ADDITIONAL EVIDENCE OF YUKON ENERGY CORPORATION

Reconsideration of YEC 2023/24 General Rate Application

by the Yukon Utilities Board

March 16, 2026

TABLE OF CONTENTS

YUKON ENERGY ADDITIONAL EVIDENCE

1.0 INTRODUCTION

On January 19, 2026, the Yukon Court of Appeal issued its Order in *Yee v. Yukon Energy Corporation and Yukon Utilities Board*, Court of Appeal File No. 24-YU922, directing the Yukon Utilities Board to reconsider its previous decision in Yukon Energy's 2023/24 GRA (Board Order 2024-05) approving the inclusion of Yukon Energy's forecast diesel rental costs in its revenue requirements for the years 2023 and 2024. The reconsideration directed by the Court is concerned with a portion of those costs that Mr. Yee had objected to on grounds that they related to diesel capacity that exceeded the limits then authorized by Yukon Energy's air emissions permits under the *Environment Act*.

The Court's decision in *Yee* (2026 YKCA 1) specified (at para. 32) that the Board "is not obliged to reflexively reject charges for expenses tainted with regulatory non-compliance, no matter circumstances", and that the law requires a "nuanced analysis". The Court held that the "ultimate question" to be considered in that nuanced analysis is whether the Board's approval of the costs in issue "frustrates the policy underlying the illegality" under the *Environment Act* "and thereby threatens the integrity of the legal system" (para. 48).

The Court was satisfied that the need for the generators was "undisputed, situational and well motivated." Nevertheless, based on the evidence that was on the record from the 2023/24 GRA, the Court described this as "not a case of accidental or inadvertent illegality, but of a deliberate practice undertaken and persisted in over four years" (para. 50). In that context, the Court held that Board had erred in law by approving the rental charges in issue based on a "siloed approach" that "undermines the objectives and principles stated in the *Environment Act* in a manner that threatens the integrity of the legal system" (paras. 51-53).[1]

In reaching that conclusion, the Court was necessarily limited not only by the evidentiary record that was before the Board at the original hearing of the 2023/24 GRA, but also by the limited scope of the Court's jurisdiction on the appeal before it, which was confined to addressing questions of law. As the Court of Appeal held previously in *Utilities Consumers' Group v. Yukon Utilities Board*, 2001 YKCA 5 at para. 22, aff'd 2002 YKCA 8: "The restriction of appeals to questions of law means that the Court cannot substitute its discretion for that of the Board. The Court cannot substitute its views as to the merits, or its opinion

[1] This concern about the Board's "siloed approach" arose specifically from the Board's determination at para. 137 of its decision that Mr. Yee's submissions about "permitted capacity and whether ratepayers should pay for costs related to unpermitted capacity" were not relevant to its exercise of rate-setting discretion. The Board found that "[t]hese 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" (quoted at para. 24 of the Court of Appeal decision).

as to what would be in the public interest, for those of the Board." Similarly, it was not open to the Court to hear new evidence on the appeal; nor was it open to the Court to make its own findings of fact or mixed fact and law. The Court's decision must be read, understood and given effect in light of these well-established underlying principles.

Consistent with these principles, the Court in *Yee* made no ultimate determination about what diesel rental costs Yukon Energy should still be entitled to recover in rates for the 2023 and 2024 test years. Instead, the Court properly left it to the Board "to reconsider the 2023/24 GRA in light of our legal conclusion on this appeal and to order whatever rate modifications and consequential relief are appropriate in the exercise of its public interest mandate" (para. 55).

This reconsideration process directed by the Court now requires the Board to undertake a further "nuanced analysis". As Yukon Energy noted previously in its February 26, 2026 letter to the Board:

> That nuanced analysis will of course need to consider the review of applicable legal principles undertaken by the Court pursuant to the limited scope of its statutory jurisdiction on the appeal, which was confined to addressing questions of law. However, the Board will also need to make its own evaluation of how those principles should be applied in this instance having regard to all relevant factual circumstances. Amongst other things, this will need to include the Board's review and analysis of relevant evidence that was not previously before it at the hearing of the 2023/24 GRA and that therefore did not form part of the record before the Court of Appeal.

As noted further in Yukon Energy's February 26th letter, "[t]he Board's ultimate decision about what if any 'rate modifications and consequential relief' should be directed as a result of the Court's decision therefore remains a matter within the Board's broad discretion."

Yukon Energy is filing a large volume of additional evidence to assist the Board in the exercise of its broad discretion. This includes the evidence set out in considerable detail in Sections 2.1 to 2.4 below, which is supported by documentary evidence contained in multiple attachments listed in Section 3.0 and provided in a separate, bookmarked PDF file. More particularly, it includes historical evidence about the assessment and permitting of Yukon Energy's thermal generation facilities going back to 2011, and about system planning considerations going back to 2017, which the Board will need to understand in order to evaluate the measures taken by Yukon Energy after it was informed by Environment Yukon in April 2022 of what was effectively a new regulatory requirement to complete environmental assessments for emergency back-up generation capacity that Environment Yukon had previously authorized in permit amendments granted without assessments in 2017 and 2018.

When the Board considers this additional evidence in its totality, together with the evidence that is already on the record from the 2023/24 GRA, it will demonstrate clearly, as a factual matter, that there has never been a "deliberate practice" by Yukon Energy to attempt to avoid environmental regulatory compliance. On the contrary, Yukon Energy has engaged actively, transparently and responsibly with Environment Yukon and the Yukon Environmental and Socio-economic Assessment Board (YESAB) to respond to evolving regulatory requirements as expeditiously as reasonably could be achieved throughout the relevant time period. Yukon Energy's compliance efforts detailed in this submission did not undermine the integrity of the requirements of the *Environment Act* and its regulations – they were aimed at promoting compliance, and curing any non-compliance, with Environment Yukon's evolving approach to interpreting, applying and implementing environmental regulatory requirements.

The Court of Appeal in *Yee* (at para. 32) rejected Mr. Yee's argument that "unlawful is unlawful", and his suggestion that any expenses "tainted with regulatory non-compliance" should automatically be rejected, "no matter the circumstances". Rather, when issues of regulatory non-compliance are raised, the Board needs to consider all relevant evidence when exercising its broad discretion to determine whether related costs should be recoverable in rates.

The Court of Appeal previously described the Board's broad discretion in setting rates in *Yukon Energy Corporation v. Yukon Utilities Board*, 2017 YKCA 15 at para. 18,[2] and the Court referenced it again specifically at para. 19 of its decision in *Yee*. The Board's exercise of that discretion is a highly fact-driven exercise; as held in *Altagas Utilities Inc. v. Alberta Utilities Commission*, 2020 ABCA 375 (at paras. 21-22), the Board must "weigh the evidence and exercise its judgment".

Consistent with these requirements, the Board has established a written hearing process for this reconsideration under Board Order 2026-05 (as revised by Board Order 2026-06) in which:

- all of the evidence that was previously on the record at the hearing of the YEC 2023/24 GRA relating to Yukon Energy's forecast diesel rental costs continues to form part of the record for the reconsideration;[3] and

[2] The Court in *Yukon Energy Corporation v. Yukon Utilities Board* held (at para. 18): "Canadian rate-setting principles generally require that rates, and thus approved costs upon which they are based, be just and reasonable to both the utility and consumers: *Ontario (Energy Board)* [*v. Ontario Power Generation Inc.,* 2015 SCC 44] at paras. 7, 14-20. Subject to its overarching duty to ensure that its orders are just and reasonable, nothing in the OIC [i.e. the *Rate Policy Directive (1995)*] or the [*Public Utilities*] *Act* constrains the Board's discretion to determine the methodology it uses to assess Yukon Energy's costs in its rate-setting decisions."

[3] This includes (not exhaustively) the evidence relating to Yukon Energy's rental diesel units in Exhibit 1, Application, Appendix 3.1 (Diesel Rental Business Case) (PDF pp. 88-95); Exhibit 2, YEC IR Responses, NY-YEC-1-12, NY-YEC-1-17 and NY-YEC-1-18 (PDF pp. 34-36, 79-84); Exhibit 3A, YEC Response to Motions for Further Disclosure, NY-YEC-1-12(a) (PDF p. 5); Exhibit 4, YEC Revised IR Responses, NY-YEC-1-2 REVISED (PDF pp. 1-5); Exhibit 5, YEC Revised

- Yukon Energy and all intervenors have the further opportunity to file additional evidence addressing the issues arising from the Court of Appeal decision, to assist the Board in its reconsideration of Order 2024-05.

In accordance with the process established by the Board, this submission provides additional evidence that will give the Board a more complete factual context to fully consider the issues arising from the Court of Appeal decision. That additional evidence that was not before the Court must be considered in combination with the evidence that is already on the record from the GRA hearing about the critical need for Yukon Energy to maintain sufficient emergency back-up generating capacity to ensure public safety. It also must be considered in light of the Board's previous rulings in the 2021 and 2023/24 GRAs on diesel rental costs that it found to be prudently incurred to meet utility planning criteria approved by the Board (N-1), for rental diesel units that were used and useful in providing electricity service to Yukoners. A "nuanced analysis" of the totality of that evidence will demonstrate that Yukon Energy has taken the requirements of the *Environment Act* seriously, and that the Court's characterization of Yukon Energy's conduct as "a deliberate practice undertaken and persisted in over four years" based on the limited body of evidence that was before it on the appeal is factually unsupportable.

In particular, based on Environment Yukon's approach to Yukon Energy's air emissions permits for diesel rentals leading up to the March 31, 2022 expiry of the authorization previously granted for the emergency back-up diesel capacity in Whitehorse under Part 9 of Yukon Energy's former Air Emissions Permit No. 60-010 (see **Attachment 18**), it was Yukon Energy's understanding and reasonable expectation that its emergency back-up capacity could be authorized without further YESAA assessments under the authority of the emergency exemption in section 49(1) of YESAA (the *Yukon Environmental and Socio-economic Assessment Act*).[4] However, this suddenly changed after Environment Yukon informed Yukon Energy in April 2022 of its interpretation that the emergency back-up capacity could no

IR Responses, YUB-YEC-1-35 REVISED (PDF pp. 3-92); Exhibit 9, YEC Rebuttal Evidence to Nathaniel Yee Intervenor Evidence; and Exhibit 10, YEC Opening Statement (PDF p. 7).

[4] This understanding was reflected in Yukon Energy's correspondence to Environment Yukon in connection with its 2017 request to amend its Air Emissions Permit to specifically authorize emergency back-up capacity in Whitehorse: see Yukon Energy's November 23, 2017 email to Environment Yukon (**Attachment 10**). The same understanding was also reflected in the evidence and submissions provided by Yukon Energy in the 2021 GRA proceeding before its Air Emissions Permit was amended in May 2022 and split into four separate site-specific permits: see, for example, 2021 GRA, Final Argument, PDF pp. 27-28; Reply Argument, PDF pp. 16-17; YEC Rebuttal Evidence, Exhibit B-30, PDF pp. 5-7; and September 27, 2021 Transcript, pp. 86-91, 96-105. See also, from the 2023/24 GRA: YEC Rebuttal Evidence, Exhibit 9, PDF pp. 5-6. Indeed, the Court of Appeal, in its decision in *Yee*, specifically noted (at para. 6) that the controversy raised by Mr. Yee's appeal arose "from a failure of the permitting regime to recognize [the] reality" that "recourse to diesel generation may be necessary for the health and security of Yukon residents in emergency situations in the depths of winter if a hydro-electric generating facility fails", and that "prudence dictates" planning for such events. The Court observed that this controversy "would be avoided it Environment Yukon were to issue contingent permits to regularize the use of the diesel generators by YEC in emergency situations." Consistent with Yukon Energy's interpretation, the Court observed further that "[i]t is unclear why Environment Yukon has not done so."

longer be reauthorized without a further YESAA assessment in light of the repeal of YESAA section 49.1 (see **Attachment 21**).[5]

During the period after April 2022:

- Yukon Energy took reasonable, appropriate and timely steps and made concerted efforts to work with assessors and regulators to complete the necessary YESAA assessments and to obtain amendments to its air emissions permits to authorize its emergency back-up capacity, including the capacity that was previously permitted in Whitehorse, as well as the additional capacity that also had to be added in Faro and, later, at the new facility at Mayo Secondary;

- the assessment and permitting processes required after April 2022 necessarily took time to complete at each of the three sites where diesel rentals were installed (including both Whitehorse and Faro, and subsequently Mayo Secondary), particularly in light of the rigidity of YESAA processes that are not well designed for the assessment of existing projects or project that are required to provide essential public services, and where, in Yukon Energy's experience, such projects have historically been put in a "first in - first out" queue behind placer miners and other big or small projects;

- during the relevant time period, the time required to complete YESAA assessments took even longer because of systemic delays in assessment processes caused by YESAB's capacity issues, which were a matter of public record;

- the timing of assessment and permitting process was also complicated by the compressed timeframe in which Yukon Energy had to make decisions to add diesel rental capacity to meet rapidly growing emergency dependable capacity requirements and to protect Yukoners from the potential of prolonged winter power outages and harm due to the loss of its largest generator (the Aishihik Generating Station);

[5] Section 49.1 of YESAA previously allowed a decision body (including the Yukon Government) to exempt a project that was being renewed or amended from a new YESAA assessment if there was no "significant change" to the original project that was previously assessed. It was (and continues to be) Yukon Energy's interpretation that the separate "emergency" exemption in section 49(1) of YESAA (as distinct from 49.1) still gives Environment Yukon the legal authority to include provisions in air emissions permits similar to those that were previously included in Part 9 of permit no. 60-010, without further assessment, authorizing the use of Yukon Energy's back-up diesel rental generation capacity when required in response to an emergency. However, it became apparent after April 2022 that Environment Yukon did not agree with that interpretation of section 49(1), despite the fact that Environment Yukon had previously reauthorized Yukon Energy's emergency back-up capacity in Whitehorse in October 2018 after section 49.1 had already been repealed, at a time when the only exemption that was still in effect – and that Environment Yukon could legally have relied on – was the emergency exemption in section 49(1).

