

12-November, 2025

**IN THE MATTER OF THE YUKON ENERGY CORPORATION
2025-27 GENERAL RATE APPLICATION**

Heard before the

YUKON UTILITIES BOARD

WRITTEN ARGUMENT OF NATHANIEL YEE

Introductory Comments:

In this document I will mostly address concerns of realistic planning, accountability, the prudence of frequent last minute quick fixes, transparency and future capacity issues.

Issues not addressed in this document are not implying agreement or disagreement, but are left to other intervenors and the Board.

“Our electricity used to be primarily renewable, even in winter. In January 2008, for example, 95 percent of our electricity was renewable. Then came a prolonged period where electrical demand grew faster than new hydro, wind or solar facilities were built. By January 2025, that 95 percent figure had fallen to only 56 percent.”

--Yukonomist: The smell of diesel in the morning, by Keith Halliday in Yukon News, Aug 17, 2025

Short Term Vision and Planning

1. In the last few GRAs, the primary focus has been quick fixes that YEC says are needed now, from “temporary” rental diesel as the only feasible option in 2021¹ with “permanent” diesel not considered, to diesel replacement in 2023 and now the permanent Whitehorse (diesel) power centres as a “must”² in 2025-27.
2. As presented there were no other options and each one of these was needed immediately at that moment. But is this how a utility should be run? Is this a type of business that where last minute “must have” projects should be accepted as normal?
3. Even at the Atlin/THELP EPA, YEC sold the project by saying the only “alternative” was an unrealistic and impossible number of rental diesels.³
4. While it will not be easy to break the cycle of urgent stop-gap measures, it must be done. While the Road Map to 2050 and the GRA are clear on the short term need for more diesel, anything beyond that is quite vague.
5. I asked YEC for a listing of any longer term project plans to develop renewables >2 MW, and none were provided.⁴ Given that the lead times of such projects is often quite long, it would make sense to be working on something now. 2020’s 10-Year Renewable Plan focused on Moon Lake and Atlin, but did indicate that there were also other options, particularly small hydro, but there is no longer mention of any of those other projects in more recent documents, and the 10-Year Renewable Plan now sits relatively hidden on YEC’s web page, next to the 2016 Resource Plan, both with notes that the Road Map to 2050 is more current.

1 YEC Final Argument, 2021 GRA pdf p.7

2 Transcript Vol 3, October 23, 2025 p.429 line 3.

3 YEC Amended EPA submission, April 2022, pdf p.23 footnote 23

4 Exhibit 4, YEC Responses to IRs, August 26, 2025 page 10.

6. The truth not mentioned in the Road Map to 2050 or the GRA is that the quick fix of more diesel is needed because of the failure of Moon Lake, the delay (and possible failure) of the Atlin EPA, and the failure to have made any progress on any alternatives. It is notable that the only project renewable that may still possibly have a chance of success is Atlin, and that this project is not being developed by YEC. Is it prudent for YEC to focus only on quick diesel while ignoring longer term planning? It is the failure of long-term plans and planning that has gotten us here, and reactive planning and short term fixes will not get us out of it.
7. Certainly there could be some lessons learned from the shelving of renewables and the repeated focus on the fastest possible way to add diesel to the system.

8. Recommendation: That the Board direct YEC to produce an audit and a lessons learned document concerning what did or did not work in the last 15 years, and how the planning process can be improved. Ideally this will allow the Board to direct YEC to end its reliance on ad-hoc, short-term project justifications and move towards more prudent long term planning. It is difficult to see prudence in repeated urgent calls for new diesel projects with no alternatives presented, and no longer term renewable projects under consideration.

Some specifics to move in this direction: Filing an updated Road Map to 2050 showing how the current diesel additions will support specific renewable projects >2 MW, with annual status reports on these projects with updated in-service dates, so that the Board will be able to determine if projects with longer lead times are actually advancing. This appeared to be an issue with Moon Lake, with in-service dates not reflecting the lack of progress being made until the project disappeared.

