

SWEETGRASS SOLAR WITH STORAGE PROJECT

**JULY 2023
NEWSLETTER #1**

Neoen is developing the Sweetgrass Solar with Storage Project in your area. We are committed to engaging landowners, public stakeholders and members of the local community and we look forward to discussing the Project with you.

ABOUT NEOEN



Neoen is the leading French Independent Power Producer developing, financing, constructing and operating renewable energy power plants. Neoen is a long-term owner-operator, specializing in wind, solar and energy storage, with an experienced staff of 360 employees and a presence in 17 countries worldwide. As of today, Neoen has 6.6 GW of assets under operation and/or late-stage construction. In April 2023, Neoen started the construction of the Fox Coulee Project (75MWac / 93MWp), its first project in Alberta, located in Starland County.

ABOUT THE PROJECT

The Sweetgrass Solar with Storage Project (the Project) is being developed by Neoen Renewables Canada Inc. (Neoen or the Proponent). The Project began development in 2022 and includes approximately 1,700 acres of land located approximately 4.5 km east of the Town of Granum, Alberta, in the Municipal District of Willow Creek No. 26. The Project is located within Townships 10 & 11, Ranges 25 & 26, West of the Fourth Meridian, on privately owned, cultivated land (as shown on the enclosed map). The Project area has a strong solar resource, characteristic of Alberta, and will generate clean energy over its 30+ year lifetime.

The Project is located on cultivated land and will consist of up to 315 megawatts ac (MWac) of solar capacity with a 150MW/306 megawatt-hour (MWh) battery energy storage system (BESS), charging from the solar facility. Based on the preliminary design, the Project includes approximately 661,000 solar photovoltaic modules installed on a single-axis tracking system, 74 inverter/transformer stations, an electrical collection system, internal access roads and the construction of a Project substation to connect to the Alberta Interconnected Electric System (AIES).

PRIVACY STATEMENT

Collected personal information will be protected under the provincial *Personal Information Protection Act*. As part of the regulatory process for new generation projects and transmission lines, the Proponent may be required to provide your personal information to the Alberta Utilities Commission (AUC).

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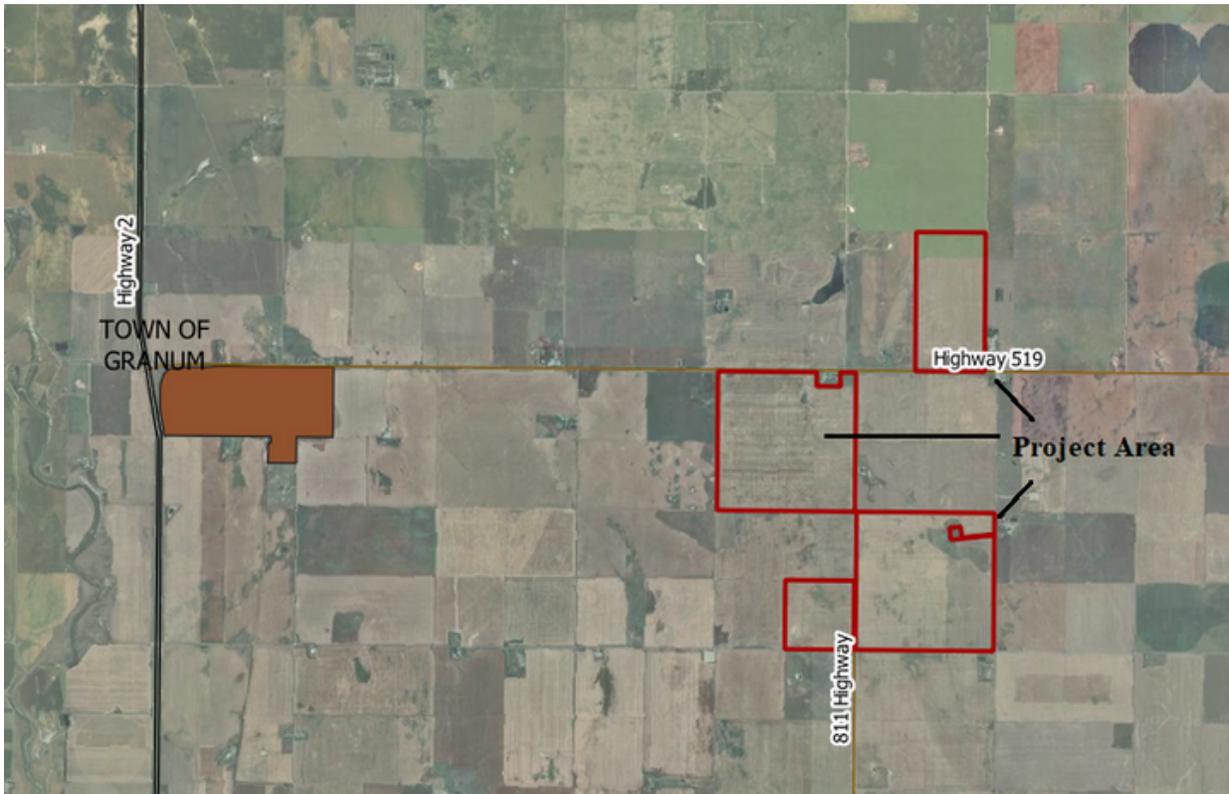
INSERTS:

- [Preliminary Project Layout](#)
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PROJECT LOCATION

The proposed Project is located approximately 4.5 km east of the Town of Granum, as shown below.

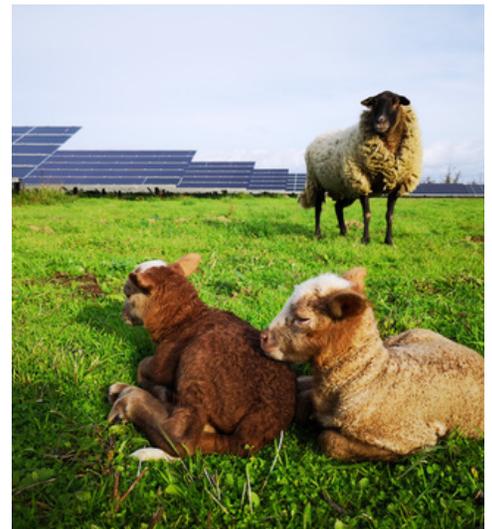


PROJECT BENEFITS

Neoen is committed to making a positive social impact for the communities in which we work. We strive to be a good neighbour, and work closely with the community to identify areas of opportunity and concern. Our community engagement will continue throughout the Project phases, including construction and operation.

The Project will have many community benefits, including the following:

- **Local Employment:** The Project will create up to 400 full-time jobs during construction, creating opportunities for local individuals and businesses. During operations, the Project will provide five permanent full-time jobs.
- **Local Economic Boost:** Local businesses will experience increased activity due to the spin-off opportunities created by the Project during development, construction, and operations.
- **Property Taxes:** The Project will pay annual property taxes to the County, resulting in financial benefits to the community.
- **Clean Energy Generation:** The Project will generate emissions-free electricity for approximately 100,000 homes.



PROJECT INFRASTRUCTURE

SOLAR PV MODULES

Bifacial PV modules have been proposed for installation at the Project. A bifacial module is a double-sided module that transforms sunlight into electrical energy on both its top and bottom sides. They are different from mono-facial modules which only use one side for solar energy production. Bifacial modules are capable of producing more power per module and typically have higher efficiency than mono-facial modules, resulting in less land usage for the same or greater power output. Local weather conditions in Alberta are well suited to bifacial technology as there is substantial snow cover on the ground, which will boost production during the winter months. One of the benefits of using bifacial modules in Alberta is that sunlight is reflected from the surface of snow-covered land, which can generate electricity from the underside of the panel.

