

# Abegweit First Nation Community Solar Farm

**Powering a more self-sustaining Abegweit.**

Community | Economy | Environment

Community Engagement: November 6, 2025 | 5:00 – 6:30 pm

*Updated based on questions and comments shared.*

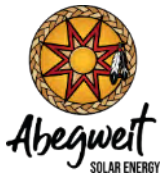
Epekwitk (Prince Edward Island) is located in Mi'kma'ki,  
the ancestral and unceded territory of the Mi'kmaq People.  
The Epekwitnewaq Mi'kmaq have occupied this Island for over 12,000 years.

We honour the “Treaties of Peace and Friendship” which recognized  
Mi'kmaq rights and established an ongoing relationship between nations.

We are all Treaty People.

# Agenda

1. Kwe’/Welcome
2. Community Navigator
3. Community Engagement Approach
4. About the Project
5. First Nation Solar Projects across Canada
6. Benefits and Considerations
7. Wela’lin/thank you!



10 MW Solar Farm; Slemon Park



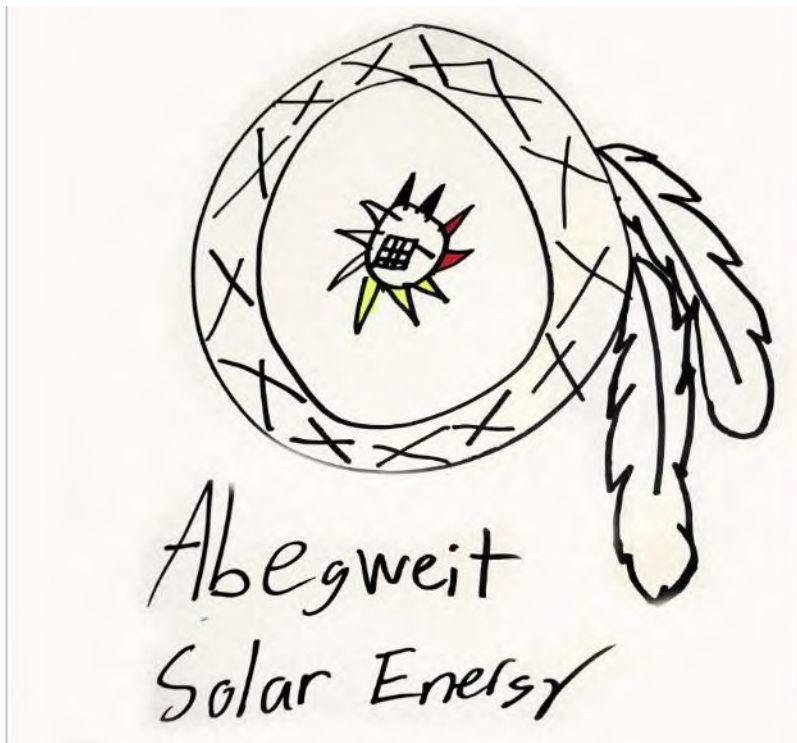
## Abegweit Solar Logo:

Community youth designed logo concepts.

Community members then selected the concept that most reflected community. Here it is!

Thank you to the creative youth!

### Youth Logo Concept:



**Abegweit**  
**SOLAR ENERGY**

### The story it tells:

- Basket-weaving = Importance of all three Reserves and of community and connections
- Radiant sun = Solar power
- Eagle feathers and Medicine Wheel colours = Symbols of Abegweit's proud culture and strength

# Community Navigator – Councillor Jacob Jadis

- **Make opening and closing comments** at community engagement and stakeholder sessions
- Be available to community members for any **questions, comments or concerns raised**
- **Share with the Coles Associates Ltd. (CAL) team any questions** that are specific to the solar project, and CAL will provide a response
- Provide any guidance and direction about **community concerns and needs to the CAL team**
- **Promote the benefits of the community solar farm** to community members and the public
- Help to **educate people to address health and other concerns**
- **Encourage other community members**, including youth, to be ambassadors
- **Encourage participation by community members**, from all three Reserves, at engagement sessions and in other ways to provide feedback
- **Continue to champion the community solar project** at all phases into operations



