
2013	32,956.20	2.33%	769	0.2217	7,306	9.5	33.35
2014	89,160.28	2.36%	2,107	0.2009	17,912	8.5	33.81
ΤΟΤΑΙ	948,295.47	·	18,613		505,815		
NET S	ALVAGE ADJUSTMENT		6,515		177,035		
ΤΟΤΑΙ			25,128		682,850		
COMP	OSITE ANNUAL ACCRU	AL RATE			2.65%		
СОМР	OSITE ACTUAL ACCUM	ULATED DEP	RECIATION FACTOR		0.72		
COMP	OSITE AVERAGE AGF (Y	(EARS)			28.15		
		/					

23.25

ELG COMPOSITE REMAINING LIFE (YEARS)

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Naka Power Utilities (NWT)

Account #: 355.04 - Poles and Fixtures T415

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R2 ASL: 50 Net Salvage: -35% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG
					Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1988	361,533.90	1.84%	6,658	0.6353	229,691	34.5	19.80
1997	437.49	1.99%	9	0.5083	222	25.5	24.66
2000	6,590.00	2.05%	135	0.4607	3,036	22.5	26.34
2019	7,367.50	2.57%	189	0.0900	663	3.5	35.38
2022	6,239.21	2.94%	183	0.0147	92	0.5	33.54
TOTAL	. 382,168.10		7,174		233,704		
NET SA	ALVAGE ADJUSTMENT		2,511	1 81,796			
TOTAL			9,685		315,500		
COMP	OSITE ANNUAL ACCRU	AL RATE			2.53%		
COMP	OSITE ACTUAL ACCUM	JLATED DEF	PRECIATION FACTOR		0.83		
СОМР	OSITE AVERAGE AGE (Y	EARS)			33.13		
CONIP	USITE AVERAGE AGE (Y	EAKSJ			55.15		

20.45

ELG COMPOSITE REMAINING LIFE (YEARS)

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Naka Power Utilities (NWT)

Account #: 356.00 - Overhead Conductors and Devices Poles CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022 ELG - Whole Life Survivor Curve: R4 ASL: 50 Net Salvage: -10% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG
					Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1988	868,811.29	1.97%	17,144	0.6808	591,484	34.5	16.18
1990	28,887.72	1.99%	576	0.6484	18,730	32.5	17.63
1994	1,239.44	2.03%	25	0.5793	718	28.5	20.70
1998	22,975.93	2.06%	474	0.5053	11,609	24.5	23.99
1999	717.05	2.07%	15	0.4861	349	23.5	24.84
2000	4,620.00	2.07%	96	0.4667	2,156	22.5	25.71
2001	1,519.54	2.08%	32	0.4471	679	21.5	26.58
2004	2,778.87	2.09%	58	0.3873	1,076	18.5	29.27
2012	27,247.43	2.12%	576	0.2221	6,051	10.5	36.78
2013	51,726.42	2.12%	1,095	0.2011	10,402	9.5	37.74
2014	35,236.24	2.12%	746	0.1801	6,344	8.5	38.71
TOTAL	1,045,759.93		20,838		649,598		
NET SALVAGE ADJUSTMENT			2,084		64,960		
ΤΟΤΑΙ			22,922		714,558		

COMPOSITE ANNUAL ACCRUAL RATE	2.19%
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR	0.68
COMPOSITE AVERAGE AGE (YEARS)	31.36
ELG COMPOSITE REMAINING LIFE (YEARS)	18.85

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Naka Power Utilities (NWT)

Account #: 356.04 - Overhead Conductors and Devices Poles T415 CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022 ELG - Whole Life Survivor Curve: R4 ASL: 50 Net Salvage: -10% Truncation Year:

Year	r Original Cost Calculated Annual Accrual Calculated Accumulated		Average	ELG			
				0	Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1988	708,567.84	1.97%	13,982	0.6808	482,391	34.5	16.18
1996	1,252.77	2.05%	26	0.5428	680	26.5	22.32
2020	4,650.47	2.13%	99	0.0531	247	2.5	44.55
TOTAI	714,471.08		14,107		483,318		
NET S	ALVAGE ADJUSTMENT		1,411		48,332		
ΤΟΤΑΙ			15,518	531,650			
COMP	OSITE ANNUAL ACCRU	AL RATE			2.17%		
COMP	OSITE ACTUAL ACCUM	JLATED DEPRE	CIATION FACTOR		0.74		
COMPOSITE AVERAGE AGE (YEARS)					34.28		
ELG C	OMPOSITE REMAINING	LIFE (YEARS)			16.37		

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Naka Power Utilities (NWT)

Account #: 360.10 - Land Rights

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R3 ASL: 75 Net Salvage: 0% Truncation Year:

Ye	ar	Original Cost	Calcula	ted Annual Accrual	Calcula	ted Accumulated	Average	ELG
					D	epreciation	Age	Remaining
			Rate	Amount	Factor	Amount		Life
19	970	3.42	1.27%	0	0.6674	2	52.5	26.16
19	972	14.81	1.28%	0	0.6489	10	50.5	27.32
19	973	1.09	1.29%	0	0.6383	1	49.5	28.05
19	975	1.45	1.30%	0	0.6188	1	47.5	29.26
19	976	20.79	1.31%	0	0.6079	13	46.5	30.00
19	977	7.24	1.32%	0	0.5988	4	45.5	30.49
19	979	132.54	1.32%	2	0.5762	76	43.5	31.99
19	981	1.45	1.34%	0	0.5550	1	41.5	33.27
20	004	7,667.94	1.45%	112	0.2691	2,063	18.5	50.26
20	006	567.12	1.46%	8	0.2411	137	16.5	51.94
20)13	187.50	1.49%	3	0.1420	27	9.5	57.40
20	017	94.61	1.51%	1	0.0833	8	5.5	60.56
20)19	10,235.42	1.53%	157	0.0535	548	3.5	61.90
то	TAL	. 18,935.38		283		2,890		
NE	T S/	ALVAGE ADJUSTMENT		0		0		
то	TAL			283		2,890		
CO	MP	OSITE ANNUAL ACCRU	AL RATE			1.49%		
CO	MP	OSITE ACTUAL ACCUM	JLATED DEF	PRECIATION FACTOR		0.15		
СО	MP	OSITE AVERAGE AGE (Y	EARS)			10.43		
FI	GC	OMPOSITE REMAINING	LIFF (YFARS	5)		56.54		
				' I		00.01		

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Naka Power Utilities (NWT)

Account #: 362.00 - Station Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R2 ASL: 45 Net Salvage: -5% Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated Accumulated Depreciation		Average Age	ELG Remaining
		Rate	Amount	Factor	Amount	8 -	Life
1952	9,110.14	1.35%	123	0.9529	8,681	70.5	3.49
1965	7,040.45	1.55%	109	0.8916	6,277	57.5	6.99
1966	8,264.05	1.57%	129	0.8846	7,311	56.5	7.37
1967	162.45	1.58%	3	0.8776	143	55.5	7.74
1968	6,897.95	1.60%	110	0.8705	6,004	54.5	8.11
1969	1,827.80	1.62%	30	0.8671	1,585	53.5	8.20
1970	3,503.60	1.64%	57	0.8592	3,010	52.5	8.61
1971	3,665.10	1.65%	61	0.8511	3,119	51.5	9.01
1972	7,119.00	1.67%	119	0.8428	6,000	50.5	9.42
1973	2,449.00	1.69%	41	0.8344	2,043	49.5	9.83
1978	53,613.06	1.79%	957	0.7946	42,599	44.5	11.51
1995	1,898.12	2.11%	40	0.5803	1,101	27.5	19.89
1996	69.83	2.14%	1	0.5665	40	26.5	20.27
1998	31,631.80	2.18%	688	0.5329	16,858	24.5	21.47
1999	35,831.15	2.19%	786	0.5157	18,478	23.5	22.07
2002	4,341.32	2.26%	98	0.4640	2,014	20.5	23.68
2003	5,954.73	2.28%	136	0.4454	2,652	19.5	24.28
2004	22,168.10	2.30%	511	0.4264	9,452	18.5	24.89
2007	18,967.93	2.38%	451	0.3689	6,998	15.5	26.51
2011	254.65	2.49%	6	0.2863	73	11.5	28.66
2012	60.03	2.52%	2	0.2643	16	10.5	29.23
2013	73,329.23	2.55%	1,867	0.2418	17,734	9.5	29.78
2018	1,597.97	2.75%	44	0.1236	198	4.5	31.90
2020	1,629.86	2.90%	47	0.0725	118	2.5	31.98
2021	3,913.45	3.00%	117	0.0450	176	1.5	31.82
ΤΟΤΑΙ	305,300.77		6,535		162,681		
NET S	ALVAGE ADJUSTMENT		327		8,134		
ΤΟΤΑΙ	_		6.862		170.815		
	-		0,002		1,0,010		
COMP	OSITE ANNUAL ACCRU	AL RATE			2.25%		
COMP	OSITE ACTUAL ACCUM	JLATED DEF	PRECIATION FACTOR		0.56		
COMP	OSITE AVERAGE AGE (Y	EARS)			27.95		

ELG COMPOSITE REMAINING LIFE (YEARS)

20.36

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Naka Power Utilities (NWT)

Account #: 362.10 - System Communication & Control CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022 ELG - Whole Life Survivor Curve: R4 ASL: 15 Net Salvage: 0% Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calcula	ated Accumulated	Average	ELG
		Rate	Amount	Eactor		Age	Kemaining
1079	127 27	0.00%	Amount	1 0000	127	115	0.00
1070	2 270 00	0.00%	0	1,0000	2 270	44.5	0.00
1001	2,270.00	0.00%	0	1.0000	2,270	43.5	0.00
1982	420.00	0.00%	0	1 0000	/20	41.5	0.00
1984	5 976 00	0.00%	0	1 0000	5 976	38 5	0.00
1986	2 285 69	0.00%	0	1 0000	2 286	36.5	0.00
1988	6.792.34	0.00%	0	1.0000	6,792	34.5	0.00
1989	5.088.06	0.00%	0	1.0000	5.088	33.5	0.00
1990	3.998.48	0.00%	0	1.0000	3.998	32.5	0.00
1991	2,340.00	0.00%	0	1.0000	2,340	31.5	0.00
1993	3,713.13	0.00%	0	1.0000	3,713	29.5	0.00
1994	7,474.13	0.00%	0	1.0000	7,474	28.5	0.00
1996	6,247.96	0.00%	0	1.0000	6,248	26.5	0.00
1997	3,797.32	0.00%	0	1.0000	3,797	25.5	0.00
1999	14,677.44	0.00%	0	1.0000	14,677	23.5	0.00
2000	20,626.79	4.35%	897	0.9783	20,178	22.5	0.50
2002	11,400.74	4.73%	540	0.9704	11,064	20.5	0.62
2003	18,990.14	4.91%	932	0.9572	18,178	19.5	0.87
2004	4,991.53	5.12%	255	0.9465	4,725	18.5	1.05
2005	30,920.11	5.33%	1,647	0.9321	28,820	17.5	1.28
2007	8,448.25	5.74%	485	0.8904	7,522	15.5	1.91
2009	27,187.07	6.10%	1,659	0.8239	22,400	13.5	2.89
2013	6,039.35	6.66%	402	0.6328	3,822	9.5	5.51
2014	1,443.61	6.77%	98	0.5751	830	8.5	6.28
2017	3,042.43	6.96%	212	0.3828	1,165	5.5	8.87
ΤΟΤΑΙ	. 199,786.09		7,127		185,400		
NET S	ALVAGE ADJUSTMENT		0		0		
ΤΟΤΑΙ			7.127		185.400		
	-		-,		,		
СОМР	OSITE ANNUAL ACCRU	AL RATE			3.57%		
СОМР	OSITE ACTUAL ACCUM	ULATED DEF	PRECIATION FACTOR		0.93		
СОМР	OSITE AVERAGE AGE (Y	'EARS)			21.63		

ELG COMPOSITE REMAINING LIFE (YEARS)

1.21

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Naka Power Utilities (NWT)

Account #: 364.00 - Poles, Towers and Fixtures

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R4 ASL: 50 Net Salvage: -55% Truncation Year:

Year	Original Cost	Calcula	ated Annual Accrual	Calcula	ated Accumulated	Average	ELG
					Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1958	41.71	1.49%	1	0.9613	40	64.5	2.60
1959	37.76	1.51%	1	0.9572	36	63.5	2.84
1960	103.75	1.52%	2	0.9529	99	62.5	3.09
1961	276.32	1.54%	4	0.9485	262	61.5	3.34
1963	5.03	1.58%	0	0.9393	5	59.5	3.85
1964	5,133.94	1.60%	82	0.9344	4,797	58.5	4.11
1966	4,243.84	1.64%	69	0.9238	3,920	56.5	4.66
1967	3,079.27	1.65%	51	0.9181	2,827	55.5	4.95
1968	3,320.13	1.67%	56	0.9120	3,028	54.5	5.26
1969	6,471.59	1.69%	110	0.9055	5,860	53.5	5.59
1970	7,830.52	1.71%	134	0.8985	7,036	52.5	5.93
1971	7,605.10	1.73%	132	0.8910	6,776	51.5	6.30
1972	9,191.48	1.75%	161	0.8829	8,115	50.5	6.70
1973	10,661.16	1.77%	188	0.8742	9,320	49.5	7.12
1974	7,789.91	1.78%	139	0.8648	6,737	48.5	7.58
1975	22,166.61	1.80%	399	0.8548	18,949	47.5	8.07
1976	10,633.49	1.82%	193	0.8442	8,977	46.5	8.58
1977	7,255.44	1.83%	133	0.8329	6,043	45.5	9.13
1978	5,186.42	1.85%	96	0.8211	4,258	44.5	9.70
1979	13,764.93	1.86%	256	0.8087	11,132	43.5	10.29
1980	2,349.95	1.87%	44	0.7959	1,870	42.5	10.90
1981	24,783.39	1.89%	467	0.7828	19,400	41.5	11.52
1982	1,321.54	1.90%	25	0.7693	1,017	40.5	12.15
1983	4,222.31	1.91%	81	0.7554	3,190	39.5	12.79
1984	210,955.31	1.93%	4,062	0.7412	156,369	38.5	13.44
1985	63,095.54	1.94%	1,223	0.7267	45,851	37.5	14.10
1986	19,755.96	1.95%	385	0.7118	14,062	36.5	14.78
1987	62,566.99	1.96%	1,227	0.6965	43,576	35.5	15.47
1988	81,002.33	1.97%	1,598	0.6808	55,146	34.5	16.18
1989	6,255.94	1.98%	124	0.6648	4,159	33.5	16.89
1990	63,112.12	1.99%	1,259	0.6484	40,919	32.5	17.63
1991	59,724.25	2.01%	1,198	0.6316	37,722	31.5	18.37
1992	66,598.04	2.01%	1,342	0.6145	40,924	30.5	19.13
1993	26,563.67	2.02%	538	0.5971	15,860	29.5	19.91
1994	80,944.59	2.03%	1,645	0.5793	46,890	28.5	20.70
1995	271,789.20	2.04%	5,547	0.5612	152,530	27.5	21.50
1996	198,471.42	2.05%	4,066	0.5428	107,738	26.5	22.32
1997	107,931.98	2.06%	2,219	0.5242	56,577	25.5	23.15
1998	105,540.79	2.06%	2,177	0.5053	53,327	24.5	23.99

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Naka Power Utilities (NWT)

Account #: 364.00 - Poles, Towers and Fixtures

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R4 ASL: 50 Net Salvage: -55% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG
				I	Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1999	121,331.85	2.07%	2,510	0.4861	58,982	23.5	24.84
2000	111,267.23	2.07%	2,308	0.4667	51,932	22.5	25.71
2001	55,276.61	2.08%	1,150	0.4471	24,716	21.5	26.58
2002	66,653.44	2.08%	1,389	0.4273	28,484	20.5	27.47
2003	26,292.54	2.09%	549	0.4074	10,711	19.5	28.37
2004	32,870.94	2.09%	688	0.3873	12,729	18.5	29.27
2005	127,605.76	2.10%	2,676	0.3670	46,828	17.5	30.19
2006	71,520.75	2.10%	1,502	0.3466	24,787	16.5	31.11
2007	54,751.54	2.10%	1,152	0.3260	17,852	15.5	32.04
2008	159,210.36	2.11%	3,353	0.3054	48,626	14.5	32.98
2009	61,584.91	2.11%	1,299	0.2847	17,533	13.5	33.92
2010	65,526.48	2.11%	1,383	0.2639	17,292	12.5	34.87
2011	229,241.15	2.11%	4,844	0.2430	55,710	11.5	35.82
2012	53,763.88	2.12%	1,137	0.2221	11,940	10.5	36.78
2013	129,866.89	2.12%	2,749	0.2011	26,115	9.5	37.74
2014	134,470.41	2.12%	2,848	0.1801	24,212	8.5	38.71
2015	99,154.26	2.12%	2,102	0.1590	15,763	7.5	39.68
2016	56,899.85	2.12%	1,207	0.1379	7,844	6.5	40.65
2017	127,117.11	2.12%	2,698	0.1167	14,837	5.5	41.62
2018	89,345.15	2.12%	1,897	0.0955	8,537	4.5	42.60
2019	114,075.34	2.12%	2,423	0.0744	8,482	3.5	43.57
2020	69,370.36	2.13%	1,474	0.0531	3,686	2.5	44.55
2021	86,883.50	2.13%	1,848	0.0319	2,772	1.5	45.52
2022	104,617.38	2.13%	2,227	0.0106	1,114	0.5	46.47
ΤΟΤΑΙ	3,830,481.41	11	78,844		1,546,823		
			12 264		850 752		
INET 5/	ALVAGE ADJOSTIVIENT		43,304		000,705		
IOTAL			122,209		2,397,576		
COMPOSITE ANNUAL ACCRUAL RATE					3.19%		
СОМР		ULATED DEF	PRECIATION FACTOR		0.63		
СОМР	OSITE AVERAGE AGE (Y	'EARS)			20.06		

ELG COMPOSITE REMAINING LIFE (YEARS)

28.60

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Naka Power Utilities (NWT)

Account #: 365.00 - Overhead Conductors and Devices CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022 ELG - Whole Life Survivor Curve: R3 ASL: 55 Net Salvage: -55% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG
				1	Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1951	2,466.68	1.30%	32	0.9294	2,293	71.5	5.43
1952	65.35	1.31%	1	0.9268	61	70.5	5.56
1953	65.35	1.33%	1	0.9239	60	69.5	5.72
1955	14.80	1.36%	0	0.9170	14	67.5	6.11
1956	371.44	1.37%	5	0.9131	339	66.5	6.33
1957	524.68	1.38%	7	0.9043	474	65.5	6.93
1958	1,939.48	1.40%	27	0.9005	1,746	64.5	7.13
1959	182.25	1.41%	3	0.8963	163	63.5	7.35
1960	1,361.72	1.43%	19	0.8917	1,214	62.5	7.59
1961	1,812.36	1.44%	26	0.8866	1,607	61.5	7.86
1962	1,246.36	1.45%	18	0.8769	1,093	60.5	8.50
1963	1,838.75	1.47%	27	0.8717	1,603	59.5	8.75
1964	8,096.23	1.48%	120	0.8661	7,012	58.5	9.04
1966	9,513.41	1.51%	144	0.8535	8,120	56.5	9.70
1967	4,230.12	1.53%	65	0.8466	3,581	55.5	10.06
1968	1,699.41	1.53%	26	0.8354	1,420	54.5	10.74
1969	4,912.46	1.55%	76	0.8281	4,068	53.5	11.11
1970	9,258.53	1.56%	145	0.8204	7,595	52.5	11.50
1971	10,057.52	1.58%	159	0.8122	8,168	51.5	11.91
1972	8,068.41	1.59%	128	0.8035	6,483	50.5	12.35
1973	10,445.53	1.60%	167	0.7911	8,264	49.5	13.07
1974	1,936.51	1.61%	31	0.7821	1,515	48.5	13.51
1975	9,314.98	1.63%	152	0.7727	7,197	47.5	13.98
1976	5,396.68	1.64%	89	0.7628	4,116	46.5	14.46
1977	2,444.05	1.65%	40	0.7525	1,839	45.5	14.97
1978	2,372.10	1.67%	40	0.7418	1,760	44.5	15.49
1979	10,652.69	1.67%	178	0.7280	7,755	43.5	16.25
1980	1,134.24	1.69%	19	0.7169	813	42.5	16.78
1981	7,771.29	1.70%	132	0.7054	5,482	41.5	17.33
1982	5,894.93	1.71%	101	0.6936	4,089	40.5	17.89
1983	2,090.88	1.73%	36	0.6814	1,425	39.5	18.47
1984	28,515.37	1.73%	494	0.6666	19,008	38.5	19.26
1985	24,047.61	1.74%	419	0.6540	15,727	37.5	19.84
1986	10,707.06	1.76%	188	0.6411	6,864	36.5	20.44
1987	40,659.57	1.77%	719	0.6278	25,527	35.5	21.04
1988	120,628.04	1.78%	2,148	0.6142	74,095	34.5	21.67
1989	5,364.83	1.79%	96	0.6004	3,221	33.5	22.30
1990	51,487.81	1.80%	926	0.5844	30,087	32.5	23.12
1991	19,601.12	1.81%	355	0.5701	11,174	31.5	23.75

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Naka Power Utilities (NWT)

Account #: 365.00 - Overhead Conductors and Devices CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022 ELG - Whole Life Survivor Curve: R3 ASL: 55 Net Salvage: -55% Truncation Year:

Year	Original Cost	Calculat	ted Annual Accrual	Calculate	ed Accumulated	Average	ELG
				De	epreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1992	29,325.69	1.82%	534	0.5555	16,291	30.5	24.40
1993	15,379.04	1.83%	282	0.5407	8,315	29.5	25.06
1994	33,291.10	1.84%	614	0.5255	17,495	28.5	25.73
1995	107,916.20	1.85%	1,996	0.5086	54,886	27.5	26.57
1996	50,699.91	1.86%	943	0.4931	24,999	26.5	27.25
1997	51,829.42	1.87%	970	0.4773	24,736	25.5	27.93
1998	39,817.79	1.88%	749	0.4612	18,362	24.5	28.63
1999	15,113.86	1.89%	286	0.4448	6,723	23.5	29.33
2000	60,547.53	1.90%	1,152	0.4282	25,925	22.5	30.05
2001	15,001.78	1.91%	286	0.4102	6,154	21.5	30.91
2002	29,736.23	1.92%	570	0.3933	11,694	20.5	31.63
2003	86,203.44	1.93%	1,662	0.3760	32,415	19.5	32.36
2004	20,988.54	1.94%	407	0.3585	7,525	18.5	33.10
2005	75,014.97	1.95%	1,461	0.3408	25,567	17.5	33.85
2006	56,691.02	1.95%	1,107	0.3221	18,263	16.5	34.72
2007	40,778.90	1.96%	800	0.3041	12,401	15.5	35.47
2008	37,686.58	1.97%	743	0.2858	10,772	14.5	36.23
2009	41,769.50	1.98%	827	0.2674	11,167	13.5	36.99
2010	36,960.04	1.99%	735	0.2487	9,191	12.5	37.77
2011	92,648.82	2.00%	1,851	0.2298	21,290	11.5	38.55
2012	19,350.01	2.00%	388	0.2103	4,069	10.5	39.43
2013	44,369.67	2.01%	893	0.1911	8,480	9.5	40.21
2014	17,763.38	2.02%	359	0.1718	3,051	8.5	40.98
2015	51,090.58	2.03%	1,037	0.1523	7,779	7.5	41.76
2016	13,325.67	2.04%	272	0.1326	1,766	6.5	42.54
2017	3,408.22	2.04%	70	0.1124	383	5.5	43.42
2018	19,567.69	2.06%	402	0.0925	1,810	4.5	44.16
2019	25,092.65	2.07%	519	0.0724	1,816	3.5	44.87
2020	75,381.76	2.08%	1,569	0.0520	3,922	2.5	45.55
2021	5,285.57	2.10%	111	0.0315	166	1.5	46.13
2022	12,024.92	2.13%	256	0.0107	128	0.5	46.42

