

Radiant Dawn Energy Park

Please sign in at the registration desk then come say hello and check out our display boards.

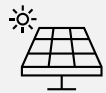
The Clem Geo Team is here to listen to your feedback, provide information about the Project, and answer your questions.

About Clem Geo

Clem Geo-Energy Corp. is a privately owned corporation based in Alberta developing utility scale renewable energy projects in Canada and the United States, making cost-competitive clean energy solutions.



PORTFOLIO BY TECHNOLOGY



SOLAR PV
138 MWp



WIND
108 MWp

MARKET PRESENCE



Canada (Alberta)



98 MWp



108 MWp



United States (Colorado)



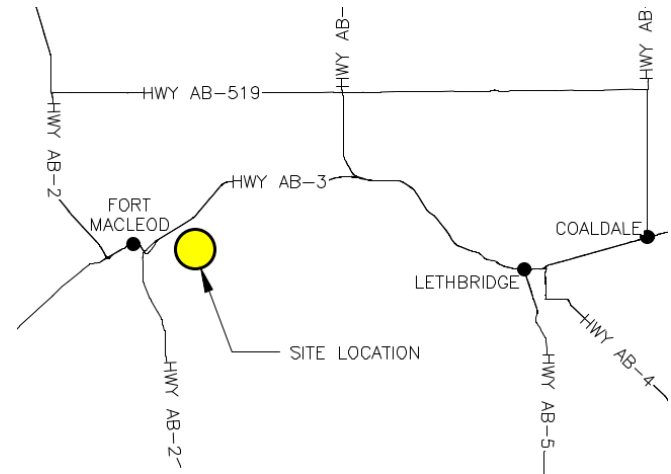
41 MWp

Project Introduction

The Radiant Dawn Energy Project has been under development since 2020. It is located between Range Roads 253 and 252 south of Township Road 92, approximately 6km east of Fort Macleod, Alberta.

To date, we have completed environmental studies, submitted an interconnection application to FortisAlberta, and consulted with local landowners, as well as the Municipal District of Willow Creek.

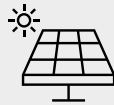
The Project will connect to the local distribution network operated by FortisAlberta.



Project Information



22.3 MW_{AC} Solar



55,344 Modules



129 Acres



SE 10-9-25-W4

Bi-Facial Solar Modules

Over 55,000 bi-facial panels to receive and transform solar radiation from both the top and bottom sides.

Collection System

The collection system for the project consists of underground cables connecting the inverters to the project interconnection.

Access Roads & Fencing

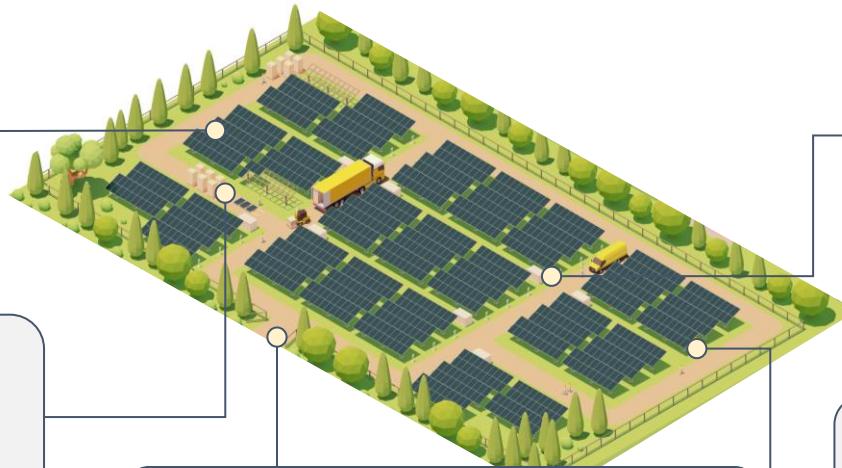
Access roads and perimeter fencing to be installed during construction and operation of the Project

