Community Meeting

Please sign in at the front desk 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!

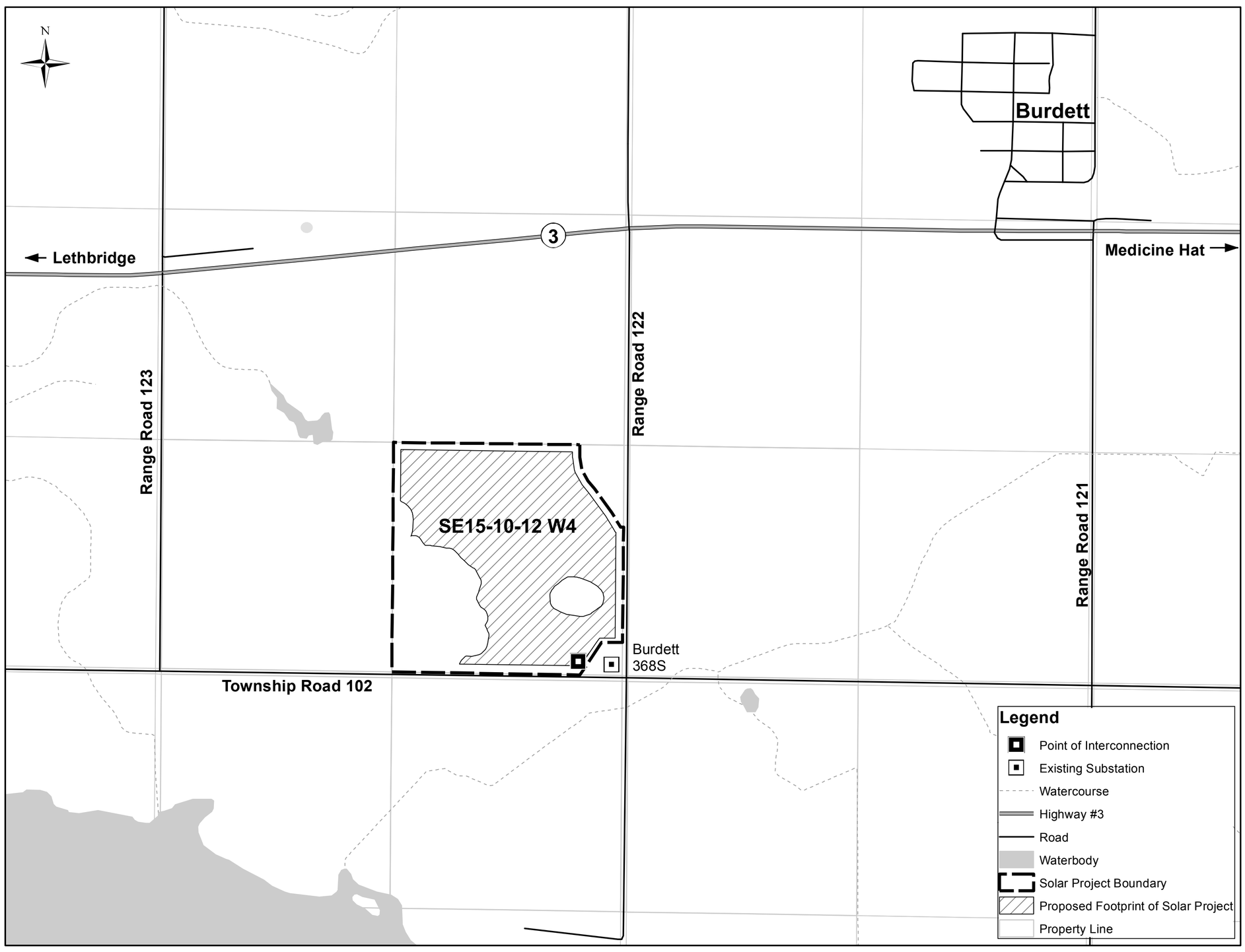
The Power to Change the Future.™

Burdett Solar Project

BluEarth™ RENEWABLES

Project Description

- Up to 20 MW (AC) solar project – enough energy to power up to 3,300 homes annually with clean renewable power
- Located in the County of Forty Mile occupying land within the quarter section SE-15-10-12-W4 near the intersection of Range Road 122 and Township Road 102
- Involves the installation of solar photovoltaic panels, panel racking systems, internal access roads, cabling, electrical inverters and other related electrical equipment
- The Project will connect to a local electrical distribution line from the Burdett 368S substation. This connection will be through overhead or underground cables and is expected to be in close proximity to the substation.
- The Project is being developed by Burdett Solar Limited Partnership, which is wholly owned by BluEarth Renewables Inc.



