



SAAMIS SOLAR PARK

Welcome to the Saamis Solar Park Open House

Please sign in at the registration table.

We invite you to view the display boards.

Our Project Team Members are here to help you with any questions that you may have.



SAAMIS SOLAR PARK
A DP ENERGY PROJECT

Objectives

Our objective in hosting the Community Open House are to:

- Introduce the Saamis Solar Park Project to your community
- Provide a status update on the Project
- Provide an overview of the Alberta Utilities Commission (AUC) process
- Answer questions about the Project
- Receive your feedback for consideration- Project planning will continue to evolve based on comments we receive





About Saamis Solar Park Ltd.

DP Energy, developer of Saamis Solar Park, is a renewable energy company operating worldwide to develop projects which are both sustainable and environmentally friendly. DP Energy's development portfolio includes onshore and offshore wind, solar PV and tidal energy projects, as well as energy storage solutions. Headquartered in Ireland, we also have operations in Australia, Canada, and the UK. Saamis Solar Park Ltd. is an affiliate of DP Energy.

Our Principles

Sustainable development is development that does not compromise the ability of future generations to meet their own needs. We aim to carry out sustainable developments which are environmentally benign and conducted in a manner that minimizes the impact on other species.

Key Facts About Us

DP Energy has 25+ years experience as a renewable energy developer with more than one (1) GW of Consented Renewable Energy Projects.

Of these, approximately:

- 700 MW are constructed and operational
- 300 MW are approved and in the late stages of development
- An additional seven (7) GW are in the development stage

Our Canadian Projects:

- Bow Lake Wind Facility, Algoma District, Ontario
- Barlow Solar Park, Calgary, Alberta
- Deerfoot Solar Park, Calgary, Alberta
- Uisce Tapa Tidal Energy Project, Bay of Fundy, Nova Scotia

Project Overview

Project Location

Saamis Solar Park Ltd. is currently planning a solar project on land in the north-eastern industrial sector of the city of Medicine Hat.



Project Description

The proposed Saamis Solar Park is a utility scale ground-mounted solar photovoltaic (PV) project located within the city limits of Medicine Hat. The site is bordered to the north by the South Saskatchewan River and to the south by 23rd Street NW.

The site includes a large area of capped phosphogypsum stack, a by-product of fertilizer production. Solar power generation offers a productive use of an area that would otherwise have limited development potential as most development options for the brownfield site would be restricted.

The Project will involve the installation of solar PV panels, fixed tilt and single axis tracker racking systems, inverter/transformer stations, an electrical collection system, internal access roads, and the construction of an electrical substation to connect to the Alberta Interconnected Electric System (AIES)

The Project will have a total generation capacity of approximately 325 MWac (megawatt, alternating current), comprised of solar PV modules installed in a mixture of fixed tilt and single axis tracker racking systems.

It is proposed that the fixed tilt solar PV tables will be located on top of the capped phosphogypsum stack and held in place by concrete ballast footings whilst single axis tracker solar PV tables supported by a driven pile foundation design will be installed on the remainder of the site. The single axis trackers will follow the sun throughout the day to maximize the amount of solar radiation absorbed by the panel over the course of the year.

The 325 MWac project will generate enough clean energy to offset the annual electricity usage of more than 100,000 households.





SAAMIS SOLAR PROJECT

SITE SELECTION

A large portion of the proposed site is currently a capped phosphogypsum stack owned by Viterra Inc.

Stacks are used for the containment of phosphogypsum, a by-product of fertilizer production, and subsequently capped with clay and covered in topsoil.

Solar power generation offers a productive use of an area that would otherwise have limited development potential as most development options for the brownfield site would be restricted.

WHY SOLAR?

As Alberta begins to phase out coal-fired power plants, the Saamis Solar Project will help meet future electricity demand with clean energy harnessed directly from the sun. The Project will also contribute to Alberta's target to source 30% of the province's electricity supply from renewable energy by 2030.

Medicine Hat is also fortunate to receive some of the sunniest weather in Canada - approximately 330 days of sunshine per year!



How Does Solar Work?

