

August 28, 2023

Brad Farrow, Manager – Mayo Designated Office
Yukon Environmental and Socio-economic Assessment Board
Mayo Designated Office
PO Box 297
Mayo, Y.T. Y0B 1M0

(Submitted via the YESAB Online Registry)

Dear Mr. Farrow:

Re: Response to Public Comments – YESAA Project Assessment 2023.0090

In the case that it may be helpful in preparing the evaluation report for the assessment referenced above Yukon Energy offers the following information in response to some of the public comments received by the Designated Office during the *Seeking Views and Information* phase of this assessment.

FIRST NATION OF NA-CHO NYAK DUN COMMENTS

Topic – Timeline

There is no clear indication from the proposal documents what the intended lifespan of the project is (i.e. continued need for diesel power generation going forward). FNNND views the installation of diesel generators as a short-term necessity while implementation of adequate energy security planning and integration of long-term, non-fossil-fuel-dependent solutions is underway. While FNNND and YEC continue to engage formally in discussions including ongoing and future energy needs, it will still be important to set target timeframes to work towards eventually phasing out the need for diesel generation.

Yukon Energy Response:

Yukon Energy's objective is to maximize renewable energy. We continue to explore and build projects that will help us to supply, on average, 93% renewable electricity by 2030. Over 90% of the electricity we generate today is renewable. Firm electrical back up will, however, continue to be a requirement in the Yukon as we have an islanded grid with no access to electrical energy from outside. In this circumstance, firm back up sources such as, but not necessarily, diesel will continue to be needed. The use of thermal sources is always coupled with an objective of minimizing their use. While new renewable energy sources are planned and constructed there is a near term need for increased thermal generation. The Project is intended to support this need and current planning schedules see it in place for at least the next few years. If there is a continued requirement for this energy following the expiry of the project authorizations (up to 10 years) a new assessment and permitting cycle will commence within the energy context at that time.

Topic – Increased Fuel Transport

The use of the diesel generators will require fuel delivery of up to 1 B-train per week. The increased fuel transport can contribute to multiple effects including increased industrial traffic on the Wareham Lake Road which is increasingly becoming a residential access location with occupancy of the new subdivision. More fuel truck traffic also increases the potential risk of spills or accidents along the transport route which could affect waterways and habitats nearby.

Yukon Energy Response:

Yukon Energy recognizes the risks presented by the transport and handling of hazardous materials such as diesel fuel. The impact of a spill can be very costly to the environment and to people. We expect the risks associated with the use of fuel to be mitigated by adherence to applicable codes and standards, other non-discretionary regulatory requirements, and the related planning and practices of Yukon Energy and its suppliers. In the unlikely case of an incident both Yukon Energy and its fuel suppliers have contingency plans and human and material resources to respond.

Topic – Noise Levels

There are no actual mitigations listed for potential increase in noise levels. From the discussion provided in the proposal documents, noise levels in relation to residences was not expected to be particularly high. However, the area is increasingly becoming a residential location with the development of the nearby subdivision. It may be prudent to allow potential for monitoring, including gauging local residents' perceptions of noise levels, with potential for follow-up action if necessary.

Yukon Energy Response:

Given the distance between the generators and receptors at the Campground (>750 m) and nearest residence (>1,100 m) and the likelihood that unit operation will occur in very cold conditions when people are less likely to be outside for long periods of time, noise is not expected to cause significant environmental or socio-economic effects. If, however, public concerns regarding noise are brought to Yukon Energy's attention the Corporation will endeavour to address them on a case-by-case basis. This may include conducting an acoustic audit of the facility, which would collect ambient and operational sound levels in the Project area for comparison to the British Columbia Noise Control Best Practices Guideline and follow up engagement with complainants/interested parties.