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Naka Power Utilities (NWT)

Account #: 365.00 - Overhead Conductors and Devices CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022 ELG - Whole Life Survivor Curve: R3 ASL: 55 Net Salvage: -55% Truncation Year:

Year	Original Cost	Calculated Annual Accrual		Calculated A	Accumulated	Average	ELG
				Depre	ciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
TOTA	L 1,652,251.08		31,210		684,615		
NET SALVAGE ADJUSTMENT 17,165 376,538							
ΤΟΤΑ	L		48,375		1,061,153		
COMF	POSITE ANNUAL ACCRU	AL RATE		2.9	93%		
COMP	OSITE ACTUAL ACCUM	JLATED DEPRECIA	TION FACTOR	(0.64		
COMP	POSITE AVERAGE AGE (Y	EARS)		22	2.82		
ELG C	OMPOSITE REMAINING	LIFE (YEARS)		30	0.40		

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Naka Power Utilities (NWT)

Account #: 365.10 - Overhead Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R3 ASL: 50 Net Salvage: -15% Truncation Year:

Year	Original Cost	Calculated	Annual Accrual	Calcula	ated Accumulated	Average	ELG
		-		I	Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1962	755.94	1.51%	11	0.9121	690	60.5	5.83
1963	183.71	1.52%	3	0.9070	167	59.5	6.10
1964	874.45	1.54%	13	0.9016	788	58.5	6.39
1965	672.55	1.56%	10	0.8959	603	57.5	6.68
1966	1,141.66	1.57%	18	0.8899	1,016	56.5	6.99
1967	1,003.95	1.59%	16	0.8835	887	55.5	7.32
1968	933.64	1.61%	15	0.8769	819	54.5	7.65
1969	1,350.87	1.63%	22	0.8699	1,175	53.5	8.00
1970	1,076.36	1.64%	18	0.8625	928	52.5	8.37
1971	1,823.32	1.66%	30	0.8547	1,558	51.5	8.76
1972	1,773.98	1.68%	30	0.8465	1,502	50.5	9.15
1973	2,779.85	1.69%	47	0.8380	2,329	49.5	9.57
1974	3,847.07	1.71%	66	0.8290	3,189	48.5	10.00
1975	1,016.42	1.73%	18	0.8197	833	47.5	10.45
1976	2,290.92	1.74%	40	0.8099	1,855	46.5	10.92
1977	1,971.83	1.76%	35	0.7997	1,577	45.5	11.40
1978	1,877.28	1.77%	33	0.7891	1,481	44.5	11.89
1979	906.91	1.79%	16	0.7782	706	43.5	12.40
1980	1,434.06	1.80%	26	0.7668	1,100	42.5	12.93
1981	1,448.87	1.82%	26	0.7550	1,094	41.5	13.47
1982	7,510.15	1.83%	138	0.7429	5,579	40.5	14.02
1983	6,679.99	1.85%	124	0.7304	4,879	39.5	14.58
1984	6,367.42	1.86%	119	0.7175	4,569	38.5	15.16
1985	5,854.68	1.88%	110	0.7042	4,123	37.5	15.75
1986	7,739.35	1.89%	146	0.6907	5,345	36.5	16.35
1987	8,055.21	1.91%	154	0.6767	5,451	35.5	16.96
1988	14,985.97	1.92%	288	0.6625	9,927	34.5	17.58
1989	14,012.42	1.93%	271	0.6479	9,078	33.5	18.21
1990	18,552.71	1.95%	361	0.6329	11,743	32.5	18.85
1991	17,731.99	1.96%	348	0.6177	10,953	31.5	19.50
1992	24,542.23	1.97%	485	0.6021	14,778	30.5	20.15
1993	20,479.54	1.99%	407	0.5863	12,006	29.5	20.82
1994	15.509.50	2.00%	310	0.5701	8.842	28.5	21.49
1995	6.053.39	2.01%	122	0.5536	3.351	27.5	22.17
1996	18,986.45	2.03%	385	0.5369	10,193	26.5	22.86
1997	11.882.57	2.04%	242	0.5198	6.177	25.5	23.56
1998	11.722.06	2.05%	240	0.5024	5.890	24.5	24.26
1999	11 166 30	2.06%	230	0.4848	5 413	23.5	24.97
2000	8,725.07	2.08%	181	0.4669	4,074	22.5	25.69

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Naka Power Utilities (NWT)

Account #: 365.10 - Overhead Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R3 ASL: 50 Net Salvage: -15% Truncation Year:

Year	Original Cost Calculated Annual Accrual		Calculated Accumulated		Average	ELG	
				I	Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
2001	6,944.36	2.09%	145	0.4487	3,116	21.5	26.42
2002	8,298.46	2.10%	174	0.4302	3,570	20.5	27.15
2003	15,125.54	2.11%	319	0.4115	6,224	19.5	27.89
2004	7,821.21	2.12%	166	0.3925	3,070	18.5	28.64
2005	16,211.95	2.13%	346	0.3732	6,050	17.5	29.39
2006	8,920.40	2.14%	191	0.3537	3,155	16.5	30.15
2007	44,046.49	2.15%	949	0.3339	14,708	15.5	30.92
2008	57,147.37	2.16%	1,237	0.3139	17,940	14.5	31.69
2009	23,031.12	2.18%	501	0.2937	6,764	13.5	32.47
2010	34,314.49	2.19%	750	0.2732	9,375	12.5	33.25
2011	11,984.88	2.20%	263	0.2525	3,027	11.5	34.04
2012	9,371.18	2.21%	207	0.2316	2,171	10.5	34.83
2013	13,681.07	2.22%	303	0.2105	2,881	9.5	35.62
2014	19,749.85	2.23%	440	0.1893	3,738	8.5	36.41
2015	31,336.96	2.24%	701	0.1678	5,257	7.5	37.21
2016	20,571.23	2.25%	462	0.1461	3,005	6.5	38.00
2017	16,154.95	2.26%	365	0.1242	2,006	5.5	38.78
2018	25,705.17	2.27%	583	0.1021	2,626	4.5	39.56
2019	3,398.74	2.28%	78	0.0799	272	3.5	40.31
2020	31,930.30	2.30%	734	0.0574	1,834	2.5	41.02
2021	3,500.58	2.32%	81	0.0348	122	1.5	41.65
2022	1,048.38	2.35%	25	0.0118	12	0.5	42.02
ΤΟΤΑΙ	. 676,015.32		14,173		267,589		
NET SALVAGE ADJUSTMENT			2,126		40,138		
ΤΟΤΑΙ			16,299		307,727		
COMPOSITE ANNUAL ACCRUAL RATE					2.41%		
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR					0.46		
COMPOSITE AVERAGE AGE (YEARS)					19.75		
ELG COMPOSITE REMAINING LIFE (YEARS)					28.21		
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Naka Power Utilities (NWT)

Account #: 367.00 - Underground Conductor and Devices CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022 ELG - Whole Life Survivor Curve: R3 ASL: 55 Net Salvage: -15% Truncation Year:

Year	Original Cost	Calculated	Annual Accrual	Calcula	ated Accumulated	Average	ELG
				l	Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1970	3,364.16	1.56%	53	0.8204	2,760	52.5	11.50
1971	2,265.06	1.58%	36	0.8122	1,840	51.5	11.91
1973	5,135.03	1.60%	82	0.7911	4,063	49.5	13.07
1974	2,341.29	1.61%	38	0.7821	1,831	48.5	13.51
1975	11,501.07	1.63%	187	0.7727	8,886	47.5	13.98
1976	8,518.58	1.64%	140	0.7628	6,498	46.5	14.46
1977	17,156.92	1.65%	284	0.7525	12,910	45.5	14.97
1979	9,120.98	1.67%	153	0.7280	6,640	43.5	16.25
1980	401.24	1.69%	7	0.7169	288	42.5	16.78
1981	1,861.46	1.70%	32	0.7054	1,313	41.5	17.33
1982	1,439.98	1.71%	25	0.6936	999	40.5	17.89
1984	1,572.18	1.73%	27	0.6666	1,048	38.5	19.26
1985	94.31	1.74%	2	0.6540	62	37.5	19.84
1986	19,985.43	1.76%	351	0.6411	12,812	36.5	20.44
1987	5,357.61	1.77%	95	0.6278	3,364	35.5	21.04
1988	1,858.25	1.78%	33	0.6142	1,141	34.5	21.67
1989	8,038.82	1.79%	144	0.6004	4,826	33.5	22.30
1990	60,591.23	1.80%	1,089	0.5844	35,407	32.5	23.12
1991	33,424.84	1.81%	605	0.5701	19,055	31.5	23.75
1992	29,532.13	1.82%	538	0.5555	16,406	30.5	24.40
1993	39,363.91	1.83%	721	0.5407	21,282	29.5	25.06
1994	16,820.69	1.84%	310	0.5255	8,839	28.5	25.73
1995	60,027.64	1.85%	1,110	0.5086	30,530	27.5	26.57
1996	21,280.24	1.86%	396	0.4931	10,493	26.5	27.25
1997	14,251.69	1.87%	267	0.4773	6,802	25.5	27.93
1998	9,424.51	1.88%	177	0.4612	4,346	24.5	28.63
1999	12,095.19	1.89%	229	0.4448	5,380	23.5	29.33
2000	11,377.73	1.90%	217	0.4282	4,872	22.5	30.05
2001	37,519.91	1.91%	716	0.4102	15,392	21.5	30.91
2002	23,434.25	1.92%	450	0.3933	9,216	20.5	31.63
2003	39,377.25	1.93%	759	0.3760	14,807	19.5	32.36
2004	53,152.53	1.94%	1,030	0.3585	19,058	18.5	33.10
2005	19,361.58	1.95%	377	0.3408	6,599	17.5	33.85
2007	31,683.44	1.96%	622	0.3041	9,635	15.5	35.47
2008	8,092.32	1.97%	160	0.2858	2,313	14.5	36.23
2009	14,872.62	1.98%	295	0.2674	3,976	13.5	36.99
2010	26,918.21	1.99%	536	0.2487	6,694	12.5	37.77
2011	14,846.43	2.00%	297	0.2298	3,412	11.5	38.55
2012	16,859.01	2.00%	338	0.2103	3,545	10.5	39.43

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Naka Power Utilities (NWT)

Account #: 367.00 - Underground Conductor and Devices CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022 ELG - Whole Life Survivor Curve: R3 ASL: 55 Net Salvage: -15% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calculated Accumulated Depreciation		Average	ELG Remaining
		Rate	Amount	Factor	Amount	Age	Life
2013	41,470.47	2.01%	834	0.1911	7,926	9.5	40.21
2014	113,802.84	2.02%	2,300	0.1718	19,549	8.5	40.98
2015	169,985.94	2.03%	3,451	0.1523	25,881	7.5	41.76
2016	26,696.27	2.04%	544	0.1326	3,539	6.5	42.54
2017	67,446.01	2.04%	1,379	0.1124	7,583	5.5	43.42
2018	33,797.42	2.06%	695	0.0925	3,126	4.5	44.16
2019	6,074.76	2.07%	126	0.0724	440	3.5	44.87
2020	37,603.19	2.08%	783	0.0520	1,957	2.5	45.55
2021	19,023.44	2.10%	399	0.0315	599	1.5	46.13
2022	24,463.26	2.13%	521	0.0107	261	0.5	46.42
ΤΟΤΑΙ	1,234,683.32		23,955		400,198		
NET S	ALVAGE ADJUSTMENT		3,593		60,030		
ΤΟΤΑΙ			27,548		460,227		
COMP	COMPOSITE ANNUAL ACCRUAL RATE				2.23%		
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR			PRECIATION FACTOR		0.37		
СОМР	COMPOSITE AVERAGE AGE (YEARS)				17.43		

34.31

	· /	
ELG COMPOSITE REMAININ	ING LIFE (YEARS)	

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Naka Power Utilities (NWT)

Account #: 367.10 - Underground Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R2.5 ASL: 35 Net Salvage: 0%

Truncation Year:

Year	Original Cost	Calcula	ated Annual Accrual	Calcula	ated Accumulated	Average	ELG
				C	Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1973	0.88	1.88%	0	0.9310	1	49.5	3.67
1974	60.38	1.91%	1	0.9265	56	48.5	3.85
1975	371.72	1.94%	7	0.9216	343	47.5	4.04
1976	688.47	1.97%	14	0.9164	631	46.5	4.24
1977	303.60	1.99%	6	0.9065	275	45.5	4.69
1978	161.88	2.03%	3	0.9016	146	44.5	4.86
1979	385.22	2.06%	8	0.8960	345	43.5	5.05
1980	298.60	2.09%	6	0.8898	266	42.5	5.26
1981	436.21	2.13%	9	0.8830	385	41.5	5.50
1982	1,613.45	2.16%	35	0.8756	1,413	40.5	5.76
1983	571.69	2.20%	13	0.8674	496	39.5	6.04
1984	1,196.38	2.22%	27	0.8544	1,022	38.5	6.56
1985	10.81	2.26%	0	0.8457	9	37.5	6.84
1987	767.72	2.33%	18	0.8255	634	35.5	7.51
1988	2,664.59	2.36%	63	0.8141	2,169	34.5	7.88
1989	3,866.56	2.39%	93	0.8018	3,100	33.5	8.28
1990	4,311.72	2.43%	105	0.7887	3,401	32.5	8.71
1991	3,792.97	2.45%	93	0.7715	2,926	31.5	9.33
1992	7.96	2.48%	0	0.7574	6	30.5	9.77
1993	3,043.05	2.52%	77	0.7424	2,259	29.5	10.24
1994	3,597.64	2.55%	92	0.7266	2,614	28.5	10.72
1996	3,401.74	2.61%	89	0.6927	2,356	26.5	11.76
1997	3,592.41	2.65%	95	0.6746	2,423	25.5	12.30
1998	2,093.57	2.67%	56	0.6533	1,368	24.5	13.00
1999	1,024.55	2.70%	28	0.6342	650	23.5	13.55
2000	1,385.44	2.73%	38	0.6144	851	22.5	14.12
2001	1,562.97	2.76%	43	0.5940	928	21.5	14.70
2002	1,729.29	2.79%	48	0.5728	990	20.5	15.29
2003	5,551.10	2.83%	157	0.5509	3,058	19.5	15.89
2004	1,872.56	2.86%	53	0.5284	990	18.5	16.51
2005	4,574.06	2.88%	132	0.5036	2,303	17.5	17.25
2006	2,867.40	2.91%	83	0.4801	1,377	16.5	17.87
2007	3,208.67	2.94%	94	0.4560	1,463	15.5	18.49
2008	67,181.57	2.97%	1,998	0.4312	28,972	14.5	19.12
2009	1,021.19	3.01%	31	0.4059	414	13.5	19.76
2010	4.196.55	3.04%	128	0.3799	1.594	12.5	20.41
2011	1.287.20	3.07%	40	0.3532	455	11.5	21.06
2012	4.461.50	3.09%	138	0.3249	1.450	10.5	21.82
2013	3,597.85	3.13%	113	0.2973	1,070	9.5	22.45

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Naka Power Utilities (NWT)

Account #: 367.10 - Underground Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: R2.5 ASL: 35 Net Salvage: 0% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG	
				[Depreciation	Age	Remaining	
		Rate	Amount	Factor	Amount		Life	
2014	3,104.93	3.17%	98	0.2691	836	8.5	23.09	
2015	4,111.64	3.20%	132	0.2403	988	7.5	23.71	
2016	967.41	3.24%	31	0.2108	204	6.5	24.33	
2017	7,240.98	3.29%	238	0.1808	1,309	5.5	24.93	
2018	670.90	3.33%	22	0.1500	101	4.5	25.50	
2020	1,099.45	3.44%	38	0.0860	95	2.5	26.57	
2021	553.14	3.53%	20	0.0530	29	1.5	26.79	
TOTAL	160,509.57		4,610		78,770			
NET S/	ALVAGE ADJUSTMENT		0		0			
TOTAL			4,610		78,770			
COMP	OSITE ANNUAL ACCRUA	AL RATE			2.87%			
COMP	OSITE ACTUAL ACCUMU	JLATED DEP	RECIATION FACTOR		0.49			
COMPOSITE AVERAGE AGE (YEARS)					17.94			
		*						

17.25

ELG COMPOSITE REMAINING LIFE (YEARS)

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Naka Power Utilities (NWT)

Account #: 368.00 - Line Transformers

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: SO ASL: 40 Net Salvage: -15% Truncation Year:

Year	Original Cost	Calculated A	Annual Accrual	Calcula	ated Accumulated	Average	ELG
				[Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1971	1,488.40	1.62%	24	0.8349	1,243	51.5	10.18
1972	434.09	1.64%	7	0.8257	358	50.5	10.66
1973	5,037.56	1.66%	83	0.8199	4,130	49.5	10.88
1974	4,953.48	1.67%	83	0.8103	4,014	48.5	11.35
1975	2,868.49	1.69%	49	0.8042	2,307	47.5	11.57
1976	1,174.97	1.71%	20	0.7943	933	46.5	12.04
1977	603.26	1.73%	10	0.7878	475	45.5	12.25
1978	4,448.49	1.75%	78	0.7776	3,459	44.5	12.73
1979	1,108.70	1.77%	20	0.7708	855	43.5	12.94
1980	2,030.85	1.79%	36	0.7602	1,544	42.5	13.41
1984	3,330.44	1.88%	63	0.7229	2,408	38.5	14.76
1985	7,492.03	1.91%	143	0.7148	5,356	37.5	14.96
1986	9,324.86	1.93%	180	0.7029	6,555	36.5	15.43
1987	6,956.16	1.96%	136	0.6944	4,830	35.5	15.62
1988	10,943.08	1.98%	216	0.6820	7,463	34.5	16.09
1989	45,696.56	2.01%	918	0.6729	30,751	33.5	16.28
1990	16,825.14	2.03%	342	0.6600	11,104	32.5	16.74
1991	8,574.67	2.06%	177	0.6504	5,577	31.5	16.93
1992	22,160.19	2.09%	463	0.6368	14,113	30.5	17.39
1993	40,651.55	2.12%	863	0.6266	25,473	29.5	17.58
1994	50,099.12	2.15%	1,077	0.6124	30,683	28.5	18.03
1995	31,987.24	2.19%	700	0.6015	19,242	27.5	18.22
1996	21,137.64	2.21%	468	0.5867	12,401	26.5	18.67
1997	33,287.72	2.26%	751	0.5750	19,142	25.5	18.84
1998	27,424.68	2.28%	626	0.5594	15,342	24.5	19.29
1999	11,975.79	2.33%	279	0.5470	6,550	23.5	19.46
2000	44,742.20	2.36%	1,055	0.5305	23,738	22.5	19.91
2001	20,652.26	2.41%	497	0.5172	10,681	21.5	20.07
2002	22,908.23	2.44%	559	0.4998	11,451	20.5	20.51
2003	4,351.94	2.49%	108	0.4855	2,113	19.5	20.67
2005	19,043.79	2.58%	491	0.4516	8,600	17.5	21.25
2006	43,363.08	2.62%	1,136	0.4322	18,741	16.5	21.68
2007	19,097.54	2.68%	512	0.4154	7,933	15.5	21.81
2008	35,879.21	2.72%	977	0.3947	14,162	14.5	22.24
2009	47.781.46	2.79%	1.332	0.3765	17.988	13.5	22.36
2010	30.622.26	2.84%	868	0.3544	10.853	12.5	22.77
2011	40.380.00	2.91%	1.175	0.3345	13.507	11.5	22.88
2012	41.666.03	2.96%	1.233	0.3108	12.951	10.5	23.28
2013	22,615.73	3.04%	688	0.2890	6,537	9.5	23.37

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Naka Power Utilities (NWT)

Account #: 368.00 - Line Transformers

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: SO ASL: 40 Net Salvage: -15% Truncation Year:

Year	Original Cost	Calcula	ited Annual Accrual	Calculated Accumulated		Average	ELG
					Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
2014	82,032.70	3.10%	2,543	0.2635	21,618	8.5	23.75
2015	55,489.03	3.19%	1,772	0.2395	13,288	7.5	23.82
2016	150,231.94	3.26%	4,896	0.2118	31,825	6.5	24.18
2017	24,255.28	3.37%	816	0.1851	4,490	5.5	24.21
2018	51,002.80	3.44%	1,756	0.1549	7,901	4.5	24.55
2020	16,972.29	3.66%	621	0.0915	1,554	2.5	24.81
ΤΟΤΑΙ	1,145,102.93		30,846		476,238		
NET S	ALVAGE ADJUSTMENT		4,627		71,436		
ΤΟΤΑΙ			35,473		547,673		
сомр	OSITE ANNUAL ACCRUA	AL RATE			3.10%		
COMPOSITE ACTUAL ACCUMULATED DEPRECIATION FACTOR					0.48		
COMP	OSITE AVERAGE AGE (Y	EARS)			17.39		

21.13

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Naka Power Utilities (NWT)