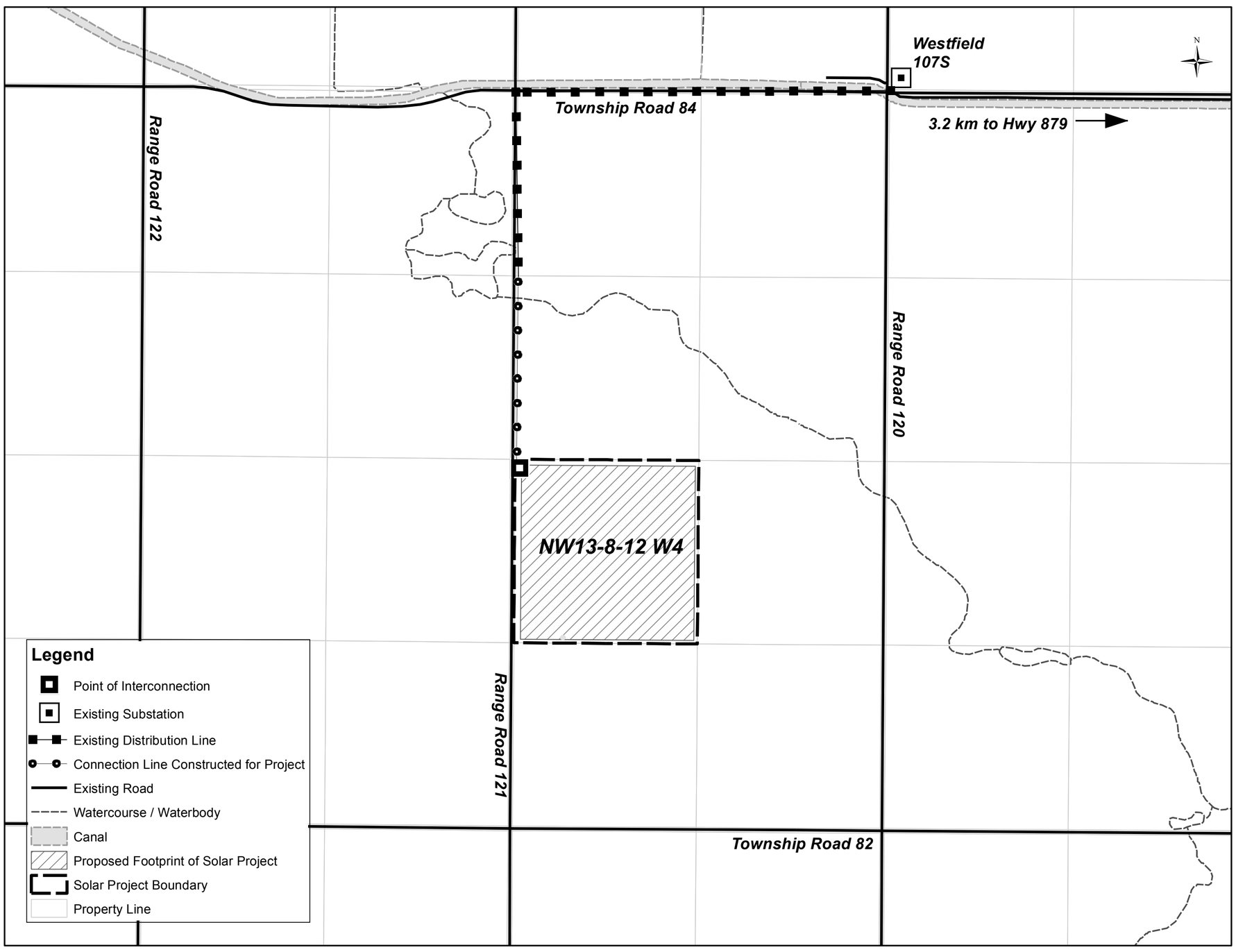
The Power to Change the Future.™

Yellow Lake Solar Project

BluEarth™ RENEWABLES

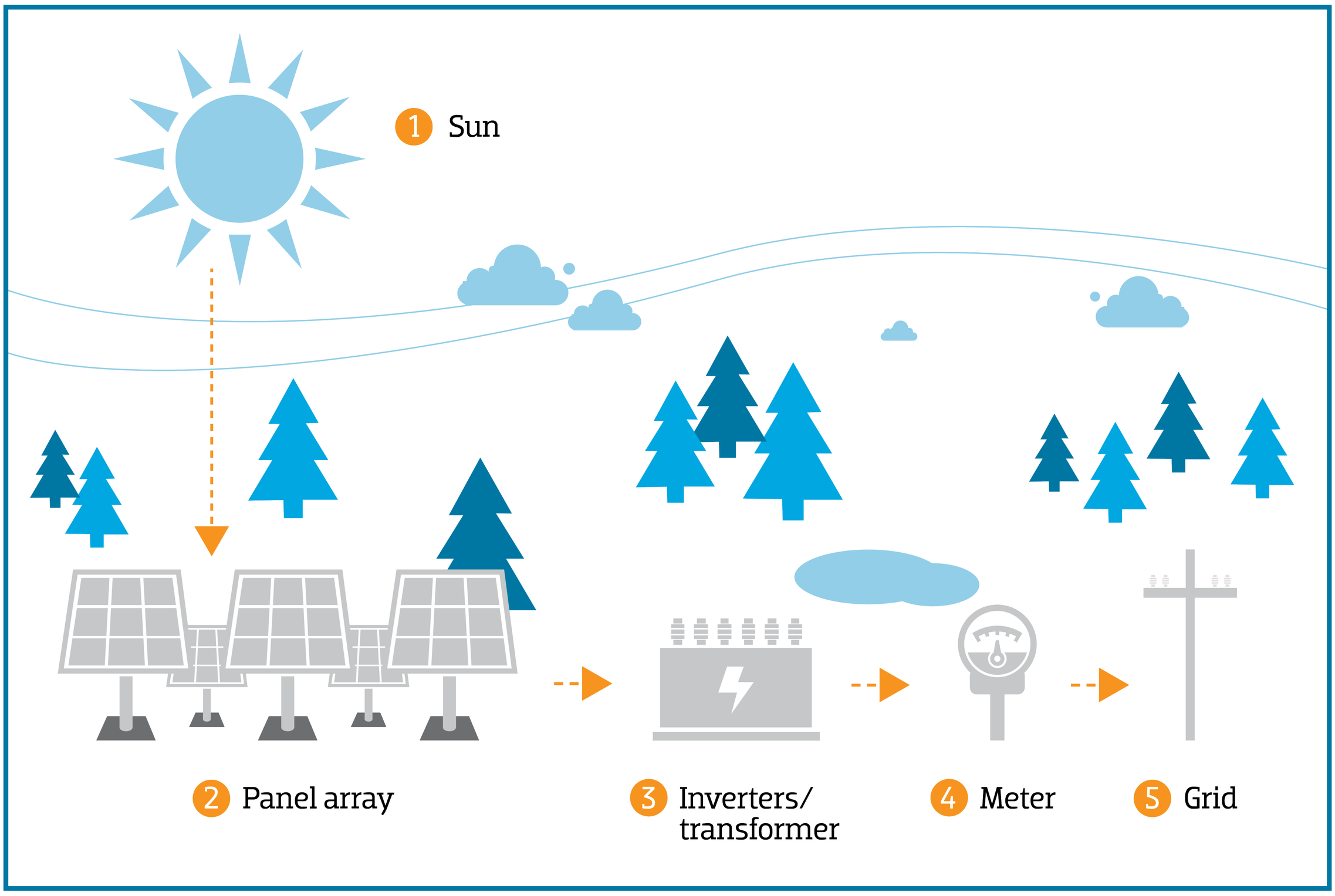
Project Description

- Up to 19 MW (AC) solar project – enough energy to power up to 3,100 homes annually with clean renewable power
- Located in the County of Forty Mile occupying land within the quarter section NW–13–8–12–W4 on Range Road 121, approximately 1.6 km south of Township Road 84 and 19 km south of Burdett
- Involves the installation of solar photovoltaic panels, panel racking systems, internal access roads, cabling, electrical inverters and other related electrical equipment
- The Project will require the construction of a connection line to deliver power to the electrical distribution system. The connection line will consist of overhead electrical cables installed on poles along Range Road 121 which will link to the existing distribution line also on Range Road 121. The length of the connection line is expected to be approximately 800 m.
- The Project is being developed by Yellow Lake Solar Limited Partnership, which is wholly owned by BluEarth Renewables Inc.



The Power to Change the Future.™

How does solar work?



1. 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 that, after voltage step up in a transformer, is compatible with the local distribution grid.
4. The AC electricity is metered and monitored.
5. The electricity is distributed to the local grid for use in homes and offices.

The Power to Change the Future.™

Community Benefits

- **Additional long-term tax revenue.** Over the course of both projects' life spans, they will provide ongoing contributions to the County's tax base without requiring municipal services such as water and wastewater services