- these rapid increases in emergency dependable capacity requirement were due to the combined effect of peak winter loads rising quickly – contributed to by Yukon Government policy and programs and other market conditions (for example, more stringent home insurance requirements) promoting electrification of home heating and transportation – together with unplanned delays or cancellation of projects that had previously been planned to fill the dependable capacity gap;

- recognizing that assessment and permitting delays were practically unavoidable during this time period given all of these factors, Yukon Energy considered it necessary to prioritize ensuring that it would have sufficient reliable generating capacity to respond to emergency events presenting a significant and immediate risk to public welfare, health and safety, in fulfillment of its obligations as a public utility under the *Public Utilities Act*, while continuing to engage actively, responsively and transparently with Environment Yukon to address regulatory compliance and permitting issues under environmental legislation;[6] and

- the emergency back-up rental diesel capacity installed by Yukon Energy did in fact prove to be used and useful when it was needed to respond to the emergency events that actually occurred in December 2022 and January 2024.

In this context, Yukon Energy's approach did not show any disrespect for the requirements of the *Environment Act*. On the contrary, it was the only approach reasonably or realistically open to Yukon Energy in the circumstances that could ensure compliance with Yukon Energy's obligations under the *Public Utilities Act* and address the overriding public interest in ensuring public safety.

Indeed, in December 2024, when Yukon Energy was experiencing assessment and permitting delays for its thermal generation facilities generally due to YESAB capacity issues, both Environment Yukon and Yukon Energy's Minister specifically communicated with Yukon Energy about the essential nature of power generation (as outlined in more detail in Section 2.4 below). These communications show that the Yukon Government – both at regulatory and ministerial levels – recognized the critical need for Yukon Energy to continue to operate thermal generation facilities to address the safety risk to Yukon communities that would otherwise result if it were unable to maintain system reliability – even if this would result in temporary non-compliance with the *Environment Act*, while Yukon Energy "continue[d] to

[6] As evidenced in previous GRAs, it is important to highlight that Yukon Energy capacity planning pursued development and commissioning of new permanent dependable capacity throughout all relevant time periods. Yukon Energy has always considered diesel rental as a residual option, to be relied on only to the extent that the combination of other feasible generation options that Yukon Energy can implement each year are forecast to be insufficient to meet dependable capacity shortfalls without being supplemented by diesel rentals.

be diligent in navigating assessment and regulatory processes and continue[d] regular communication and notifications with the relevant Yukon Government departments."

The additional evidence provided by Yukon Energy in this submission will show that allowing Yukon Energy to recover all of the diesel rental costs that the Board previously allowed in the 2023/24 GRA will not "undermine the objectives and principles" of the *Environment Act* in a manner that would "threaten the integrity of the legal system." Rather, as will be elaborated in Yukon Energy's written argument in June, the "nuanced analysis" required by the Court of Appeal decision in *Yee* will demonstrate that all of those costs continue to be properly included in Yukon Energy's revenue requirements for 2023 and 2024 in accordance with normal rate setting principles and the requirements of the *Rate Policy Directive (1995)*, OIC 1995/090 (as amended).

2.0 YUKON ENERGY'S ADDITIONAL EVIDENCE

Yukon Energy's additional evidence is structured as follows:

- **Section 2.1** provides details of the **environmental regulatory context** leading up to Environment Yukon's communication to Yukon Energy in April 2022 that its emergency back-up capacity in Whitehorse would not be reauthorized without a further YESAA assessment, explaining Yukon Energy's understanding and reasonable expectations about the assessment and permitting regimes applicable to its thermal generating facilities up to that time.

- **Section 2.2** provides a further overview of the rapidly evolving **system planning context** in which Yukon Energy needed to make decisions in compressed timeframes about adding additional rental diesel capacity to the grid to ensure system reliability and public safety during the winter, including faster than anticipated non-industrial peak load growth combined with the impact of project delays and cancellations during the relevant time period.

- **Section 2.3** then provides further details of the steps reasonably taken by Yukon Energy after April 2022 through to the end of the 2024 test year to **diligently address regulatory compliance concerns**, by pursuing assessments and permitting that was then considered necessary by Environment Yukon for Yukon Energy's rental diesel generators at each of the Whitehorse, Faro and Mayo Secondary thermal generating stations.

- Finally, **Section 2.4** provides additional evidence of **communications received from the Yukon Government in December 2024**, including both Environment Yukon and the Minister responsible for Yukon Energy, about the essential need to maintain a reliable supply of power to Yukoners despite delays in assessment and permitting processes in order to protect public safety.

This foregoing includes evidence that would not have been considered relevant in the original 2023/24 GRA hearing before the Board, because of the Board's previous understanding of the scope of its regulatory jurisdiction under the *Public Utilities Act* prior to the Court of Appeal decision in *Yee*. That evidence therefore was not before the Board when it made its decision on the 2023/24 GRA; nor was it before the Court of Appeal on the appeal. However, all of this evidence has now become relevant to the Board's reconsideration of its 2023/24 GRA decision having regard to the Court's Reasons for Judgment.

In particular, when the Board exercises its broad rate-setting discretion in this reconsideration proceeding in accordance with the findings of law made by the Court of Appeal, the Board must to consider the full evidentiary context that is now before it, including evidence that was not before the Court, in order to fairly determine the factual issues that it must now address when answering the question of whether the continued inclusion of the diesel rental costs in issue in Yukon Energy's 2023 and 2024 revenue requirements will "threaten the integrity of the legal system."

2.1 REGULATORY CONTEXT LEADING UP TO APRIL 2022

For the Board to fairly evaluate the steps that Yukon Energy took to address concerns about regulatory compliance after the authorization previously granted by Environment Yukon for the operation of emergency back-up diesel generating capacity in Whitehorse expired on March 31, 2022, the Board will need to give full consideration to the environmental regulatory context leading up to the point when Environment Yukon notified Yukon Energy on April 21, 2022 that its emergency back-up capacity would not be reauthorized without a further YESAA assessment – despite the fact that Environment Yukon had previously done so just 3½ years earlier in October 2018.

As noted above, this environmental regulatory context involves evidence that was not put before the Board during the original hearing of the 2023/24 GRA in March 2024 because it was not relevant to the issues that were understood to be before the Board at that hearing.

In particular, at the time of the 2023/24 GRA hearing, there was no expectation the Board would revisit the precedent set by its previous findings and conclusions in the 2021 GRA Decision (Board Order 2022-03) regarding Yukon Energy's entitlement to recover all projected diesel rental costs that were reasonably incurred to ensure its ability to provide reliable service to Yukoners, notwithstanding the assessment/permitting status of Yukon Energy's emergency back-up capacity, which the Board considered to be a matter for Environment Yukon, not the Board. The Board Chair made it clear in his comments and rulings on Mr. Landry's objections during Mr. Yee's cross-examination of Yukon Energy's witness panel that the Board did not consider evidence of this nature to be relevant to the issues the

Board considered to be within its jurisdiction on the GRA for the purpose of determining YEC's revenue requirement.[7]

Since this evidence was not put before the Board at the original 2023/24 GRA hearing, it did not form part of the record before the Court of Appeal, and the Court of Appeal therefore did not and could not have considered it. However, in light of the Court's reasons in *Yee*, that evidence is now both relevant and necessary for this reconsideration process.

2.1.1 2011 to 2017: Before Diesel Rentals Emerge

The relevant environmental regulatory context begins with the environmental and socio-economic assessments completed by YESAB in 2011/2012 for the renewal of Yukon Energy's former blanket Air Emissions Permit No. 60-010 covering all four thermal generation stations in operation at that time, including both Whitehorse (2011-0241) and Faro (2011-0246), as well as downtown Mayo (2011-0242) and Dawson City (2011-0244).[8]

Yukon Energy submitted a Project Proposal to YESAB on October 25, 2011 for all four of those assessments (**Attachment 1**) which addressed the total generation capacity of the entire diesel generation inventory in place at the time at all locations, as set out in Table 3 of the proposal (PDF p. 24). This included:

- a total of 25.22 MW of diesel generation capacity from seven permanent Yukon Energy-owned units operating at the time in Whitehorse (WD1 to WD7);
- an additional 1.55 MW of diesel generation capacity from two mobile units situated in Whitehorse at that time (YM1 and YM2);
- a total of 10.55 MW of diesel generation capacity from four permanent Yukon Energy-owned units operating at the time in Faro (FD1, FD3, FD5 and FD7); and
- a total of 7.0 MW of additional diesel generation from permanent Yukon Energy-owned units operating at the time in downtown Mayo (with 2.0 MW from MD1 and MD2) and in Dawson City (with 5.0 WM from DD1 to DD5).

[7] See Transcript, March 5, 2024, pp. 248-251, 258-262, 268-269, 287-291.

[8] This reconsideration proceeding is not concerned with the downtown Mayo and Dawson City generating stations, as there is no dispute over the permitting status of Yukon Energy's permanent diesel generators installed at those sites in the 2023 and 2024 test years.

After all of this capacity was assessed by the applicable YESAB Designated Offices, the Yukon Government issued Decision Documents authorizing the renewal of Yukon Energy's Air Emissions Permit at all four sites. This included:

- a Decision Document issued on January 9, 2012 for Faro, authorizing the issuance of a renewed permit for Yukon Energy "to continue operating its existing diesel-fired electricity generating station" at that site (**Attachment 2**); and

- a Decision Document issued on January 27, 2012 for Whitehorse, authorizing the issuance of a renewed permit "to maintain the ability to operate its diesel generating facilities" at that site, and describing the "principle [*sic*] activity" as "the continued operation of 7 diesel generators" (**Attachment 3**).[9]

On February 27, 2012, after these Decision Documents were issued and within approximately four months after Yukon Energy submitted its Project Proposal, Environment Yukon issued a renewed two-year Air Emissions Permit covering all four sites (**Attachment 4**), with an expiry date of December 31, 2014.[10] That permit authorized Yukon Energy "to operate electricity generating equipment" at each site – implicitly, up to the generating capacities that had been assessed by YESAB – without specifying authorized capacity limits or numbers of units for any site directly in the permit.

In August 2013, during the two-year term of the foregoing permit, Yukon Energy submitted another proposal to YESAB for assessment of the Whitehorse Natural Gas Conversion Project (2013-0115). That proposal proposed to modify Yukon Energy's thermal generating station in Whitehorse by retiring two permanent diesel units (WD1 and WD2) and replacing them with new LNG generators – two initially, and a third to be added at a later date.

The Whitehorse Natural Gas Conversion Project proposal also contemplated the continued operation of WD3 to WD7, with a total diesel generation capacity of 16.15 MW continuing to be provided by those units. YESAB did not require a new assessment for its continued use of the 16.15 MW of capacity from those five units because that capacity had previously been assessed in YESAB File 2011-0241.[11]

[9] While not relevant to this reconsideration proceeding, Decision Documents were also issued for downtown Mayo on January 9, 2012 and for Dawson City on February 1, 2012.

[10] Prior to October 2014, section 12(2) of the *Air Emissions Regulations* only authorized Environment Yukon to issue or renew air emissions permits for a period of up to three years. That provision was amended by OIC 2014/150 (s. 1(4)) to increase the maximum term of air emissions permits to ten years.

[11] Yukon Energy previously provided evidence on this point in its December 12, 2023 response to Mr. Yee's motion for further disclosure: Exhibit 3A, NY-YEC-1-12(a), PDF p. 5.

On July 7, 2014, following a YESAB Executive Committee level screening of the Whitehorse Natural Gas Conversion Project, the Yukon Government issued a Decision Document for that project (**Attachment 5**). In August 2014, Yukon Energy confirmed with Environment Yukon that with this Decision Document, no further assessment was needed to support the continued operation of Yukon Energy's diesel generating facilities in Whitehorse for the ten-year permit renewal period assessed (**Attachment 6**).

In the fall of 2014, YESAB's Designated Offices also completed separate YESAA assessments for the continued operation of Yukon Energy's diesel generating facilities in Faro (2014-0119), downtown Mayo (2014-0118) and Dawson City (2014-0120). The Yukon Government then issued separate Decision Documents for each of those three sites. This included a Decision Document for Faro, issued on October 17, 2014, which described the "principal activity" at that location as "the continued operation of two diesel generators (FD1 and FD7)" (**Attachment 7**) given that FD3 and FD5 had been removed from that site.[12]

On December 29, 2014, after these Decision Documents were issued, Environment Yukon issued a renewed ten-year Air Emissions Permit covering all four sites (**Attachment 8**), with a new expiry date of December 31, 2024.

The renewed Air Emissions Permit continued to authorize Yukon Energy "to operate electricity generating equipment" at each site:

- Consistent with the Whitehorse Natural Gas Conversion Project proposal, Part 3 of the permit referred to "two liquefied natural gas generators" (i.e. WG1 and WG2) and "five generators running exclusively on diesel fuel" in Whitehorse, which at the time included WD3 to WD7; however, the permit did not specify a capacity limit for Whitehorse apart from what had previously been assessed by YESAB in 2011 and 2013. In anticipation of the planned addition of the third LNG generator in Whitehorse that had been included in the YESAA assessment, Part 3 also indicated that Yukon Energy would be required to obtain a permit amendment before adding any additional LNG generators in Whitehorse; however, the permit specified no such requirement for diesel generators.

- Part 3 of the renewed Air Emissions Permit also referred generally to the continued operation of the "diesel generators" at the other three sites, including Faro, without specifying a capacity limit or numbers of units for any of those sites.

[12] Again, while not relevant to this reconsideration proceeding, Decision Documents were also issued for Dawson City on October 7, 2014 and for downtown Mayo on October 17, 2014.

It should be noted that all of the above was done before YESAA was amended on June 18, 2015 to add section 49.1 (S.C. 2015, c. 19, s. 14). Not to be confused with the emergency exemption in YESAA section 49(1) (which has been in effect at all relevant times), section 49.1 authorized Decision Bodies (including the Yukon Government) to exempt projects that were being renewed or amended from having to undergo a new assessment where there was "no significant change" from the previous assessment of the original project.

Yukon Energy continued to operate its diesel facilities at all four sites under this version of its Air Emissions Permit until November 2017.

2.1.2 2017 and 2018: Diesel Rentals Installed at Whitehorse

Yukon Energy started to add rental diesel units to the system in winter 2017/18, initially with four rental units in Whitehorse. As outlined previously in Yukon Energy's response to 2023/24 GRA YUB-YEC-1-35(e) and (f) REVISED (Exhibit 5, PDF p. 9), the diesel rental "option" first emerged that winter as the only identified feasible way to address forecast dependable capacity shortfalls on a short-term basis pending the development and commissioning of new permanent dependable capacity and/or related DSM measures to meet N-1 dependable capacity requirements.

