

Northern Valley 1 DER Project

Company overview

Versorium Energy Ltd. (Versorium) is a privately-held power plant development and operations company based in Calgary, AB. Versorium is focused on supporting grid transition in Alberta by developing small scale power plants, which are referred to as distributed energy resources (DERs).

We have a strong commitment to safety in the development, construction, operation and reclamation of our facilities.

Transparent consultation and engagement are important to us and we invite you to contact us with your feedback:

☎ 587-534-5002

✉ engagement@versoriumenergy.com

🌐 versoriumenergy.com

What you'll find in this package

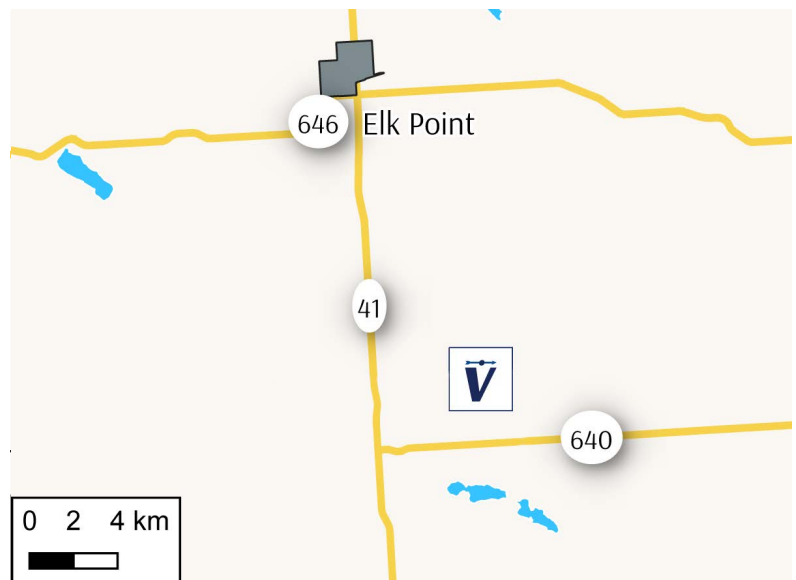
- Details of the Project (components, impact, timeline, schedule)
- Planned site layout diagram
- Rendering of the Project
- Community benefits
- Alberta Utilities Commission (AUC) application process
- AUC brochure: *Participating in the AUC's Independent Review Process*



This package provides you with information about an electric generation facility being proposed for development in your area and describes the Project's design details, its potential impacts, and how you can participate in our public involvement program.

Versorium Energy Ltd. is proposing to develop the Northern Valley 1 DER Project (the Project), a natural gas-fired electric generation facility approximately fourteen kilometres southeast of Elk Point, Alberta. The Project will have a nameplate capacity of 5 megawatts (MW) and a net capacity of approximately 4.9 MW. The Project will be located on the NW Quarter of Sec. 21, Twp. 55, Rge. 6, W4M and will utilize a small operating footprint of approximately 0.6 acres. This Project supports Alberta's need for small, flexible power plants that can readily respond to sudden changes in electricity supply and demand.

Versorium is seeking your feedback on this project.



Regional map of the proposed Project's location.

Project details

If approved, the Project will include the construction and operation of a 5 MW natural gas-fired electric power generation facility that will connect to the local utility's 25 kilovolt (kV) distribution line and the local gas cooperative's natural gas supply pipeline. The Project's small footprint minimizes overall impacts to the environment and will allow host-landowners to continue farming and agricultural activities right up to the Project's site boundary.

By connecting to the local electric and natural gas systems, the Project will efficiently make use of existing infrastructure and excess capacity within those systems.

Project components

If approved, the Project will consist of:

- A fenced area of approximately 0.6 acres containing the Project's components
- Three modular buildings, each 5.8 metres tall, placed on concrete foundations for a total height of 6.8 metres;
- Two 2.5 MW natural gas-fired reciprocating engines and electrical switchgear housed within modular buildings;
- A step-up transformer and overhead line of approximately 100 metres in length that will connect the Project to the local utility's 25 kV distribution line;
- Connection to the local gas cooperative's natural gas supply pipeline; and
- Upgrades to an existing approach and access road or a new access road to the Project.



Rendering of the proposed project footprint.

What are the potential impacts?

We understand that you may have questions about the Project's potential impacts to you and your community. Versorium is committed to sharing how we've addressed these impacts.

Environmental

- **Sound** – The Project's equipment will be contained inside acoustically insulated modular buildings and the engine exhausts will be equipped with hospital grade silencers to reduce sound produced by the Project. Versorium will conduct a Noise Impact Assessment to ensure the permissible sound level is not exceeded at residential receptors near the Project, as required in *AUC Rule 012 – Noise Control*.
- **Visual** – The Project will have limited adverse visual impacts due to its low height and scale. The modular buildings will be painted a neutral colour and will be less than seven metres tall once placed on their concrete foundations. The Project buildings will be enclosed in an area surrounded by a two-metre-tall chain link fence. Local municipality setbacks have been incorporated in the Project's final site location and design to ensure unobstructed views at the nearby intersection.
- **Traffic** – Traffic impacts will be greatest during the six-to-eight-week construction period when heavy equipment will prepare the Project site for delivery of project components. Versorium will work closely with the local municipality to comply with any road restrictions or road bans in place. Dust control measures and signage will be used to minimize disturbances during construction. Traffic impacts during the operations period will be minimal – estimated as one service vehicle per month to complete necessary site work and routine maintenance.
- **Wildlife & Vegetation** – Versorium is carrying out all environmental surveys and monitoring required by Alberta Environment and Parks. These surveys may include: bird, amphibian, wildlife, vegetation, rare plant, wetlands, and soil surveys. The relatively small construction and operations footprint will ensure minimal disturbance to wildlife and vegetation features within the Project's site boundary.
- **Emissions** – The Project's natural gas engines will produce nitrous oxides, commonly referred to as NO_x. Versorium has selected an engine that includes low NO_x technology which will exceed Alberta's standard for natural gas electricity generation. Versorium is carrying out air modeling of the NO_x emissions as part of its environmental permit application. Particulate emissions will not be present.