Topic – Socio-economic Benefits

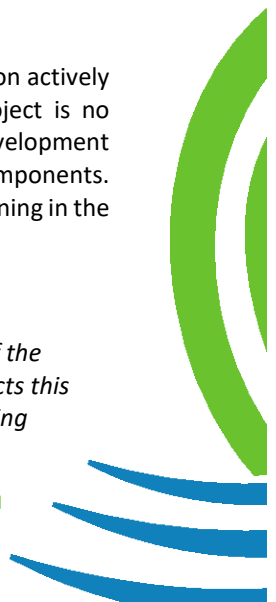
The acquisition, operation and decommissioning of these generators may provide opportunity for economic benefit through partnership and planning. Furthermore, any potential for future site use post-decommissioning, including potential installation of solar panels and/or battery storage, may give rise to further economic benefits locally. It is expected that this project is not seen in isolation as a distinct response to an immediate need but rather an evolving opportunity with steps ultimately towards non-fossil-fuel power generation to meet future needs and benefit communities. FNNND requests that development of a project agreement with the Nation be initiated to facilitate some of these benefits and forward-looking planning.

Yukon Energy Response:

Yukon Energy agrees with these ideas and as part of project developments of this nature the Corporation actively seeks out economic opportunities with local First Nation Governments and communities. This project is no different, with the Corporation working directly with the First Nation of Na-Cho Nyak Dun Development Corporation (NNDDC) to identify and engage goods and services providers for a variety of the Project components. Yukon Energy also has an ongoing dialogue with the FNNND Government regarding broader energy planning in the Yukon and within their traditional territory.

Topic – Generation Capacity Clarity

Through response to an information request, it is understood that while the total generation capacity of the generators to be installed will be well over 5MW, they will never be run to exceed 4.9MW. FNNND expects this output limitation to be binding through regulatory requirements. The context of thorough energy planning



within a timeframe is necessary here to ensure we do not approach a situation where more than 4.9MW is required from this backup system without effects having been assessed and regulated at that scale beforehand.

Yukon Energy Response:

Yukon Energy fully expects that the requested maximum operating capacity of 4.9 MW will be prescribed and enforceable under the Air Emissions Permit that is issued for the project.

YUKON GOVERNMENT COMMENTS

Topic - Air Quality

1. *The Proponent should provide basic air quality analysis specific to the Mayo project, showing the potential impacts of reduced air quality to nearby receptors. The air quality analysis should include the 2025 Yukon ambient air quality standards.*
2. *The Proponent should comment on whether or not the project is expected to impact use of the Five Mile Lake territorial campground.*

Yukon Energy Response:

1. Despite being a low-risk emissions source given its size and distance to receptors, Yukon Energy understands that YG Environment, Standards and Approvals Branch may require a Level 1 (Screening) Assessment of the Project at the permitting stage. As it may be requested, Yukon Energy will include such information in the application for the project air emissions permit at that time.
2. The Project is not predicted to impact the Five Mile Lake Territorial Campground as operation of the generators is expected to occur predominately in winter and little use of the campground at this time of year is anticipated. Furthermore, given its distance from the project area (>750 m) and the fact that significantly more generating capacity exists at other YEC facilities with much closer proximities to nearby receptors¹, significant effects to campground users or nearby residences are not predicted to occur.

YUKON CONSERVATION SOCIETY COMMENTS

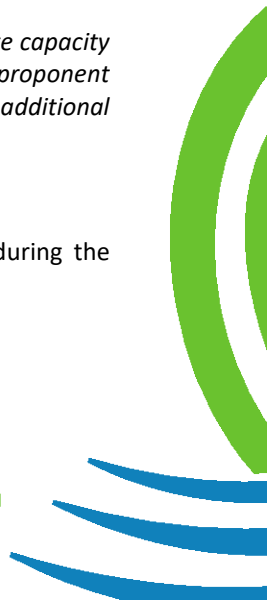
Topic - Hierarchy of Generator Use

YCS notes that the project proposal is to install 5 x 1.8MW rented diesel generators totaling a nameplate capacity of 9MW, but only intends on using 4.9MW of this installed capacity. YCS asks that YESAB requests of the proponent to elaborate on the operational logistics of this setup. YCS requests that YESAB ask the proponent if the additional generating capacity is to be used solely under emergency conditions?

