DAWSON DIESEL REPLACEMENT AND RELOCATION PROJECT

2023 UPDATE

protecting against emergencies

yukon energy

We want to update you on the Diesel Replacement Project and advise you of what is being considered going forward for Yukon Energy's diesel fleet in Dawson City.

We are still moving ahead with this project, which involves replacing two end-of-life diesel engines at our downtown plant with one new engine in the Callison Industrial Area. At the same time, we're also planning to add a second diesel generator at the Callison substation to prevent prolonged outages during emergencies. In the short term, we plan to have 6.5 megawatts of diesel generation installed at Callison.

In future years, we expect more diesel generation at the substation as demand for power in Dawson City continues to grow, more sources of wind and solar power come online, and we continue to move diesel generators from downtown to Callison. To prepare for that, we will be assessing the potential long-term effects of 15.5 megawatts of diesel generation at the Callison substation this year.

why do we need more diesel in Dawson City?

Diesel helps keep the lights on during winter peaks, emergencies and other outages.

DEMAND FOR ELECTRICITY IN DAWSON CITY IS GROWING.

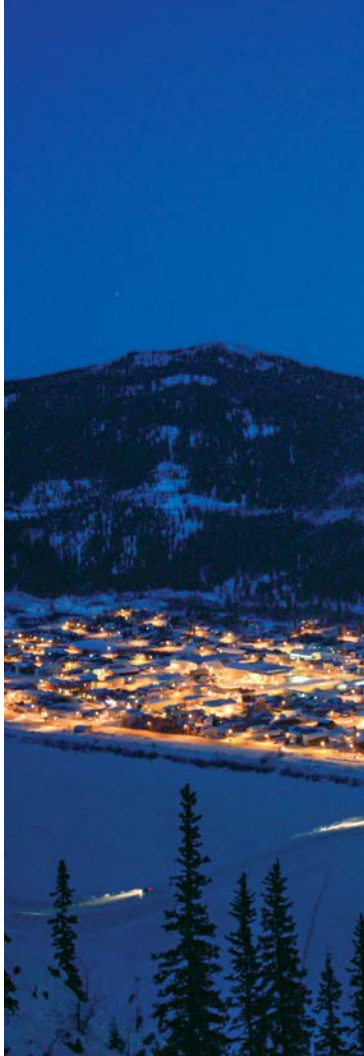
As the second-fastest-growing community in the Yukon, the addition of people, homes and community infrastructure are all contributing factors to an increasing demand for electricity. This, coupled with the switch from propane and heating oil to electricity for heating and transportation, means we expect to see demand for electricity in Dawson City double in the next five years.

To make sure we can generate enough electricity in Dawson City during times when the community is disconnected from the grid, we are adding more diesel units at Callison.

Diesel ensures Yukoners have reliable electricity service during winter peaks, emergencies and whenever renewable resources aren't available.

The local diesel engines also help us keep the lights on in Dawson City during maintenance outages taking place elsewhere in the system, and in case of trouble on the transmission line that connects the community to hydro power on the grid.

Finally, additional diesel generation will help to provide firm back-up power as more wind and solar projects are added in and around Dawson.



renewable electricity in the Yukon

Over 90% of the electricity we generate today is renewable. We continue to explore and build projects that will help us to supply, on average, 93% renewable electricity by 2030. These projects include:

- completing hydro upgrades and enhancements;
- installing a grid-scale battery in Whitehorse;
- offering a demand-side management program called Peak Smart; and
- buying power from local solar, wind and hydro projects across the territory.

what we heard

During our last round of engagement, the majority of Dawsonites we talked to were eager for us to move the diesel generators from downtown to our substation in Callison. We also heard that diesel was an important back-up source of electricity for the community and provided peace-of-mind that Dawsonites would receive the electricity they need, when they need it.

SITE DESIGN CONSIDERATIONS

We chose Callison as the location for the diesel generators as there are limited impacts to the surrounding environment and community.

VEGETATION

The site is already cleared and surfaced with gravel.

WILDLIFE

Moose and other large animals tend to avoid the Callison industrial area.

AIR QUALITY

Yukon Energy is investing in the best available emission control technology for its new generators to comply with the Yukon Ambient Air Quality Standards. It will not have significant negative effects on human and/or environmental health.

FISH AND WATER

The Klondike River is 670 m away. Three levels of fuel containment will be used to prevent fuel from entering the environment in the unlikely case of a leak.

NOISE

The generators will only make noise when running–typically during peak periods of energy use in the winter and during emergencies. The new equipment will have sound ratings lower than levels permitted in an industrial area, and will be containerized with exhaust silencers to muffle engine noise even further.