Certainly it will not be easy to break out of this cycle, but pretending that the current Road Map to 2050 is anything other than the result of a failure to implement renewables is disingenuous and is attempting to hide the real issues rather than address them. In the longer term, this is not prudent. Pretending that the Road Map to 2050 is actually "Plan A" or what anyone actually wanted will only serve to make course correction more difficult in the future.

Bold New Vision obscured by clouds of diesel exhaust.

9. It is also interesting that the headline on YEC's web page announcing the Road Map to 2050 reads as follows:

"Yukon Energy Reveals Bold New Vision and Plans for a Resilient Energy Future"⁵

10. Calling installing a large quantity of diesel generators a "Bold New Vision" is a bit of a stretch. It might be considered "bold" on some level to re-carbonize the grid given current environmental concerns and decreasing costs of renewables. To be clear, the idea of installing diesel generators and maybe thinking about renewables sometime in

5 YEC media release page: <https://yukonenergy.ca/about-us/news-events/yukon-energy-reveals-bold-new-vision-and-plans-for-a-resilient-energy-future>

the future is certainly not a “Bold New Vision”. Attempting to sell it to the public like this does not improve trust or credibility.

11. And does the move towards increased dependence on fossil fuel really provide a “Resilient Energy Future”? Any more so than hydro, pumped storage, battery storage, smart grid technologies, etc.? Should we expect other utilities to follow YEC’s “Bold New Vision” of dramatic increases in rates to support ballooning diesel capacity?

Could we have expected this amount of load growth and perhaps planned for it?

12. Yes, electric heat and electric vehicles have contributed to increased electricity usage in Yukon, but this increased usage remains well within expected scenarios and cannot be blamed for the sudden need of more diesel.
13. According to the GRA, the forecast total firm generation load for the 2025 test year is 517.7 GWh, 2026 test year is 527.4 GWh.⁶
14. Now looking at information from YEC’s 2011 Charette⁷, it is interesting to note that current load is well below the “Medium” expectation for 2025 from all those years ago, and actually considerably closer to the “Low” estimate for 2025.
15. If YEC has expected these loads since 2011, how have we reached a point in 2025 that the only solution is another rushed diesel installation?

Energy Charette Yukon Integrated Grid Load Scenarios (GWh/yr) (Non-Industrial & Industrial Generation Loads including Losses)			
Year	Low	Medium	High
Near-term (2015)*	442	544	610
Medium Term (2025)**	445	673	1,510
Long Term (2050)**	592	1,050	2,340
Notes * Low = Non-Industrial growth at 2.34%/yr, no new mine connections Medium = Low plus Victoria Gold High = Low plus Victoria Gold & Potential Other Mine Loads ** Low = After 2020, Non-Industrial at 1%/yr, no mine connections Medium = Non-Industrial at 2.34%/yr plus 200 GWh/yr Other (Mines or Fuel Switching) High = After 2020, Non-Industrial at 4.0%/yr plus 1000 GWh/yr Other (Mines and/or Fuel Switching) *** Low = After 2020, Non-Industrial at 1%/yr, no mine connections Medium = Non-Industrial at 2.34%/yr plus 200 GWh/yr Other (Mines or Fuel Switching) High = After 2020, Non-Industrial at 4.0%/yr plus 1000 GWh/yr Other (Mines and/or Fuel Switching)			

⁶ Exhibit 1-A p. 40 line 10

⁷ 2011 Yukon Energy Charette Report,
https://yukonenergy.ca/media/site_documents/charrette/docs/yec_charrette_report.pdf

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16. Recommendation: That YEC be required to explain in detail why expected load growth, well within long-range forecasts known since 2011 has resulted in the need for last minute diesel expansions, and to approach this explanation with the goal of improving long-term planning capabilities. The goal is not to be punitive or place blame, but to improve processes and to avoid future problems. This is another aspect to my previous recommendation.
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Giving customers information on rates.