- **Employment.** The jobs that are created during construction include: land surveying, road construction, set-up of electrical and communication networks, excavation, concrete and aggregates supply and installation, foundations, assembly of solar facility, construction of electrical connection and associated infrastructure, and material transportation. Both projects will also require permanent employees during operations
- **Boosting the local economy.** Construction site services, supplies, components and contractors will be sourced locally to the extent reasonably possible subject to meeting quality, quantity, and workmanship requirements. Some workers may also require accommodations and services while working on the project
- **Renewable energy.** Renewable energy provides clean, sustainable, zero-emission electricity and reduces the risk of climate change

The Power to Change the Future.™

Why here?

There are several factors in choosing sites for solar projects. The Yellow Lake and Burdett Solar projects' sites were chosen for the following reasons:

- A good solar resource
- Close to existing power line infrastructure with the capability of adding new generation
- Compatible land use with County zoning
- Relatively flat terrain
- A willing landowner
- Previously cultivated land, not located on native grass
- No threatened or endangered species of animals or plants
- No concerns of impact to critical habitat

The Power to Change the Future.™

Why solar?

Pricing. Solar pricing is now more competitive than ever before with traditional energy sources, such as coal. From 1983 to 2015, the cost of electricity produced from solar technology has come down more than 90 percent (Pembina Institute, 2016). In addition, solar farms 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 Government of Alberta will be releasing an upcoming procurement opportunity for solar energy, expected this summer. Managed by Alberta Infrastructure, this process is an energy procurement to power nearly 750 government-owned buildings and sites in Alberta with solar energy.

The Power to Change the Future.™

What's next?

AUC Construction Completion Amendment Submitted	April 2018
AUC Solar Technology Amendment Submitted	June 2018
Alberta Infrastructure NRFP Release Expected	June 2018
Alberta Infrastructure Contract Award Expected	December 2018
Earliest Construction Start Date	April 2019

Fastening photovoltaic (PV) modules to aluminum racking

The Power to Change the Future.™

Your questions answered!

How could the proposed project impact property values?

There is no evidence that solar facilities decrease property values of surrounding properties. Generally speaking, when new infrastructure projects are proposed, potential buyers may be hesitant until project construction is complete. However once completed, we don't anticipate the project will have any long-term negative impact for adjacent property values, based on our experience operating five solar facilities in Ontario.

How are visual concerns addressed?

Solar facilities do create a change to the visual landscape; however, the panel height is typically only about 10 feet from the ground. This makes them less noticeable from a distance than many other rural structures such as grain silos, barns, and pump jacks. BluEarth commits to meeting with individual residents to help understand their concerns and discuss how these can be addressed.

Do solar facilities make noise?

