# Welcome to the Wheatcrest Solar Open House

Please sign in at the front and provide your contact information if you would like to receive Project updates.

We invite you to walk around and look at the displays. If you have questions or comments, please ask one of our representatives.

Thank you for attending!





### About BluEarth Renewables

BluEarth Renewables brings together extraordinary people with the power to change the future<sup>™</sup> by delivering renewable energy to the power grid every day. We are a leading, independent, power producer that acquires, develops, builds, owns, and operates wind, hydro and solar facilities across North America. Our portfolio includes 723 MW<sub>AC</sub> (gross) in operation, under construction and contracted pre-construction, and over 5 GW of high-quality development projects that are actively being advanced.

For more information, visit bluearthrenewables.com

### **Our Portfolio**



# Power to Change THE FUTURE™



## Project Background

Development work has been underway on the Wheatcrest Solar Project since 2018.

Over the last year, our team has completed environmental studies in the area, including biophysical and wetland evaluations, and consulted with local landowners.

In April 2021, we submitted our project application (Proceeding 26496) with the Alberta Utilities Commission (AUC). The application included an environmental evaluation, participant involvement program, noise impact assessment, solar glare assessment, and summarized our overall approach to build and operate the Project responsibly. In July 2021, the AUC approved the Project and a permit was issued. We also applied for a development permit with the MD of Taber, and approval was received in March 2022.

In June 2022, BluEarth signed a power purchase agreement with the City of Edmonton for the Wheatcrest Solar Project. Construction is expected to begin in September 2022 and the Project is scheduled to be operational in fall 2023.



The Project is being developed by BER Wheatcrest Solar Limited Partnership, which is wholly owned by BluEarth Renewables Inc.

Wheatcrest Solar Project

## Project Description

The Wheatcrest Solar Project has a nameplate capacity of 50 MW (AC), and will generate enough clean, renewable energy for nearly 14,000 homes annually.

• The Project is located on approximately 320 acres of privately owned land in the Municipal District of Taber, approximately 13 km north of Enchant, Alberta. The Project occupies land

within the quarter sections SE-22-15-18-W4 and SW-22-15-18-W4 between Range Road 182 and Range Road 183.

- The Project will involve the installation of bi-facial solar photovoltaic panels, single-axis trackers, panel racking systems, an 880m transmission line, internal access roads, cabling, electrical inverters, Project substation and other related electrical equipment.
- To connect the Wheatcrest Solar Project to the Alberta Interconnected Electric System, a 880m 138-kilovolt transmission line is planned for the Project, which will follow the centerline between the quarter sections of NW-22-15-18-W4M and NE-22-15-18-W4M.



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### How Does Solar Work?



1. The single-axis trackers allow the panels to tilt throughout the day to best match the sun's angle. The sun's rays hit the solar photovoltaic panels and free electrons in the panel's silicon.

2. The freed electrons create an electric field that results in an electrical current and the production of direct current (DC) electricity.

3. The electrical inverter converts the DC electricity to alternating current (AC) electricity, which homes and buildings use.

4. The electricity then enters the substation where the voltage is stepped up to be compatible with the transmission system.

5. The AC electricity is metered and monitored.

6. The electricity enters the high-voltage transmission system for distribution throughout the Alberta electrical grid.



## **Community Benefits**

We are committed to strengthening the local economies where we live, work and operate by investing in and giving back to the local community for decades to come. Below are some of the local community benefits of the Wheatcrest Solar Project.

.ocal employment.



During construction, the Project will provide approximately 200 jobs including land surveying, road construction, excavation, concrete and aggregates supply and installation, equipment assembly, construction of electrical connection and associated infrastructure, and material transportation. During operations, the Project will provide full-time, local operations and maintenance positions.



#### Long-term tax revenue.

Over the course of the Project's lifespan, it will provide ongoing contributions to the community's tax base without requiring municipal services such as water and wastewater services.



#### Clean, renewable energy.

The Project will generate enough energy to provide clean, sustainable, zero-

emission electricity for nearly 14,000 homes annually.



### Local economic benefits.

Construction site services, supplies, components and contractors will be sourced locally to the extent possible, while meeting quality, quantity, and workmanship requirements. Some workers may also require accommodations and services while working on the Project.

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# Why Solar?

**Pricing.** Solar pricing is now more competitive than ever before with traditional energy sources, such as coal. Globally, solar energy costs have declined 90% since 2009 (Lazard 15.0, 2021). In addition, solar facilities have no fuel costs as the resource is free and operating costs are low.