17. Given that rates are expected to increase by approximately 34% as a result of this GRA, it would be good if customers were informed of current rates inclusive of the riders, and each portion of this rate increase as it happens. Knowing actual rates and seeing the actual rate might encourage some customers to try to limit usage which would provide them with financial benefit, and decrease strain on YEC's aging generation capabilities.
18. Perhaps the easiest way to do this would be add the current rate and the previous month's rate to the billing statement, that is, both rates that would be applied to a customer's bill. This way all customers in a given rate class would be given the same information regardless of differing meter read dates which affect the actual rate the customer is paying.
19. Adding something like this to each billing statement, using 1160-Hydro as an example:

September Rates:

\$29.11 Customer Charge.

\$.241 (\$/kWh) Block 1 Energy Charge 0 – 1000 kWh

\$.255 (\$/kWh) Block 2 Energy Charge 1001 – 2500 kWh

\$.278 (\$/kWh) Block 3 Energy Charge 2501 and over

October Rates:

\$29.11 Customer Charge.

\$.207 (\$/kWh) Block 1 Energy Charge 0 – 1000 kWh

\$.255 (\$/kWh) Block 2 Energy Charge 1001 – 2500 kWh

\$.278 (\$/kWh) Block 3 Energy Charge 2501 and over

In this case, the only change is October reflecting the decrease from the Yukon interim electrical rebate. Of course having the actual rate that the customer is paying on each bill would also be beneficial, however simply displaying month to month rates would be a good start.

20. While I understand that YEC will likely claim "out of scope" as has been claimed when I suggested providing rates to customers at the AEY-YEC Rebasing proceeding, where I was told this was a GRA issue, and then at the AEY GRA where I was told that terms and conditions would be handled in a separate proceeding, and then at the AEY-YEC Terms and Conditions Proceeding which it turns out was limited in scope to changes suggested by the Utilities.

21. Despite all of this, I believe this situation is different this time, and the solution I have presented is also different.
22. With the proposed rate increase being dramatically larger than increases in past years, customers should not be kept in the dark concerning the actual amounts. An increase of 34%, but from what to what? The percentage increase is not particularly meaningful by itself.
23. And from the AEY GRA: "In AEY's view, the primary advantage to customers of being informed of what they are actually paying for electricity is that it allows them to make informed decisions about energy usage, including adjusting their energy usage to save on their monthly bills. That advantage only arises if the information on billing statements is useful and comprehensible."⁸
24. I agree with AEY that customers would benefit in being informed of actual rates, particularly now given the significant changes to rates.

25. Recommendation: That previous month and current month rates be provided to customers. YEC, AEY and the Board can easily display current and previous rates on their websites, and the Utilities can be directed to add this information to billing statements in the coming months. There is almost no cost to implementing this change, and customers do benefit. Transparency is important and has been lacking. This is important now, with the large rate increase being proposed.

There was no discussion of the impact of these rate increases on low or fixed income customers. These increases will likely cause hardship for many. Customers deserve to be given the tools "to make informed decisions about energy usage, including adjusting their energy usage to save on their monthly bills" as AEY puts it. Failure to provide this basic information is simply adding insult to injury.

Whitehorse power centres.

26. As for the Whitehorse power centres, YEC should be directed to start working immediately on renewable alternatives to full implementation of these large diesel plants. If these are completed, there will be little to no financial incentive to then replace them with renewables, and environmental and long term cost concerns will be pushed aside. While YEC claims there are no alternatives in the short term and that this is a "must have"⁹, this is not the direction we should be going for the longer term, according to anything that YEC has promoted or published about the future of energy in Yukon until this year's GRA and Road Map to 2050.
27. I am also concerned that it might not be possible to build the 15 MW south Whitehorse portion in two years. Ms. Bentivegna questioned Yukon Energy on this,

⁸ AEY 2023-24 GRA: AEY Response to Motions and YUB Directions - Oct. 27, 2023, p.5

⁹ Transcript Vol 3, October 23, 2025 p.429 line 3.

and while there was insistence that it could be done,¹⁰ there did not seem to be any room for error or delay. This is perhaps more concerning noting that the project is needed because of delay and failure of other projects.