Yukon Energy Response:

Yukon Energy provided applicable responses to a similar, but separate request made by the DO during the adequacy review stage (see YOR File 2023.0090.0010).

¹ Examples: Whitehorse Rapids Generating Station permitted capacity 29.4 MW – nearest receptor ~250 m; Faro Generating Station permitted capacity 15.5 MW – nearest receptor ~350 m.



Topic – Spill Plan

YCS asks that YESAB request of the proponent to have an updated spill response plan for the site-specific project. Local phone numbers should be provided in the spill response plan to have a minimal response time to an environmentally impactful event. A robust spill response plan is essential in limiting the destruction caused by a potential spill.

Yukon Energy Response:

Maintenance of a site-specific spill plan is a requirement of Fuel Storage Tank permits, one of which will be issued under the Environment Act, Fuel Storage Tank Regulations, for this project.

Topic – Emission Reporting

YCS respectfully requests that YESAB recommend the proponent keep track of the quantity of fossil fuels consumed related to this project. This would include fuels consumed on site and fuels consumed associated with transporting the fuel to site.

Yukon Energy Response:

Annual reporting of facility emissions, including criteria air contaminants and green house gases (Scope 1), is a requirement of the air emission permit that will be issued under the Environment Act, Air Emissions Regulations, for this project. The calculated emissions are partly a function of fuel consumed.

Topic – Climate Emergency

YCS respectfully requests that YESAB recommends given the urgency of the situation, as highlighted from numerous reports, that the proponent provide information on the utilization of renewable energy over the use of rented diesel generators.

Yukon Energy Response:

Information about overall generation is provided by Yukon Energy on its website and in its annual reports, including total energy generated and the proportion that is generated via renewable sources. Annual reporting to the Yukon Government pursuant to the air emissions permit provides a detailed summary of thermal generation by facility.

Topic – Noise

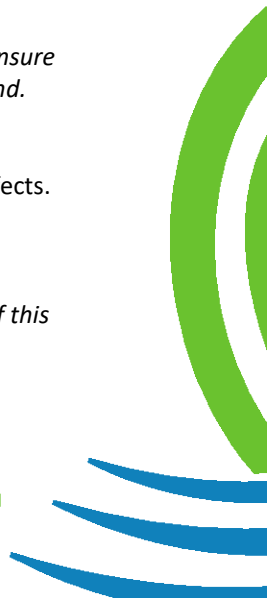
YCS requests that YESAB asks of the proponent how noise issues will be addressed and or mitigated to ensure minimal sound disruptions from these generators to nearby residents and the Five Mile Lake Campground.

Yukon Energy Response:

Please see the previous response, above, to the FNNND and YG comments regarding potential noise effects.

Topic – Air Pollution

Air pollution from the combustion of fossil fuels has been noted by the proponent as an adverse effect of this project. YCS asks that YESAB request of the proponent if any monitoring and mitigation will take place throughout the operation of these diesel generators.

Yukon Energy Response:

Emissions reporting, as described above, is expected to be part of the ongoing monitoring and follow up program required under the air emissions permit for the Project. No additional pollutant emissions monitoring or mitigation is deemed necessary or proposed by Yukon Energy for a facility of this size in this location.

MR. NATHANIEL YEE COMMENTS**Topic – Generators On Site Versus Permitted Operational Capacity****Yukon Energy Response:**

Yukon Energy provided applicable responses to a similar, but separate request made by the DO during the adequacy review stage (see YOR File 2023.0090.0010, response IR1.1).

Topic – Emergencies**Yukon Energy Response:**

Yukon Energy provided applicable responses to a similar, but separate request made by the DO during the adequacy review stage (see YOR File 2023.0090.0010, response IR1.3).

Topic – Noise**Yukon Energy Response:**

Please see the previous responses to comments on the topic of potential noise effects, above.

CLOSING

Thank you for your time and consideration of this information. If you have any questions, please contact me anytime via email: travis.ritchie@yec.yk.ca and/or by phone (867) 393-5350.

Thank you for your time and consideration.

Yours Truly,



Travis Ritchie,
Director – Risk & Compliance