Yukon Energy wrote proactively to Environment Yukon on November 23, 2017 (**Attachment 10**) to notify Environment Yukon of the need to add four rental diesel units to the Whitehorse generating station for winter 2017/18, which would be operated only in case of an emergency, and to inquire about the ability to do this without a YESAA assessment on the basis of the emergency exemption in YESAA section 49(1).

Environment Yukon responded on November 24, 2017 (**Attachment 10**), asking Yukon Energy to proceed with submitting an application to amend its Air Emissions Permit, and informing Yukon Energy that Environment Yukon would proceed with conducting a "Determination of Significant Change" while referring in its correspondence to YESAA section 49(1) (the emergency exemption) rather than section 49.1.

On November 27, 2017, Yukon Energy submitted an application to amend its Air Emissions Permit to authorize up to 10 MW of emergency back-up diesel capacity in Whitehorse (**Attachment 11**).

On December 12, 2017, the Acting Director, Environmental Programs for Environment Yukon, issued a determination that a YESAA assessment would not be required for the requested permit amendment (**Attachment 12**). This determination was stated to be made under YESAA section 49.1 – without

directly addressing the potential concurrent applicability of the emergency exemption in YESAA section 49(1) – on the basis that (according to the analysis of factor 3 in the Record of Determination):

- the "overall capacity of the facility" in Whitehorse, comprised of the total capacity of WD3 to WD7 (i.e. 16.15 MW) together with the two LNG units that replaced WD1 and WD2 (i.e. 8.8 MW), was still within the 25 MW capacity that was originally assessed by YESAB in 2011; and

- with respect to the additional emergency back-up capacity, "[t]he potential for temporary use of up to five units with 10 MW of diesel generation, using more modern and cleaner operating EPA Tier 2 rated engines, is not anticipated to result in significant changes to the overall facility emissions and the conclusions of previous air quality impact assessments for the station."

On December 14, 2017, two days after Environment Yukon communicated this determination to Yukon Energy, YESAA was further amended to repeal section 49.1 (S.C. 2017, c. 34, s. 2). However, in light of the determination that had already been made under section 49.1 prior to its repeal, Environment Yukon granted the requested amendment to Yukon Energy's Air Emissions Permit on December 15, 2017 to authorize 10 MW of emergency back-up generation capacity in Whitehorse from "up to five emergency back-up generators" until March 31, 2020: see Part 9 of Air Emissions Permit No. 60-010 (Amendment 1) (**Attachment 13**).[13]

The above regulatory process for permitting the first diesel rentals was completed expeditiously, within approximately three weeks of Yukon Energy's initial notification and application to Environment Yukon.

The following year, as non-industrial peak demand and the N-1 capacity gap continued to grow Yukon Energy wrote to Environment Yukon again, on April 16, 2018, to inquire about a further permit amendment to increase the authorized emergency back-up capacity in Whitehorse by another 2 MW, up to a total of 12 MW (**Attachment 16**).

On May 9, 2018, Environment Yukon responded to this inquiry and informed Yukon Energy that it would not require a YESAA assessment for this further amendment, for the stated reason that "the rated output is lower than the originally scoped in output based on nameplate capacity" (**Attachment 16**). This was presumably referring to the total diesel capacity that was assessed by YESAA in 2011, which included 25.22 MW of permanent capacity in Whitehorse plus 1.55 MW from mobile units. Regardless, Environment Yukon's May 9, 2018 correspondence can only be read and understood in the context of the provisions of YESAA that were legally in effect at that time.

[13] See also Environment Yukon's associated email correspondence to Yukon Energy on December 15, 2017 (**Attachments 14 and 15**).

Environment Yukon did not indicate in its May 9, 2018 correspondence what YESAA provision it was relying on to exempt Yukon Energy's proposed permit amendment from assessment. However, since Environment Yukon was communicating this determination after YESAA section 49.1 had already been repealed, the determination must presumably have been supported by the emergency exemption in YESAA section 49(1).

Yukon Energy confirmed immediately on May 9, 2018 that it would be proceeding with an application to further amend its permit both to provide for this additional emergency back-up capacity in Whitehorse, and to add the third LNG generator that had already been assessed in YESAB File 2013-0115 (**Attachment 16**).[14] That application was submitted to Environment Yukon on August 27, 2018 (**Attachment 17**).

On October 4, 2018, Environment Yukon granted the further requested amendment to Yukon Energy's Air Emissions Permit. In addition to authorizing a third LNG generator, the further amended permit increased Yukon Energy's authorized emergency back-up capacity in Whitehorse to 12 MW from "up to six emergency back-up generators" until an extended date of March 31, 2022: see Part 9 of Air Emissions Permit No. 60-010 (Amendment 2) (**Attachment 18**).

It should be emphasized that there was no relevant change to the provisions of YESAA from the time that Environment Yukon granted the amendment to the Air Emissions Permit in October 2018 re-authorizing, extending, and increasing Yukon Energy's emergency back-up capacity in Whitehorse until the time that Environment Yukon informed Yukon Energy in April 2022 of the view it had formed at that time that it was unable to do the same thing again.

2.1.3 2019 to March 2022: Diesel Rentals Installed at Faro; Added Diesel Rentals at Whitehorse

In the months following the 2018 amendment of the Whitehorse Air Emissions Permit, as noted previously in Yukon Energy's response to 2023/24 GRA YUB-YEC-1-35(e) and (f) REVISED (Exhibit 5, PDF p. 12), Yukon Energy's board of directors decided to cancel the new 20 MW diesel plant that had been contemplated by Yukon Energy's 2016 Resource Plan. As Yukon Energy explained previously in its response to 2021 GRA CW-YEC-1-17 (a) (2021 GRA Exhibit B-9, PDF p. 124), based on feedback received from Yukoners and in response to the Yukon Government's Climate Change Strategy, the board of directors concluded at that time that Yukon Energy did not have social licence to proceed with the

[14] In September 2017, Yukon Energy had previously confirmed with Environment Yukon (**Attachment 9**) that the additional of the third LNG generator was covered by the Decision Document issued on July 7, 2014 for the Whitehorse Natural Gas Conversion Project (2013-0115), and that Yukon Energy would not require a further YESAA assessment to apply for a permit amendment for that purpose.

proposed 20 MW thermal plan. Instead, based on the information known at the time, the board of directors decided that Yukon Energy would pursue the development of other renewable generation capacity options (as would later be outlined in the 10-Year Renewable Electricity Plan) while continuing to rely on diesel rentals in the short term as the best available option.

In the meantime, to address the growing dependable capacity shortfall, Yukon Energy rented nine diesel rental units at Whitehorse for the winter of 2019/20.

Starting that winter, however, Yukon Energy also started to see non-industrial peak demand increasing significantly faster than expected (as outlined further in Section 2.2 below).

Notably, on January 14, 2020, the Yukon experienced an unprecedented cold weather event resulting in a new, record non-industrial peak demand of 97.6 MW (compared to the previous non-industrial peak demand of 90.5 MW). This required Yukon Energy to update its non-industrial peak forecasting demand model (2021 GRA, Exhibit B-30, YEC Rebuttal Evidence, PDF p. 6). This led to the conclusion that Yukon Energy would need to significantly increase its reliance on rental diesels in the short-term, which would include adding rental units to Yukon Energy's diesel facility in Faro since there was no further physical space available in Yukon Energy's Whitehorse diesel facility.

On October 13, 2020, Environment Yukon wrote to Yukon Energy to provide confirmation that Yukon Energy would have authority under its existing Air Emissions Permit, without the need for an amendment, to reinstall capacity of approximately 5.65 MW in Faro, as this would replace the capacity of the previously removed permanent units FD3 and FD5, bringing the cumulative station capacity back up to the 10.6 MW that had previously been assessed in YESAB File 2011-0246 (**Attachment 19**). However, Environment Yukon indicated that a permit amendment would be needed for capacity above 10.6 MW.

As outlined further below, Yukon Energy initiated steps to secure additional permitted capacity at Faro as requested. This was also a topic addressed in the 2021 GRA.

During the 2021 GRA proceeding, Yukon Energy explained its understanding at that time about its ability to operate diesels at a site in excess of the capacity that had previously been assessed by YESAA using the emergency exception set out in section 49(1) of YESAA (see for example 2021 GRA, Exhibit B-32, response to NY-YEC-2-2 REVISED, PDF pp. 11-12; also 2021 GRA, YEC Final Argument, PDF pp. 27-28). This was in the context of the October 4, 2018 version of the Air Emissions Permit that was still in effect at that time. As noted in Section 2.1.1 above, that version of the permit did not specify capacity limits for any of the four thermal generation sites. Rather, any capacity limits were necessarily implied by the scope of the previous YESAA assessments.

When Environment Yukon communicated its explicit confirmation on October 13, 2020 of Yukon Energy's authority to replace previously assessed capacity at Faro with rental units, that confirmation was consistent with Yukon Energy's understanding of the version of the Air Emissions Permit that was in effect at that time, including its understanding that the operations authorized by that permit were not tied to the particular units that had previously been installed.

After receiving that confirmation, on October 14, 2020, Yukon Energy contracted with Finning to rent 17 mobile units for the winter of 2020/21, with 1.8 MW capacity per each unit, with the plan to locate ten rental units (including one spare) in Whitehorse and seven rental units (including one spare) in Faro.

When considering the timing of Yukon Energy's rental of diesels throughout the time period from 2020 through 2024, it will be important for the Board to recognize that even while assessment and permitting processes are still underway, it is necessary and prudent to procure rental units in a timely way to ensure they will be available for use when needed. Finning has informed Yukon Energy that there is intense competition for these types of rentals, as they are also used by other utilities and organizations across North America to provide back-up power in an islanded grid like the Yukon's, as well as to provide power after natural disasters like fires, floods and earthquakes. As supplies are limited, rentals must be ordered early enough to guarantee that they will be available.

Yukon Energy proceeded to file its 2021 GRA with the Board in November 2020. Yukon Energy's increasing need to rely on rental diesel units to address its growing dependable capacity shortfall was specifically addressed in the 2021 GRA proceeding.

In March 2021, in response to IRs in the 2021 GRA, Yukon Energy explained that it was in the process at that time of seeking an amendment to its Air Emissions Permit to allow for the addition of another 4.9 MW of additional operating capacity in Faro, up to a total of 15.5 MW (2021 GRA, Exhibit B-9, NY-YEC-10(b) and (c), PDF pp. 522-526; see also NY-YEC-11, PDF pp. 530-532). At the time, Yukon Energy chose to limit its proposed permitted site capacity expansion for Faro to 4.9 MW to expedite the YESAB assessment process, and avoid the potential need for an Executive Committee level screening, which Yukon Energy expected would take too long to complete (2021 GRA, Exhibit B-32, NY-YEC-2-4 (a) and (c) REVISED, PDF pp. 21-22). Yukon Energy was concerned that it needed to be able to rely on the availability of at least 4.9 MW of additional permitted capacity at Faro without the further delay that would likely have been entailed by an Executive Committee level screening.

In August 2021, Yukon Energy submitted its project proposal to YESAB for the Faro Generating Station Capacity Expansion Project (2021-0115), to increase the total permitted capacity in Faro to 15.5 MW and to authorize operation of any combination of the existing permanent generators and up to six rental units

up to that total permitted capacity. Yukon Energy also provided further IR responses in the 2021 GRA, informing the Board that it had secured the additional rental units it would need to ensure their availability when and if needed to respond to an emergency while Yukon Energy was proceeding with the assessment and permitting process in Faro (2021 GRA, Exhibit B-32, NY-YEC-2-3 REVISED, PDF pp. 15-19).

YEC also explained in the rebuttal evidence it filed with the Board in the 2021 GRA that it had not been possible to submit the YESAA project proposal for the Faro capacity expansion any earlier for "a number of reasons", including First Nation consultation requirements (2021 GRA, Exhibit B-30, PDF p. 6; see also: 2021 GRA, Exhibit B-32, NY-YEC-2-6 REVISED, PDF pp. 25-27).

In September 2021, during the oral hearing for the 2021 GRA, Yukon Energy's witness panel provided further evidence to the Board about Yukon Energy's understanding at the time of how its Air Emissions Permit then in effect was intended to function, based on Yukon Energy's ongoing communications with Environment Yukon: that the permit authorized operations up to the permitted production capacity from all diesel generation sources at each site, which was not tied to particular installed units (see 2021 GRA, Final Argument, PDF pp. 27-28 and Reply Argument, PDF pp. 16-17; YEC Rebuttal Evidence, Exhibit B-30, PDF pp. 5-7; September 27, 2021 Transcript, pp. 86-91, 96-105). This interpretation was reflected by the stacking order for Yukon Energy's thermal generation reported to the Board in the 2021 GRA, Exhibit B-25, NY-YEC-1-6 REVISED, PDF pp. 3-5.

As explained further in Yukon Energy's 2021 GRA Reply Argument, Yukon Energy transparently reported its total operating hours for all sources at all sites to Environment Yukon throughout this time period, including winter 2019/20 and winter 2020/21, and Environment Yukon did not raise any concern at any time about Yukon Energy's use of its (relatively more efficient) rental units to contribute to its permitted capacity generation. Yukon Energy was also of the view at the time that its interpretation of the effect of its permit was consistent with the court's interpretation of environmental regulations in *Friends of Davie Bay v. Province of British Columbia*, 2011 BCSC 572, aff'd 2012 BCCA 293.[15]

[15] It is noteworthy that the YESAB Mayo Designated Office would later cite *Friends of Davie Bay* favourably in support of its interpretation of the term "production capacity" in the regulations under YESAA as meaning "the proponent's intended operational production capacity, rather than the theoretical maximum production capacity a project's proposed infrastructure, equipment and operation could allow" (on pp. 11-12 of its October 6, 2023 Evaluation Report recommending that the Mayo Thermal Generation Project (2023-0090) be allowed to proceed: **Attachment 40**). The Mayo Designated Office also cited another BC Court of Appeal decision in support of that interpretation: *Fort Nelson First Nation v. British Columbia (Environmental Assessment Office)*, 2016 BCCA 500. The Watson Lake Designated Office has interpreted "production capacity" in the same way in its Evaluation Report for the Faro Generating Station Capacity Expansion (2024-0145), at p. 5, while also confirming that the most recent amendment to the Faro permit would "allow the operation of any combination of ten diesel generators to a total operational capacity of 20.4 MW" (**Attachment 73**).

On January 18, 2022, after the 2021 GRA hearing but before the Board issued its decision, the Yukon Government issued a Decision Document for the Faro Generating Station Capacity Expansion Project (2021-0115) (**Attachment 20**) allowing Yukon Energy's requested increase of its permitted capacity in Faro to 15.5 MW.