BATTERY ENERGY STORAGE SYSTEM

The BESS will be located adjacent to the Project substation. The collocated battery storage configuration will store energy and enable increased integration of renewables with the electric grid. Neoen expects a total of 152 BESS containers and 38 inverter/transformer skids. Please refer to the BESS Frequently Asked Questions page and enclosed site layout for additional details.

GROUND MOUNTING SYSTEMS

The Proponent intends to install the PV modules on single-axis tracker systems which follow the path of the sun to produce additional electricity.

INVERTER/TRANSFORMER STATIONS

Inverters are electrical devices that change direct current (dc) to alternating current (ac). Transformers are electrical equipment that increase or decrease the voltage of electricity. The Project will use inverter/transformer stations to change the dc electricity from the solar PV modules to ac electricity and increase the voltage.

INTERCONNECTION

The Proponent proposes connecting the Project to the AIES through an existing 240-kilovolt (kV) transmission line located approximately 14km west of the Project lands. Neoen will construct and temporarily operate the interconnection facilities to connect the Project to the grid, which is subject to a separate regulatory process with the Alberta Electric System Operator (AESO).

OTHER INFRASTRUCTURE

The inverter/transformer stations in the Project will be connected through 34.5 kV underground collector lines that connect to the Project substation. The Project substation will contain two high voltage transformers. In order to transport materials during the construction stage and to access the Project equipment for regular maintenance during operations, the Project will require the construction of new access paths, and where possible, the upgrade of existing roads in the area to minimize disturbance.



PROJECT STUDIES

Environment:

The Proponent initiated field studies in March 2023 which included the following:

- Wildlife surveys, including breeding bird, spring and fall bird migration, raptor, burrowing owl and sharp-tailed grouse
- Vegetation studies
- Desktop wetland delineation and field verification
- Habitat mapping

The results of these field studies were compiled and analyzed in a third-party report. The report will be provided to Alberta Environment and Protected Areas (AEPA) for review in October 2023. AEPA will issue a Renewable Energy Wildlife Referral Report following their review (anticipated in Q1 2024). The Proponent is committed to consulting with AEPA to understand any potential concerns it may have, and will incorporate AEPA's feedback. The Proponent will continue to work with AEPA throughout the development, construction, and operations of the Project, and ensure that environmental surveys are kept up to date per AEPA guidelines.

Historical resources:

The Project expects to receive *Historical Resources Act* approval in March 2024 from Alberta Culture.

Noise:

The Project has completed a noise impact assessment (NIA) for the proposed layout as per AUC Rule 012, Noise Control. The Project is considered noise compliant for all evaluated residences within 1.5 km of the Project. A copy of the NIA will also be included in the application to the AUC.

Glare: A glare assessment has been completed for the Project to assess potential for glare at aerodromes, nearby residences and along local roads. The assessment modeled four ground transportation route paths (Highway 519, Highway 811, Range Road 260, and Township Road 104) and fifteen residences within 800m of the Project. There were no aerodromes identified within 4km and no railways identified within 800m of the Project. The glare assessment determined that with mitigation via backtracking angle limits, no assessed receptors are expected to receive hazardous yellow glare. Backtracking angle limitation is a common and easy to implement mitigation method. With this method, glare risk can be reduced so that the Project is not likely to have the potential to create hazardous glare conditions on the assessed receptors. A glare impact map outlining the assessment results is included in this package and a copy of the Solar Glare Hazard Analysis Report will be included in the application to the AUC.

Emissions Modelling: As part of the Project's emergency response plan, air emissions modelling will be undertaken for the BESS equipment. A copy of this assessment will be available upon request.

WHO IS THE AUC?

The Alberta Utilities Commission (AUC) is a quasi-judicial independent agency established by the Government of Alberta, responsible to ensure that the delivery of Alberta's utility service takes place in a manner that is fair, responsible and in the public interest.