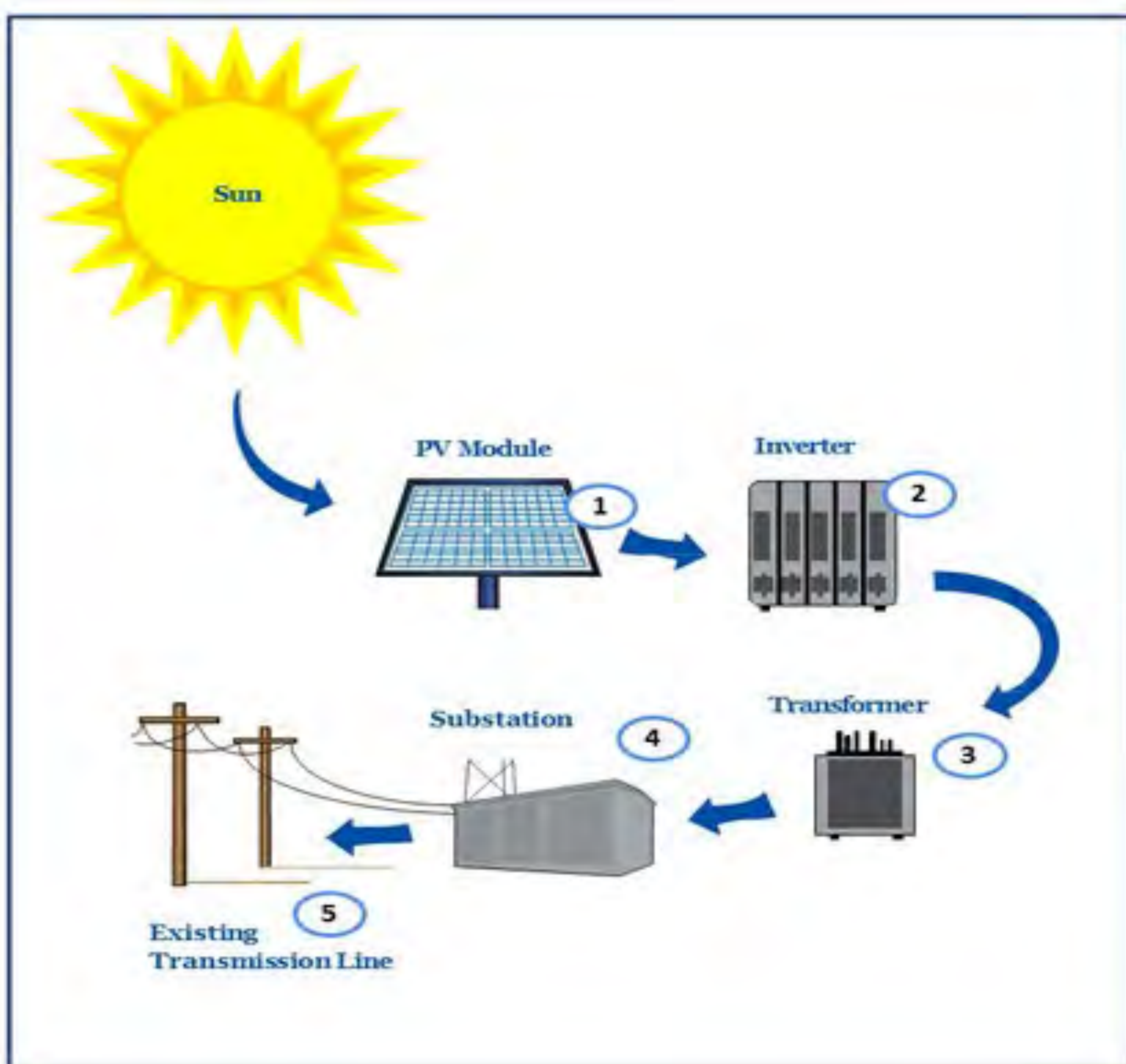
Solar photovoltaic array converts sunlight directly into electricity using semiconducting materials. Multiple cells can be connected and fixed in a frame to form a **PV module**. The modules can then be connected in a series to form a string, and several strings can be joined together to form an array capable of producing scalable amounts of power.

The power is converted from direct current to alternating current using an **Inverter**, which is similar in size and appearance to a small shipping container.

Transformers increase the electricity voltage.

The main transformer in the **Substation** increases the voltage to that needed for interconnection.

Electricity generated by the Project is fed into the Alberta transmission system through high voltage **Transmission lines**.





THE ENVIRONMENT

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

Vegetation and Wildlife Surveys: Detailed vegetation and wildlife surveys have been completed for the Project. The results of these studies have been used to inform project design and siting to avoid sensitive features. They were also used to complete an environmental evaluation of the Project's effects on valued ecosystem components and identify mitigation strategies to reduce any potential adverse effects that were determined.

As the Project is located within an urban setting, a Renewable Energy Referral Report from Alberta Environment was not required. Due to the location of the Project near the South Saskatchewan River, a snake mitigation plan was developed and the recommendations of the same will be addressed during construction of the Project.

