Yukon Utilities Board
Board Order 2024-05
Appendix A: Reasons for Decision
July 26, 2024
ERRATA

The following is a summary of the corrections for clerical, typographical, and other errors in this Appendix A to Board Order 2024-05:

1. At paragraph 109, at the beginning of the second sentence, “AEY” should be replaced with YEC. The corrected paragraph should read as follows:

   > Accordingly, for the year 2023, YEC is directed in its compliance filing to remove the forecast labour costs associated with the manager of community relations FTE position that remained vacant in December 2023. YEC may include prorated monthly costs for this FTE in its 2024 O&M forecast if YEC confirms that this position has been filled at the time of its compliance filing to this Board Order. If this position has not been filled at the time of the compliance filing, the Board directs YEC to remove the forecast labour costs associated with the FTE position from its 2024 O&M forecast.

2. At paragraph 206, the second sentence should read: “The 40 basis points awarded to YEC reflects that the risk premium awarded to YEC was not greater than the risk premium awarded to FBC.” (footnote omitted) The corrected paragraph should read:

   > Later in that decision, the Board awarded YEC an ROE of 40 basis points above the ROE for the BCUC benchmark utility FEI. The 40 basis points awarded to YEC reflects that the risk premium awarded to YEC was not greater than the risk premium awarded to FBC. (footnote omitted)

3. At paragraph 207, the second through fourth sentences should read: “The Board continues to find that the ROE for YEC for this proceeding shall continue to be not greater than the ROE determined for FBC before the application of OIC 1995/90. Therefore, YEC’s ROE for the 2023 and 2024 test years will be 9.15 percent. YEC is directed to reflect an ROE of 9.15 per cent in its compliance filing to this decision.”

(Footnote omitted) Footnote 107 should read: “BCUC benchmark ROE 9.65 per cent awarded to FBC less 0.50 per cent (OIC 1995/90) equals 9.15 per cent. The corrected paragraph should read:

> In this proceeding YEC has not provided any new information with respect to the asymmetric risks expressed in Appendix A to Board Order 2023-01, Reasons for Decision, nor has YEC presented any information regarding new risks that should be considered since YEC’s 2021 GRA. The Board continues to find that the ROE for YEC for this proceeding shall continue to be not greater than the ROE determined for FBC before the application of OIC 1995/90. Therefore, YEC’s ROE for the 2023 and 2024 test years will be 9.15 percent. YEC is directed to reflect an ROE of 9.15 per cent in its compliance filing to this decision. (Footnotes omitted)

4. Paragraph 208 should read: “Before the application of OIC 1995/90, YEC’s ROE will be 9.65 per cent versus AEY’s approved ROE of 9.50 per cent for the 2023-2024 test period. This confirms that YEC relative to AEY is compensated for higher risks.”

5. Appendix 1 – Summary of Directions (applicable for the compliance filing), Direction 4 should read: “Accordingly, for the year 2023, YEC is directed in its compliance filing to remove the forecast labour costs associated with the manager of community relations FTE position that remained vacant in December 2023. YEC may include prorated monthly costs for this FTE in its 2024 O&M forecast if YEC confirms that this position has been filled at the time of its compliance filing to this Board Order. If this position has not been filled at the time of the compliance filing, the Board directs YEC to remove the forecast labour costs associated with the FTE position from its 2024 O&M forecast.”

6. Appendix 1 – Summary of Directions (applicable for the compliance filing), Direction 11 should read: “In this proceeding YEC has not provided any new information with respect to the asymmetric risks expressed in Appendix A to Board Order 2023-01, Reasons for Decision, nor has YEC presented any information regarding new risks that should be considered since YEC’s 2021 GRA. The Board continues to find that the ROE for YEC for this proceeding shall continue to be not greater than the ROE determined for FBC before the application of OIC 1995/90. Therefore, YEC’s ROE for the 2023 and 2024 test years will be 9.15 percent. YEC is directed to reflect an ROE of 9.15 per cent in its compliance filing to this decision. ..... Paragraph 207

Yukon Utilities Board
Board Order 2024-05

Appendix A: Reasons for Decision

July 12, 2024

ERRATA

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1 Decision summary

1. On August 31, 2023, Yukon Energy Corporation filed a General Rate Application with the Yukon Utilities Board. YEC requested approval of revenue requirements for 2023 ($80.688 million) and 2024 ($89.673 million).

2. The Board has determined that not all of the forecast revenue requirements for the 2023-2024 test period are reasonable and has consequently adjusted or denied specific components of the revenue requirement. Because the revenue requirement is not approved in full, YEC shall submit a compliance filing with respect to its 2023-2024 GRA within 30 days of the issuance of this Board Order.

3. The Board notes that during this proceeding it approved an interim rate rider increase for retail and industrial firm rates effective January 1, 2024, in Board Order 2023-23, and interim fixed charges allocated between Hecla Yukon and VGC Group in that same Board Order. The Board approved a further interim rate increase through Board Order 2024-03 effective August 1, 2024. The compliance filing to this Board Order will finalize the revenue requirement and true up interim rates.

2 Introduction

4. On August 31, 2023, Yukon Energy Corporation (YEC), filed a General Rate Application (GRA, Application) with the Yukon Utilities Board (the Board) pursuant to the Public Utilities Act (the Act) and Order-in-Council 1995/90. The Application sought approval of:

    - The forecast net revenue requirement of $80.688 million for 2023 and $89.673 million for 2024;
    - An increase to Rider J of 4.80 per cent, bringing Rider J to 39.64 per cent, effective October 1, 2023;
    - A further increase to Rider J of 12.02 per cent, bringing Rider J to 51.66 per cent, effective January 1, 2024;
    - Implementation of an interim refundable Fixed Charge for VGC Group of $46,554.84 per month and for Hecla Yukon of $21,295.74 per month effective January 1, 2024;
    - Approval of final rates effective August 1, 2024; and
    - Approval for existing deferral accounts plus the approval of a new IPP Purchase Cost Deferral Account;

5. On September 7, 2023, the Board issued Board Order 2023-19 providing notice of the Application and setting out the following process steps: intervener registration; comments and reply comments on YEC's proposed interim rates; a YEC technical workshop; a round of Information Requests (IRs) to YEC and YEC IR responses; filing

of intervener evidence; IRs and IR responses on intervener evidence; rebuttal evidence; an oral hearing; and written final and reply arguments.

6. Ministerial approval for this proceeding was granted on September 20, 2023.

3 Background

7. YEC is the main generator and transmitter of electrical energy in the Yukon and directly serves over 2,300 customers in and around Dawson City, Mayo, and Faro and two industrial customers.

8. In Board Order 2023-23 (issued October 10, 2023), the Board granted intervener status to ATCO Electric Yukon (AEY), John Maissan, Nathaniel Yee, and the Utilities Consumers' Group (UCG) and provided its ruling on interim rates.

9. Through Board Order 2023-25 (December 22, 2023) the Board ruled on motions for further and better IR responses.

10. The Board held an oral hearing March 4 to 7, 2024, in Whitehorse with some virtual attendance. The parties filed written final and reply arguments, in accordance with the amended process schedule as determined in the oral hearing.

11. The record of this proceeding was closed on April 2, 2024, the date written reply argument was filed by the parties.

12. In reaching the determinations contained within this Board Order, the Board has considered all relevant materials comprising the record of this proceeding, including the evidence and argument provided by each party. Accordingly, references in these reasons for decision to specific parts of the record are intended to assist the reader in understanding the Board's reasoning related to a particular matter and should not be taken as an indication that the Board did not consider all relevant portions of the record with respect to that matter.

13. The Board has determined that not all of the forecast revenue requirements for the 2023-2024 test period are reasonable and has consequently adjusted or denied specific components of the revenue requirement. Because the revenue requirement is not approved in full, YEC shall submit a compliance filing with respect to its 2023-2024 GRA within 30 days of the issuance of this Board Order.

14. The Board notes that during this proceeding, and as referenced in paragraph 3 above, it approved an interim rate rider increase for retail and industrial firm rates effective January 1, 2024, in Board Order 2023-23. A second interim rate increase was approved effective August 1, 2024 in Board Order 2024-03. The compliance filing to this Board Order will finalize the revenue requirement and true up interim rates.

15. In this Appendix, the Board sets out its findings and the reasons for them. In terms of requested revenue requirement, all requests in the Application not specifically addressed in the sections that follow are approved by the Board.

3.1 General directions on GRA process

16. The applicant filed an update to its application the last working day before the start of the oral hearing. Filing an update at such a late date resulted in the parties and the Board having to quickly review the updates in preparation for the hearing. A potential consequence of such a late submission could be that a party might request an adjournment of the hearing because it needed more time to prepare due to the late filing of the updates. However, no party filed such a request. Nonetheless, the late filing of the information resulted in additional questioning and undertakings to ensure that all related information responses were updated. In future proceedings, when the applicant wants to update its application, it should seek approval from the Board and provide a summary of the changes or corrections to the application and IR responses. If the request is approved, when the updated information is filed, the applicant must provide the changes to the pertinent GRA schedules.

17. Secondly, regarding the GRA process, if an applicant is to incur charges in CWIP, even if the project will not be capitalized in the current application test years, the application must contain more information on those projects than just the name of the project and the dollar amount. In future applications, if sufficient information is not provided, the Board may disallow AFUDC or any carrying costs and all impacts on working capital of those projects and may direct such amounts be removed from the revenue requirement.

4 Sales and generation

4.1 Sales

18. YEC is the main generator and transmitter of electricity in Yukon, providing 138-kilovolt (kV) and 69-kV transmission facilities for the Yukon Integrated System (YIS).

19. YEC directly serves about 2,400 customers at the distribution level. Most of its retail customers live in and around Dawson City, Mayo and Faro. Indirectly, YEC also provides power through the YIS to retail customers located in Whitehorse, Carcross, Carmacks, Haines Junction, Ross River and Teslin, Pelly Crossing, and Keno and Stewart Crossing through its wholesale sales to AEY.

20. In 2021, actual firm load supplied to non-industrial customers increased by 3.9 gigawatt hours (GWh) over 2021 approved forecast load. Actual firm non-industrial sales in 2022 was 394.5 GWh, a reduction of 1.6 GWh over 2021 actual sales. For 2023, forecast non-industrial firm sales are 407.7 GWh — an increase of 13.2 GWh over 2022 actuals. The 2023 forecast reflects higher general service (the change of

Minto from industrial to general service and increased wholesales to AEY). Non-industrial firm sales for 2024 are forecast to increase by 11.1 GWh over the 2023 forecast level due to higher general service and wholesale sales.

21. Actual industrial sales for 2021 were 91.1 GWh compared to forecast sales of 102.9 GWh. This was due to lower sales to Victoria Gold (VG) and Hecla partially offset by higher sales to Minto mine. Actual industrial sales for 2022 were 95.2 GWh or 4.0 GWh higher than 2021actuals. Forecast industrial sales for 2023 are 20.1 GWh lower at 75.0 GWh due to the closure of the Minto mine after May 2023. The 2024 forecast industrial sales are 69.4 GWh or a further decrease of 5.7 GWh from the 2023 forecast due, in part, to the reflection of a full year closure of Minto industrial operations partially offset by higher forecast sales to VG and Hecla.

22. Overall, total firm generation load to be supplied by YEC on the YIS was forecast at 538.7 GWh in 2021; actual total firm generation load was 528.3 GWh. Actual total firm generation load in 2022 was 533.7 GWh, and the 2023 test year forecast is 525.5 GWh (a 1.6 percent decrease from 2022 actual). Forecast total firm generation load for the 2024 test year is 531.2 GWh — an increase of 5.7 GWh over the 2023 forecast.[1]

23. Non-firm secondary sales resumed in 2021 due to high water conditions. Actual secondary sales were 4.7 GWh in 2021 and 3.4 GWh in 2022. Secondary sales are forecast to be 2.9 GWh for each of the GRA test years 2023 and 2024.

24. For the purpose of the 2023-2024 GRA test years, hydro and thermal generation forecasts are based on LTA water supply for hydro generation as updated with the latest information.

25. For 2021, based on long-term average (LTA) hydro generation capability, the approved grid generation requirement was forecast to be met with 16 per cent thermal generation. Based on actual 2021 load and LTA hydro supply, LTA thermal generation was calculated at 15 per cent for 2021. Actual 2021 hydro generation was 92.5 per cent of grid generation.

26. In 2022, based on LTA, hydro generation was calculated at 84.9 per cent, IPP production at 0.4 per cent, and thermal at 14.7 per cent of grid generation. Actual 2022 hydro generation was 91.6 per cent of grid generation.

27. For the 2023 and 2024 test period, with firm generation forecast to be 525.5 GWh (2023) and 531.2 GWh (2024)[2], forecast LTA hydro supply is 84.7 per cent (2023 and 84.0 per cent (2024).[3] Forecast IPP supply is 1.2 per cent (2023) and 3.2 per cent

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1 Exhibit 1, Application, pdf pages 27-28.
2 Exhibit 1, Application, pdf page 29.
3 Exhibit 1, Application, pdf page 29.

(2024)[4], with resultant LTA thermal generation expected to be 14.2 per cent[5] (74.5 GWh)[6] (2023) and 12.8 per cent[7] (68.1 GWh)[8] (2024).

28. Actual winter peak generation (including industrial load) was 104.4 MW (2021) and 114.2 MW (2022). Forecast peaks for the GRA test years are 119.5 MW (2023) and 123.2 (2024).[9] Excluding industrial load, forecast winter peaks for the test period are 110.9 MW (2023) and 114.6 MW (2024).[10]

4.2 Firm sales forecast

29. YEC submitted that total forecast sales are 482.8 GWh and 488.2 GWh for the 2023 and 2024 test years, respectively. Total firm forecast sales for 2023-2024 include 351.3 GWh (2023) and 355.9 GWh (2024) of primary firm wholesale sales, 75.0 GWh (2023) and 69.4 GWh (2024) of major industrial sales, and 56.4 GWh (2023) and 62.9 GWh (2024) of firm retail sales (i.e., all firm sales other than wholesale or major industrial).[11]

30. In the table below, approved, actual and forecast sales are shown for the years 2021-2024 from YEC's original application:

Table 1: Summary of energy sales (GWh) 2021-2024[12]

Sales Group	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
Industrial	102.9	91.1	95.2	75.0	69.4
Residential	16.2	17.4	17.3	17.7	18.1
General Service	32.3	29.6	30.7	38.6	44.7
Street & Space Lights	0.2	0.2	0.2	0.2	0.2
Total YEC – Firm Retail & Industrial	151.6	138.3	143.3	131.5	132.3
Wholesales	343.5	349.0	346.3	351.3	355.9
Total YEC - Firm	495.2	487.3	489.7	482.8	488.2
Secondary Sales	0.0	4.7	3.4	2.9	2.9
Total Company	495.2	492.0	493.1	485.7	491.1

Source: Exhibit 1, Application, Table 2.1 PDF page 42.

4 Exhibit 1, Application, pdf page 29.
5 Exhibit 1, Application, pdf page 29.
6 Exhibit 1, Application, pdf page 29.
7 Exhibit 1, Application, pdf page 29.
8 Exhibit 1, Application, pdf page 29.
9 Exhibit 1, Application, pdf page 29.
10 Exhibit 1, Application, pdf page 30.
11 Exhibit 1, Application, pdf page 30.
12 Totals may not add-up due to rounding.

4.3 Wholesale sales forecast

4.3.1 Views of YEC

31. As shown in Table 1 above, YEC energy sales on the YIS are primarily made up of firm wholesale sales to AEY (72.8 per cent in 2023 and 72.9 per cent in 2024).

32. YEC submitted that actual firm wholesales to AEY for 2021 at 349.0 GWh were 5.5 GWh higher compared to the 2021 GRA forecast. The increase was attributed to a colder than normal winter. For 2022, actual wholesales at 346.3 GWh were 2.6 GWh lower than 2021 actual due to warmer weather and the impact of microgeneration.

33. Firm wholesales forecast for 2023 and 2024, based on multi-variate regression assessments of monthly wholesale changes and forecast microgeneration,[13] as shown in Table 1, are 351.3 GWh (2023) and 355.9 GWh (2024). The 2023 forecast is 4.9 GWh (1.4 per cent) higher than 2022 actual and the 2024 forecast is 4.6 GWh (1.3 per cent) higher than the 2023 forecast.

34. YEC stated that in accordance with Board Order 2022-03, for its 2023-2024 GRA, YEC reached out to AEY's regulatory team and provided updates regarding YEC's GRA wholesale forecast. YEC and AEY staff worked to understand forecasting methodology and inputs into their respective forecasts. Each company decided to proceed with its respective forecasts for 2023 and 2024 in the GRAs that have been filed.

35. AEY filed its 2023-2024 GRA with a forecast firm wholesale power purchase of 349.5 GWh (2023) (1.8 GWh lower than YEC) and 362.4 GWh (2024) (6.5 GWh higher than YEC).[14]

36. In this proceeding, YEC reiterated that its forecast was based on a multivariant regression assessments of monthly wholesale change at normal weather conditions using 20-year historical averages (a top-down approach versus the AEY bottom-up approach).

37. YEC added that, with respect to AEY's forecast for seven new commercial customer additions, connections usually do not happen earlier than planned.

38. Regarding Fish Lake hydro production, when asked if YEC has detailed LTA records for Fish Lake, YEC referred to non-specific previous hearings and discussions

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[13] YEC used the same approach for its 2021 GRA, at normal weather conditions using 20-year historical averages, Exhibit 1, Application, PDF page 30.

[14] Exhibit 1, Application, pdf pages 30-31.

between AEY and YEC. YEC further alluded to a Board approval of 8.7 GWh and the Board as not having approved a different number from that.[15]

39. YEC did not offer any updated communication with AEY's future commercial customers (regarding connection dates) nor did YEC provide any evidence that it had any detailed or up-to-date LTA records for Fish Lake hydro production.[16]

40. In argument, YEC stated that its forecast annual increase in wholesales is in line with the historical average and year-to-date actuals, and that the updated full-year forecast for 2023 was within 0.1 GWh of the YEC GRA forecast. For 2024, the connection of seven new commercial loads during the test period was a difference between the AEY and YEC wholesale forecasts. Further, YEC used Fish Lake hydro's previous Board approved forecast as it did not have any available update to LTA Fish Lake hydro generation.[17]

41. In reply, YEC affirmed that both the AEY and YEC wholesale forecasts are reasonable.[18]

4.3.2 Views of interveners

42. Mr. Maissan recommended that the Board accept the YEC sales forecast and said it was consistent with the AEY recent GRA. Mr. Maissan did not make specific comments on the wholesales forecast.[19]

43. The UCG submitted that if the two utilities cannot determine the appropriate common load forecast, then AEY's load forecast should be used to determine YEC's wholesale sales levels for 2023 and 2024 since AEY has the end-user details.[20]

44. As noted by the UCG, AEY "uses end-use and historic community sales data as well as consultation with the City of Whitehorse, Yukon Government and various local agencies and developers… ."[21] The UCG further submitted that YEC, for wholesales, underestimated heating growth patterns and population growth. It concluded that the AEY wholesale estimates are more accurate for the 2024 test year and should be used.[22]

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15 Transcript Volume 4, starting at PDF page 481, line 15 and ending at PDF page 482, line 11.
16 Transcript Volume 4, starting at PDF page 482, line 18 and ending at PDF page 484, line 15.
17 YEC Final Argument, PDF page 10.
18 YEC Reply Argument, PDF page 8.
19 Maissan Final Argument, PDF page 2
20 UCG Final Argument, PDF page 4.
21 UCG Final Argument, PDF page 11.
22 UCG Final Argument, PDF page 11.

45. In reply argument, the UCG disagreed with Mr. Maissan's position regarding the sales forecast and stated "…load forecasting for all ratepaying customers of electricity in the Yukon should be undertaken in a comprehensive way by YEC and AEY in full cooperation, not, as is currently the case, in a piecemeal and inconsistent manner."[23]

4.3.3 Board Findings

46. In Appendix A to Board Order 2024-01, the Reasons for Decision on AEY's 2023-2024 GRA, the Board accepted AEY's forecast for wholesale purchases. In Board direction 2 of that decision, at paragraphs 38 and 39,[24] the Board accepted the YEC wholesale purchases forecast of YEC for 2023 as the Board considered it the most recent and most accurate for 2023. The Board rejected the YEC position for the 2024 forecast year in the AEY 2023-2024 GRA as at that time it had not been fully tested nor had the Board made any determinations on the reasonableness of the YEC wholesales forecast. Further, the Board stated that the approach taken by AEY was superior to an approach of looking at historical averages.

47. The Board finds that the bottom-up approach as taken by AEY for sales forecasts is superior to the method employed by YEC as it takes into account future changes as incorporated through the consultation process that AEY undertakes. YEC does not have visibility, nor should it, of AEY-specific customer plans. Further, it is apparent that YEC does not have detailed LTA records of Fish Lake hydro. AEY is the party best able to provide such a forecast and it is the AEY forecast for Fish Lake hydro that the Board accepts.

48. Therefore, based on the above reasons, YEC, in its compliance filing to this decision, is directed to use the AEY forecast for determining wholesale sales for 2024.

4.4 Major Industrial Sales

4.4.1 Views of YEC

49. YEC stated that VG and Hecla continue to be forecast as major industrial customers for the test period. For 2023, Minto was included as a major industrial customer for January to May of that year. Thereafter, mining operations ceased and the Minto load was converted to care and maintenance as a general service classification.

50. As shown in Table 1 above, actual major industrial sales were 91.1 GWh for 2021 and 95.2 GWh for 2022, and was forecast to be 75 GWh (2023) and 69.4 (2024). The Minto load was 44.1 GWh (2021), 47.9 GWh (2022) and 16.3 GWh (2023). VG load was 36.9

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[23] UCG Reply Argument, PDF page 4.

[24] Appendix A to Board Order 2024-01 PDF page 14, paragraphs 38-39.

GWh (2021) and 37.5 GWh (2022). Forecast VG load for the test period is 43.6 GWh (2023) and 47.6 GWh (2024). Hecla sales were 10 GWh (2021) and 9.8 GWh (2022). The forecast for Hecla is 15.1 GWh (2023) and 21.8 GWh (2024).

51. No sales are forecast under Rate Schedule 35 – Low Grade Ore Processing Secondary Energy Rate and YEC has asked that this rate schedule be discontinued. Peak shaving reductions in revenues related to use of the peak shaving option in Rate Schedule 39 have not been forecast as none of the customers under Rate Schedule 39 have provided six months advance notice to exercise that option. YEC is unaware of any near-term mine loads that could be connected during the test period of this GRA.[25]

52. In final argument YEC submitted that no "material issues regarding the industrial sales forecast were raised in interrogatories or in cross examination at the oral hearing regarding industrial sales forecasts."[26]

4.4.2 Board Findings

53. Based on the details and calculations of the major industrial customer load and the level of mining activity forecast in the 2023-2024 test period as described by YEC in its Application, the Board accepts YEC's forecast for major industrial sales of 75 GWh (2023) and 69.4 GWh (2024). The major industrial sales forecast is uncontested and the changing load patterns as described by YEC are reasonable. The Board approves YEC's request that Rate Schedule 35 – Low Grade Ore Processing Secondary Energy Rate be discontinued as it has never been activated.

4.5 YEC firm retail sales

4.5.1 Views of YEC

54. YEC firm retail sales are comprised of sales to residential, general service, street light and space light customer classes served directly by YEC. YEC explained that residential and general service sales forecasts are based on historical trends and input from YEC staff that is obtained through their work in the communities. Growth in the General Service class, as discussed earlier, is also based in the reclassification of Minto from a major industrial customer to a general service customer. Retail sales are forecast at 56.4 GWh for 2023 and 62.9 GWh for 2024. The Firm retail sales forecast is shown in Table 1 above.

55. Actual residential sales were 17.4 GWh (2021) and 17.3 GWh (2022). Forecast residential sales are 17.7 GWh (2023) and 18.1 GWh (2024). YEC stated that the

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25 Exhibit 1, YEC 2023-2024 General Rate Application, pdf pages 31-32.

26 YEC Final Argument, PDF page 11.

forecast growth is consistent with population growth projections by the Yukon Government and the City of Whitehorse projections.

56. General Service retails sales have projected growths from 29.6 GWh (2021) and 30.7 GWh (2022) to 38.6 GWh (2023) and 44.7 GWh (2024). Two General Service customers account for 51 per cent of the 2024 firm general service forecast sales. Faro Mine remediation is forecast at 9.8 GWh for each of the two test years. Minto Mine care and maintenance is forecast at 8.0 GWh (2023) and 13.1 GWh (2024).[27]

57. No interveners commented on YEC's firm retail sales forecast.

4.5.2 Board Findings

58. Based on the evidence provided and given that there is only a small-to-moderate increase projected in firm retail sales for 2023 and 2024 (with the exception of General service which was explained by the reclassification of the Minto load), the Board finds that the YEC forecast for firm retail sales of 56.4 GWh (2023) and 62.9 GWh (2024) is reasonable and it is approved as filed.

4.6 Secondary Sales

4.6.1 Views of YEC

59. For its 2021 GRA, YEC did not forecast any secondary sales. Due to high water conditions, secondary sales resumed in June of 2021 with actual secondary sales of 4.7 GWh for 2021 and 3.4 GWh for 2022. For the current GRA, YEC has forecast secondary sales of 2.9 GWh for each of the test years.[28]

4.6.2 Views of Interveners

60. Mr. Maissan requested that the Board encourage YEC to explore additional secondary or summer surplus sales.[29] YEC responded that Mr. Maissan's request was outside the scope of YEC's 2023-2024 GRA.[30]

4.6.3 Board Findings

61. Based on the information provided in the Application, the Board accepts YEC's explanation and forecast regarding secondary sales for 2023 and 2024. Accordingly, the Board finds that the forecast amount of 2.9 GWh for the secondary sales for each of 2023 and 2024 is acceptable and approved as filed.

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27 Exhibit 1, YEC 2023-2024 General Rate Application, pdf page 33.
28 Exhibit 1, YEC 2023-2024 General Rate Application, pdf page 34.
29 Maissan Final Argument, PDF page 8.
30 YEC Reply Argument, PDF page 5.

4.7 Generation forecast

4.7.1 Views of YEC

62. YEC forecast that hydro generation was to remain the predominant source of generation for the test period and that it was expected to be supplemented by liquefied natural gas (LNG) and diesel thermal generation as required. Additional generation sources are expected to be purchased by YEC from Independent Power Production (IPP) through the standing offer program (SOP) under the Independent Power Production policy. Table 2, which follows, provides a summary of forecast power generation by source:

Table 2: YEC actual and forecast summary of energy balance, losses, and peak (MWh) (2021-2024)

Description	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
Sales and Losses					
Total Energy Sales	495,151	492,047	493,128	485,706	491,121
Losses - MWh	43,575	41,326	44,362	42,938	43,219
Losses - percent	8.8	8.4	9.0	8.8	8.8
Total Generation	538,726	533,372	537,489	528,644	534,340
Secondary Sales Related Generation	0	5,106	3,745	3,190	3,190
Firm Load Generation	538,726	528,266	533,744	525,454	531,151
Source - MWh					
Hydro Generation					
Whitehorse	259,116	226,420	219,079	280,502	261,359
Aishihik	178,146	192,320	192,146	130,161	125,639
Mayo	71,201	74,498	80,914	71,595	73,895
Total Hydro	508,463	493,239	492,139	482,257	460,893
Wind Turbine	0	0	0	0	0
IPPs	2	2	1,952	6,102	16,811
Diesel Generation					
Whitehorse	1,870	14,505	8,405	5,405	7,923
Faro	237	2,208	6,319	1,780	2,029
Dawson	823	1,798	2,938	987	1,669
Mayo	21	77	184	95	183
Total Diesel	2,951	18,588	17,846	8,267	11,804
LNG Generation	27,309	21,545	25,552	32,017	44,833
Total Thermal	30,260	40,134	43,398	40,285	56,636
Source per cent					
Hydro Generation	94.4	92.5	91.6	91.2	86.3
LNG Generation	5.1	4.0	4.8	6.1	8.4
Diesel Generation	0.5	3.5	3.3	1.6	2.2
IPP Generation	0.0	0.0	0.4	1.2	3.1
LTA Generation					
LTA Hydro	452,796	449,960	453,157	444,871	446,246
LTA Wind	0	0	0	0	0
IPP	2	2	1,952	6,102	16,811

LTA Thermal	85,930	78,306	78,635	74,480	68,095
Total LTA Generation	538,729	528,269	533,744	525,454	531,151
Peak					
Integrated System	112.7	104.4	114.2	119.5	123.2

Source: Exhibit 1, Application, Table 2.2, PDF page 43.