Account #: 370.00 - Conventional Meters

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: L0 ASL: 16 Net Salvage: 0% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcul	ated Accumulated	Average	ELG
		Rate	Amount	Eactor	Depreciation	Age	Remaining
1974	394.85	1 95%	8	0 9478	374	48 5	2 67
1976	93.64	2 03%	2	0.9418	88	46.5	2.87
1977	103 90	2.06%	2	0 9375	97	45.5	3.03
1979	79.26	2.14%	2	0.9311	74	43.5	3.22
1982	75.20	2.26%	2	0.9157	68	40.5	3.73
1983	250.24	2.31%	6	0.9129	228	39.5	3.77
1984	185.81	2.36%	4	0.9069	169	38.5	3.95
1986	72.82	2.45%	2	0.8947	65	36.5	4.30
1987	96.79	2.51%	2	0.8910	86	35.5	4.34
1988	73.86	2.56%	2	0.8839	65	34.5	4.53
1989	236.55	2.62%	6	0.8767	207	33.5	4.71
1990	334.25	2.67%	9	0.8692	291	32.5	4.89
1991	27.60	2.74%	1	0.8644	24	31.5	4.94
1992	389.92	2.81%	11	0.8558	334	30.5	5.14
1993	111.56	2.87%	3	0.8471	94	29.5	5.33
1994	9,387.66	2.94%	276	0.8380	7,867	28.5	5.51
1995	11.77	3.02%	0	0.8316	10	27.5	5.57
1996	542.14	3.10%	17	0.8212	445	26.5	5.77
1999	1,420.24	3.37%	48	0.7908	1,123	23.5	6.22
2000	8,609.62	3.46%	298	0.7780	6,698	22.5	6.42
2001	250.86	3.56%	9	0.7646	192	21.5	6.62
2002	122.16	3.66%	4	0.7506	92	20.5	6.81
2003	43.42	3.79%	2	0.7393	32	19.5	6.88
2004	11.22	3.91%	0	0.7232	8	18.5	7.08
2007	5,344.81	4.34%	232	0.6731	3,598	15.5	7.53
2008	5,911.50	4.50%	266	0.6524	3,857	14.5	7.72
2009	18,548.44	4.67%	866	0.6305	11,696	13.5	7.91
2010	27,560.11	4.86%	1,339	0.6073	16,736	12.5	8.08
2012	881.13	5.32%	47	0.5587	492	10.5	8.29
2014	1,310.22	5.86%	77	0.4978	652	8.5	8.57
2018	17.21	7.55%	1	0.3398	6	4.5	8.74
2021	442.99	10.15%	45	0.1522	67	1.5	8.35
2022	635.97	11.92%	76	0.0596	38	0.5	7.89

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Naka Power Utilities (NWT)

Account #: 370.00 - Conventional Meters

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: LO ASL: 16 Net Salvage: 0% Truncation Year:

Year	Original Cost	Calculated An	nual Accrual	Calculated Accumulated Depreciation		Average	ELG Remaining	
		Rate	Amount	Factor	Amount	780	Life	
ΤΟΤΑΙ	83,577.23		3,665		55,874	1		
NET S	ALVAGE ADJUSTMENT		0		0			
ΤΟΤΑΙ	-		3,665		55,874			
СОМР	OSITE ANNUAL ACCRU	AL RATE		4.3	8%			
сомр	OSITE ACTUAL ACCUM	JLATED DEPRECIA	TION FACTOR	0	.67			
СОМР	OSITE AVERAGE AGE (Y	EARS)		16	.73			
ELG CO	OMPOSITE REMAINING	LIFE (YEARS)		7	.36			

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Naka Power Utilities (NWT)

Account #: 373.00 - Street Lights

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: S1 ASL: 30 Net Salvage: -15% Truncation Year:

Year	Original Cost	Calculated	Annual Accrual	Calcula	ated Accumulated	Average	ELG
				[Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
1958	55.04	0.00%	0	1.0000	55	64.5	0.00
1959	77.72	0.00%	0	1.0000	78	63.5	0.00
1961	115.24	0.00%	0	1.0000	115	61.5	0.00
1963	131.00	1.67%	2	0.9917	130	59.5	0.50
1964	1,022.04	1.69%	17	0.9903	1,012	58.5	0.58
1965	238.52	1.72%	4	0.9879	236	57.5	0.71
1966	530.82	1.74%	9	0.9819	521	56.5	1.04
1967	349.77	1.76%	6	0.9767	342	55.5	1.33
1968	386.81	1.79%	7	0.9741	377	54.5	1.45
1969	271.86	1.81%	5	0.9674	263	53.5	1.80
1970	1,229.83	1.83%	23	0.9612	1,182	52.5	2.12
1971	1,820.44	1.86%	34	0.9582	1,744	51.5	2.24
1972	117.61	1.88%	2	0.9511	112	50.5	2.60
1973	24.31	1.91%	0	0.9441	23	49.5	2.93
1974	2,551.32	1.94%	49	0.9406	2,400	48.5	3.06
1975	627.92	1.96%	12	0.9328	586	47.5	3.42
1976	1,938.87	1.99%	39	0.9252	1,794	46.5	3.76
1977	4,449.54	2.02%	90	0.9211	4,098	45.5	3.90
1978	711.81	2.05%	15	0.9126	650	44.5	4.26
1979	99.92	2.08%	2	0.9042	90	43.5	4.61
1981	257.18	2.14%	6	0.8901	229	41.5	5.12
1983	3,692.47	2.22%	82	0.8752	3,232	39.5	5.63
1984	8,482.91	2.25%	191	0.8651	7,338	38.5	6.01
1985	434.87	2.28%	10	0.8548	372	37.5	6.37
1986	3,475.93	2.32%	81	0.8482	2,948	36.5	6.53
1987	843.97	2.36%	20	0.8370	706	35.5	6.92
1989	1,339.58	2.44%	33	0.8178	1,095	33.5	7.46
1990	4,781.17	2.48%	118	0.8054	3,851	32.5	7.85
1991	1,034.04	2.52%	26	0.7927	820	31.5	8.24
1992	8,724.48	2.57%	224	0.7835	6,836	30.5	8.43
1993	1,447.92	2.61%	38	0.7697	1,114	29.5	8.83
1994	14,199.51	2.65%	376	0.7555	10,728	28.5	9.22
1995	7,879.90	2.71%	213	0.7447	5,868	27.5	9.43
1996	143.29	2.75%	4	0.7292	104	26.5	9.84
1997	2,278.28	2.80%	64	0.7132	1,625	25.5	10.25
1998	9,683.93	2.86%	277	0.7004	6,783	24.5	10.48
2000	4,033.35	2.96%	119	0.6650	2,682	22.5	11.33
2001	1.192.97	3.02%	36	0.6499	775	21.5	11.58
2002	906.86	3.07%	28	0.6302	571	20.5	12.03

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Naka Power Utilities (NWT)

Account #: 373.00 - Street Lights

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: S1 ASL: 30 Net Salvage: -15% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG
				[Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
2003	1,405.02	3.13%	44	0.6098	857	19.5	12.48
2004	2,438.52	3.20%	78	0.5918	1,443	18.5	12.76
2005	1,481.36	3.25%	48	0.5695	844	17.5	13.23
2006	1,371.61	3.31%	45	0.5463	749	16.5	13.71
2007	7,135.23	3.39%	242	0.5250	3,746	15.5	14.02
2008	24,035.72	3.45%	828	0.4995	12,007	14.5	14.53
2009	12,443.61	3.50%	436	0.4731	5,887	13.5	15.03
2010	2,934.27	3.58%	105	0.4480	1,315	12.5	15.40
2011	19,367.98	3.64%	706	0.4190	8,116	11.5	15.94
2012	2,467.29	3.70%	91	0.3889	960	10.5	16.50
2013	760.78	3.78%	29	0.3595	273	9.5	16.93
2014	179,025.22	3.84%	6,878	0.3266	58,467	8.5	17.53
2015	5,373.94	3.90%	210	0.2925	1,572	7.5	18.14
2016	25.45	3.97%	1	0.2583	7	6.5	18.66
2017	363.68	4.03%	15	0.2214	81	5.5	19.34
2018	73,026.36	4.08%	2,976	0.1834	13,391	4.5	20.04
2019	5,644.74	4.13%	233	0.1446	816	3.5	20.70
2020	1,516.28	4.17%	63	0.1042	158	2.5	21.49
2021	9,862.37	4.20%	414	0.0629	621	1.5	22.33
2022	1,029.70	4.22%	43	0.0211	22	0.5	23.21
TOTA	443,292.13		15,748		184,816		
NET S	ALVAGE ADJUSTMENT		2,362		27,722		
ΤΟΤΑ	L		18,110		212,539		
COMP	OSITE ANNUAL ACCRUA	AL RATE			4.09%		
CON/15					0.48		
COIVIE	OSITE ACTUAL ACCUMU	JLATED DEP	RECIATION FACTOR		0.40		
COMF	OSITE AVERAGE AGE (Y	EARS)			13.66		

ELG COMPOSITE REMAINING LIFE (YEARS)

15.63

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Naka Power Utilities (NWT)

Account #: 373.10 - Sentinel Lights

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: S1 ASL: 30 Net Salvage: 0% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG
				Depreciation		Age	Remaining
		Rate	Amount	Factor	Amount		Life
1970	420.76	1.83%	8	0.9612	404	52.5	2.12
1971	997.17	1.86%	19	0.9582	956	51.5	2.24
1972	393.61	1.88%	7	0.9511	374	50.5	2.60
1973	278.16	1.91%	5	0.9441	263	49.5	2.93
1974	834.20	1.94%	16	0.9406	785	48.5	3.06
1975	9.26	1.96%	0	0.9328	9	47.5	3.42
1978	686.27	2.05%	14	0.9126	626	44.5	4.26
1981	1,254.81	2.14%	27	0.8901	1,117	41.5	5.12
1982	493.19	2.17%	11	0.8809	434	40.5	5.48
1983	3,640.19	2.22%	81	0.8752	3,186	39.5	5.63
1984	69.34	2.25%	2	0.8651	60	38.5	6.01
1985	12.51	2.28%	0	0.8548	11	37.5	6.37
1986	15.54	2.32%	0	0.8482	13	36.5	6.53
1987	792.13	2.36%	19	0.8370	663	35.5	6.92
1988	9.70	2.39%	0	0.8256	8	34.5	7.29
1989	91.90	2.44%	2	0.8178	75	33.5	7.46
1990	415.51	2.48%	10	0.8054	335	32.5	7.85
1991	1,217.23	2.52%	31	0.7927	965	31.5	8.24
1992	196.06	2.57%	5	0.7835	154	30.5	8.43
1993	20.77	2.61%	1	0.7697	16	29.5	8.83
1995	3,899.08	2.71%	106	0.7447	2,904	27.5	9.43
1996	3,853.76	2.75%	106	0.7292	2,810	26.5	9.84
1997	203.60	2.80%	6	0.7132	145	25.5	10.25
1998	2,525.19	2.86%	72	0.7004	1,769	24.5	10.48
1999	1,469.55	2.91%	43	0.6830	1,004	23.5	10.91
2000	2,027.05	2.96%	60	0.6650	1,348	22.5	11.33
2001	2,707.90	3.02%	82	0.6499	1,760	21.5	11.58
2002	1,569.80	3.07%	48	0.6302	989	20.5	12.03
2003	1,578.26	3.13%	49	0.6098	962	19.5	12.48
2004	575.93	3.20%	18	0.5918	341	18.5	12.76
2005	543.75	3.25%	18	0.5695	310	17.5	13.23
2006	9,079.19	3.31%	301	0.5463	4,960	16.5	13.71
2007	554.44	3.39%	19	0.5250	291	15.5	14.02
2008	2,555.30	3.45%	88	0.4995	1,276	14.5	14.53
2009	237.31	3.50%	8	0.4731	112	13.5	15.03
2010	224.41	3.58%	8	0.4480	101	12.5	15.40
2011	443.50	3.64%	16	0.4190	186	11.5	15.94
2012	3,318.29	3.70%	123	0.3889	1,291	10.5	16.50
2013	214.53	3.78%	8	0.3595	77	9.5	16.93

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Naka Power Utilities (NWT)

Account #: 373.10 - Sentinel Lights

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: S1 ASL: 30 Net Salvage: 0% Truncation Year:

Year	Original Cost	Calcula	ited Annual Accrual	Calcula	ated Accumulated	Average	ELG
		Depreciation		Depreciation	Age	Remaining	
		Rate	Amount	Factor	Amount		Life
2014	1,411.65	3.84%	54	0.3266	461	8.5	17.53
2015	3,589.00	3.90%	140	0.2925	1,050	7.5	18.14
2016	1,871.57	3.97%	74	0.2583	483	6.5	18.66
2017	207.36	4.03%	8	0.2214	46	5.5	19.34
2019	40.99	4.13%	2	0.1446	6	3.5	20.70
2020	67,901.30	4.17%	2,830	0.1042	7,075	2.5	21.49
2021	38.13	4.20%	2	0.0629	2	1.5	22.33
2022	3,612.37	4.22%	152	0.0211	76	0.5	23.21
ΤΟΤΑ	L 128,101.52		4,699		42,288		
NET S	ALVAGE ADJUSTMENT		0		0		
ΤΟΤΑ	L		4,699		42,288		
CO. 40					2 (70/		
COIVIE	OSITE ANNUAL ACCRU	ALKATE			3.67%		
COMF	OSITE ACTUAL ACCUM	ULATED DEF	PRECIATION FACTOR		0.33		
COMF	OSITE AVERAGE AGE (Y	'EARS)			11.35		
ELG C	OMPOSITE REMAINING	LIFE (YEARS	5)		17.21		

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Naka Power Utilities (NWT)

Account #: 390.00 - Structures and Improvements CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022 ELG - Whole Life Survivor Curve: R3 ASL: 45 Net Salvage: 0% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG		
				[Depreciation	Age	Remaining		
		Rate	Amount	Factor	Amount		Life		
1993	5,041.20	2.15%	109	0.6355	3,204	29.5	16.92		
1995	1,253.20	2.18%	27	0.6005	753	27.5	18.30		
1997	4,902.71	2.22%	109	0.5659	2,774	25.5	19.56		
1998	4,842.44	2.23%	108	0.5471	2,649	24.5	20.28		
1999	28,733.69	2.25%	646	0.5281	15,173	23.5	21.00		
2000	56,436.28	2.26%	1,276	0.5087	28,709	22.5	21.73		
2001	30,462.20	2.28%	695	0.4904	14,940	21.5	22.34		
2002	16,697.94	2.29%	383	0.4703	7,853	20.5	23.09		
2003	44,709.74	2.31%	1,032	0.4499	20,115	19.5	23.84		
2004	31,624.05	2.32%	734	0.4292	13,573	18.5	24.60		
2006	23,292.90	2.35%	548	0.3879	9,035	16.5	26.04		
2007	40,854.04	2.36%	965	0.3663	14,963	15.5	26.82		
2008	179,961.83	2.37%	4,274	0.3444	61,971	14.5	27.61		
2009	10,216.34	2.39%	244	0.3222	3,292	13.5	28.40		
2010	1,288.03	2.40%	31	0.3005	387	12.5	29.10		
2014	3,593.49	2.45%	88	0.2086	750	8.5	32.25		
ΤΟΤΑΙ	483,910.08		11,268		200,141				
NET S	ALVAGE ADJUSTMENT		0		0				
ΤΟΤΑΙ	-		11,268		200,141				
COMP	OSITE ANNUAL ACCRU	AL RATE			2.33%				
COMP	OSITE ACTUAL ACCUM	ULATED DEF	PRECIATION FACTOR	0.41					
COMP	OSITE AVERAGE AGE (Y	'EARS)		17.85					

ELG COMPOSITE REMAINING LIFE (YEARS) 25.12

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Naka Power Utilities (NWT)

ELG COMPOSITE REMAINING LIFE (YEARS)

Account #: 391.22 - Computer Software and Applications Major (10 YR) CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: SQ ASL: 10 Net Salvage: 0%

Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG
				Depreciation		Age	Remaining
		Rate	Amount	Factor	Amount		Life
2014	75,828.92	10.00%	7,583	0.8500	64,455	8.5	1.50
2018	45,431.53	10.00%	4,543	0.4500	20,444	4.5	5.50
2019	30,833.03	10.00%	3,083	0.3500	10,792	3.5	6.50
2020	6,306.72	10.00%	631	0.2500	1,577	2.5	7.50
2021	6,248.73	10.00%	625	0.1500	937	1.5	8.50
TOTAL	. 164,648.93		16,465		98,204		
NET SA	ALVAGE ADJUSTMENT		0		0		
TOTAL			16,465		98,204		
COMP	OSITE ANNUAL ACCRU	AL RATE			10.00%		
СОМР	OSITE ACTUAL ACCUM	JLATED DEP	PRECIATION FACTOR		0.60		
СОМР	OSITE AVERAGE AGE (Y	EARS)			5.96		
ELG CO	OMPOSITE REMAINING	LIFE (YEARS	5)		4.04		

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Naka Power Utilities (NWT)

Account #: 392.20 - Transportation Equipment, Fleet Vehicles Category 2

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life Survivor Curve: L3

ASL: 10

Net Salvage: 15% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG	
				I	Depreciation	Age	Remaining	
		Rate	Amount	Factor	Amount		Life	
2010	48,192.00	6.75%	3,253	0.8438	40,663	12.5	2.31	
2014	44,827.60	8.84%	3,962	0.7513	33,678	8.5	2.81	
2015	53,051.02	9.47%	5,023	0.7102	37,674	7.5	3.06	
2017	28,378.86	10.48%	2,973	0.5763	16,354	5.5	4.04	
2020	71,183.12	11.23%	7,995	0.2808	19,987	2.5	6.40	
2021	61,528.78	11.32%	6,965	0.1698	10,448	1.5	7.33	
2022	80,581.80	11.33%	9,133	0.0567	4,566	0.5	8.32	
TOTAL	. 387,743.18		39,305		163,371			
NET SA	ALVAGE ADJUSTMENT		-5,896		-24,506			
TOTAL			33,409	138,865				
COMP	OSITE ANNUAL ACCRU	AL RATE			8.62%			
COMP	OSITE ACTUAL ACCUM	JLATED DEF	PRECIATION FACTOR	0.36				
СОМР	OSITE AVERAGE AGE (Y	EARS)		4.77				

ELG COMPOSITE REMAINING LIFE (YEARS)	5.40

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Naka Power Utilities (NWT)

Account #: 392.30 - Transportation Equipment, Fleet Vehicles Category 3

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2022

ELG - Whole Life

Survivor Curve: R3 ASL: 20

Net Salvage: 20% Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG		
					Depreciation	Age	Remaining		
		Rate	Amount	Factor	Amount		Life		
2006	45,443.95	4.54%	2,065	0.7499	34,079	16.5	5.50		
2010	79,973.11	4.89%	3,913	0.6117	48,918	12.5	7.94		
2011	188,113.22	4.97%	9,358	0.5721	107,613	11.5	8.60		
2012	259,403.52	5.05%	13,108	0.5306	137,632	10.5	9.29		
2013	4,542.49	5.13%	233	0.4873	2,213	9.5	10.00		
ΤΟΤΑΙ	577,476.29		28,677		330,456				
NET S	ALVAGE ADJUSTMENT		-5,735		-66,091				
ΤΟΤΑΙ	-		22,942		264,365				
COMP	OSITE ANNUAL ACCRU	AL RATE			3.97%				
СОМР			PRECIATION FACTOR	0.46					
COMP	OSITE AVERAGE AGE (Y	'EARS)		11.57					

8.59

ELG COMPOSITE REMAINING LIFE (YEARS)

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Naka Power Utilities (NWT)

Account #: 394.00 - Tools, Shop, Garage, Stores and Laboratory Equipme CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2022 ELG - Whole Life Survivor Curve: SQ

ASL: 10 Net Salvage: 0%

Truncation Year:

Year	Original Cost	Calcula	ted Annual Accrual	Calcula	ated Accumulated	Average	ELG
					Depreciation	Age	Remaining
		Rate	Amount	Factor	Amount		Life
2013	59.96	10.00%	6	0.9500	57	9.5	0.50
2020	4,642.70	10.00%	464	0.2500	1,161	2.5	7.50
2021	19,296.90	10.00%	1,930	0.1500	2,895	1.5	8.50
ΤΟΤΑΙ	23,999.56		2,400		4,112		
NET S	ALVAGE ADJUSTMENT		0		0		
ΤΟΤΑΙ			2,400		4,112		
COMP	OSITE ANNUAL ACCRU	AL RATE			10.00%		
COMP	OSITE ACTUAL ACCUM	JLATED DEF	PRECIATION FACTOR		0.17		
СОМР	OSITE AVERAGE AGE (Y	EARS)			1.71		
ELG C	OMPOSITE REMAINING	LIFE (YEARS	5)		8.29		



SECTION 9

9 ESTIMATION OF SURVIVOR CURVES

9.1 Average Service Life

All assets have a service life, which is defined as "the period of time from its installation until it is retired from service".³ All account groups of property are made up of various assets with differing service lives and investment values. To calculate a depreciation rate, one must first calculate an average life for all assets in a single account. This can be done by ascertaining the age at retirement for every asset in an account and plotting it as a percentage of the units surviving at each age interval (a "Survivor Curve"). From the average life for each account, remaining lives can then be found which are then used to calculate the annual depreciation accruals and ultimately depreciation rate. A discussion of the general concept of survivor curves is presented and the Iowa type survivor curves are reviewed.

9.2 Survivor Curves

A survivor curve is defined as "a graph of the percent of units remaining in service expressed as a function of age".⁴ To calculate the average life of the group, the remaining life expectancy, the probable life and the frequency curve, one must first create a survivor curve. Figure 1 shows a typical 40-R4 smoothed survivor curve as well as the accompanying derived curves. The type 40-R4 refers to the Iowa type curve, whose designation will be explained in further detail in the next section

To calculate the average service life, one must calculate the area under the survivor curve and divide by the percent surviving at age zero. The remaining life is equal to the area under the survivor curve and to the right of the current age, divided by the percent surviving at the current age. In Figure 1, for example, the hatched area to the right of age 45 divided by 28.9 percent surviving balance represents the remaining life for an asset that has reached that age. The probable life is "the total life expectancy of the property surviving at any age and is equal to the remaining life plus the current age."⁵ If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve is calculated by taking the difference between the percent surviving on successive years on the survivor curve.⁶ Alternatively, frequency can be empirically determined by finding the amount of retirements at any given age. Plotting retirement frequency from the youngest to oldest ages and then taking the cumulative frequencies will generate percent surviving versus age.

³ Wolf, Frank K. and W. Chester Fitch, Depreciation Systems (Iowa State University Press, 1994), 21.

⁴ Ibid, 23.

⁵ Ibid, 29.

⁶ Ibid, 23-24.



100 90 80 Probable Life Curve Survivor Curve 70 60 Percent Surviving 50 Service Age equal to average age 40 28.9% Surviving at 45 years 30 20 Mode Frequency curve 10 0 0 5 10 15 20 25 30 35 40 45 50 55 60

Age in Years

FIGURE 1: TYPICAL SURVIVOR CURVE (40-R4) AND DERIVED CURVES

65



9.3 Iowa Type Curves

In 1931, Robley Winfrey and Edwin Kurtz of the Engineering Research Institute at Iowa State University published Bulletin 103, which laid the groundwork for what would eventually be known as the Iowa Curves. "The 13 type curves can be used as valuable aids in forecasting the probable future service lives of individual items and of groups of items of different kinds of physical equipment".⁷ The 13 curves described in Bulletin 103 eventually became a series of 22 generalized survivor curves which are used throughout the regulated utility industry. These 22 curves were described in Bulletin 125, published in 1967 by Harold A. Cowles, which became known as the Iowa curves.

The Iowa curves are organized with three variables: the average life of the plant; the location of the mode; and the variation of the life. All Iowa curves have both a letter and a number to represent the shape and height of the mode. The L curves, or left-moded curves, are used when the mode of the curve should be to the left of the average life. There are six L curves are presented in Figure 2. The R curves, or right-moded, are used when the mode of the curve should be to the right of the average life. There are five R curves, which are presented in Figure 3. The S curves, or symmetrically-moded, are used when the mode is equal to the average life. There are seven S curves, which are presented in Figure 4. The O curves, or origin curves, are used when the mode occurs at age 0. There are four O curves, which are presented in Figure 5. There are some occasions where it is appropriate to use a half curve. In these cases, the curve is assumed to be exactly half way between the two curves.