A Noise Impact Assessment (NIA): Will be completed to assess compliance with AUC Rule 012: Noise Control.

Historical Resource Assessment: A Historical Resources Application (HRA) will be prepared for submission to Alberta Culture, Multiculturalism and Status of Women

Solar Glare Assessment (SGA): The solar panels are designed to maximize the absorption of light to convert it into energy, rather than reflect it. As a result, minimal glare will be created by the solar panels.

Results from the biophysical surveys, NIA, HRA, and SGA will form part of an application to the Alberta Utilities Commission (AUC) under Rule 007 for approval to construct and operate the Project.



WHAT CAN I EXPECT DURING CONSTRUCTION

Activity that is typical to construction can be expected, including contractor vehicles and equipment along Parkview Drive. There may be an increased presence of trucks and other industrial equipment necessary to install the solar panels, foundations and associated electrical infrastructure.

The modular nature of solar PV systems means that any abnormal sized load deliveries are kept to a minimum.

Construction Noise

Work will create typical noise associated with construction. The Project will take measures to be in compliance with the City of Medicine Hat's Community Standards Bylaw for Noise Control. If it is necessary to temporarily exceed acceptable noise levels, the developer will work with the City of Medicine Hat to obtain the necessary permits and implement mitigation measures to minimize impacts on local residences.

Workspace

The proposed work will take place within the Project's property lines. Workspace will be safe and secure. All construction activities will be in accordance with the City of Medicine Hat bylaws, and occupational health and safety requirements.

Hours of Work

We anticipate the hours of work for the Project will be Monday to Friday from 7:30 a.m. to 5:00 p.m.; however, occasional evening and weekend work may be required.

Vegetation Removal

The project area comprises disturbed land, predominantly covered in mixed grasses. The Project will result in limited disturbance to existing vegetation. Some grading may be required.



CONSTRUCTION



Construction activities are anticipated to last between six and nine months. During this time there will be increased activity levels, particularly with deliveries of solar equipment.

Construction activities are expected to include:

- Site surveying
- Internal roads and parking area
- Site fencing installation
- Minor grading works
- Laydown and storage area preparation
- Installation of racking structures and ballast systems
- Installation of concrete pads for inverters and transformers
- Installation of solar panels, inverters and transformers
- Conduit installation and cable laying
- Control building installation
- Interconnection to transmission system
- Commissioning (testing, calibration, troubleshooting)
- Removal of construction equipment and debris
- Revegetation of disturbed areas



Once construction is complete, it is anticipated that project related traffic will have minimal impact on current levels.

Project planning will continue to evolve during the AUC process based on results of project studies and comments received from the community.

OPERATIONS & DECOMMISSIONING

Operations

The facility will operate year-round when sufficient solar radiation exists to generate electricity and will be monitored remotely. Periodic maintenance may include the following:

- Mowing of vegetation
- Inspections
- Snow plowing to maintain access in winter
- Cleaning of panels and snow removal, if necessary

Decommissioning

Decommissioning typically occurs when the decision has been made that the Project is no longer economically feasible to continue operating. The Project lifespan is anticipated to be at least 30 years unless the main components are renewed.