63. Total generation is based on the sum of total sales plus line losses, which are forecast at 8.8 per cent for both 2023 and 2024. The line losses are calculated at the YEC grid load level as the variance between metered generation and sales. Actual line losses were 8.4 per cent (2021) and 9.0 per cent (2022).

64. As stated by YEC, the YIS has 92.1 MW of installed YEC hydro generation capacity of which approximately 71.1 MW can be relied upon for the winter peak.

65. YEC further submitted that, per Section 3 of OIC 2021/16, forecast fuel costs included in rates for thermal generation to meet customer requirements are to be based on LTA annual renewable resource availability and therefore for the 2023-2024 test years, hydro and thermal generation are based on LTA water supply for hydro generation plus available information for IPPs.

66. From Table 2, LTA forecast hydro generation numbers relative to forecast generation amounts show that YEC expects higher than LTA water levels for the test period and therefore higher than LTA hydro generation. However, YEC uses LTA for GRA forecasting purposes.

67. YEC explained the YIS operates with Whitehorse as first dispatched generation (excluding Fish Lake) as it is considered a run-of-river plant. Mayo, as it is similar to Whitehorse (run-of-river), generally stacks second to Whitehorse. Aishihik is used for topping purposes. When Aishihik is at capacity, thermal units are dispatched. When thermal is operating, Aishihik provides spinning reserve and provides coverage for the largest thermal unit on line.

68. YEC added that the predominance of hydro generation on the Yukon system, combined with the fact that Yukon is isolated from other grids outside the territory, creates special seasonal and multi-year conditions that vary with YIS loads. It was noted that the YIS faces winter constraints as only Aishihik and, to a lesser extent, Mayo, have seasonal storage capabilities. Further, systems that are predominantly hydro-based are vulnerable to low-water conditions (drought) and require supplemental thermal generation.

69. For the 2023-2024 GRA test years, YEC's modelling of LTA annual hydro availability was updated using: records for 41 water years (from the previous 38 years of water records); updated generation station and reservoir water flow requirement changes; updated load curves reflecting changes to non-industrial and industrial load shapes; IPP impacts; and Whitehorse generation station changes.

70. In this application, YEC assumed a thermal generation mix of 90 per cent LNG and 10 per cent diesel stating that this thermal fuel mix was used in the 2017/18 and 2021 GRAs. YEC also assumed some thermal generation operation for maintenance purposes.[31]

71. Regarding line losses, YEC stated that the forecast line losses for the test years (8.8 per cent) is the same level as that used for the 2021 GRA and is in line with the historical losses from the years 2020-2022.[32]

4.7.2 Views of interveners

72. The UCG argued that "…holding the line losses at the 8.6% mark is consistent with a public utility wanting to protect their ratepayer resulting in an increased revenue requirement …"[33] and asked the Board to direct YEC to take a proactive approach to improve power quality and line voltage to reduce line losses.

4.7.3 Board Findings

73. The Board accepts the rationale and prepared forecast for generation for the 2023 and 2024 GRA test years. The Board finds that YEC has, since the Application, updated its forecast for IPP supply (March 1, 2024) and directs YEC to reflect those changes in its compliance filing to this decision. No contrary evidence has been provided regarding line losses. The Board accepts the line loss forecasts provided by YEC as reasonable and approves the line losses as applied for by YEC. The Board noted the request by the UCG for YEC to proactively look to improve power quality and line voltage to reduce line losses. The Board does not accept the UCG request as it considered YEC's evidence that it looks for opportunities to reduce line losses when economically feasible[34] and finds the YEC practice acceptable and expects YEC will continue with that practice.

4.8 Peak demand forecast and dependable capacity

4.8.1 Views of YEC

74. After recording peak demand capacities of 104.4 MW (2021) and 114.2 MW (2022), YEC is forecasting peak demands of 119.5 MW (2023) and 123.2 MW (2024).

75. YEC stated it uses an econometric model which utilizes input data such as historical sales and energy data by customer class, economic activity, population projections, electricity prices, end use efficiency and standards improvements, and system

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31 Exhibit 1, YEC 2023-2024 General Rate Application, PDF pages 34-37.
32 YEC Reply Argument, PDF page 11.
33 UCG Final Argument, PDF page 20.
34 Transcript, Volume 2, PDF page 210, line 18 to PDF page 211, line14.

design temperature to create its long-term peak forecast. The model also considers Yukon's climate change strategy, particularly with respect to electrification, electric vehicles, and heat pumps. YEC added that it continues to consult with stakeholders in regard to developing its load forecasts and peak forecasts.[35]

76. Using its two capacity planning criteria,[36] YEC stated that, under the N-1 criteria, YEC will have a surplus dependable capacity of about 0.7 MW (2023) and 0.0 MW (2024) if YEC rents 36 MW of diesel units. Without rental diesels, the N-1 capacity shortfall is expected to be 35.3 MW (2023) and 36 MW (2024).

4.8.2 Board findings

77. For the 2023-2024 GRA test years, the Board is satisfied with the methods, models and communications employed by YEC with respect to the peak demand and dependable capacity projections. The Board approves, for each of 2023 and 2024, YEC's forecast peak demand.

5 Operation and maintenance expense

5.1 Fuel and purchased power

5.1.1 Views of YEC

78. Fuel and purchased power costs were set out by YEC in Section 3.2 of its application. The following table depicts YEC's historical and forecast fuel and purchase power costs:

Table 3: YEC Fuel and purchase power costs ($000)

	Approved 2021	Actual 2021	Actual 2022	Forecast 2023	Forecast 2024
Fuel	15,289	12,618	14,725	15,122	13,831
Purchased Power	53	49	326	1,150	3,136
Total	15,882	12,667	15,051	16,272	16,967

Source: Exhibit 1, Application, Table 3.2, PDF page 52.

35 Exhibit 1, YEC 2023-2024 General Rate Application, PDF pages 38-41.

36 The two planning criteria are: 1 – Loss of load expectation (LOLE), a probability-based measure to evaluate the maximum loads that the WAF system can safely carry by identifying the potential interruption of service for any customer. 2 - single contingency N-1, standard which determines system capacity assuming the loss of the system's single largest generating or transmission-related generation resource.

79. YEC submitted in its application that increases in fuel costs were primarily due to increased fuel prices and the increased costs for purchased power were due to forecast purchases from IPPs.

80. Regarding fuel costs, YEC stated that fuel costs are based on forecast LTA hydro and thermal generation. The thermal portion of fuel costs are assumed to be supplied by a combination of 90 per cent LNG and 10 per cent diesel generation. The same thermal ratio was used in YEC's 2021 GRA. Fuel costs also include requirements for use of fuel for maintenance purposes (0.198 GWh/year, cost is $0.061 million/year).[37] There are no maintenance LNG fuel costs forecast in each of the test years.

81. YEC's forecast fuel prices are as follows:

Table 4: YEC forecast fuel prices

	2023 ($/litre)	2024($/litre	Efficiency (kW.h/litre)	Cost ($/kW.h)
LNG-Whitehorse	0.4917	0.4917	2.58	0.1906
Diesel-Whitehorse	1.1043	1.1043	3.69	0.2993
Diesel-Faro	1.1415	1.1415	3.48	0.3280
Diesel-Dawson	1.1698	1.1698	3.78	0.3095
Diesel-Mayo	1.1496	1.1496	3.70	0.3107

Source: Derived from Exhibit 1, Application, PDF page 53.

82. The overall forecast grid efficiency is 3.65 kW.h/litre. The average cost per kW.h of diesel for YEC's 2023-2024 GRA is $0.3069/kW.h.

83. Regarding purchase power costs, YEC purchases power from AEY at the Marsh Lake Control Structure and Johnson's Crossing. Purchases from AEY are forecast to be $0.051 million (2023) and $0.053 million (2024).[38]

84. Additionally, YEC forecasts purchases from IPPs at $1.099 million (2023) and $3.085 million (2024).[39] Total purchased power costs (from AEY and IPPs) for the test years are forecast at $1.150 million (2023) and $3.085 million (2024).[40]

85. YEC disagreed with Mr. Maissan's recommendation that the Board consider a more realistic blended fuel price than the 90/10 ratio proposed by YEC. YEC stated that OIC 2021/16 requires the blended fuel price to reflect the expected fuel mix for LTA thermal generation used for setting rates. YEC expects that in drought or low water years LNG will be heavily used (well in excess of 90 per cent) and in high water years YEC expects that use of diesel will exceed 10 per cent. YEC submitted that, as part of

37 Exhibit 1, Application, PDF pages 51-52.
38 Exhibit 1, Application, PDF page 54.
39 Exhibit 1, Application, PDF page 54.
40 Exhibit 1, Application, PDF page 54.

its ongoing resource planning process, it will continue to assess the LTA blended fuel ratios.[41]

5.1.2 Views of interveners

86. Mr. Maissan submitted that the actual track record of LNG generation is substantially below the LTA blend requested by YEC. Mr. Maissan added that if YEC is conservative in its estimates of the LTA fuel blend to reduce ratepayer financial burdens from IPP contracts, it should be more realistic about the real blended fuel price.[42]

5.1.3 Board Findings

87. As noted in other parts of this decision, YEC is to adjust its wholesales forecast to match that approved for AEY wholesale purchases. This in turn affects YEC's forecast generation and fuel costs for this test period. YEC is directed to incorporate that change and the updated YEC forecast for IPPs in terms of its forecast fuel costs and purchase power costs in the compliance filing to this decision.

88. On a unit-cost basis, the Board accepts and approves YEC's forecast fuel costs/litre (delivered prices for 2023 and 2024 for LNG and diesel), YEC's forecast efficiency (for LNG and diesel for each test year), and derived costs ($/kW.h) for LNG and diesel for each test year as shown in Table 4 above.

89. The Board shares the concern expressed by Mr. Maissan regarding the blended fuel ratio of 90/10 (LNG/diesel) and directs YEC to demonstrate, at the time of its next GRA, that the blended thermal ratio proposed by YEC is the correct LTA blended fuel mix.

5.2 Non-fuel operating and maintenance expense

5.2.1 Overview

90. YEC requested approval to include non-fuel operating and maintenance (O&M) expenses forecast to be $34.999 million in revenue requirement for the year 2023 and $37.484 million for the year 2024. This represented a $6.43 million (or 23 per cent) increase in 2023 costs compared to 2021 approved O&M expenses, and an $8.91 million (or 32 per cent) increase in 2024 costs compared to 2021 approved O&M expenses.

91. YEC's recent approved, actual, and forecast non-fuel O&M expenses are shown in the following table:

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41 YEC Reply Argument, PDF page 7.

42 Maissan Final Argument, PDF page 4.

Table 5: Non-fuel Operating and Maintenance expenses

	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
	$ millions				
Labour	13.016	13.167	13.675	15.183	16.079
Production	5.636	5.285	6.269	7.797	9.491
Transmission	1.394	1.387	1.221	1.159	1.439
Distribution	0.491	0.399	0.516	0.705	0.426
General O&M	1.391	1.353	1.408	1.437	1.347
Administration	3.858	4.170	4.505	5.155	4.892
Insurance and reserve for injuries and damages	2.039	2.166	2.491	2.805	3.033
Property taxes	0.750	0.739	0.743	0.758	0.777
Total non-fuel O&M expenses	**28.575**	**28.667**	**30.828**	**34.999**	**37.484**

Source: Exhibit 1, Application, Table 3.3, PDF page 55.

92. The $6.43 million increase in O&M expenses between 2021 approved and 2023 forecast is comprised of labour cost increases in the amount of $2.17 million and non-labour cost increases in the amount of $4.26 million.

93. The $8.91 million increase in O&M expenses between 2021 approved and 2024 forecast is comprised of labour cost increases in the amount of $3.07 million and non-labour cost increases in the amount of $5.84 million.

94. YEC explained that a large portion of increases in its non-labour O&M (excluding diesel rental costs) cost between 2021 approved and 2024 forecast was attributable to increases in costs for insurance (35 per cent), administration (40 per cent) and production (22 per cent).

95. The forecast non-fuel O&M increases at issue in the current Application are discussed in more detail in the sub-sections which follow.

5.2.2 Views of YEC on Labour expense

96. YEC's labour costs are made up of expenditures for its ongoing operating, maintenance, and administration activities as well as labour that is charged to capital projects that form a component of rate base upon which return and depreciation expense is calculated. In its application,[43] YEC adjusted its capital versus maintenance labour allocations from the percentages approved in 2021 (a ratio of 17.2 to 82.8, capital to maintenance) to the allocation forecast for 2023 and 2024, that being a ratio of 17.9 to 82.1 capital to maintenance for 2023, and a ratio of 18.4 to 78.6 capital to maintenance for 2024.

[43] Exhibit 1, Application, PDF page 63. The Board notes that YEC's forecast 2024 ratio of 18.4 to 78.6, capital to maintenance does not add to100.

97. The labour costs forecast for the 2023 and 2024 test years are net of vacancy factor adjustment of 9 FTEs for each test year based on the 5-year average.

98. In its response to Undertaking #22, YEC stated that its actual vacancy rate for 2023 was 12.21 as compared to the GRA forecast of 9.00 because there were more vacant positions than forecast. As a result, YEC incurred more overtime hours[44] on an actual basis than forecast in the GRA.

5.2.3 Views of interveners

99. In argument, the UCG submitted that labour cost increases should reflect inflationary adjustments only and that those overall costs must be limited by how many employees YEC is allowed to include in revenue requirement. UCG also argued that YEC's request to increase its employee complement was unsubstantiated and there was no evidence indicating more FTE's resulted in a decrease in forecast overtime costs as a per cent of total labour costs.[45]

100. The UCG's concern was with what it termed "mushrooming" labour costs, administrative costs, and "high tech management programing",[46] while continuing to use expense outside consultants to perform duties that the UCG asserted were the responsibility of YEC employees.

101. Mr. Maissan stated that, with respect to YEC's goal of improving First Nation and public engagement, relationships and communication, and being the main impetus for requiring additional employees, YEC should be required, at the time of its next GRA, to provide information addressing the success of the initiatives being undertaken during the 2023-2024 test period.[47]

5.2.4 Views of YEC on FTEs and vacancy rate

102. YEC's 2024 forecast labour expense increased by $3.07 million from 2021 approved labour costs. Within this amount, an increase of $1.89 million was related to a rise in YEC's forecast FTEs and the remaining labour expense increase of $1.204 million was due to other factors impacting labour such as changes in overtime, vacancies, capital allocation, and an escalation in labour rates.

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44 YEC response to Undertakings, March 12, 2024, Undertaking #22, PDF page 71: "Actual overtime hours for 2023 were 1,240 hours as compared to a GRA forecast of 866 hours."

45 UCG reply argument, PDF page 10.

46 UCG final argument, PDF page 16.

47 Maissan reply argument, PDF page 2.

Table 6: YEC employee complement history

	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2023 Actual	2024 Forecast	2024 Actual (March 6, 2024)
President & corporate services	4.16	4.07	3.20	3.10	3.34	3.10	3.33
Government relations	1.00	1.00	1.00	1.17	1.00	2.00	2.00
Business development	-	-	1.00	1.00	1.00	1.00	1.00
Communications & customer service	3.60	3.60	3.60	4.43	4.60	3.60	4.15
People & culture	1.00	1.00	1.00	2.00	2.00	2.00	2.00
Resource planning, environment, health & safety	8.05	8.04	9.80	10.60	11.10	11.13	11.90
Finance, procurement and IT	19.04	19.10	20.13	19.29	19.41	20.29	20.83
Operations	48.25	49.89	50.74	51.96	51.45	53.20	54.08
Engineering services	15.50	15.16	16.56	20.50	19.75	23.50	23.25
Total FTEs	**100.60**	**101.86**	**107.03**	**114.05**	**113.65**	**119.81**	**122.54**
Vacant FTEs	8.00	8.99	12.62	9.00	12.21	9.00	5.25
Filled FTEs	92.60	92.87	94.41	105.05	101.44	110.81	117.29
Total FTEs	**100.60**	**101.86**	**107.03**	**114.05**	**113.65**	**119.81**	**122.54**

Source: YEC response to Undertakings, March 12, 2024, Undertaking #22, PDF page 71.

103. YEC argued that its test year increases in FTE complement and labour expenses are reasonable and required for YEC to address the full range of its responsibilities and challenges, and to reduce overtime costs. More labour resources are required to direct, plan, execute, and oversee the way it does business, to meet the needs of larger projects, to connect new customer extensions and distributed energy sources to the grid, and to meet greater stakeholder expectations and involvement in the way YEC's work is done.[48]

104. In its March 1, 2024, opening statement and application update, YEC confirmed that only one position, manager of community relations, FTE forecast to be hired by YEC in 2023 remained vacant at that time. YEC speculated that the position might "optimistically"[49] be filled in April of 2024.

105. All other vacancies had been filled, excluding the summer students who would not be hired until approximately May 2024.[50]

5.2.5 Views of YEC on Labour escalators

106. YEC stated that its proposed labour rate escalators of 4.5 per cent in 2023 and 3.0 per cent are intended to be applied to both in-scope and out-of-scope employees. This is consistent with prior forecasting practices. The applied-for 2023-2024 labour

48 YEC Final Argument, PDF pages 7 and 16-18.
49 Transcript, Volume 3, PDF page 33.
50 Exhibit 10, YEC Opening Statement and Summary Updates, PDF page 11.

escalators are based on YEC's 2023-2025 collective agreement, which was ratified by the Union in early November 2023.

107. YEC further explained that, while its employees are not considered Yukon government employees, the Yukon government collective agreement heavily influences the negotiations between YEC and its union. Furthermore, the Yukon government is considered the most applicable labour-market comparator. In all recent YEC collective agreements, arbitration/mediation resulted in YEC wage rate adjustments exactly equal to Yukon government wage rate adjustments.[51]

5.2.6 Board Findings

108. Based on its examination of the evidence and the testimony given at the oral hearing on the current state of YEC's labour force, the Board accepts YEC's forecast FTE complement, but does not consider it reasonable for YEC to collect the labour costs for the one manager of community relations FTE forecast to be hired by YEC during 2023. This position remained vacant throughout 2023 and was not a confirmed hire at the time of the hearing or submission of YEC's Argument on March 9, 2024.

109. Accordingly, for the year 2023, YEC is directed in its compliance filing to remove the forecast labour costs associated with the manager of community relations FTE position that remained vacant in December 2023. YEC* may include prorated monthly costs for this FTE in its 2024 O&M forecast if YEC confirms that this position has been filled at the time of its compliance filing to this Board Order. If this position has not been filled at the time of the compliance filing, the Board directs YEC to remove the forecast labour costs associated with the FTE position from its 2024 O&M forecast. (* *Correction to this paragraph)*

110. The Board finds YEC's request for an in-scope and an out-of-scope labour escalation of 4.5 per cent and 3.0 per cent for 2023 and 2024, respectively, to be reasonable as the escalators are based on YEC's 2023-2025 collective agreement which was ratified by the Union in early November 2023. The Board accepts that applying the respective escalation to both in-scope and out-of-scope employees is consistent with YEC's prior forecasting practices. Therefore, these escalators are approved. Further, given that YEC's proposed capital versus maintenance labour allocation for 2024 (a ratio of 18.4 to 78.6) does not add to 100, YEC is directed to apply its 2023 ratio of 17.9 to 82.1 capital to maintenance which is the ratio approved by the Board.

111. With respect to other matters, the Board found YEC's response to Undertaking #22, wherein YEC restated its table of employee complement history to include information respecting actual hired FTEs and vacancies, to be helpful. Given that, during the oral hearing, YEC requested suggestions on how its current table of

[51] YEC final argument, PDF page 16.

employee complement history could be improved upon,[52] YEC is encouraged to report such information in this manner in its future applications.

112. Further, the Board will not direct YEC to provide an update with respect to its success in improving First Nation and public engagement, relationships, and communication, as rationale for increased 2023-2024 employee complement, as requested by Mr. Maissan. However, the Board considers it to be in YEC's interest to provide as much information as it can relating to these objectives in future regulatory proceedings, given that the onus is, and remains, with the applicant to support all forecasts that inform its revenue requirement.

5.2.7 Views of YEC on Production expense

113. YEC forecast its total labour and non-labour production costs for 2023 and 2024 in the amount of $13.490 million (2023) and $15,525 million (2024). This was an increase of $3.052 million for 2023 over 2021 approved costs of $10.438 million and an increase of $2.035 million for 2024 over 2023.

114. Approximately 29 per cent of the forecast increase in 2023 (over 2021 approved) is due to increased labour costs and about 24 per cent of the forecast increase in 2024 over 2023 forecast is also due to higher labour costs. Non-labour production costs are forecast to increase by $2.161 million in 2023 over the approved 2021. For 2024, YEC has forecast an increase of $1.694 million over the 2023 forecast. YEC submitted that 86 per cent, or $3.315 million, of the non-labour production expense increase (2024 over 2021) is due to diesel generation related expenses from increased diesel rental costs. Production costs are shown in the following table:

Table 7: Production costs ($000)

	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
Labour	4,802	5,076	5,051	5,693	6,034
Diesel	4,028	4,113	4,614	5,639	7,343
LNG	410	85	197	382	407
Hydro	1,082	941	1,064	1,345	1,311
Wind	0	0	0	0	0
Operation Supervision	116	146	394	430	430
Total production costs	10,438	10,360	11,320	13,490	15,525

Source: Exhibit 1, Application, Table 3.5, PDF page 64.

115. As shown above in Table 7, YEC's diesel costs have increased by $3.315 million between 2021 approved ($4.028 million) and 2024 forecast ($7.343 million). YEC stated that the costs of renting 20 mobile diesel units (excluding spares) for the test

[52] Transcript, Volume 3, PDF page 30.

period over the approved costs of renting 15 units (excluding spares) for 2021 was required in order to satisfy dependable capacity shortfalls under N-1 conditions.[53]

116. Specifically, diesel rental costs are forecast at $5.004 for 2023 and $6.761 million for 2024. The 2021 approved diesel rental costs were $3.492 million. Thus, diesel rental costs increased by $1.512 million for 2023 forecast over 2021 approved costs. Diesel rental costs are expected to increase by $1.757 million for 2024 forecast over the 2023 forecast. When comparing 2024 forecast costs over 2021 approved costs, YEC stated that, of the $3.3 million variance between the two years (2021 versus 2024), $2.1 million is due to rental cost increase (average rental costs of $0.233/diesel rental unit in 2021 versus $0.338 million average diesel rental cost/unit 2024). The remaining $1.2 million cost increase for that period is due to the requirement of five additional diesel rental units in 2023 and 2024. YEC provided a business case assessment for its diesel rentals in Appendix 3.1 of its application.[54]

117. In its final argument YEC stated:

- The diesel rental equipment that YEC is currently renting is the only known rental option available to YEC, and the diesel rental equipment currently rented is not considered prudent for capital spending.
- The time to complete planning and implementation activities for purchase of new diesels is beyond the current test period.
- Delays in completion of other capacity projects have changed the rented diesel requirements beyond those identified in the 10-year renewable Electricity Plan.
- YEC could not lock in a future sales price of purchased diesel units when the Moon Lake project was in service, possibly resulting in stranded costs.
- Based on environmental trends, diesel units acquired today may be unsellable tomorrow.

118. YEC also provided levelized cost of capacity calculations showing that, in the near term, renting diesels is the better option.[55]

119. YEC noted that that the need for 20 diesel rentals to meet the forecast dependable capacity shortfall during 2023 and 2024 was not disputed and that YEC could respond to an emergency event during the test years, notwithstanding the need to

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53 Exhibit 1, Application, PDF pages 63-64.
54 Exhibit 1, YEC 2023-2024 General Rate Application, PDF pages 64-65.
55 YEC Final Argument, PDF page 24.

use the installed diesel rental capacity that exceeds permitted capacity for normal operations.[56]

120. Distinguishing between continued short-term needs to meet N-1 dependable capacity criteria during these test years and YEC's long-term planning to address future dependable capacity is critical and fundamental to the diesel rental question. YEC submitted that the development of new permanent capacity takes time, prudent planning, securing permitting, local First Nation support, and necessary funding commitments from government.[57]

121. Up until the 2023-2024 GRA, YEC was of the view that diesel rental units were required on a temporary basis until such projects as the Battery Energy Storage System (BESS), Atlin Energy Purchase Agreement (EPA), and Phase 1 and 2 of the Moon Lake Storage Projects were completed, commissioned, and operational. However, since YEC's 2021 GRA, YEC has determined that the BESS project is delayed from its original forecast operation date (2022). Also, the Moon Lake Storage Project is currently not feasible to move forward in the foreseeable timeframe and the likelihood of the Atlin EPA proceeding is in question.

122. YEC added that practical constraints (timing and planning) from when it was realized that some of the permanent projects would not proceed as planned prevented YEC from submitting more permanent solutions to the diesel rental option for this GRA. In light of these constraints, YEC is developing an Electricity Supply Plan for capacity solutions in the next five to 10 years, and is also working on a longer-term Resource Plan.[58]

123. In its reply argument, regarding Mr. Yee's submissions on unpermitted capacity, YEC stated that:

> … if there is any conflict between any specific provisions of the Environment Act and YEC's overarching statutory duty under the section 106 of PUA to provide service to customers, YEC's duty under section 106 of the PUA must, as a practical matter, be interpreted as taking precedence over the provisions of the Environment Act – at least during an emergency event that engages the exemption from assessment under section 49 of YESAA.[59]

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56 YEC Final Argument, PDF page 21.
57 YEC Final Argument, PDF page 21.
58 YEC Final Argument, PDF page 23.
59 YEC Reply Argument, PDF page 22.

124. YEC later added that the Board does not need to decide such interpretive questions regarding the relationship between the PUA and the Environment Act for a GRA proceeding.[60]

125. YEC did not dispute Mr. Yee's assertion of 2.3 MW of unpermitted diesel capacity at Mayo secondary thermal plant, or the assertion of 5.1 MW of unpermitted diesel capacity at Faro. YEC disagreed with Mr. Yee's assertions for Whitehorse and stated "… the correct figure for the amount of diesel rental capacity in excess of YEC's permitted capacity that is needed to close the N-1 capacity gap and that YEC is seeking to include in revenue requirements in Whitehorse is 10.55 MW…"[61] making the total unpermitted diesel rental capacity included in YEC's revenue requirement to be 17.95 MW.

126. YEC stated there is nothing new about the fact that there is a difference between YEC's permitted diesel capacity for normal operations and the additional diesel capacity that YEC needs to rent to meet N-1 dependable capacity requirements. Under section 49 of YESAA, the practical option to prevent harm to public welfare, health, and safety during an emergency, and to meet YEC's statutory obligation under section 106 of the PUA to provide service to customers, is to exceed its permitted operating capacity when and if it becomes necessary to do so. Under those conditions, YEC is required to report such incidents to Environment Yukon.