Inverters

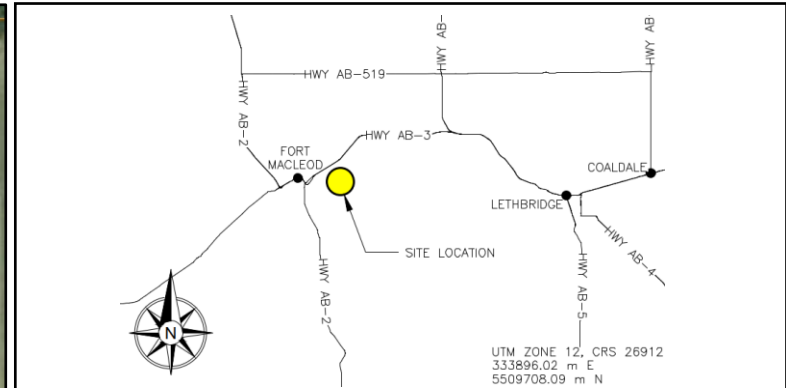
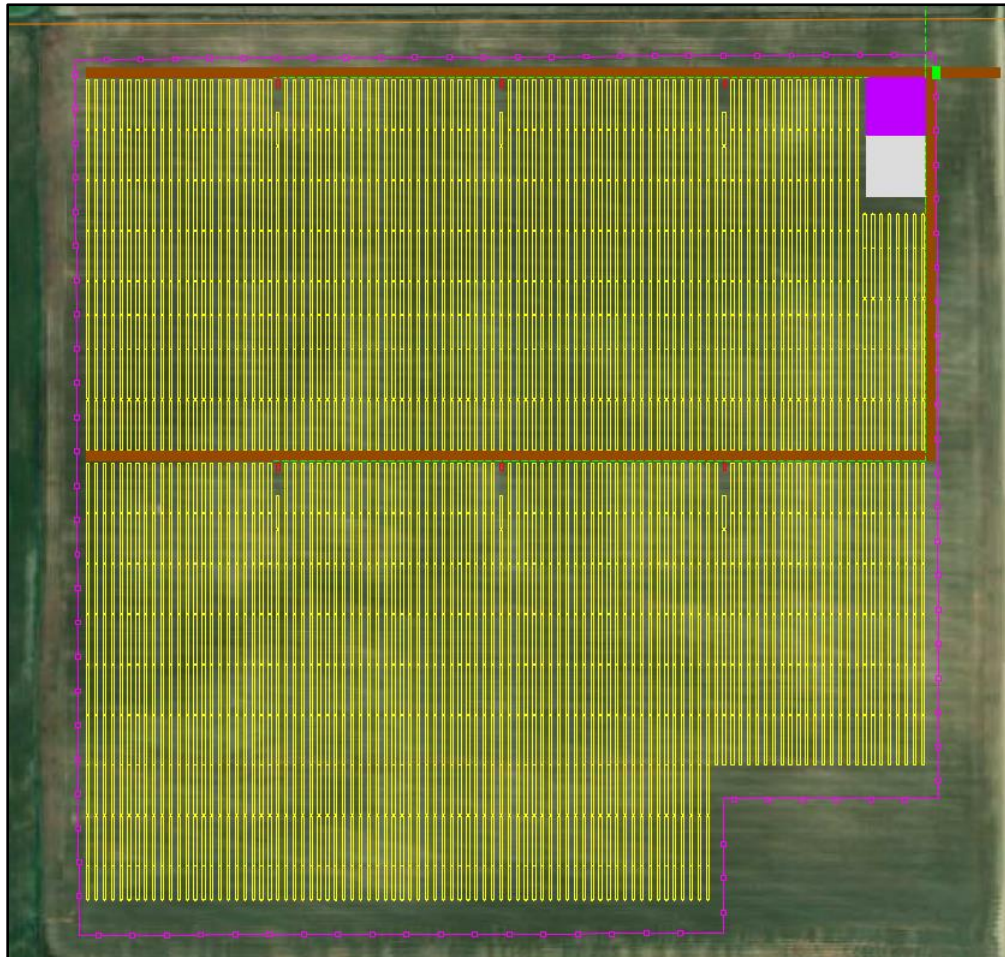
6 inverter/transformer stations to convert direct current to alternating current at key junction points.

Racking and Mounting System

Panels will be installed on a single-axis tracker racking system, ranging to up to 3m above ground.