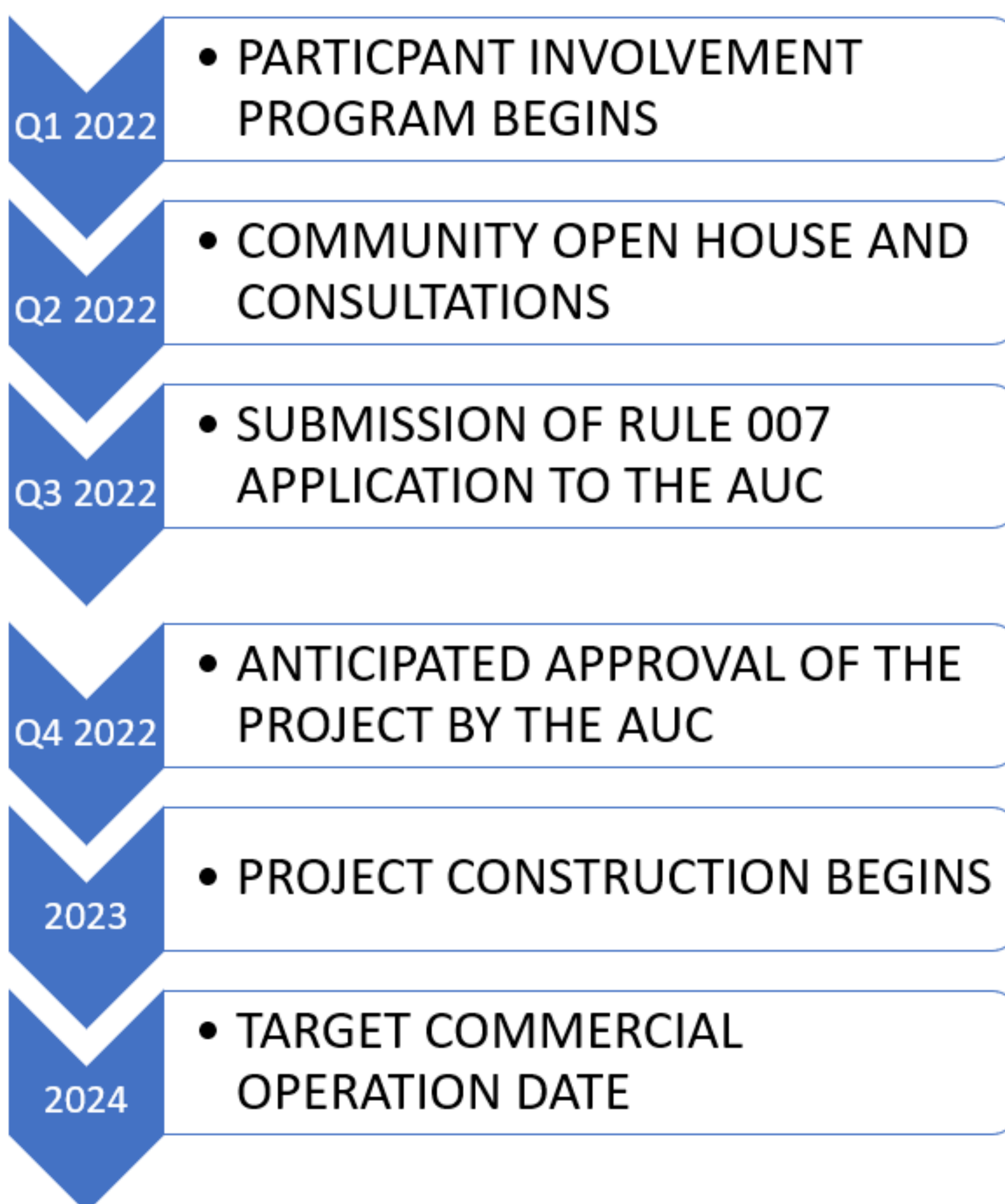
If the Project is decommissioned, the following will occur to return the site to its prior condition:

- Removal of solar panels (reused, if possible or recycled)
- Removal of scrap metal & cabling (recycled where possible)
- Removal of support structures
- Removal of internal roads
- Site clean-up
- Planting of vegetation to rehabilitate the site (dependent on future land use)

PROJECT TIMELINE

Consultation and notification activities are currently underway. Engagement with stakeholders will continue over the coming weeks to better understand and address any questions or concerns about the Project.

Once formal consultation has been completed, an application to the AUC is anticipated to be filed in the summer of 2022. Pending regulatory approvals, construction activities are expected to begin in 2023 with a goal to be fully operational in 2024.





GENERAL CONCERNS

GLARE

- Panels are designed to absorb, not reflect, sunlight
- Panels are coated with anti-reflective coating to reduce light that is reflected

DUST

- Very little soil movement is required in comparison to most construction projects
- Saamis Solar Park Ltd. will use standard mitigation measures to control dust emissions during construction

GROUNDWATER

- The proposed facility is not expected to have a significant effect on ground water quality or quantity
- Potential effects will be identified, and mitigation measures will be developed if necessary, during the AUC process