They regulate investor-owned natural gas, electric and water utilities, and certain municipally owned electric utilities to ensure that customers receive safe and reliable service at just and reasonable rates. The AUC ensures that electric facilities are built, operated and decommissioned in an efficient and environmentally responsible way. The AUC also provides regulatory oversight of issues related to the development and operation of the wholesale electricity market in Alberta as well as the retail gas and electricity markets in the province. For more information visit www.auc.ab.ca or refer to the enclosed brochure.

PRELIMINARY PROJECT SCHEDULE

Notification to stakeholders – July 2023
Public Consultation – Ongoing
Tentative Public Open House - September 2023
AEPA Submission - October 2023
Anticipated AEPA Referral Report - Q1 2024
Anticipated AUC Submission – March 2024
Anticipated AUC Approval – August 2024
Municipal Permitting - March 2024 to September 2024
Construction Commencement (if approved) – Q3 2025
Construction Completion - Q1 2027

To learn more about the AUC application and review process, please contact:

Alberta Utilities Commission (AUC)

Phone: (780) 427-4903

Toll-Free by dialing 310-000 before the number

Email: consumer-relations@auc.ab.ca



NEXT STEPS

Neoen is committed to meaningful engagement with all stakeholders in the Project. Following this newsletter, we will be contacting nearby landowners, occupants and residents to gather feedback and hosting a community open house, expected in September 2023. We intend to file a solar power plant and battery storage application with the AUC in March 2024. We are committed to sharing information about the Project and working with the public to ensure that we hear and address stakeholder input and concerns. We encourage stakeholders to participate throughout this process and to contact us if you have any questions or concerns about the Project. We will incorporate a summary of stakeholder comments into the application that we submit to the AUC. We have included an AUC brochure titled "Participating in the AUC's independent review process" with this newsletter.



CONTACT US

If you have any questions about the Project, or to arrange a personal consultation, please contact:



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BATTERY ENERGY STORAGE SYSTEM

The Project is designed to incorporate 150 MW/306 MWh of battery energy storage, charging from the solar facility. The collocated hybrid solar with storage project configuration enables the integration of renewables with the electric grid, maximizing the use of the transmission infrastructure and lowering the associated costs for consumers. The BESS will be located adjacent to the substation, as indicated on the enclosed site plan. The BESS includes inverters housed within the battery units, as well as medium voltage transformers, to change the current and voltage of electricity as needed. The BESS is a containerized solution designed to meet and exceed National Fire Protection Agency (NFPA) 855 requirements. Energy storage represents a safe and reliable application in the evolution of the energy mix in Alberta.

BATTERY ENERGY STORAGE SYSTEM - FAQs

What is a Battery Energy Storage System?

A BESS stores energy and discharges it at times when it is most needed. Stored energy enables a more reliable grid and a greater supply of renewable energy to the grid.

What type of batteries are used?

The proposed BESS consists of lithium-ion batteries, which are the same batteries used to charge smart phones and electric cars. This battery technology has been proven to be stable and reliable.

What safety measures are in place for the batteries?

The proposed BESS will be self-contained units placed on concrete pads. Each battery contains internal temperature control, cooling systems, and electrical safety systems which enable it to automatically shut down if is not performing as expected. A BESS-specific emergency response plan will be included in the Project's site-specific emergency response plan.

What happens to the batteries after operation ends?

Neoen will remove all above-ground infrastructure, and rehabilitate the site when the Project ceases to operate. After removal, most of the material in the batteries is reclaimed or recycled with over 60% recovered for re-use.

What will the BESS look like?

Each container is a standard 20 foot container (length 6.1m / width 2.5m / height 2.9m). For comparison, a regulation basketball hoop stands 10 feet tall. A total of 18 inverter/transformer skids are expected and each skid measures 10.3m x 6.0m. The overall footprint of the BESS area is 126m x 108.8m. The details of each BESS, including the number of storage units, the associated inverter/transformer stations, and arrangement of the components, are shown on the enclosed site layout.