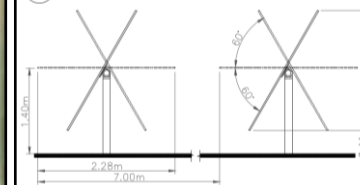
Project Layout



LEGEND:

- SOLAR MODULES C/W TRACKER
- INVERTER / TRANSFORMER STATION
- SWITCHING STATION AREA (50m x 50m)
- LAYDOWN AREA (50m x 50m)
- INTERNAL ACCESS ROAD (8m WIDTH)
- PROJECT FENCELINE
- UG MV COLLECTOR ROUTE (~1m WIDE TRENCH)
- GATE

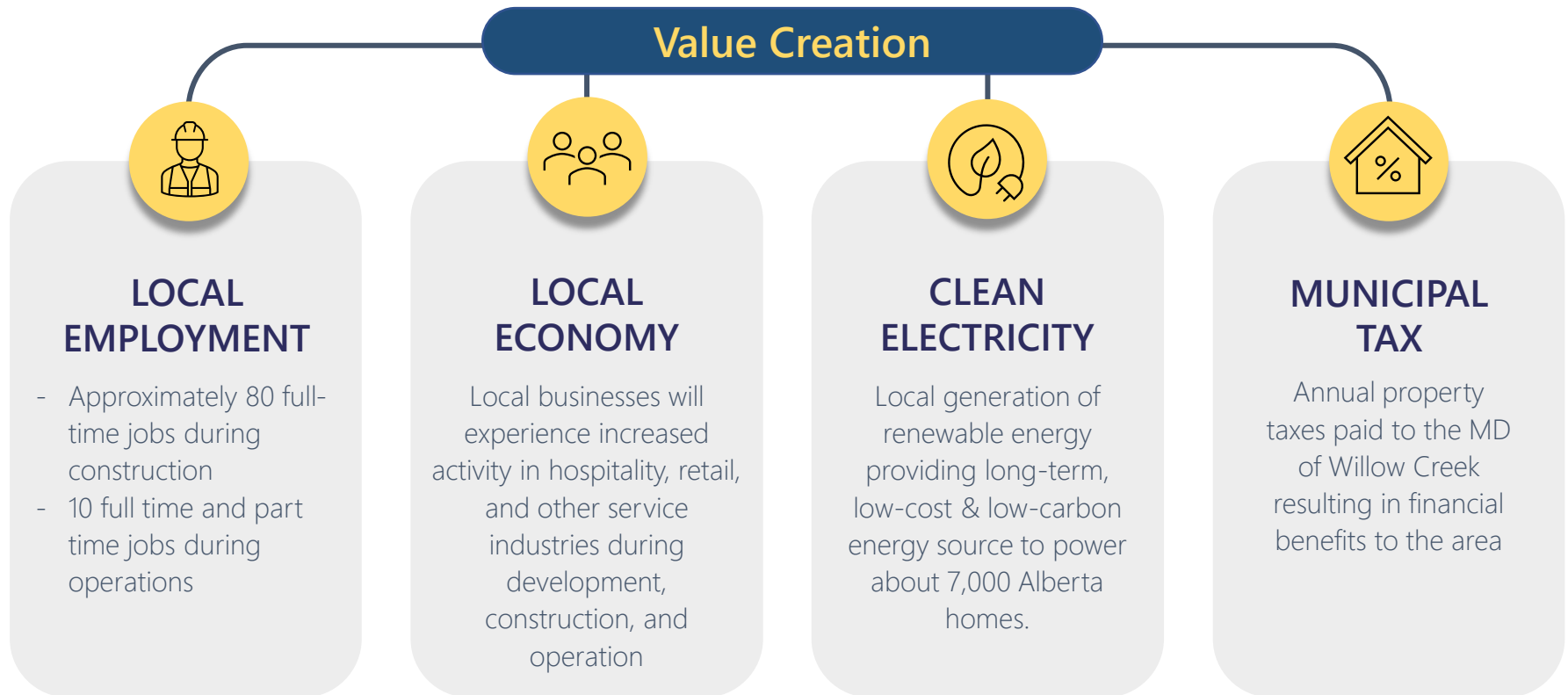
1 RACKING ELEVATION VIEW NTS



SITE DETAIL

FENCED AREA (ACRES)	~129
RACKING TYPE	1P SAT
PITCH	7.0m
MODULES PER STRING	24
NO. 3 STRING TRACKERS	674
NO. 2 STRING TRACKERS	100
NO.1 STRING TRACKERS	84
RATED MODULE OUTPUT (W)	570
MODULE QUANTITY	55,344
INVERTER RATING (Kva)	4,400
INVERTER QUANTITY	6
AC CAPACITY (MW _{AC})	22.30
DC CAPACITY (MW _{DC})	26.40
INVERTER CAPACITY (MVA)	26
INVERTER OVERBUILD	1.19
GRID OVERBUILD	1.41
GROUND COVERAGE RATIO	0.3254

Community Benefits



Stakeholder Considerations



Dust

- Clem Geo will work with the MD of Willow Creek to ensure dust mitigation is in place and impact is kept to a minimum.