In addition to Bulletin 125, Iowa curves have also been presented in subsequent Experiment Station bulletins and in the text Engineering Valuation and Depreciation.⁸ In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis⁹ presenting his development of the fourth family consisting of the four O-type survivor curves.

⁷ Ibid, 34

⁸ Marston, Anson, Robley Winfrey and Jean C. Hempstead, Engineering Valuation and Depreciation (The Iowa State University Press, 1953)

⁹ Couch, Frank V. B., Jr., Classification of Type O Retirement Characteristics of Industrial Property Unpublished M.S. Thesis (Engineering Valuation, Library, Iowa State College, Ames, Iowa, 1957)

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FIGURE 2: LEFT MODAL OR "L" IOWA TYPE SURVIVOR CURVES





FIGURE 3: RIGHT MODAL OR "R" IOWA TYPE SURVIVOR CURVES



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FIGURE 4: SYMMETRICAL OR "S" IOWA TYPE SURVIVOR CURVES



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FIGURE 5: ORIGIN MODAL OR "O" IOWA TYPE SURVIVOR CURVES





9.4 Retirement Rate Method of Analysis

The retirement rate method is a widely accepted actuarial method used to create survivor curves. This method is also referred to as an original life table. These survivor curves can then be used to determine the average service life of a plant account. The retirement rate method is thoroughly explained in several publications, including Statistical Analyses of Industrial Property Retirements,¹⁰ Engineering Valuation and Depreciation¹¹ and Depreciation Systems.¹²

The retirement rate method is a subgroup of the placement and the experience band methods, as described in "Depreciation Systems". The placement band method creates a survivor curve which describes the life characteristics of assets placed into service during a selected timeframe. The experience band method creates a survivor curve which describes the life characteristics of assets removed from service during a selected time frame. The retirement rate method creates both placement and experience bands to give the most complete or representative data. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

9.5 Schedules of Annual Transactions in Plant Records

The property group used to illustrate the retirement rate method is observed for the experience band 2013-2022 during which there were placements during the years 2008-2022. In order to illustrate the summation of the aged data by age interval, the data was compiled in the manner presented in Schedules 1 and 2. In Schedule 1 (page 9-10), the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the asset invested in 2008 were retired in 2013. The \$10,000 retirement occurred during the age interval between 4 ½ and 5 ½ years (2013 - 2008) on the basis that approximately one-half of the amount of property was installed prior to and after July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval $4\frac{1}{2}-5\frac{1}{2}$ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2013 retirements of 2008 installations and ending with the 2022 retirements of the 2017 installations. Thus, the total amount of \$143,000 for age interval $4\frac{1}{2}-5\frac{1}{2}$ equals the sum of:

$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20 = 143 \ k$

¹⁰ Winfrey, supra note 2

¹¹ Anson, Winfrey & Hempstead, supra note 8

¹² Wolf & Fitch, supra note 3



Other transactions which affect the group are recorded in a similar manner in Schedule 2 (page 9-11). The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements but are used in developing the exposures at the beginning of each age interval.

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SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2013-2022 - SUMMARIZED BY AGE INTERVAL

Experience Band 2013-2022

Placement Band 2008-2022

						•	•					
Year Placed (1)	2013 (2)	2014 (3)	2015 (4)	2016 (5)	2017 (6)	2018 (7)	2019 (8)	2020 (୨)	2021 (10)	Ta 2022 Ag (11)	otal During je Interval (12)	Age Interval (13)
2008	10	11	12	13	14	16	23	24	25	26	26	131/2 - 141/2
2009	 11	12	13	15	16	18	20	21	22	19	44	121/2 - 131/2
2010	11	12	13	14	16	17	19	21	22	18	64	111/2 - 121/2
2011	8	9	10	11	11	13	14	15	16	17	83	101/2 - 111/2
2012	9	10	11	12	13	14	16	17	19	20	93	91/2 - 101/2
2013	4	9	10	11	12	13	14	15	16	20	105	81/2 - 91/2
2014		5	11	12	13	14	15	16	18	20	113	71/2 - 81/2
2015			6	12	13	15	16	17	19	19	124	61/2 - 71/2
2016				6	13	15	16	17	19	19	131	51/2 - 61/2
2017					7	14	16	17	19	20	143	4 1/2 - 5 1/2
2018						8	18	20	22	23	146	3 1/2 - 4 1/2
2019							9	20	22	25	150	21/2 - 31/2
2020								11	23	25	151	11/2 - 21/2
2021									11	24	153	1/2 - 11/2
2022										13	80	'0 - 1/2
Total	53	68	86	106	128	157	196	231	273	308	1,606	

Retirements (Thousands of Dollars) Annual Survivors at the Beginning of the Year





SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2013-2022 - SUMMARIZED BY AGE INTERVAL

Experience Band 2013-2022

Placement Band 2008-2022

								Acquis	tions	, Transf	ers o	and Sale	es (Thousai	nds	of Dollars)				
								Ar	nnua	l Surviv	ors c	it the Be	eginning of	the	Year				
Year Placed (1)	ľ	2013 (2)	•	2014 (3)		2015 (4)	r	2016 (5)	ŗ	2017 (6)	r	2018 (7)	2019 (8)		2020 (१)	2021 (10)	2022 (11)	Total During Age Interval (12)	Age Interval (13)
2008													60) ^a				0	131/2 - 141/2
2009																		0	121/2 - 131/2
2010																		0	111/2 - 121/2
2011															(5) ^b			60	101/2 - 111/2
2012															6 ^a			0	91/2 - 101/2
2013																		(5)	81/2 - 91/2
2014																		6	71/2 - 81/2
2015																		0	61/2 - 71/2
2016															(12) ^b			0	51/2 - 61/2
2017																22ª		0	41/2 - 51/2
2018															(19) ^b			10	31/2 - 41/2
2019																		0	21/2 - 31/2
2020																	(102)	(121)	11/2 - 21/2
2021																		0	1/2 - 11/2
2022																		0	'0 - 1/2
Total			0		0		0		0		0		0 6	0	(30)	22	(102)	(50)	
a = Transfer	Affecti	ing Expos	ures o	it Beginnir	ng of N	rear													
D = Iranster	Attecti	ng Expos	ures o	IT END OF Y	rear														
C = Sule WI	s denot	te Credit	amou	Int															



9.6 Schedule of Plant Exposed to Retirement

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 (page 9-13). The surviving plant at the beginning of each year from 2013 through 2022 is recorded by year in the portion of the table titled "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition, are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2013 are calculated in the following manner:

Exposures at age 0	=	amount of addition	=	\$750,000
Exposures at age $\frac{1}{2}$	=	\$750,000 - \$ 8,000	=	\$742,000
Exposures at age 1½	=	\$742,000 - \$18,000	=	\$724,000
Exposures at age 2½	=	\$724,000 - \$20,000 - \$19,000	=	\$685,000
Exposures at age 3½	=	\$685,000 - \$22,000	=	\$663,000

For the entire experience band 2013-2022, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval $4\frac{1}{2}-5\frac{1}{2}$, is obtained by summing:

\$255 + \$268 + \$ 284 + \$311 + \$334 + \$374 + \$405 + \$448 + \$501 \$ \$609 = \$3,789k



SCHEDULE 3 – PLANT EXPOSED TO RETIREMENT AT THE BEGINNING OF EACH YEAR, 2013-2022 – SUMMARIZED BY AGE INTERVAL

Experience Band 2013-2022

Placement Band 2008-2022

				C)	cposures (1	nousanas o	or Dollars)					
				Annual	Survivors a	the Beginr	ning of the \	<i>l</i> ear				
Year Placed (1)	2013 (2)	2014 (3)	2015 (4)	2016 (5)	2017 (6)	2018 (7)	2019 (8)	2020 (୨)	2021 (10)	2022 (11)	Total at Beginning of Age Interval (12)	Age Interval (13)
2008	255	245	234	222	209	195	239	216	192	167	167	131/2 - 141/2
2009	279	268	256	243	228	212	194	174	153	131	323	121/2 - 131/2
2010	307	296	284	271	257	241	224	205	184	162	531	111/2 - 121/2
2011	338	330	321	311	300	289	276	262	242	226	823	101/2 - 111/2
2012	376	367	357	346	334	321	307	297	280	261	1,097	91/2 - 101/2
2013	420	416	407	397	386	374	361	347	332	316	1,503	81/2 - 91/2
2014		460	455	444	432	419	405	390	374	356	1,952	71/2 - 81/2
2015			510	504	492	479	464	448	431	412	2,463	61/2 - 71/2
2016				580	574	561	546	530	501	482	3,057	51/2 - 61/2
2017					660	653	639	623	628	609	3,789	41/2 - 51/2
2018						750	742	724	685	663	4,332	31/2 - 41/2
2019							850	841	821	799	4,955	21/2 - 31/2
2020								960	949	926	5,719	11/2 - 21/2
2021									1,080	1,069	6,579	1/2 - 11/2
2022										1,220	7,490	'0 - 1/2
Total	1,975	2,382	2,824	3,318	3,872	4,494	5,247	6,017	6,852	7,799	44,780	
Additions du	ring the year o	are denote	d by bold i	red font.								
	1,555	1,922	2,314	2,738	3,212	3,744	4,397	5,057	5,772	6,579	44,780	
	420	460	510	580	660	750	850	960	1,080	1,220	0	
	1,975	2,382	2,824	3,318	3,872	4,494	5,247	6,017	6,852	7,799	44,780	

Exposures (Thousands of Dollars)



9.7 Original Life Tables

The original life table, illustrated in Schedule 4 (page 9-15) is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age $5\frac{1}{2}$ are as follows:

Percent surviving at age 41/2	=	88.15		
Exposures at age 41/2	=	\$3,789,000		
Retirements from age $4\frac{1}{2}$ to $5\frac{1}{2}$	=	\$143,000		
Retirement Ratio	=	\$143,000 ÷ \$3,789,000	=	0.0377
Survivor Ratio	=	1.000 - 0.0377	=	0.9623
Percent surviving at age 51/2	=	(88.15) x (0.9623)	=	84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless. The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.



Experience Band	2013-2022		Placement Band 2008-2022			
Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	_ Survivor Ratio	% Surviving at Beginning of Age Interval	
(1)	(2)	(3)	(4)	(5)	(6)	
0	7,490	80	0.0107	0.9893	100.00	
0.5	6,579	153	0.0233	0.9767	98.93	
1.5	5,719	151	0.0264	0.9736	96.63	
2.5	4,955	150	0.0303	0.9697	94.08	
3.5	4,332	146	0.0337	0.9663	91.23	
4.5	3,789	143	0.0377	0.9623	88.16	
5.5	3,057	131	0.0429	0.9571	84.83	
6.5	2,463	124	0.0503	0.9497	81.19	
7.5	1,952	113	0.0579	0.9421	77.11	
8.5	1,503	105	0.0699	0.9301	72.64	
9.5	1,097	93	0.0848	0.9152	67.57	
10.5	823	83	0.1009	0.8991	61.84	
11.5	531	64	0.1205	0.8795	55.60	
12.5	323	44	0.1362	0.8638	48.90	
13.5	167	26	0.1557	0.8443	42.24	
					35.66	
Total	44,780	1,606				

SCHEDULE 4: ORIGINAL LIFE TABLE - CALCULATED BY THE RETIREMENT RATE METHOD

Exposure and Retirement Amounts are in Thousands of Dollars.

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 divided by Column 2.

Column 5 = 1.0000 minus Column 4.

Column 6 - Column 5 multiplied by Column 6 as of the Preceding Age Interval.



9.8 Smoothing the Original Survivor Curve

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100 percent to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percentages surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group.



FIGURE 6: ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH A L1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES





FIGURE 7: ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH A SO IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES





FIGURE 8: ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH A R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES




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FIGURE 9: ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH A L1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES





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SECTION 10

10 ESTIMATION OF NET SALVAGE

The estimates of net salvage were based primarily on the professional judgment of Concentric, based in part on historical data, and in part through a comparison to Canadian peer companies. The analysis of historic net salvage activity considered gross salvage and cost of removal as recorded to the depreciation reserve account Net salvages as a percentage of the cost of plant retired are calculated for each plant component on rolling annual and three-year and five-year moving average bands.

When a utility retires plant, the plant may be: (1) sold to a third party; (2) reused by the utility for additional service; (3) abandoned in place; or (4) physically removed. In the circumstances where the plant is sold or re-used, a salvage proceeds (or positive salvage amount) is normally recognized. In circumstances where the plant is abandoned in place or physically removed, a cost of removal expenditure (or negative salvage) is incurred. The net of these gross salvage proceeds and the costs of removal are expressed as a percentage of the account's original cost to determine a net salvage percentage. In the circumstances where the salvage proceeds exceed the costs of retirement, a net positive salvage percentage exists. In the circumstances where the costs of removal exceed the salvage proceeds, a net negative salvage as a percentage of the original cost is the result.

The net salvage percentages estimated is usually determined using the "Traditional Approach" for net salvage estimation. The estimation of the net salvage as a percentage of original cost as developed using the traditional approach, includes the following five steps.

- 1. The annual retirement, gross salvage and cost of removal transactions for the period of analysis is extracted from the plant accounting systems.
- 2. A net salvage amount (gross salvage proceeds less cost of retirement) is calculated for each historic year. Additionally, a net salvage amount is also calculated for each historic three-year rolling band and the most recent five-year rolling band.
- 3. The net salvage amount determined above is compared to the original booked costs retired for each period in the manner described, which results in a net salvage percentage of original costs retired for each year, in addition to three-year rolling bands and the most recent five-year rolling band. The annual, the three-year rolling average, and the five-year rolling average net salvage percentages are analyzed to determine a reasonable estimated net salvage percentage. At this point the net salvage percentage is based purely upon statistical analysis.
- 4. Each account is then compared to the net salvage percentage currently approved, compared to Canadian peer companies, and discussed with company engineering staff. Based on the statistical analysis, the review of current and Canadian peer company net salvage percentages, and with the professional judgment of Concentric, a net salvage percentage is determined for each account.
- 5. The net salvage percentage is then used in the depreciation rate calculations in the technical update or report.



SECTION 7: RETURN ON RATE BASE

7.1 Overview

- 210. There are two components of the Return on Rate Base included within this Section:
 - (a) Cost of Capital, which is comprised of:
 - (i) the fair Return on the Equity (ROE) used to fund rate base;
 - (ii) the cost of long-term debt used to fund rate base;
 - (iii) other capital, specifically customer deposits and no cost capital; and
 - (iv) the capital structure, or the proportion of funding of rate base from the cost of capital components, particularly the allowable equity ratio.
 - (b) Rate Base, which is determined utilizing:
 - (i) capital additions net of contributions and depreciation;
 - (ii) working capital including lead/lag factors; and
 - (iii) deferred charges and/or credits.

211. Naka-NWT is seeking approval for rate base of \$10.88 million, with a \$0.71 million average cost of capital, for 2025. Details pertaining to the depreciation parameters and capital additions that determine rate base are discussed in detail within Sections 6 and 11 of this Application, respectively.

Table 7.1: Return on Rate Base (Schedule 7.0) (\$000)

	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Return on Rate Base	982	838	549	1,114	710	875

212. The requested cost of capital includes an ROE of 10.28 percent and an equity ratio of 42 percent for 2025 subsequent to the Hay River Disposition. Naka-NWT requests linking its return on equity to Alberta's 2024 Generic Cost of Capital (GCOC) for the



2025 Test Year, plus a premium for incremental risk in the amount of 100 bps or 1.00 percent for 2025 following the Hay River Disposition.

	2023	GRA	2025 Test Year		
	ROE	Equity	ROE	Equity	
Approved/Applied	8.85	42	10.28	42	
Alberte CCOC	8.50	37	9.28	37	
Alberta GCOC	(2023)	(2023)	(2024)	(2024)	
Premium/Adder	0.35	5.0	1.00	5.0	

Table 7.2: Return on Equity Premiums & Equity Ratio Adders(%)

213. Naka-NWT's requested equity ratio of 42 percent represents a five percent adder to Alberta's approved equity ratio. The requested ROE and equity ratio reflect recent market conditions and common utility risks through Alberta's 2024 GCOC benchmark. The requested ROE premium of 100 bps for 2025 and the equity percent adder of five percent appropriately reflect Naka-NWT's incremental risk compared to other utilities.

7.2 Cost of Capital – Equity Component

7.2.1 Return on Equity & Common Equity Ratio: Background

214. Under Section 50 of the *Public Utilities Act*, the Board is required to fix a fair return on the rate base of a public utility. The fair return standard, as established by the Supreme Court of Canada, is defined as follows:

By a fair return is meant that the company will be allowed as large a return on the capital invested in its enterprise (which will be net to the company) as it would receive if it were investing the same amount in other securities possessing an attractiveness, stability and certainty equal to that of the company's enterprise... The duty of the Board was to fix fair and reasonable rates; rates which, under the circumstances, would be fair to the consumer on the one hand, and which, on the other hand, would secure to the company a fair return for the capital invested.¹

215. Prior to this Application, Naka-NWT's most recent Cost of Capital amount was approved in its 2023 Amended GRA. The Board approved an ROE of 8.85 percent for the

¹ <u>Northwestern Utilities Ltd. v. Edmonton (City)</u>, [1929] SCR 186 at 192-93, [1929] 2 DLR 4 TransCanada Pipelines Ltd. (Re), 2013 LNCNEB 2, at para. 565.



2023 Test Year in Decision 2-2024² which included a 35 bps premium to Alberta's 2023 approved GCOC of 8.50 percent. The 35 bps ROE premium was a continuation of the ROE premium of 35 bps that was agreed to in Naka-NWT's 2014-2015 GRA as part of a "package deal" Negotiated Settlement that was approved by the Board in Decision 9-2014. The Board stated in Decision 9-2014 that:

The Board considers a Negotiated Settlement by its very nature involves the give and take of negotiations and therefore any parameters such as the rate of return on equity and capital structure established through the Negotiated Settlement Process are applicable to this settlement only.

216. Given that the previously approved 35 bp premium was approved as part of a Negotiated Settlement that was specific to the circumstances and discussions that took place at the time of Naka-NWT's 2014-2015 GRA, Naka-NWT does not consider that the continuation of a 35 bp premium in the 2025 Test Year would result in a fair and reasonable return on the rate base of Naka-NWT.

217. Naka-NWT's common equity ratio was set at 42 percent for the 2023 Test Year, which was equal to that of the Alberta Distribution Utilities plus five percent to align Naka-NWT with the common equity ratios of comparator utilities. The five percent adder to the common equity ratio was consistent with the common equity ratio requested in Naka-NWT's 2014-2015 GRA as well as with the agreement reflected in the Negotiated Settlement for the 2014-2015 GRA as approved by the Board in Decision 9-2014. Naka-NWT considers that the continuation of the five percent adder to the Alberta GCOC results in a fair and reasonable return on the rate base of Naka-NWT.

7.2.2 Return on Equity & Common Equity Ratio: AUC-Approved 2024 GCOC

218. Naka-NWT submits that the AUC approval for 2024 cost of capital continues to be a reasonable starting point for determining Naka-NWT's ROE and common equity ratio.

² Decision 13-2011, dated August 26, 2011.



The AUC determined the 2024 GCOC in Decision 28585-D01-2023 and approved a ROE of 9.28 percent and Common Equity of 37 percent³ in Alberta.⁴

219. Alberta's GCOC process takes into consideration the macroeconomic and market conditions under which utilities in Alberta operate and includes an assessment of utility business risk. The 2024 GCOC proceeding in Alberta was a fully litigated process and included the participation of, and expert witness testimony submitted on behalf of, all of the Alberta utilities and several customer advocacy groups. The requested approach of utilizing a benchmark ROE from another jurisdiction is not uncommon for smaller utilities; regulators in British Columbia, the Yukon and this Board (in the case of Naka-NWT) have used benchmarks to establish fair returns for smaller utilities in their jurisdictions.

7.2.3 Return on Equity & Common Equity Ratio: Risk Premium/Adder

220. Naka-NWT is requesting an ROE risk premium of 100 bps for 2025 (subsequent to the Hay River Disposition) to compensate for its higher risk in comparison to the Alberta utilities subject to the Alberta GCOC decision. Naka-NWT is also requesting approval for an equity ratio of 42 percent, which is five percent above the Alberta benchmark of 37 percent. The requested five percent adder to the Alberta GCOC common equity ratio also aims to reduce administrative and regulatory burden, as Naka-NWT is requesting to align its requested common equity ratio with the common equity ratio applied for in Naka-YK's 2024-2025 GRA.⁵

221. Naka-NWT submits that the evidence provided below regarding Naka-NWT's higher risk in comparison to other utilities, particularly the Alberta Electric Distribution Utilities,⁶ supports the requested premium/adder over the Alberta GCOC metrics and demonstrates that the ROE and common equity ratios requested in this Application would

³ With the exception of Apex Utilities, a natural gas distribution company in Alberta with an approved equity ratio of 39 percent. The AUC accepts that Apex's small size, service territory and operations create additional risk and awarded an equity ratio 2 percent above the generic 37 percent. Decision 27084-D02-2023, para. 275-282.

⁴ Decision 28585-D01-2023, paras. 1 and 5.

⁵ Proceeding ID 2024-013.

⁶ Electric Distribution Utilities in Alberta are ATCO Electric Distribution, Fortis Alberta, ENMAX Power and EPCOR Distribution and Transmission Inc.



provide Naka-NWT the opportunity to earn a fair and reasonable return on rate base for the Test Period.

222. As well, the substantial changes resulting from the Hay River Disposition will alter Naka-NWT's operations and increase its business risk. The additional business risk must be addressed in the risk premium (over and above the AUC starting point) for 2025, indicating the need for an increase to Naka-NWT's ROE risk premium for 2025.

7.2.4 Business Risk

223. Business risk encompasses those market demand, supply and regulatory factors that expose shareholders to the risk of under-recovery of the required return on, and the return of, their capital investment. A utility's approved capital structure and fair return on equity should reflect both the short-term and long-term risks of the utility.

7.2.4.1 Market Demand Risk

224. Market demand risk relates to those factors that can lead to annual volatility in sales or loss of customers. It includes market size, economic diversity and strength of the service area, growth potential, concentration of sales, competition with alternative energy sources and weather.

225. Naka-NWT is a relatively very small integrated utility with a smaller service territory, lower rate base and fewer customers than most investor-owned utilities in Canada, including the Alberta utilities subject to the Alberta GCOC decision. Its service territory will become even smaller in 2025 as a result of the Hay River Disposition.

226. To put Naka-NWT's size into perspective, Table 7.3 below contains information about the number of customers, sales and rate base of other investor-owned utilities with similar characteristics as Naka-NWT. As the table below indicates, Naka-NWT has significantly fewer customers, lower sales and a lower rate base than the comparator utilities. The loss of revenue from a few customers has a greater effect on Naka-NWT than it does on a larger utility with a larger, more diverse customer base.