Subsequently, on March 16, 2022, the Board issued its 2021 GRA decision (Board Order 2022-03) approving recovery of Yukon Energy's rental costs for 15 rental diesel units, excluding the two spares.

2.1.4 April/May 2022: Regulatory Changes Affect Whitehorse Diesel Rentals

On March 31, 2022, shortly after the Board issued the 2021 GRA decision, the explicit authorization in Part 9 of Yukon Energy's Air Emissions Permit for 12 MW of emergency back-up generation in Whitehorse expired. Accordingly, Yukon Energy consulted further with Environment Yukon about reauthorizing the emergency back-up capacity in Whitehorse, as had previously been done in 2018.

On April 21, 2022, Environment Yukon informed Yukon Energy that it was now taking the position that the emergency back-up capacity in Whitehorse could not be reauthorized without a YESAA assessment, because of the repeal of YESAA section 49.1 (**Attachment 21**). This was despite the fact that Environment Yukon had previously done exactly that in October 2018 after section 49.1 had already been repealed ten months earlier in December 2017.

It was in this context that Environment Yukon proceeded to issue separate site-specific Air Emissions Permits for the first time, on May 11, 2022, for each of the Whitehorse, Faro, downtown Mayo and Dawson City sites (Exhibit 5, YUB-YEC-1-35 REVISED, Attachments 3 to 6, PDF pp. 63-83), having just informed Yukon Energy that it would now be required to proceed with a new YESAA assessment to support a permit amendment to reauthorize its emergency back-up diesel generation capacity in Whitehorse, contrary to Environment Yukon's previous course of conduct.

The separate site-specific permit for Whitehorse (Air Emissions Permit No. 60-010-04, YUB-YEC-1-35 REVISED Attachment 6, Exhibit 5, PDF pp. 79-83) continued Yukon Energy's authorization "to operate electricity generating equipment at the … site … up to a site capacity of 16.15 MW from five diesel generators and 13.13 MW [from] three LNG generators". It continued to be Yukon Energy's understanding, however, based on its ongoing communications with Environment Yukon, that while the 16.15 MW limit specified in the permit was based on the originally assessed total capacity of WD3 to WD7, Yukon Energy's authorization to operate up to that permitted capacity was not tied to particular installed units.

The separate site-specific permit for Faro (Air Emissions Permit No. 60-010-01, YUB-YEC-1-35 REVISED Attachment 3, Exhibit 5, PDF pp. 63-38) continued Yukon Energy's authorization "to operate any combination of the two permanent diesel generators and six rental diesel generators to a site capacity of 15.5 MW." Again, while this statement was referring to FD1 and FD7, it continued to be Yukon Energy's understanding, based on its ongoing communications with Environment Yukon, that its authorization to operate up to the permitted capacity limit of 15.5 MW was not tied to particular installed units.

Each of the new site-specific permits, including the permits for both Whitehorse and Faro, also continued to include a provision in Part 3 requiring Yukon Energy to "run the sources at each site in order of highest possible efficiency under the circumstances", except for "maintenance or test purposes". Yukon Energy understood that this provision continued to require it, in both Whitehorse and Faro, to operate the more efficient diesel rental units higher in the stacking order than its less efficient permanent diesel units, subject to other relevant considerations as described in its response to 2023/24 GRA NY-YEC-1-4 REVISED (Exhibit 6, PDF pp. 1-4).

2.2 SYSTEM PLANNING CONTEXT

In addition to the regulatory context outlined above, the Board must also not lose sight of the relevant system planning context that drove the decisions to rent diesel generators to ensure dependable capacity as required for system reliability and public safety each winter during the time relevant period, including the 2023 and 2024 test years, despite any delays in assessment and permitting.

As reviewed in the 2021 GRA (Exhibit B-1, Application, Section 2.4, PDF pp. 37-40), Yukon Energy's capacity planning since 2006 has been based on the single contingency (N-1) criterion. That criterion requires the Yukon grid to have sufficient dependable capacity to supply the forecast non-industrial peak winter demand under extended cold weather conditions, excluding major industrial demand, under the largest single contingency (which has been specified at least throughout the 2011 to 2024 time period reviewed in this additional evidence to be loss of the winter Aishihik Generating Station capacity of 37 MW).

Electricity demand in the Yukon is highly variable, and changes considerably over the course of each day and across seasons. Primarily driven by population growth and non-industrial demand for services such as space heating and other household uses, the Yukon's electricity demand typically peaks during cold winter days, and can change rapidly reflecting changes in customer usage patterns (e.g., more houses with electric heating). Due to its isolated nature, the Yukon cannot rely on adjacent Canadian provinces, territories or the State of Alaska when there is a shortage of power, and must self-supply all its own capacity and energy throughout the year. However, it also cannot over or underbuild, due to the small

customer base that is available to cover the costs. Therefore, the planning process is more complex compared to other utilities.

This system planning decisions leading to Yukon Energy's increased use of diesel rentals since winter 2017/18 have been driven by an unexpectedly rapid rate of growth in non-industrial peak demand. As in many other jurisdictions, the rate of load growth in the Yukon has grown much faster over this time period than had previously been projected, which has required Yukon Energy to adjust its system planning on highly compressed timelines.

The system planning decisions have also been significantly impacted by delays and cancellations of other dependable capacity generation projects, which have contributed further to a growing N-1 reliable capacity gap that could not realistically be addressed in the 2023 and 2024 test years by any means other than rental diesels, regardless of assessment and permitting delays.

The following Table 2.2-1 illustrates how non-industrial peak demand forecasts under N-1 have changed over time since winter 2017/18, reflecting significant changes in electricity demand, including the impact of Yukon Government energy policy promoting the use of electric home heating. As shown by the table:

- in December 2013, Yukon Energy was forecasting non-industrial peak demand at 89.1 MW for winter 2023/24 [LNG Part 3 based on the 2011 Resource Plan update];
- in the 2016 Resource Plan, the winter 2023/24 forecast was increased by 11%, to 98.9 MW; and
- in the BESS Part 3 submission filed with the Board in January 2021 (which was based on the 10-Year Renewable Electricity Plan), the winter 2023/24 forecast increased again by a further 10.4% (22.6% cumulatively) to 109.2 MW.

Table 2.2-1: Yukon Energy Non-Industrial Peak Demand Forecast under N-1, MW

Winter Season	Non-Industrial Peak Demand Forecast Under N-1, MW				
	LNG Part 3 [Dec 2013]	2016 Resource Plan [Med-industrial activity scenario]	BESS Part 3 [Jan 2021] and Atlin EPA [Apr 2022]	2023/24 GRA [YUB-YEC-1-1]	2025-27 GRA [YUB-YEC-1-30]
2017/18	84.4	84.6			
2018/19	85.9	87.0			
2019/20	87.3	89.3			
2020/21	88.9	91.6			
2021/22	90.6	94.1	102.8		
2022/23	92.5	96.4	106.1		
2023/24	89.1	98.9	109.2	109.6	
2024/25	91.0	100.4	112.7	113.3	
2025/26	93.0	101.8	115.7	116.0	121.9
2026/27	95.3	103.3	119.2	119.5	129.8
2027/28	97.6	104.9	123.2	123.4	136.1

Notes:

1. Non-Industrial peak under N-1, assuming removal of Haines Junction peak of about 1.3 MW for N-1 purposes.

Tables 2.2-2 through 2.2-4 below provide further evidence of the evolution in Yukon Energy's capacity planning to fill capacity gaps leading up to the 2023 and 2024 test years in the 2023/24 GRA, and its efforts to try to reduce reliance on diesel rentals. They illustrate Yukon Energy's capacity planning based on the projections assumed in the 2016 Resource Plan (Table 2.2-2), the 10-Year Renewable Electricity Plan as detailed in the BESS Part 3 Submission (Table 2.2-3), and the 2023/24 GRA (Table 2.2-4), respectively.

Table 2.2-2: Yukon Energy Capacity Planning to Reduce Capacity Shortfall - 2016 Resource Plan

Winter Season	2016 Resource Plan								
	Capacity Shortfall, MW	2016 RP Medium Industrial Activity Portfolio Summary							Remaining Capacity Shortfall, MW
		DSM	LNG 3rd Engine	Battery	New Diesel	Hydro Uprates	Drury Lake Small Hydro	Total	
2017/18	8.0	1.9						1.9	6.1
2018/19	10.4	1.9	4.4					6.3	4.1
2019/20	12.7	1.9	4.4	4.0		3.0		13.3	0.0
2020/21	24.9	1.9	4.4	4.0	20.0	3.0		33.3	0.0
2021/22	27.4	1.9	4.4	4.0	20.0	5.3		35.6	0.0
2022/23	29.7	1.9	4.4	4.0	20.0	5.3		35.6	0.0
2023/24	32.2	1.9	4.4	4.0	20.0	5.3		35.6	0.0
2024/25	33.7	1.9	4.4	4.0	20.0	5.3	8.1	43.7	0.0
2025/26	35.1	1.9	4.4	4.0	20.0	5.3	8.1	43.7	0.0
2026/27	36.6	1.9	4.4	4.0	20.0	5.3	8.1	43.7	0.0
2027/28	38.2	1.9	4.4	4.0	20.0	5.3	8.1	43.7	0.0
2028/29	39.0	1.9	4.4	4.0	20.0	5.3	8.1	43.7	0.0
2029/30	39.6	1.9	4.4	4.0	20.0	5.3	8.1	43.7	0.0

Table 2.2-3: Yukon Energy Capacity Planning to Reduce Capacity Shortfall - BESS Part 3 Submission

	BESS Part 3 Submission [January 2021]									
Winter Season	Capacity Shortfall, MW	Committed and Planned Supply Options under 10-Year Plan							Remaining Capacity Shortfall, MW	Required Number of Diesel Rentals [assuming 1.8 MW each]
		DSM	BESS	Diesel Replacements	Atlin EPA	Hydro Uprates	Moon Lake Pump Storage Phase 1	Total		
2017/18										4
2018/19										6
2019/20										9
2020/21										15
2021/22	29.2	2.2				0.6		2.8	26.4	15
2022/23	32.5	4.4	7.0			0.6		12.0	20.4	12
2023/24	40.8	6.6	7.0	12.5		0.6		26.8	14.1	8
2024/25	44.2	6.7	7.0	12.5	8.5	0.6		35.3	8.9	5
2025/26	47.3	6.7	7.0	12.5	8.5	0.6		35.4	11.9	7
2026/27	50.8	6.8	7.0	12.5	8.5	0.6		35.5	15.4	9
2027/28	54.8	6.9	7.0	12.5	8.5	0.6		35.5	19.3	11
2028/29	59.5	7.0	7.0	12.5	8.5	0.6	35.0	70.6	0.0	0
2029/30	64.1	7.0	7.0	12.5	8.5	0.6	35.0	70.7	0.0	0

Notes:

1. The red-highlighted numbers reflect the actual number of rentals and exclude spares.

2. The required number of diesel rental units is calculated as the remaining shortfall divided by 1.8 MW, and excludes any spares needed.

3. Atlin was updated from 8.5 MW to 8.75 MW in April 2022 Atlin EPA submission.

4. Planned capacity projects based on 10-Year Renewable Electricity Supply Plan.

Table 2.2-4: Yukon Energy Capacity Planning to Reduce Capacity Shortfall - 2023/24 GRA Assumptions

	2023/24 GRA Assumptions							
		Committed and Planned Supply Options						
Winter Season	Capacity Shortfall, MW	DSM	BESS	Diesel Replacements	Atlin EPA	Total	Remaining Capacity Shortfall, MW	Required Number of Diesel Rentals [assuming 1.8 MW each]
2017/18								4
2018/19								6
2019/20								9
2020/21								15
2021/22								15
2022/23								15
2023/24	35.4	0.1				0.1	35.3	20
2024/25	41.6	0.6		5.0		5.6	36.0	20
2025/26	44.2	1.0	7.0	16.5		24.5	19.7	11
2026/27	47.7	2.0	7.0	16.5	8.8	34.3	13.5	8
2027/28	51.7	4.0	7.0	16.5	8.8	36.3	15.4	9
2028/29	56.3	6.0	7.0	16.5	8.8	38.3	18.0	10

Notes:

1. The red-highlighted numbers reflect the actual number of rentals and exclude spares.

2. The required number of diesel rental units is calculated as the remaining shortfall divided by 1.8 MW, and excludes any spares needed.

3. Atlin was updated from 8.5 MW to 8.75 MW in April 2022 Atlin EPA submission.

4. In the 2023/24 GRA, Yukon Energy indicated that it does not have the support needed from First Nation communities to work on Moon Lake Pump Storage project [Exhibit 2, JM-YEC-1-7(d), PDF p. 15].

5. In the 2023/24 GRA, Yukon Energy indicated that pending completion of the Electricity Supply Plan and the Resource Plan, YEC was not able to provide useful forecasts on this matter beyond winter 2028/29 [Exhibit 2, YUB-YEC-1-1 (a-c), PDF p. 215].

6. The reduction in capacity shortfall from the BESS submission reflects added hydro capacity for WH1 uprate [0.6 MW] and delayed retirement of the diesel units and updates to the dependable capacity from thermal units.

As illustrated by Table 2.2-2, Yukon Energy's 2016 Resource Plan identified capacity shortfalls that needed to be addressed. There was no mention of a diesel rental option, pending the planned installation of 4.4 MW of new LNG generation capacity in Whitehorse in Q1 2019, and subsequent plans at the time to install battery (4 MW) in 2020, hydro uprates (3 MW), DSM (1.9 MW) and a 20 MW new diesel plant in 2021, as well as a small hydro project in 2024/25 with 8.1 MW. These planned capacity options were intended to remove the capacity shortfall as reviewed in Table 2.2-2. At that time, Yukon Energy continued to be focussed on its initial planning and feasibility assessment for the 20 MW diesel plant project contemplated by the 2016 Resource Plan, along with other options noted.