Water Resources

- The Project does not consume water for day-to-day operations



Traffic Management

- Main access into the Project site is proposed via Range Road 252.
- Speed limits will be enforced through the Project area and on county roads.
- Traffic will be increased during the construction phase of the Project. During the operations phase, site visits will be weekly.



Safety and Security

- Clem Geo is working with MD of Willow Creek and its first responders to develop an Emergency Response Plan.
- The Project will be surrounded by protective fence and entrance gates will be locked.
- The area will be monitored by security cameras.

Noise Study

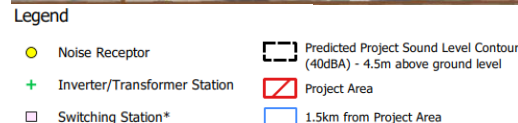
AUC Rule 012

All solar energy projects must comply with AUC Rule 012: Noise Control which sets out acceptable noise levels, acceptable means to measure and calculate noise levels and a process to evaluate noise complaints related to a regulated facility, including solar projects.

To comply with Rule 012, cumulative (baseline + project) noise levels at occupied dwellings must not exceed daytime (7 am to 10 pm) or night-time (10 pm to 7 am) Permissible Sound Level (PSL) limits for dwellings within 1.5km of the Project.

Noise Study

A total of 8 receptors were assessed during the noise study, shown in the map below:



Results



The Project will operate **in compliance** with AUC Rule 012 at all 8 receptors assessed, and meets all PSL limits

	Baseline Sound Level (dBA)	Project Sound Level (dBA)	Total Sound Level (dBA)	Allowed Sound Level (dBA)
R01	35.0 45.0	28.8 28.8	36.0 45.1	40.0 50.0
R02	35.0 45.0	26.6 26.6	35.6 45.1	40.0 50.0
R03	35.0 45.0	26.7 26.7	35.6 45.1	40.0 50.0
R04	35.0 45.0	26.6 26.6	35.6 45.1	40.0 50.0
R05	35.0 45.0	20.7 20.7	35.2 45.0	40.0 50.0
R06	35.0 45.0	23.3 23.3	35.3 45.0	40.0 50.0
R07	35.0 45.0	19.8 19.8	35.1 45.0	40.0 50.0
R08	35.0 45.0	16.6 16.6	35.1 45.0	40.0 50.0

Legend: Night-time Noise Level | Daytime Noise Level



Glare Study

Glare Analysis

As per AUC Rule 007 a Solar Glint and Glare Hazard Analysis was conducted to assess the potential for glare to residences and transportation routes within 800m of the Project Area and aerodromes within 4 km of the Project.

The assessment modeled two ground transportation route paths (Township Road 92 and Range Road 253) and four dwellings within approximately 800m of the Project.

A glare assessment report will be completed as part of the AUC application.

Glint and Glare Results



One local road, Township Road 92, and one residential receptor, R03, are expected to receive minimal green glare, as shown in the table below

Annual Glare Levels (0° Resting Angle, ±15° FOV)

Receptor	Green Glare (min/year)	Yellow & Red Glare (min/year)	Max Daily Glare (min/day)
R01	0	0	0
R02	0	0	0
R03	224	0	13
R04	0	0	0
TR92	0	0	0
RR253	0	0	0

