

Notice of Motion: Nathaniel Yee hereby files the following notice of motion with reasons. Notice of Motion: That the Yukon Utilities Board (YUB) direct the YEC to provide correct and complete responses to the following IRs previously presented by Nathaniel Yee.

NY-YEC-1-2 (a) and (b)

QUESTION: (a) Please provide an updated and complete YIS Generation Inventory that includes the rentals (and spares) for 2023-24. Format should be the same as "Appendix A: Existing Resources Technical Attributes" on p. 71 of the 10-Year Renewable Electricity Plan from 2020. (b) Please provide the same table updated for 2024-25.

The generation inventory was provided, but I need confirmation that the data is correct.

Issue: The dependable capacities have increased for all YEC diesels. This seems to be an error or oversight as there was no mention of uprating all of the installed diesels in the GRA. Please provide a table with corrected dependable capacities or confirmation and documentation supporting that all YEC diesel has been uprated since 2021.

Dawson is provided as an example.

Surprised that DD2 and DD5 are uprated before being retired? If running as new, why retire?

Dependable capacity from IR response:

YEC 2023/24 GRA
NY-YEC-1-2 Attachment 1

Dependable Capacity based on YEC's 2023/24 GRA Assumptions

Location	Retirement Year	Original Unit #	Prime Mover Type	Dispatchable	Name Plate Capacity (kW)	2023/24 F	2024/25 F
						Dependable Capacity (kW)	Dependable Capacity (kW)
Diesel	2050	DD1	diesel	Yes	800	850	850
	2050	DD2	diesel	Yes	1,000	1,000	0
	2050	DD3	diesel	Yes	1,000	1,030	1,030
	2050	DD4	diesel	Yes	1,440	1,440	1,440
	2050	DD5	diesel	Yes	1,500	1,500	0
	2050	YM1	diesel	Yes	1,440	1,200	1,200
					7,180	7,020	4,520

Dependable capacity from 2016 and 2020, from 2020's 10 Year renewable plan p.71:

Location	Retirement Year	Original Unit #	Current Unit #	Prime Mover Type	Dispatchable	10 Year Renewable Energy Plan		2016 IRP Dependable Capacity (IRP Table 4.2.) [kW]
						Installed Capacity [kW]	Dependable Capacity [kW]	
Dawson Diesel	2050	DD1	DD1	Diesel	Yes	800	850	720
	2023	DD2	DD2	Diesel	Yes	1,000	850	920
	2050	DD3	DD3	Diesel	Yes	1,000	850	920
	2050	DD4	DD5	Diesel	Yes	1,440	1,000	1,000
	2023	DD5	DD5	Diesel	Yes	1,500	1,350	1,400
	2050	YM1	DD6	Diesel	Yes	1,440	850	1,000
Subtotal						7,180	5,550	5,960

NY-YEC-1-4:

QUESTION:

Please provide the stacking order for thermal generation – two separate lists:

a) for 2023-24

b) for 2024-25

Issue: Stacking order table provided in response to this IR is incomplete. Please indicate relevant capacity limits for each in the Notes column.

Type/ Location	Units	Notes
YEC LNG	WG1, WG2 and WG3	
Whitehorse rentals		
Faro rentals		
Mayo rentals		
YEC Whitehorse diesel	WD4, WD5, WD6, WD7	
YEC Callison diesel	New units	Two 3.25 units potentially available for 2024/25 winter [or 2025/26 winter if delayed]

Type/ Location	Units	Notes
YEC Faro diesel	New units, FD7	Two 2.5 MW new diesel units added for 2024/25 winter
YEC Dawson diesel	DD4, DD3, DD2, DD1	DD2 and DD5 to be retired in 2024
YEC Mayo diesel	MD1, MD2, MD3	

NY-YEC-1-9:

QUESTION:

a) Please provide an updated table of “Number of Diesel Rentals”, which was originally provided by YEC with NY-YEC-1-2 REVISED on pdf p.3 from the Atlin/THELP EPA. Please update to reflect delays in Atlin and Moon Lake and other projects, and note when these projects are expected to be completed. Also please start the table in 2017 or when YEC first rented diesels, as it is useful to be able to chart the growth of the rental diesel fleet.