**Resource**. One main benefit of solar is that the resource matches the daily load requirements. Each day, as the sun rises energy is produced at the same time as people are waking up and beginning to use electricity. When the sun goes down and generation decreases, people are beginning to go to bed and electricity usage is also decreasing.

**Procurement.** The City of Edmonton will be purchasing some of the electricity generated from the Project as part of their Community Energy Transition Strategy. With this power purchase agreement, the City of Edmonton will be 100% renewably powered for the next 20 years.

Did you know?

The Wheatcrest Solar Project will use bi-facial panels, which means they absorb sunlight from both sides, allowing the Project to generate more power from a smaller footprint.

Bi-facial panels are also ideal for Alberta's climate. During the winter months, sunlight will reflect off the snow onto the back of the panels, producing more energy overall.



# Building a Solar Project

Construction of the Wheatcrest Solar Project is expected to begin in September 2022, and the Project is scheduled to begin operations in fall 2023. Below are the key milestones and targeted start dates.



#### Civil Works (September 2022)

The ground area is prepared to ensure a flat surface to work with and a fence with safety signage is installed around the perimeter of the facility.



### **Electrical Components (April 2023)**

Inverters are installed on site and electrical cables are ran from the end of each row of panels to the inverters.



Foundation & Panel Racking (December 2022)

Pile foundations made of steel are installed in the ground. Then, panel racking is installed on the pile foundations.



Transmission Line and Substation (May 2023) To connect the Project to the electric system, there will be a 138 kV transmission line and a Project substation.



panel racking.



for decades.

Module Installation (March 2023) Solar panels (also called modules) will be delivered on site and installed on the

#### **Commercial Operation (Fall 2023)** When completed, the facility will be operated by BluEarth's experienced team,

and will generate clean, renewable energy



### Permits & Studies

Our team works in close consultation with government agencies and key stakeholders to site, build and operate our facilities responsibly.

#### **Environmental Studies & Reporting**

Environmental Mitigation Plan (Completed July 2022)

- Wildlife Surveys (Completed 2018-2022)

Raptor nest searches, sharp-tailed grouse lek surveys and burrowing owl surveys were updated in 2021, and amphibian surveys were updated in 2022.

- Weed Management Plan (Completed June 2021)
- Environmental Evaluation (completed October 2020; Revised April 2021)
- Surface Water Management Plan (Completed January 2021)
- Conservation and Reclamation Plan (Completed April) 2021)
- Wetland and Waterbody Assessments (Completed June 2020)



#### **Technical Studies**

- Noise Impact Assessment (Completed October 2020; Revised July 2022).
- Drainage Study (Completed November 2021)
- Glint and Glare Assessment (Completed October 2020; Revised April 2021)

#### **Project Permitting**

The Wheatcrest Solar Project has secured permits and/or approvals from:

- Alberta Utilities Commission (AUC)
- Alberta Environment and Parks (AEP)
- Municipal District of Taber
- Alberta Culture and Tourism (ACT)



### Common Questions

We believe in working together with honest and transparent communications. If you have a question about the Project, please ask a member of our team.

Are solar projects noisy?

Solar projects produce very little noise, and the project has been designed to meet the applicable Alberta Utilities Commission (AUC) regulatory requirements for noise control. A detailed Noise Impact Assessment (NIA) was also completed in 2020 and updated in 2022. Both of these assessments confirmed that predicted noise levels are well below the AUC thresholds of 40 dBA (nighttime) and 50 dBA (daytime). 40 dBA is comparable to a library.

#### How will you address erosion and sediment control?

Site-specific drainage and surface water management studies have been completed and the results of these studies have been used to inform the erosion and sediment measures that will be used during Project activities. These measures include installation of erosion fencing, minimization of soil stripping and vehicle traffic on exposed soils, reducing impact to vegetation (to the extent possible) during construction, and re-vegetating disturbed areas as soon as possible.

#### How will weeds be managed?

A weed management plan has been developed for the Project that includes measures to mitigate against the potential introduction and spread of weeds throughout construction, operations and decommissioning. Measures include regularly cleaning vehicles and equipment, immediate reporting of found or suspected noxious weeds, and utilizing weed-free seed mixes.

#### What measures will be used to minimize dust?

Project will implement dust control measures throughout construction to minimize temporary generation of dust and particulate matter. These measures may include watering down graded areas and/or roads, and covering exposed soil, where possible.



We appreciate the opportunity to share more information with you about the Wheatcrest Solar Project.

We look forward to working with you to strengthen the local economy by investing in and giving back to the community for decades to come.

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