5.2.8 Views of interveners

127. Mr. Maissan argued that YEC requires a new YEC-owned 20 MW diesel plant as a better option for ratepayers in the long term.[62] In reply argument, Mr. Maissan noted that, for a new thermal diesel plant, YEC could build on the work already completed for replacements in Whitehorse, Faro, and Dawson to shorten the timeline.[63]

128. The UCG argued that YEC's slow response to diesel refurbishment and replacement has cost and will cost ratepayers in inflationary terms. The UCG requested that replacement/refurbishment diesel costs be held in WIP (work-in-progress) until true costs are accounted for and updated.[64]

129. Mr. Yee provided extensive argument regarding permitted capacity for YEC's diesel units at the Faro, Mayo and Whitehorse locations. Mr. Yee discussed his, YEC's, and

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60 YEC Reply Argument, PDF page 22.
61 YEC Reply Argument, PDF page 22.
62 Maissan Final Argument, PDF page 11.
63 Maissan Reply Argument, PDF page 3.
64 UCG Final Argument, PDF page 19.

the Yukon Department of Environment's positions and referenced certain sections of the Environment Act. Mr. Yee made the following recommendation on this matter:

> YEC's need for capacity does not exempt it from it from regulation, and should not be accepted by the Board as rationale for including unauthorized capacity in costs. Similarly, YEC's stated commitment to contravening the terms of it's permits is also not acceptable as rationale for including unauthorized capacity in costs. As previously noted, a rates hearing is not the appropriate forum for YEC to be arguing for capacity that has not been authorized by Environment Yukon.[65]

130. On the issue of unauthorized capacities, Mr. Yee concluded that YEC was using 21.8 MW (5.1 MW Faro, 2.3 MW Mayo, 14.4 MW Whitehorse) of unauthorized capacity to meet its N-1 requirement. The recommendation from Mr. Yee is that any costs related to capacity that exceeds permitted limits should be disallowed.[66]

131. A final issue identified by Mr. Yee related to the capacity ratings of YEC diesel units. It was Mr. Yee's view that the uprating of certain units was inconsistent with the age of the unit and other evidence presented that noted the need for repairs on several units. Mr. Yee recommended that the uprates presented by YEC in the GRA should not be counted towards YEC's N-1 capacity requirement.[67]

5.2.9 Board Findings

132. As noted in Section 4 of this Board Order, the Board has ruled on YEC's sales forecast and accepted YEC's forecast peak demand and dependable capacity. For production costs, no issues were identified by the Board or interveners regarding labour, hydro, LNG, or operation supervision costs. The Board has reviewed the information for these items and finds the costs reasonable and approves those costs as requested.

133. Regarding diesel costs, YEC has submitted that the diesel rental units represent the bulk of that cost category. YEC provided support for its diesel rental costs in Section 3.3.2 of the Application and its business case in Appendix 3.1 of the Application, as well as in its IR responses.

134. The Board has previously expressed several concerns regarding YEC's commitment to the rental diesel option and the quality of YEC's business cases. For example,

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65 Yee Final Argument, PDF page 9.
66 Yee Final Argument, PDF pages 10-11.
67 Yee Final Argument, PDF pages 12-14.

concerns were expressed in Appendix A to Board Order 2022-03 (YEC's 2021 GRA),[68] and in the Board's report regarding the YEC-THELP EPA.[69]

135. In this proceeding, YEC provided a business case regarding the rented diesels. However, in the Board's view the business case contained certain shortcoming. For example, YEC compared the purchase cost of new, more environmentally friendly, Tier 4 diesel units to the rented diesel units which meet a lower standard (Tier 2) and effectively have a lower comparable cost.[70] Secondly, when looking at a Tier 4 diesel unit, from an emissions and efficiency perspective, YEC accepted and continues to accept the lower Tier 2 performance of the rental units and did not include in its analysis a cost-benefit comparison between Tier 2 and Tier 4 diesel units and thus the effect on the LCOC of the diesel rental unit option.[71]

136. At the time YEC entered into the diesel rental agreements, it was YEC's view that the BESS project, the Atlin EPA, and the Moon Lake projects would proceed according to forecast timelines. In accordance with those timelines, YEC was of the view that N-1 capacity constraints existed in the short-term and that those short-term constraints were best resolved through short term rentals of diesels. The Board agrees that, based on the forecast timelines of the other clean energy projects, a short-term solution for the N-1 capacity shortfall was required. However, it now appears that YEC's forecast timelines for the above-mentioned projects were ambitious. In future, the Board expects YEC to provide stronger evidence regarding the timelines for such projects.

137. Mr. Yee has provided substantial comment on permitted capacity and whether ratepayers should pay for costs related to unpermitted capacity. Mr. Yee also commented on YEC's elasticity when determining the capacity rating of several of its thermal units. These submissions do not provide evidence the Board is able to use to determine the revenue requirement for YEC to provide safe and reliable electric service at rates that are in the public interest. It is incumbent upon YEC to ensure it has all required regulatory approvals, processes, and assets in place to provide that safe and reliable service. Regarding the capacity issues raised, YEC is directed, in its future applications, to provide a strong industry based and accepted approach on what the manufacturers accept as criteria and evidence for uprating thermal generation units. This can be based on documented industry standards.

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68 Appendix A to Board Order 2022-03, PDF page 28, paragraph 115.

69 YUB report to Yukon Minister of Justice on YEC EPA with Tlingit Homeland Energy LP, PDF pages 37-40.

70 Exhibit 2, YUB-YEC-1-37 (g), PDF page 333.

71 Exhibit 2, YUB-YEC-1-44 (d, e), PDF pages 353-354.

138. In this proceeding, YEC has proven that a capacity shortfall exists on the YIS unless additional capacity is added. The Board accepts that in the short term, the only solution is rental diesel units. Therefore, the Board approves the rental costs for diesel units that YEC has applied for in this application.

5.2.10 Transmission and distribution brushing costs and the Deferred Vegetation Management Account

139. In the sub-sections which follow, the Board discusses YEC's transmission and distribution brushing costs and YEC's deferred vegetation management account.

5.2.10.1 Views of YEC on Transmission and distribution brushing costs

140. As reflected in Table 8 below, other than labour related costs, YEC's forecast 2023-2024 transmission and distribution expense consist primarily of brushing activities forecast to cost $1.368 million in each of 2023 and 2024. YEC's 2023-2024 forecast brushing costs reflected a $0.055 million increase each year compared to its actual 2021 costs. YEC's significantly lower actual 2022 brushing costs were the result of challenges in completing the forecast work due to wildfires, contractor availability and mechanical breakdowns.[72] Given that YEC did not contemplate that the challenges experienced in 2022 would persist into the test years, it forecast costs more in line with those brushing costs approved by the Board in 2021.

Table 8: Transmission and distribution costs

	2019 Actual	2020 Actual	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2023 Actual (preliminary)	2024 Forecast
	$ millions							
Total transmission and distribution costs								
Labour			1.303	1.346	1.235	1.409		1.430
Brusing cost	1.176	1.365	1.388	1.313	1.092	1.368	1.339	1.368
Other non-labour			0.498	0.474	0.645	0.497		0.498
Total	**n/a**	**n/a**	**3.188**	**3.133**	**2.972**	**3.273**	**n/a**	**3.295**
Year over year changes for brushing costs only:								
Year over year increase (decrease) to 2021 approved					(0.300)	(0.020)	(0.050)	(0.020)
Year over year increase (decrease) to 2021 actual					(0.230)	0.060	1.300	0.060
Year over year increase to 2022 actual						0.280	0.250	0.280

Source: Exhibit 1B, Tab 3 Tables, Table 3.6 – Transmission and Distribution Costs; year over year comparisons prepared by the Board.

[72] Exhibit 2, Consolidated IR responses, YUB-YEC-1-50, PDF pages 407-409.

2019 Actual, 2020 Actual, and 2023 Actual (preliminary) brushing costs were provided orally by YEC in response to Undertaking #24 in Transcript, Volume 4, PDF page 462-463.

5.2.10.2 Views of interveners

141. The UCG submitted that YEC's forecast reduction to brushing costs was "miniscule." Given the lack of evidence supporting that brushing practices have reduced outages, it was unclear how YEC's forecast costs were substantiated. UCG recommended that that YEC be directed to return all over-charges for bushing in past years to ratepayers.[73]

142. Mr. Maissan did not address brushing costs in either final argument or reply argument.

5.2.10.3 Board Findings

143. The Board did not find the UCG submissions on brushing costs to be helpful in making its decision on these costs.

144. The Board accepts YEC's explanation for the variances noted between the 2021 and 2022 actual brushing costs and the 2023-2024 forecast costs. However, the Board finds that YEC's preliminary 2023 actual brushing costs reflect the most accurate information available to the Board at this time and, for this reason, approves $1.339 million in brushing costs for each of YEC's 2023 and 2024 test years. YEC is directed to update its combined transmission and distribution brushing costs to $1.339 million in each of 2023 and 2024 in its compliance filing to this Board Order. For 2023, YEC is further directed to allocate these costs between its distribution and transmission functions based on the actual costs incurred. For 2024, YEC is directed to use the allocation per cents found in its Tab 3 schedules.[74]

5.2.10.4 Views of YEC on deferred vegetation management account

145. In Board Order 2013-01, respecting YEC's 2012-13 GRA, the Board directed YEC to hold distribution and transmission vegetation management costs greater than 2011 actual brushing costs of $0.502 million in a newly created Vegetation Management Deferral account. In Board Order 2018-10, respecting YEC's 2017-18 GRA, the Board approved the amortization of the 2016 balance of $2.215 million for this account over a period of 10 years (or $0.222 million per year from 2017 to 2026) and directed that the deferral of these costs is no longer required. During the years 2021-2022, YEC continued to amortize the remaining deferred vegetation management costs at the approved amount of $0.222 million per year. In the current application, based on the continued amortization using the approved amount of $0.222 million per year, the

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73 UCG reply argument, PDF page 10.

74 Exhibit 1B, Tab 3 Tables, Table 3.6.1 – Brushing costs.

2024 closing balance of the deferred vegetation management costs is forecast to be $0.443 million as reflected in the table below:

Table 9: Deferred vegetation management continuity schedule

	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
	$ millions				
Opening balance	1.329	1.329	1.108	0.886	0.655
Annual deferred costs	-	-	-	-	-
Annual amortization	(0.222)	(0.222)	(0.222)	(0.222)	(0.222)
Closing balance	**1.108**	**1.108**	**0.866**	**0.665**	**0.443**

Source: Exhibit 1B, Tab 3 Tables, Table 3.14.2.

5.2.10.5 Board Findings

146. The Board approves YEC's continued amortization of the balance in its Deferred Vegetation Management account in the amount of $0.222 million for the years 2023 and 2024.

5.2.11 Views of YEC on General O&M – SCADA (Supervisory Control and Data Acquisition) communication costs

147. As shown in Table 10 below, after two years of reduced spending in 2021 and 2022, YEC forecast significant increases in its SCADA communication costs for 2023-2024.

148. When asked[75] for an explanation for the lower actual spending in 2022, YEC did not attribute the lower costs to any particular factor. YEC instead provided reasons for the comparatively higher actual costs in 2021 (which were still incurred in an amount lower than its approved 2021 forecast) as due to activities such as replacing battery models and purchasing parts and materials for work on its satellite network, backup SCADA communications, and camera programs.

149. When asked if the reasons for the decrease in actual 2022 costs would persist into the test period, again, YEC did not provide a response. YEC explained, however, that in developing its 2023 forecast, past reasons for incurring SCADA communication costs were to address the resource needs of the IPP program. With respect to its anticipated 2024 costs, YEC identified forecast activities similar to those described as being incurred in 2021.

[75] Exhibit 2, Consolidated IR responses, YUB-YEC-1-51(d)(e), PDF pages 410-411.

Table 10: General O&M – SCADA communication costs

	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
	$ millions				
SCADA communication	0.238	0.167	0.082	0.236	0.249

Source: Information extracted from Exhibit 1B, Tab 3 Tables, Table 3.8.

5.2.11.1 Board Findings

150. The Board finds that YEC has not provided sufficient support or rationale for the levels of either of its historic (2021 and 2022) SCADA communications costs in comparison to its forecast (2023 and 2024) SCADA communications costs. This is because there is a gap in the explanations for the costs incurred in 2021 and why the costs were so much lower in 2022, and a further disconnect between the rationale for YEC's 2023 forecast costs and what appears to be a completely different rationale for YEC's 2024 forecast costs.

151. The Board observes YEC's assertion that "costs incurred in one year do not necessarily imply what costs should be in a prior year or future years as the costs can vary in any given year for several reasons"[76] is problematic for the following reasons. First, it appears to support the poor quality of the information provided by YEC in its IR responses. Second, it excuses the need for any specific explanation of the reasons for the variances in historical actual costs when compared to test year forecast costs.

152. A further complicating factor is the Board's observation that YEC indicated its 2023-2024 IPP sales forecast and expected in-service dates have been delayed. In the Board's view, it follows that the related SCADA communication costs are unlikely to be incurred.[77]

153. For these reasons, the Board does not accept YEC's forecast 2023-2024 SCADA communication costs. The Board will limit YEC's SCADA communication costs to the costs incurred on an actual basis in 2021, in the amount of $0.167 million. It is this amount that the Board finds YEC provided the most support for and, accordingly, will use YEC's actual 2021 SCADA communication costs as a reasonable proxy for YEC's 2023-2024 forecasts.

154. YEC is directed to revise its forecast SCADA communication costs to the amount of $0.167 million in each of 2023 and 2024 in its compliance filing to this Board Order.

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[76] Exhibit 2, Consolidated IR responses, YUB-YEC-1-51(d)(e), PDF pages 410-411.

[77] YEC 2023-24 GRA - YEC Opening Statement and Updates, PDF page 9.

5.2.12 Views of YEC on Administration O&M - Environmental

155. As shown in Table 11 below, after two years of reduced spending in 2021 and 2022, YEC forecast significant increases in its environmental costs for 2023-2024.

Table 11: Administration O&M – Environmental

	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
	$ millions				
Environmental Management	0.535	0.392	0.329	0.819	0.798

Source: Information extracted from Exhibit 1B, Tab 3 Tables, Table 3.9.

156. When asked for an explanation for the lower actual spending in 2021, which continued through 2022, YEC explained that environmental management costs vary on an annual basis "largely based on studies and ecosystem monitoring components that change from year to year."[78] YEC provided no further specifics other than to note that, in 2021, the forecast environmental monitoring costs associated with an emergency allowance related to low water was not reached and thus YEC did not incur the expenses associated with environmental monitoring that would otherwise have been incurred.

157. YEC also stated that, in some cases, capital project demands resulted in "discretionary or deferrable O&M work not being completed leaving the forecast underspent."[79] This was the case in 2022 where "some of the planned environmental studies and ecosystem monitoring costs associated with the Aishihik Generating Station were deemed to predominately support capital planning activities and therefore, while the work was conducted, a portion of the costs were allocated to capital projects and a portion to ongoing O&M obligations, depending on the specific scope of work."[80]

158. Environmental costs forecast for 2023 in the amount of $0.819 million include: additional costs related to the new Aishihik water use licence; the Faro air quality monitoring program and the related environmental costs that were deferred (from 2022) until 2023; and monitoring programs for the Aishihik generating station ($0.400 million) and the Mayo generating station ($0.025 million to $0.100 million); and lastly, the Faro air/noise monitoring program ($0.085 million to $0.100 million). YEC made no mention of any programs or related costs that informed its 2024 forecast costs in the amount of $0.798 million.

78 Exhibit 2, Consolidated IR responses, YUB-YEC-1-52(a)(b), PDF pages 412-414.
79 Exhibit 2, Consolidated IR responses, YUB-YEC-1-52(a)(b), PDF pages 412-414.
80 Exhibit 2, Consolidated IR responses, YUB-YEC-1-52(a)(b), PDF pages 412-414.

5.2.12.1 Board Findings

159. In the prior section, the Board took note of YEC's apparent indifference to the fluctuating nature of its SCADA communication costs. The Board similarly takes issue with certain of YEC's statements in respect of its forecast environmental costs, and YEC's general lack of supporting information for these costs.

160. For example, YEC asserts that, specific to its budgeting process for non-labour O&M costs, there is a rigorous process of building forecasts from the bottom up.[81] This is in stark contrast to its later statements that "the way we do our accounting is when a cost is incurred, we look at how should it be accounted for rather than how was it budgeted. If something was originally thought it would be an O&M item but, upon further review, the work was capital in nature, meets the criteria for capitalization, we would record it as a capital item."[82]

161. Further, YEC has characterized its ability to freely move costs between O&M and capital costs as stemming from being "required to report our financial statements in accordance with international financial reporting standards. We are audited. We are required to do the proper accounting."[83]

162. The Board takes no issue with YEC reporting its financial statements in accordance with international financial reporting standards.

163. However, YEC's statements, when taken in the context of rate regulation and the Board's mandate to ensure just and reasonable rates, indicate a lack of insight with respect to YEC's onus to fully support all forecast costs that inform its regulated revenue requirement.

164. In this regard, the Board finds that YEC has not supported the accuracy of its 2023-2024 forecast environmental costs. For this reason, the Board limits YEC's 2023-2024 forecast environmental costs to the average amount incurred on an actual basis in 2021 and 2022, in the amount of $0.361 million.[84]

165. YEC is directed to revise its forecast environmental costs to the amount of $0.361 million in each of 2023 and 2024 in its compliance filing to this Board Order.

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81 Transcripts, Volume 6, PDF page 48.
82 Transcripts, Volume 6, PDF page 57.
83 Transcripts, Volume 6, PDF page 59.
84 Calculated as ($0.392 million + $0.329 million)/2 = $0.361 million.

5.2.13 *Insurance costs and Reserve for Injuries and Damages (RFID) account*

166. In the sub-sections which follow, the Board discusses YEC's Insurance costs and Reserve for Injuries and Damages account.

5.2.13.1 Views of YEC on Insurance costs

167. As illustrated in Table 12 below, YEC forecast its 2023-2024 insurance costs in the amount of $2.190 million and $2.417 million, respectively. As can be seen in the table, there were no increases forecast for YEC's reserve for injuries and damages (RFID) annual appropriation amount.

Table 12: Insurance costs and Reserve for Injuries and Damages (RFID)

	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
	$ millions				
Insurance	1.423	1.550	1.875	2.190	2.417
Reserve appropriation (RFID)	0.616	0.616	0.616	0.616	0.616
Closing balance	**2.039**	**2.166**	**2.491**	**2.805**	**3.033**
Year over year increase (decrease) to 2021 approved			0.452	0.767	0.994
Year over year increase (decrease) to 2021 actual			0.325	0.640	0.867
Year over year increase to 2022 actual				0.315	0.542

Source: Exhibit 1B, Tab 3 Tables, Table 3.10; year over year comparisons prepared by the Board.

168. YEC's application provided significant detail respecting the noted increases in its insurance costs. Costs in 2023 increased due to the mid-year market rate adjustments and increasing insured asset values. Costs in 2024 increased due to the full year impact of the 2023 rate increase. YEC stated that the market rate increases it experienced as part of its 2023 renewal process is consistent with peer Canadian utilities.

169. YEC outlined the actions it took in recent years to keep its insurance premiums as low as possible while still providing sufficient coverage:[85] [86]

- Engaged an industry leading insurance broker to obtain best results from the insurance market;

[85] Exhibit 1, Application, PDF page 72.
[86] Exhibit 2, Consolidated IR responses, YUB-YEC-1-53(a)(b)(c), PDF pages 415-416.

- Hosted site visit events for various insurers to demonstrate YECs O&M practices;
- Proactive presentations to insurers of YEC's positive risk management practices;
- Reduced the participation of a property insurer to obtain a lower overall rate increase;
- Participated in a peer group of risk managers to share industry best practices and relevant insurer or broker issues;
- Increased the deductible on property insurance from $0.500 million to $1.000 million to limit the rate increase caused by market conditions and recent claims.

5.2.13.2 Board Findings

170. Based on the evidence before it, the Board finds that YEC has supported its forecast 2023-2024 insurance expense in the amount of $2.190 million and $2.417 million, respectively, and approves these amounts. The Board continues to direct YEC to provide evidence of its continued efforts to achieve the appropriate amount of insurance at the most reasonable cost available at the time of its next GRA.

5.2.13.3 Views of YEC on Reserve for Injuries and Damages (RFID) account

171. In its Application, YEC stated that its Board-approved RFID account is maintained to address uninsured and uninsurable losses as well as the deductible portion of insured losses. This allows for a balance between purchasing additional insurance as opposed to using a self-insurance mechanism such as the RFID. The RFID account also allows for the costs of unforeseen events to be smoothed out over a number of years in order to provide rate stability for YEC's ratepayers.

172. In Board Order 2022-03 respecting YEC's 2021 GRA, the Board approved an annual appropriation of $0.616 million for YEC's RFID account. The amount was comprised of an annual appropriation of $0.411 million and the amortization of a 2020 negative balance (of $2.050 million over a period of ten years) in an annual amount of $0.205 million.

Table 13: Reserve for Injuries and Damages (RFID) Continuity Schedule

	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
	$ millions				
Opening balance	(2.048)	(1.756)	(1.953)	(3.343)	(3.281)
Annual appropriation	0.616	0.616	0.616	0.616	0.616
Net annual costs	(0.411)	(0.813)	(2.006)	(0.554)	(0.682)
Closing balance	**(1.843)**	**(1.953)**	**(3.343)**	**(3.281)**	**(3.347)**

Source: Exhibit 1B, Tab 3 Tables, Table 3.11.1.

173. With respect to YECs annual appropriation, as noted in the table above, there were no increases forecast for YEC's $0.616 million annual appropriation amount (as approved in 2021) for the 2023-2024 test period. YEC stated it held the annual appropriation amount at $0.616 million for the test period in order to "limit the overall rate increase requirement."[87]

174. YEC further stated that: "Increases in RFID annual appropriations are proposed only to the extent accommodated by updates or YUB decisions that reduce other forecast revenue requirements."[88]

175. Specifically, in the event that 2024 test year costs are reduced by updates or Board directions, YEC proposed that the RFID annual appropriation, starting in 2023, be increased from $0.616 million per year to the lesser of:[89]

> (a) a level consistent with the YEC's applied-for 2024 required rate increase of 14.12 per cent and
>
> (b) $1.016 million per year (which is the level consistent with a normal GRA adjustment to reflect the 10-year average RFID charge plus amortization over 10 years of the opening RFID balance at the start of the first test year).

176. With respect to YEC's net annual costs, YEC explained that the $2.006 million in actual 2022 costs were the result of claims associated with the Whitehorse penstock failure, LNG gearbox failure, Dawson diesel coupling failure, flood mitigation, and the Mayo rock slop failure.

177. YEC's forecast net annual costs of $0.554 million in 2023 and $0.682 million in 2024 were determined based on YEC's 10-year average of annual charges to the RFID account.

5.2.13.4 Views of interveners

178. With respect to YEC's proposal to increase its RFID appropriation amount as a function of the Board's potential findings, the UCG submitted there was insufficient information to justify YEC's proposal and recommended that the status quo should remain until the YEC is able to provide enhanced accountability for any changes.[90]

179. Mr. Maissan made no recommendations with respect to YEC's RFID account.

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87 Exhibit 1, Application, PDF page 73.
88 Exhibit 1, Application, PDF page 71.
89 Exhibit 1, Application, PDF page 73.
90 UCG Reply Argument, PDF page 17.

5.2.13.5 Board Findings

180. The Board notes that YEC has outlined a proposal requesting that if any Board findings change YEC's applied-for 2024 revenue requirement this should, in turn, lead to an adjustment to YEC's forecast RFID appropriation amount. The Board finds that there has been no information placed on the record that would inform the Board as to the point at which "updates or YUB decisions that reduce other forecast revenue requirements" should or would trigger YEC's request to update its annual appropriation amount.

181. Accordingly, the Board is unable to establish the bounds upon which YEC's request could be implemented and, for this reason, denies YEC's request that the RFID appropriation amount be automatically updated in the event of certain Board findings. The Board accepts YEC's applied-for RFID appropriation forecast within its RFID continuity schedule as the annual appropriation amounts and the net annual costs as forecast for each of 2023 and 2024 as shown in Table 13 above.

6 Depreciation and amortization expense

6.1 Views of YEC on depreciation and amortization expense

182. YEC forecast total depreciation and amortization expense in the amounts of $11.997 million in 2023 and $15.161 million in 2024.[91] This expense is comprised of depreciation on YEC's fixed assets, the amortization of the associated fixed asset contribution amounts, the amortization of fire insurance recoveries and disallowed depreciation, and the amortization of YEC's deferred charges (including intangibles) as summarized in the following table:

Table 14: Summary of YEC historical and forecast depreciation and amortization expense (2021-2024)

	Approved 2021	Actual 2021	Actual 2022	Proposed 2023	Proposed 2024
	$ millions				
Fixed asset depreciation	13.436	14.927	13.310	14.301	15.545
Less: Amortization of contributions	(5.912)	(6.085)	(5.122)	(5.656)	(5.834)
Sub-total net fixed asset depreciation expense	**7.524**	**8.842**	**8.188**	**8.645**	**9.873**
Less: Amortization of fire insurance recoveries	(0.262)	(0.262)	(0.262)	(0.262)	(0.262)
Less: Disallowed depreciation	(0.238)	(0.416)	(0.718)	(0.044)	(0.044)
Plus: Amortization of deferred charges	5.608	5.529	3.886	3.657	5.479
Total depreciation and amortization expense	**12.631**	**13.692**	**11.094**	**11.997**	**14.883**

Source: Prepared from information in YEC's response to Undertaking #23, Table 3.14, PDF page 15.

[91] Exhibit B-1, Application, Table 3.14, PDF page 77.

183. Increases in depreciation expense compared to the 2022 actual expense was the result of growth in mid-year rate base largely related to the commencement of depreciation on several large capital additions.

184. In 2023, the capital additions included the following projects: Transmission Line Replacement L178 project; 2023 Mayo-Faro Diesel Infrastructure; the previously denied capital costs for the WH2 Uprate Construction; and Engineering, WH4 Servomotor Replacement, and EAM projects.

185. In 2024, the capital additions include the following projects: a portion of the Thermal Replacement (16.5 MW); the Whitehorse Interconnection; further work on the Transmission Line Replacement L178 project; the Whitehorse Stoplog Crane Replacement; the capitalization of the Aishihik 5-Year Water Use Licence Renewal and Southern Lakes Enhanced Storage projects; and the PAMMS Asset Management Framework project.

6.2 Views of interveners

186. The UCG argued that the increases in YEC's forecast depreciation expense was fueled by rising costs for capital projects (including those portions of the projects related to capitalized labour), deferral accounts, and feasibility studies, and requested the Board to "have a close look at this driver to hold the YEC accountable."[92]

187. Mr. Maissan provided no argument with respect to YEC's forecast depreciation expense.

6.3 Board Findings

188. The Board has examined YEC's forecast depreciation expense calculations and generally finds them to be reasonable subject to the following concerns. Specifically, in YEC's Tab 7 schedules, namely Schedule 3A – Calculation of Depreciation Expense and Schedule 3B – Calculation of Amortization Expense for Deferred Costs and Intangibles, for each of 2023 and 2024, the Board observes on Schedule 3A, there are generally no working formulae contained in the column of the schedule where the forecast depreciation expense is shown. In Schedule 3B, there are often formulae, but the calculations do not appear to reflect any amortization of deferred costs or intangibles on current year additions.