NOISE

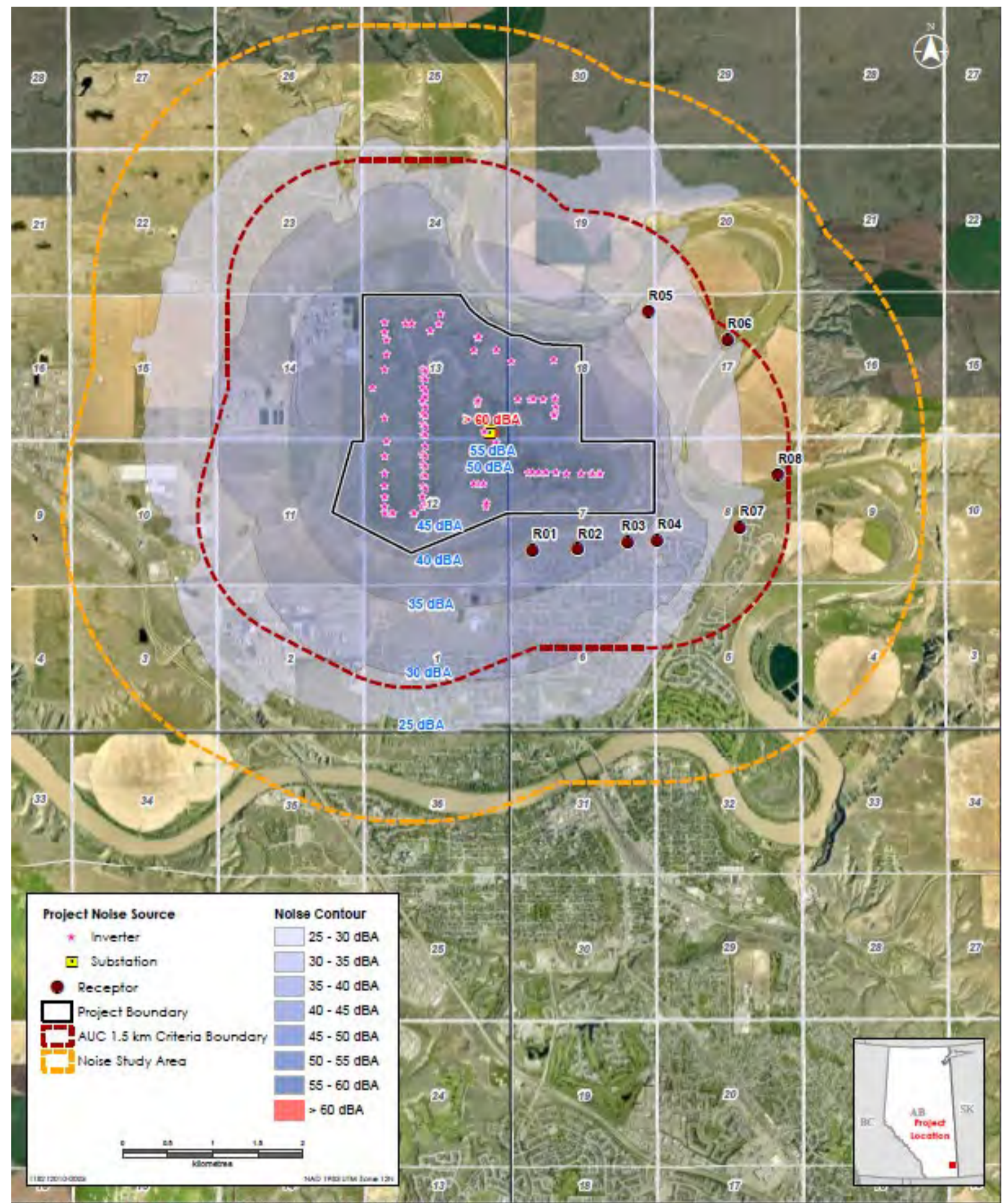
- Solar panels do not emit noise
- Inverters and transformers on site produce some noise, but only during the daylight hours when generation occurs
- Single axis racking tracking produces some noise, but only during the daylight hours when generation occurs
- A Noise Study will be completed during the AUC process to ensure the Project meets provincial standards