A noise study had been completed and accepted by the Alberta Utilities Commission based on the previous configuration of inverter stations (MV stations). A noise impact assessment will be conducted for the new MV station layout in accordance with *Alberta Utilities Commission Rule 012 Noise Control* to ensure noise levels do not exceed the night-time noise limit of 40 dBA or the day-time noise limit of 50 dBA at any home (receptor).

How are water resources being protected?

In accordance with Provincial and County requirements, the Project has completed a stormwater management plan to ensure proper management of surface water flows during construction and operation. This plan is designed to ensure that there is no increase or decrease to the current water movement entering or leaving this property. During operation, vegetation control is carried out using mechanical means, with herbicide application limited to localized spot-spraying. The rate of herbicide application for spot spraying is a fraction of that customarily used in conventional agricultural production.

The Power to Change the Future.™

Permits and Approvals

Alberta Environment and Parks (AEP)

- BluEarth has completed wetland and wildlife studies in accordance with guidance provided by AEP
- These studies have been reviewed and approved

Alberta Culture and Tourism

- After reviewing applications for the project areas, a *Historic Resources Act* approval was granted which confirms that no cultural resources will be impacted

Alberta Utilities Commission (AUC)

- Both projects have received all necessary approvals from the AUC. In addition, we applied to the AUC for an extension to the construction completion date from January 31, 2018 to July 31, 2020
- We will also be filing a further AUC permit amendment to allow for optimization of the proposed solar power generating equipment

County of Forty Mile

- Both projects have received all necessary approvals from the County

Wetlands

The Power to Change the Future.™

Project Amendments

Extension to required construction completion date

- BluEarth filed an application with the Alberta Utilities Commission to extend the required construction completion date. This request to extend the construction time frame was made so that the Project is able to participate in upcoming energy procurement opportunities
- This application to amend the construction completion date is made under Proceeding 23365 for the Yellow Lake Solar Project and under Proceeding 23364 for the Burdett Solar Project

Amendment to proposed power generating equipment

- BluEarth will also be filing a further amendment to alter some of the proposed power generating equipment at the facility. The project boundary would remain the same.

Item	Previous	Amended
Construction completion date	January 31, 2018	July 31, 2020
Inverter operating voltage	1,000 V	1,500 V
Nominal AC power output for inverter / medium voltage (MV) inverter stations	Max. 2,200 kV per station	Max. 5,000 kV per station
Number of MV inverter stations	10	4
Solar panel peak power max	320 W	400 W