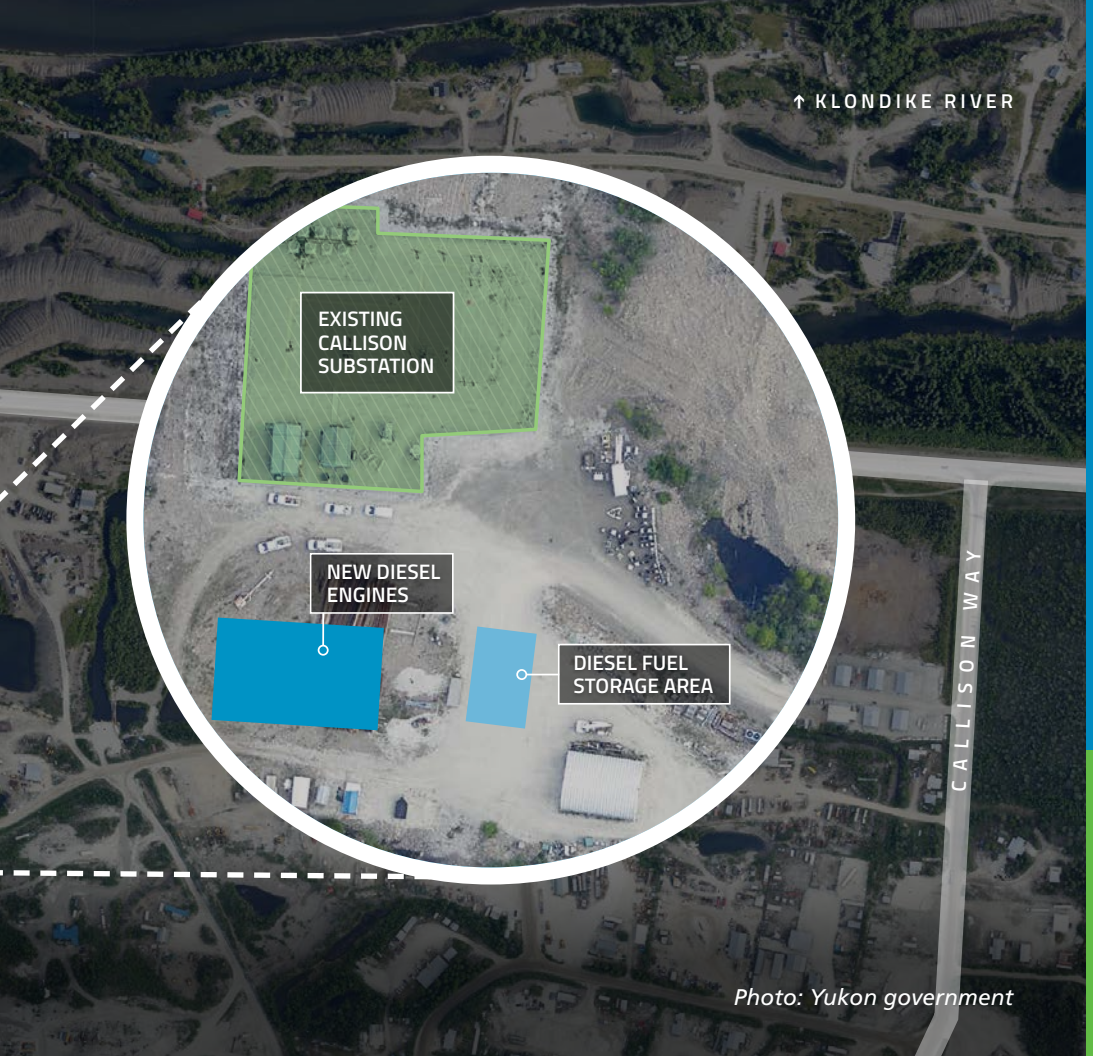


Photo: Yukon government

our Callison substation

TRADITIONAL TERRITORY
Tr'ondëk Hwëch'in

LANDOWNER
Yukon Energy

ZONING DESIGNATION
M1 Industrial

CURRENT USE
Utility substation

NEAREST RESIDENT
150 m

NEAREST WATER BODY
Klondike River, 670 m north

We need an air emissions permit to operate the diesel generators. We also need a fuel storage tank permit. Before we can apply for the air emissions permit, the project must first be evaluated under the *Yukon Environmental and Socio-economic Assessment Act* (YESAA).

what happens next?

SITE PLANNING

Present to Fall 2023

- Preliminary engineering
- Environmental assessments
- Submission of our *Yukon Environmental and Socio-economic Assessment Act* (YESAA) Project Description (to kick off the Pre-screening Public Engagement Process)
- Community input collected by YESAB and Yukon Energy
- Site preparation and grading

ENGINEERING AND DESIGN

Fall 2023 to Winter 2023/24

- YESAA Project Proposal submitted and assessment commences
- Detailed engineering and site design
- Securing a site contractor
- Ordering equipment with long lead times

OPERATIONS AND MAINTENANCE

Happening now, during the project and ongoing afterwards

NOISE

During construction, you can expect to hear noise typical of a construction site, but we'll make sure our work abides by all noise bylaws.

CONSTRUCTION

Spring 2023 to Fall 2024

- Completion of YESAA assessment and subsequent permitting
- Civil and structural work
- Installation of the initial 2, 3.25 MW diesel units and fuel storage system
- Electrical and mechanical equipment and systems put in place

INTERCONNECTION

December 2024

- Engines tested and put into service

» The substation and diesel engines are maintained as part of Yukon Energy's regular maintenance and upgrade schedules.

share your feedback

This project will go through an Executive Committee screening under the Yukon *Environmental and Socio-economic Assessment Act*. This means that before we submit our project proposal, you will have the opportunity to provide input through the Yukon Environmental and Socio-economic Assessment Board's Pre-submission Engagement process.

The feedback received during this process will help to identify issues of concern, define values and ultimately inform our project proposal.

To get involved in this process, please visit **yesabregistry.ca** and look for Yukon Energy's Callison Electricity Generation Project.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