NOISE CONTROL

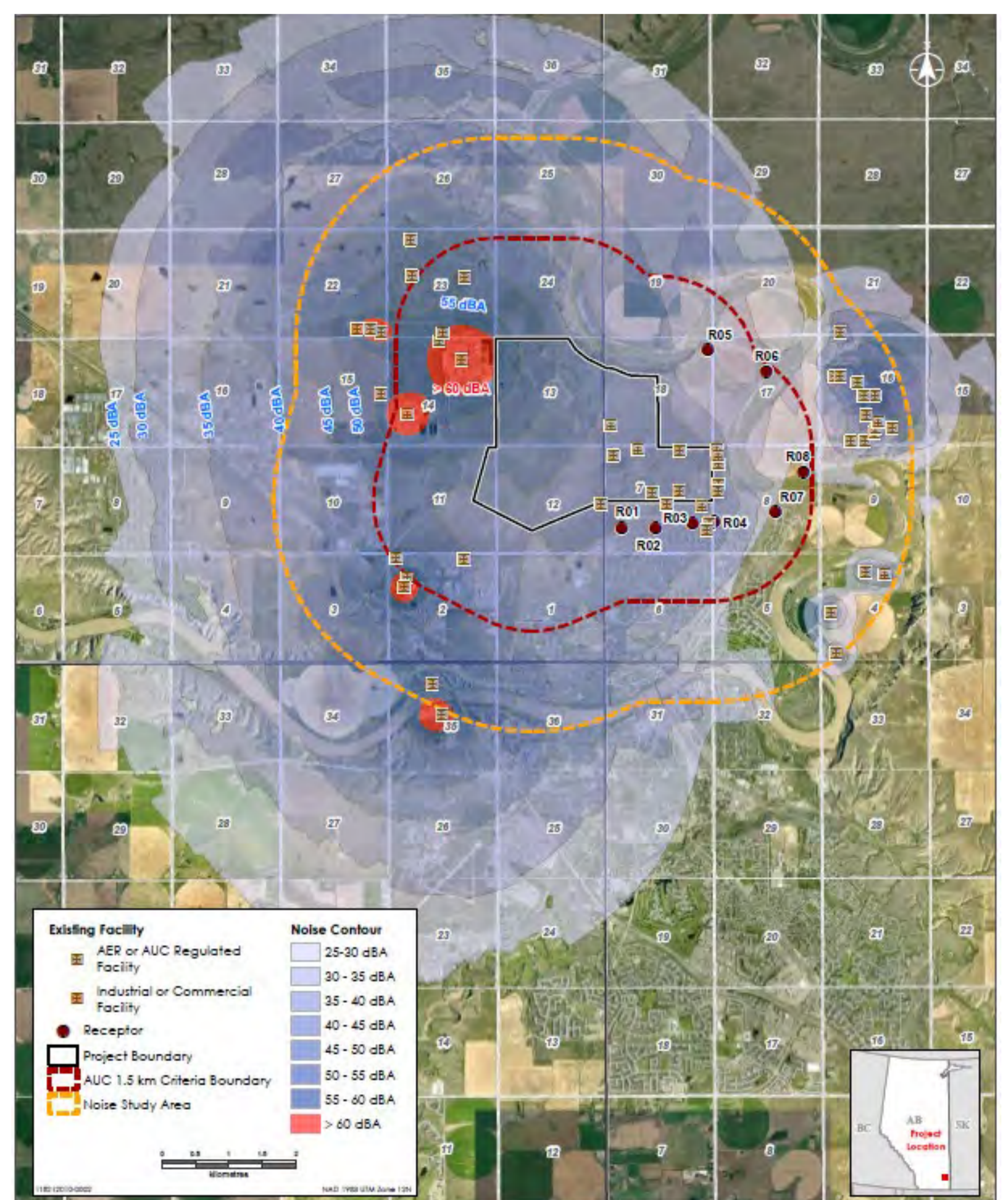
NOISE CONTROL- AUC RULE 012

- Noise Impact Assessment is based on a method prescribed in AUC Rule 012: Noise Control (March 2021)
- Nighttime noise limits range from 40 dBA to 56 dBA, based on population density and proximity to traffic
- Most affected receptors within the study area have a permissible sound level of 51 dBA nighttime and 61 dBA daytime and cumulative sound level of 47.5 dBA nighttime and 56.2 dBA daytime.