Community benefits


Versorium is committed to supporting local communities over the life of its projects. The Northern Valley 1 DER Project will:

- contribute to the local tax base and keep energy dollars in your community;
- create local business and employment opportunities resulting from construction and operations; and
- provide long-term lease revenue to host-landowners during the life of the Project.

As a gas-fired, DER project, the Northern Valley 1 DER project will:

- provide a reliable and consistent source of power generation independent of weather or grid conditions; and
- help shape the energy future of Alberta by adding generation away from major load centres.

Local businesses whose services relate to the project's construction or operations are invited to share their business profiles with us.

 587-534-5002

 info@versoriumenergy.com

 versoriumenergy.com

Health, safety and risk

We recognize the importance of health, safety and risk management as they relate to you, your community, the environment and the people we work with.

In collaboration with regulators, landowners and equipment manufacturers Versorium creates site-specific documents that capture corporate protocols, best practices, procedures, and project commitments relating to environment and safety. Protocols are distributed to contractors and employees to ensure ongoing compliance and best practices during the life of the Project.

Decommissioning and reclamation

Versorium is committed to compliance, integrity and sustainability when managing the Project's decommissioning and reclamation.

- The Project's life expectancy is anticipated to be 20 to 25 years. The site could be repowered to extend the life for an additional 25 years.
- We will comply with decommissioning regulations in place at the Project's end of life. Decommissioning and reclamation are expected to be straightforward as the foundations and other groundworks are minimal and close to the surface.
- Versorium will restore the site to pre-development use and will reclaim the land to the satisfaction of Alberta Environment and Parks and the Project's host-landowner.
- We identify project retirement and decommissioning obligations as a corporate fiduciary responsibility.

AUC application process

As Alberta's independent utilities regulator, the AUC regulates the utilities, natural gas, and electricity sectors to protect social, economic, and environmental interests of Alberta.

The AUC is also committed to ensuring Albertans who may be affected by a project have an opportunity to share their concerns.

Prior to Versorium constructing the Project, the AUC must first review and approve Versorium's facilities application.

Overall project approval process

The Project will be subject to provincial and municipal approvals that are based on site-specific criteria and may include the following:



Alberta Environment and Parks

Assess air quality requirements, water management, wetland, wildlife and vegetation impacts, and reclamation planning.



Alberta Utilities Commission

Assess environmental and noise impacts, and compliance with regulations and public interest.



Alberta Culture, Multiculturalism and Status of Women

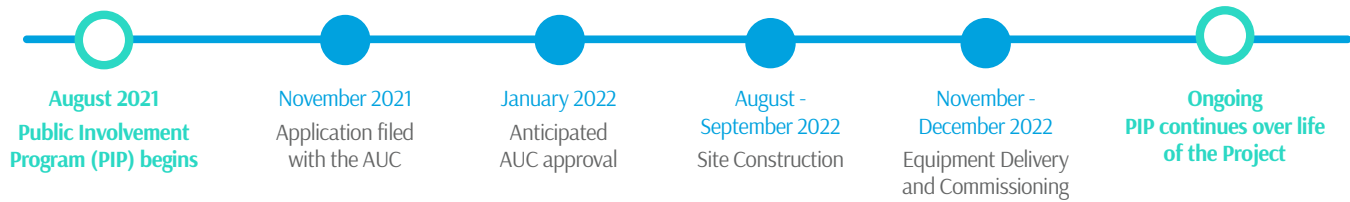
Assess historical, cultural and paleontological impacts.



Municipal Planning and Development, Reeves and Councillors

Assess alignment with local land use objectives. Review/approve: development permit, access, road use, and overall construction/operations impacts.

Timeline



How to participate

We value your feedback and would like to hear from you. Please contact us directly to share your questions, comments and concerns or to request additional project information.

You can contact us by:

☎ 587-534-5002

✉ engagement@versoriumenergy.com

🌐 versoriumenergy.com

📍 Versorium Energy Ltd.
Suite 502, 322-11 Ave S.W.
Calgary, AB T2R 0C5

To learn about how you can participate in the AUC independent review process refer to the enclosed AUC brochure.

Alberta Utilities Commission (AUC)

☎ 310-4282 (in Alberta)

✉ info@auc.ab.ca

🌐 auc.ab.ca

Definitions

- **Distributed energy resources** (DERs) are any technology that is connected to the electric distribution grid and affects the supply or demand for electricity.
- A **kilovolt** (kV) is equal to one thousand volts.
- A **megawatt** (MW) is equal to one million watts.
- **Nameplate capacity** is the rated power output of generating equipment, typically expressed in MW.
- **Net capacity** of a power plant is nameplate capacity less on-site loads used to produce power - the amount of power exported from the power plant to the grid.
- **Public Involvement Program** (PIP) is a process for engaging with stakeholders that could be affected by a proposed development and gives those stakeholders an opportunity to voice their concerns and be heard.
- A **step-up transformer** increases the voltage of power produced by a power plant so that the power can be exported to the grid and distributed to consumers.
- A **weighted decibel** (dBA) is a unit used to measure the intensity of sound as heard by the human ear.