The diesel rental "option" first emerged in winter of 2017/18 as the only identified feasible way to address newly forecast dependable capacity shortfalls on a short-term basis pending the development and commissioning of new permanent dependable capacity and/or related DSM measures to meet N-1 dependable capacity requirements, partly due to the delay in the implementation of longer-term generation options.[16] As reviewed in Table 2.2-3, Yukon Energy rented 4 units in 2017/18 to address short-term dependable capacity shortfalls, 6 units in the winter of 2018/19 and 9 units in the winter of 2019/20. However, in the winter of 2020/21, 15 diesel rental units (plus two spare units not included in rates) were needed to address YEC's N-1 dependable capacity shortfall.[17]

In 2019, after completing initial option assessments, planning and engagement activities for the 20 MW thermal plant, Yukon Energy's board of directors decided not to proceed with the 20 MW thermal plant project and to proceed instead with the updated resource plan as would subsequently be detailed in the 10-Year Renewable Electricity Plan that was first presented in January 2020. That updated plan included the 7 MW battery project in 2022/23, the 12.5 MW diesel replacement in 2023/24, the Atlin Hydro Expansion projects with 8.5 MW in 2024/25 along with capacity DSM and hydro uprates, as well as the Moon Lake Pump Storage project phase 1 with 35 MW in 2028/29. As reviewed in Table 2.2-3, based on projected non-industrial peak demand at the time, the planned options were expected to reduce the total number of rental units needed to eight in 2023/24 and five in 2024/25, and to eliminate the need for rentals when the Moon Lake Pump Storage project phase 1 with 35 MW in service in 2028/29.

The Moon Lake pump storage was seen as a generational opportunity for Yukon to invest in a critical renewable electricity project, intended as a long-term renewable solution which, along with other long-term components of the 10-Year Plan, would provide sufficient forecast dependable capacity to avoid any long-term requirement for diesel rentals or new large permanent diesel plants.

[16] See Yukon Energy's previous evidence on this point in 2023/24 GRA YUB-YEC-1-35(e) and (f) REVISED (Exhibit 5, PDF p. 9).

[17] "Spares" reference diesel rental units where rental costs were not included in Yukon Energy GRA forecast revenue requirements.

As noted in Section 2.1.3 above, it should be emphasized that diesel rental units were only intended at that time as a short-term option to address Yukon Energy's dependable capacity shortfall pending the completion of other planned projects.

Under the 10-Year Plan, it was expected that use of rented diesels prior to commissioning of Moon Lake pump storage would avoid the need for Yukon Energy to incur capital costs to develop additional short-term diesel units that would cease to be used and useful as soon as Moon Lake pump storage became operational and thereby become stranded assets.

However, delays in the implementation of longer-term generation options resulted in a need for additional diesel rental units in 2023/24 and 2024/25 that had not previously been anticipated, as shown in Table 2.2-4, which is based on the 2023/24 GRA assumptions. Specifically, the expected DSM impact was much lower than anticipated; the battery project was delayed to 2025/26 from 2022/23 planned in the 10-Year Plan; only 5 MW out of 12.5 MW diesel replacements was expected to be in service in 2024/25; and Atlin EPA was also delayed. The combined effect of these developments was a sharp increase in the need for diesel rentals, i.e., delays in projects planned for 2023/24 and 2024/25 accounted for a 26.7 MW increase in capacity shortfall for 2023/24 and a 29.7 MW increase in capacity shortfall for 2024/25 at the time of the 2023/24 GRA (Table 2.2-4) when compared to the BESS proceeding (Table 2.2-3). However, Yukon Energy still anticipated that with the planned and committed capacity projects, the capacity shortfall would be reduced to 19.7 MW or 11 diesel units in 2025/26 and to 13.5 MW or eight diesel units in 2026/27 when the Atlin hydro expansion was expected to be in service.

2.3 YUKON ENERGY'S EFFORTS TO ADDRESS REGULATORY COMPLIANCE

After Environment Yukon informed Yukon Energy in April 2022 of its view that Yukon Energy's emergency back-up diesel generation capacity could not be reauthorized without further YESAA assessment, Yukon started taking diligent steps to pursue the further YESAA assessments that were required as a result of that communication.

These steps were reasonable and appropriate, and did not demonstrate disrespect for the objectives and principles of the Yukon's environmental legislation, having regard to both the regulatory context and the system planning context outlined in Sections 2.1 and 2.2 above. In fact, the evidence shows that Yukon Energy showed respect for the process, and worked diligently to comply with evolving regulatory requirements while also meeting urgent changing electricity demand needs every year.

Yukon Energy's first, and most immediate, priority was to reinstate the expired authorization for its emergency back-up diesel generation capacity in Whitehorse after being informed that a new YESAA

assessment would be required to support a permit amendment for that purpose, even though that was not previously required. This was in the context of one of the five existing permanent units at that site, WD3, simultaneously nearing end-of-life, and needing to be replaced. The site's then existing air emissions permit was also set to expire on December 31, 2024. As of spring 2022, Yukon Energy expected that YESAB would require an Executive Committee level screening for the re-authorization of Yukon Energy's emergency back-up capacity, because that capacity was greater than 4.9 MW.[18]

In or around March 2023, it also became a priority for Yukon Energy to permit a new rental diesel site (later to become known as Mayo Secondary) to address updated forecasts for non-industrial winter load and the N-1 capacity gap that was then being projected for winter 2023/2024. A new greenfield site was needed since there was no further space to add the number of additional rentals that would be needed at any of Yukon Energy's Whitehorse, Faro, or other existing diesel plants at the time.

Mayo Secondary would become the new generation facility consisting entirely of rental diesel generators, located on Yukon Energy property that was not in proximity to members of the public.[19] Yukon Energy's priority was to ensure that a permit would be in place as quickly as possible to maximize its ability to rely on as much of that new generating capacity as possible, as soon as possible. With this objective in mind, Yukon Energy decided to assess the Mayo Secondary site for 4.9 MW of capacity, so that the assessment could be completed as expeditiously as possible by YESAB's Mayo Designated Office without triggering an Executive Committee level screening assessment, which Yukon Energy did not expect it would be possible to complete before winter 2023/24. After obtaining an initial Air Emissions Permit for Mayo Secondary, it would then be a priority for Yukon Energy to pursue subsequent assessment and permitting processes for the balance of its diesel rental capacity at that facility.

Assessment and permitting for the diesel rentals in Faro was also a priority, but less urgent because of the fact that the existing Air Emissions Permit No. 60-010-01 already authorized diesel generation at the site up to a permitted site capacity of 15.5 MW. With the retirement of FD1, the existing permit already authorized sufficient capacity to allow Yukon Energy to operate all seven of its diesel rental units in Faro in winter 2023/24 prior to the installation of the two new permanent diesel generators (FD8 and FD9), which was not planned to occur until 2024. Yukon Energy also initially expected that the installation of FD8 and FD9 at the Faro diesel plant would allow it to reduce the number of diesel rental units in Faro to

[18] This was Yukon Energy expectation at the time as to how YESAB might interpret the regulations under YESAA, despite the conclusions that had previously been expressed by Environment Yukon's Acting Director, Environmental Programs in December 2017 about how the temporary use of diesel rentals when needed as emergency back-up was not anticipated to result in significant changes to overall facility emissions or to the conclusions reached in previous air quality impact assessments for the facility. Ultimately, YESAB adopted a different, more favourable interpretation of YESAA's regulations that allowed for this capacity to be assessed at the Designated Office level; however, that interpretation was not provided to Yukon Energy until January 2024.

[19] See 2023/24 GRA, Appendix 5.1A, Section 5.1A-2 (Exhibit 1, PDF pp. 166-167).

five; however, that expectation later changed as a result of delays in completing the battery and Callison projects.

Having regard to the foregoing priorities, the steps taken by Yukon Energy to pursue assessment and permitting at each of these sites from April 2022 through the end of the 2024 test year are outlined further below.

2.3.1 Whitehorse

As of March 31, 2022, at the time the authorization expired under Part 9 of the previous Whitehorse Air Emissions Permit No. 60-010-04 for Yukon Energy to operate up to 12 MW of emergency back-up diesel capacity, Yukon Energy had four permanent diesel generators operating in Whitehorse, WD4 to WD7 (since the previously assessed 5.15 MW WD3 had been retired),[20] as well as ten diesel rental units (including one identified as a "spare" that was not included in Yukon Energy's revenue requirement).

In the 2023/24 GRA, the four permanent diesel generators still operating were estimated to have a total dependable capacity of 10.5 MW,[21] and the rental units were estimated to have a dependable capacity of 1.8 MW per unit totalling 16.2 MW for nine units (excluding the one "spare"). However, the rental units were also known to have reliability concerns, which was the reason Yukon Energy considered it necessary to maintain a spare rental unit at the site.

In the most recent 2025-2027 GRA, Yukon Energy adopted a quantifiable approach to evaluating the poor reliability of its rental diesel units by discounting their winter rated capacity by an estimated Forced Outage Rate of 15%, to 1.53 MW per unit, to reflect Yukon Energy's actual reliability experience with the diesel rental units.[22] Although Yukon Energy had not yet adopted the Forced Outage Rate approach for evaluating dependable capacity at the time of the 2023/24 GRA, with the benefit of hindsight, that approach does provide a quantifiable way to more accurately evaluate the actual dependable capacity of the rental units that Yukon Energy had installed during the 2023 and 2024 test years, taking into account the known reliability concerns with those units. If Yukon Energy had applied that approach in the

[20] See YEC's March 31, 2023 annual report to Environment Yukon on the operation of all of its thermal facilities in 2022 (**Attachment 31**).

[21] In the 2011 YESAA assessment (2011-0241), WD4 to WD7 were assessed on the basis of a total generating production capacity of 11.0 MW: see Yukon Energy's December 12, 2023 response to Mr. Yee's motion for further disclosure: 2023/24 GRA Exhibit 3A, NY-YEC-1-12(a), PDF p. 5.

[22] From the 2025-27 GRA, see: Exhibit 1-A, Application, PDF p. 53; YUB-YEC-1-7, Exhibit 4, PDF pp. 124-125; and Final Argument, PDF pp. 18-19, 51. As noted further below, the reliability concerns with the rental units were exemplified by one of the Faro rental units becoming non-operational shortly after commissioning in winter 2023/24. Yukon Energy now applies Forced Outage Rates to all Yukon Energy owned generation units, including hydro and LNG units, which would increase the need for diesel rentals.

2023/24 GRA, a more accurate estimate of the dependable capacity of the nine rental units at the site (excluding the "spare") would have been 13.77 MW.

In any event, as explained in Section 2.1 above, at the time the authorization expired in Yukon Energy's previous permit for its emergency back-up diesel capacity in Whitehorse, it was Yukon Energy's understanding that, under normal operating conditions, its permitted site capacity of 16.15 MW from diesel generation could be served by any combination of the permanent and rental diesel units at the site. Assuming an undiscounted 1.8 MW of capacity for each of the rental units excluding the one spare, the unpermitted portion of Yukon Energy's total diesel capacity in Whitehorse at the time was 10.55 MW, as set out previously in Yukon Energy's 2023/24 GRA Reply Argument (PDF p. 23).[23] This unpermitted capacity was less than the 12 MW of emergency back-up diesel capacity that was authorized in Part 9 of Yukon Energy's Air Emissions Permit before that authorization expired on March 31, 2022.

It was also Yukon Energy's understanding at the time the emergency back-up capacity in its permit expired that Environment Yukon had the legal authority to reauthorize that capacity without a YESAA assessment on the basis of the emergency exception in YESAA s. 49(1). This understanding was informed by the fact that Environment Yukon had previously reauthorized (and increased) Yukon Energy's emergency back-up capacity without an assessment in October 2018 (after YESAA s. 49.1 had already been repealed), as well as the conclusions previously expressed by Environment Yukon's Acting Director, Environmental Programs in December 2017 about the temporary use of that emergency back-up capacity not having a significant impact.

In that context, Yukon Energy was not expecting Environment Yukon's April 2022 communication that the emergency back-up capacity could no longer be reauthorized under the permit without a new YESAA assessment. In effect, this was a new regulatory requirement.

This created a practical challenge for Yukon Energy in light of Environment Yukon's previous determinations that no assessments of the emergency back-up capacity were required either at the time the emergency capacity authorization was originally added in Part 9 of Yukon Energy's Air Emissions Permit in December 2017, or when Part 9 was amended in October 2018 to re-authorize, extend and increase that emergency capacity. Because the total unpermitted capacity of the rental units was greater than 4.9 MW, Yukon Energy assumed that the YESAA assessment that Environment Yukon said was now needed would likely trigger a requirement for an Executive Committee level screening under section 26 of Schedule 3 of the *Assessable Activities, Exceptions and Executive Committee Projects Regulations*,

[23] Note, however, that if the Board were to apply a 15% Forced Outage Rate to more accurately estimate the dependable capacity of the nine rental diesel units, the unpermitted portion of Yukon Energy's total dependable diesel capacity in Whitehorse (after the March 31, 2022 expiry of the authorization in Part 9 of its permit for its emergency back-up capacity) would only have been 8.12 MW.

SOR/2005-379. It appeared to be very unlikely that an Executive Committee screening could be completed by winter 2022/23.

Regardless, Yukon Energy began the preparatory work in May 2022 to plan for the potential need for an Executive Committee screening to expand its permitted generating capacity in Whitehorse, and to support the preparation and submission of a Project Proposal for that purpose. In particular, by June 2022, Yukon Energy had engaged WSP to complete Air Quality Assessment and Human Health Risk Assessment studies that it anticipated would now be needed to support an assessment for the proposed generating station configuration.

Yukon Energy's initial planning for this assessment was also reflected in a presentation provided to the Projects Committee of its board of directors on November 1, 2022 (**Attachment 22**). This included plans for extensive public and community engagement, and for sufficiently in-depth studies, including air quality and noise impact assessments, to support a potential Executive Committee screening.

Yukon Energy engaged Stantec to complete the public and community engagement for this project, which took several months to complete between November 2022 and April 2023. It included:

- two sets of mailouts to property and business owners in December 2022 and January 2023 (**Attachments 23 and 24**) as well as a door-knocking campaign at residences and businesses near the Whitehorse thermal facility, and one-on-one meetings with stakeholders;
- a letter sent to the Whitehorse Mayor and City Council on January 10, 2023 describing Yukon Energy's planned engagement process (**Attachment 25**), followed up with a presentation made to City of Whitehorse staff on March 22, 2023 (**Attachment 28**);
- an on-line community meeting on March 27, 2023 (**Attachment 29**);
- an in-person public meeting at Grey Mountain School on March 29, 2023; and
- on online presentation to the Yukon Conservation Society on March 29, 2023 (**Attachment 30**).

Following this engagement, Stantec prepared a "What We Heard Report" dated May 8, 2023 regarding Yukon Energy's Whitehorse Thermal Permitting Engagement (**Attachment 33**).