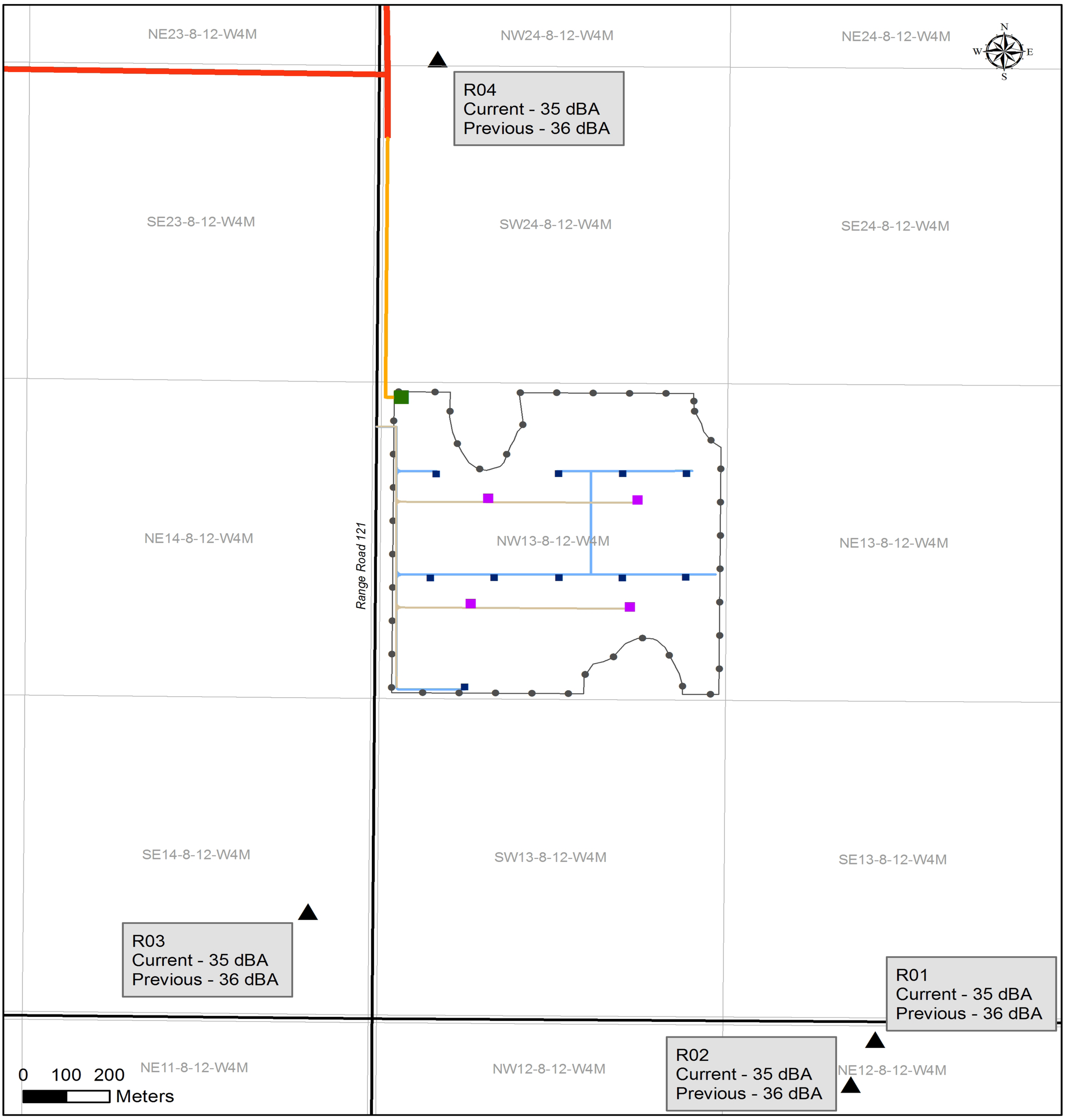
The Power to Change the Future.™

Yellow Lake Solar Project

BluEarth™ RENEWABLES

Updated Project Layout

This figure shows a comparison of equipment locations and noise levels for the previous project layout and the proposed amendments to the layout.



Legend

- Current Proposed Inverter Stations
- Current Proposed Project Road
- Previously Proposed Inverter Station
- Previously Proposed Project Road
- Receptors
- Fence
- New Transmission
- Fortis 25kV feeder 368S-15LW
- Project Interconnection
- Existing Roads
- Quarter Sections

Layout Changes and Updated Sound Levels

Yellow Lake Solar Project

BluEarth RENEWABLES

Coordinate System NAD 1983 UTM Zone 12N
Projection Transverse Mercator
Datum North American 1983
Units Meter