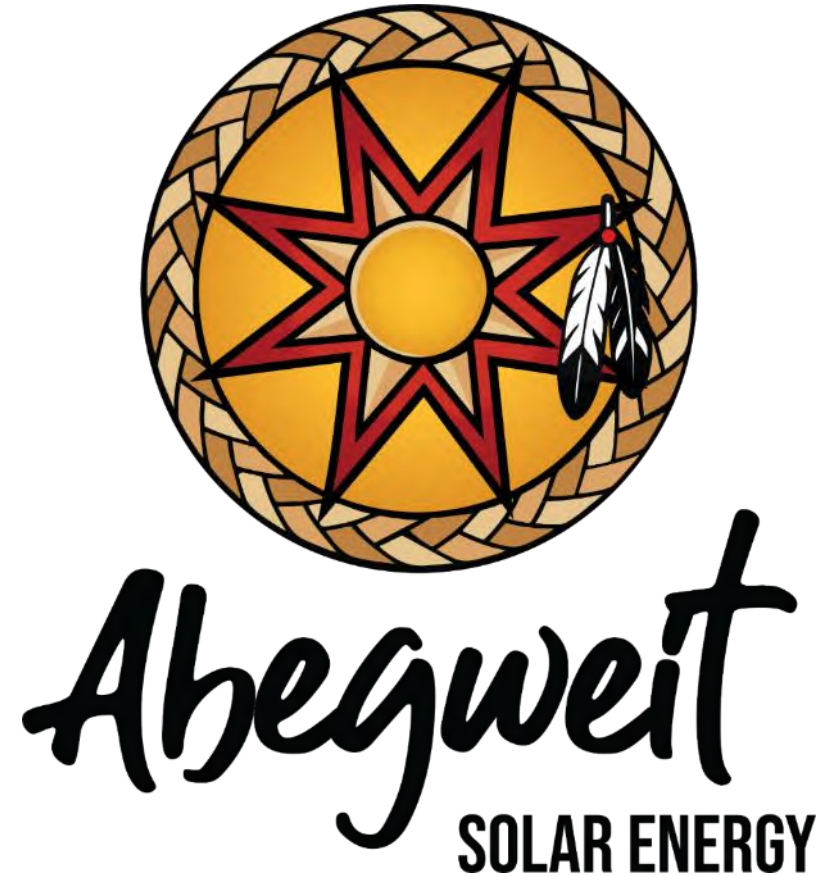
**Councillor Jacob Jadis**  
Contact: [jjadis@abegweit.ca](mailto:jjadis@abegweit.ca)

# What will the Abegweit Solar Farm do for community?

Abegweit is developing a community solar farm that will:

- Provide **energy to community buildings**, including back-up during outages.
- Transition to a **sustainable energy solution**.
- **Generate profit** from the sale of clean energy to the public utility grid to reinvest in community (utility-scale farm).
- **Support Abegweit's goal to invest in renewable energy** (Abegweit First Nation Comprehensive Community Plan, 2018).

This clean project reflects the Mi'kmaq priority of looking after the land and sky.



## What is Abegweit's Community Solar Farm Project?

**6 MW solar array** (megawatts)

**Battery Energy Storage System (BESS)** to store excess energy during peak generation times to use when needed; reduces the need for backup energy sources and electricity costs at a community level

Seamless integration into existing public utility grid infrastructure



6 MW Solar Farm; Kerarbury Farm, Australia



# What is a solar farm?

**A field of solar panels used to capture energy from the sun to convert to electricity.**

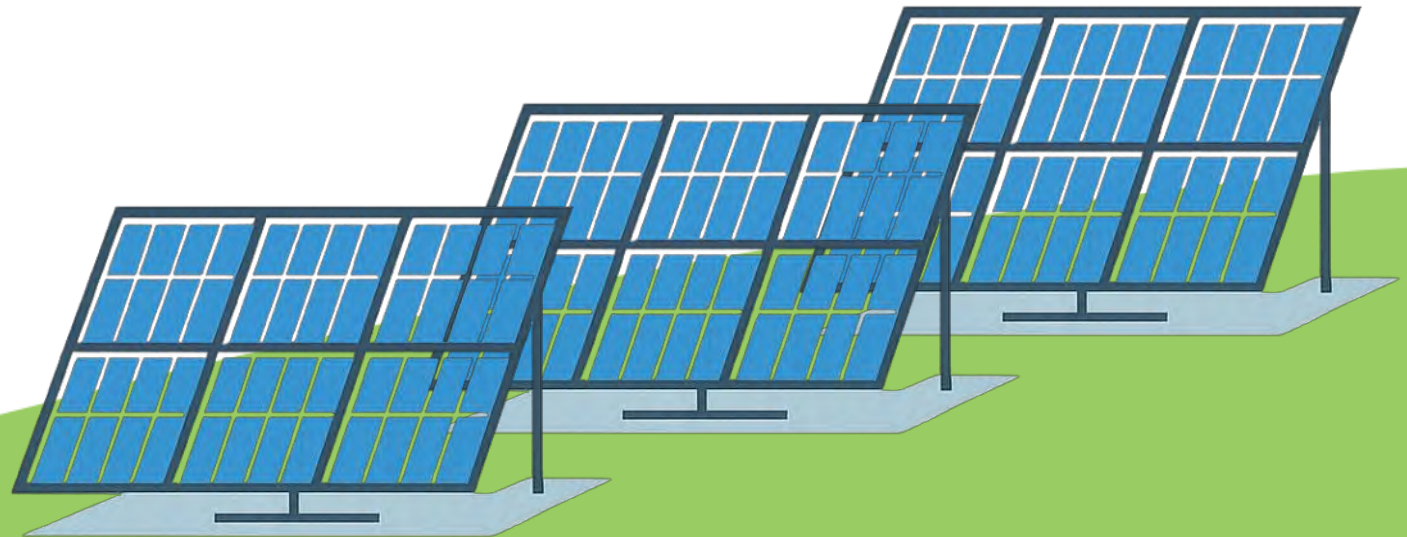
More solar panels = more electricity.