28. In a past proceeding YEC gave the following in response to an IR:
“Yukon Energy has confirmed that as at 2019, when the decision was made to not pursue the 20 MW new diesel plant option after completion of detailed planning work, it would have taken at least four years to plan, permit and construct a new 20 MW or 12.5 MW diesel plant,”¹¹
29. Having confirmed in at least two past proceedings that a Whitehorse diesel plant would take at least four years to implement, it is reasonable to question how and why this has changed. In the past, it benefited YEC’s objectives at the time (rental diesel and Atlin/THELP EPA) to show the Board that a Whitehorse diesel plant could not be built in the short timeline required.
30. Now, however, YEC is proposing that this is a “must have project”¹² and that it can be done in two years. It is difficult to know what to believe, with YEC presenting conflicting information which seems to have varied depending on the last minute quick fix of the moment. This brings accountability and prudence into question.
31. In response to the Board questioning on being able to complete the project for 2027, YEC indicates that learning from the Callison project, the YESAB process is expected to take 12-18 months¹³, being completed maybe just in time for hurried construction.
32. This gives the implication that the start of the Callison project was the start of the YESAB process. However, while the YESAB proposal was submitted in July of 2024, this was not the start of the project.
33. The project actually started in 2020, and construction began in 2023 for a 2025 implementation. This from YEC’s YESAB proposal for Callison: “Yukon Energy began the planning and design phase of the Project in 2020 and began construction of civil works for the Project in 2023 under Building Permit 2023-0135-B.”¹⁴
34. Rather than taking years of planning and design with a fixed location chosen before submitting the YESAB proposal as happened for Callison, YEC is now attempting to do planning and design site selection somewhat simultaneously for the Whitehorse power centres. Can this be considered prudent?
35. YEC has also suggested that rentals could be installed at the site if there are issues with procurement of the preferred diesel units.

10 Transcript Vol 3, October 23, 2025 p.366 lines 1-2, p.363 lines 11-15.

11 YEC THELP consolidated IRs, March 9, 2022 pdf p.745 line 4, which also cites the 2021 GRA Transcript pages 454-456.

12 Transcript Vol 3, October 23, 2025 p.429 line 3.

13 Transcript Vol 3, October 23, 2025 p.365 lines 16-21 and 12 months p.366 lines 16-17.

14 Callison Thermal Generating Station YESAA Project Proposal 2023-0150, page ii.

“We don't want to go there, but we can – we would be able to install rentals if, for example, there is issues with procurement timelines as it relates to the diesel units that we put on the site.”

36. So should the last minute installation of modular units be delayed, the backup plan is even more last minute installation of more rentals.
37. Unfortunately, according to YEC, procuring and installing rentals is not easy and is not a reliable backup plan.
38. From the Atlin/THELP EPA: “YEC’s current method of mitigating the capacity shortfall is relying on rented diesel units. However, in YEC’s view, these units introduce risks since there are uncertainties around their continued availability, their acceptable performance, and YEC’s ability to spatially accommodate the units. YEC stated that these risks potentially expose grid customers to unreliable generation capacity.”¹⁵
39. And in the YEC 2023-24 GRA, YEC was confirmed that rentals are difficult to procure, and as of that time, YEC has the entire fleet of rentals available from Finning.

“A portable 1825 KW generator with required protective relays, remote control features and ability to run reliably in the Yukon’s harsh winter is uncommon. YEC currently has the entire fleet of such rentals from Finning for the 2023/2024 winter and we are currently looking for alternative vendors through an RFQF process for future years.”¹⁶

40. While I am sure that the Whitehorse project can and will be rushed, as must happen with last minute quick fixes, it is not clear from past projects such as Callison or YEC’s own presentations to the Board that the first phase of the project will be operational in 2027.