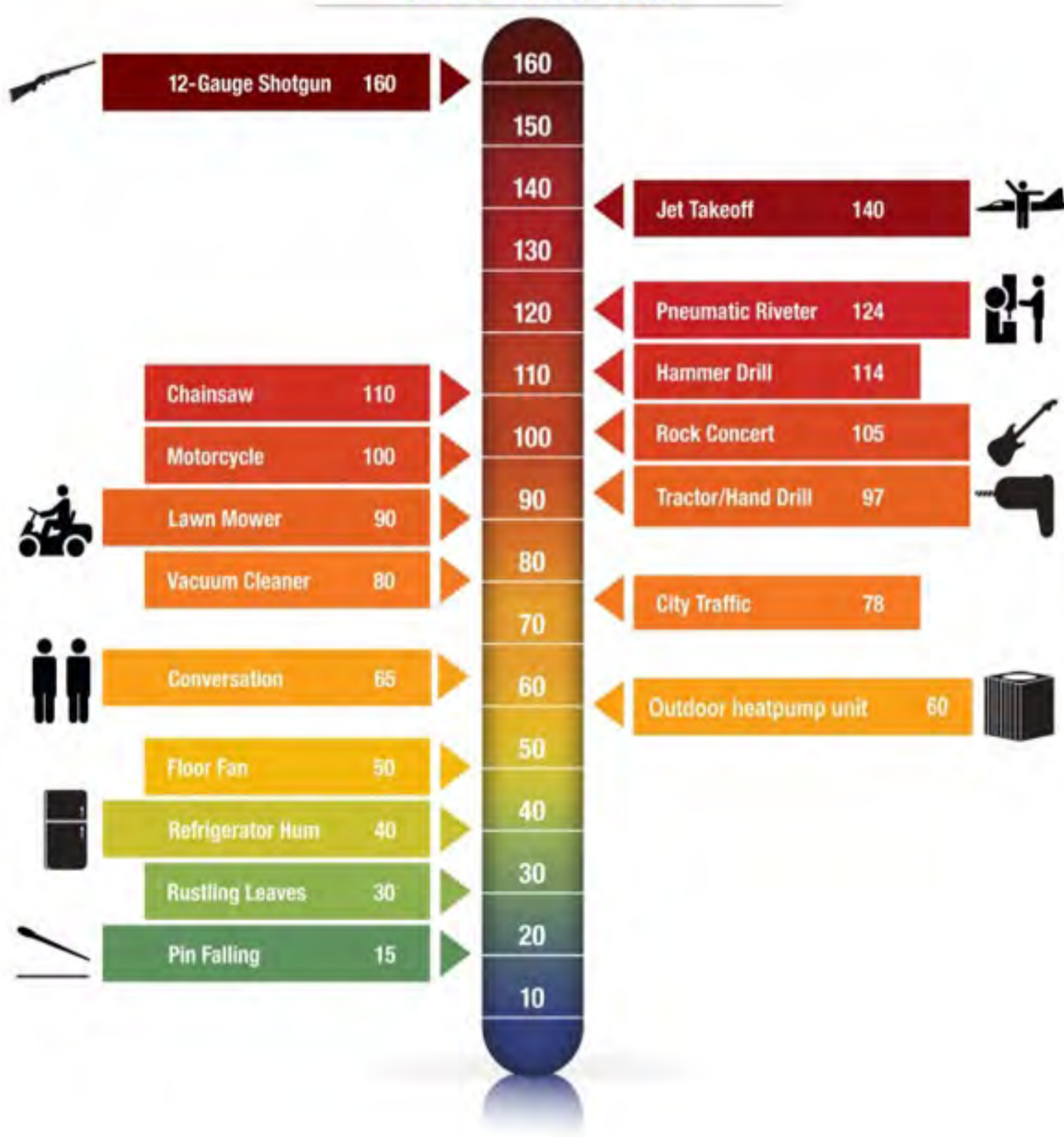
Predicted Noise Contour Map – Project Only