Utility	Equity Ratio (%)	ROE (%)	Customer Count	Total Sales	Rate Base	Decision Reference
Naka Power Utilities (NWT) 2025 Applied	42	10.28	719 (2025F)	6 GWh (2025F)	\$12.9 M (2025F)	TBD
Naka Power Utilities (YK) 2024-2025 Applied	42	9.83	9,088 (2024F)	152 GWh (2024F)	\$45.7 M (2024F)	TBD
ATCO Electric Yukon	40	9.50	20,872 (2023 Actual)	363 GWh (2023 Actual)	\$126.8 M (2023 Actual)	2024-01
FortisBC Inc. (FBC)	41	9.65	150,563 (2022 Actual)	3,306 GWh (2022 Actual)	\$1.58 B (2022 Actual)	G-236-23
ATCO Electric Distribution	37	9.28	231,319	11,435 GWh	\$3.596 B	D27084- D02-2023
Maritime Electric	40	9.35	89,600 (2025F)	1,326 GWh (2021 Actual)	\$471 M (2025F)	UE23-04
Alaska Electric Light & Power Co (AEL&P)	58.18	11.45	17,000 (2021F)	404 GWh (2021F)	\$115 M (2021F)	U-22-078 Order 14

Table 7.3: Information on Comparator Utilities

227. From a business risk perspective, small size limits a utility's ability to diversify its risks geographically, operationally and among services provided. Smaller companies such as Naka-NWT have higher inherent business risk and require higher returns because of the materiality of their cost and revenue variances and the higher tendency for variability in their returns. This risk is clearly demonstrated by Naka-NWT's actual ROE for the 2023 Test Year. The approved ROE for 2023 was 8.85 percent, but Naka-NWT's actual ROE for 2023 was 3.82 percent. This discrepancy was due mainly to lower energy sales, higher operating costs and higher depreciation costs due to unplanned capital as a result of the extended Taltson Shutdown.

228. Naka-NWT's market demand risk as a result of its small size will increase further in the Test Year due to the Hay River Disposition. As shown in Table 7.4 below, following the Hay River Disposition, Naka-NWT's customer counts and billing determinants will decrease significantly, the concentration of customers in a few small communities will increase, and sales and service will shift on balance to communities where Naka-NWT is the main generator (using thermal assets), as well as the distributor. This will result in increased market demand risk (and operational risk).



	2024 Before Hay River Asset Disposition	2025 After Hay River Asset Disposition	% Change
	Forecast	Test Year	
Customer Count (Residential + Commercial)	2,576	719	(72)
Rate Base (\$000)	\$17,999	\$10,875	(40)
Purchases (MWh)	30,515*	2,099	(93)
Sales (MWh)	31,606	6,108	(81)
Proportion of Purchases to Sales (%)	96.5	34.4	(64)
Revenue Requirement (\$000)	\$23,336	\$6,229	(73)

Table 7.4: Impact of Hay River Disposition(\$000)

* Due to the Taltson Hydro Generation Plant being shutdown during 2024, Purchase Power (MWh) for 2024 (comparison purposes) was assumed to be proportional to historical trending with the Taltson Hydro Generation Plant being fully operational.

229. Compounding Naka-NWT's risk is the fact that it serves a relatively small market with considerably less economic strength and diversity than the service areas of other utilities. Government-related load in the NWT is relatively stable and less likely to be impacted by economic swings than other customer groups. However, load from industrial customers, such as mining, has higher volatility and has a significant impact on the economy of the NWT. While Naka-NWT does not have any industrial customers of its own, the overall economy of the NWT has secondary impacts on Naka-NWT's residential and commercial load. Economic trends suggest that economic growth in the NWT is behind other jurisdictions in Canada, as outlined in Table 7.5 below, which contributes to additional market demand risk for a utility operating in the NWT.

Table 7.5: Northwest Territories EconomicGrowth Trends & Provincial Rank⁷

	GDP	Population	Non- Residential Construction
2019-2024 Growth Rate (%)	0.0	0.1	11.1
Provincial/Territorial Rank (out of 13)	12 th	13 th	12 th

⁷ IBIS World Industry Reports, Northwest Territories Economic Overview, <u>https://www.ibisworld.com/canada/economic-profiles/northwest-territories.</u>



230. In May 2024, the GNWT in its 2024-2025 Budget Economic Review stated that "the NWT economy is on a path of shrinking output and activity."⁸ The 2024 economic forecast of the GNWT projects a contraction of the economy, with much uncertainty about the future impacts on the economy of the NWT from the planned 2026 closure of the Diavik Diamond Mine and the risk that new private sector activities do not materialize. Along with the general economic conditions in the NWT, the Hay River Disposition will have the effect of further restricting Naka-NWT's opportunities to grow its business in the territory.

231. While the Alberta GCOC considered low economic growth in Canada,⁹ it is appropriate to compensate Naka-NWT for incremental risk associated with the NWT's relatively poor economic performance and outlook.

232. Naka-NWT is also subject to additional market risk arising from the increasing emphasis on energy efficiency, conservation and reducing peak load. This is further discussed in Section 7.2.4.2 below.

233. Finally, in comparison to many organizations, including the Alberta utilities subject to the Alberta GCOC decision, Naka-NWT operates in a relatively isolated northern service territory. Events such as extreme weather, floods and wildfires, which are prevalent in the Northwest Territories, can have a more significant impact on a larger part of Naka-NWT's operations than on other utilities due to the concentration of customers in a few communities.

234. Based on all of these market factors, it is clear that Naka-NWT has higher market demand risk compared to utilities in Alberta due to its significantly smaller size and the economic characteristics of its service area. As such, a risk premium to the Alberta GCOC is warranted for Naka-NWT.

^{8 &}lt;u>https://www.fin.gov.nt.ca/sites/fin/files/2024-25_budget_economic_review_final_2024-05-24.pdf</u>, PDF 3.

⁹ Decision 27084-D02-2023, Determination of the Cost-of-Capital Parameters in 2024 and Beyond, para. 42.



7.2.4.2 Energy Transition Risk

235. Utilities across North America have experienced various degrees of transformational change based on laws and government policies focused on decarbonization, sustainability, the need for grid modernization, and general changes to the way in which customers receive utility service (e.g., self-supply).

236. This increasing emphasis on energy efficiency, conservation and reducing peak load results in additional risk for electric utilities. Lost load due to energy efficiency and conservation reduces a utility's sales and earnings. The energy transition impacts the behaviors of customers and increases the complexity of the distribution system, increasing the risk of variability in returns. While these changes generally increase risk and uncertainty for utilities, they more significantly affect Naka-NWT because of its small size and small customer base over which costs can be shared.

237. In the NWT, the GNWT's 2030 Energy Strategy outlines the plan for the development of secure, affordable, and sustainable energy in the NWT for transportation, heat and electricity. This plan includes support for energy efficiency and conservation programs, local renewable and alternative energy solutions, and large-scale energy projects. One of the guiding principles of the GNWT's 2030 Energy Strategy is the transition to a lower carbon economy by reducing GHG emissions, increasing the use of renewable and alternative energy and improving energy efficiency within its own operations. Programs such as the EV Network and Net Metering have potential to influence customer behaviors, which in turn have an impact on the distribution system.

238. For utilities operating in the NWT such as Naka-NWT, the energy transition represents a fundamental change and GNWT policies relating to climate change, decarbonization and electrification have a pervasive impact on the utility business. These impacts include changing customer behaviors which impact sales volumes and system load, as well as implications for system capacity and capital investments required to ensure safe and reliable services.



239. In Decision 27084-D02-2023 regarding the 2024 GCOC, the AUC determined that no adjustment to the common equity ratio for the Alberta utilities was warranted at this time as the impact on the Alberta utilities' business risk due to decarbonization is unclear.¹⁰ The NWT, comparatively, has a clear path to decarbonization as outlined in the GNWT's 2030 Energy Strategy. Energy transition policies and initiatives in the NWT aimed at advancing decarbonization efforts and impacting customer behaviors increase variability and impose higher risk on Naka-NWT as compared to the Alberta benchmark. As such, a risk premium to the Alberta GCOC is warranted for Naka-NWT especially given the additional push in GNWT to have an energy strategy completed in 2030 compared to the 2050 Alberta timeframe.

7.2.4.3 Operating Cost Risk

240. Supply and physical (operating) risks faced by an integrated electric utility comprise the risk of under-earning due to the inability to deliver electricity, or the inability to recover costs associated with the acquisition or delivery of electricity. The physical risks of the utility are a function of its geography, mix of generation and ability to access alternative sources of supply. Operating cost risks comprise the potential for a utility's actual ROE to fall short of the approved ROE due to the inability to recover costs such as capital expenditures, financing costs, and O&M expenses associated with delivering energy to customers.

241. With respect to supply and physical risks, Naka-NWT faces a significantly higher level of risk relative to other electrical utilities. Naka-NWT's service area is comprised of multiple communities which are unconnected by a single system grid, which prevents them from accessing alternative sources of power. In Hay River, the company purchases power from NTPC's Taltson Hydro Generation Plant and maintains a back-up diesel generation plant. In the smaller, more remote communities, Naka-NWT both generates and distributes power.

¹⁰ AUC Decision 27084-D02-2023, para. 266.



242. Approximately 37 percent of Naka-NWT's rate base is comprised of diesel generation assets. The presence of generation assets in rate base increases the business risk of Naka-NWT relative to pure transmission or distribution utilities (such as the Alberta Distribution Utilities) as the operational risks associated with generation exceed those of "wires" operations.¹¹ In the case of Naka-NWT, the operating risks are exacerbated by the severe climate in which the company operates, both in terms of the risk of outages and the potential unanticipated impacts of repair, and in terms of time and expenditures. While Naka-NWT has deferral accounts for diesel fuel costs, the high cost of diesel fuel creates an additional incentive to conserve energy (thus leading to lower than expected sales). Further, in contrast to hydroelectric generation, diesel generation is exposed to greater risks of complying with increasingly stringent environmental standards.

243. Uncertainty of the forecast operating expenses is also greater for Naka-NWT as compared to the Alberta Distribution Utilities. The remote locations served by Naka-NWT can result in higher than anticipated repair costs for unplanned maintenance of generation or distribution facilities. For example, in an unplanned maintenance situation, flights must be chartered for staff and materials to allow timely access to certain communities. This increases the risk from both a cost perspective and service level commitment, all of which is further complicated by the complexities resulting from transformational changes and their effect on the system. As well, Naka-NWT's forecasting risks are further increased by the tight labour market in the NWT, particularly for skilled workers, which continues to push wages higher in the territory.¹²

244. In addition, due to the severe weather conditions that can occur in northern Canada, repair costs can deviate substantially from those forecast in operating budgets which are based on normal weather conditions. Extreme weather trends increase the uncertainty and variability of the conditions in which Naka-NWT operates, thereby increasing its associated risks. These, in addition to the implications of the energy transition discussed above, create variability in sales volumes and have potential to

British Columbia Utilities Commission Generic Cost of Capital Proceeding Stage 2, Exhibit B1-72, FBC Evidence, Appendix B, McShane Evidence pp. 14-15, <u>GCOC Stage 2 - FBC Evidence (bcuc.com)</u>, accessed June 30, 2022.
 https://www.fin.gov.nt.ca/sites/fin/files/2024-25_budget_economic_review_final_2024-05-24.pdf, PDF p. 9.



impact capital expenditures to ensure safe, reliable power. All of this results in variability of Naka-NWT's costs and revenues, which can significantly impact its returns due to its relatively small size.

245. There are several examples from 2023 and 2024 where Naka-NWT experienced situations that resulted in increased operational complexity and increased costs, demonstrating that the operating cost risk detailed above is real and significant.

246. The first example is NTPC's shutdown of the Taltson Hydro Generation Plant beginning in May 2023, which has required Naka-NWT to generate electricity using the Hay River Standby Generation Plant in order to meet its obligation to serve its customers in Hay River. Since 1988, the Hay River Standby Generation Plant has been operated and maintained as a standby plant, only running a few weeks per year as required during maintenance on the transmission line or the Taltson Hydro Generation Plant. Operating the plant as a primary generating plant to provide 100 percent of the energy to Hay River, Enterprise, Riverwoods, and the K'atl'odeeche First Nation has required Naka-NWT to bring in additional contractors, increase employee overtime, and carefully manage the maintenance schedule of the plant's generating units in order to ensure reliable generation for customers.

247. The Taltson Shutdown was initially scheduled to last for approximately six months but is now scheduled to last into early 2025. The continued delays in the expected completion date of the shutdown over the past year and a half have made it difficult for Naka-NWT to plan for resourcing and completing other required operating and maintenance activities, resulting in cost uncertainty. The delays have also resulted in issues regarding procurement, as contracts related to costs such as contract plant operators and fuel have had to be extended and/or renegotiated with no clear answer as to when the shutdown will be concluded.

248. Naka-NWT has incurred substantial incremental fuel and operating costs as a result of NTPC's project. Although Naka-NWT has the Hay River Diesel Generation Variance deferral account that will allow it to eventually recover most of the incremental

costs that are directly related to the shutdown, the shutdown has had a significant and extended impact on Naka-NWT's ongoing operations. Management has been forced to find ways to complete the planned operating and maintenance activities in all communities while continuing to dedicate the resources to operating the standby plant to ensure that Hay River customers continue to receive reliable generation. This results in increased operating cost uncertainty and, therefore, increased operating risk.

249. In addition, Naka-NWT completed several unplanned capital projects in 2023 that were required to keep the Hay River Standby Generation Plant operating during the shutdown. The unplanned projects, which were not included in Naka-NWT's 2023 approved forecast, include several projects related to engine CUL-200 (including a major overhaul - \$384,000, replacement of the EMD relay - \$74,000, and the inspection and replacement of the water pump and injectors - \$11,000) as well as work required to tie-in a mobile generator to the Hay River Standby Generation Plant (\$99,000), replacement of the electronic control unit in engine CUL-566 (\$10,000) and replacement of the water pump in engine CUL-275 (\$7,000).

250. Naka-NWT has had to finance the incremental fuel and operating costs and unplanned capital through short-term borrowing from an affiliate company due to the lag between the time when the costs are incurred and their recovery from customers. Attempting to collect the additional costs from customers on an accelerated timeline would result in increased rates that would likely be considered rate shock. The requirement for short-term borrowing has been further compounded by the shift in the date of the Hay River Disposition to 2025, as issuing additional long-term debt to finance the incremental costs would be imprudent given requirement to break the debt and incur debt break fees post-Disposition.

251. A second example of Naka-NWT's recent experience with increased operational complexity and cost, as a result of events beyond its control, is the wildfires that caused an evacuation of Hay River and the surrounding area in August/September 2023. Similar to the Taltson Shutdown above, while the incremental costs directly related to the wildfires are recoverable by Naka-NWT (through the Reserve for Injuries and Damages), the event



had a much broader impact on the ongoing operations including the operating and maintenance activities planned for the system in 2023. This increases Naka-NWT's forecasting risk as it impacted the resources available to complete necessary operating and maintenance activities.

252. Given the foregoing, Naka-NWT submits that its request for a 100 bps equity risk premium for 2025 (subsequent to the Hay River Disposition) is reasonable and appropriate.

7.2.5 Return on Equity & Equity Ratio: Assessment of Comparators

253. Another factor that must be contemplated as part of affording Naka-NWT the opportunity to earn a fair return is Naka-NWT's ROE and common equity ratio in comparison to those awarded to comparable utilities in other jurisdictions.

254. Table 7.3 above contains information about the approved ROEs and common equity ratios for other investor-owned utilities with similar characteristics as Naka-NWT. In Naka-NWT's submission, its unique circumstances and characteristics limit the number of direct comparators; however, the entities listed in Table 7.3 have some similar qualities to Naka-NWT and are useful to consider for the purposes of this comparison. Table 7.3 includes comparators from Alberta and British Columbia, since the two Canadian North comparator utilities to Naka-NWT (Naka Power Utilities (Yellowknife) and ATCO Electric Yukon) are operating according to a return on rate base established using these jurisdictions as their benchmark.

255. The most significant varying factor compared to each of the comparators is size. As previously discussed, in this regard Naka-NWT has higher risk due to its much smaller size, indicating it should be approved for a higher fair return on its common equity than all comparators.

256. Maritime Electric is a particularly good comparator for Naka-NWT as an investorowned utility that similarly purchases power from government-owned generation. Maritime Electric has many of the same characteristics of Naka-NWT that increase its business risk compared to the average utility in Canada, such as relatively small size, lack of geographic diversity, operating risks associated with extreme weather conditions, and economic conditions in the province or territory. However, these risks are mitigated to a greater extent for Maritime Electric than for Naka-NWT because Maritime Electric's customer base is nearly ten times larger than Naka-NWT's. In addition, subsequent to the Hay River Disposition in 2025, Naka-NWT will no longer be purchasing most of the energy supplied to its customers from government-owned generation but will instead be generating most of the required energy. These factors result in Naka-NWT having a much higher operating risk than Maritime Electric.

257. AEL&P also has many similar characteristics to Naka-NWT being a small-sized, northern utility with a volatile and market-sensitive customer base. It also faces generation risk, similar to Naka-NWT. However, AEL&P has a US customer base and its risk is somewhat mitigated compared to Naka-NWT due to its much larger customer base. Naka-NWT is requesting approval for an ROE and common equity ratio substantially below that approved for AEL&P.

258. Given the range of approved ROEs shown in Table 7.3, Naka-NWT submits that the requested ROE for 2025, as well as the requested common equity ratio of 42 percent, are appropriate and reasonable.

7.3 Cost of Capital – Long-Term Debt

259. Naka-NWT is forecasting the requirement for additional financing in 2024 to support the growth in rate base due to required capital investment as discussed in Section 11. Due to the Hay River Disposition, which is currently forecast to occur in March 2025, Naka-NWT is not forecasting the issuance of any long-term debt in 2024. Naka-NWT believes this is prudent in order to minimize the debt break fees that will be incurred when the Hay River Disposition is completed. Instead, Naka-NWT has forecast the use of short-term borrowing from its affiliate company, ATCO Electric, to finance the 2024 rate base growth. Consequently, Naka-NWT has included the short-term borrowing from ATCO Electric in its capital structure for 2024.



260. For 2024, Naka-NWT is forecasting a short-term debt rate of 4.95 percent based on an average rate for 2024. The rate is set based on the Bank of Canada overnight rate plus an applicable spread.

261. Naka-NWT has been utilizing short-term borrowing from ATCO Electric since May 2023 to finance the additional fuel and operating costs being incurred as a result of NTPC's shutdown of the Taltson Hydro Generation Plant. At September 30, 2024, Naka-NWT has \$18.9 million in short-term advances owing to ATCO Electric. However, Naka-NWT's ability to access short-term borrowing from its affiliate company is not unlimited; the intent of such short-term borrowing is to cover temporary shortfalls in cash due to the timing of cash receipts and payments, and Naka-NWT is generally expected to repay short-term advances within 30 days which it has been unable to do since May 2023.

262. Following the Hay River Disposition in 2025, in order to maintain the approved capital structure, Naka-NWT will terminate \$3.2 million of long-term debt prior to the maturity dates, resulting in debt-break fees. The Board approved the inclusion of the debt-break fees in Naka-NWT's disposition costs in Decision 1-2024:¹³

Debt break costs which are related to reduction in the financing of Northland's entire rate base pre-asset sale, should be allocated by Northland between the Town of Hay River portion of rate base and the remaining Northland portion of rate base on the basis on net asset costs as of the above actual transaction close date. The Town of Hay River portion of debt break costs will be included in the purchase cost of the Town of Hay River assets payable by NTPC as well as included by NTPC in its Town of Hay River assets purchase project permit costs. The Northland portion of debt break costs will be included as a capitalized deferred cost by Northland in its remaining rate base (post Hay River assets sale) for the applicable test year and amortized over 15 years.

7.4 Cost of Capital – Customer Deposits

263. The customer deposits, or security deposits, included in this Application relate to deposits paid by customers to Naka-NWT if they have been unable to establish a satisfactory credit rating, have been disconnected or restricted by a current-limiting device

¹³ Decision 1-2024, para. 50.



or have not paid all past due charges. The balances of customer deposits forecast in the Application are as shown below in Table 7.6.

Table 7.6: Customer Deposits (\$000)

	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Mid-Year Balance	196	197	220	253	72	193

264. Naka-NWT's customer deposit balance is forecast to be significantly lower in 2025 as a result of the Hay River Disposition.

7.5 Rate Base

7.5.1 Capital Additions

Table 7.7: Additions to Rate Base (\$000)

	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Capital Expenditures	936	1,554	5,714	7,379	2,191	2,538
Capital Additions to Rate Base	860	1,006	5,633	6,471	2,204	1,387

265. These additions are primarily driven by a requirement to upgrade, enhance and replace components on the distribution and generation systems as well as general property and equipment that have reached the end of their life cycle. Capital Additions are discussed in further detail in Section 11 of the Application.

7.5.2 Contributions

266. Contributions in aid of construction are received from customers in accordance with the Company's Investment Policy in its Terms and Conditions. The contributions, outlined in Schedule 11.5, are as shown below:



Table 7.8: Contributions (\$000)

	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Contributions in Aid of Construction (per year)	413	29	1,558	1,081	1,039	4

267. Naka-NWT's forecast process involves a review of projects included in the capital additions outlined in Section 11 to identify those which will require a customer contribution.

7.5.3 Deferred Charges and Credits

268. The mid-year deferred charges and credit amounts, included in rate base and outlined in Schedule 11.7, are as shown below:

Table 7.9: Deferred Charges and Credits(\$000)

	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Mid-Year Balance	(1,157)	(1,401)	(608)	473	13	(77)

269. The deferred charges and credit amounts in 2025 are reflective of a transfer of the balances related to Hay River customers as part of the Hay River Disposition.

7.5.3.1 Rate Case Reserve

270. Naka-NWT has continued using a reserve account to flow through rate case costs to customers for GRA filings. For 2024 and 2025, costs of \$165,000 and \$130,000, respectively, have been forecast to be recorded in the rate case reserve associated with the 2023 Amended GRA and 2025 GRA proceedings. In 2025, Naka-NWT will transfer the balance of rate case reserve costs related to Hay River customers as part of the Hay River Disposition.



7.5.3.2 Plant Maintenance Reserve

271. Naka-NWT continues to use a reserve account to flow through to customers the costs associated with cyclical top-end plant overhauls and rebuilds outside of Hay River. Please refer to Section 7 Attachment 1 for a listing of actual and forecast overhauls for the period 2022-2025.

272. Consistent with IFRS, major overhauls are capitalized and amortized over the period between the major overhauls.

7.5.3.3 Reserve for Injuries and Damages

273. The Reserve for Injuries and Damages (RID or Reserve) is used for uninsured and uninsurable losses and the deductible portion of insurance claims. Maintaining the Reserve mitigates rate fluctuations by smoothing out the charges to O&M with respect to these types of losses. The establishment of the Reserve provides financial advantages compared to paying significantly higher insurance premiums to reduce deductibles or to insure items which carry prohibitively high premiums.

