

DECEMBER 2019

BARLOW & DEERFOOT SOLAR PROJECTS

Proposed Project Information



PROJECT OVERVIEW

Barlow and Deerfoot Solar Projects

DP Energy is currently planning two adjacent solar projects on brownfield sites located in Southeast Calgary, Alberta. The proposed sites are currently capped phosphogypsum stacks owned by Viterria Inc. Stacks are used for the containment of phosphogypsum, and subsequently capped. Solar power generation offers a productive use of these former industrial sites, which would otherwise have limited development potential.

As Alberta begins phasing out coal-fired power plants, the Barlow and Deerfoot Solar Parks will help meet future electricity demand with clean energy harnessed directly from the sun. These projects will contribute to Alberta's target to source 30% of the province's electricity supply from renewables by 2030.

The proposed projects include Barlow Solar Park, and Deerfoot Solar Park, as identified in the map below.

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DROP BY OUR OPEN HOUSE TO LEARN MORE

WEDNESDAY, JANUARY 22, 2020
BETWEEN 2:00 PM AND 7:30 PM

Shepard Community Hall
10800 84th Street SE
Calgary, AB

For more info contact us at:
(P) 403.930.5727
(E) calgarysolar@brittland.com





Project Description

Barlow Solar Park is a proposed utility scale ground-mounted solar photovoltaic (PV) project within Calgary city limits, located west of Barlow Trail SE and north of 114 Avenue SE.

The project comprises approximately 1500 rack-mounted solar PV tables held in place by concrete ballast footings. The 27 MW project will generate enough clean energy to offset the annual electricity usage of more than 6000 households.

Most development options for the 130-acre brownfield site would be restricted due to the existence of capped phosphogypsum stacks.

To find out more about this project and obtain updated information, please visit www.barlowsolarpark.ca



Indicative visual renderings of proposed Barlow site



Project Description

Deerfoot Solar Park is a proposed utility scale ground-mounted solar photovoltaic (PV) project located within Calgary city limits, west of 52 Street SE and south of 114 Avenue SE.

The project comprises approximately 2000 rack-mounted solar PV tables held in place by concrete ballast footings. The 35 MW project will generate enough clean energy to offset the annual electricity usage of more than 8000 households.

Most development options for the 190-acre brownfield site would be restricted due to the existence of capped phosphogypsum stacks.

To find out more about this project and obtain updated information, please visit www.deerfootsolarpark.ca



Indicative visual renderings of proposed Deerfoot site

SOLAR PHOTOVOLTAIC (PV) ENERGY

Solar PV cells convert sunlight directly into electricity using semiconducting materials. A single cell can provide only a very small amount of power, but multiple cells can be connected together and fixed in a frame to form a PV module.

The modules can then be connected in series to form a string, and several strings can be joined together to form an array capable of producing scalable amounts of power.

Before the power can be exported to the electricity grid it needs to be converted from DC to AC. This is done using an Inverter which is similar in size and appearance to a small shipping container.

The final stage is to step up the voltage using a transformer to match the voltage at the distribution or transmission system point of connection.

WHY SOLAR PV?

Solar PV is an environmentally sustainable option for productive use of the land. The phosphogypsum is a waste by-product of fertiliser production that is managed by storing in large piles known as "stacks," that are sealed with a thick clay cap. The solar project has been shown not to impact the existing environmental management plan in place, with no significant site disturbance.

The project would also provide green infrastructure and energy-efficient community design and site planning for an existing brownfield site.

THE ENVIRONMENT

Solar projects require a series of assessments to understand and mitigate any adverse environmental impacts. These include the following:

- Vegetation and wildlife surveys are being conducted to inform the environmental evaluation that will determine potential environmental effects of the project.
- A noise impact assessment will be completed to assess compliance with *AUC Rule 012: Noise Control*.
- Historical resource potential will be assessed and used to prepare a Historical Resources Application for submission to Alberta Culture, Multiculturalism and Status of Women.

Results from the biophysical evaluation, noise impact assessment and historical resources application will be compiled into an application for approval to the AUC under Rule 007.

The Barlow Solar Park has received approval from the Airport Authority and NAVCanada. A Glint/Glare analysis was completed for the Barlow Solar Park project, and it was found that there is no glare potential along Barlow Trail SE and 114 Avenue SE.

As part of the development process for Deerfoot Solar Park, all of the environmental assessments will be considered in the design.

PROJECT BENEFITS

The implementation of a solar facility provides significant benefits to those in the local area and the province:

- The developments will provide short term and long term employment in local communities and contributes to the local tax base.
- The generation profile for Solar PV is particularly suited to the electricity needs of the province, with peak generation during hot sunny days when electricity demand is highest due to cooling requirements.
- Local generation of energy helps to stabilize the power grid, reducing the chances of brown-outs and lowering the rate of transmission line power loss.

We focus on reducing the reliance on other energy generated from fossil fuel sources in order to reduce greenhouse gas emissions, and help provide a sustainable future for our planet.



PROJECT TIMELINES

We are currently undergoing consultation and notification activities for both Barlow and Deerfoot Solar Parks, and expect to continue engaging our stakeholders throughout winter 2019/2020 to understand and address questions and concerns about the projects.

Once formal consultation has been completed we anticipate filing our applications for each project with the Alberta Utilities Commission (AUC) in February 2020. Pending regulatory approvals we anticipate commencing construction of the solar parks later in 2020 / 2021, with an aim to be fully operational before the end of 2021.

Timelines are dependent on many factors, and may be revised as needed throughout the projects.

WHAT TO EXPECT - CONSTRUCTION

Construction of the solar parks is expected to last between six (6) and nine (9) months, during which time there will be an increased level of activity at the site, particularly with deliveries of the solar park equipment.

The site has good highway access, and once construction is complete, it is not anticipated that there would be any significant increase in site traffic compared to its existing use.

ALBERTA UTILITIES COMMISSION (AUC)

The Alberta Utilities Commission, or AUC, regulates power generation in Alberta. The AUC is an independent, quasi-judicial agency of the Government of Alberta, who's mandate is to ensure the delivery of Alberta's utility services take place in a manner that is fair, responsible and in the public interest.

Information on how you can participate in the AUC's independent review program has been included in this package, and can be found online at www.auc.ca. You can also contact the AUC by email at info@auc.ab.ca, or by phone at **310-4282**.

WE WANT TO HEAR FROM YOU

We are committed to hearing from our stakeholders and offer various options to get in touch with us:

1

Call us by phone at
403.930.5727

2

Email us at
calgarysolar@brittland.com

3

Attend our open
house (*see front page
for information*)

4

Set up an
appointment to meet
with us in person

SHARE YOUR THOUGHTS WITH US

Phone: 403.930.5727

Email: calgarysolar@brittland.com

Visit us online: www.barlowsolarpark.ca
and www.deerfootsolarpark.ca