Size based on the amount of electricity **produced at peak output**, measured by megawatts (MW).

Solar farms exist in varying sizes across Canada. For example:

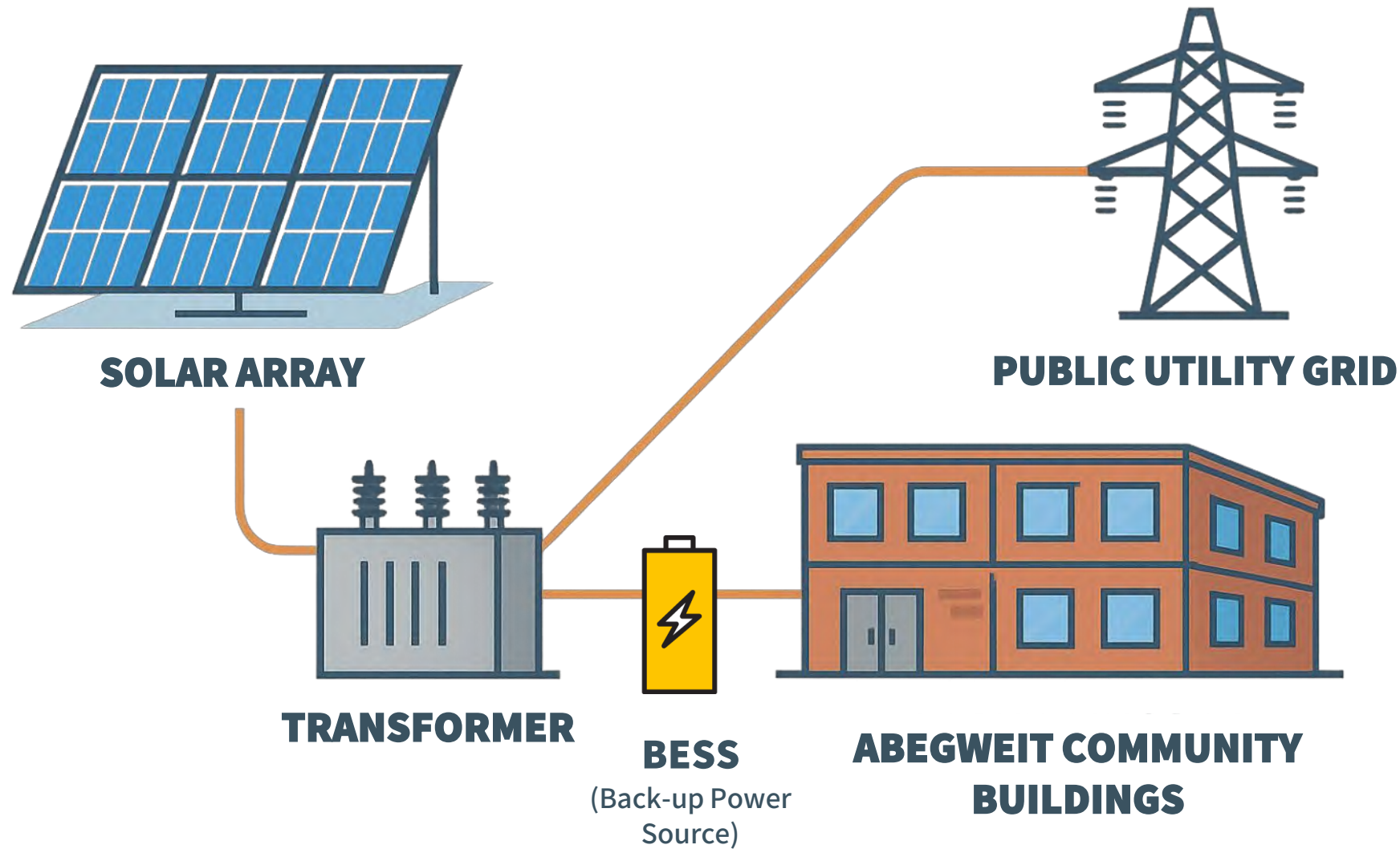
**10 MW** solar farm planned for Tobique First Nation (NB)