274. In 2022, \$159,000 of costs were recorded in the Reserve related to the unprecedented heavy flooding in Hay River in the spring of 2022. The Town issued an evacuation notice May 12, 2022, which was lifted May 19, 2022. The flood caused damage to Naka-NWT's infrastructure including the loss of nine distribution line poles throughout the Hay River area that required replacement and flooding of underground transformers that required cleaning and testing to put back into service. Additional manpower was brought in from Naka-YK and NTPC to assist in repairs and patrols. Furthermore, numerous commercial and residential customers experienced flooding of homes and businesses, which required working closely with the GNWT electrical inspector to determine which ones could be left on and which would require isolation and repairs before reconnection.

275. Naka-NWT has included amounts related to the forest fires and evacuations of Hay River and Enterprise that took place in August/September 2023 in the Reserve. In



the 2023 Amended GRA, Naka-NWT included a placeholder of \$1.432 million in costs in the reserve for this event. The total amount of costs recorded in the Reserve for this event was \$1.546 million (\$1.432 million in 2023 and \$0.073 million in 2024).

Description	2023	2023-2024
Description	Placeholder	Actual/Forecast
Insurance Deductible	1,000	1,000
Lost Revenue, Net of Supply	243	244
Incremental O&M Costs	152	230
Short-Term Financing Costs	37	72
Total	1,432	1,546

Table 7.10: 2023-2024 Reserve for Injuries and Damages Costs(\$000)

276. No other charges to the Reserve are forecast for 2024 or 2025. In 2025, Naka-NWT will transfer the balances of rate case reserve costs related to Hay River customers as part of the Hay River Disposition.

7.6 Working Capital

277. Working capital is a component of the company's total rate base as, generally, the payment of expense occurs in advance of the receipt of revenues.

278. The components of working capital are:

- Purchase Power;
- Operating Expenses;
- Income Tax;
- Goods and Services Tax;
- Depreciation Expense;
- Interest Expense;
- Common Equity (retained earnings component);
- Common Equity (dividend component); and
- Materials and Supplies Inventory (based on the estimated inventory balance).



279. The working capital, included in rate base, is outlined in Schedule 11.9, with the details on the components, incorporating working capital, disclosed on Schedule 11.9, as follows:

Table 7.11: Working Capital (\$000)

	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Working Capital	1,315	1,179	2,129	1,862	729	1,811

280. In the 2025 Test Year, each category in working capital was adjusted to remove Hay River related transactions. The nature of the revenues and expenses in the remaining communities will not change materially subsequent to the Hay River Disposition.

7.6.1 Lead Lag Allowances

281. Naka-NWT has updated the results of its previous Lead Lag Study for material changes since the study to support the working capital allowance calculation in this Application. Please refer to Section 7.5 Attachment 1 for the comprehensive review of Naka-NWT's working capital lead/lag allowances.

Naka Power (NWT)(Naka-NWT) 2025 General Rate Application (GRA) Proceeding ID 2024-020

Schedule of Plant Maintenance for 2021-2025 (\$000)

Line						
No.		Unit Info	Size (kW)	Type of Maintenance	Location	Amount
1	2021 Actua	al				
2 3 4	CUL#324 CUL#506	Cat 3508 Volvo TAD733GE	500 150	Top-End Overhaul Top-End Overhaul	Fort Providence Dory Point	(13) 4
5 6 7 8	2022 Actua	<u>al</u>				(10)
9 10 11 12 13	<u>2023 Actua</u>	<u>al</u>				0
14 15 16 17 18 19 20 21	<u>2024 Fore</u>	<u>cast</u>				0
22 23 24 25	2025 Fore	cast				0
26 27	CUL#608 CUL#594	Volvo TAD733GE Volvo TAD733GE	150 150	Top-End Overhaul Top-End Overhaul	Sambaa Ke' Wekweeti	81 55
28						136



Naka Power Utilities (NWT) (Naka-NWT) Lead Lag Study

SECTION 1: LEAD LAG STUDY

1. This lead lag study has been undertaken by Naka-NWT, to support the working capital allowance calculation in the 2025 GRA. The methods used in the study are consistent with the methods approved by the Board in Decision 17-2011, respecting the last comprehensive study completed for Naka-NWT's 2011-2013 GRA, except for the change in timing related to payroll remittances as described below.

Table 1.1: Net O&M Lead Days

	Days
Average Lag in Revenue Collection	47.66
Less: Average Lag in Payment of Operating Expenses	(31.50)
Net O&M Lead Days	16.16

2. To arrive at the net O&M lag days, a study was conducted respecting the receipt of revenues and operating expenses. For this analysis, an average of three years (2021-2023) was used for revenue and O&M expenses. As there were no significant changes to the receipt of the revenue process, there was a slight increase from 42.09 days to 47.66 days.

3. A study was done for the average lag in payment of operating expenses. As a result of the study, there was an increase in the average lag in payment of operating expenses from 25.08 days to 31.50 days. This increase of 5.31 days (21.1 percent) is mainly the result of payroll remittances changing from bi-monthly to bi-weekly payroll remittances.



SECTION 2: REVENUE LAG

4. The lag days for the collection of revenue are measured from the consumption of power to receipt of cash while expenses are measured from the provision of service or receipt of operating materials and supplies to the date payments are made.

SECTION 3: OPERATION & MAINTENANCE EXPENSES

5. For all categories, the average total lag days has been calculated as follows:

Total Average Expense Lag Day = Consumption Lag Plus Processing Lag Plus Payment Lag

6. Consumption lag is the number of days between the date the goods were received, or the service was performed, and the invoice date.

7. Processing lag is the number of days between the payment date of the invoice was issued and the date the cheque cleared the bank.

8. The average total lag days are determined by the major categories of expenses outlined in the following table.

Operations & Maintenance	Operating Expenses	(Lead)/Lag Days	Weighted Revenue
Salaries and Wages	2,215,032	44.62	98,827,993
Purchased Power	1,376,375	32.85	45,217,083
Diesel Fuel	7,556,026	35.51	268,283,525
Property Taxes	54,955	9.67	531,228
Franchise Taxes	325,919	(151.50)	(49,376,753)
Insurance	120,819	(118.35)	(14,299,399)
Parent Company	1,474,388	30.80	45,411,144
Other Operating Expenses	3,247,914	37.30	121,141,871
Total Operating Expenses	16,371,427	31.50	515,736,691

Table	3.1: L	_ead/Lag	Operating	Expenses
IUNIC	U . I . L	-cuu, Lug	operating	LAPCHOCO



3.1 Salaries & Wages

9. Since the last lead-lag study, payroll remittances have changed from bi-monthly to bi-weekly payroll remittances, which has resulted in an increase of 30.21 days to 44.62 days.

3.2 Purchase Power

10. The average consumption lag for purchase power is 15.21 days and, combined with the payment lag of 17.64 days, results in a total of 32.85 lag days, which is slightly lower than the 36.21 lag days from the previous study.

3.2 Diesel Fuel

11. Based on the analysis of fuel purchases from 2021-2023, the average total lag was 35.51 days which is a slight increase from the 30.21 days from the previous study.

3.3 Property Tax

12. Property taxes were billed for a calendar year and were paid in July each year from 2021-2023. The weighted average lag was 9.67 days. In the previous study, a weighted average lead for property taxes of 22 days was calculated as taxes were paid in June of each year rather than July.

3.4 Franchise Tax

13. Franchise taxes are due to the Town of Hay River on January 31st of the current year. The total payment lead is 151.50 days which was unchanged from the previous study.

3.5 Insurance

14. Insurance is billed for a one-year term. Insurance payments made in 2023 were analyzed and a weighted average from the midpoint resulted in a lead time of 118.35 days.



3.6 Parent Charges

15. Based on an analysis of 2023, parent charges had a 15.21 day consumption lag and a 15.59 day payment lag, for a total lag of 30.80 days, which is not significantly different than the 30.21 days calculated in the previous study.

3.7 Other Operating Expenses

16. Other expenses had a 15.00 day consumption lag. Adjusting this amount for a payment lag of 22.30 days results in a total lag of 37.30 days, which is unchanged from the previous study.

3.8 Income Tax Expense

17. Income tax expense lag represents income tax instalment payments that are made monthly. The expense lag of 15.21 days was subtracted from the revenue lag of 47.66 days, resulting in a 29.72 day lead.

3.9 Final Tax Payment / Receipt

18. The expense lag for final tax payment/receipt is 241 days, given that the settlement is at the end of February the following year. The expense lag of 241 days was subtracted from the revenue lag of 47.66 days, resulting in a 193.34 day lag.

3.10 Goods and Service Tax

19. GST remittance is the net amount of GST collected and GST paid. GST is remitted, on a monthly basis, resulting in a total lag time of 30.00 days.

3.11 Depreciation Expense

20. As depreciation expense is recovered in the company's revenues, the lag days for depreciation expense are equal to the revenue lag days of 47.66 days.



3.12 Interest Expense

21. The interest expense lag days were determined to be 91.25 days, based on the interest payments schedule of long-term

22. As interest expense is recovered in revenues, the expense lag of 91.25 days was subtracted from the revenue lag of 47.66 days, resulting in a 43.59 day lead for interest expense.

3.13 Common Equity (Retained Earnings Component)

23. The lag days for common equity (retained earnings component) are the same as the lag days for depreciation expense.

3.14 Common Equity (Dividend Component)

24. The expense lag days for the dividend component was determined to be 45.63 days. As the costs relating to the dividend are recovered through revenues, the expense lag was subtracted from the revenue lag of 47.66 days, resulting in a 2.03 lag for common equity (dividend component).

Lead/Lag	Revenue Lag	Expenses Lead/Lag	Net Lead/Lag
Operating Expenses	47.66	31.50	16.16
Tax Installments	47.66	15.21	32.45
Taxes Receivable	47.66	241.00	(193.34)
Long Term Debt	47.66	91.25	(43.59)
Dividends	47.66	45.63	2.03
Depreciation	47.66		47.66
Equity	47.66		47.66

Table 3.2: Lead/Lag



SECTION 8: INCOME TAXES

8.1 Overview

282. The income tax expense included in this Application is outlined in Schedule 8.0 and is as follows:

Table 8.1: Income Tax (\$000)

	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Income Tax Expense	275	266	(530)	(934)	(84)	(304)

283. Naka-NWT continues to use the flow through method in calculating income tax expense. Under the flow through method, Naka-NWT calculates the income tax expense based on taxable income which is minimized by claiming the maximum of all available deductions including Capital Cost Allowance (CCA). Naka-NWT also does not record deferred taxes under this methodology.

284. The decrease in income tax expense for 2023 is mainly due to the legislated Accelerated Investment Incentives (AII),¹ which allowed for an immediate tax benefit (100% CCA rate) to be claimed on the CIS Replacement Project as included in the 2023 Test Period forecast. In 2024, income tax decreased primarily due to project-based immediate capital repair costs deductions (Rainbow deductions) which are higher than in prior years as a result of the engine overhauls completed in the year, mainly related to the extended continuous operation of the Hay River Standby Generation Plant. In 2025, forecast tax expense increases due to lower deductible capital repair costs, as well as a decrease in CCA due to lower undepreciated capital cost (UCC) as a result of the Hay River Disposition.

^{1 &}lt;u>https://www.canada.ca/en/revenue-agency/services/tax/businesses/topics/sole-proprietorships-partnerships/report-business-income-expenses/claiming-capital-cost-allowance/accelerated-investment-incentive.html</u>



8.2 Income Tax Rate Variance Deferral Account

285. Income taxes forecast by Naka-NWT in this Application are based on the currently enacted federal and territorial statutory income tax and CCA rates.

286. Since the income tax rate is not under the control of Naka-NWT, not reasonably forecastable, and an error in forecasting the rate could produce a loss or gain of substantial magnitude, Naka-NWT is requesting approval for the continued use of an income tax rate variance deferral account. Any changes from these rates will be used to determine an updated revenue requirement. This updated revenue requirement will be compared to the final Board-approved revenue requirement for the year in question and any differences will be either refunded to, or collected from, customers.



SECTION 9: TAXES OTHER THAN INCOME

9.1 Overview

287. Taxes Other Than Income included in this Application are as follows:

	2021	2022	2023	2024	2025	2023
		Actua	l	Forecast	Test Year	Approved
Property Taxes	45	50	55	58	8	48
Franchise Taxes	324	309	326	334	-	334

Table 9.1: Taxes Other than Income (\$000)

9.2 Franchise Fees

288. The franchise fee paid to the Town of Hay River is based on the Franchise Agreement which grants exclusive rights to Naka-NWT for the distribution of electrical energy to the municipality and its residents. The franchise fee is recovered through the franchise fee rider, which is a flow-through of the fee paid to the municipality.

289. Naka-NWT currently calculates the franchise fee forecast based on four percent of revenue generated from sale of electricity in the municipality, which will no longer be the responsibility of Naka-NWT after the Hay River Disposition. Consequently, for the 2025 Test Year, not including the Hay River Disposition, the franchise fee is forecast at \$0.

290. No other communities serviced by Naka-NWT impose a franchise fee as they are not tax-based communities.

9.3 Property Taxes

291. Property taxes are paid to the communities annually for Naka-NWT's office building(s), generation facilities, substation properties and power lines.



SECTION 10: OTHER REVENUES

292. Please refer to Section 2 for information on Other Revenues.



SECTION 11: CAPITAL ADDITIONS

11.1 Overview

293. In this Section, Naka-NWT is seeking Board approval for its opening rate base, the additions included in the 2024 Forecast and the 2025 Test Year. Naka-NWT's capital investment strategy continues to be sustained functionality and capacity of its existing assets while investing in modern technologies where it is more efficient or required to do so.

Table 11.1: Capital Expenditures and Additions (\$000)

	2021	2022	2023	2024	2025	2023
		Actual		Forecast	Test Year	Approved
Capital Expenditures	936	1,554	5,715	7,379	2,191	2,538
Capital Additions to Rate Base	860	1,006	5,633	6,471	2,204	1,387

294. Please refer to Schedule 11.8.1 for variance explanations to forecast for 2022-2023.

295. The 2023 and 2024 capital expenditures and additions are higher than prior years mainly due to higher routine generation system maintenance and replacement of aged/obsolete infrastructure, including engine overhauls, repairs and replacements in the at the Hay River Standby Generation Plant and in the Thermal Zone, routine transmission system maintenance and replacement of aged/obsolete infrastructure, including the 6L10 pole replacements identified in 2021 test and treat program and replacement of fire-damaged poles and equipment destroyed by wildfires.

296. The following list summarizes the capital projects that are forecast to be completed in the 2025 Test Year:

• Routine generation system maintenance and replacement of aged/obsolete infrastructure in the Thermal Zone, including the replacement of engine CUL 324 in Fort Providence. Please refer to Business Case #03.



• Routine transmission system maintenance and replacement of aged/obsolete infrastructure, including the Pine Point Protection upgrade. Please refer to Business Case #05;

297. New extension projects are not included in Business Cases or Attachment 11.1 as they are identified and requested based on customer needs and primarily funded by customer contributions.

11.2 Capital Expenditures and Additions

298. Capital expenditures and additions are managed and tracked by project. Please refer to Sections 11.3-11.10 below for summaries of the nature of the projects included in each program.

11.3 Generation

299. Generation assets are continually monitored through power plant inspections and monitoring. Components are repaired or replaced due to unacceptable performance, discontinuation by the manufacturer, in accordance with manufacturer specifications, on planned replacement intervals or at the end of their useful life. The reliability and integrity of the power generation system is a key consideration when critical replacement decisions are being contemplated. Other considerations include load growth on a power plant and/or specific generation units, premature failure, safety requirements, and environmental regulations which can dictate the need for additional generation assets to be put in place.

11.4 Transmission

300. Transmission assets are inspected through line patrols and regular substation monitoring. This involves regular inspections, repairs, and replacements of critical components to prevent failures and maintain system integrity. Common maintenance tasks include replacing aging insulators, conductors, and transformers, repairing or replacing damaged/deteriorating poles and other structures, and upgrading communication equipment to meet evolving standards and regulations.



11.5 New Extensions

301. Naka-NWT develops its new extension capital forecast based on discussions with communities, developers, engineering firms, customers, and known areas of development within its service area. Naka-NWT assesses the ability of the existing infrastructure to accommodate the proposed growth and considers the customer's specific service requirements. An estimate is developed for the facilities required for the new extension and inserted into the forecast. In addition, Naka-NWT considers historical customer additions to account for walk-in customers who will inevitably require service.

302. Naka-NWT is requesting the Board's approval of a revision to the Maximum Investment Levels (MILs) quoted in Schedule A of its Terms and Conditions of Service (T&Cs). While Naka-NWT has not performed an updated MILs study, in an effort to retain the same proportion of investment that customers in 2011 received (namely, intergenerational equity), Naka-NWT is proposing to adjust the 2025 MILs by inflating the approved 2011 MILs to 2025 dollars. Naka-NWT will revise Schedule A of the T&Cs as applicable after the decision on this Application has been rendered.

Maximum Investment Levels	Units	2021	2022	2023	2024	2025
Residential						
Single Family Dwelling	per site	1,750	1,750	1,750	1,750	3,060
Multiple Family Dwelling	per site	890	890	890	890	1,020
Small General Service	per kW	340	340	340	340	445
Street Lighting	per light		Cost	t of Installa	ation	
Private Lighting	per light	1,430	1,430	1,430	1,430	1,750

Table 11.2: Proposed Maximum Investment Levels
(\$000)

11.6 Distribution Improvements

303. Distribution improvement projects fall into four major categories:

(i) System Performance Projects are required to maintain system performance at an acceptable level. This category includes system protection, voltage, current, and line clearance projects.


- (ii) Life Extension Projects are required to increase the distribution system's life cycle. This category includes new feeder installations and streetlight upgrades.
- (iii) System Replacement Projects are conducted when distribution system facilities reach the end of their life cycle and they are required to be replaced on a planned basis. This includes replacing overhead/underground systems and equipment.
- (iv) Forced Projects are required to correct unplanned system failures and line relocations where customers or government agencies request the relocation of the distribution facilities or where no easements exist.

304. Naka-NWT tracks distribution system performance on an ongoing basis, and the performance is reviewed when preparing the capital forecast.

305. Naka-NWT also reviews unplanned outages that may be attributed to system deficiencies.

306. Naka-NWT reviews the options to correct a problem and seeks engineering input to determine the most effective way to complete the required work.

307. Naka-NWT collaborates with communities, which has proven efficient and costeffective when improvements to the electrical system are required.

11.7 Street and Sentinel Lights

308. Expenditures are required to provide street and sentinel lighting in Naka-NWT's service area. Streetlights that require replacement due to age and obsolescence are included in this category. New installations or requests from customers and developers are also included. All streetlight work is completed in consultation with the communities. The forecast is determined based on known areas of development in the communities, as well as a review of historic replacement requirements.

11.8 Meters

309. Capital Meter additions include new meter installations that are required to replace end-of-life meters as Identified by Measurement Canada, as well as the installation of



new meters required to accommodate load growth associated with customer requests for service. These expenditures allow Naka-NWT to meet its obligation to provide metered service connections. The capital meter additions are forecast based on known areas of development and expected connection requests.

11.9 Transformers and Regulators

310. Distribution transformers and regulators are required to meet customer growth and to replace transformers that are being used for new extensions or for service upgrades.

11.10 Tools and Equipment

17. This portion of the capital forecast provides for replacing equipment and purchasing new equipment required to support the utility's operations. These include tools, office furniture, office computer equipment, software, communication equipment, transportation equipment, and lands and buildings. Estimates are developed by determining what the needs are for upgrade, purchase or replacement of general property and equipment and developing a forecast based on historical and market prices.

11.11 Capital Project Delivery

311. Naka-NWT has a project process for identifying, planning, and executing its capital projects. The general project process is followed for Generation, Transmission, New Extensions, Distribution Improvements, Street Lights, and General Property and Equipment projects.

312. At the initiation of a new project, either requested by a new customer or identified by Naka-NWT as being required for system improvement, the general scope of the project is identified, and the appropriate internal employees are engaged. As the general scope of a project is further defined, a more detailed review is completed that identifies the customer's needs or the deficiency in the power system that needs to be addressed. An engineer will establish the total scope of the effort, define the project objectives, and develop a cost estimate, projected schedule, and the resources required to complete the project successfully.



313. Where appropriate, Business Cases and/or engineering studies are also completed to ensure the most reasonable alternative is selected and that the chosen solution meets the needs of both the system and the customer.

314. The Operations Supervisor will review the current power system in consideration of the new project, with the key consideration being the safe integration of the project into the power system. If the project is a new customer extension project, a review of substation(s) and feeder loading and the condition of existing electrical equipment will be completed.

315. As the project proceeds, there is regular internal reporting on emerging issues that can affect scope, schedule, or costs so that mitigation strategies can be developed to minimize their impact.

Section 11.1 Attachment 1



Naka Power Utilities (NWT) (Naka-NWT) 2025 General Rate Application (GRA) Proceeding ID 2024-020

Section 11.1 Attachment 1 Capital Additions over \$50,000 2022 - 2025



2022 CAPITAL ADDITIONS

Generation

• FP – CUL-570 Major Overhaul

\$238,000

Please refer to the 2023 Amended GRA Business Case 07 Fort Providence CUL 570 Overhaul.

General Plant

• Replace Unit 314

\$81,000

Replacement of service truck due to end-of-life.



2023 CAPITAL ADDITIONS

Transmission

HR Transmission - SS052 - Capital Fire Repairs \$352,000

Rebuild damaged transmission poles and equipment on 6L10 due to the wildfires.

• 6L10 Pole Replacement \$411,000

Please refer to the 2023 Amended GRA, Business Case 05 6L10 Pole Replacement.

Generation

HR – CUL-200 Top End Overhaul \$384,000

Please refer to Business Case #01 – Hay River Engine Overhauls.

• FP – Replace CUL-570 Engine \$278,000

Due to engine failure, this unit was replaced with a new unit, CUL-616.

• HR – Mobile Unit Tie-In \$99,000

Please refer to Business Case #06 – Mobile Tie-In Hay River Plant.

• HR - CUL-200 (EMD) Relay \$74,000

Replace CUL-200 (EMD) Relay. The current relay failed a setting test.

Distribution Improvements

• EP - SS052 - Capital Fire Repairs \$1,919,000

Rebuild damaged poles and equipment in Enterprise due to the wildfires.

• HR - SS052 - Capital Fire Repairs \$450,000

Rebuild damaged poles and equipment in Hay River due to the wildfires.

HR - Capital Flood Repairs \$107,000



Rebuild damaged poles and equipment in Hay River due to the flood.

• KFN - Capital Fire Repairs \$50,000

Rebuild damaged poles and equipment in KFN due to the wildfires.

Customer Accounting & Billing

Naka-NWT CIS Replacement Project \$1,132,000

Please refer to the 2023 Amended GRA, Business Case 09 ATCO CIS Replacement.



2024 CAPITAL ADDITIONS

Transmission

6L10 Pole Replacement \$777,000

Please refer to the 2023 Amended GRA, Business Case 05 6L10 Pole Replacement.