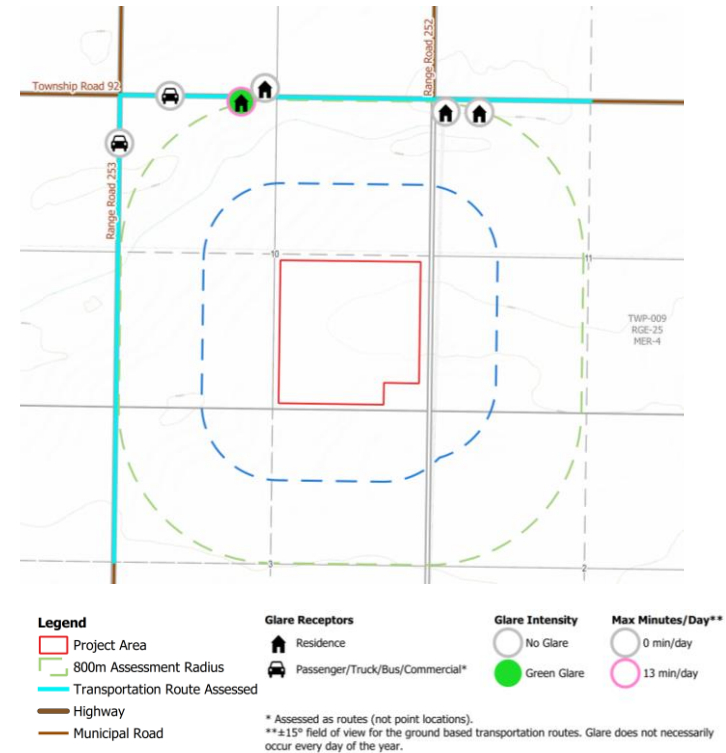


Mitigation is not expected to be required.



Project is planned to have solar modules on single-axis trackers that track the sun from east to west throughout the day reducing the intensity and duration of glare experienced at fixed locations such as residences.

Glare Impact Map



Environmental



Environmental baseline studies were completed in 2022 and Clem Geo applied for a Referral Report to **Alberta Environment and Protected Areas – Fish and Wildlife Stewardship (AEPA-FWS)** in April 2023. AEPA will issue a Renewable Energy Wildlife Referral Report following its review and we anticipate this in April 2024.

The Referral Report will summarize the potential risks the Project may pose to wildlife and wildlife habitat based on the Project location, after which Clem Geo will conduct an Environmental Evaluation and develop an Environmental Protection Plan.

Studies Conducted

Environmental desktop and field studies were initiated in 2022 and completed in 2023 including:



Environmental constraints mapping to identify buildable areas of land and avoid environmentally sensitive areas.



Desktop wetland delineation and field verification to minimize impacts to wetlands and surface waters.



Wildlife surveys including breeding bird, spring and fall bird migration, sharp-tailed grouse, amphibian, raptor, and nest surveys to mitigate impacts to wildlife.

Additional Studies

The following environmental and technical studies are underway to support our application for a Power Plant Approval to the AUC in Q2 2024.

- ✓ **Conservation & Reclamation Plan**
- ✓ **Environmental Protection Plan**
- ✓ **Environmental Evaluation**
- ✓ **Weed Management Plan**
- ✓ **Stormwater Management Plan**
- ✓ **Noise Impact Assessment**
- ✓ **Glint and Glare Assessment**
- ✓ **Visual Impact Assessment**

Regulatory







The **Alberta Utilities Commission (AUC)** is an independent agency that regulates Alberta's electrical system and ensures customers receive safe and reliable service at reasonable rates.

AUC approval is required for the construction, operation and maintenance, and decommissioning of power plants in Alberta. The AUC must approve a facility application prior to commencing construction of the Solar Project, which we anticipate filing in Q2 2024 and receiving approval in Q4 2024.

AUC Pause and Interim Rules

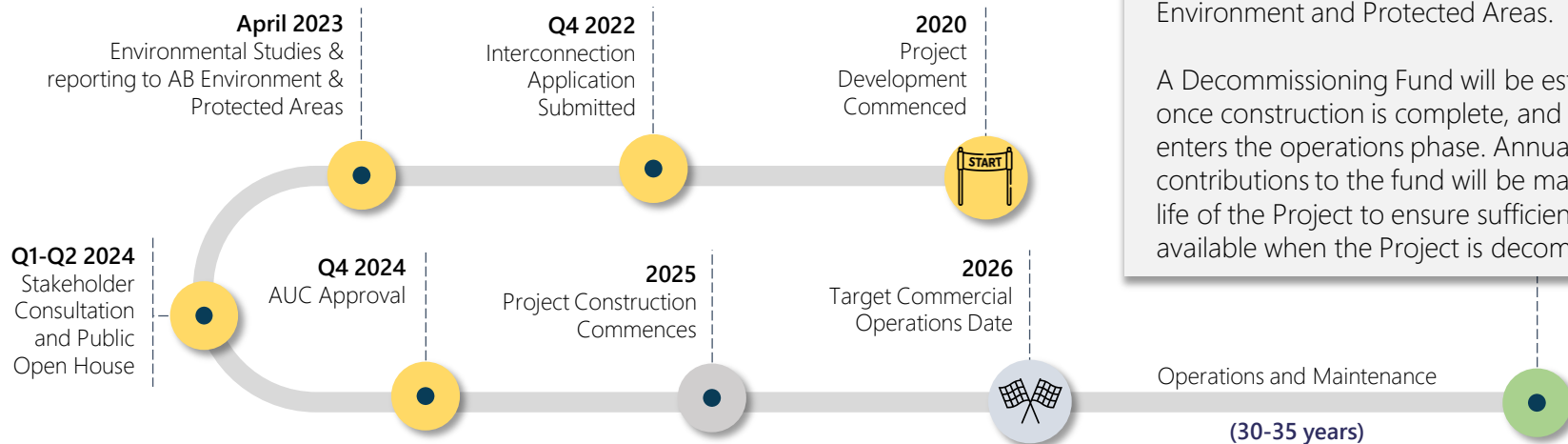
In August 2023, the AUC initiated a pause on all renewable energy projects greater than 1MW, and released a set of interim set requirements, which allows projects to proceed based on the following criteria:

Interim Requirements	Radiant Dawn Energy Park
 Avoid Prime Agricultural Lands (Class 1 or 2)	✓ Project currently sited on Class 3-5 Land Suitability Rating System (LSRS).
 Requirement of a Reclamation Security	✓ Decommissioning Fund in place with annual contributions made by Clem Geo for the life of the project.
 Preservation of Pristine Viewscapes	✓ The Project is located outside "pristine viewscapes" designated by the province. ✓ Clem Geo will perform a Visual Impact Assessment.
 Compliance with Municipal Land Use	✓ The Project is designed in accordance with MD of Willow Creek's Land Use Bylaw # 1943. ✓ Clem Geo has initiated consultation with the MD prior to submitting the Project's Development Permit Application.

Project Lifecycle and Timeline

The lifecycle of a solar energy project is broken down into four main phases and typically has a **lifespan of 30-35 years**.

- 1 Development (Current Phase)
- 2 Construction & Installation
- 3 Operations & Maintenance
- 4 Repowering or Decommissioning



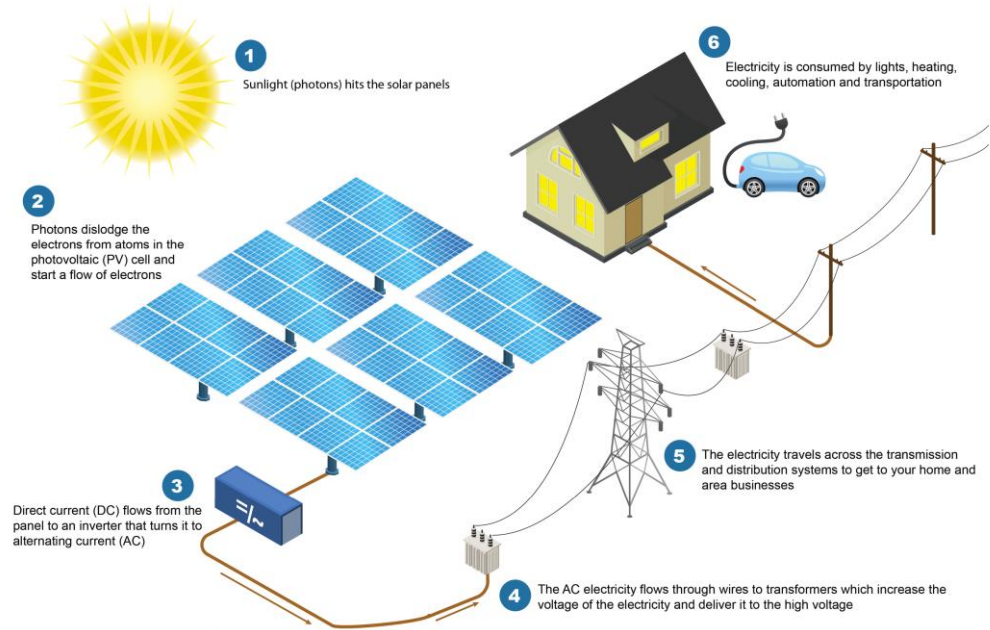
Decommissioning Fund

At the end of the Project's life, it will either be repowered (retrofitted and modernized) or fully decommissioned. A **Conservation and Reclamation Plan** will be prepared prior to construction that incorporates the feedback of the landowner and meets the requirements of the M.D. of Willow Creek and the Alberta Environment and Protected Areas.

A Decommissioning Fund will be established once construction is complete, and the Project enters the operations phase. Annual contributions to the fund will be made for the life of the Project to ensure sufficient funds are available when the Project is decommissioned.

How Solar Works

Solar energy is a well-established technology in Alberta and Canada, with over 43,000 solar (PV) installations across the country



Size of Solar Panels