Shortly thereafter, on June 20, 2023, Yukon Energy wrote to Environment Yukon to provide a draft of the Air Quality Assessment that had been completed by WSP, and to inquire about the proceeding with the Executive Committee screening process that Yukon Energy assumed would be needed (**Attachment 34**).

In the meantime, Yukon Energy contracted with Finning on August 2, 2023 for the rental of 22 diesel rental units for winter 2023/24, including the 20 that were identified to be needed for dependable capacity planning purposes (see Table 2.2-4 above) plus two spares.[24] This included the 10 units (including one spare) that would continue to be installed in Whitehorse that winter. Regardless of the time that would be needed to complete the assessment and permitting process in Whitehorse, Yukon Energy knew that these units would be needed to meet its obligation to serve under the *Public Utilities Act*, and that there would be an unacceptable risk to public safety if those units were not installed and ready for use in case of an emergency – as actually occurred as a result of the Aishihik Generating Station plant outage on January 31, 2024.[25]

WSP completed its final Air Quality Assessment for Whitehorse on August 7, 2023,[26] and a Human Health Risk Assessment on September 6, 2023.[27] On September 15, 2023, Yukon Energy then wrote to the Executive Committee Manager of YESAB to notify him of Yukon Energy's intention to submit a project description shortly for an Executive Committee screening (**Attachment 39**).

Yukon Energy proceeded to submit its project description to the YESAB Executive Committee on November 6, 2023, to initiate a Presubmission Engagement Process (**Attachment 42**). The project description contemplated the addition of two new 2.5 MW permanent generators (WD8 and WD9) as well as a planned reduction in the number of diesel rental units in Whitehorse from ten to seven, which Yukon Energy expected would be possible after the addition of WD8 and WD9.

On December 12, 2023, Yukon Energy wrote separately to Environment Yukon to request approval to add WD8 and WD9 under the unamended terms of the existing air emissions permit, to replace the previously assessed 5.15 MW capacity of the retired WD3 (**Attachment 43**). Consistent with Yukon Energy's understanding that the 16.15 MW permitted production capacity from diesel generation under its then-existing permit was not tied to particular installed units, Environment Yukon responded on December 13, 2023 to confirm that this capacity replacement was approved (**Attachment 45**).[28]

On January 12, 2024, the YESAB Executive Committee issued a Level of Assessment Decision, determining that the Yukon Energy's capacity expansion proposal for Whitehorse did not in fact trigger an Executive Committee level screening under section 25(b) or 26 of Schedule 3 of the *Assessable Activities,*

[24] The two spares were not ultimately included in Yukon Energy's revenue requirement in the 2023/24 GRA.

[25] 2023/24 GRA, Yukon Energy Rebuttal Evidence, Exhibit 9, PDF p. 4.

[26] Included as Appendix A to YESAA Project Proposal 2024-0103 (**Attachment 51**).

[27] Included as Appendix B to YESAA Project Proposal 2024-0103 (**Attachment 51**).

[28] Note, however, that despite this approval, WD8 and WD9 were not installed during the 2023/24 GRA test years and were not included in Yukon Energy's 2023/24 GRA (filed August 31, 2023) assumptions for dependable capacity.

Exceptions and Executive Committee Projects Regulations because it did not involve any ***physical*** expansion of the existing facility (**Attachments 47 and 48**). Accordingly, the Executive Committee directed in its decision that the project should proceed to an assessment by YESAB's Whitehorse Designated Office.

In further preparation for what would now be a Designated Office level assessment for Yukon Energy's Whitehorse Air Emissions Permit Renewal Project (2024-0103), WSP completed a Noise Impact Assessment for Whitehorse on May 24, 2024.[29] WSP then completed the full Project Proposal and submitted it to YESAB on May 30, 2024 (**Attachment 51**).

In the meantime, in anticipation of the approval of a renewed and expanded air emissions permit for Whitehorse, Yukon Energy contracted with Finning on May 8, 2024 for the continued rental of 22 diesel rental units for winter 2024/25, including the 20 that continued to be identified as needed for capacity planning purposes (see Table 2.2-4 above) plus two spares.[30] As WD8 and WD9 were not yet installed in time for winter 24/25, this continued to include the ten units (including one spare) that would continue to be installed in Whitehorse.

The Designated Office assessment process for Whitehorse then proceeded on a timeline set by the Designated Office. That timeline reflected delays that YESAB and its Designated Offices were known to be experiencing due to "operational challenges" arising from YESAB's own capacity issues, combined with a record number of active assessments, many of which were complex.[31]

In particular, the Designated Office commenced its adequacy review on June 3, 2024, which was meant to be completed within a total of 29 days under the *Designated Office Rules*, plus additional time permitted for supplementary information requests.[32] However, the Whitehorse Designated Office initially extended the adequacy review period until July 16, 2024 before making a supplementary information request on July 16, 2024, which Yukon Energy responded to on July 18, 2024. A second supplementary information request was then made on July 29, 2024, which Yukon Energy responded to on the same day, before the Designated Office deemed Yukon Energy's proposal to be adequate on August 1, 2024.

[29] Included as Appendix C to YESAA Project Proposal 2024-0103 (**Attachment 51**).

[30] The two spares were not ultimately included in Yukon Energy's revenue requirement in the 2023/24 GRA.

[31] See, for example, YESAB's posted notices from April, July, August, September and November 2024 (**Attachments 49, 53, 57, 59 and 63**). See also: April 20, 2024, CBC news report, "Yukon environmental assessor warns of delays over record number of assessments" (**Attachment 50**).

[32] Section 15 of the *Designated Office Rules* provides that the Designated Office may extend the prescribed 8-day period for determining whether a proposal is adequate for a further period up to 21 days, subject to the Office's ability under section 13(2) to take an additional 10 days after receiving information in response to a supplementary information request.

The Designated Office then initiated a public comment period on August 1, 2024, which was open until August 22, 2024. Yukon Energy also advertised the public comment period by sending postcards to Riverdale residents (**Attachment 55**). After receiving comments from Environment Yukon, Kwanlin Dün First Nation, the City of Whitehorse, and other members of the public, the Designated Office issued further information requests to Yukon Energy on August 27, 2024 (which Yukon Energy responded to on September 19, 2024) and on September 24, 2024 (which Yukon Energy responded to on October 2, 2024).

On October 7, 2024, the Designated Office advanced the project to its evaluation stage, and the Designated Office issued a recommendation on November 14, 2024 for the project to proceed, subject to specified terms and conditions. The Yukon Government then issued a Decision Document on November 25, 2024 authorizing the project to proceed (varying the terms and conditions recommended by the Designated Office) (**Attachment 62**).

In accordance with the Decision Document, Environment Yukon issued a renewed Air Emissions Permit No. 60-010-04 for Whitehorse on December 19, 2024, with an effective date of January 1, 2025 (**Attachment 69**), authorizing the continued operation of thermal generators (including LNG and both permanent and rental diesel generators) up to an increased maximum permitted production capacity of 42.0 MW.[33]

2.3.2 Faro

At the time of Environment Yukon's April 21, 2022 communication to Yukon Energy, Yukon Energy had two permanent diesel generators installed in Faro (FD1 and FD7) as well as seven diesel rental units. However, FD1 was a Pre-Tier unit that was nearing its end of life, was considered unreliable, and would be retired shortly in 2023.

The new site-specific permit issued for Faro on May 11, 2022 authorized Yukon Energy "to operate any combination of the two permanent diesel generators and six rental diesel generators to a site capacity of 15.5 MW."

By January 2023, Yukon Energy was planning to replace FD1's retired capacity with two new 2.5 MW permanent generators (FD8 and FD9) by winter 2024/25. After that, Yukon Energy initially expected that it would potentially be able to reduce the number of rental units in Faro from seven to five, with the fifth

[33] Aside from the expired emergency capacity provision in Part 9, the previous Air Emissions Permits authorized a total permitted production capacity of 29.28 MW from thermal generation (16.15 MW from diesel and 13.13 MW from LNG).

unit to be designated as a "spare".[34] This was reflected in a public presentation that Yukon Energy delivered on January 24, 2023 (**Attachment 26**) and confirmed in correspondence between Yukon Energy and Environment Yukon in February 2023 (**Attachment 27**).[35]

In the 2023/24 GRA, FD7 was estimated to have a dependable capacity of 3.0 MW, and the seven rental units were estimated to have a total dependable capacity of 12.6 MW (based on 1.8 MW per unit).[36] With the planned retirement of FD1, and the addition of FD8 and FD9 not planned to occur until later in 2024, all seven rental generators would still be needed in winter 2023/24 simply to meet the site's permitted capacity of 15.5 MW.[37]

Accordingly, when Yukon Energy contracted with Finning on August 2, 2023 for the rental of 22 diesel rental units for winter 2023/24, this still included the seven units that would continue to be installed in Faro that winter following the retirement of FD1.[38]

In anticipation of the planned addition of FD8 and FD9 in winter 2024/25, Yukon Energy proceeded with planning for a YESAA assessment for the expansion of the site's total permitted capacity by 4.9 MW, from 15.5 MW to 20.4 MW, to allow for the continued operation of the seven currently installed rental diesel units, if still needed, in addition to FD7, FD8 and FD9.

Yukon Energy engaged SLR Consulting to complete a Noise Modelling Report for Faro, which was completed on November 23, 2023.[39] And, in May 2024, Yukon Energy engaged WSP to complete an Air Quality Assessment for Faro.

---

[34] Note, however, that as Yukon Energy explained in its February 8, 2024 Rebuttal Evidence in the 2023/24 GRA (Exhibit 9, PDF p. 3, footnote 1), the timing of the potential relocation of two of the seven rental units in Faro had not yet been determined at that time. It was determined later, during 2024, that a reduction in the number of rental units in Faro was premature.

[35] Yukon Energy's February 2023 correspondence also confirmed its use of system controls to guard against exceeding the 15.5 MW operational limit in the then-existing permit.

[36] As discussed above in relation to Whitehorse, if Yukon Energy had applied the Forced Outage Rate approach in the 2023/24 GRA to more accurately quantify the reliability of its rental diesel units, a more accurate estimate of the dependable capacity of the seven rental units in Faro would have been 10.71 MW.

[37] Yukon Energy acknowledges that the permit referred to "six rental diesel generators", not seven. However, with the retirement of FD1, the total number of units operating at the site in winter 2023/24 was equal to the eight authorized in the permit, just with one fewer permanent diesel generator and one additional (more efficient) rental unit.

[38] Yukon Energy's forecast of dependable capacity provided in the 2023/24 GRA was consistent with this. For winter 2023/24, Yukon Energy's 2023/24 GRA forecast dependable capacity in Faro of 3.0 MW from FD7 plus 12.6 MW from seven diesel rental units. An additional 5.0 MW of dependable capacity was forecast for winter 2024/25 from the planned addition of "New Diesel" (i.e. FD8 and FD9): 2023/24 GRA NY-YEC-1-2 REVISED Attachment 1, Exhibit 4, PDF pp. 4-5.

[39] Included as Appendix C to YESAA Project Proposal 2024-0145 (**Attachment 56**).

On December 12, 2023, Yukon Energy also wrote to Environment Yukon to request approval to add FD8 and FD9 under the unamended terms of the existing air emissions permit (**Attachment 44**), to replace 5.15 MW of previously assessed capacity that was included in the site's total permitted capacity of 15.5 MW. As Yukon Energy clarified in further correspondence with Environment Yukon in January 2024 (**Attachment 46**), prior to FD1's retirement in 2023, that 5.15 MW portion of the site's permitted capacity was being met by FD1's de-rated capacity of 2.4 MW plus a portion of the capacity of the rental units. With that added clarification, Environment Yukon verbally communicated its approval in principle of this capacity replacement request.

By the time Yukon Energy contracted with Finning on May 8, 2024 for the continued rental of 22 diesel rental units for winter 2024/25, Yukon Energy had determined that it was no longer going to be possible to reduce the number of rental units in Faro in light of updated dependable capacity shortfall assessments due to unplanned delays in completing the battery and Callison projects. Like all generation assets connected to the Yukon's main grid, dependable capacity installed and available in Faro serves not only to meet power needs in the local community, but also in other communities connected to the grid. This is similar to how the capacity and energy provided by Yukon Energy's three hydro facilities in Mayo, Whitehorse and Aishihik (if needed) are used to supply renewable electricity to communities connected to the grid across the Yukon during the summer. Accordingly, that contract with Finning continued to include the seven rental units that would continue to be installed in Faro.

The need to retain all seven rental units in winter 2024/25 due to delays in completing the battery and Callison projects was broadly communicated in a notice shared with residents in Faro in August 2024 (**Attachment 54**).

On August 23, 2024, WSP completed an Air Dispersion Modelling Assessment for Faro,[40] and, on August 26, 2024, Yukon Energy submitted a complete Project Proposal to YESAB's Watson Lake Designated Office for the Faro Generating Station Capacity Expansion (2024-0145) to expand the site's permitted capacity by 4.9 MW, from 15.5 MW to 20.4 MW (**Attachment 56**). This would approximate the total dependable capacity of the site following the addition of FD8 and FD9, with those new generators adding a further 5.0 MW to FD7's 3.0 MW, and with Yukon Energy continuing to maintain seven rental units at the site.[41]

[40] Included as Appendix B to YESAA Project Proposal 2024-0145 (**Attachment 56**).

[41] Yukon Energy explained its reasoning for choosing to pursue a Designated Office assessment seeking to add only 4.9 MW of operating capacity, instead of pursuing an Executive Committee screening for 0.2 MW of additional operating capacity, in its January 24, 2025 response to a Watson Lake Designated Office information request during the assessment for the proposal (2024-0145) (**Attachment 72**). As explained in that response, this was both

Going forward, it was not possible for Yukon Energy to complete the YESAA assessment process and obtain an amended air emissions permit for Faro by winter 2024/25. The Watson Lake Designated Office commenced its adequacy review on August 28, 2024, but issued a notice (**Attachment 58**) that it would be unable to complete the adequacy review by September 26, 2024 (i.e. within the 29-day period required by the *Designated Office Rules*). Instead, the notice indicated that the Designated Office was extending its deadline to complete the adequacy review by three additional months, to December 27, 2024.

The Watson Lake Designated Office eventually deemed the project proposal to be adequate on December 4, 2024, and then issued an information request to Yukon Energy on December 11, 2024, which Yukon Energy responded to on December 24, 2024.

In the meantime, while the assessment process was delayed, Yukon Energy provided an update to the Town of Faro mayor and its Chief Administrative Officer on December 4, 2024 (**Attachment 65**).