ANSWER:

(a) Please see the response to YUB-YEC-1-1.

Issue: The response to YUB-YEC-1-1 gives more complete information, but stops after 2028/29, claiming that “YEC is not able to provide useful forecasts on this matter beyond winter 2028/29.” The only change seems to be that Moon Lake has been removed and Atlin in question, and this would not affect forecasting. We seem to be tracking columns A and B now. Please extend Table 1 in YUB-YEC-1-1 out to 2041/42 as was done in the THELP/Atlin hearing as shown below:

Number of Diesel Rentals excluding spares			
Before Committed and Planned Supply Options	After Diesel Replacements, Whitehorse #2 Uprate, BESS and DSM	After Atlin	After Moon Lake [Phase I and Phase II]
A	B	C [incl. B]	D [incl. C]

2021/22	17	15	15	15
2022/23	19	16	16	16
2023/24	23	8	8	8
2024/25	25	10	5	5
2025/26	27	12	7	7
2026/27	29	14	9	9
2027/28	31	16	11	11
2028/29	34	18	14	0
2029/30	36	21	16	0
2030/31	39	24	19	0
2031/32	40	25	20	0
2032/33	42	26	21	0
2033/34	42	26	21	0
2034/35	42	27	22	0
2035/36	43	28	23	0
2036/37	44	29	24	0
2037/38	44	29	24	0
2038/39	45	29	24	0
2039/40	45	29	25	0
2040/41	45	30	25	0
2041/42	46	30	25	0

NY-YEC-1-12:

QUESTION:

a) What is the current permitted diesel generation capacity limit for the WGS? Undertaking #29 from the 2021 GRA (PDF p251 of Undertakings Final) indicates YEC considers this to be 14MW. Looking at capacities from the most recent assessment of WD3 thru WD7 (YESAB 2011-0241 p.9) the last assessed capacity of the 5 generators mentioned adds up to a total permitted capacity of 13.75 MW, which YEC is then rounding up to 14 MW. Is this correct?

ANSWER:

(a) Assessed (YESAA Project Assessment 2013.0115) and permitted Whitehorse diesel generating under normal operating conditions is 16.15 MW.

Issue: This number (16.15 MW) does not appear to be correct, as 2013.0115 was an assessment of the LNG project and was not concerned with existing diesel other than what was being removed. It also does not match YEC's statements and undertaking in the 2021 GRA, and does not match the permitted capacity that YEC provided to Hemmera for the noise report provided in NY-YEC-1-13(f) Attachment 1.

Given that YEC has never previously claimed a permitted capacity as high as 16.15 MW, relevant documentation including page numbers should be provided to support this new capacity claim. If claiming that the diesel assessment is somewhere in the LNG assessment 2013.0115, please show where.

QUESTION:

d) In March of 2023, Yukon Energy held public meetings concerning the renewal of their thermal permit which expires in 2024 and indicated that a YESAB assessment would be starting in Fall of 2023. Is this still on schedule? Will YEC be asking for capacity other than the 14MW currently permitted?

ANSWER:

(d) The Project Description for the YESAA assessment required to renew the authorizations for some of the activities associated with thermal generation at WRGS was submitted in early November 2023. Yukon Energy is requesting renewal of the previously authorized normal production capacity (13.2 MW of natural gas and 16.15 MW of diesel) with a restoration of the previous allowance for an additional 12MW diesel capacity for emergency use. Other activities, such as those associated with the handling and storage of natural gas, are authorized until 2054 and do not require assessment and authorization renewal at this time.

Issue: The assessment could not be found in yesabregistry.ca. Has it been submitted as claimed? Please provide the project number.

NY-YEC-1-13: Whitehorse diesel.