189. In order to provide parties and the Board with more fulsome and detailed information respecting the calculation of YEC's forecast 2023-2024 depreciation expense, in its compliance filing, YEC is directed to file a revised Schedule 3A, in which it will insert

[92] UCG Final Argument, PDF pages 15 and 16.

a column indicating the depreciation rate being used, and to include working formulae in the column of the schedule where the forecast depreciation expense is being calculated, including the forecast depreciation expense on current year additions. Further, YEC is directed to file a revised Schedule 3B to include working formulae in the column of the schedule where the forecast amortization expense is being calculated, to ensure the calculation of the forecast depreciation expense on current year additions.[93]

190. In addition to the directions in the preceding paragraph, the Board directs YEC to recalculate its Schedule 3A and Schedule 3B depreciation expense, among other things, based on the incorporation of any Board-directed changes to dates and costs that impact each of forecast capital expenditures and capital additions, and any other direction that may result in a change to YEC's depreciation or amortization expense calculation.

191. Accordingly, subject to the directions in the above paragraphs, and any Board findings and directions made elsewhere in this Board Order, YEC's proposed depreciation expense for the years 2023 and 2024 is approved as reasonable.

7 Return on rate base

192. YEC's rate base is financed by two main sources of capital: long-term debt and shareholder equity. For this Application, YEC forecast an average cost of debt of 3.31 per cent (2023) and 3.43 per cent (2024)[94] and a return on equity of 8.70 per cent, giving an average cost of capital of 5.47 per cent (2023) and 5.54 per cent (2024).

193. Details regarding YEC's return on rate base were provided in sections 3.5 and 8 of the application.

7.1 Cost of debt

7.1.1 Views of YEC on cost of debt

194. YEC forecast new debt issues of $34.679 million for 2023 and $26.738 million for 2024. The rate for the new debt issues for both test years is expected to be 4.23 per cent and is based on the long-term Canada bond rate plus 120 basis points. In

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93 In its response in YEC's 2021 GRA, in Exhibit B-5, YUB-YEC-1-109(b), PDF pages 506-514, that "… YEC calculates depreciation in accordance with international Financial Reporting Standards. Each asset is depreciation monthly based on its costs. For forecast depreciation, the methodology is the same as it provides the most accurate forecast. As stated in part (a), this forecast is system generated. Our understanding is this is not a change from previously approved YEC depreciation expense calculation methodology."

94 Exhibit 1E, YEC 2023-2024 General Rate Application – Tab 7 Schedules, Schedule 11.

accordance with the direction from Board Order 2018-10, YEC used the Government of Canada Long-Term Bond Benchmark of 3.03 per cent from March 30, 2023.[95]

195. In response to argument from the UCG, YEC stated the assertions of the UCG are not accurate and should be disregarded. The approach to cost of new debt taken by YEC is in accordance with Board Order 2018-10 and is formulaically set based on long-term rate on Canada Bonds plus 120 basis points. However, the Mayo B Promissory Note has certain terms which can cause the cost of debt to vary based on maximum grid load.[96]

7.1.2 Views of interveners

196. The UCG submitted that YEC borrows money from themselves or from their shareholder, Yukon Development Corporation, and receives a premium bond interest rate. The alleged debt premium increases the final revenue requirement. The UCG view is that this structure lowers YEC business operations risk.[97]

7.1.3 Board Findings

197. The Board has reviewed the record of this proceeding including Tab 7 schedules 4 and 11. The method for setting the cost of debt and the corresponding calculation of cost of debt are consistent with Board Order 2018-10. The Board approves YEC's 2023-2024 forecast cost of debt of 3.31 per cent for 2023 and 3.43 per cent for 2024 as reasonable, as these percentages were determined using the Board-approved methodology. The Board does not accept the position of the UCG on this issue as YEC has forecast its cost of long-term debt in accordance with Board direction.

7.2 Capital structure

7.2.1 Views of YEC on capital structure

198. Capital structure was discussed in section 3.5 of the application. YEC proposed to maintain its existing capital structure of 60 per cent debt and 40 per cent equity. In the current proceeding, there was no evidence to suggest that a change from the 2021 approved capital structure (the existing capital structure) was required for 2023-2024 test years.

7.2.2 Board Findings

199. The Board approves YEC's capital structure of 60 per cent debt and 40 per cent equity for the 2023-2024 test years as reasonable and consistent with past practice.

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95 Exhibit 1, YEC 2023-2024 General Rate Application, PDF page 82.
96 YEC Reply Argument, PDF page 18.
97 UCG Final Argument, PDF page 14.

7.3 Return on equity (ROE) and risk premium

7.3.1 Views of YEC on ROE and risk premium

200. YEC provided its submissions on ROE in sections 3.52 and 8 of its Application. In those submissions YEC proposed to continue with the British Columbia Utilities Commission (BCUC) benchmark utility ROE. Consistent with past practice, YEC requested the Board to continue to acknowledge that the business risk premium for YEC be higher than that for AEY. The application referenced 8.70 per cent as the return for the BCUC benchmark utility. However, it was noted in the AEY 2023-2024 GRA proceeding that the benchmark rate was changed to 9.65 per cent[98] and that that rate applied to both Fortis Energy Incorporated (FEI), a gas utility, and FortisBC (FBC), an electric utility.

201. YEC referenced Board Orders 2017-01 and 2018-10 as support for a risk premium of 45 basis above the BCUC benchmark utility (FEI), stating there is no reasonable basis to conclude that YEC's risk premium is not greater than FBC's. YEC further added that whatever determination is made in the AEY proceeding regarding risk premium, YEC's risk premium should be higher than AEY's.[99]

202. In response to UCG argument, YEC said the UCG submissions are without merit and should be disregarded by the Board. Specifically, YEC noted that the UCG mistakenly referenced total revenue requirement and not return on rate base and compared 2021 actual instead of 2021 approved amounts in its submission. Further, YEC submitted that the UCG brought forward recommendations not based on evidence, or any information brought forward in this proceeding.[100]

7.3.2 Views of interveners

203. In its argument, the UCG stated that the rate of return is unsustainable and that the return should be, at the very most, 9.15 per cent.[101] The UCG further argued that NWT utilities may be a better comparator than BCUC utilities. Additionally, costs for deferred projects such as Atlin Lake storage, Southern Lakes capacity, and Mayo Lake storage have accumulated significant costs that are, in the UCG's view, unwarranted and should be recovered from the shareholder.[102]

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98 AEY 2023-2024 GRA, Exhibit B-9, response to direction 4, Attachment 1, starting at PDF page 153. BCUC GCOC Stage 1 Decision and Order (G-236-23 Stage 1) and Stage 2 Order (G-6-24).

99 YEC Final Argument, PDF pages 32-34.

100 YEC Reply Argument, PDF pages 18-19.

101 BCUC rate of 9.65 percent less 0.50 percent per OIC 1995/90 equals 9.15 percent.

102 UCG Final Argument, PDF pages 12-13.

7.3.3 Board Findings

204. The Board considered that when YEC was asked in an IR if the information in the Application with respect to ROE existed during YEC's 2021 GRA, YEC responded yes.[103] This is indicative to the Board that YEC's risk profile has not changed since YEC's 2021 GRA determinations.

205. The Board determined in Board Order 2023-01 that:

> The Board finds that relative to FortisBC (Electric), YEC does face some incremental risk with thermal production costs for incremental loads than first determined by the Board in Board Order 2022-03. However, whereas the evidence from YEC has been that FortisBC (Electric) had a revenue-sharing account for revenues from incremental loads (or a flow-through account through PBR), YEC does not share any revenue from incremental loads. Therefore, the Board concludes, based on the submissions of this proceeding and the public record of the BCUC decisions brought forward by YEC, that the risks and benefits to customers and the utilities (FortisBC [Electric] and YEC) for incremental loads are not the same. FortisBC (Electric) is kept whole on the cost side but does not keep the full benefit from incremental sales revenue. It appears that the net risk/benefit position for FortisBC (Electric) in terms of incremental load is neutral. YEC has a greater net benefit from incremental sales versus its cost risks than FortisBC (Electric). Therefore, YEC's risk premium should be adjusted accordingly.[104]

206. Later in that decision, the Board awarded YEC an ROE of 40 basis points above the ROE for the BCUC benchmark utility FEI. The 40 basis points awarded to YEC reflects that the risk premium awarded to YEC was not greater than the risk premium awarded to FBC.[105] *

207. In this proceeding YEC has not provided any new information with respect to the asymmetric risks expressed in Appendix A to Board Order 2023-01, Reasons for Decision,[106] nor has YEC presented any information regarding new risks that should be considered since YEC's 2021 GRA. The Board continues to find that the ROE for YEC for this proceeding shall continue to be not greater than the ROE determined for FBC before the application of OIC 1995/90. Therefore, YEC's ROE for the 2023 and

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103 Exhibit 2, YUB-YEC-1-86, PDF page 758.
104 Appendix A to Board Order 2023-01, PDF pages 11-12, paragraph 46.
105 Appendix A to Board Order 2023-01, PDF page 13, paragraph 53.
106 Appendix A to Board Order 2023-01, PDF page 11, paragraph 41 and identified in Appendix A to Board Order 2019-04, PDF pages 9-10.

2024 test years will be 9.15 percent.[107] YEC is directed to reflect an ROE of 9.15 per cent in its compliance filing to this decision.*

208. Before the application of OIC 1995/90, YEC's ROE will be 9.65 per cent versus AEY's approved ROE of 9.50 per cent for the 2023-2024 test period. This confirms that YEC relative to AEY is compensated for higher risks. **(Corrections were made to these paragraphs and to footnote 107.)*

8 Rate base

8.1 Opening rate base

8.1.1 Overview

209. YEC's opening 2023 rate base includes those capital additions related to projects applied for in YEC's 2021 GRA. The 2023 opening rate base amount also includes capital additions and expenditures for the year 2022 which was a non-GRA test year.

210. YEC provided a detailed summary of the capital spending undertaken since the 2021 GRA, as well as forecast spending for 2023 and 2024. In general, YEC's spending during this time reflected a requirement for sustaining capital investment as well as investment to ensure sufficient dependable capacity for its integrated grid, and continued planning expenditures to meet other potential future generation and transmission requirements.

8.1.2 Board Findings

211. The Board compared YEC's 2021 forecast capital expenditure and additional information (as provided in its last GRA) with its actual 2021 and 2022 capital costs, as well as the additional information provided in the current application. With the exception of the capital projects discussed in the following sub-sections, which address specific capital projects and any applicable findings and directions, the Board is satisfied with the reasonableness of the remaining expenditures and capitalizations made during 2021 and 2022 as informing YEC's 2023 opening rate base. YEC's opening 2023 rate base is approved.

212. In Section 10 of this Board Order, the Board provides further comments and directions with respect to improvements that are required to YEC's current format for reporting its forecast and actual capital detail in future applications. This is related

[107] BCUC benchmark ROE 9.65 per cent awarded to FBC less 0.50 per cent (OIC 1995/90) equals 9.15 per cent.

to YEC's response to the Board's direction at paragraph 242 of Appendix A to Board Order 2022-03.

8.2 YEC's request to capitalize previously denied portions of capital projects: WH2, WH4 and EAM

213. In Board Order 2022-03, Appendix A, respecting YEC's 2021 GRA, the Board denied YEC's recovery of certain capital costs for the Whitehorse Hydro #2 Uprate (WH2) and Whitehorse Hydro #4 Servomotor Replacement (WH4) projects.[108] YEC's review and variance application respecting these two projects was also denied at the phase 1 stage in Board Order 2022-10.

214. The Board's findings in that proceeding identified deficient business cases for the WH4 and WH2 projects and a lack of information provided elsewhere in YEC's submissions that would otherwise justify the significant cost increases noted in relation to expected project benefits.

215. In Board Order 2022-03, the Board also disallowed YEC's costs for the Enterprise Asset Management System Purchase and Implementation (EAM) project[109] finding, among other things, that there was inadequate evidence presented by YEC to support the proposed expenditures. YEC did not seek a review of the Board's decision for the EAM project.

216. The applied-for and denied portions of these three projects are summarized in the Board-prepared table which follows:

Table 15: Summary of requested and denied costs for WH2, WH4 and EAM projects

	Total (updated) 2021 costs applied-for as noted in Board Order 2022-03	Costs approved in Board Order 2022-03	Actual costs in 2023-2024 Tab 5, Schedule 5.2-2021 and 2022[110]	Costs applied for in Exhibit 1, YEC 2023-2024 GRA Application	2021-2021 AFUDC included in costs applied for in 2023-2024 GRA in YEC response to Undertakings
Column	**(1)**	**(2)**	**(3)**	**(4) = (3)-(2)**	**(5)**
	$ millions				
WH2	12.267[111] (paragraph 275)	5.740 (paragraph 278 calculated as 4.78 million *1.2)	12.092 (2021) 0.265 (2021) 0.457 (2022) 12.815	7.078 (PDF pages 131-132)	7.078 includes 0.175 million in 2021 AFUDC per UT #34

108 Board Order 2022-03, Appendix A, paragraphs 277-278 and 281-282, PDF pages 60-62.
109 Board Order 2022-03, Appendix A, paragraphs 332-333, PDF page 76.
110 GRA Schedules, Tab 5, Schedule 5.2-2021 and 5.2-2022 (updated in response to Undertaking #23).
111 Board Order 2022-03, Appendix A, paragraph 275 referencing YEC (2021) Consolidated IR responses, Round 2, YUB-YEC-2-17, page 11 of 29, PDF page 147.

WH4	1.400[112] (paragraph 280)	0.548 (paragraph 282)	1.318 (2021) 0.019 (2022) 1.337	0.789 (PDF pages 132-133)	0.789 includes 0.019 million in 2021 AFUDC per UT #35
EAM	4.657[113] (paragraph 331)	0.0 (paragraph 333)	4.550 (2021)	4.550 (PDF page 139)	4.550 includes 0.042 million in 2021 AFUDC per UT #36

Source: Column (1) Board Order 2022-03, Appendix A and paragraphs in attached footnotes.
Column (2) Board Order 2002-03, Appendix A at paragraphs noted in table.
Column (3) GRA Schedules, Tab 5, Schedule 5.2-2021 and 5.2-2022 (updated in response to Undertaking #23).
Column (4) Exhibit 1, Application at paragraphs noted in table.
Column (5) YEC responses to Undertakings noted in table.

217. YEC clarified that although the three projects were capitalized in 2021[114] as used and useful utility assets, none earned a return nor were they depreciated in either 2021 or 2022. The final capital addition amounts were embedded into 2023 opening rate base. If the remainder of each project's previously denied costs as applied for were approved during the course of the current proceeding, the previously denied portions of those projects would earn a return and depreciation component prospectively, commencing in the year 2023. It was for these reasons, that YEC stated there is no retrospective rate-making component in regards to these projects.[115]

8.2.1 Views of YEC on previously denied capital costs (excluding 2021-2022 AFUDC) for WH2, WH4 and EAM

218. In the current application and for the three projects at issue,[116] YEC provided further information to address the specific concerns outlined by the Board in Board Order 2022-03.

219. Specific to the WH2 and WH4 projects, the detail in YEC's current application sought to address, among other things, the lack of information provided in 2021, justification for the significant cost increases, and the lack of an evaluation of the costs and benefits of all alternatives examined, including that of the preferred option.

220. For the EAM project, YEC submitted a report from METSCO which assessed the functionality of YEC's current Asset Management (AM) system and investigated and

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112 Board Order 2022-03, Appendix A, paragraph 280 referencing YEC (2021) Consolidated IR responses, Round 2, YUB-YEC-2-17, page 12 of 29, PDF page 148.

113 Board Order 2022-03, Appendix A, paragraph 331 referencing YEC (2021) Consolidated IR responses, Round 2, YUB-YEC-2-17, page 22 of 29, PDF page 158.

114 Exhibit 2, Consolidated IR responses, YUB-YEC-1-4, PDF page 225-229 and YUB-YEC-1-80, PDF pages 552-556.

115 Exhibit 2, Consolidated IR responses, YUB-YEC-1-4 and YUB-YEC-1-80, PDF pages 225-229 and 552-556.

116 Exhibit 1, YEC Application, WH2 - PDF pages 184-192; WH4 – PDF pages 193-197; and EAM – PDF pages 399-482.

established the value for cost to improve YEC's historical asset management function.[117] It detailed the critical interdependency between the components of its intended AM systems which consisted primarily of the EAM and the proposed Physical Asset Management Managed System (PAMMS) projects. Information provided by YEC included a business case describing the overall AM system, including the EAM project, its implementation, costing detail, and an explanation of the technical merits used by YEC to justify its selection for an EAM supplier.

221. The Board requested that YEC, for each of the three projects and all applicable issues identified in Board Order 2022-03, provide a reference to and comparison of the information that was provided by YEC in its 2021 GRA to the information provided in the current GRA. YEC was also to include an explanation of how YEC has addressed in the current Application the concerns expressed in Board Findings in Board Order 2022-03.[118]

222. The questions asked by the Board in this regard have been summarized in the following table:

Table 16: Summary of information requested in Board IR

	WH2	WH4	EAM
YEC's business plan for this project did not adequately justify the costs and benefits of this project,	X		
YEC did not discuss the WH2 alternative, its costs and the reasons for dismissing this alternative,	X		
YEC did not adequately explain the reasons the WH2 was the preferred alternative,	X		
Board concerns with the reasonableness of the WH2 costs,	X		
Board concerns with the recommendations in the Hatch report, and,	X		
Board concerns with the deficiencies in the WH2 business case.	X		
YEC did not explain why the costs for the WH4 project increased from the original Hatch cost estimate,		X	
YEC did not provide an adequate justification that supported the significant cost increase for the WH4 from the original Hatch estimate,		X	
Board concerns that the WH4 benefits espoused by YEC did not fully justify the costs that were incurred or forecast for this project,		X	
Board concerns with the reasonableness of the WH4 costs,		X	
Board concerns with the lack of a business case for the WH4 project, and,		X	
Board concerns with the lack of support for the magnitude of costs of the project when compared to the expected benefits of the project.		X	
Board concerns with the lack of project-specific evidence pertaining to expected benefits from the EAM project,			X
Board concerns that no details respecting other software alternatives were provided nor why the alternatives were ruled out in favour of the EAM project,			X
Board concerns with the lack of details respecting the technical merits of the EAM project in comparison to other bidders,			X

[117] Exhibit 1, YEC 2023-2024 GRA Application, PDF page 393. The referred to METSCO report was provided as Attachment 5.3A-1 to Appendix 5.3A, starting at PDF page 407.

[118] Exhibit x, YUB-YEC-2-1.

Source: Exhibit YUB-YEC-2-1. Note that with respect to the EAM project, it was not necessary for YEC to respond further to any lack of information justifying cost increases as this question was asked in error and is therefore not included in the table above.

8.2.2 Views of interveners

223. The UCG stated there was no justification for capitalizing these three projects into YEC's 2023 opening rate base, arguing that it is up to the utility to put its best case forward from the outset, without an expectation that the utility will be able to keep coming back to recover costs missed or that were unsupported in the original application. The UCG stated YEC should live with the consequence of not respecting its regulatory responsibility to provide adequate documentation at the time it applies to place a project into rate base.[119]

224. Mr. Maissan took no issue with the additional WH2 and WH4 information provided by YEC in the current application as it provided justification for the expenditures that were previously denied by the Board. Mr. Maissan recommended that the Board now allow the previously disallowed capital costs for these projects into YEC's 2023 opening rate base. Mr. Maissan made no comment with respect to the EAM project.[120]

8.2.3 Views of YEC on 2021-2022 AFUDC for previously denied capital costs for WH2, WH4 and EAM

225. In addition to the final capital addition amounts embedded into 2023 opening rate base for each project at issue, YEC also provided detail in respect of the amount of AFUDC it was seeking to be added to the previously disallowed capital costs since the time they were first denied in Board Order 2022-03.[121] The information provided by YEC is summarized by the Board in the table which follows:

Table 17: Summary of 2021 and 2022 AFUDC for WH2, WH4 and EAM projects

	Row	Total actual project costs	Portion of the project costs approved in Board Order 2022-03	Capital amounts requested in YEC 2023-2024 Application at pages noted
Column		**(a)**	**(b)**	**(c)**
		$ millions		
WH2	**(1)**	12.814 (calculated as 12.092 million + 0.265 million + 0.456 million)	5.740 (paragraph 278 calculated as 4.78 million *1.2)	7.078 (PDF pages 131-132)
2021 AFUDC	**(2)**	0.186	0.011	0.175
WH4	**(3)**	1.337	0.548	0.789

119 UCG Reply Argument, PDF page 11-12.
120 Maissan Final Argument, PDF page 10.
121 YEC's response to Undertakings #34, 35 and 36, PDF pages 85-87.

		(calculated as 1.318 million + 0.019 million)	(paragraph 282)	(PDF pages 132-133)
2021+2022 AFUDC	**(4)**	0.023	0.004	0.019
EAM	**(5)**	4.550	0 (paragraph 333)	4.550 (PDF page 139)
2021 AFUDC	(6)	0.042	0	0.042

Source: Column (a), Rows (1), (3) and (5): GRA Schedules, Tab 5, Schedule 5.2-2021 and 5.3-2022 (updated in response to Undertaking #23), PDF pages 20-22.
Column (a), Rows (2), (4), and (6): Please refer to YEC's response to Undertakings #34, 35 and 36, PDF pages 85-87.
Column (b), Rows (1), (3) and (5): Board Order 2002-03, Appendix A at paragraphs noted in table.
Column (b), Rows (2), (4), and (6): Please refer to YEC's response to Undertakings #34, 35 and 36, PDF pages 85-87.
Column (c), all Rows excluding Row (5): Please refer to YEC's response to Undertakings #34, 35 and 36, PDF pages 85-87.

8.2.4 Board Findings

226. With respect to the previously disallowed portions of capital costs for the WH2, WH4, and EAM projects, the Board has examined the information provided by YEC in its current Application. The Board finds that YEC has now provided sufficient information for the Board to conclude that the costs incurred and now applied for in the current application were prudent. For this reason, the Board approves the recovery of YEC capital costs for the WH2, WH4, and EAM projects, in the amounts applied for in the current application being $7.078 million, $0.789 million, and $4.550 million, respectively. These are the amounts noted in Table 17 above at row and column 1(c), 3(c) and 5(c).

227. With respect to any amount of AFUDC included in the now applied-for costs for the WH2, WH4, and EAM projects, the Board finds that had YEC provided sufficient information at the time of its 2021 GRA, AFUDC would not have accumulated beyond that point. Accordingly, the Board denies YEC's recovery of any AFUDC amounts applied for in the current application, being $0.175 million, $0.019 million, and $0.042 million, respectively.[122] The Board directs YEC to remove these amounts from its proposed capital additions (at row and column 1(c), 3(c), and 5(c)), and any related revenue requirement amounts in its compliance filing to this Board Order.

[122] These are the amounts noted in Table 17 above at row and column 2(c), 4(c) and 6(c).

8.3 YEC's request to capitalize deferred costs in 2023 opening rate base: Aishihik generating station (Aishihik) 5-year licence renewal project

8.3.1 Views of YEC

228. In its Application, YEC provided detail respecting the costs it incurred for the Aishihik 5-year licence renewal project.

229. YEC had originally submitted a YESAA project proposal for a 25-year licence renewal to the Haines Junction Designated Office (DO) of the Yukon Environmental and Socio-Economic Assessment Board (YESAB), followed by an application to the Yukon Water Board (YWB). The DO declined to assess a licence for that period and instead decided to confine the scope of assessment to five years which also restricted YWB's jurisdiction to five years. A five-year renewal term (January 1, 2023 to December 31, 2027) was issued in October 2021 by the Government of Yukon and Fisheries and Oceans Canada.

230. At the time of its 2021 GRA, YEC had forecast the cost of its Aishihik relicensing project to the end of 2022 in the amount of $9.4 million.[123]

231. The costs incurred were for project management, compensation, and stakeholder engagement, monitoring, the permitting process, committee work, and AFUDC, all of which were in relation to licencing renewal. YEC stated that early incurred costs were considered foundational and provided the basis for documentation required to originally support a 25-year licence renewal. YEC explained that it did not have separate projects or cost silos for the three-year (January 1, 2020 to December 31, 2022), five-year (January 1, 2023 to December 31, 2027), and 25-year (January 1, 2028 to December 31, 2052) renewal projects until 2019.

232. Given how the renewal process progressed, and due to timing and delays with finalizing a renewal, it was determined, in 2019, that costs incurred between 2015 and 2018 should be separated into the three-year renewal and long-term term renewal costs. In 2022, the long-term renewal costs were further separated into five-year and 25-year renewal costs once it became apparent the five-year renewal period was achievable, while a 25-year renewal period would remain a longer-term objective.[124]

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123 Exhibit 2, Consolidated IR responses, YUB-YEC-1-61, PDF pages 481-487; and, YUB-YEC-1-90, PDF pages 488-499.

124 Exhibit 2, Consolidated IR responses, YUB-YEC-1-61, PDF pages 481-487; and, YUB-YEC-1-90, PDF pages 488-499.

233. The table below shows the total costs incurred and the allocation of those costs to each of the earlier-identified licence renewal projects.

Table 18: Aishihik licence renewal costs by three-year, five-year and 25-year licence renewal terms

	Annual expenditures	Cumulative expenditures	Allocated to 3-year renewal	Longer term cumulative	Allocated to 5-year renewal	Allocated to 25-year renewal
	$ millions					
2015	0.050	0.050		0.050		
2016	0.955	1.005		1.005		
2017	1.969	2.974		2.974		
2018	1.983	4.957		4.957		
2019	1.317	6.275	0.805	5.470		
2020	2.270	8.544	0.112	7.627		
2021	1.273	9.817		8.900		
2022	1.313	11.131		10.214	4.479	5.735
2023					0.040	0.811
2024 Forecast					0.189	1.428
Total			**0.917**		**4.708**[125]	**7.974**

Source: Prepared from information in YEC's response to Undertaking #31, PDF page 81 (notes omitted). The Board notes that YEC reports different timing of these costs in its response to Undertaking #23 ($3.903 million in 2022 and $0.804 million in 2023).

234. YEC summarized the types of costs incurred and allocated to the five-year licence renewal.

Table 19: Aishihik 5-year licence renewal costs

	$ millions
Stakeholder engagement	0.449
Permitting	1.189
Monitoring	0.513
Compensation	0.619
Impact assessment	1.303
Project management	0.406
Sub-total to 2022	**4.479**
2023 trailing costs	0.040
2024 trailing costs	0.189
Total costs	**4.708**

[125] YEC responses to undertaking #31, PDF page 82: "… Total cost for the 5-year renewal in the Application was $4.479 million [Table 5.6 of the Application] plus about $0.230 million additional cost [$0.040 million in 2023 and $0.189 million in 2024] for a total cost of $4.708 million. Out of a total of $4.708 million, $3.903 million closed in 2022 as shown in Table 5.6 of the Application and the remaining $0.805 million is to be closed in 2024."

Source: Exhibit 1, Application, PDF page 232 and YEC response to Undertaking #31, PDF page 81. The Board notes that YEC reports different timing of these costs in its response to Undertaking #23 ($3.903 million in 2022 and $0.804 million in 2023).

235. YEC submitted that all of its applied-for costs for the Aishihik five-year relicensing project were reasonable, and that the Board should approve their addition to rate base.[126]

8.3.2 Views of interveners

236. Mr. Maissan made no recommendations specific to the Aishihik licence renewal project, only stating that YEC's plan for "doing business in a better way"[127] and develop and strengthen long-term mutually beneficial relationships with First Nation and municipal governments is necessary given YEC's lack of success in YEC hydro projects and water licence renewals over the past 10 years which, in some cases, have been "stalled."[128]

237. The UCG alluded to the Aishihik licence renewal process as involving some overlap or duplication of some efforts of which costs, which are due to YEC's failed planning, should not be paid for by ratepayers.[129]

238. YEC countered the UCG's statement stating that the UCG did not give any consideration to the current-day relicensing process challenges faced by Yukon utilities as well as utilities elsewhere in Canada.[130] [131]

8.3.3 Board Findings

239. The Board has examined the evidence[132] provided by YEC in support of the costs it incurred and the process it followed in order to negotiate and finalize the Aishihik five-year licence renewal. The Board finds the costs to be reasonable and they are approved.