On January 2, 2025, the Designated Office issued another notice indicating that it would be unable to compete its review of Yukon Energy's response to its information request within the time required by the *Designated Office Rules* (i.e. by January 3, 2025) and that additional time would be needed (**Attachment 71**).

These delay notices issued on August 28, 2024 and January 2, 2025 both reflected the delays described above that YESAB and its Designated Offices were known to be experiencing due to YESAB's own capacity issues.

As a result of these notices and subsequent further delays going beyond the 2024 test year for the 2023/24 GRA, the YESAA process for the Faro Generating Station Capacity Expansion took significantly longer than could ordinarily have been anticipated. The Watson Lake Designated Office did not issue a recommendation until June 20, 2025 (**Attachment 73**), and the Yukon Government did not issue a Decision Document until August 6, 2025. There was then extensive further delay in Environment Yukon's issuance of an amended Air Emissions Permit No. 60-010-01, expanding the permitted capacity of the Faro Generating Station from 15.5 MW to 20.4 MW, which was not issued until January 19, 2026 (**Attachment 75**).

Yukon Energy could not reasonably have anticipated or planned for such an extensive delay in the issuance of an amended permit for Faro.

---

because of a limitation on the site transformation capacity, and to expedite compliance with Environment Yukon's request for Yukon Energy to pursue assessment and permitting for all of its emergency back-up generation.

Yukon Energy notes that, after the addition of FD8 and FD9, it still needed at least five of the seven rental units in Faro to provide enough dependable capacity to supply even the 15.5 MW of permitted capacity authorized under the previous Faro permit. Since FD7, FD8 and FD9 have a combined total dependable capacity of 8.0 MW, that left a projected 7.5 MW portion of the permitted capacity to be provided by rental diesels for winter 2024/25. Four rental units can supply 7.2 MW of dependable capacity (based on 1.8 MW per unit), and a fifth rental unit would be needed to add the remaining 0.3 MW.[42]

That said, regardless of the delay in amending the Faro permit to increase permitted capacity from 15.5 MW to 20.4 MW, Yukon Energy still practically needed to have all seven rental units in Faro in winter 2024/25 to provide sufficient emergency back-up capacity because of the delays in completing the battery and Callison projects. And, as also noted above, while the assessment and permitting processes in Faro were still underway (and the timing of their completion was uncertain), it was necessary and prudent for Yukon Energy to procure all seven rental units in a timely way to ensure they would be available for use when needed.

2.3.3 Mayo Secondary

As noted above, when Yukon Energy determined in or around March 2023 that a new diesel generation facility (consisting entirely of diesel rental units) at Mayo Secondary would need to be established and put into service by winter 2023/24 to address updated dependable capacity shortfalls, Yukon Energy initially decided to assess the Mayo Secondary site for 4.9 MW of capacity, so that the assessment could be completed by the Mayo Designated Office of YESAA and an Air Emissions Permit could be issued as soon as possible without the need for an Executive Committee level screening.

Accordingly, Yukon Energy submitted its initial YESAA Project Proposal to YESAB's Mayo Designated Office for the Mayo Secondary Thermal Generation Project (2023-0090) on May 5, 2023, seeking to install five rental generators at the site with a total nameplate capacity of 9.0 MW, but with their authorized operating capacity to be limited to 4.9 MW (**Attachment 32**). Yukon Energy elaborated on the intent of this proposal in the response it provided to a Mayo Designated Office information request on June 29, 2023 (**Attachment 36**).

[42] Note also that if the Board were to apply a 15% Forced Outage Rate to more accurately estimate the dependable capacity of the Faro rental units, Yukon Energy would have unambiguously needed five rental units in winter 2024/25 to provide 15.5 MW of dependable capacity in Faro. When the Forced Outage Rate is applied for winter 2023/24, FD7 at 3 MW plus seven diesel rentals at 10.7 MW [1.53 MW each] would provide total of 13.7 MW capacity compared to 15.5 MW permitted (or 1.8 MW below the permitted capacity).

In June 2023, Yukon Energy also provided an information sheet to the public explaining the need for the new Mayo Secondary facility, and explaining that it would be located outside the community at the site of an existing Yukon Energy substation, far from any homes or businesses (**Attachment 35**).

The YESAA assessment for this project was completed over a period of five months. During the assessment, Nathaniel Yee raised specific concerns about Yukon Energy's choice to assess the project for only 4.9 MW in order to avoid a requirement for an Executive Committee screening. Mr. Yee described this as an "attempt to subvert YESAA" in comments he submitted to the Mayo Designated Office on July 15, 2023 (**Attachment 37**).

When the Mayo Designated Office issued its recommendation on October 6, 2023 for the project to proceed, it specifically addressed Mr. Yee's objection in Sections 4.1.8 and 4.4.1 of its Evaluation Report (**Attachment 40**). Notwithstanding Environment Yukon's issuance of the July 20, 2023 "Regulatory Reminder" that Mr. Yee referenced previously in his evidence at the 2023/24 GRA,[43] the Designated Office agreed with Yukon Energy that the project was not subject to a screening by the Executive Committee where Yukon Energy was only proposing an intended operational production capacity of 4.9 MW, and where Yukon Energy had explicitly confirmed in its August 28, 2023 response to public comments (p. 3) that "it fully expect[ed] that the requested maximum operating capacity of 4.9 MW [would] be prescribed and enforceable under the Air Emissions Permit that is issued for the project" (**Attachment 38**): see Evaluation Report, pp. 8-9, 12-13 (**Attachment 40**).

With respect to the information Yukon Energy had also provided to the Designated Office about the potential need to use additional capacity at the site in an emergency, the Designated Office found specifically (Evaluation Report, pp. 12-13) that:

- the potential application of the emergency exemption in section 49 of YESAA would be "a matter to be resolved between Yukon Energy and the regulator" (i.e. Environment Yukon) that was "outside of the Designated Office's jurisdiction"; and

- "the existence of a provision under YESAA exempting from assessment certain emergency activities does not alter or impact the Designated Office's conclusion that the intended operational production capacity of the Project falls below 5 MW and is thus not subject to a screening by the Executive Committee."

After the Designated Office issued its recommendation, the Yukon Government issued a Decision Document on October 25, 2023 (**Attachment 41**). Air Emissions Permit No. 60-010-05, authorizing a

[43] 2023/24 GRA, Evidence of Nathaniel Yee, Attachment B (Exhibit 8, PDF p. 31).

permitted production capacity of 4.9 MW, was then issued on November 21, 2023,[44] in time for winter 2023/24.

In anticipation of the issuance of this permit, when Yukon Energy contracted with Finning on August 2, 2023 for the rental of 22 diesel rental units for winter 2023/24, this included the five units (including one spare[45]) that Yukon Energy planned to install at Mayo Secondary in winter 2023/24. As with Faro, even while the assessment and permitting processes for the Mayo Secondary facility were still underway, it was necessary and prudent for Yukon Energy to procure all five rental units for Mayo Secondary in a timely way to ensure they would be available for use when needed.

To be able to supply even 4.9 MW of dependable capacity at Mayo Secondary, Yukon Energy needed at least three of those five rental units (based on 1.8 MW per unit).[46] And, in fact, in winter 2023/24, one of the five rental units that Yukon Energy procured for Faro became non-operational shortly after commissioning, illustrating the prudency of planning for spare rental units in light of the rental units' known reliability concerns.

After the initial permit was issued for 4.9 MW of permitted operating capacity at Mayo Secondary, Yukon Energy began work to pursue further assessment and permitting in order to expand the site's permitted capacity by another 4.1 MW, from 4.9 MW to 9.0 MW, through the Mayo Secondary Thermal Capacity Expansion Project (2024-0177) .

In the meantime, when Yukon Energy again contracted with Finning on May 8, 2024 for the continued rental of 22 diesel rental units for winter 2024/25, the contract continued to include the five units (including one spare) that would continue to be installed at Mayo Secondary. Once again, even while the assessment and permitting processes for the Mayo Secondary Thermal Capacity Expansion were still pending (and the timing of their completion was uncertain), it was necessary and prudent for Yukon Energy to procure all five rental units for Mayo Secondary in a timely way to ensure they would be available for use when needed.

Yukon Energy also met with the Village of Mayo mayor and councillors on June 5, 2024 to discuss the need for this additional permitted capacity, including the need for a spare unit if one did not start (as had actually occurred with one unit in winter 2023/24) or to respond to an emergency (**Attachment 52**).

[44] 2023/24 GRA, YUB-YEC-1-35 REVISED Attachment 7, Exhibit 5, PDF pp. 84-89.

[45] The spare unit was not ultimately included in Yukon Energy's revenue requirement in the 2023/24 GRA.

[46] Note also that if the Board were to apply a 15% Forced Outage Rate to more accurately estimate the dependable capacity of the Mayo Secondary rental units, then three units would only have supplied 4.59 MW of dependable capacity, and a fourth unit would have been required to add an additional 0.31 MW.

Yukon Energy submitted its Project Proposal for the capacity expansion to the Mayo Designated Office on November 1, 2024 (**Attachment 60**). The Mayo Designated Office commenced its adequacy review of the proposal on November 5, 2024, but then issued a notice on December 3, 2024 (**Attachment 64**) that it would be unable to complete the adequacy review within the 29-day period required by the *Designated Office Rules*. Instead, the notice indicated that the Designated Office was extending its deadline to complete the adequacy review by two additional months, to February 3, 2025.

As with Faro, this delay notice for Mayo Secondary again reflected the delays described above that YESAB and its Designated Officers were known to be experiencing due to YESAB's own capacity issues.

Ultimately, the proposal was deemed adequate on January 16, 2025, and the Designated Office then completed its assessment, and issued a recommendation on April 17, 2025. The Yukon Government then issued a Decision Document on May 13, 2025, and Environment Yukon issued an amended Air Emissions Permit for Mayo Secondary on July 24, 2025 (**Attachment 74**).

2.4 YUKON GOVERNMENT RECOGNITION OF THE NEED TO MAINTAIN DEPENDABLE CAPACITY TO ENSURE PUBLIC SAFETY

The above review demonstrates that, after Yukon Energy received the unexpected communication from Environment Yukon in April 2022 indicating that its previously permitted emergency back-up capacity would not be reauthorized without a new YESAA assessment, Yukon Energy took diligent steps to pursue assessments and permitting to bring its facilities into compliance with Environment Yukon's newly expressed interpretation of YESAA as soon as reasonably could be achieved in the circumstances.

This was made more challenging because of rapidly increasing peak loads year after year which were rising faster than had previously been projected, combined with the impact of delays and cancellations of projects that had been expected to contribute materially to non-diesel dependable capacity, as well as systemic delays in assessment processes caused by YESAB capacity issues that were a matter of public record.

Yukon Energy cannot and should not be held to a standard of perfection in these circumstances, where perfect environmental regulatory compliance simply would not have been possible without exposing Yukoners to a very serious risk of immediate harm to public health and safety in the event of an unplanned outage during extreme cold winter weather conditions. Any fair evaluation of Yukon Energy's conduct through this time period – having regard to the additional evidence in this submission that was not on the record before the Court of Appeal – cannot reasonably lead the Board to a factual conclusion that Yukon Energy was undertaking a "deliberate practice" of regulatory non-compliance over a four-year period. Nor could it reasonably support a conclusion by the Board that it would "undermine the objectives

and principles stated in the *Environment Act* in a manner that threatens the integrity of the legal system" to allow Yukon Energy to recover diesel rental costs that it could not responsibly avoid incurring without abdicating its statutory duty to serve under section 106 of the *Public Utilities Act* and exposing Yukoners to a health and safety risk that would have been completely unacceptable.

The Court of Appeal decision directs that the Board cannot take a "siloed approach" to evaluating Yukon Energy's revenue requirement without taking into account concerns about environmental regulatory compliance. But nothing in the Court of Appeal decision suggests that the Board can or should ignore plainly relevant evidence when carrying out the "nuanced analysis" of those concerns that the decision requires.

To further inform this "nuanced analysis", in addition to the evidence reviewed in Sections 2.1 to 2.3 above, the Board must also consider the communications exchanged between Yukon Energy and both Environment Yukon and Yukon Energy's Minister in the context of the serious challenges Yukon Energy was facing with assessment and permitting processes and delays in late 2024.

On November 19, 2024, Yukon Energy's Vice-President, Planning, Environmental and Health & Safety, Michael Muller, wrote to Environment Yukon to provide an update on the assessment delays that Yukon Energy was experiencing at the time with YESAA processes for all of its thermal generation projects (**Attachment 61**). This included delays not only in respect of the Whitehorse air emissions permit renewal and capacity expansion and the capacity expansions for both the Faro and Mayo Secondary generating stations, but also for Yukon Energy's routine air emissions permit renewals for downtown Mayo and for Dawson City.

On December 4, 2024, Yukon Energy President & CEO, Chris Milner, wrote to the Deputy Minister of Environment to provide a similar update, specifically emphasizing the systemic delays in YESAB assessment processes, and the practical need to be able to rely on all thermal generating units in winter 2024/25 to ensure Yukoners' safety (**Attachment 66**).

On December 11, 2024, Environment Yukon wrote to Mr. Milner in response to his letter to the Deputy Minister (**Attachment 67**). Their letter properly noted that thermal generation projects operating without a valid permit would be considered in non-compliance with the *Environment Act* and the *Air Emissions Regulations*; that Environment Yukon could not "officially authorize or direct" Yukon Energy to operate any power generating station without a valid air emissions permit; and that Environment Yukon's "primary goal is to ensure compliance with the *Environment Act*." At the same time, however, Environment Yukon's letter specifically recognized that:

- Yukon Energy "provides Yukoners an essential power generation service", and had "communicated serious challenges with load capacity and infrastructure that present a safety risk to Yukon communities"; and

- YESAB was "experiencing capacity issues" and had "acknowledged that the assessment process [was] taking longer than in the past".