• HR Transmission - SS052 - Capital Fire Repairs \$346,000

Rebuild damaged transmission poles and equipment on 6L10 due to the wildfires.

Distribution Improvements

• EP - SS052 - Capital Fire Repairs \$596,000

Rebuild damaged poles and equipment in Enterprise due to the wildfires.

HR - SS052 - Capital Fire Repairs \$196,000

Rebuild damaged poles and equipment in Hay River due to the wildfires.

• HR - Chicken Farm - Re-route \$51,000

Moved trespassing line off customer property.

Generation

HR - CUL-200 Major Overhaul	\$1,153,000
Please refer to Business Case #01 – Hay River Engine Overhauls.	
HR - Top End Overhaul CUL-275	\$544,000
Please refer to Business Case #01 – Hay River Engine Overhauls.	
HR - Top End Overhaul CUL-566	\$258,000
Please refer to Business Case #01 – Hay River Engine Overhauls.	

HR - Top End Overhaul CUL-484 \$232,000



Please refer	to Business Case #01 – Hay River Engine Overhauls.	
•	HR - Top End Overhaul CUL-197	\$192,000
Please refer	to Business Case #01 – Hay River Engine Overhauls.	
•	HR – CUL-200 Repairs	\$185,000
Please refer	to Business Case #02 – Hay River CUL-200 Repairs.	
•	W – Fuel Tank	\$138,000
Please refer	to Business Case #04 – Wekweèti Fuel Tank.	
•	HR – CUL-200 EMD Controls Repair / Upgrade	\$60,000
Please refer	to Business Case #02 – Hay River CUL-200 Repairs.	
•	HR - Top End Overhaul CUL- 484	\$60,000

According to the manufacturer's inspection, a complete overhaul was not recommended for the unit. The project scope was limited to replacing smaller components.



2025 CAPITAL ADDITIONS

Generation

• FP – Engine Replacement CUL-324 \$500,000

Please refer to Business Case #03 – Fort Providence Engine Replacement.

Transmission

Pine Point Protection Upgrade \$194,000

Please refer to Business Case #05 – Pine Point Protection Upgrade.

Transportation Equipment

Line Truck Replacement
 \$80,000

Replacement of service truck due to end-of-life.



SECTION 12: AFFILIATE TRANSACTIONS

316. Please refer to Section 5 regarding Related Party Transactions.



SECTION 13: PRIOR BOARD DIRECTIONS

13.1 Summary

317. The following provides a response to prior Board Directions.

13.2 Board Directions

13.2.1 2014-2015 GRA Phase II: Board Decision 1-2016 (dated February 29, 2016).1

Direction 4

318. In paragraph 60 of Decision 1-2016:

The Board notes that under the NWT Utilities Minimum Filing Requirements approved in Decision 13-2014, details of costs at the account level, by zone, are required to be provided by Naka-NWT at the time of its next GRA. In the Board's view this information ought to facilitate examination of costs that have been directly assigned as well as those that have been allocated to rate zones, at the account level. The Board expects the account level information, including basis of allocation or assignment of costs at the account level, to be reflected in future cost of service studies and supporting schedules.

Naka-NWT's Response to Direction 4

319. Please refer to Schedule 5.1.

Direction 10

320. In paragraph 111 of Decision 1-2016:

In order to meet the requirements in GNWT Instruction 5a) that costs associated with Net Metering should be transparent and should be tracked by utilities and reported through the Board to the GNWT and, in order to calculate and account for the revenue loss arising from net metering, Naka-NWT is directed as follows:

a) File an annual report within 90 days of each year end, commencing with 2015, a calculation of on-site generation in the following format:

¹ Northland Utilities (NWT) Limited 2014-2015 GRA – Phase II.



Annual Papart On not Mataring Contamore									
Customer C #	Class	Type of Customer	Location	Size of Installation	Date Installed	Net Energy Export/Import kWh	Customer's on- site use kWh	Total on site Generation	
A	в	С	D	E	F	G	H	I	
Col A: Custom	ner Identif	ication #-no	requirement	to disclose con	fidential informa	tion			
Col B: The rat	te class to	which the cu	istomer belo	ngs					
Col C: Whethe	er the cust	omer is an ir	dividual, co	ummunity organiz	ation, commerci	al entity etc			
Col D: Name o	of Commu	nity							
Col E: Number of kW installed									
Col F: Commi	issioning d	ate							
Col G: net energy=Export Energy Minus Import Energy									
Col H: Estimat	Col H: Estimated or metered on-site consumption by customer								
Col I: Energy u	used for si	ubsidy calcu	lations=Col	G plus Col H					

- b) File an annual calculation within 90 days of each year end, commencing with 2015, of lost revenues arising from net metering and the accounting thereof:
 - i) Calculate loss of revenue (gross) using on-site generation times the supply rate for that customer's rate class and zone; on-site generation equals on-site customer use (from estimated or metered on-site generation) ± net export within annual netting period;
 - ii) Include the loss of revenue calculated in i) as part of sales revenue with the corresponding amount included in a deferral account to be disposed of in accordance with the paragraphs that follow.
- c) Disposition of deferral account:
 - i) If accumulated lost revenue is below 1% of the actual annual earnings for the year, Naka-NWT may apply to recover lost revenue from customers in Naka-NWT's next Phase I GRA.
 - ii) If accumulated lost revenue exceeds the 1% of the actual annual earnings threshold Naka-NWT may apply to the Board for approval to recover the excess over the 1% threshold by way of GNWT subsidies at the time of the next GRA or when the excess reaches a value of \$10,000 whichever event is the earlier.

Naka-NWT's Response to Direction 10

321. The cumulative lost revenue from 2015-2023 is \$71,458. Naka-NWT has assigned this balance based on location of solar installations. This amount will be directly assigned to communities according to the location of the net metering customer.



13.2.2 Purchase and Sale of the Hay River Franchise (Proceeding ID 2023-007): Board Decision 1-2024 (dated March 26, 2004)

Direction 1

322. In paragraph 66, bullet 1 of Decision 1-2024:

The actual date of execution (closing date) of the purchase and sale transaction is to be completed before December 31, 2024.

Naka-NWT's Response to Direction 1

323. The closing date for the Hay River Disposition transaction was changed to March 1, 2025, approved in Board letter Exhibit 2024-006-047, dated June 11, 2024, pursuant to Decision 1-2024 – Proceeding ID 2024-012.

Direction 2

324. In paragraph 66, bullet 2 of Decision 1-2024:

Prior to this date both NTPC and Naka-NWT are directed to file GRAs, both Phases I and II, for test year 2024/25 for NTPC and 2024 for Naka-NWT, to reflect and implement the Board's applicable determinations in this Decision.

Naka-NWT's Response to Direction 2

325. The Naka Power Utilities (NWT) 2025 Phase I GRA has been filed. As explained in Section 01 paragraphs 8 and 9, due to evolving circumstances, Naka-NWT is only including a 2025 Test Year revenue requirement in an effort to reduce regulatory burden and, and in turn, reduce intervener and legal costs. In addition, a Limited Phase II has been completed for the 2025 Test Year, including and excluding Hay River. Please refer to Section 14.2 Attachment 1 and 14.2 Attachment 2.

Direction 3

326. In paragraph 66, bullet 3 of Decision 1-2024:

Naka-NWT is directed to reflect the efficiencies that would permit the administrative and general cost allocation to the transmission function without



undue rate impacts to Naka-NWT's remaining hydro zone customers and that which would be fully consistent with cost causation principles, in a 2024 GRA.

Naka-NWT's Response to Direction 3

327. Please refer to Section 1B.3 for a discussion of the efficiencies and to Section 1B.6 for the Talkan Zana December Offect

for the Taltson Zone Revenue Offset.

Direction 4

328. In paragraph 66, bullet 4 of Decision 1-2024:

Both NTPC and Naka-NWT have been directed in this Decision, to come up with cost efficiencies to be realized post purchase and sale of Hay River assets, if the premium on purchase of assets and transaction costs for NTPC as well as pricing of wheeling charges are to be accepted by the Board. The Board recognizes the utilities may require extra time past year end 2024 in order for such efficiencies to be realized on an annualized basis. In such a case the utilities may choose to file multi year test years. The closing date of the transaction should ideally be set in a manner so as to enable the foregoing efficiencies to be realized and reflected on an annualized basis in go forward rates without causing undue rate impacts arising from any transitional effects.

Naka-NWT's Response to Direction 4

329. Naka-NWT is filing a GRA for the 2025 Test Year with the intention of reflecting the efficiencies in go forward rates.

329.2.3 <u>Naka Power Utilities (NWT) Hay River Disposition Compliance (Proceeding ID</u> 2024-006): Board Letter Exhibit 2024-006-004 (dated: June 11, 2024).

Direction 7(ii)

330. In paragraph 7 of Exhibit 2024-006-04:

Assuming a March 1, 2025 closing date, Naka-NWT would need to file two annualized revenue requirements and corresponding rates for the 2025 test year- one with respect to pre-Hay River sale and the other with respect to post Hay River sale. The 2024 test year would reflect the pre Hay River sale revenue requirement and corresponding rates...



Naka-NWT's Response to Direction 7(ii)

331. Naka-NWT is filing a GRA with two 2025 annualized revenue requirements, one including Hay River and one excluding Hay River. In light of the timing and in an effort to promote regulatory efficiencies and reduce costs to rate payers, Naka-NWT is requesting relief from filing a 2024 Test Year.

Direction 7(iii)

332. In paragraph 7 of Exhibit 2024-006-04:

To the extent there are revenues or costs that do not accrue evenly over the year, both NTPC and Naka-NWT may wish to address how any partial year effects arising from imposition of annualized rates effective March 1, 2025 may be addressed.

Naka-NWT's Response to Direction 7(iii)

333. Please refer to Section 1B.5 Attachment 1 for monthly forecasts of the 2025 revenue requirements, including and excluding Hay River, and Section 1B.5 Attachment 2 for an explanation on how the monthly forecasts would be combined to derive the overall 2025 revenue requirement.

Direction 7(v)

334. In paragraph 7 of Exhibit 2024-006-04:

As noted above in the process timetable, for the 2025 annualized revenue requirement filings- post Hay River sale, Naka-NWT is required to provide Zone based costs and revenues and corresponding annualized zone based rates (Referred to in the timetable as Limited Phase II). In addition, Naka-NWT is required to provide schedules showing rate impacts to customers, by Zone, and by customer class, arising solely from the pre and post Hay River sale transaction.

Naka-NWT's Response to Direction 7(v)

335. Please refer to Schedule 3.1 and Section 14 of this Application.



Direction 8

336. In paragraph 8 of Exhibit 2024-006-04:

In summary the Board determines that the Hay River transaction close date be changed to March 1, 2025. Further, in view of the delays envisaged by both NTPC and Naka-NWT for completing their Phase II filings the Board requests that the requirements set out in para 7 above be complied with as part of the Phase I and limited Phase II filings.

Naka-NWT's Response to Direction 8

337. Naka-NWT is filing this Application in compliance with this direction.



SECTION 14: SUPPLEMENTAL INFORMATION

14.1 Overview

338. In response to the Board's letter dated June 11, 2024,¹ Naka-NWT has completed a Limited Phase II for the purpose of showing the Revenue to Cost (R/C) ratios, as well as estimated rate impacts by rate class, that result from the discontinuation of the Hay River Franchise Agreement. A summary of Naka-NWT's Limited Phase II is provided below in Section 14.2, with detailed calculations provided in Section 14.2 Attachment 1 and Attachment 2.

339. To address the significant rate increases that will occur in 2025 as a result of the Hay River Disposition, Naka-NWT proposes to introduce Government and Non-Government Rates, as discussed further below in Section 14.3 with detailed calculations provided in Section 14.3 Attachment 1.

14.2 Limited Phase II

340. As mentioned above, and as shown in Section 14.2 Attachments 1 and 2, Naka-NWT has performed a Cost-of-Service and Rate Design analysis, referred to in this Section as a 'Limited Phase II'. Naka-NWT submits that this Limited Phase II incorporates the underlying methodologies approved in Naka-NWT's last 2015 Phase II proceeding.² An extensive Phase II, which would typically include Classification Factor studies and other Cost Allocation analyses and studies, has not been conducted due to cost, time, and resource constraints, as part of the overall Phase I emphasis of this Application. On this basis, the estimated rate impacts that Naka-NWT has calculated may vary by rate class, to a certain degree, if a full Phase II process were to be conducted.

341. Section 14.2 Attachments 1 and 2 provide details related to Revenue-to-Cost (R/C) ratios, as well as the estimated rate impacts, by rate class and by zone, based on the following two scenarios: i) Including Hay River; and ii) Excluding Hay River.

¹ Exhibit 2024-006-004.

² Decision 10-2016.



342. For the first scenario, as shown in Section 14.2 Attachment 1 (Including Hay River), the R/C ratios (with the exception of Street and Sentinel Lights) are mainly within the acceptable 95 percent to 105 percent R/C bandwidth for both Hydro Zone and Thermal Zone customers. The resulting rate impacts of both the revenue requirement and Cost-of-Service updates are within plus/minus 15 percent for the Hydro Zone and outside plus/minus 15 percent in the Thermal Zone. Naka-NWT has provided a view of staging the rate increase over multiple years in the Thermal Zone, completing the collection in 2026.

343. For the second scenario, as shown in Section 14.2 Attachment 2 (Excluding Hay River), the R/C ratios (with the exception of Street and Sentinel Lights) are mainly within the acceptable 95 percent to 105 percent R/C bandwidth for both Hydro Zone and Thermal Zone customers. In the Hydro Zone, the Street Light rate impact exceeds the 15 percent threshold. Therefore, Naka-NWT has capped the rate increase at 15 percent for 2025 and staged the remaining collection over multiple years until 2027. In the Thermal Zone, the rate impacts are all substantially above 15 percent. Naka-NWT has staged the outstanding collection over multiple years, completing the collection in 2027. Naka-NWT submits that the Hydro rate impacts are mitigated when the Taltson Zone Revenue Offset, as described in Section 1B, is included in the Hydro Zone.

14.2.1 Overview

344. In accordance with the Board Letter dated June 11, 2024,³ Naka-NWT has performed a Limited Phase II for the 2025 Test Year for the purpose of showing the R/C ratios and estimated rate impacts by rate class that result from the Hay River Disposition. The Limited Phase II is based on the following two scenarios:

- Scenario 1: Including Hay River; and
- Scenario 2: Excluding Hay River

³ Exhibit 2024-006-004.



345. As noted above, this Limited Phase II encompasses Naka-NWT's existing approved Phase II methodology, which was approved in Decision 10-2016. For this Limited Phase II, Naka-NWT has maintained the methodology of cost functionalization, classification, and allocation, as approved in Decision 10-2016 and has applied the results to forecast costs for 2025.⁴ The Taltson Zone Revenue Offset, as described in Section 1B, has been included in Scenario 2: Excluding Hay River. Background information for the Cost-of-Service Study methodology is summarized below, and detailed results for both Cost-of-Service scenarios are provided in Section 14.2 Attachments 3 to 12.

346. Naka-NWT has updated its Rate Design to incorporate the Cost-of-Service Study under both scenarios. The purpose of the rate design is to illustrate the R/C ratios and the resulting rate impacts for each rate class. Background information on Naka-NWT's Rate Design methodology is summarized below, and detailed results for both scenarios are provided in Section 14.2 Attachments 1 and 2.

14.2.2 Cost-of-Service Methodology

- 347. A full Phase II would incorporate the following four steps:
 - Step 1: Determination of Rate Base;
 - Step 2: Classification of Assets to Customer, Demand and Energy;
 - Step 3: Classification of Revenue Requirement; and
 - Step 4: Allocation of Classified Costs to Rate Classes.

348. For the purpose of this Limited Phase II, Naka-NWT has relied on its Cost-of-Service methodology approved in Decision 10-2016, which uses the four step process set out below.

14.2.2.1 Step 1: Determination of Rate Base

349. The 2025 Mid-Year Net Rate Base was established using the following:

⁴ Naka-NWT GRA Schedules 3.0 and 3.1.



- Fixed Asset accounting records detailing 2023 actual gross fixed assets and 2023 accumulated depreciation;
- Contributions in Aid of Construction less Amortization for 2023; and
- Forecast 2024 and 2025 asset additions, depreciation expense, contributions and amortization as provided in this application.

14.2.2.2 Step 2: Classification of Assets to Customer, Demand and Energy

350. In order to allocate costs to each rate class with regard to cost causation, Distribution Secondary assets were classified as either being customer, demand or energy related as follows:

351. <u>Customer costs</u> are those costs that vary with the number of customers served and are not affected by demand or energy considerations. These costs include costs related to meters, services, customer accounting and public information costs. They also include a share of distribution poles, overhead line, underground line, line transformers and A&G costs.

352. <u>Demand costs</u> are those costs which vary with kilowatts (kW) of demand and include investment charges and expenses made in connection with the provision of generating plants, transmission lines, substations and that part of the distribution system (primary) not included as customer costs.

353. <u>Energy costs</u> vary with the amount of kilowatt-hours (kWh) of energy used and are largely fuel expenses, purchase power and related production O&M expenses.

- Production Asset Classification: classified as 100 percent demand related;
- Transmission Asset Classification: classified as 40 percent to demand and 60 percent to energy;
- Distribution Asset Classification: Each distribution secondary asset account is classified as customer related, demand related or a combination thereof. Primary distribution assets are classified as 100 percent demand related. The Classification Factor study was last approved in Board Decision 5-2012



and has been changed as part of this limited Phase II. Table 14.1 summarizes the classification of secondary distribution assets; and

Table 14.1: Classification of Secondary Distribution Assets
(%)

Description	Customer Related	Demand Related	
Land	0	100	
Land Rights	0	100	
Structures & Improvements	0	100	
Poles, Towers and Fixtures	80	20	
Overhead Conductors/UG Conduits	60	40	
Services	100	0	
Substation Equipment	0	100	
Line Transformers	20	80	
Meters & Meter Equipment	100	0	
Street Lights	Directly Assigned to Rate Class		
Sentinel Lights	Directly Assign	ed to Rate Class	

• General Plant Asset Classification: General plant assets exist to support the production, transmission and distribution functions and; therefore, are classified in the same proportion as gross production, transmission and distribution assets.

14.2.2.3 Step 3: Classification of Revenue Requirement

354. Naka-NWT's approved approach to classifying Revenue Requirement is as follows:

- Depreciation Expense is classified based on the mid-year balance of gross PP&E;
- Municipal taxes and Franchise taxes pertain only to Hay River. The classification of Municipal taxes is based on the mid-year balance of gross PP&E and Franchise taxes are treated as flow through costs;
- Return and Income Tax are classified based on mid-year rate base balances;
- The carrying costs and O&M associated with the general functions (i.e., production, transmission and distribution) are classified based on the midyear balances of gross PP&E, excluding general plant;



- The carrying costs of General Plant & Working Capital are classified based on the mid-year balance of gross PP&E, excluding general plant;
- The classification of Revenue Offsets is based on the sum of all service costs (excluding production and transmission costs, A&G, credit to expense, amortization of contributions and franchise tax);
- The classification of A&G expenses is based on the sum of all service costs, including Revenue Offsets but excluding purchase power and amortization of contributions; and
- Amortization expenses, related to transmission and distribution contributions, are classified based on depreciation expense.
- 355. The classification of O&M costs are as follows:
 - Production O&M (excluding fuel and purchased power) 50 percent to demand and 50 percent to energy;
 - Fuel & Purchase Power 100 percent to energy;
 - Transmission O&M 40 percent to demand and 60 percent to energy;
 - Distribution brushing O&M based on the classification of gross distribution poles, overhead conductors and transformers;
 - Distribution Street and Sentinel lights O&M 100 percent customer related;
 - All other distribution O&M based on the classification of gross distribution PP&E;
 - Customer Accounting O&M 100 percent customer related;
 - Public Information O&M 100 percent customer related;
 - Insurance Expense based on the classification of gross PP&E (excluding general plant); and
 - A&G based on the sum of all service costs.



14.2.2.4 Step 4: Allocation of Classified Costs to Rate Classes

356. Once costs have been classified into customer, demand and energy components, the component amounts are then allocated amongst rate classes in the same manner as approved in Decision 10-2016.

(a) Production Costs

357. Production demand-related costs was allocated to each rate class based on the respective share of the total company Coincident Peak (CP) of each class, while energy-related costs were allocated based on the share of the total energy sent out to each rate class. There are no production costs classified as customer related.

(b) Transmission Costs

358. Transmission demand-related costs are allocated to each rate class based on the respective share of the total company CP of each class, at the transmission level. Transmission energy related costs are allocated based on the share of total energy at the transmission level of each rate class. There are no transmission costs classified as customer related.

(c) Distribution Costs

359. With respect to distribution costs, the approved allocation methods are as follows:

- Return and Income Tax associated with distribution assets have been allocated to rate classes based on the mid-year balance of distribution net rate base allocated to each rate class. All other carrying costs associated with distribution assets have been allocated to rate classes based on the mid-year balance of gross distribution PP&E allocated to each rate class;
- Distribution O&M is allocated to rate classes based on the mid-year balance of gross distribution PP&E allocated to each rate class;
- Customer Accounting and Public Information costs are allocated to rate classes based on the ratio of average number of customers and energy sales;



- The allocation of the distribution-related portion of insurance expense to rate classes is based on the mid-year gross distribution plant allocated to each rate class;
- Distribution-related Revenue Offsets are allocated to rate classes based on the sum of all service costs allocated to each rate class, excluding A&G expenses, Credits, Amortization of Contributions, Purchase Power, and Franchise Tax;
- Distribution-related A&G expenses are allocated to rate classes based on the sum of all service costs, excluding A&G expenses, credits, amortization of contributions, purchase power, and franchise taxes, but including Revenue Offsets;
- Customer accounting costs were allocated to each rate class based on customer count; and
- Public Information costs were allocated to each rate class based on a 15 percent/85 percent split of forecast customers/energy sales.

14.2.3 Rate Design Methodology

360. For the purpose of this Limited Phase II, Naka-NWT has applied its Rate Design to the results of the 2025 Cost-of-Service Study under both scenarios to demonstrate the R/C ratios by rate zone and the illustrative rates that result. Naka-NWT has considered criteria similar to its previous Phase II applications in the design of the illustrative rates. The generally accepted criteria relied upon include the following:

- Recover the total forecast Revenue Requirement by rate zone;
- Use the Cost-of-Service allocations of the revenue requirement;
- Avoid undue discrimination between customer classes;
- Consider the rate levels, structures and policies of other utilities, particularly those of similar load and service conditions;
- Promote ease of understanding and acceptance by customers, as well as ease of administration and economy of billing;
- Recognize the level and structure of existing rates; and



• Promote efficient and cost effective use of power through price signals built into the rate structure.

361. Naka-NWT considered the following factors during the design of the illustrative rates:

- 100 percent revenue-to-cost ratios were targeted for each rate zone and for each rate class within the zone; and
- The Residential Customer Charge in the Hydro and Thermal Zones is set to \$18 per month to ensure rate comparability with NTPC rates.