Predicted Noise Contour Map – Existing Facilities



Decibel Scale (dBA)*



Example Equipment	Sound Power Level dBA
Inverter	95
Transformer – 210 MVA	106

PROJECT BENEFITS

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

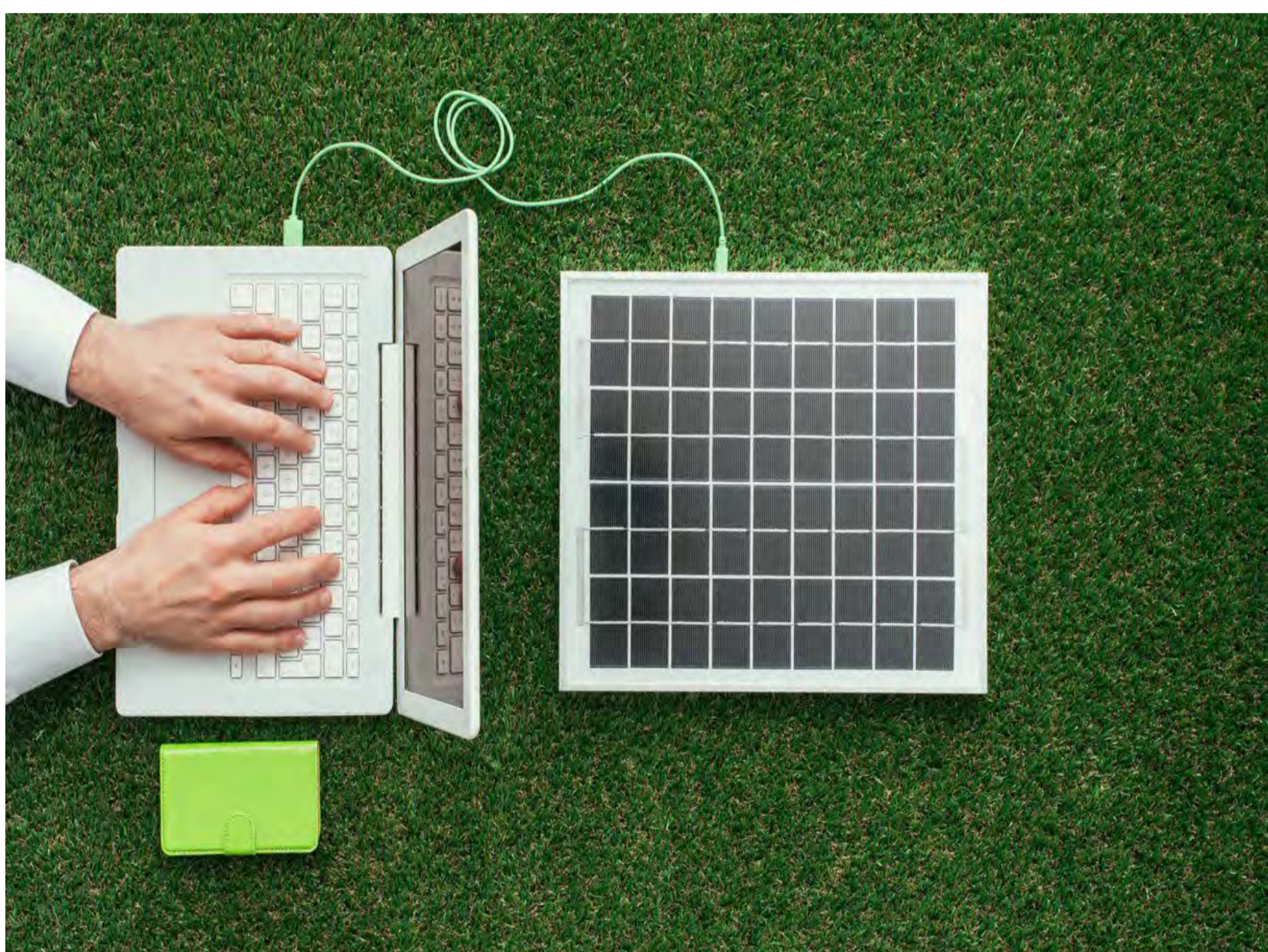
- The development will provide short term and long-term employment in the local region and contribute to the City's tax base.
- The generation profile for Solar PV is particularly suited to the electricity needs of the province, with peak generation during hot sunny days when electricity demand is highest 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.



Local Employment

During construction, the Project will provide approximately 200 jobs including land surveying, road construction, set-up of electrical and communication networks, excavation, concrete and aggregates supply and installation, assembly of the solar facility, 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 Revenues

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

PROJECT BENEFITS



Clean, Renewable Energy

The Project will generate enough power to provide clean, sustainable, zero-emission electricity for approximately 100,000 homes annually



Local Economic Benefits

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

The renewable energy generation Project reduces the reliance on other energy generated from fossil fuel sources in order to reduce greenhouse gas emissions and to help provide a sustainable future for our planet.

Alberta Utilities Commission

The 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, whose mandate is to ensure that the delivery of Alberta's utility services take place in a manner that is fair, responsible, and in the public's best interest

They are committed to ensuring that Albertans whose rights may be directly affected by utility development in the province have the opportunity to have their concerns heard, understood, and considered.

If you believe you may be directly affected, you can become involved in the AUC application and review process.

Ph: 310-4282 or 1-833-511-4282

Email: info@auc.ab.ca



AUC Participant Review Process

1

Public consultation prior to application by the proponent

2

Application filed with the AUC

3

Public notice issued by the AUC

4

Public submissions to the AUC on any unresolved objections or concerns about the application

(If the AUC does not receive any submissions, the application will be reviewed and a decision made without a hearing)

5

Consultation and negotiation

(If applicable- opportunity for consultation and negotiation with applicant to continue)

6

Public hearing process

(If there are unresolved issues)

7

AUC issues its decision

8

Opportunity to appeal

(Court of Appeal or with AUC re Rule 016)

9

Approvals issued, followed by construction and operations of facility and compliance



THANK YOU

Thank you for joining us, your feed back is important to us!

We value your feedback and are committed to hearing from our stakeholders. Should you have any questions, comments, concerns or want to learn more about the Project, please contact us:

By phone to speak with our Consultation Agent:

Paul Lawson at 403-651-6063

By email at saamissolarpark@dpenergy.com

Visit us online at

<https://www.dpenergy.com/>