Environment Yukon's letter also specifically acknowledged "the essential nature of power generation" and recognized that Yukon Energy was "in the process of working towards compliance by going through the YESAA assessment and permitting processes." In the meantime, for any permit renewals that were delayed, Environment Yukon provided specific direction to Yukon Energy to "continue to operate in accordance with the terms of the existing permits until new permits can be issued". And, as for "new projects", Environment Yukon's letter recognized that Yukon Energy might have to choose to operate prior to the issuance of a permit, in which case Yukon Energy was directed to "notify Environmental Compliance and Inspections immediately."[47]

On December 20, 2024, Mr. Muller sent a letter to Environment Yukon in response (**Attachment 70**), acknowledging that Yukon Energy took Environment Yukon's concerns about regulatory non-compliance very seriously, and explaining in some detail, and with full transparency, how it intended to comply with the directions provided in Environment Yukon's letter. This included a specific commitment to notify Environment Yukon immediately "[s]hould it become necessary under emergency conditions to temporarily operate any of our additional unpermitted diesel generating capacity at the Mayo Secondary or Faro sites in order to protect public safety." Mr. Muller's letter also further expressed Yukon Energy's belief that its plans were "as consistent as possible with the directions given" in Environment Yukon's letter "having regard to our assessment of potential risk to public health and safety, and system stability concerns."

On December 17, 2024, Hon. Minister John Streicker, Minister responsible for Yukon Development Corporation and Yukon Energy Corporation at the time, also sent a separate letter to Mr. Milner regarding "the need to run diesel and LNG generators to meet energy demands during colder weather this winter to support public safety while assessment and permitting processes are underway" (**Attachment 68**).

Minister Streicker's letter provided the following further direction to Yukon Energy (emphasis added):

[47] The evidence in the 2023/24 GRA showed that it has consistently been Yukon Energy's practice to notify Environment Yukon whenever it has become necessary to exceed authorized capacity under its air emissions permits in an emergency situation (YUB-YEC-1-35 REVISED – Follow-up Question #3, Exhibit 5, PDF pp. 22-23; Yukon Energy Rebuttal Evidence, Exhibit 9, PDF pp. 4-5 and 9).

> Yukon Energy has numerous critical projects moving through assessment and permitting processes and delays may not allow for some critical generators to operate this winter prior to receiving permits. I am aware that these applications were made months ago, and that Yukon Environmental and Socio-economic Assessment Board (YESAB) is experiencing capacity issues and has acknowledged that the assessment process is taking longer than in the past. Some Yukon Energy permits expire on January 1st, and I understand that you are in various stages of renewal and expect processes to be finalized in some cases after the expiry date.
>
> The Yukon Government recognizes that Yukon Energy provides Yukoners with essential power generation. ***Given the public safety risk of not having generation available, Yukon Government expects Yukon Energy to operate generators beyond January 1st, as required, to maintain system reliability. Yukon Government also expects that Yukon Energy will continue to be diligent in navigating assessment and regulatory processes and continue regular communication and notifications with the relevant Yukon Government departments while necessary operations are maintained prior to receiving operating permits.***

Yukon Energy's conduct described in this additional evidence, including the choices Yukon Energy believed it had to make throughout the relevant time period, and the good faith efforts made by Yukon Energy to bring all of its facilities into regulatory compliance, was clearly consistent with the overriding concerns expressed by the Minister about public safety and the need to maintain system reliability, as well as the Minister's expectation that Yukon Energy would continue to communicate transparently with Environment Yukon while maintaining necessary operations pending the completion of permitting processes.

Having regard to the totality of the evidence that is now before the Board on this reconsideration, any suggestion that Yukon Energy was undertaking a "deliberate practice" of regulatory non-compliance through this time period, or that its choices to prioritize public safety in the face of regulatory challenges and delays could ever be characterized in these circumstances as "threatening the integrity of the legal system", would simply be irreconcilable with the direction expressed in these letters from the Yukon Government. These letters were not on the record before the Court of Appeal; however, the Board must take them into account now when reconsidering Yukon Energy's entitlement to recover diesel rental costs that it incurred that were consistent with the policy direction expressed in both of these letters.

If Yukon Energy had not incurred those costs, the risk to public safety would simply have been unacceptable. These units were used and useful,[48] and as demonstrated by the evidence provided during

[48] The diesel rentals have provided about 70% of the approximately 7 GWh winter diesel generation in 2023 and about 62% of the approximately 36 GWh winter diesel generation in 2024.

the 2023/24 GRA they were in fact needed to protect public safety in the emergency events that occurred both in December 2022[49] and January 2024.[50]

[49] YUB-YEC-1-35 REVISED – Follow-up Question #3 and Attachment 8, Exhibit 5, PDF pp. 23-24 and 90-92.

[50] Yukon Energy Rebuttal Evidence, Exhibit 9, PDF pp. 4-5.

3.0 SCHEDULE OF ATTACHMENTS

The following documentary evidence is attached (in chronological order) and provided as part of Yukon Energy's additional evidence to support the Board's reconsideration of its 2023/24 GRA decision:

1. Project Proposal Supporting Document submitted to YESAB October 25, 2011 for Renewal of Air Emissions Permit No. 60-010 for Whitehorse (2011-0241), Faro (2011-0246), downtown Mayo (2011-0242) and Dawson City (2011-0244).[51]

2. YG Decision Document for Faro (2011-0246) (revised), January 9, 2012.

3. YG Decision Document for Whitehorse (2011-0241), January 27, 2012.

4. Air Emissions Permit No. 60-010 (all four sites), issued February 27, 2012.

5. YG Decision Document for Whitehorse Natural Gas Conversion Project (2013-0115), July 7, 2014.

6. Email correspondence between Yukon Energy and Environment Yukon, August 20 and 22, 2014.

7. YG Decision Document for Faro (2014-0119), October 17, 2014.

8. Air Emissions Permit No. 60-010 (all four sites), issued December 29, 2014 (replacing **Attachment 4**).

9. Email correspondence between Yukon Energy and Environment Yukon, September 11 and 12, 2017.

10. Email correspondence between Yukon Energy and Environment Yukon, November 23 and 24, 2017.

11. Letter from Yukon Energy to Environment Yukon, November 27, 2017, enclosing application to amend Air Emissions Permit to add 10 MW emergency back-up capacity in Whitehorse.

12. Letter from A/Director, Environmental Programs, Environment Yukon to Yukon Energy, dated December 12, 2017, enclosing Record of Determination of Significant Change, dated December 11, 2017, notifying Yukon Energy of Environment Yukon's decision that no YESAA assessment

[51] Attachment 1 includes the cover letter for Whitehorse; however, the same Supporting Document was provided for all four assessments. Note that the Diesel Generation Inventory in Table 3 on page 19 of the Supporting Document lists all generators and their respective nameplate capacities that were included in the assessment.

was required for November 27, 2017 Air Emissions Permit amendment application (**Attachment 11**).

13. Air Emissions Permit No. 60-010 (Amendment 1) (all four sites), issued December 15, 2017 (amending **Attachment 8**).

14. Email correspondence from Environment Yukon to Yukon Energy, December 15, 2017, re: anticipated delivery of **Attachments 12 and 13**.

15. Further email correspondence from Environment Yukon to Yukon Energy, December 15, 2017, enclosing **Attachments 12 and 13**.

16. Email correspondence between Yukon Energy and Environment Yukon, April 13 to May 16, 2018.

17. Email correspondence from Yukon Energy to Environment Yukon, August 27, 2018, enclosing application to further amend Air Emissions Permit to increase emergency back-up capacity in Whitehorse to 12 MW.

18. Air Emissions Permit No. 60-010 (Amendment 2) (all four sites), issued October 4, 2018 (further amending **Attachment 13**).

19. Email correspondence between Yukon Energy and Environment Yukon, September 23 to October 13, 2020.

20. YG Decision Document for Faro Generating Station Expansion Project (2021-0115), January 18, 2022.

21. Email correspondence from Environment Yukon to Yukon Energy, April 21 to May 11, 2022.

22. Presentation to Projects Committee of Yukon Energy board of directors re: Whitehorse Thermal Permitting, November 1, 2022.

23. Letter from Yukon Energy to property and business owners re: Yukon Energy Whitehorse Thermal Permit Renewal, December 2022.

24. Further letter from Yukon Energy to property and business owners re: Yukon Energy Whitehorse Thermal Permit Renewal, January 2023.

25. Letter from Yukon Energy to Whitehorse Mayor and City Council re: Yukon Energy Whitehorse Thermal Permit Renewal, January 10, 2023.

26. Presentation to Town of Faro re: Sound Monitoring in Faro, January 24, 2023.

27. Email correspondence between Yukon Energy and Environment Yukon, February 9 to 20, 2023.

28. Presentation to City of Whitehorse re: Thermal Permitting Project, March 22, 2023.

29. Community Meeting Presentation re: Thermal Permitting Project (Whitehorse), March 27, 2023.

30. Presentation to Yukon Conservation Society re: Thermal Permitting Project (Whitehorse), March 29, 2023.

31. Letter from Yukon Energy to Environment Yukon, March 31, 2023, enclosing 2022 Annual Operational Reporting (all four sites).

32. Project Proposal submitted to YESAB May 5, 2023 for Mayo Secondary Thermal Generation Project (2023-0090).

33. Stantec "What We Heard Report" re: YEC Whitehorse Thermal Permitting Engagement, May 8, 2023.

34. Email correspondence between Yukon Energy and Environment Yukon, December 21, 2022 to June 20, 2023.

35. Yukon Energy Information Sheet re: Rental Diesel Generators in Mayo, June 2023.

36. Yukon Energy Response to Mayo Designated Office Information Request 1 re: YESAA Project Assessment for Mayo Secondary Thermal Generation Project (2023-0090), June 29, 2023.

37. Comments of Nathaniel Yee to Mayo Designated Office re: YESAA Project Assessment for Mayo Secondary Thermal Generation Project (2023-0090), July 15, 2023.

38. Yukon Energy Response to Public Comments, YESAA Project Assessment for Mayo Secondary Thermal Generation Project (2023-0090), August 28, 2023.

39. Email correspondence between Yukon Energy and YESAB Executive Committee Manager, September 15, 2023.

40. YESAB Mayo Designated Office Evaluation Report, Mayo Secondary Thermal Generation Project (2023-0090), October 6, 2023.

41. YG Decision Document for Mayo Secondary Thermal Generation Project (2023-0090), October 25, 2023.

42. Letter from Yukon Energy to YESAB Executive Committee Manager, November 6, 2023, enclosing Project Description for Executive Committee Screening of Whitehorse Rapids Thermal Generating Station Relicensing Project.

43. Letter from Yukon Energy to Environment Yukon, December 12, 2023, re: request for approval of capacity replacement for Whitehorse.

44. Letter from Yukon Energy to Environment Yukon, December 12, 2023, re: request for approval of capacity replacement for Faro.

45. Email correspondence between Yukon Energy and Environment Yukon, December 13 and 20, 2023.

46. Email correspondence between Yukon Energy and Environment Yukon, December 12, 2023 to January 10, 2024.

47. Email correspondence between Yukon Energy and YESAB Executive Committee Manager, January 12, 2024.

48. Letter from YESAB Executive Committee to Yukon Energy, January 12, 2024 re: Level of Assessment Decision.

49. YESAB notice re: assessment delays, accessed April 16, 2024.

50. CBC news article, "Yukon environmental assessor warns of delays over record number of assessments", April 20, 2024.

51. Project Proposal submitted to YESAB May 30, 2024 for Whitehorse Air Emissions Permit Renewal (2024-0103).

52. Meeting notes, Yukon Energy meeting with Village of Mayo, June 5, 2024.

53. YESAB notice update re: assessment delays, July 30, 2024.

54. Yukon Energy public notice re: Permitting Emergency Capacity at the Faro Diesel Plan, August 2024.

55. Yukon Energy postcard re: Update on Yukon Energy's Whitehorse Thermal Permitting Project, August 2024.

56. Project Proposal Supporting Document submitted to YESAB August 26, 2024 for Faro Generating Station Capacity Expansion (2024-0145).

57. YESAB notice update re: assessment delays, August 26, 2024.

58. YESAB Watson Lake Designated Office notice re: additional time required for adequacy review of Faro Generating Station Capacity Expansion Project Proposal (2024-0145), August 28, 2024.

59. YESAB notice update re: assessment delays, September 26, 2024.

60. Project Proposal submitted to YESAB November 1, 2024 for Mayo Secondary Thermal Capacity Expansion (2024-0177).

61. Letter from Yukon Energy to Environment Yukon, November 19, 2024, re: Status Update of YESAB Assessments for Thermal Generating Stations.

62. YG Decision Document for Whitehorse Air Emissions Permit Renewal (2024-0103), November 25, 2024.

63. YESAB notice update re: assessment delays, November 25, 2024.

64. YESAB Mayo Designated Office notice re: additional time required for adequacy review of Mayo Secondary Thermal Capacity Expansion Project Proposal (2024-0177), December 3, 2024.

65. Email correspondence between Yukon Energy and Town of Faro, December 4, 2024.

66. Letter from Yukon Energy to Deputy Minister, Department of Environment, December 4, 2024, re: Status Update of YESAB Proposals for Thermal Generating Stations.

67. Letter from Environment Yukon to Yukon Energy President and CEO, December 11, 2024.

68. Letter from Hon. John Streicker, Minister responsible for Yukon Development Corporation and Yukon Energy Corporation, to Yukon Energy, December 17, 2024.

69. Air Emissions Permit No. 60-010-04 (Whitehorse), issued December 19, 2024 (effective January 1, 2025) (replacing Air Emissions Permit No. 60-010-04 issued May 11, 2022, 2023/24 GRA, YUB-YEC-1-35 REVISED Attachment 6, Exhibit 5, PDF pp. 79-83).

70. Letter from Yukon Energy to Environment Yukon, December 20, 2024, re: Operational Plan for Thermal Generating Stations as of January 1, 2025.

71. YESAB Watson Lake Designated Office notice re: additional time required to review Yukon Energy's response to Information Request 1 for Faro Generating Station Capacity Expansion Project Proposal (2024-0145), January 3, 2025.

72. Yukon Energy Response to Watson Lake Designated Office Information Request 2 re: YESAA Project Assessment for Faro Generating Station Capacity Expansion (2024-0145), January 24, 2025.

73. YESAB Watson Lake Designated Office Evaluation Report, Faro Generation Station Capacity Expansion (2024-0145), June 20, 2025.

74. Air Emissions Permit No. 60-010-05 (Mayo Secondary), issued July 24, 2025 (amending Air Emissions Permit No. 60-010-05 issued November 21, 2023, 2023/24 GRA, YUB-YEC-1-35 REVISED Attachment 7, Exhibit 5, PDF pp. 84-89).

75. Air Emissions Permit No. 60-010-01 (Faro), issued January 19, 2026 (amending Air Emissions Permit No. 60-010-01 issued May 11, 2022, 2023/24 GRA, YUB-YEC-1-35 REVISED Attachment 3, Exhibit 5, PDF pp. 63-68).