14.3 Government and Non-Government Rates

362. To ensure equitable treatment of customers across the NWT and to mitigate material rate impacts that are forecast to result in 2025, following the Hay River Disposition, Naka-NWT considers that material changes to its cost recovery and rate design framework are required in order to minimize rate harm for its remaining customers. On this basis, Naka-NWT proposes to introduce segregating its base rates based on Government and Non-Government customers, as shown in Section 14.3 Attachment 1.

363. Naka-NWT submits that the framework for this proposal, in addition to aligning with NTPC's rate design methodology, aligns with the GNWT's 2017 Electricity Rate Policy Direction (GNWT Policy Direction), which was developed to promote rate stability, gradualism and to allow for greater flexibility in rate design.⁵

364. The GNWT Policy Direction includes guidelines and targets for Revenue-to-Cost (R/C) ratios related to Government and Non-Government customers. The GNWT Policy Direction recommends a target R/C ratio between 80 percent and 110 percent for Non-Government customers, and between 100 percent to 130 percent for Government customers. The objectives of these targets are to reduce cost pressures faced by Non-Government customers and to shift costs to allow the GNWT to pay higher rates. Naka-NWT submits that implementing Government and Non-Government rates, within

⁵ GNWT 2017 Electricity Rate Policy Direction, p. 1.



the recommended R/C ratio ranges, will aid in mitigating significant rate impacts for Naka-NWT's remaining Non-Government customers following the Hay River Disposition.

365. To define customers as Government or Non-Government, Naka-NWT relied primarily on existing rate codes to identify the customers (other than Municipal customers) who receive government subsidies (GREP or TPSP). Any Federal or Territorial customers outside of those rate codes have also been included.

366. As demonstrated in Section 14.3, Attachment 1, Schedule 1, Line 9, the overall rate change in 2025 for the Hydro Zone, post Hay River Disposition, is an increase of 33.0 percent. Naka-NWT has applied a R/C ratio of 130 percent to Government Residential customers and an R/C ratio of 125 percent to General Service Government customers. The resulting R/C ratios for the Non-Government segments are 99 percent and 85 percent for Residential and General Service customers, respectively, which results in both of these segments being within the R/C target ranges, as specified by the GNWT Policy Direction.

367. As a result of segregating the customers between Government and Non-Government and, after applying the recommended R/C ratios, more costs are shifted to Government customers and away from Non-Government customers. As such, the rate increases, for each segment, are reflective of these shifts in costs. Table 14.2 below illustrates the changes in rate increases, within the Hydro Zone, before and after segregating customers between Government and Non-Government and after applying the recommended R/C ratio targets.

	Rate Change				
<u>Hydro</u>	Before	After	Change		
Residential Government	33.0%	72.9%	39.9%		
Residential Non-Government	33.0%	31.5%	-1.5%		
General Service Government	33.0%	66.2%	33.2%		
General Service Non-Government	33.0%	12.4%	-20.6%		

Table 14.2: Hydro Zone Rate Increases F	Post Hay River Disposition
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368. Following the Hay River Disposition, the Thermal Zone is forecast to experience a material rate increase in 2025. Naka-NWT has followed the same process, as described above for the Hydro Zone, and has applied this methodology to the Thermal Zone. Specifically, as demonstrated in Section 14.3 Attachment 1, Schedule 1, Line 16, the overall rate increase, within the Thermal Zone in 2025, is 24.8 percent. Naka-NWT has applied a R/C ratio of 130 percent to Government Residential customers and R/C ratio of 120 percent to Government Service customers.

369. The resulting R/C ratios for the Non-Government segments are 98 percent and 83 percent for Residential and General Service customers, respectively, which results in both of these segments also being within the target R/C ranges, as specified in the GNWT Policy Direction. Table 14.3 below illustrates the changes in rate increases for the Thermal Zone, before and after segregating customers between Government and Non-Government and after applying the recommended R/C ratio targets.

	Rate Change				
Thermal	Before	After	Change		
Residential Government	24.8%	62.3%	37.5%		
Residential Non-Government	24.8%	21.6%	-3.2%		
General Service Government	24.8%	49.8%	25.0%		
General Service Non-Government	24.8%	3.2%	-21.6%		

Table 14.3: Thermal Zone Rate Increases Post Hay River Disposition

370. Naka-NWT has designed Government and Non-Government base rates for its Residential and General Service classes for both the Hydro and Thermal Zones. When designing the base rates, Naka-NWT maintained its currently approved practice of setting the Residential Customer Charge to be \$18 per month and the General Service Demand Charge to be \$10 per kilowatt, regardless of Government or Non-Government status. With this framework in mind, and to be consistent with NTPC's approved methodology respecting Government and Non-Government rate design, the only modification to Naka-NWT's rate structure is related to the energy charge. The energy charge is the only



component that is adjusted to produce the overall required proposed R/C ratios, on a revenue level basis.

371. Naka-NWT has provided a summary of its current base rates, as well as the aforementioned base rates for Government and Non-Government customers for illustrative purposes in Section 14.3, Attachment 1, Schedule 2.0.

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Revenue-to-Cost Summary on Government & Non-Government Proposed Rates

		2025 Government & Non-Government Rate Update							
		Revenue on	2025 Revenue	Revenue on					
Line No.	Rate	Current Rates (\$000)	Requirement (\$000)	Proposed Rates (\$000)	Rev / Cost (%)	Rate Impact (%)			
		Α	В	C	D = C/B	E = C/A-1			
	<u>Hydro (excl. Franchise Tax)</u>								
1	Residential Government	11	14	19	130.0%	72.9%			
2	Residential Non-Government	281	373	369	98.9%	31.5%			
3	General Service Government	118	157	196	125.0%	66.2%			
4	General Service Non-Government	190	253	214	84.5%	12.4%			
5	Large General Service Government	-	-	-	-	-			
6	Large General Service Non-Government	-	-	-	-	-			
7	Street Lights	57	76	76	100.0%	33.0%			
8	Sentinel Lights	16	21	21	100.0%	33.0%			
9	Hydro Subtotal	672	894	894	100.0%	33.0%			
	Thermal								
10	Residential Government	132	165	215	130.0%	62.3%			
11	Residential Non-Government	1,566	1,955	1,905	97.5%	21.6%			
12	General Service Government	668	834	1,001	120.0%	49.8%			
13	General Service Non-Government	773	965	798	82.7%	3.2%			
14	Street Lights	68	85	85	100.0%	24.8%			
15	Sentinel Lights	7	8	8	100.0%	24.8%			
16	Thermal Subtotal	3,214	4,012	4,012	100.0%	24.8%			
	Company Total								
17	Residential Government	143	179	233	130.0%	63.1%			
18	Residential Non-Government	1,847	2,328	2,274	97.7%	23.1%			
19	General Service Government	786	990	1,196	120.8%	52.2%			
20	General Service Non-Government	963	1,217	1,011	83.1%	5.0%			
21	Large General Service Government	-	-	-	-	-			
22	Large General Service Non-Government	-	-	-	-	-			
23	Street Lights	126	161	161	100.0%	28.5%			
24	Sentinel Lights	22	29	29	100.0%	30.6%			
25	COMPANY TOTAL	3,886	4,906	4,906	100.0%	26.2%			

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Government & Non-Government Proposed Rates

Line No. Hydro Rate Zone Current Rates

Hydro Rate Zone Proposed Rates

1	Residential	Curre	nt Rates		Governn	nent Rates		Non-Gover	mment Rates	
2	Component	Customer	Energy		Customer	Energy		Customer	Energy	
3	Customer Charge	\$18.00 / month			\$18.00 / month			\$18.00 / month		
4	Supply Charge		20.94 ¢ / kWh			32.16 ¢ / kWh			20.53 ¢ / kWh	
5	Fuel Charge		11.48 ¢ / kWh			11.48 ¢ / kWh			11.48 ¢ / kWh	
6	Total	\$18.00 / month	32.42 ¢ / kWh		\$18.00 / month	43.64 ¢ / kWh		\$18.00 / month	32.01 ¢ / kWh	
7										
9	General Service	Current Rates			Government Rates		Non-Government Rates			
10			Ene	rgy		Energy			Ene	ergy
11	Component	Demand	For the first 200 kWh per kW of billing demand	In excess of 200 kWh per kW of billing demand	Demand	For the first 200 kWh per kW of billing demand	In excess of 200 kWh per kW of billing demand	Demand	For the first 200 kWh per kW of billing demand	In excess of 200 kWh per kW of billing demand
12	Demand Charge	\$10.00 / kW			\$10.00 / kW			\$10.00 / kW		
13	Supply Charge		10.72 ¢ / kWh	6.09 ¢ / kWh		18.17 ¢ / kWh	10.32 ¢ / kWh		5.99 ¢ / kWh	3.40 ¢ / kWh
14	Fuel Charge		11.48 ¢ / kWh	11.48 ¢ / kWh		11.48 ¢ / kWh	11.48 ¢ / kWh		11.48 ¢ / kWh	11.48 ¢ / kWh
15	Total	\$10.00 / kW	22.20 ¢ / kWh	17.57 ¢ / kWh	\$10.00 / kW	29.65 ¢ / kWh	21.80 ¢ / kWh	\$10.00 / kW	17.47 ¢ / kWh	14.88 ¢ / kWh

18	Large General Service Current Rates				Government Rates		1	Non-Government Rat	es	
19			Ene	rgy		Ene	ergy		Energy	
20	Component	Demand	For the first 200 kWh per kW of billing demand	In excess of 200 kWh per kW of billing demand	Demand	For the first 200 kWh per kW of billing demand	In excess of 200 kWh per kW of billing demand	Demand	For the first 200 kWh per kW of billing demand	In excess of 200 kWh per kW of billing demand
21	Demand Charge	\$16.00 / kW			\$0.00 / kW			\$0.00 / kW		
22	Supply Charge		9.12 ¢ / kWh	1.38 ¢ / kWh		0.00 ¢ / kWh	0.00 ¢ / kWh		0.00 ¢ / kWh	0.00 ¢ / kWh
23	Fuel Charge		11.48 ¢ / kWh	11.48 ¢ / kWh		0.00 ¢ / kWh	0.00 ¢ / kWh		0.00 ¢ / kWh	0.00 ¢ / kWh
24	Total	\$16.00 / kW	20.60 ¢ / kWh	12.86 ¢ / kWh	\$0.00 / kW	0.00 ¢ / kWh	0.00 ¢ / kWh	\$0.00 / kW	0.00 ¢ / kWh	0.00 ¢ / kWh

27	Street Lights	Current Rates				
28	Component	Customer	Demand			
29	Charge	\$12.00 / lamp	11.24 ¢ / watt			
30	Total	\$12.00 / lamp	11.24 ¢ / watt			
32						
33	Sentinel Lights	Current Rates				
34	Component	Customer	Demand			
35	Charge	\$8.00 / lamp	8.96 ¢ / watt			
36	Total	\$8.00 / lamp	8.96 ¢ / watt			
37						
38	Sentinel Lights (M)	Current Rates				
39	Component	Customer	Demand			
40	Charge	\$7.00 / lamp	5.19 ¢ / watt			
41	Total	\$7.00 / lamp	5.19 ¢ / watt			

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Government & Non-Government Proposed Rates

	Thermal Rate Zone Current Rates			Thermal Rate Zone Proposed Rates						
42	Residential	Currei	nt Rates		Governm	Government Rates		Non-Government Rates		
43	Component	Customer	Energy		Customer	Energy		Customer	Energy	
44	Customer Charge	\$18.00 / month			\$18.00 / month			\$18.00 / month		
45	Supply Charge		52.50 ¢ / kWh			79.70 ¢ / kWh			50.26 ¢ / kWh	
46	Fuel Charge		31.65 ¢ / kWh			31.65 ¢ / kWh			31.65 ¢ / kWh	
47	Total	\$18.00 / month	84.15 ¢ / kWh		\$18.00 / month	111.35 ¢ / kWh		\$18.00 / month	81.91 ¢ / kWh	
48 49										
50	General Service	ral Service Current Rates		Government Rates			Non-Government Rates			
51		Energy			Ene	ergy	Energy			
52	Component	Demand	For the first 200 kWh per kW of billing demand	In excess of 200 kWh per kW of billing demand	Demand	For the first 200 kWh per kW of billing demand	In excess of 200 kWh per kW of billing demand	Demand	For the first 200 kWh per kW of billing demand	In excess of 200 kWh per kW of billing demand
53	Demand Charge	\$14.00 / kW			\$14.00 / kW			\$14.00 / kW		
54	Supply Charge		36.94 ¢ / kWh	26.15 ¢ / kWh		53.11 ¢ / kWh	37.60 ¢ / kWh		23.09 ¢ / kWh	16.35 ¢ / kWh
55	Fuel Charge		31.65 ¢ / kWh	31.65 ¢ / kWh		31.65 ¢ / kWh	31.65 ¢ / kWh		31.65 ¢ / kWh	31.65 ¢ / kWh
56	Total	\$14.00 / kW	68.59 ¢ / kWh	57.80 ¢ / kWh	\$14.00 / kW	84.76 ¢ / kWh	69.25 ¢ / kWh	\$14.00 / kW	54.74 ¢ / kWh	48.00 ¢ / kWh
57 58										
59	Street Lights	Currei	nt Rates							
60	Component	Customer	Demand							
61	Charge	\$12.00 / lamp	28.40 ¢ / watt							
62	Total	\$12.00 / lamp	28.40 ¢ / watt							
63										
64										
65	Sentinel Lights Current Rates									
66	Component	Customer	Demand							
67	Charge	\$15.00 / lamp	27.88 ¢ / watt							
68	Total	\$15.00 / lamp	27.88 ¢ / watt							



SECTION 15: DISTRIBUTION RATE AND RIDER ADJUSTMENTS

15.1 Background

372. Naka-NWT is requesting interim approval to update its Rate Adjustment Rider (Rider R) for implementation effective January 1, 2025, in order to begin collection of Naka-NWT's 2025 revenue shortfall on an interim refundable basis. Although Naka-NWT has prepared 2025 forecast revenue requirements, both with and without costs related to Hay River, Naka-NWT has calculated the proposed Rider R based on the shortfall related to the 2025 Revenue Requirement with Hay River.

373. Naka-NWT is proposing a Rider R update which will apply for all customers in the Thermal Zone and the Hydro Zone. Any balances related to Hay River will be distributed to NTPC at the time of the Hay River Disposition. All balances will be trued-up and finalized at the time of the Compliance Filing.

374. Updated Price Schedules are included in Section 15 Attachment 1 - Rider R Schedule.

15.2 Riders for Customers

15.2.1 Rate Adjustment Rider (Rider R)

375. As outlined in Section 1, Naka-NWT is seeking interim refundable approval for the proposed rate increase via the Rate Adjustment Rider, Rider R, which is applicable to each rate class within Naka-NWT's service areas in each of the Thermal and Hydro Zone, effective January 1, 2025.

376. The Revenue Requirement shortfall is the difference between the 2025 revenue requirement amount forecast in this Application and the forecast 2025 revenue amount based on existing rates.

377. At the time of this Application, the Hay River Disposition has not yet occurred, and Naka-NWT will continue to serve the Town of Hay River until at least March 1, 2025. As set out in Schedule 15.1, 2025B, Rider R has been designed to begin collection of <u>70</u>



percent of the 2025 Revenue Requirement shortfall amount in each zone, including Hay River in the Hydro Zone, by setting Rider R to 15.4 percent in the Hydro Zone and 14.5 percent in the Thermal Zone effective January 1, 2025. The detailed derivations of Rider R are provided in Schedule 15.1, with 2025A showing the rider increase without Hay River and 2025B showing the proposed increase with Hay River. Adjustments to the Rider R rates will be finalized in subsequent filings, including after the Hay River Disposition.

15.2.2 Fuel Cost Adjustment Rider (Rider A)

378. Rider A refunds or recovers amounts that are tracked in two deferral accounts:1) the Diesel Fuel Price Variance deferral; and 2) the Hay River Diesel Generation Variance deferral.

379. The Diesel Fuel Price Variance component of Rider A records variances between Board approved fuel prices and actual fuel prices. From 2025 going forward, this deferral account will be based on community-specific plant information in the Thermal Zone, as shown in Schedule 4.1.

380. Since the Hay River Disposition includes the generating assets, Naka-NWT will no longer incorporate the Hay River Diesel Generation Variance deferral in the Rider A balance for remaining customers beyond the Hay River Disposition in 2025. Naka-NWT currently has a Rider A¹ in place which is truing up balances and addressing fuel price variances based on Naka-NWT's 2023 GRA, as well as beginning to collect shortfalls related to the extended Taltson Shutdown. For the purposes of this Application, Naka-NWT proposes to keep Rider A at the currently approved rates and true up any balances in subsequent filings as well as after the Hay River Disposition.

381. Naka-NWT proposes to exclude remaining customers in the Hydro Zone from Rider A going forward after any residual balances have been depleted.

PUB Decision 22-2024.



382. Naka-NWT proposes to set the trigger threshold for changes to the Rider A rate to two percent of the 2025 Revenue Requirement, which translates to approximately +/- \$133,000 in this Application, assuming the Hay River Disposition occurs. The trigger threshold for changes is approximately \$295,000 while Naka-NWT is still providing service to Hay River.

15.2.3 Purchase Power Adjustment Rider (Rider F)

383. Consistent with past approvals, Rider F is used to flow-through costs related to wholesale rate changes in the Hydro Zone, which are tracked in the associated Purchase Power Flow Through deferral account.

384. Naka-NWT currently has a Rider F² in place which is trueing up balances and addressing purchase price variances, based on Naka-NWT's 2023 GRA. The current Rider F is a credit to customers, due to the extended NTPC Taltson Shutdown whereby Naka-NWT has been unable to purchase power.

385. For the purposes of this Application, Naka-NWT is proposing to keep Rider F at the currently approved rates and true up any balances in subsequent filings as well as after the Hay River Disposition.

15.3 Impact to Customers' Bills

386. The impacts of the proposed rider changes on sample residential and commercial customer monthly bills have been determined for each rate zone. An average monthly consumption of 600 kWh has been used for a sample residential customer and 1,000 kWh consumption and 5 kW demand for a sample general service customer. The changes reported in Table 15.1 below include the impacts, as applicable, of the GNWT Rate Equalization Program (GREP) and the Territorial Power Subsidy Program (TPSP) for Non-Government residential and commercial customers.

² PUB Decision 21-2024.



Table 15.1: Impact on Customers' Billsby Rate Zone effective January 1, 2025

	Hydro Zone		Thermal Zone		
Rate Class	(\$)	(%)	(\$)	(%)	
	(φ)	(/0)	(Φ)	(/0)	
Residential ¹					
Non-Government ²	\$1.49	+0.6%	(\$0.00)	-0.0%	
Government	\$17.64	+6.4%	\$65.36	+13.6%	
General Service ³					
Non-Government	\$22.58	+6.1%	\$85.74	+13.1%	
Government	\$22.58	+6.1%	\$94.49	+13.8%	

1. Residential Customer using 600 kWh per month.

2. For Non-Government Customers:

• Residential includes GREP (Thermal Zone only) and TPSP; and

• General Service includes GREP (Thermal Zone only).

3. General Service Customer using 1,000 kWh & 5 kW per month.

15.4 Summary of Riders

387. Table 15.2 below summarizes the applied-for Rider R for the remaining Hydro Zone and Thermal Zone customers effective January 1, 2025, as well as the currently approved Rider A and Rider F rates.

Zone	Rider R %	Rider A \$/kWh	Rider F \$/kWh
	Effective Jan. 1, 2025		
Hydro Zone	15.4	0.1064	-0.0405
Thermal Zone	14.5	-0.0779	

 Table 15.2: Summary of Riders


Effective: 2025-01-01 Supersedes: 2024-07-01

RIDER R RATE ADJUSTMENT RIDER

<u>Available</u>

• Throughout Northland Utilities (NWT) Limited o/a Naka Power Utilities (NWT) service area.

Applicable

• To all classes of service.

Rates

- This Rider is applied to base rates to collect or (refund) the difference between the revenue requirement and approved base rates.
- All of the company's base rate revenue will be adjusted by the following rates:

Hydro Zone	15.4%
Thermal Zone	14.5%

The Terms and Conditions of Service for Naka Power Utilities (NWT) have the approval of the Public Utilities Board of the Northwest Territories. They form part of this rate schedule and apply to the Company and every Customer supplied with electric service by the Company. Copies of the Terms and Conditions are available for reference in the offices of Naka Power Utilities (NWT) during normal business hours and can be accessed at www.nakapower.com.



SECTION 16: DEFERRAL ACCOUNTS

388. Naka-NWT's requested deferral accounts are addressed in Section 1 of the Application.



SECTION 17: BUSINESS CASES

389. Business Cases are provided for all projects greater than \$100,000 in accordance with the Negotiated Settlement approved in Decision 17-2011.¹

390. The Business Cases fall into the following three categories:

(a) 2023 Actual and 2024 Forecast Capital Business Cases

Number	Name
01	Hay River Engine Overhauls
02	Hay River CUL 200 Repairs
04	Wekweèti Fuel Tank
06	Mobile Tie-in Hay River Plant

(b) <u>2025 Capital Business Cases</u> – these projects will be completed and added to the rate base in the Test Year.

Number	Name
03	Fort Providence Engine Replacement
05	Pine Point Protection Upgrade

(c) 2023 Approved Capital - Naka-NWT received a project permit for the following two projects in Decision 12-2024. These projects will be completed outside of the 2024 forecast and 2025 Test Year. Naka-NWT would like to retain approval of the project permits for these projects (Please refer to paragraphs 391 & 392 below for an explanation for the project delays):

Number	Name
2023 Amended GRA, Business Case #11	Sambaa K'e Plant Move
2023 Amended GRA, Business Case #12	Pine Point Transmission Transformer Replacement

17-1 Sambaa K'e Plant Move

391. The Sambaa K'e Plant Move,² approved in the 2023 Amended GRA, has been delayed due to a decision to change the location of the proposed rebuild in order to better meet the community's requirements and future growth. SKFN has clearly communicated

¹ Decision 17-2011, PDF p. 10.

² 2023 Amended GRA, Business Case #11.



to Naka-NWT that the Sambaa K'e Plant must be located outside of the SKFN community to address concerns regarding noise and diesel exhaust. Naka-NWT has worked closely with the community in 2024 to identify several suitable locations. SKFN has also expressed interest in developing renewable generation in the community and has initiated feasibility assessments with a third party. The location of anticipated renewable generation will affect the location of Naka-NWT's new generation plant. It will be most cost effective to integrate any renewable generation near Naka-NWT's rebuilt plant. While SKFN has not finalized its plan regarding construction of renewable generation to Naka-NWT's knowledge, the locations identified will be suitable to accommodate both projects and design and construction should proceed with a target date of 2027 for completion.

17-2 Pine Point Transmission Transformer Replacement

392. The Pine Point Transformer Replacement³ was approved in the 2023 Amended GRA with an expected completion of 2024. This project has been delayed to 2026 due to supply chain delays related to manufacturing timelines. Information on delays was received directly from the manufacturer. Naka-NWT continues to communicate with the manufacturer to gain insight on timeline adjustments.

³ 2023 Amended GRA, Business Case #12.