240. However, similar to the Board's earlier observations with respect to YEC's amortization calculations, it is unclear whether YEC commenced the amortization of the Aishihik five-year licence renewal project in 2022 – the year of capitalization. YEC is directed to clarify the costs capitalized for this project in 2022 and the amount of

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126 YEC Final Argument, PDF page 52.
127 Exhibit 2, Consolidated IR responses, YUB-YEC-1-2, PDF page 220-221.
128 Maissan Final Argument, PDF page 9.
129 UCG Final Argument, PDF page 17.
130 YEC Reply Argument, PDF page 14
131 YEC Reply Argument, PDF page 13.
132 Exhibit 1, Application, PDF pages 231-235; Exhibit 2, Consolidated IR responses, YUB-YEC-1-61, PDF pages 481-487; and, YUB-YEC-1-90, PDF pages 488-499.

amortization expense it incurred in 2022 (and how it was calculated) with respect to this project in its compliance filing to this Board Order.

8.4 Capital projects

8.4.1 Overview of capital including deferred (major and minor)

241. YEC described its capital projects as having the purpose of building upon, adding to, or improving a capital asset. YEC generally grouped capital project investments in one of the three categories: (i) capital works on property, plant, and equipment; (ii) intangible assets; and (iii) deferred capital costs. In its application, YEC stated that capital works spending included projects required: to improve aging infrastructure and sustain capital requirements; to support new supply options or maximize renewable energy generation from existing facilities; to address load growth capacity requirements; and to refurbish old assets and improve grid reliability. Spending for intangible assets included financial software, customer service costs, and costs related to the development of an asset management framework. Finally, deferred capital costs included feasibility studies, continued relicensing work, regulatory work, and dam safety review work.

242. YEC organized each of its capital works projects, deferred projects, and intangible asset project categories based on (i) "major" projects costing >$1 million; and (ii) "minor" projects costing between $0.100 million and $1 million. Where applicable, YEC further separated its capital works projects on a functional basis, for example, as applicable to the construction or purchase of generation, transmission, distributions, or general plant assets.

243. YEC provided information in respect of its forecast capital expenditures and additions, which it updated immediately prior to the commencement of the oral hearing. Significant discussion of the timing of YEC's capital forecasts ensued during the oral hearing and, in response to an undertaking, YEC provided its updated capital forecasts for the test period in revised GRA schedules.[133]

244. In Table 20 that follows, the Board has provided YEC's applied-for forecast capital expenditures and additions.

Table 20: Summary of YEC's applied-for forecast capital expenditures and capital additions continuity schedule

	Opening balance 2023	Capital expenditures	Capital additions	Closing balance 2023	Capital expenditures	Capital additions	Closing balance 2024
	$ millions						

[133] Response to Undertaking #23, tables 5.4 (2023), 5.5 (2024), 5.6 (2021-2024, completed projects) and 5.7 (2021-2024, projects not impacting rate base), PDF pages 24-32.

Major projects before contributions	**27.461**	**68.563**	**(15.143)**	**80.882**	**56.690**	**(38.446)**	**99.126**
Maintenance capital before contributions							
Generation	0.238	0.520	(0.541)	0.217	1.560	(1.075)	0.702
Transmission	0.319	1.104	(1.018)	0.405	1.179	(1.484)	0.100
Distribution	5.249	2.800	(8.049)	0	1.005	(0.755)	0.250
General plant	0.340	2.597	(2.796)	0.140	2.872	(2.612)	0.400
Sub-total maintenance	**6.146**	**7.021**	**(12.404)**	**0.762**	**6.636**	**(5.926)**	**1.452**
Capital contributions	**(12.788)**	**(11.807)**	**8.095**	**(16.500)**	**(4.900)**	**0.400**	**(21.000)**
Right of use assets	**0**	**0.750**	**(0.750)**	**0**	**0**	**0**	**0**
Total overhaul	**0.031**	**3.230**	**(3.261)**	**0**	**0.850**	**(0.850)**	**0**
Total net RFID	**0.346**	**0.554**	**(0.900)**	**0**	**0.682**	**(0.682)**	**0**
Total net RFSR	**0.041**	**0.723**	**(0.763)**	**0**	**0**	**0**	**0**
Deferred costs before contributions	**23.988**	**14.498**	**(2.665)**	**25.821**	**10.370**	**(2.478)**	**33.713**
Deferred cost contributions	**(0.289)**	**(0.022)**	**0.022**	**(0.289)**	**0**	**0**	**(0.288)**
Intangible assets	**4.561**	**1.521**	**(5.907)**	**0.175**	**4.830**	**(0.380)**	**4.625**
Total to Table 21	**49.496**	**85.030**	**(43.676)**	**90.851**	**75.138**	**(48.362)**	**117.627**
Total to Table 21 net of RFID and RFSR	**49.109**	**83.753**	**(42.013)**	**90.851**	**74.456**	**(47.680)**	**117.627**

Source: Exhibit 2, Consolidated IR responses, YUB-YEC-1-64, PDF pages 517-518.

245. In the following table, the Board has added to Table 20 above, certain updates to YEC's capital forecasts as provided by YEC in its March 4, 2024 summary updates and its response to Undertaking #23:

Table 21: Summary of YEC's applied-for forecast capital expend and capital additions continuity schedule adjusted for YEC's March 4, 2024 summary updates and response to Undertaking #23

	Opening balance 2023	**Capital expenditures**	**Capital additions**	**Closing balance 2023**	**Capital expenditures**	**Capital additions**	**Closing balance 2024**
	$ millions						
Total from Table 20	**49.496**	**85.030**	**(43.676)**	**90.851**	**75.138**	**(48.362)**	**117.627**
Total from Table 20 net of RFID and RFSR	**49.109**	**83.753**	**(42.013)**	**90.851**	**74.456**	**(47.680)**	**117.627**
Updates to YEC's forecast capital expenditures and additions as identified by YEC in its March 4, 2024 summary updates and its response to Undertaking #23							
Lewes river boat lock contribution	Major	(4.500)			4.500		
Aishihik 25-year renewal	Major deferred	(1.025)			(0.400)		
Aishihik 25-year renewal	Major deferred	0.811			1.427		
Whitehorse stoplog crane replacement	Major		4.246			(4.246)	

MH0 road & road slope stability	Major		1.874			(1.874)	
2023 Mayo-Faro diesel infrastructure	Major		(4.300)				
2023 Mayo-Faro diesel infrastructure	Major		5.289				
PC: S250 Callison protection, control and SCADA upgrade	Major		2.125			(2.125)	
Schwatka lake safety/debris boom	Major		1.097			(1.097)	
Lewes river boat lock road access rebuild	Major					1.200	
AH3 overhaul	Major overhaul				2.500	(2.500)	
DD4 overhaul	Minor overhaul				(0.450)	0.450	
Aishihik 5-year renewal	Major deferred		0.575[134]				
Aishihik 5-year renewal	Major deferred	0.040			0.189	(0.804)	
Revised total	**49.496**	**80.356**	**(32.770)**	**97.082**	**67.561**	**(59.358)**	**105.285**
Revised total net of RFID and RFSR	**49.109**	**79.079**	**(31.107)**	**97.082**	**66.879**	**(58.646)**	**105.315**

Source: Exhibit 2, Consolidated IR responses, YUB-YEC-1-64, PDF pages 517-518; Response to undertaking #23 – attachments.

8.4.2 Views of YEC on capital works on property, plant & equipment and intangibles (major and minor capital)

246. YEC's forecast spending for capital works included projects required to improve aging infrastructure and sustain capital requirements, to support new supply options, to address load growth capacity requirements, and to refurbish old assets and improve grid reliability. YEC also forecasts spending on intangible assets which are those assets without physical substance but from which a future economic benefit is expected.

247. In its application, YEC provided detail of its forecast major capital works project costs to be added to year-end net rate base (net of contributions, but before depreciation

[134] In YEC's response to Undertaking #31, YEC stated the following: "... Total cost for the 5-year renewal in the Application was $4.479 million [Table 5.6 of the Application] plus about $0.230 million additional cost [$0.040 million in 2023 and $0.189 million in 2024] for a total cost of $4.708 million. Out of a total of $4.708 million, $3.903 million closed in 2022 as shown in Table 5.6 of the Application and the remaining $0.805 million is to be closed in 2024."

In response to Undertaking #23, YEC's updated Tab 5 schedules (at PDF pages 23, 25, 27 and 29) YEC shows 2022 closing CWIP of $0.575 million, 2023 capital expenditures of $0.040 million, 2024 capital expenditures of $0.189 million and a 2024 capital addition of $0.804 million).

impacts) by the end of 2024. These major projects were forecast to cost in excess of $1.0 million each. The Board provides the following summary of this information for YEC's largest forecast capital projects in this category:[135]

- Thermal replacement (16.5 MW) – forecast of $18.191 million for a 5 MW diesel replacement (which includes the costs of a 2021 feasibility study), to be completed and in service at Faro in 2024;
- 2023 Mayo-Faro diesel infrastructure – updated forecast of $5.289 million expenditure for mobile and modular diesel unit infrastructure work in 2023, forecast to be completed and in service in 2023;
- Whitehorse interconnection – forecast of $11.199 million expenditure for substation modification and expansion work in 2024, to be completed and in service in 2024;
- Transmission line replacement L178 – forecast of $1 million in 2023 and $5 million in 2024 expenditures (along with actual 2022 costs of $5.084 million) for a total $11.084 million to be completed and in service in 2024;
- P&C: S250 Callison protection, control and SCADA upgrade – updated forecast of $2.125 million for substation upgrade work be completed and in service in 2024;
- MH0 Road and road slope stability – updated forecast of $1.874 million for work to address reliability and safety issues to be completed and in service in 2024;
- Whitehorse stoplog crane replacement – updated forecast of $4.247 million crane replacement to be purchased and in service in 2023;
- Schwatka lake safety / debris boom – updated forecast of $1.097 million to replace damaged boom equipment to be completed in 2024;
- Dawson voltage conversion – forecast of $1.872 million for voltage conversion work to be completed and in service in 2024;
- AH1 10 Year Overhaul – forecast of $2.461 million in 2023 to complete a major overhaul of the hydro unit;
- AH3 overhaul – updated forecast of $2.2 million for overhaul work to be completed and in service in 2024, and;
- Physical Asset Management Managed System (PAMMS) asset management framework – forecast capital expenditures of $1.011 million in 2023, when added to all previous years' expenditures would result in a capital addition of $5.466 million to be completed and in service in 2023.

248. YEC also provided detail of its forecast capital works project costs to be added to year-end net rate base (net of contributions, but before depreciation impacts) by the

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[135] Exhibit 1, Application, PDF pages 153-183 and 389-398; Exhibit 2, Consolidated IR responses, YUB-YEC-1-64, PDF pages 517-518; Response to undertaking #23 – attachments

end of 2024. These minor projects were forecast to cost between $0.100 million and $1.0 million each. The Board provides the following summary of this information for YEC's largest forecast capital projects in this category:[136]

- L177 reroute and contribution – forecast of $0.750 million (less a $0.434 million contribution) to relocate two sections of the transmission line to be completed in 2023;
- IPP connections and contributions – forecast of $5.205 million (less a $6.401 million contribution) to provide new sources of renewable electricity to increase supply to be completed in 2023;
- New Mobile Office Unit – IT – forecast of $0.810 million in 2023 to replace an existing trailer with a new, larger trailer;
- Vehicle purchases – forecast of $0.624 million in 2023 and $0.567 million in 2024 to purchase and replace nine trucks of various sizes;
- Customer extensions and contributions – forecast of $1.717 million (less a $1.261 million contribution) in 2023 and $0.600 million (less a $0.400 million contribution) in 2024, to provide service to new customers connecting to the grid;
- WG2 cylinder heads swap – forecast $0.500 million to replace cylinder heads to be completed in 2024;
- P&C: S170 Protection, Control and SCADA Upgrade – forecast of $0.839 million to upgrade relays and RTUs to be completed in 2024;
- Major crane assessment / refurbishment – forecast of $0.700 million to replace components of cranes to address deficiencies presenting safety and operational risks to be completed in 2024; and,
- Right of use asset 1, Lindeman Road – forecast of $0.750 million in 2023 to secure a 5-year lease for property upon which YEC houses employees, a shop, records and additional storage.

8.4.3 Board Findings

249. With respect to YEC's forecast capital projects (excluding deferred capital projects which are addressed in sub-section 8.5), the Board has examined the information provided in the current Application, including YEC's business cases, responses to IRs, and oral hearing testimony. The Board has also considered argument and reply argument. With the exception of the sub-sections below, which address specific capital projects and any applicable findings and directions, the Board is satisfied with the reasonableness of YEC's forecast 2023-2024 capital expenditure and capital addition amounts and they are approved.

[136] Exhibit 1, Application, PDF pages 199-227.

250. When YEC requests these capital projects to be added to its rate base, all actual costs incurred and the prudency thereof, will be examined further. YEC is reminded that the Board will expect YEC to file sufficient detail respecting its forecast and actual costs for each such capital project and to include all variance explanations where actual costs are different from those approved on a forecast basis in this Board Order.

8.4.4 Views of YEC on IPP connections project (minor capital)

251. In its application, YEC stated that, through its standing offer program (SOP), opportunities to Independent Power Producers (IPPs) were provided as being new sources of renewable electricity that increase the supply of affordable, reliable, and clean electrical energy in Yukon. The program is intended to encourage the development of new, small, and renewable energy projects by developers interconnecting into the YIS or Watson Lake Grid (WLG). The program would also contribute to Yukon government's objective of generating 97 per cent of Yukon's electricity using renewable sources by 2030, which was identified in the *Our Clean Future* strategy.

252. YEC's forecast capital expenditures and additions for the IPP connections project was $5.205 million offset by $6.401 million in contributions, all within the year 2023.

253. During the oral hearing, YEC indicated that, generally, it expected the IPP connections to occur later than originally forecast.

254. For example, although all IPP projects were forecast for connection in 2023, there were at least two 2-MW wind projects that were scheduled to be connected in 2024.[137]

255. Furthermore, in an exchange with Mr. Maissan during the oral hearing, YEC confirmed that certain IPP projects that were anticipated to be on-line in 2024 have been delayed until 2025, withdrawn, or, as in one case, cancelled.[138]

8.4.5 Board Findings

256. Notwithstanding the Board's direction specific to the Atlin Hydro EPA (discussed in paragraphs 317-319 below), the Board finds that YEC has not reflected the changed circumstances and therefore timing of its IPP connection forecasts in its revenue requirement. Accordingly, in its compliance filing to this Board Order, YEC is directed to update its forecast 2023 capital expenditures, capital additions, and associated contributions to account for the IPP connection delays discussed during the oral

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137 Transcript, Volume 1, PDF page 28.

138 Transcript, Volume 1, PDF pages 33-38.

hearing, and to record the revised capital amounts in the year 2024 or in the years beyond 2024, as the case may be.

8.4.6 Views of YEC on PAMM project (intangible capital)

257. PAMMS refers to Physical Asset Management Managed System Asset Management Framework. PAMMS is a multi-year project which formally documents all governance, roles, responsibilities, processes, and procedures required for the establishment and ongoing operation of YEC's AM system. YEC proposes to put this project into rate base in 2023 at a cost of $5.466 million. Total costs for the PAMMs and EAM projects are $10.006 million.[139]

258. In testimony regarding the benefits described in the METSCO report, YEC stated:

> Well, certainly they're qualitative in the value that they would provide an organization, but the quantitative aspect of things come largely in the opportunity costs of not having such an asset in place to manage your overall portfolio.[140]

259. YEC further described the benefits as:

> I think -- I think that the challenge with an asset like this is going to be how would you measure going forward so you could report on some improvements. The -- the numerical analysis in many cases says what would happen is you'd spend less time, less costs for labour, less this, that, and the next thing in order to get the same job done, or you would prevent yourself from getting into a risk situation that could cost you a lot of money. Those are the two things that hit me most in terms of the big dollar drivers.[141]

260. YEC also described benefits as identifying the current health of assets, informed decisions, better maintenance practices, inventory control, improved reliability, and improved interdepartmental communication.[142]

261. At a general level, YEC confirmed that some benefits are soft, that is, time saved on certain tasks will involve redeployment of people to other tasks, but there can be real

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139 Exhibit 1, YEC 2023-2024 General Rate Application, PDF pages 150, 390-391. The business case for the project is located at PDF pages 390-398. YEC also provided a detailed review by METSCO as Attachment 5.3A-1, PDF pages 407-462 and further supporting attachments 5.3A1.1 and 5.3A1.2, PDF pages 464-474.

140 Transcript, Volume 4, PDF page 545, lines 12-17.

141 Transcript, Volume 4, PDF page 549, lines 6-16.

142 Transcript, Volume 4, PDF pages 550-560.

costs savings in terms of more readily available information and reduced consultant costs.[143]

262. YEC argued that PAMMS is to be used and useful as of December 31, 2023.[144]

263. With a projected net present value of $11.1 million if implemented with EAM, the YEC position is that the projects (EAM and PAMMS) provide both quantitative and qualitative benefits, although YEC did acknowledge that some of the quantitative benefits were soft.[145]

264. In reply to UCG argument, YEC stated that the UCG submission does not address the evidence presented in this proceeding.[146]

8.4.7 Views of interveners

265. In argument, the UCG commented that intangible assets, with accumulated costs in excess of $11 million, should remain in work-in-progress until YEC clearly demonstrates that those projects are used and useful. UCG stated that YEC has not demonstrated the usefulness of the intangible projects.[147]

266. Regarding the usefulness of PAMMS and EAM, the UCG replied that YEC has forecast additional related projects with a rate base impact of $0.766 million. Thus, in UCG's view, this demonstrates that EAM and PAMMS are not completely ready.[148]

8.4.8 Board Findings

267. For its 2021 GRA, YEC undertook a multi-year process to develop and implement a formal Physical Asset Management Managed System (PAMMS) that aligned its practices with the ISO 55000 standard for physical asset management. YEC stated that a key part of this initiative was selecting and implementing an EAM solution that operationalized the framework developed under PAMMS. While the Board denied the EAM costs in Decision 2022-03,[149] YEC has reapplied for the inclusion of EAM cost in this GRA. YEC has further stated that, as of December 31, 2023, the PAMMS project was ready to be capitalized into rate base.

268. The Board has reviewed the submissions of YEC with respect to the PAMMS project, including the METSCO report, IR responses, and oral testimony, and finds the

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143 Transcript, Volume 4, PDF page 557, lines 8-19.
144 YEC Final Argument, PDF page 6.
145 YEC Final Argument, PDF pages 59-63.
146 YEC Reply Argument, PDF pages 16-17.
147 UCG Final Argument, PDF page 14.
148 UCG Reply Argument, PDF page2 12-13.
149 Appendix A to Board Order 2022-03, PDF page 76.

evidence provided in this proceeding superior to the information provided for EAM in YEC's 2021 GRA.

269. YEC has persuaded the Board that there are benefits to the EAM/PAMMS projects. Unfortunately, YEC has been unable to give a direct quantitative response as to the cost savings of those benefits. The net present value determination in the METSCO report contains soft benefits and therefore may overstate the real benefits of the project. YEC has listed several attributes of the project, but it is unclear to the Board whether those benefits approach or exceed the greater-than-$10-million cost to the project.

270. Although there is some risk that the benefits may not materialize as submitted by YEC, the Board finds the evidence supports YEC going forward with the EAM/PAMMS projects and allowing those costs into rate base. However, to confirm the benefits of the project, at the time of YEC's next GRA, YEC is directed to provide reporting on the EAM/PAMMS project that quantifies: improvement in reliability measures; real cost benefits from inventory management; direct and real labour savings; measures that can show improvements in YEC's asset health; and any other measure that YEC can add that will help the Board and interested parties assess the overall benefit of this project. The Board approves YEC's PAMMS costs as requested for the 2023-2024 test years.

8.4.9 Board Findings for other adjustments to YEC's capital forecast

271. In examining YEC's March 4, 2024 summary update and its response to Undertaking #23 and its updated Tab 5 schedules, it is not clear to the Board whether YEC took into account any necessary adjustments specific to three projects. These adjustments are with respect to the Battery Energy Storage System (BESS) project, the Dawson new diesel project, and a correction in respect of the overall Thermal Replacement project. To explain this further, the Board provides its summary of certain detail and comments in the following:[150]

Table 22: Board-prepared summary of potential required adjustments to YEC's forecast capital expenditures and capital additions

	Reference	Board comments
Battery Energy Storage System (BESS) (major capital)	Exhibit 10, YEC summary update, PDF page 13 and	YEC now expects this project to continue to be constructed in the fourth quarter of 2024, but did not adjust its forecast capital expenditures in 2023 of $10.476 million

[150] Exhibit 2, Consolidated IR responses, YUB-YEC-1-64, PDF pages 517-518, YUB-YEC-1-65(a), (b), PDF pages 519-521; Exhibit 10, YEC's March 4, 2024 opening statement and summary update, PDF pages 12-15; YEC's Response to undertaking #23 – attachments.

	response to Undertaking #23, Attachment 1, PDF page 32.	(net of contributions) to reflect the revised period of construction and capital expenditure in 2024.
Dawson new diesel (a component of the Thermal replacement project) major capital)	Exhibit 10, YEC summary update, PDF page 13.	YEC expects the physical installation of this project will occur before the end of 2024, but questions whether issues with final permitting may result in a delay. It does not appear that YEC made any adjustments to its forecast capital expenditures or capital additions to account for a delay in the commissioning of this project, which YEC had stated earlier would be in 2024 but has now indicated is delayed.
Thermal replacement project (major capital)	Exhibit 2, Consolidated IR responses, YUB-YEC-1-65(a)(b), PDF pages 519-520 and response to Undertaking #23, Attachment 1, PDF page 26.	In this IR response, YEC notes that the closing 2024 WIP balance should be $39.329 million, not $29.771 million as reported. It does not appear that YEC updated for this error in its response to Undertaking #23 and accordingly, YEC's Tab 5 schedules may not contain the correct information.

Source: Exhibit 2, Consolidated IR responses, YUB-YEC-1-65, PDF pages 519-521; Exhibit 10, YEC's March 4, 2024 opening statement and summary update, PDF pages 12-15; and YEC response to Undertaking #23, PDF page 13.

272. Accordingly, in its compliance filing to this Board Order, the Board directs YEC to make the following adjustments to its 2023-2024 forecast capital expenditures and additions, or to explain fully why no such adjustment is necessary.

273. First, with respect to the Battery Energy Storage System (BESS) project, in YEC's BESS application, YEC stated that the project was forecast to be commissioned during 2024, notwithstanding an earlier expected in-service date of November 2022. In response to IR YUB-YEC-1-41 in the current proceeding, YEC indicated that it has experienced significant delays including a prolonged process finalizing the terms and conditions with an engineering, procurement, and construction (EPC) contractor in addition to supply chain disruptions and escalations in material costs, all of which necessitated a change order to extend the contract duration.

274. Also in the current Application, YEC did not forecast the completion of the BESS project within the 2023-2024 test period, indicating a CWIP balance of $30.951 million offset by contributions of $16.5 million as at the end of 2024. However, while the Board is not assessing the prudency of the BESS costs at this time, the Board observes that YEC has not reflected the changed circumstances and therefore timing of its BESS project construction forecasts (capital expenditures) in its revenue requirement. YEC is directed to remove its forecast 2023 capital expenditures ($19.950 million in cap expenditures offset by $9.473 million in contributions) and record same in the year 2024.[151]

275. Second, for the Dawson new diesel project, YEC is directed to confirm that, as a component of the larger Thermal replacement project, the capitalization of this project has been forecast beyond the 2023-2024 test period and if so, has been

[151] YEC response to Undertaking #23, Attachment 1, PDF page 32.

reflected as such in YEC's revenue requirement in respect of closing CWIP balances (and test year capital expenditures) and rate base.

276. Lastly, for the Thermal replacement project, YEC is directed to provide revised Tab 5 schedules showing the correct capital related expenditure and addition amounts and the closing 2024 CWIP balance, which was incorrectly identified as $29.771 million in YEC's most recent update.[152] YEC is further directed to provide the accounting entry it will use to adjust the 2024 CWIP balance to the correct amount of $39.329 million,[153] and to clarify if any adjustments that were required for the Dawson new diesel project (noted in the previous paragraph) have been taken into account in response to this direction.

8.5 Deferred capital projects

8.5.1 Overview of YEC's treatment of deferred capital projects (major and minor)

277. In its Application, YEC applied for costs related to 2023-2024 spending on deferred capital projects.

278. YEC stated that test year spending on its major deferred cost projects would address sustaining capital requirements and investments to ensure sufficient dependable capacity for the integrated grid and continued planning expenditures to meet other potential generation and transmission requirements.

279. Specifically, major deferred capital projects would be "required to replace, repair or enhance/ improve components of the existing system to ensure continued reliability, safety and environmental or regulatory compliance."[154]

280. YEC's minor deferred capital projects were stated to be mainly attributable to a variety of planning and feasibility studies addressing reliability and asset improvements with a lessor quantum of projects related to regulatory, licensing, and dam safety review.

281. CWIP continuity schedules of YEC's deferral capital projects have been grouped based on projects expected to exceed $1 million in cost (major projects), and

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152 YEC response to Undertaking #23, Attachment 1, PDF page 26.

153 Exhibit 2 Consolidated IR response, YUB-YEC-1-65, PDF page 520: "On review, YEC finds that the cost in WIP by end of 2024 in Table 5.5 of the Application for the Thermal Replacement project is not correct. It should be $39.329 million, not $29.771 million [the capital spending forecast for 2024 is not $13.0 million as shown in Table 5.5, but $22.558 million]. This correction does not impact the forecast revenue requirements for the 2023 and 2024 test years, i.e., all of the added capital spending in this correction goes to the corrected WIP at the end of 2024."

154 Exhibit 1, Application, PDF pages 127 an 136-137.

projects expected to cost between $0.100 million and $1 million (minor projects), as shown in the following tables:

Table 23: Deferred capital projects >$1 million continuity schedule – major deferred capital CWIP continuity schedule

	2021 Forecast	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
	$ millions				
Opening CWIP balance	4.234	16.798	17.547*	9.360	0.615
Capital expenditures	8.241	2.618	(3.930)	1.290	1.349
Completed projects (capital additions)	(0.280)	(0.010)	(4.257)	(10.034)	(1.964)
Closing CWIP balance	**12.195**	**19.405***	**9.360**	**0.615**	**0**

Source: Exhibit 1B, Tab 5 Schedules, Tabs 5.2-2021 to 5.5-2024, updated for Undertaking #23; 2021 YEC GRA, Exhibit B27, YUB-YEC-2-16, Attachment 1, 2021 Forecast.
*Note * the Opening 2022 actual balance did not include 2021 closing WIP for Thermal replace project ($1.823 million) and IPP connection projects (net $0.035 million).*

Table 24: Deferred capital projects $0.100 million to $1 million continuity schedule – minor deferred capital CWIP continuity schedule

	2021 Forecast	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
	$ millions				
Opening CWIP balance	1.067	0.953	0.845	0.664	0.453
Capital expenditures	0.670	0.734	0.106	1.824	0.865
Completed projects (capital additions)	(1.585)	(0.843)	(0.288)	(2.034)	(1.318)
Closing CWIP balance	**0.152**	**0.845**	**0.664**	**0.453**	**0**

Source: Exhibit 1B, Tab 5 Schedules, Tabs 5.2-2021 to 5.5-2024; 2021 YEC GRA, Exhibit B27, YUB-YEC-2-16, Attachment 1, 2021 Forecast. Note that YEC did not update its Tab 5 schedules to reflect its most recent forecast for minor deferred capital projects.