Created: 2018-05-22

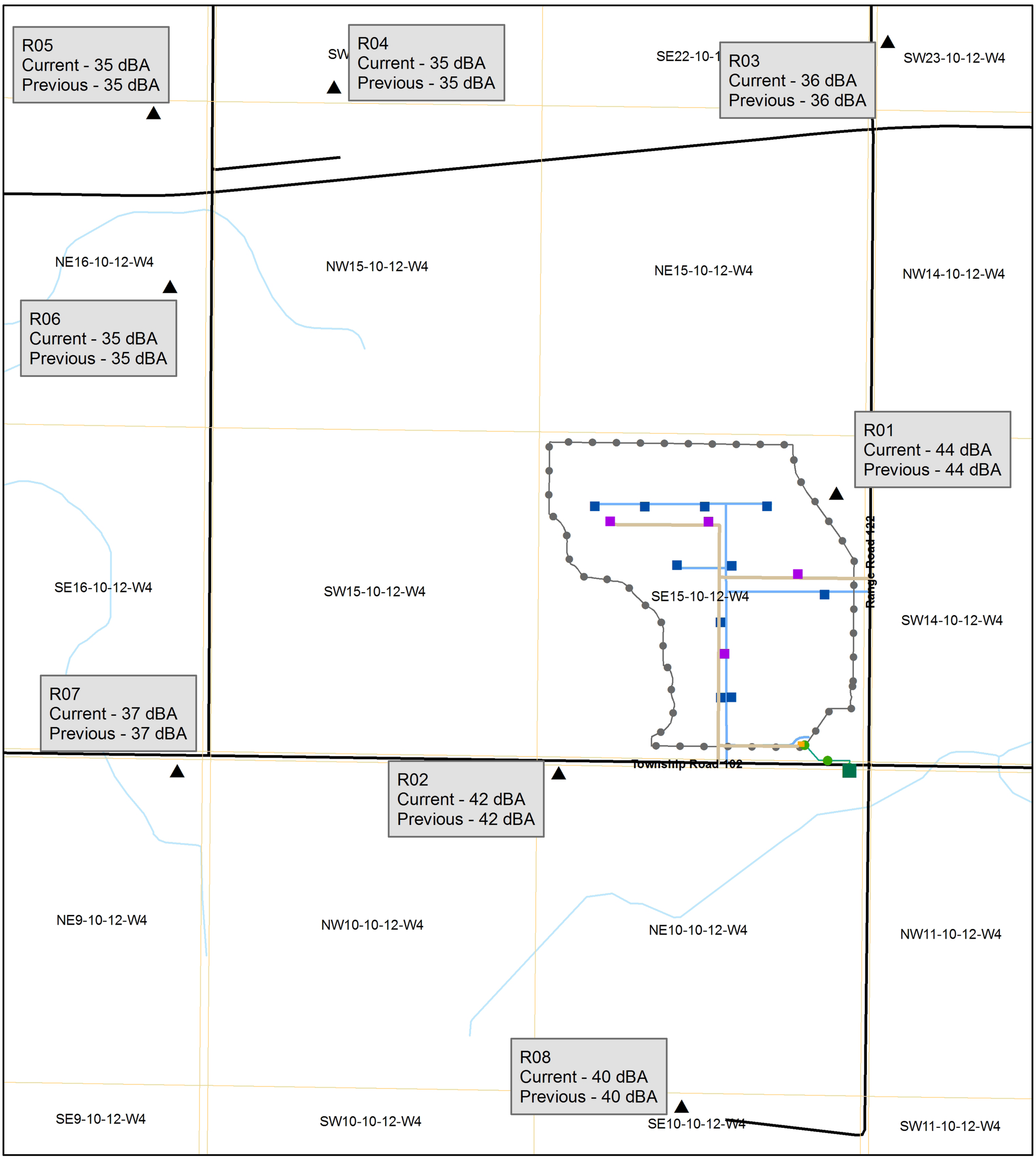
The Power to Change the Future.™

Burdett Solar Project

BluEarth™ RENEWABLES

Updated Project Layout

This figure shows a comparison of equipment locations and noise levels for the previous project layout and the proposed amendments to the layout.



Legend

- Currently Proposed Inverter Station
- Currently Proposed Project Road
- Previously Proposed Inverter Station
- Previously Proposed Project Road
- Project Substation
- Project Interconnect
- Connection Line
- Fence
- Quarter Section
- Receptor

Layout Changes and Updated Sound Levels

Burdett Solar Project

BluEarth RENEWABLES

0 62.5 125 250 m

Coordinate System
NAD 1983 UTM Zone 12N
Projection
Transverse Mercator
Datum
North American 1983
Units
Meter