41. Recommendation: As Whitehorse power centres are last minute quick fixes and the result of other projects not being completed, they should be approached with caution. Approval of the Whitehorse power centres project should be deferred until a detailed project schedule supported by engineering and permitting evidence and realistic timelines can be provided to the Board. The failure of other projects is not a good or prudent reason to ignore the basics of project management for this project. Thorough planning will make this project more likely to succeed and less likely to waste customers’ money. Committing to one quick fix after another is not a mark of prudent decision making. YEC should also present a realistic backup that does not rely on additional rentals, or provide evidence that rental diesel is now reliable and readily available at the last minute. YEC has not made the case that the Whitehorse power centres project is a realistic or prudent option, or that is the only option, particularly past the “must have” south installation by 2027.

Conclusions and the Board’s role when YEC gets off track.

15 YEC THELP consolidated IRs, March 9, 2022 pdf p.702, originally from the YUB report to the Minister for the BESS project.

16 YEC Consolidated IR Responses, November 29, 2023 from the YEC 2023-24 GRA, pdf p.86 response to (a)

42. “Following the 2016 Resource Plan, YEC diligently pursued permanent solution options, including the 20 MW new diesel plant, the third LNG unit, the BESS project, dependable capacity DSM, and potential new dependable hydro capacity options. Given these actions there is no basis for suggesting that YEC was imprudent or irresponsible in its planning to address the dependable capacity gap.”¹⁷
43. YEC may have diligently pursued permanent solutions, but we have to admit that something has gone wrong, with the 2016 Resource Plan and 2020’s 10-Year Renewable Plan being pushed aside for last minute diesel projects larger than previously contemplated, and only vague references to renewable projects in the Road Map to 2050. Even if YEC was not “imprudent or irresponsible”, failing to look at how we have ended up here would be “imprudent and irresponsible”.
44. I recognize that some of my comments may seem a bit pointed, but they are intended to be constructive. In any other industry, a company that repeatedly failed to deliver on major projects over a 10- to 15-year period would face serious review and accountability. It is difficult to imagine that customers, if given a choice, would accept a 34% price increase and a rushed return to outdated technology, despite it being framed as a “Bold New Vision”. And really, calling it that? This sort of marketing does not show accountability or inspire customer confidence.
45. However, in a regulated utility environment customers have very limited influence. This is why the Board’s oversight is particularly important in this moment. I hope that both the Board and Yukon Energy will take an honest look at what has gone wrong and focus on genuine improvement. Acknowledging the problems is the first step towards solving them.
46. Was it prudent for Yukon Energy to rely so heavily on Moon Lake and the Atlin Energy Purchase Agreement? If those projects had succeeded, these questions might not be necessary, but given the outcome, they must now be asked.
47. Likewise, is it prudent to depend primarily on the Whitehorse power centres in the short term? And where is the longer term vision? Vague words of new renewables after 2035, and talk of connection to the BC grid? If that connection does not materialize, other options must be explored starting now. Otherwise, the fallback will again be additional diesel generation and rentals, the approach Yukon Energy has relied on since 2017.

48. Recommendation: The abandonment of the projects outlined in the 10-Year Renewable Plan less than five years after publication raises important questions. Has Yukon Energy effectively given up on major renewable initiatives, leaving the territory on a path toward greater diesel dependency? I hope not. I recommend that the Board direct Yukon Energy to conduct a clear assessment of why large-scale renewable

projects over the past 15 years have failed to advance, and to use those lessons to identify and commit to working on specific new renewable projects within the next one to two years. While this may involve additional resources, something is needed to break the cycle of desperate last minute fixes. The Board and the public should be provided with a realistic and detailed plan for Whitehorse power centres, the Board should not accept “must have” or crisis driven approvals as an alternative to showing prudence in deliberate evidence-based planning.

Respectfully submitted,

Nathaniel Yee
12-November, 2025

“I love the smell of diesel in the morning.”

Was that something Lt. Colonel Kilgore said in Apocalypse Now, or was it the Yukon’s Climate Change Action Plan?

--Yukonomist: The smell of diesel in the morning, by Keith Halliday in Yukon News, Aug 17, 2025