282. In the sections which follow, the Board discusses in detail YEC's forecast capital expenditures and additions for these two categories of deferred capital projects.

8.5.2 Deferred capital projects (>$1 million) – major deferred capital additions

283. Projects comprising YEC's recent actual and forecast major deferred capital projects whose costs was greater than $1 million have been summarized in the following table:

Table 25: Deferred capital projects >$1 million projects – major deferred capital additions 2021-2024

	2021 Forecast	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
Capital additions		$ millions			
DSM program development	0.280	0.010	1.495	1.272	1.160

DSM program development contributions			(1.142)	(0.022)	
Aishihik 5-year licence renewal*			3.903		0.804
Southern Lakes Storage				8.784	
Total completed projects (capital additions)	**0.280**	**0.010**	**4.257**	**10.034**	**1.964**

Source: Exhibit 1B, Tab 5 Schedules, Tabs 5.2-2021 to 5.5-2024, updated for Undertaking #23 Attachment 1, PDF page 29; 2021 YEC GRA, Exhibit B27, YUB-YEC-2-16, Attachment 1, 2021 Forecast.
**YEC shows a total $4.708 million capitalized for Aishihik 5-year licence renewal on PDF page 81 of its response to Undertaking #31 ($4.479 million in 2022, $0.040 million in 2023 and $0.189 million in 2024) which is a different timing of the costs than the information provided in Undertaking #23 as noted above.*

284. In its application, YEC forecast the completion of certain components of its DSM program development and the capitalization of the Southern Lakes Storage project during the 2023-2024 test years. The Board notes that, notwithstanding some further required clarification as noted in Section 8.3, it approved YEC's capitalization of the Aishihik five-year licence renewal in 2022 and takes no issue with YEC's forecast remaining costs ($0.804 million) for this project over the test period.

8.5.2.1 Views of YEC on DSM project costs (major deferred)

285. YEC has been developing a new portfolio of DSM programs which are aimed to offset demand during peak times and provide the utility with dependable capacity to mitigate YEC's rising peak demand. YEC submitted a copy of its DSM program design as prepared by ICF Canada,[155] as well as a Yukon DSM comparison document which examined the various DSM-type programs being offered in Yukon by other entities.[156]

286. YEC remains in the planning and implementation stage of its DSM programs, which it expects to carry out between 2022 and 2030. YEC stated that it has met all requirements for costs incurred by public utilities in the Yukon by participating in or providing DSM programs in order for costs to be recovered through rates as stipulated in OIC 2021-16.[157]

287. YEC stated that its DSM portfolio consists of three phases: Phase I (fall 2022 to fall 2024) is currently being implemented, whereas Phase 2 (fall 2024 to fall 2025) and Phase 3 (fall 2025 through 2030) are still in the planning stage.

288. YEC forecast the development of the first phase of its demand side management (DSM) program over the test period in the amount of $2.410 million after contributions. Phase 1 is intended to reduce the peak load due to space and water heating through a direct-install initiative where participants' hot water tanks and thermostats are connected to and controlled by YEC through a demand-response

[155] Exhibit 1, Application, Attachment 5.2A-2.1, PDF pages 262-373.
[156] Exhibit 1, Application, Attachment 5.2A-2.1, PDF pages 374-378.
[157] Exhibit 1, Application, PDF page 236.

management system. In its application and supporting documentation, YEC detailed how this phase of the program met the requirements of OIC 2021-16.[158]

8.5.2.2 Views of interveners

289. The UCG argued that YEC did not provide sufficient evidence proving that its DSM costs were prudently incurred or eligible to be recovered through rates. UCG further argued that there was no evidence that DSM activities are a valid low-cost option that result in "capacity savings amounts."[159]

290. Mr. Maissan's assessment was that YEC's DSM program was described in detail in its application and supported by two attachments. The information demonstrated a "solid and justifiable program"[160] that was essential to assist in meeting rapidly growing peak demand within Yukon.

8.5.2.3 Board Findings

291. The Board is not convinced by the argument of the UCG that insufficient evidence was provided to support YEC's forecast DSM expenditures. Having examined YEC's information and submissions with respect to the Phase I portion of its DSM program, the Board finds that the rationale for the activities and related costs is persuasive. Consequently, the Board finds these costs to be reasonable and they are approved.

8.5.2.4 Views of YEC on Southern Lakes enhanced storage project (Southern Lakes) (major deferred)

292. In its Application, YEC proposed a capital addition to its 2023 rate base in the amount of $8.784 million in respect of the now cancelled Southern Lakes project. YEC proposed to commence the amortization of these costs over 10 years commencing in 2023.

293. The project, as intended, was to be a means of enhancing the amount of renewable winter energy generated each year at the Whitehorse Rapids Generating Station with the additional benefit of potentially mitigating effects of shoreline erosion due to higher water levels during the fall.

294. YEC reported on its progress with the Southern Lakes project in its last three GRA's: 2012-2013; 2017-2018; and 2021.

295. In its current Application and during the oral hearing, YEC provided extensive information respecting the progression of the Southern Lakes project since the time

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158 Exhibit 1, Application, Attachment 5.2A-2.1, PDF pages 236-261.
159 UCG Reply Argument, PDF page 12.
160 Maissan Final Argument, PDF page 10.

of its inception in 2009, detailing certain events transpiring since 2012, which the Board has summarized in the following:[161]

> Although planning and feasibility costs were incurred in the amount of $3.231 million to the end of 2011, the Southern Lakes project was considered to be at a pre-feasibility stage in YEC's 2012-2013 GRA. The Board found it to be a viable project, and directed in Board Order 2013-01, that costs related to advancement of the Southern Lakes project should be held in CWIP until it was completed.

296. In Board Order 2013-01, the Board also directed that should YEC conclude the project would have no net economic benefit for ratepayers, YEC was to cease work on the project.

297. At the time of YEC's 2017-2018 GRA, advancement on the Southern Lakes project had progressed to work on technical studies and assessment, engagement, and consultation with various stakeholders, and directly impacted property owners. YEC estimated capital expenditures to have reached $6.8 million at this time with a total estimated project cost of $15.7 million. The increase in costs were attributable largely to the previously unanticipated level of effort and time required for stakeholder engagement, baseline studies, and engineering, among other causes.

298. In Board Order 2018-10, while the Board expressed some concern about the delays being experienced by the Southern Lakes project, it accepted that it may remain viable while cautioning YEC that, if it chose to continue developing the project, the onus would be on YEC to demonstrate the prudence of all project expenditures.

299. Following YEC's 2017-2018 GRA, YEC completed an additional round of stakeholder engagement in 2019, including both local residents and affected First Nations groups, to confirm the level of support for the project.

300. In its 2021 GRA, YEC forecast the Southern Lakes project would cost a total $9.379 million up to the end of 2021, with a potential in-service date in 2023.

301. In June 2020, YEC's board of directors approved a $1.314 million budget to advance the Southern Lakes project to the submission of a YESAB project proposal given its conclusion that the project would still provide a net economic benefit to ratepayers.

302. From December 2021 through to November 2022, a series of meetings between various stakeholders and regulatory participants took place. The meetings attempted to pursue joint licence amendments and renewals through combined submissions. However, doing so resulted in overlapping of amendments (Southern

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[161] Exhibit 1, Application, PDF pages 256-261; YEC final argument, PDF pages 54-59.

Lakes water licence amendment in combination with the Whitehorse Rapids Generating Station relicensing submission), which ultimately caused confusion, duplication of work, and a strain on First Nation resource capacity. In November 2022, YEC received a formal letter stating that one First Nation group would not support the essential enhanced top and bottom storage feature of the Southern Lakes project.

303. It was at this point that YEC concluded the Southern Lakes project could no longer proceed as there was little-to-no probability it would offer a net economic benefit to ratepayers. As directed by the Board in Board Order 2013-01, YEC ceased work on the project.

304. Given the above, YEC argued that there was no reasonable basis to question its entitlement for any costs incurred (including AFUDC) up to the time when the Board previously, in Board Order 2013-01, concluded that the Southern Lakes project was viable with costs that should remain in CWIP until the project was completed. YEC further argued that, in respect of costs it incurred after that Board Order, they were equally reasonable and prudent.[162]

305. YEC further contended that Board approval of YEC's recovery of the Southern Lakes project costs would be consistent with its previous approvals of costs related to other cancelled new generation projects (such as the Gladstone diversion project). Furthermore, cost recovery of the Southern Lakes project costs is consistent with YEC's Planning Cost Accounting Policy FA-016 which allows for the amortization of planning and study costs exceeding $1 million to be amortized over a period of 10 years.

8.5.2.5 Views of interveners

306. The UCG was critical of what it termed "unrestricted spending for feasibility studies and bankrupt capital projects." The projects identified included the Southern Lakes project and its "bloated cost of $8.784 million,"[163] which has been accumulating costs for many years without YEC realizing that First Nation support was the pre-eminent requirement for project success. The UCG submitted that YEC shareholders should be held responsible for half the costs of this project given it was their Board of Directors that continued to approve the advancement of this project and should thus be held responsible for the excessive costs. It is necessary that the Yukon Utilities Board make such a finding in order to put an end to this type of unwarranted spending.

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162 YEC Final Argument, PDF pages 37 and 54-59.

163 UCG Reply Argument, PDF page 13.

307. Mr. Maissan made no specific recommendation with respect to the Southern Lake project other than to note that it would be beneficial for YEC to conduct its "business in a better way" as it has purported it would, given there has been so little success with achieving necessary First Nations' support for projects such as Southern Lakes.[164]

8.5.2.6 Board Findings

308. Based on the information provided by YEC, approximately half (or $4.3 million) of the total $8.784 million in costs (including AFUDC) had been incurred at the time Board Order 2013-01 was issued. Costs subsequent to 2012 were related mainly to environmental assessments and public consultation, and approximately $7.3 million of the total $8.784 million in costs (including AFUDC) had been incurred at the time Board Order 2018-10 was issued. This is shown in the following table:

[164] Maissan Final Argument, PDF page 9, referring to YEC's response in Exhibit 2 PDF page 220 to YUB-YEC-1-2.

Table 26: Southern Lakes project – actual costs 2012-2022

	2009-2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
	$ millions											
Environmental assessment	3.297	0.383	0.304	0.760	0.199	0.101	0.001	0.001	0.001	0.303	0.064	**5.415**
Project management	0.370						0.003			0.057		**0.430**
Public consultation	0.071	0.047	0.069	0.025	0.002	0.025		0.213	0.068	0.029	0.040	**0.588**
Third party engineering	0.101											**0.101**
YEC costs	0.246	0.030	0.045	0.068	0.022	0.017		0.001				**0.429**
AFUDC	0.220	0.164	0.187	0.130	0.142	0.144	0.146	0.160	0.175	0.172	0.180	**1.820**
Total	**4.305**	**0.624**	**0.605**	**0.983**	**0.365**	**0.287**	**0.150**	**0.375**	**0.244**	**0.561**	**0.284**	**8.784**

Source: Exhibit 2, Consolidated IRs, UCG-YEC-1-31, PDF pages196-197

309. Accordingly, the Board agrees with YEC that, notwithstanding the concerns it expressed in Board orders 2013-01 and 2018-10, the evidence shows that YEC continued to be actively and constructively engaged primarily through environmental assessments and public consultation with the affected parties until late 2022. The Board acknowledges that YEC continued to believe that there was a reasonable probability that the Southern Lakes project would proceed and acted in accordance with that belief.

310. For these reasons, the Board approves YEC's capitalization of YEC's costs related to the now cancelled Southern Lakes project in the amount on $8.784 million. However, the Board notes that, given YEC's awareness in November 2022 that it would seek recovery of its capital expenditures in relation to the Southern Lakes project, the Board considers that the $8.784 million in project costs should have been capitalized into YEC's rate base in November of 2022. It follows then, that the capitalized costs would have had approximately two months of amortization expense recorded in that year.

311. YEC is directed to record the capitalization of the now cancelled Southern Lakes project into its 2022 rate base and record two months of amortization expense in that year in its compliance filing to this Board Order.

312. Nonetheless, the Board is concerned with the capitalization of significant costs for what is, strictly speaking, a non-asset that does not provide an enduring benefit[165] to ratepayers. For example, as noted in Table 26 above, AFUDC was the second largest cost category ($1.82 million) for the Southern Lakes project. None of the $8.8 million in total costs for this project has resulted in a resource with economic value that is

[165] An asset is a resource with economic value that an individual, corporation, or country owns or controls with the expectation that it will provide a future benefit.

expected to provide a future benefit. To reduce the impacts of capitalizing significant amounts of AFUDC on ratepayers, the Board directs YEC to examine and redefine its processes for similar major deferred capital projects and to only capitalize those costs once it is determined that there is a reasonable probability that that project will go forward and to reflect, as necessary, any changes that may be required to YEC's capitalization policies and supporting documents. On a go-forward basis, YEC is to explore and provide an alternative for the treatment of costs incurred for such projects until it has established a reasonable probability that the project will proceed. For example, this could be done by expensing the costs as incurred (until a reasonable probability of proceeding is determined) or treating the costs as no-cost capital (with or without debt and/or equity financing). In the case of cancelled projects, it should be clear to customers that the amounts that are included in rates are for cancelled projects. As there is no asset, YEC is to expense all costs for the project in the year the project is cancelled and reflect this change in YEC's capitalization policies and supporting documents.

8.5.3 Deferred capital projects (>$1 million) – major deferred capital – CWIP balances

313. In this section, the Board reviews YEC's forecast deferred capital projects (major projects). Projects comprising YEC's major deferred capital projects that remain in progress at the end of 2024 and whose costs are forecast to be greater than $1 million have been summarized in the following table:

Table 27: Deferred capital projects >$1 million projects – major deferred CWIP balances

	2023 actual opening CWIP balances	2023 expenditures	2024 expenditures	2024 forecast ending CWIP balances
	$millions			
Whitehorse water use licence renewal	2.120	5.818	2.500	10.438
MGS water use licence renewal	0.094	3.500	3.100	6.694
Aishihik 25-year licence renewal	5.735	0.811	1.428	7.974
Mayo lake storage	4.541	0.110	0.110	4.761
Atlin hydro SIS and EPA, net of contributions	1.186	0.150	0	1.336
2024 resource plan	0.0	0.400	1.600	2.000
Ending CWIP balances	**13.676**	**10.789**	**8.738**	**33.203**

Source: Exhibit 1B, Tab 5 Schedules, Tab 5.7 – not impacting rate base, Attachment 1, PDF page 32.

8.5.3.1 Views of YEC on Aishihik 25-year licence renewal (major deferred)

314. As noted earlier in Section 8.3.2, the Board examined YEC's efforts to negotiate a long-term water licence renewal agreement for the Aishihik Generating Station. In that section, the Board examined YEC's evidence respecting the entirety of licensing

renewal costs[166] that were accumulated jointly until YEC determined that it would be necessary to engage in both five-year and 25-year re-licensing agreements. It was at this point that the jointly incurred costs were separated between the two licensing renewal projects.

315. With respect to the costs allocated to the 25-year licensing renewal, YEC stated that that process will not be completed until after the test years and that the full justification for those costs will be provided at the next GRA after the long-term licence renewal process has been completed. As rationale for why a business case for the 25-year licence renewal application was not provided in its application, YEC submitted that a review of those long-term relicensing costs is outside the scope of the current GRA proceeding.[167]

316. As part of its testimony in response to Board counsel questioning, YEC emphasized the evidence given by Ms. Cunha and Mr. Milner at the hearing concerning the rationale for YEC's efforts in continuing to seek a longer-term licence for the Aishihik Generating Station. YEC is confident in its ability to work collaboratively with Champagne and Aishihik First Nations (C/TFN) and the Yukon government on a 25-year relicensing project.[168]

8.5.3.2 Views of interveners

317. The UCG argued that there was not enough information in YEC's application to determine what it purported were "O&M costs expensed and capitalized during the test years." Nor did YEC clarify there are "no overlapping / duplicating costs in the 5-yr. 10-yr and 25-year relicensing" costs being incurred.[169]

318. Mr. Maissan did not address the Aishihik 25-year relicensing in either argument or reply argument.

8.5.3.3 Board Findings

319. In Section 9.3.4 of this Board Order, the Board found that, for certain capital projects, YEC has failed to provide the minimum information required of it to support its forecast capital expenditures. In the case of the Aishihik 25-year licence renewal project, while a business case was not provided by YEC, there was other information available, notwithstanding it was provided largely at the request of parties or the Board, that supported YEC's forecast costs as reasonable. Having examined this

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166 Exhibit 2, Consolidated IR responses, YUB-YEC-1-61, PDF pages 481-499; Transcript, Volume 3, PDF pages 139-146; Transcript, Volume 4, PDF page 14-148; and, Response to Undertaking #31, PDF pages 81-82.

167 Exhibit 2, Consolidated IR responses, YUB-YEC-1-61, PDF pages 481-499.

168 YEC Final Argument, PDF page 51 referring to Exhibit 2, Consolidated IR responses, YUB-YEC-1-61, PDF pages 482-483; and, Transcript, Volume 4, PDF page 14-148.

169 UCG Reply Argument, PDF page 12.

information, the Board accepts YEC's forecast capital expenditures for the Aishihik 25-year relicensing project for the test period and the costs are approved.

320. The Board does not accept the argument of the UCG, respecting the lack of sufficient detail in order to reach a conclusion on the costs in question.

8.5.3.4 Views of YEC on Atlin hydro expansion project (major deferred)

321. To address YEC's ongoing dependable capacity planning, it intended to reduce its future reliance on diesel rentals through its longer-term advancements which included the Atlin hydro expansion project.

322. YEC's forecast capital expenditures for the Atlin hydro expansion project in 2023 was $0.150 million. In its summary update, YEC subsequently advised there were certain conditions precedent that would not be ascertained until June of 2024.

8.5.3.5 Views of interveners

323. Mr. Maissan initially argued that YEC should be encouraged to remain open to the development of this project given that it could provide both firm winter capacity and energy. However, due to YEC's further statements that the project is not progressing for the foreseeable future, Mr. Maissan stated it was necessary for YEC to examine other firm capacity options.[170] YEC took this later statement of Mr. Maissan to be a matter outside the scope of the current application.[171]

324. The UCG did not raise the Atlin hydro expansion project in its argument or reply argument.

8.5.3.6 Board Findings

325. In examining YEC's March 4, 2024 summary update and its response to Undertaking #23[172] and its updated Tab 5 schedules in Attachment 1, it is not clear to the Board whether YEC took into account any necessary adjustments specific to the Atlin hydro expansion project. Adjustments may be necessary given that, in argument, YEC clarified that delays are now anticipated in the development of the Atlin hydro expansion project outside the test period and it is potentially not viable at all.

326. For this reason, YEC is directed to remove all forecast 2023 capital expenditures, in its compliance filing to this Board Order, unless YEC can confirm the project remains viable and there is a reasonable probability that the project will proceed. If the Atlin

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170 Maissan Final Argument, PDF pages 9-10; Maissan reply argument, PDF pages 2-3.

171 YEC Reply Argument, PDF page 5.

172 Exhibit 10, YEC's March 4, 2024 opening statement and summary update, PDF page 13; YEC's Response to Undertaking #23 – Attachment 1, PDF page 32.

project will not proceed, YEC is to treat the Atlin project in accordance with YEC's response to the Board's determination from paragraph 312.

327. The Board agrees with the statement of YEC that Mr. Maissan's suggestion to advance other firm capacity projects is outside the scope of the current application and the Board's findings with respect to the Atlin hydro expansion project.

8.5.3.7 Board Findings on need for further information

328. As noted in Table 27 above, YEC forecast continued capital expenditures for four major deferred capital projects over the test years: Whitehorse water use licence renewal, Mayo Generating Station (MGS) water use licence renewal, the Mayo Lake Storage and the 2024 Resource Plan. Given there remains CWIP at the end of the 2024 test year for these four projects, it appears they are anticipated to remain active and in progress and are to be capitalized at some point beyond the current test period.

329. The Board observes that within YEC's Application, other than the CWIP cost detail provided in YEC's Tab 5 schedules which totals approximately $24 million at the end of 2024, and a response to a single IR,[173] there was no other information for these four projects. The Board considers the persistent lack of information to be a shortcoming of YEC's Application.

330. For example, when asked in IR YUB-YEC-1-44 (a)-(c), (h)-(l), to provide updates (such as forecast in-service dates, potential delays, status or work completed to date and required approvals) for three other projects,[174] YEC responded that "YEC is not asking for decisions in this GRA regarding any of these projects as they are not expected to be in-service and useful during the test years. They have appropriately not been included in revenue requirement calculations." However, having been given the prompt by the Board's question, YEC indicated that "Requested information is provided separately below for each project."[175]

331. Also, in response to YUB-YEC-1-61(d) asking for a reference to any business case that contemplated the Aishihik 25-year licence renewal, YEC responded that "The AGS 25-Year water use licence renewal process will not be completed until after the test years – and the full justification for these costs will be provided at the next GRA after the long-term licence renewal process has been completed."[176]

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173 Exhibit 2, Consolidated IR responses, JM-YEC-1-7, PDF pages 14-15.
174 Atlin hydro expansion project EPA; Bess project and Tutshi-Moon pumped storage project.
175 Exhibit 2, Consolidated IR responses, YUB-YEC-1-44, PDF pages 348-364.
176 Exhibit 2, Consolidated IR responses, YUB-YEC-1-61, PDF pages 481-499.

332. The Board does not accept YEC's reasoning that because a project is not forecast to affect rate base during a test period, parties or the Board should not be interested in the current status of that project.

333. Further, YEC's apparent position that the provision of certain information is not warranted because it is not seeking a Board direction on projects that are not capitalized in a test period and that don't affect revenue requirement is inaccurate. This is because, in the Board's view, there remains working capital and AFUDC repercussions that potentially affect current revenue requirement that renders YEC's argument moot. The Board also views that it is not reasonable for YEC to assume that parties are indifferent to the status of a capital project during the time it is being constructed. In this regard, the Board reminds YEC of its onus to provide sufficient information with respect to all aspects of its application and advises it would be in YEC's interest to provide such information in its application from the outset. The Board considers that YEC's doing so results in a more efficient process and potentially avoids the need for an IR or hearing question.

334. Accordingly, at the time of its next GRA, YEC is directed to provide with its application a summary of the historical activity and current status for each of the Whitehorse water use licence renewal, Mayo Generating Station water use licence renewal, and the Mayo Lake Storage and 2024 Resource Plan projects and the same information for any other project for which significant balances of CWIP (such as those projects identified in paragraphs 247-248 above) are forecast to remain at the end of the next test period. For the Mayo storage project, YEC is to treat this project similarly to the Atlin project discussed in paragraph 326 above.

8.5.4 Deferred capital projects ($0.100 million to $1 million) – (minor deferred)

8.5.4.1 Views of YEC

335. In its application, YEC forecast capital additions for its deferred minor capital projects in the amount of $2.034 million in 2023 and $1.318 million in 2024. Actual 2021 capital additions of $0.843 million were less than the amount of $1.585 million approved in 2021, and actual capital additions in 2022 were $0.288 million.[177]

336. During the oral hearing, there was significant discussion pertaining to certain aspects of YEC's policies and practices with respect to its treatment of those deferred minor capital projects costing between $0.100 million and $1 million. The following documents were at issue:

[177] Exhibit 1, Tab 5 schedules, Tab 5.6 – completed projects. Note these amounts were not updated by YEC for its response to YUB-YEC-1-68, nor in its response to Undertaking #23.

- Finance Policy, FA-016 whose purpose was to "to define the accounting policy for costs incurred in relation to planning activities."[178]
- Finance Account Practice, FX-005 whose purpose was to "provide guidelines for capitalization and amortization of study costs."[179]
- Finance Account Practice, FX-008 whose purpose was to "provide guidelines for intangible assets…"
- Finance Accounting Practice, FX-Appendix, whose purpose was to "provide detailed definitions for various Property, Plant and Equipment (PP&E) terminologies."
- Finance Accounting Practice, FX-004 on the topic of AFUDC.[180]

337. During the oral hearing, YEC clarified that Finance Policy, FA-016 is its existing "fixed asset" policy whereas those documents identified by the word "practice" were guidelines designed to provide additional support to YEC staff in their interpretation of the application of YEC's fixed asset policy in FA-016.[181]

338. Section 2.2 of YEC's Finance Policy, FA-106 states that "… when the expected outcome of the planning and study costs is to enhance the service potential or extend the useful life of an existing asset or to add new assets to the system, the related costs shall be capitalized to, and amortized on the same basis as, the related asset." Also as described in FA-016, the alternative accounting treatment was to record planning and study costs as an expense of the period when they are pure research in nature, or if the costs were related to ongoing operations and could not be demonstrated to provide long-term or multi-year benefits to YEC's system.

339. With respect to YEC's application of Finance Policy, FA-106, Board IR YUB-YEC-1-63(e)(f) and (g) asked how YEC's proposed capitalization of various studies, assessments, reviews, and similar studies met YEC's test for capitalization under YEC's capitalization policy. In response, YEC simply provided copies of its Finance Accounting Practice as detailed above. YEC did not explain how each of the projects it proposed to be capitalized in the test period met the requirements of YEC's capitalization policy and only provided a reference to the applicable Finance Accounting Practice it followed.[182]

340. During the oral hearing, the Board referred YEC to Finance Policy, FA-016, and YEC was again asked to identify which of the projects it proposed to capitalize over the

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178 Exhibit 14, YUB aid-to-cross, YEC Financial Policy, March 7, 2024 referring to YEC 2017-2018 GRA.

179 Exhibit 2, Consolidated IR responses, YUB-YEC-1-63(f) Attachment 1 and Attachment 2, PDF pages 507-509.

180 YEC response to Undertaking #27, March 12, 2024, PDF pages 73-74. YEC provided copies of Finance Accounting Practice, FX-Appendix and Finance Accounting Practice, FX-004.

181 Transcript, Volume 6, PDF pages 372-374.

182 Exhibit 2, Consolidated IR responses, YUB-YEC-1-63, PDF pages 503-509.

test period would "enhance the service potential or extend the useful life of an existing asset or add new assets to the system." In response YEC only reiterated the details provided in the application as to the need for the capital project and did not respond to the question asked.[183]

341. Projects comprising YEC's recent actual and forecast deferred capital project additions whose costs were between $0.100 and $1 million have been summarized in the following table. However, in the table, the Board has also reflected YEC's updates with respect to the timing of the completion of these minor deferred projects as outlined by YEC in its response to YUB-YEC-1-68, as they do not appear to have been integrated into YEC's Tab 5 schedules within its response to Undertaking #23:

Table 28: Deferred capital projects $0.100 million to $1 million – minor deferred capital additions 2021-2024

	2021 Forecast	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
	$ millions				
IPP standing offer program implementation	0.330	0.326		0.070	
Dam safety review	0.254	0.255			
WH2 Uprate Engineering	0.259				
Business Continuity Plan	0.075				
PMF Flood Study	0.151				
Atlin Hydro EPA preparation	0.517				
Whitehorse post-flood assessment			0.115		
Atlin EPA Section 18 Proceeding (Hearing Reserve Acct)				0.386	
Public Safety Plans				0.225	
System Wide Stability Study ($0.200 million removed from 2023 to 2024)				(0.200)	0.200
System Wide Arc Flash Study ($0.198 million removed from 2023 to 2024)				(0.198)	0.198
Mayo Civil Infrastructure Refurbishment Planning				0.168	
Digital Strategy and Policy Development ($0.120 million removed from 2023 to 2024)				(0.120)	0.120
Privacy Management Program ($0.100 million removed from 2023 to beyond 2024)				(0.100)	
Vegetation Management Plan Update ($0.225 million removed from 2023 to 2024)				(0.225)	0.225
WRGS Thermal Assessment & Permitting					0.413
Cyber Security Framework					0.140
Transmission Line Detailed Inspection Program					0.250

[183] Transcript, Volume 6, PDF pages 87-91.