QUESTION:

c) What are the generating efficiencies of the installed diesels compared to the rentals? Please provide a comparison of fuel consumption at 9.55 MW using the installed/permanent generators vs fuel consumption of the rentals to produce the same output? Fuel usage per MWh would also be useful.

d) Please provide a comparison of NO₂ and other pollutants at similar capacities – Installed vs rental units.

Issue: Tables were provided, but without any reference to data sources. Please provide the full reports that include this data, or at least links to the full reports. Without context the data is not meaningful.

NY-YEC-1-14:

QUESTION:

a) Please provide all plans, layouts, specifications, studies (noise, emissions, etc) and all other documentation relating to the modifications (2023 and 2024) to the FGS. This would also include plans, requirements and instructions given to contractors and subcontractors. Also please provide a list of contractors and subcontractors and RFPs.

ANSWER:

a) *YEC is installing two Tier 4 engines of 2.5MW each. The layout of the site is as follows:*

Issue1: The provided layout is too small, to be readable and when enlarged, too blurry. Please provide a higher resolution version of the layout. Also, please provide the 2023 and 2024 layouts, which are different. This one being too small, I am not sure which year it represents – or if both layouts are somehow shown.

Issue2: Please provide model code and specifications of the 2.5 MW generators as requested.

Issue3: Please provide sound and emissions / dispersion reports if available, otherwise indicate that none have been done.

Issue4: I had also requested plans, requirements and instructions provided to contractors and subcontractors – and none have been provided.

QUESTION:

b) Please provide all correspondence between YEC and the Department of Environment concerning the 2023 and 2024 modifications to the FGS.

Issue1: Missing document: On pdf p.65, The email dated May 31, 2023 concerns an attachment 20230510-Inspection-report-es.pdf, however this document is not included. The document is also the subject of the email on pdf p. 67. Please include this document and any further correspondence.

Issue2: At the top of pdf p. 66, a “approved Complaint Management System for the FGS” is mentioned. Please provide any documentation and correspondence associated with the “approved Complaint Management System”.

Issue3: Construction has started, and pads for FD8 & FD9 have been poured. Has YEC informed the Regulator, as required according to the emails provided? Please provide any documentation.

Issue4: In the email chain provided, YEC has not informed the Regulator of the 2024-25 20.6 MW configuration described in the GRA. Please provide documentation of YEC informing the Regulator of this configuration.

NY-YEC-1-15:

QUESTION:

b) Please provide the sound modelling report for the modifications to the Faro facility. This report was referenced by YEC in the January of 2023 meeting in Faro. I requested it from YEC on February 7 and was informed by YEC that “The full report is not yet available. The results of the sound modelling were shared ahead of the full report so they could be presented at the January meeting in Faro.” I requested the full report again in June and August, and still nothing. Is the full report finally available?

ANSWER:

(b) The referenced sound modelling is being developed and used on an iterative basis to support preliminary and final engineering design of potential sound mitigation devices. This design work is still in progress. As such, a final report has not yet been completed. In the meantime, a summary memo has been prepared to support the response to this information request and is attached as NY-YEC-1-15(b) Attachment 1.

Issue: The GRA has two different configurations for Faro, one for 2023-24 and a different one for 2024-25. The summary memo prepared in response to the IR does not address the 2024-25 configuration providing 20.6 MW dependable capacity, as described in the GRA – though it does address configurations that YEC has not proposed. At a minimum, the “summary memo” should address the two scenarios described in the GRA. Please provide an updated “summary memo” with relevant information.

QUESTION:

e) Please provide a comparison of the efficiencies of the proposed diesel replacement generators and the rentals at 5MW output. Fuel usage at 5MW, Fuel usage per MWh, and NO2 and other emissions compared.

ANSWER:

e) Please see response to NY-YEC-1-13(f) and NY-YEC-1-13(d).

Issue: NY-YEC-1-13 addresses Whitehorse. The Faro installed diesels are not addressed in the Whitehorse answers. Please answer the question with data relevant to Faro as requested and provide sources of data.