Created: 2018-05-23

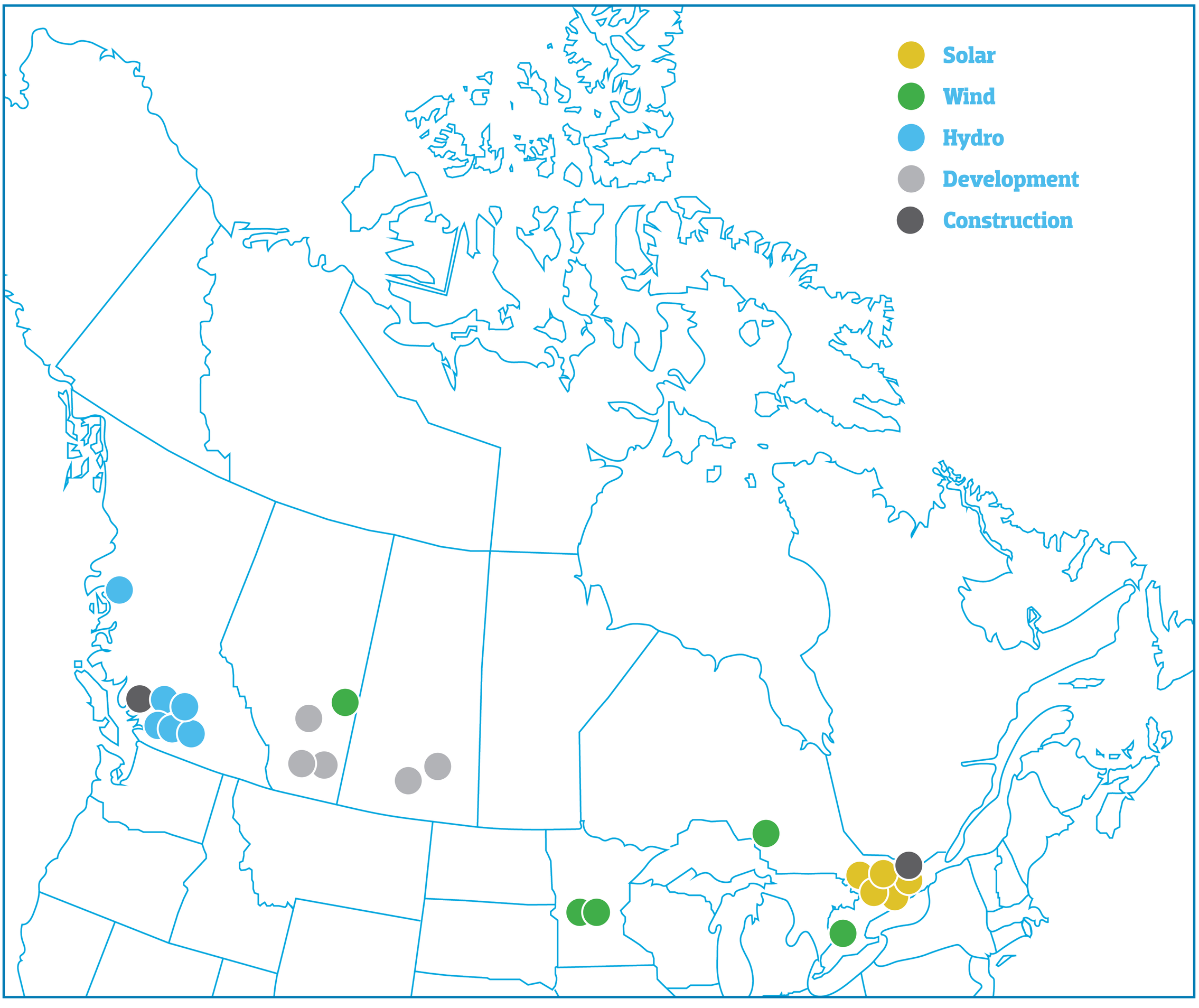
The Power to Change the Future.™

BluEarth Renewables

Headquartered in Calgary, BluEarth Renewables is a private independent renewable power producer, focused on the acquisition, development, construction and operation of wind, hydro, and solar facilities. BluEarth currently has 272 MW of wind, hydro and solar facilities in operation, and an additional 87 MW that will be operational in 2018/19. Our purpose is to bring together extraordinary people with the *power to change the future*™.

For more information, visit bluearth.ca

Our Portfolio



The Power to Change the Future.™

Thank you for attending!

Please take the time to fill out a comment form and provide your feedback on the two proposed projects.

If you would like to receive updates, please provide us with your name and contact information.

www.bluearth.ca/burdett
www.bluearth.ca/yellowlake
projects@bluearth.ca
1.844.214.2578

BluEarth™ RENEWABLES

The Power to Change the Future.™