Gates/TIV's Certification Assessment System Wide					0.200
Digital Reporting Review ($0.125 million removed from 2024)					(0.125)
Records Policy Planning and Program Development ($0.100 million removed from 2024)					(0.100)
Breaker Condition Assessment					0.100
Other projects <$0.100 million spending		0.263	0.173	0.342	(0.010)
Total completed projects (capital additions) before adjustments noted in YEC-YUB-1-68	**1.585**	**0.843**	**0.288**	**2.034**	**1.318**
Total completed projects (capital additions) after adjustments noted in YEC-YUB-1-68	**1.585**	**0.843**	**0.288**	**1.191**	**1.836**

Source: Exhibit 1B, Tab 5 Schedules, Tabs 5.2-2021 to 5.5-2024, Undertaking #23, Attachment 1, PDF pages 25 and 27; Exhibit 2, Consolidated IR response, YEC-YUB-1-68, PDF pages 531-532; 2021 YEC GRA, Exhibit B, YUB-YEC-2-16, Attachment 1, 2021 Forecast.

8.5.5 Board Findings

342. In the current proceeding, the Board questioned how YEC has relied on the requirements of its capitalization policy to determine whether the deferred project costs should be capitalized and amortized over some period of time, or expensed in the year in which the costs were incurred. In this regard, the Board views that YEC's responses were not helpful.

343. In reviewing the projects at issue, the Board finds there to be several projects that do not appear to meet YEC's capitalization criterion in that YEC has not shown that they either enhance the service potential or extend the useful life of an existing asset or add new assets to the system. Accordingly, the Board directs the following projects to be recorded as an expense in the year and amount they are forecast to be incurred. The seven projects are identified as: the public safety plans; digital strategy and policy development; privacy management program; vegetation management plan update; cyber security framework; digital reporting review; and the records policy planning and program development projects. In its future applications, YEC should include information specific to how each of its proposed deferred projects meet the capitalization criterion set out in Finance Policy, FA-106.

344. With respect to the remaining minor deferred capital work YEC has proposed to undertake during the test period, the Board is satisfied with YEC's updated forecast projects (being both the projects that will and will not[184] be completed during the test period) and they are approved.

[184] Exhibit 1B, Tab 5 Schedules, Tab 5.7 – not impacting rate base and Undertaking #23, Attachment 1, PDF page 32, which reflect project information as filed in YEC's application.

345. As discussed earlier in paragraphs 312 and 326 of this Board Order, the Board has directed YEC to re-examine its capitalization policies and supporting documents for its major and minor deferred capital projects to ensure a complete understanding of the various processes it must undertake to ensure confirmation that there is a reasonable probability that the project will proceed, and to reflect, as necessary, any changes that may be required to YEC's capitalization policies and supporting documents. The Board considers that YEC's capitalization policies and supporting documents with respect to its minor capital projects would benefit from a similar examination and directs YEC to do so.

9 Deferral and reserve accounts

346. In the following sub-sections, the Board addresses various of YEC's deferral and reserve accounts.

9.1 Views of YEC on reserve for site restoration account

347. YEC maintains a reserve for future site restoration and costs of removal related to its property, plant, and equipment. In Board Order 2005-12, the Board directed that the balance of the reserve account was to not exceed the December 31, 2004 balance of $5.757 million. The Board also directed YEC to notify interveners and interested parties when the balance in the account has been drawn down by annual costs and reaches a balance of $2.0 million.

348. As noted by YEC in its application, and in the table below, the balance in the reserve for site restoration account is forecast to fall below $2.0 million in 2024. However, YEC stated that it was not proposing any changes to the account for the 2023-2024 test period.

Table 29: Reserve for site restoration continuity schedule

	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
	$ millions				
Opening balance	2.790	2.738	2.738	2.689	1.996
Annual appropriation	0	0	0	0	0
Net annual costs	0	0	(0.049)	(0.723)	0
Closing balance	**2.790**	**2.738**	**2.689**	**1.966**	**1.966**

Source: Exhibit 1B, Tab 3 Tables, Table 3.14.3.

9.2 Board Findings

349. The Board approves YEC's continued use of its reserve for site restoration account, noting there are no annual appropriation amounts forecast for the years 2023 and 2024.

9.3 Views of YEC on defined benefit pension deferral account

350. In Board Order 2022-03, the Board approved YEC's request for a defined benefit pension deferral account. The approval considered that there continued to be ongoing and inherent volatility associated with defined benefit pension plan funding and the actuarial assumptions subject to variations in the financial markets that YEC can mitigate through the use of a deferral account.

351. In the current application, YEC did not propose to commence the amortization of the $0.062 million ending balance in 2023 or 2024 given that it is not a significant amount. This is reflected in the table below:

Table 30: Defined benefit pension deferral account continuity schedule

	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
	$ millions				
Opening balance	n/a	0	0.047	(0.062)	(0.062)
Annual appropriation	n/a	0.047	(0.109)	0	0
Net annual costs	n/a	0	0	0	
Closing balance	**n/a**	**47**	**(0.062)**	**(0.062)**	**(0.062)**

Source: Exhibit 1B, Tab 3 Tables, Table 3.14.4.

9.4 Board Findings

352. The Board approves YEC's continued use of its defined benefit pension deferral account noting that there are no annual appropriation amounts for the years 2023 and 2024.

9.5 Views of YEC on hearing cost reserve account

353. YEC's hearing cost reserve account was established in Order 2013-01. In Board Order 2018-10 respecting YEC's 2017-18 GRA, the Board approved a net annual appropriation amount of $0.055 million to be included in revenue requirement. The net $0.055 million amount was comprised of the annual appropriation amount of $0.250 million offset by the amortization of a 2016 credit balance in the reserve account of approximately $1.000 million over a period of five years. The amortization of the credit balance over five years resulted in a decrease to the annual appropriation amount by $0.195 million for the years 2016-2021.

354. As shown in the table below, commencing in 2022, the annual amortization amount was set at $0.250 million per year which is the annual amortization amount approved in Order 2018-10.

355. Further, given that YEC did not consider that the Board's approval of 2023-2024 hearing costs would be finalized until after 2024, there was no net annual cost amount forecast for that year.

Table 31: Hearing cost reserve account continuity schedule

	2021 Approved	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
	$ millions				
Opening balance	0.063	0.182	0.227	0.881	1.016
Annual appropriation	(0.055)	(0.055)	(0.250)	(0.250)	(0.250)
Net annual costs	0	0.101	0.903	0.386	0
Closing balance	**0.008**	**0.227**	**0.881**	**1.016**	**0.766**

Source: Exhibit 1B, Tab 3 Tables, Table 3.14.1.

9.6 Board Findings

356. The Board approves YEC's continued use of its hearing cost reserve account including the annual appropriation amounts of $0.250 million in each of 2023 and 2024.

9.7 Independent purchase power (IPP) cost deferral account

9.7.1 Views of YEC

357. YEC discussed the IPP Purchase Cost Deferral Account in Section 3.6.4 of the Application. YEC stated that section 2 of OIC 2019/25 requires the Board to allow the utility to recover the cost of purchasing electricity under an Electricity Purchase Agreement (EPA) as well as third party consultant costs (including legal fees) incurred by the utility in relation to the development and implementation of the EPA and the costs of maintaining or replacing equipment or infrastructure necessary to purchase electricity under the agreement.

358. YEC submitted that a deferral account mechanism is needed to deal with variances that arise between YEC's costs incurred and its ability to recover these costs through rates.

359. Unlike the AEY deferral account, YEC is proposing to include LTA thermal displacement benefits to IPP purchase volume variances in the deferral account (on an LTA basis as there are some benefits from IPPs to reduce thermal generation viewed as accumulated drought year benefits). YEC proposes to apply those benefits as an offset to the power purchase cost variance.

360. In argument YEC stated:

> The LTA thermal generation reduction benefits related to forecast hydro and IPP renewable sources are prepared based on YECSIM model runs consistent with the LTA hydro and thermal generation determinations provided in Appendix 2.1. As such, given that these are forecasts, there is no actual tool to "prove" the LTA thermal generation reduction or displacement benefits from IPPs or other renewable generation sources.

...

> Without long-term average calculations, material thermal displacement benefits would not occur in most years as the IPP generations mostly displace hydro generation during normal and high-water years [i.e., the benefits from IPPs will be notably lower than 59% thermal displacement]. During lower water/drought conditions, the IPP deliveries will be used to supply the firm load and normally do not displace hydro, but help to reduce the use of thermal generation.[185]

361. In reply to Mr. Maissan's final argument, YEC did not agree with Mr. Maissan's recommendation stating that YEC's proposal addresses the variance between forecast IPP energy production and actual annual IPP production and provides thermal fuel cost savings (based on LTA) with forecast and actual IPP energy production.[186]

9.7.2 Views of interveners

362. Mr. Maissan recommended that the Board approve an IPP purchase cost deferral account to capture the difference between forecast and actual commercial in-service dates and actual versus forecast energy production volumes.

363. In his reply argument, Mr. Maissan stated that YEC's statements regarding solar power displays a limited knowledge of what solar power does and, furthermore, YEC is wrong with respect to wind energy. In addition, Mr. Maissan first pointed out that the thermal fuel mix proposed by YEC underestimates the cost savings from IPPs and Microgeneration. Secondly, the use of the YECSIM model, which models in weekly timestep cannot accurately model solar energy benefits because solar is only available during daylight when electrical loads are higher and makes no contributions during the night. The third point brought forward by Mr. Maissan identified costs that are paid to YEC for its thermal generation but are not included in the costs YEC pays to IPPs. Mr. Maissan was concerned that some of the potential charges to the IPP deferral account are overstated or unjustified.

9.7.3 Board Findings

364. The Board notes that in Appendix A to Board Order 2024-01, Reasons for Decision, the Board approved the IPP Purchase Cost Deferral Account requested by AEY in its 2023-2024 GRA.

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185 YEC Final Argument, PDF page 65

186 YEC Reply Argument, PDF pages 7-8.

365. YEC's requested IPP Purchase Cost Deferral Account differs from AEY's in that YEC is proposing, on an LTA basis, to offset costs in the deferral account by calculating an LTA thermal displacement benefit from IPP purchases.

366. The Board finds that YEC is introducing an unnecessary complication to this deferral account that YEC cannot prove. Further, the Board accepts the concerns expressed by Mr. Maissan on this issue and agrees this is a shortcoming in YEC's proposal on this matter.

367. A GRA is an application by a utility to recover the costs it expects to incur over the requested test period. YEC's proposal is introducing costs outside of the test period, introducing further intergenerational inequity, and creating mismatching by applying thermal fuel costs for a given volume in a future test period against the thermal fuel costs for that same given volume in the current period (which are calculated at a different price).

368. As AEY or YEC must accept all IPP generation at the time that energy is generated, YEC is presenting a one-sided view of that IPP generation. Some IPP generation will allow the utility to withhold water for future generation, but some IPP generation will result in water being spilled without any hydro generation. YEC has not presented a balanced approach on this issue.

369. Therefore, the Board approves an IPP Purchase Cost Deferral Account for YEC on the same basis as that approved for AEY. YEC is directed to adjust its IPP Purchase Cost Deferral Account accordingly. The deferral account the Board is approving for YEC provides deferral account treatment for the following costs:

> i) Constraint payments paid to IPPs in accordance with the requirements under the EPAs applicable to IPP projects;
>
> ii) Maintenance costs related to IPP projects; and
>
> iii) Third party consulting costs (including legal costs) incurred by YEC related to the development and implementation of the EPAs.

9.8 Low water reserve fund (LWRF) account

9.8.1 Views of YEC

370. YEC discussed the Low Water Reserve Fund (LWRF) in section 3.6.2 of the application. The LWRF Term Sheet, approved in Board Order 2022-07 (YEC 2021 GRA Compliance Filing) is submitted without change in YEC's current application. YEC added that the LWRF Term Sheet includes provisions regarding interest payments or charges on LWRF balances based on short/intermediate term bond rates and lowest short-term borrowing rates available to YEC.

371. In section 3.4 of the Application, YEC applied for a change in the Board direction[187] that had YEC treat any balance in the LWRF as an offset to rate base. YEC asked the Board to consider the following:

- The LWRF is maintained to minimize the effect on ratepayers from variations caused by changes in actual renewal resource availability. The LWRF was not established to provide any role in financing or provide offsetting contributions to YEC's rate base.
- Use of the LWRF as an offset to rate base mutes the intended impact of the LWRF as changes in the balance of the LWRF caused by changes in actual renewal resource availability will introduce new variations in rates due to net rate base changes.
- Historically, on a majority of occasions, the Board has not treated the balance in the LWRF as an offset to rate base.[188]

372. In YEC's 2021 GRA, when asked if increasing the fund cap would increase the likelihood that there will be a positive cash balance in the fund, YEC's response was an unequivocable yes.[189] Further, YEC provided a "guesstimate that 26 out of 35 years, there will be no riders to ratepayers."[190]

373. In that same proceeding, earlier testimony of YEC was that the LWRF is a smoothing mechanism so that ratepayers do not pay for a drought all at once. YEC further stated that a drought is going to cost what it costs and the LWRF is a mechanism that allows ratepayers to pay for it over time.[191]

374. In the current proceeding, YEC stated that the LWRF exists to have funds available for a drought, you cannot really forecast when a drought happens, but you have a fund that gives you the ability to use when you need it.[192]

375. YEC has previously been on record as saying the last drought occurred approximately in the mid 1990's, and when a drought happens, it can extend beyond a year (and can last between two to five years). YEC has not disputed that severe droughts are considered a "once in 30 to 35 years" event.[193]

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187 Appendix A to Board Order 2022-03, paragraph 368 which states "Given at least one past Board Order directing the treatment of low water reserve funds as an offset to rate base, the Board directs YEC, on a go-forward basis, to treat the balance in the LWRF as an offset to rate base. The Board directs YEC to reflect this change in its compliance filing."

188 Exhibit 1, Application, PDF page 76.

189 YEC 2021 GRA, Transcript, Volume 2, PDF page 17, lines 16-25.

190 YEC 2021 GRA, Transcript, Volume 2, PDF page 18, lines 9-10.

191 YEC 2021 GRA, Transcript, Volume 2, PDF page 16, line 25 to PDF page 17 line 15.

192 Transcript, Volume 4, PDF page 509, lines 10-25.

193 YEC 2021 GRA, Transcript Volume 2, PDF page 16, line 17 to PDF page 17 line 15.

376. In later testimony, YEC stated that that rate base is financed by debt and equity and that the debt referred to was long-term debt. The interest previous charged or credited to the LWRF was considered short-term debt.[194]

377. When questioned about the LWRF and the effect on working capital, YEC responded that the effect is no different from any other deferral account and that there is nothing unique about this and the focus should be on the purpose of the fund.[195]

378. YEC also stated that funds for the LWRF are contained in YEC's operating bank account.[196]

379. In Undertaking 38, YEC responded that interest transactions for the LWRF affect the LWRF (balance sheet account) and Net Movement in Regulatory Differences Account. Prior to Decision 2022-03, when the LWRF was in a positive balance, the fund attracted interest based on short intermediate term bond rates. If the LWRF was in a negative balance, it would attract interest at the lowest short-term borrowing rate available to YEC through a line of credit.

380. In testimony YEC stated that interest earned on the LWRF was based on Bank of Canada short-term rates and that the interest was imputed[197] but was not included in rates.[198]

381. YEC argued that using the LWRF as an offset to rate base is contrary to the purpose of the LWRF, the directions of OIC 2021/16, the requirements of section 32 of the PUA, and is not consistent with normal principles established in Canada for utilities as directed by section 3 of OIC 1995/90.[199]

9.8.2 Views of interveners

382. In reply argument, the UCG submitted:

> ... that the YUB made a legitimate determination to treat the balance in the LWRF as an offset to rate base. The YUB made a determination years ago that the LWRF is only to be used for the purposes of stabilizing rates and offsetting diesel (now to include LNG) generation cost estimates and that's what happens when the LWRF balance is actually offsetting rate base amounts recovered in rates.[200]

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194 Transcript, Volume 4, PDF page 522, lines 15-22.
195 Transcript, Volume 4, PDF page 523, lines 7-19.
196 Transcript, Volume 4, PDF page 511, lines 17-22.
197 Transcript, Volume 4, PDF page 514, lines 4-7.
198 Transcript, Volume 4, PDF page 515, lines 5-7.
199 YEC Final Argument, PDF page 24.
200 UCG Reply Argument, PDF page 10.

9.8.3 Board Findings

383. The Board accepts the position of YEC that the LWRF historically has been administered outside the revenue requirement. It has not been considered directly as a rate base asset (or liability) but YEC's testimony is unclear if the LWRF balance has been considered part of YEC's working capital.[201] YEC appears to agree that the LWRF balance is part of working capital,[202] but also testified that the LWRF should not impact ratepayers unless it is included in rate base which, according to YEC and its definition of OIC 2019/25, it is not supposed to do.[203] This appears inconsistent. If the LWRF is part of YEC's operating cash account, the balance in the operating cash account is considered cash for accounting purposes. Cash is a current asset and forms part of working capital. According to Tab 7 Schedule 1 of YEC's Application, line 14 is working capital and is used in the calculation of rate base.

384. However, the Board finds that there is some further confusion on the record of this proceeding with respect to whether the LWRF and other deferral accounts are part of working capital and contribute to the determination of the utility's revenue requirement. The Board directs YEC, at the time of its next GRA, to clarify and explain if the LWRF and other deferral accounts are part of working capital and contribute to the determination of the utility's revenue requirement.

385. Based on the evidence before it, the Board finds that the interest (or its equivalent), whether credited or charged to the LWRF, should continue to be administered outside the revenue requirement. However, it is not clear to the Board why one interest rate is applied to the LWRF when there is a negative balance (interest at the lowest short-term borrowing rate available to YEC through a line of credit) and another interest rate is applied when the LWRF has a positive balance (interest based on short intermediate term bond rates). For consistency, YEC is directed to use one interest rate regardless of the balance in the LWRF. YEC is directed to use lowest short-term borrowing rate available to YEC through its line of credit to be applied to the balance in the LWRF. The Board also directs that any amounts related to the LWRF be either removed from working capital or for YEC to confirm that they are not part of the working capital amount included in Schedule 1 of Tab 7 as shown in its application. YEC is directed to reflect this in its compliance filing to this Board Order.

386. Further, to provide clarity regarding LWRF balance, YEC is directed to populate and provide the following table for each year since 1989 regarding the LWRF balance as part of its compliance filing to this Board Order and to continue to provide updates to this table as part of its future general rate applications:

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201 Transcript Volume 4, PDF page 521 line 25 to PDF page 523, line 21.

202 Transcript Volume 4, PDF page 523, lines 7-14.

203 Transcript Volume 4, PDF page 505, lines 5-19.

YEC LWRF Continuity Table (Note 1)

Year (Note 2)	Opening Balance	Water Availability (LTA) Adjustment (+/-) (Note 3)	Finance Charge (+/-) (Note 4)	Adjustment for balances outside fund caps (Note 5)	Ending Balance	Active (A)/Inactive (I) (Note 6)
1989						
…						
2023						

Note 1: A positive balance reflects increase in the fund due to higher than LTA renewable source generation. A negative balance reflects a decrease in the fund due to lower than LTA renewable source generation.

Note 2: Year refers to the YEC fiscal year, ending March 31, XXX

Note 3: Water Availability Adjustment refers to the annual adjustment to the LWRF due to the difference between LTA renewable generation and actual renewable generation.

Note 4: Finance charge refers to the change in the LWRF due to interest or equivalent calculations.

Note 5: When the fund is outside its caps (currently set at +/- $16 million, YEC must request a rider to either charge or refund to customers amounts to bring the balance of the LWRF within the boundaries of the fund caps.

Note 6: Indicate whether the LWRF was active or inactive for that given year.

10 Previous Board directions

387. In its application, YEC provided its responses to outstanding Board Directions since the submission of its 2021 GRA. Specifically, Board Orders 2022-03, 2022-06, and 2022-07 respecting YEC's 2021 GRA and related compliance filings.

Table 32: Board-prepared summary of YEC's responses to Board Orders 2022-03, 2022-06 and 2022-07

	Summary of Board direction	**Summary of YEC response to Board direction**
Appendix A to Board Order 2022-03:		
Paragraph 39	**Wholesale sales forecast**: The Board directs that in future GRA submissions, YEC shall provide the Board with 17 details on discussions with AEY to align their wholesale sales forecasts.	See Tab 2, Section 2.2.1 for a description of discussions with AEY to align wholesale sales forecasts.
Paragraph 68	**Generation forecast:** … For the next GRA, the Board directs YEC to provide details on how it calculates the line losses."	See Tab 2, Section 2.3 for a description of how line losses were forecast in the application.

Paragraph 72	**Peak demand forecast and dependable capacity:** … The Board observes that peak loads are growing and directs YEC in the next GRA to provide a detailed description of the steps it took in complying with Board Order 2018-10 including detailing the dates of meetings with other parties and summarizing the outcomes of those meetings and of the manner in which those outcomes are reflected in the forecast peak demand.	Tab 2, Section 2.4 provides a description of the method used by YEC to develop the peak demand forecast for the test years, focusing on the non-industrial peak demand relevant for YEC N-1 dependable capacity planning. In summary, forecasting near term test year peak load forecasts of necessity relies upon available information and modelling – when assessing longer term forecasts for resource planning purposes (and when justifying current capital expenditures to meet future peak loads), YEC also reviews Yukon government and other plans that may affect future peak loads.
Paragraph 115	**Production expense – diesel rental units:** Although the Board will accept the remaining diesel rental costs, subject to the preceding paragraphs and for purposes of this GRA, the Board directs YEC to provide a specific business case going forward for the diesel units (rental, lease and own/resale), other alternatives to rentals and stronger emphasis to least-cost options, the rationale for the options and the timing to implement such options. Of particular interest to assist in evaluating comparisons of Levelized Costs of Capacity would be a sensitivity analysis that includes delays in planned permanent renewable capacity projects and higher-than-forecast peak demand growth over the next 10 years. The Board directs YEC to provide a business case that conforms with these business case criteria in its next GRA.	See Section 3.3.2 which addresses diesel rental costs, Appendix 3.1 which address the above Board directive, and Appendix 5.1A which includes the business case for expansion of thermal infrastructure.
Paragraph 126	**Insurance costs:** The Board approves YEC's forecast 2021 insurance expense in the amount of $1.423 million as reasonable. The Board directs YEC to provide evidence of its continued efforts to achieve the appropriate amount of insurance at the most reasonable cost available at the time of its next GRA.	See Tab 3, Section 3.3.6 which summarizes and explains the basis for insurance cost increase for 2023 28 and 2024.
Paragraph 164	**Depreciation expense:** … YEC is directed to continue to rely on the currently approved 60-R3 for Account 1635- 300 and to provide clarification of the use of wood preservative or treatment process no later than the time of YEC's next depreciation study. …	A new depreciation study has not been undertaken; Yukon Energy will provide the above-noted clarification at the time the next depreciation study is undertaken.
Paragraph 242	**General Matters:** Due to these concerns, the Board directs YEC to present cost breakdowns for its capital projects in a uniform manner in future GRA proceedings. The Board further directs YEC to provide schedules for all capital projects in the CWIP continuity format — the template for which was provided in information request YUB-YEC-2-16 — in future GRA proceedings. In order to ensure a fair and efficient process for future GRAs, if YEC does not comply with this direction, the Board may request YEC to update and refile its	The tables included in Tab 5 have been updated to follow the continuity format outlined in the above direction.

	application or may deny the application.	
Paragraph 265	**Transmission Line Refurbishment Projects:** … Costs for the second phase will only be added to the rate base once the second phase is complete and YEC provides the actual capital spending amount incurred in the next GRA.	See Tab 5, Appendix 5.1A and Tables 5.2 to 5.6. YEC is seeking to include these costs in rate base as part of this GRA.
Paragraph 270	**P125 Headgate Replacement Project:** … Costs for this project will only be added to rate base once the project is complete and YEC provides the actual capital spending amount incurred in the next GRA.	The project has been completed and YEC is seeking to include these costs in rate base at this time. See Tab 5, Table 5.2; and Appendix 5.1A.
Paragraph 289	**Projects between $100,000 and $1 million:** The Board directs that YEC include the updated costs, excluding the WH4 Ventilation Project, for any projects that have been completed prior to or during the 2021 test year period. Costs for these projects will only be added to rate base once YEC provides the actual capital spending amount in the next GRA and demonstrates that the costs were prudently incurred.	See final costs for 2021 completed projects in Tab 5, Table 5.2; and completed projects listed in Tab 5, Tables 5-2 to 5.6; project summaries where relevant are provided in Appendix 5.1B.
Paragraphs 322 and 323	**Deferred Costs: Projects between $100,000 and $1 Million:** 322. … The Board is not prepared to approve the costs for the Atlin Hydro EPA Preparation project because YEC currently has an application for review of the Atlin EPA before the Board. The Board finds it necessary to complete the regulatory process for the Atlin EPA before it can assess the prudence of costs for preparation work. Thus, the Board denies the costs for the Atlin Hydro EPA Preparation project and directs YEC to reflect this denial in the compliance filing.	Please see Tab 5, Appendix 5.2B – the only Atlin Hydro EPA costs proposed for inclusion in 2023/24 test year revenue requirements relate to the completed hearing process to review the Atlin Hydro EPA.
	323. For all other costs in this category, the Board has reviewed the business cases and costs for projects in this category … To ensure that actual capital spending to the end of 2021 is accurately reflected in rate base, the Board directs YEC include the updated costs for any projects that have been completed prior to or during the 2021 test year period. Costs for these projects will only be added to rate base once YEC provides the actual capital spending amount in the next GRA.	See final costs for 2021 completed projects in Tab 5, Tables 5.2 to 5.6; see also Appendix 5.2B for relevant projects.
Paragraph 347	**LWRF annual reports:** … On a go-forward basis, the Board directs YEC to submit its annual LWRF report to the Board on within 60 days of the close of the year. YEC shall reflect this direction in its revised LWRF term sheet to be filed in the compliance filing to this Board Order.	On July 29, 2022, Yukon Energy Corporation (YEC) filed correspondence with the Yukon Utilities Board (Board) entitled "2021 Low Water Reserve Fund Report and Energy Reconciliation Adjustment Filing". The submission was pursuant to YEC's LWRF Term Sheet as approved in Board Order 2022-07. On January 20, 2023, the Board issued Board Order 2023-03 which considered the YEC submission as an application to be decided

		via written proceeding, pending Ministerial approval for such proceeding. Board Order 2023-07 approved the LWRF Report and ERA filing as submitted by YEC. On April 13, 2023, Yukon Energy Corporation (YEC) filed correspondence with the Yukon Utilities Board (Board) titled "2022 Low Water Reserve Fund Report and Energy Reconciliation Adjustment Filing". The submission was pursuant to YEC's LWRF Term Sheet as approved in Board Order 2022-07. On April 27, 2023, the Board issued Board Order 2023-09 which considered the YEC submission as an application to be decided by way of a written proceeding, pending Ministerial approval for such proceeding. Board Order 2023-11 approved the LWRF report and ERA adjustment filing as submitted by YEC.
Board Orders 2020-02; 2021-13; 2023-02; 2023-06		
	BESS Project Proceeding (Order 2021-13 - Erratum): YEC shall pay the following amounts to interveners identified and the Government of the Yukon within 30 days of the issuance of this Order. The Board directs YEC to record these hearing-related costs in its Hearing Costs Reserve Account.	Yukon Energy has established a Hearing Cost Reserve Account in accordance with the direction provided in Board Order 2013-03, and YEC has amortized hearing-related costs to this account for the above proceedings as directed by the Board (see Table 6.1 for a summary of the hearing-related costs for each of the above proceedings).
	2021 GRA Cost Awards (Order 2023-02): Based on the reasons set out in Appendix A to this Board Order, the Board approves total costs of $903,487.96.	
	THELP EPA Proceeding (Order 2023-06): Based on the reasons set out in Appendix A to this Board Order, the Board approves total costs of $385,637.77.	

Source: Exhibit 1, Application, PDF pages 481-488.

388. Having reviewed the information provided by YEC in its responses to the above noted directions from Board Orders 2022-03, 2022-06, and 2022-07, and the directions and findings related to YEC's Hearing Cost Reserve Account found in Board Orders 2020-02, 2021-13, 2023-02, and 2023-06, the Board is satisfied that YEC has responded to all outstanding directions. However, the Board was not satisfied with YEC's business case with respect to the rental of diesel generation units. Further, the Board is of the view that YEC did not follow the direction of the Board with respect to treating the balance in the LWRF as an offset to rate base. Both these issues required extensive additional information requests and added costs to this proceeding. In a GRA, the Board expects YEC to follow the directions given. If YEC is unable to follow a direction, it must request a change and provide a comparison between the direction from the Board and the requested change.

389. In sub-section 10.1 which follows, the Board provides further comments and instruction with respect to YEC's ongoing compliance with paragraph 242 of Appendix A to Board Order 2022-03. These comments and further directions are in respect of YEC's reporting of forecast and actual capital expenditures and additions as part of a CWIP continuity schedule.

10.1 YEC's response to paragraph 242 of Appendix A to Board Order 2022-03

390. In paragraph 242 of Appendix A to Board Order 2022-03, YEC was directed to present, in all future GRA proceedings, cost breakdowns for its capital projects in a similar manner. The cost breakdowns were to be facilitated by way of a CWIP continuity schedule. YEC was to model its CWIP continuity presentation based on a template provided by the Board in YEC's 2021 GRA Application in information request YUB-YEC-2-16.[204] This information request (IR) asked for "schedules for all capital projects in this application in the following CWIP continuity format." The Board further stated that "As noted in the heading for the requested tables, please provide the actual, forecast, and approved costs. For example, actual and approved for the years 2017 and 2018; actuals for 2019; forecast and actuals for 2020, and forecast for 2021."

391. In response to paragraph 242 of Appendix A to Board Order 2022-03, YEC provided certain tables as part of its Tab 5 (Excel workbook) schedules in its current application which had been updated to generally follow the continuity format outlined in the noted direction.

392. However, the Board's information request (IR) YUB-YEC-1-64(b), (c), and(d) in the current proceeding requested explanations for several aspects of the revised Tab 5 schedules. When asked, YEC submitted that the separation of information for completed projects (Tab 5.6) from those projects not completed (Tab 5.7) had stemmed from the Board's statement in paragraph 337 of Appendix A of Board Order 2022-03 which stated: "[g]iven that the costs for the projects in this category do not affect the test year rate base or revenue requirement, the Board makes no findings regarding these projects at this time." YEC understood the Board's statement to mean that information for any project that does not affect the test year rate base or revenue requirement should be provided separately.

393. IR YUB-YEC-1-64(a) requested YEC to provide a reconciliation of its 2023-2024 capital additions found on Tab 7, schedules 3.A and 3.B with the capital additions found on Tab 5 in its Tab 5.4 (2023) and Tab 5.5 (2024) capital additions.

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[204] YEC 2021 GRA Application, Exhibit B-21, YUB-YEC-2-16, PDF pages 41-51.

394. Further, in response to IR YUB-YEC-1-64(b), and in order to be able to reconcile certain 2023-2024 CWIP information between its Tab 5 schedules and all other tabs comprising Tab 5, YEC stated it was necessary to combine information on Tab 5.4-2023 and 5.7, and Tab 5.5-2024 and 5.7 in order to provide the information on a total basis.

10.2 Views of interveners

395. In its argument, the UCG stated that YEC has consistently failed in producing clear continuity schedules which makes prudency reviews problematic. The UCG cited issues such as: a lack of ability to track cost overruns; no clear identification of which projects have associated contributions and in what amounts; no means to compare approved forecasts with actual results; and no variance explanations being provided.[205]

396. Mr. Maissan did not address YEC's method of reporting financial information.

10.3 Board Findings

397. While the Board finds that, in general, the Tab 5 information provided in the current Application is a vast improvement from the capital information provided by YEC previously, the Board agrees with some of the comments of the UCG and considers there remains some room for improvement. This would require YEC to consolidate the information currently being provided while simultaneously providing valuable comparative approved, forecast, and actual capital information as discussed in the following paragraphs.

398. First, with respect to the separation of information for completed projects (Tab 5.6) from those projects not completed (Tab 5.7) and having now had the benefit of a full examination of YEC's Tab 5 schedules, the Board finds that there is no need to separate the CWIP continuity schedule between projects that are, or are forecast to be, completed during the test period from those that are not completed during the test period on these or any other Tab 5 schedules. The Board considers it will be more helpful for parties and the Board to have all the information combined into one schedule, and the Board directs YEC to do such in its compliance filing to this Board Order. This would alleviate the additional time required to reconcile the information provided separately in the 5.6 and 5.7 tabs and the issues experienced with evolving project naming conventions over time.

399. Second, the Board directs YEC to include equivalent information for both forecasts and actuals. For example, in the current Application, ideally, YEC would have provided a single CWIP continuity schedule which included columns providing

[205] UCG Final Argument, PDF page 18.

opening balance, capital expenditures, capital additions, and closing balance for each of 2021 Approved, 2021 Actual, 2022 Actual, 2023 Forecast, and 2024 Forecast. In YEC's subsequent GRA period (assuming for illustrative purposes, a 2025-2026 test period), YEC would again provide a single CWIP continuity schedule which includes opening balance, capital expenditures, capital additions, and closing balance for each of 2023 Approved, 2023 Actual, 2024 Approved, 2024 Actual, 2025 Forecast and 2026 Forecast.

400. As currently provided by YEC, there is no documentation that supports an easy process for comparing approved forecasts to actual results for a given capital project for the purpose of examining potential cost variances and determining the prudency of the costs incurred by YEC.

401. Third, with respect to the need to reconcile closing CWIP balances, YEC's response added an additional and, in the Board's view, unnecessary layer of complexity. YEC explained that Tab 5.4 - 2023 and Tab 5.5 – 2024 schedules "reflect the CWIP balances of projects that impact the rate base **[the portion left in CWIP after partial closing shown in the tables]**, while the closing CWIP shown on Table 5-7 reflect the CWIP balances for the projects that do not impact the rate base. They do not reconcile but are added together to get the total CWIP balances in Table 5.1."[206] (emphasis added)

402. The Board finds the information and format of the information, as described in the preceding paragraphs, to be necessary and directs YEC in its compliance filing to this Board Order and in each future GRA application to provide CWIP continuity information as shown in the template provided by the Board in Appendix A to this Board Order. The Board notes that the template provided in the current proceeding is similar, but not identical, to the template provided by the Board in YEC's 2021 GRA Application in YUB-YEC-2-16.

403. YEC's Tab 5 schedules, specifically those currently identified as tabs 5.2 through 5.5 should be revised to comply with this direction, which may render Tab 5.6 and 5.7 redundant. The Board also reminds YEC that all supporting schedules provided in an Excel format should be linked within the document.[207]

404. In summary, YEC is directed to provide its revised capital information in the CWIP format outlined in this section respecting YEC's ongoing compliance with paragraph 242 of Appendix A to Board Order 2022-03. For its 2023-2024 GRA compliance filing, YEC is directed to file a combined CWIP continuity schedule which includes opening

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206 Exhibit 2, Consolidated IR responses, YUB-YEC-1-64(b), PDF page 511.

207 As one example, within YEC's Tab 7 schedule, the depreciation expense shown on Schedule 3.1 should be linked to the pertinent information being provided on Schedule 3A and 3B.

balance, capital expenditure, capital addition, and closing balance for each of 2021 Approved, 2021 Actual, 2022 Actual, 2023 Forecast, and 2024 Forecast that reflects the findings and directions in this Board Order.

405. In concluding its determinations on this Application, YEC is to reflect its compliance with the Board's determinations and directions in the manner stated in Appendices 1 and 2 to this decision.

Appendix A – Board guidance and template for Tab 5 - CWIP continuity schedule

Further guidance from the Board	CWIP continuity schedule The required information is to be prepared on both an actual and approved forecast basis for all applicable previous test years; on an actual basis for any subsequent applicable non-test year(s); and on a forecast basis for the proposed test years. Sub-totals are to be included after each section as well as a final total.			
	Opening CWIP	Capital Expenditures	Capital Additions	Closing CWIP
Capital Works – Major projects > $1 million Include each applicable project grouped by functional category (eg. generation, transmission, distribution, general plant, overhaul)				
Deferred Costs – Major projects > $1 million Include each applicable project grouped by functional category (eg. feasibility study, regulatory, relicensing, dam safety review)				
Intangible Assets – Major projects > $1 million Include each applicable project grouped by functional category (if applicable)				
Capital Works – Minor projects $100,000 to $1 million Include each applicable project grouped by functional category (eg. generation, transmission, distribution, general plant, overhaul)				
Deferred Costs – Minor projects $100,000 to $1 million Include each applicable project grouped by functional category (eg. feasibility study, regulatory, relicensing, dam safety review)				
Intangible Assets – Minor projects $100,000 to $1 million Include each applicable project grouped by functional category (if applicable)				
Contribution applicable to any project identified above and grouped by applicable category if required				
Any other detail by category and project not included in categories above				

Appendix 1 – Summary of Directions (applicable for the compliance filing)

This section is provided for the convenience of readers and reflects directions that YEC is to respond to in its compliance filing to this decision. Appendix 2 will refer to directions that YEC is to respond to in future GRAs. In the event of any difference between the directions in this section and those in the main body of the decision, the wording in the main body of the decision shall prevail.

1. Therefore, based on the above reasons, YEC, in its compliance filing to this decision, is directed to use the AEY forecast for determining wholesale sales for 2024 .....Paragraph 48

2. The Board accepts the rationale and prepared forecast for generation for the 2023 and 2024 GRA test years. The Board accepts that YEC has, since the application, updated its forecast for IPP supply (March 1, 2024) and directs YEC to reflect those changes in its compliance filing to this decision. No contrary evidence has been provided regarding line losses. The Board accepts the line loss forecasts provided by YEC as reasonable and approves the line losses as applied for by YEC. The request by the UCG (YEC to proactively look to improve power quality and line voltage to reduce line losses) has been noted by the Board as has YEC's evidence that it looks for opportunities to reduce line losses when economically feasible. The Board finds the YEC practice acceptable and expects YEC will continue with that practice. .....Paragraph 73

3. As noted in other parts of this decision, YEC is to adjust its wholesales forecast to match that approved for AEY wholesale purchases. This in turn affects YEC's forecast generation and fuel costs for this test period. YEC is directed to incorporate that change and the updated YEC forecast for IPPs in terms of its forecast fuel costs and purchase power costs in the compliance filing to this decision. .....Paragraph 87

4. Accordingly, for the year 2023, YEC is directed in its compliance filing to remove the forecast labour costs associated with the manager of community relations FTE position that remained vacant in December 2023. YEC* may include prorated monthly costs for this FTE in its 2024 O&M forecast if YEC confirms that this position has been filled at the time of its compliance filing to this Board Order. If this position has not been filled at the time of the compliance filing, the Board directs YEC to remove the forecast labour costs associated with the FTE position from its 2024 O&M forecast. ..... Paragraph 109 *(*This reflects the correction to paragraph 109)*

5. The Board finds YEC's request for an in-scope and an out-of-scope labour escalation of 4.5 per cent and 3.0 per cent, for 2023 and 2024, respectively, to be reasonable as the escalators are based on YEC's 2023-2025 collective agreement, which was ratified by the Union in early November 2023. The Board accepts that applying the respective escalation to both in-scope and out-of-scope employees is consistent

with YEC's prior forecasting practices. Therefore, these escalators are approved. Further, given that YEC's proposed capital versus maintenance labour allocation for 2024 (a ratio of 18.4 to 78.6) does not add to 100, YEC is directed to apply its 2023 ratio of 17.9 to 82.1 capital to maintenance, which is the ratio approved by the Board. ..... Paragraph 110

6. The Board accepts YEC's explanation for the variances noted between the 2021 and 2022 actual brushing costs and the 2023-2024 forecast costs. However, the Board finds that YEC's preliminary 2023 actual brushing costs reflect the most accurate information available to the Board at this time and, for this reason, approves $1.339 million in brushing costs for each of YEC's 2023 and 2024 test years. YEC is directed to update its combined transmission and distribution brushing costs to $1.339 million in each of 2023 and 2024 in its compliance filing to this Board Order. For 2023, YEC is further directed to allocate these costs between its distribution and transmission functions based on the actual costs incurred. For 2024, YEC is directed to use the allocation per cents found in its Tab 3 schedules. ..... Paragraph 144

7. YEC is directed to revise its forecast SCADA communication costs to the amount of $0.167 million in each of 2023 and 2024 in its compliance filing to this Board Order. ..... Paragraph 154

8. YEC is directed to revise its forecast environmental costs to the amount of $0.361 million in each of 2023 and 2024 in its compliance filing to this Board Order..... ..... Paragraph 165

9. In order to provide parties and the Board with more fulsome and detailed information respecting the calculation of YEC's forecast 2023-2024 depreciation expense, in its compliance filing, YEC is directed to file a revised Schedule 3A, in which it will insert a column indicating the depreciation rate being used, and to include working formulae in the column of the schedule where the forecast depreciation expense is being calculated, including the forecast depreciation expense on current year additions. Further, YEC is directed to file a revised Schedule 3B to include working formulae in the column of the schedule where the forecast amortization expense is being calculated, to ensure the calculation of the forecast depreciation expense on current year additions. ..... Paragraph 189

10. In addition to the directions in the preceding paragraph, the Board directs YEC to recalculate its Schedule 3A and Schedule 3B depreciation expense, among other things, based on the incorporation of any Board-directed changes to dates and costs that impact each of forecast capital expenditures and capital additions, and any other direction that may result in a change to YEC's depreciation or amortization expense calculation. ..... Paragraph 190

11. In this proceeding YEC has not provided any new information with respect to the asymmetric risks expressed in Appendix A to Board Order 2023-01, Reasons for Decision, nor has YEC presented any information regarding new risks that should be considered since YEC's 2021 GRA. The Board continues to find that the ROE for YEC for this proceeding shall continue to be not greater than the ROE determined for FBC before the application of OIC 1995/90. Therefore, YEC's ROE for the 2023 and 2024 test years will be 9.15 percent. YEC is directed to reflect an ROE of 9.15 per cent in its compliance filing to this decision*..... Paragraph 207 *(This reflects the correction to paragraph 207)*

12. With respect to any amount of AFUDC included in the now applied-for costs for the WH2, WH4, and EAM projects, the Board finds that had YEC provided sufficient information at the time of its 2021 GRA, AFUDC would not have accumulated beyond that point. Accordingly, the Board denies YEC's recovery of any AFUDC amounts applied for in the current application, being $0.175 million, $0.019 million, and $0.042 million, respectively. The Board directs YEC to remove these amounts from its proposed capital additions (at row and column 1(c), 3(c), and 5(c)), and any related revenue requirement amounts in its compliance filing to this Board Order..... ..... Paragraph 227

13. However, similar to the Board's earlier observations with respect to YEC's amortization calculations, it is unclear whether YEC commenced the amortization of the Aishihik five-year licence renewal project in 2022 – the year of capitalization. YEC is directed to clarify the costs capitalized for this project in 2022 and the amount of amortization expense it incurred in 2022 (and how it was calculated) with respect to this project in its compliance filing to this Board Order. .... Paragraph 240

14. Notwithstanding the Board's direction specific to the Atlin Hydro EPA (discussed in paragraphs 317-319 below), the Board finds that YEC has not reflected the changed circumstances and therefore timing of its IPP connection forecasts in its revenue requirement. Accordingly, in its compliance filing to this Board Order, YEC is directed to update its forecast 2023 capital expenditures, capital additions, and associated contributions to account for the IPP connection delays discussed during the oral hearing, and to record the revised capital amounts in the year 2024 or in the years beyond 2024, as the case may be. ..... Paragraph 256

15. Accordingly, in its compliance filing to this Board Order, the Board directs YEC to make the following adjustments to its 2023-2024 forecast capital expenditures and additions, or to explain fully why no such adjustment is necessary..... .....Paragraph 272

16. Also in the current application, YEC did not forecast the completion of the BESS project within the 2023-2024 test period, indicating a CWIP balance of $30.951 million offset by contributions of $16.5 million as at the end of 2024. However, while

the Board is not assessing the prudency of the BESS costs at this time, the Board observes that YEC has not reflected the changed circumstances and therefore timing of its BESS project construction forecasts (capital expenditures) in its revenue requirement. YEC is directed to remove its forecast 2023 capital expenditures ($19.950 million in cap expenditures offset by $9.473 million in contributions) and record same in the year 2024. .....Paragraph 274

17. Second, for the Dawson new diesel project, YEC is directed to confirm that, as a component of the larger Thermal replacement project, the capitalization of this project has been forecast beyond the 2023-2024 test period and if so, has been reflected as such in YEC's revenue requirement in respect of closing CWIP balances (and test year capital expenditures) and rate base. ..... Paragraph 275

18. Lastly, for the Thermal replacement project, YEC is directed to provide revised Tab 5 schedules showing the correct capital related expenditure and addition amounts and the closing 2024 CWIP balance, which was incorrectly identified as $29.771 million in YEC's most recent update. YEC is further directed to provide the accounting entry it will use to adjust the 2024 CWIP balance to the correct amount of $39.329 million, and to clarify if any adjustments that were required for the Dawson new diesel project (noted in the previous paragraph) have been taken into account in response to this direction. ..... Paragraph 276

19. YEC is directed to record the capitalization of the now cancelled Southern Lakes project into its 2022 rate base and record two months of amortization expense in that year in its compliance filing to this Board Order. ..... Paragraph 311

20. For this reason, YEC is directed to remove all forecast 2023 capital expenditures, in its compliance filing to this Board Order, unless YEC can confirm the project remains viable and there is a reasonable probability that the project will proceed. If the Atlin project will not proceed, YEC is to treat the Atlin project in accordance with YEC's response to the Board's determination from paragraph 312. .... Paragraph 326

21. In reviewing the projects at issue, the Board finds there to be several projects that do not appear to meet YEC's capitalization criterion in that YEC has not shown that they either enhance the service potential or extend the useful life of an existing asset or add new assets to the system. Accordingly, the Board directs the following projects to be recorded as an expense in the year and amount they are forecast to be incurred. The seven projects are identified as: the public safety plans; digital strategy and policy development; privacy management program; vegetation management plan update; cyber security framework; digital reporting review; and the records policy planning and program development projects. In its future applications, YEC should include information specific to how each of its proposed deferred projects meet the capitalization criterion set out in Finance Policy, FA-106. .... Paragraph 343

22. As discussed earlier in paragraphs 304 and 318 of this Board Order, the Board has directed YEC to re-examine its capitalization policies and supporting documents for its major and minor deferred capital projects to ensure a complete understanding of the various processes it must undertake to ensure confirmation that there is a reasonable probability that the project will proceed, and to reflect, as necessary, any changes that may be required to YEC's capitalization policies and supporting documents. The Board considers that YEC's capitalization policies and supporting documents with respect to its minor capital projects would benefit from a similar examination and directs YEC to do so. ..... Paragraph 345

23. Therefore, the Board approves an IPP Purchase Cost Deferral Account for YEC on the same basis as that approved for AEY. YEC is directed to adjust its IPP Purchase Cost Deferral Account accordingly. ..... Paragraph 369

24. Based on the evidence before it, the Board finds that the interest (or its equivalent), whether credited or charged to the LWRF, should continue to be administered outside the revenue requirement. However, it is not clear to the Board why one interest rate is applied to the LWRF when there is a negative balance (interest at the lowest short-term borrowing rate available to YEC through a line of credit) and another interest rate is applied when the LWRF has a positive balance (interest based on short intermediate term bond rates). For consistency, YEC is directed to use one interest rate regardless of the balance in the LWRF. YEC is directed to use lowest short-term borrowing rate available to YEC through its line of credit to be applied to the balance in the LWRF. The Board also directs that any amounts related to the LWRF be either removed from working capital or for YEC to confirm that they are not part of the working capital amount included in Schedule 1 of Tab 7 as shown in its application. YEC is directed to reflect this in its compliance filing to this Board Order. .... Paragraph 385

25. Further, to provide clarity regarding LWRF balance, YEC is directed to populate and provide the following table for each year since 1989 regarding the LWRF balance as part of its compliance filing to this Board Order and to continue to provide updates to this table as part of its future general rate applications..... ..... Paragraph 386

26. First, with respect to the separation of information for completed projects (Tab 5.6) from those projects not completed (Tab 5.7) and having now had the benefit of a full examination of YEC's Tab 5 schedules, the Board finds that there is no need to separate the CWIP continuity schedule between projects that are, or are forecast to be, completed during the test period from those that are not completed during the test period on these or any other Tab 5 schedules. The Board considers it will be more helpful for parties and the Board to have all the information combined into one schedule, and the Board directs YEC to do such in its compliance filing to this Board Order. This would alleviate the additional time required to reconcile the information

provided separately in the 5.6 and 5.7 tabs and the issues experienced with evolving project naming conventions over time. ..... Paragraph 398

27. Second, the Board also directs YEC to include equivalent information for both forecasts and actuals. For example, in the current application, ideally, YEC would have provided a single CWIP continuity schedule which included columns providing opening balance, capital expenditures, capital additions, and closing balance for each of 2021 Approved, 2021 Actual, 2022 Actual, 2023 Forecast, and 2024 Forecast. In YEC's subsequent GRA period (assuming for illustrative purposes, a 2025-2026 test period), YEC would again provide a single CWIP continuity schedule which includes opening balance, capital expenditures, capital additions, and closing balance for each of 2023 Approved, 2023 Actual, 2024 Approved, 2024 Actual, 2025 Forecast and 2026 Forecast. ..... Paragraph 399

28. The Board finds the information and format of the information, as described in the preceding paragraphs, to be necessary and directs YEC in its compliance filing to this Board Order and in each future GRA application to provide CWIP continuity information as shown in the template provided by the Board in Appendix A to this Board Order. The Board notes that the template provided in the current proceeding is similar, but not identical, to the template provided by the Board in YEC's 2021 GRA Application in YUB-YEC-2-16. ..... Paragraph 402

29. In summary, YEC is directed to provide its revised capital information in the CWIP format outlined in this section respecting YEC's ongoing compliance with paragraph 242 of Appendix A to Board Order 2022-03. For its 2023-2024 GRA compliance filing, YEC is directed to file a combined CWIP continuity schedule which includes opening balance, capital expenditure, capital addition, and closing balance for each of 2021 Approved, 2021 Actual, 2022 Actual, 2023 Forecast, and 2024 Forecast that reflects the findings and directions in this Board Order. ..... Paragraph 404

Appendix 2 – Summary of Directions (applicable to future applications)

This section is provided for the convenience of readers and reflects directions that YEC is to respond to in future applications. In the event of any difference between the directions in this section and those in the main body of the decision, the wording in the main body of the decision shall prevail.

1. The Board shares the concern expressed by Mr. Maissan regarding the blended fuel ratio of 90/10 (LNG/diesel) and directs YEC to demonstrate, at the time of its next GRA, that the blended thermal ratio proposed by YEC is the correct LTA blended fuel mix. ..... Paragraph 89

2. Mr. Yee has provided substantial comment on permitted capacity and whether ratepayers should pay for costs related to unpermitted capacity. Mr. Yee also commented on YEC's elasticity when determining the capacity rating of several of its thermal units. These submissions do not provide evidence the Board is able to use to determine the revenue requirement for YEC to provide safe and reliable electric service at rates that are in the public interest. It is incumbent upon YEC to ensure it has all required regulatory approvals, processes, and assets in place to provide that safe and reliable service. Regarding the capacity issues raised, YEC is directed, in its future applications, to provide a strong industry based and accepted approach on what the manufacturers accept as criteria and evidence for uprating thermal generation units. This can be based on documented industry standards. .... Paragraph 137

3. Based on the evidence before it, the Board finds that YEC has supported its forecast 2023-2024 insurance expense in the amount of $2.190 million and $2.417 million, respectively, and approves these amounts. The Board continues to direct YEC to provide evidence of its continued efforts to achieve the appropriate amount of insurance at the most reasonable cost available at the time of its next GRA. .... Paragraph 170

4. Although there is some risk that the benefits may not materialize as submitted by YEC, the Board finds the evidence supports YEC going forward with the EAM/PAMMS projects and allowing those costs into rate base. However, to confirm the benefits of the project, at the time of YEC's next GRA, YEC is directed to provide reporting on the EAM/PAMMS project that quantifies; improvement in reliability measures; real cost benefits from inventory management; direct and real labour savings; measures that can show improvements in YEC's asset health; and any other measure that YEC can add that will help the Board and interested parties assess the overall benefit of this project. The Board approves YEC's PAMMS costs as requested for the 2023-2024 test years. ..... Paragraph 270

5. Nonetheless, the Board is concerned with the capitalization of significant costs for what is, strictly speaking, a non-asset that does not provide an enduring benefit to ratepayers. For example, as noted in Table 26 above, AFUDC was the second largest cost category ($1.82 million) for the Southern Lakes project. None of the $8.8 million in total costs for this project has resulted in a resource with economic value that is expected to provide a future benefit. To reduce the impacts of capitalizing significant amounts of AFUDC on ratepayers, the Board directs YEC to examine and redefine its processes for similar major deferred capital projects and to only capitalize those costs once it is determined that there is a reasonable probability that that project will go forward and to reflect, as necessary, any changes that may be required to YEC's capitalization policies and supporting documents. On a go-forward basis, YEC is to explore and provide an alternative for the treatment of costs incurred for such projects until it has obtained a reasonable probability that the project will proceed. For example, this could be done by expensing the costs as incurred (until a reasonable probability of proceeding is determined) or treating the costs as no-cost capital (with or without debt and/or equity financing). In the case of cancelled projects, it should be clear to customers that the amounts that are included in rates are for cancelled projects. As there is no asset, YEC is to expense all costs for the project in the year the project is cancelled and reflect this change in YEC's capitalization policies and supporting documents. ..... Paragraph 312

6. Accordingly, at the time of its next GRA, YEC is directed to provide with its application a summary of the historical activity and current status for each of the Whitehorse water use licence renewal, Mayo Generating Station water use licence renewal, and the Mayo Lake Storage and 2024 Resource Plan projects and the same information for any other project for which significant balances of CWIP (such as those projects identified in paragraphs 247-248 above) are forecast to remain at the end of the next test period. For the Mayo storage project, YEC is to treat this project similarly to the Atlin project discussed in paragraph 324 above ..... Paragraph 334

7. However, the Board finds that there is some further confusion on the record of this proceeding with respect to whether the LWRF and other deferral accounts are part of working capital and contribute to the determination of the utility's revenue requirement. The Board directs YEC, at the time of its next GRA, to clarify and explain if the LWRF and other deferral accounts are part of working capital and contribute to the determination of the utility's revenue requirement. ..... Paragraph 384

8. Further, to provide clarity regarding LWRF balance, YEC is directed to populate and provide the following table for each year since 1989 regarding the LWRF balance as part of its compliance filing to this Board Order and to continue to provide updates to this table as part of its future general rate applications: ..... Paragraph 386