Ulkatcho First Nation's **3.8 MW** solar farm (BC)





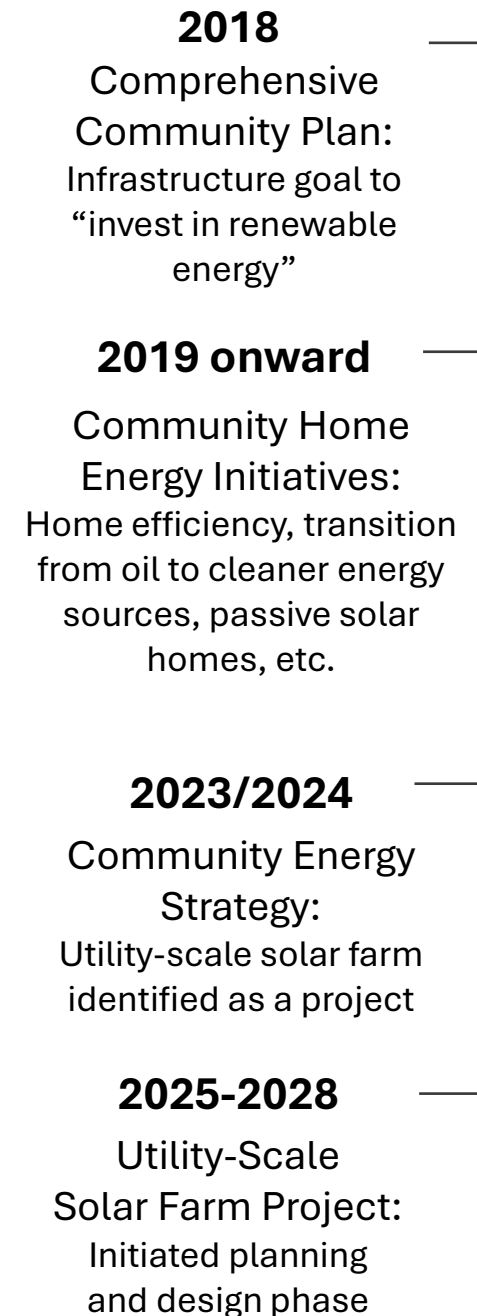
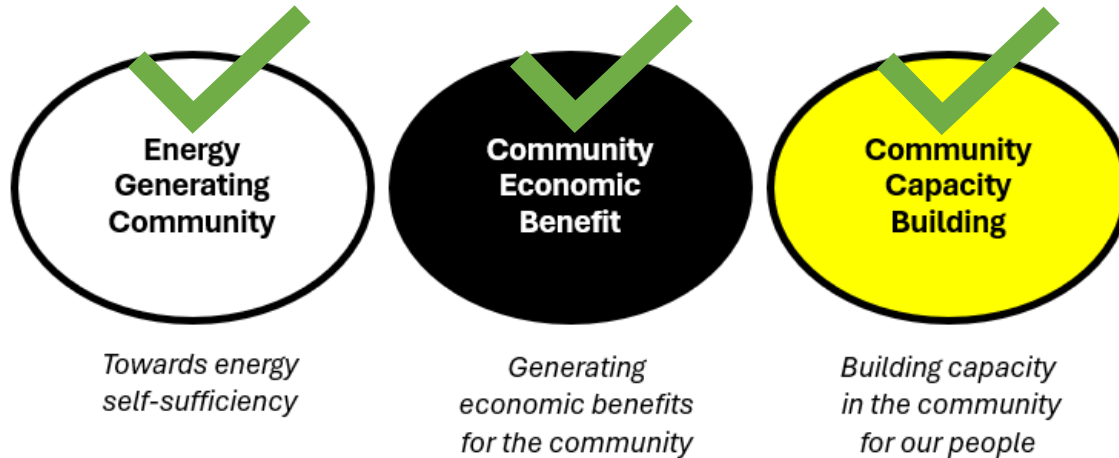
## How does a utility-scale solar farm work?



# Why is this Project important to Abegweit?

## Why a Solar Farm?

- Assessed 50 potential energy-saving/renewable energy projects as part of **Abegweit's Community Energy Strategy (2024-2028)**
- Identified **utility-scale solar farm** as most beneficial to Abegweit
- Plus, lower technical and maintenance vs. other technologies



## Abegweit Energy Vision

Founded on what is best for our people and community for generations to come:

**Becoming a self-sustaining community.**

### The **Abegweit Solar Farm**

is *one* important initiative to support the Community Energy Strategy (2024-2028)









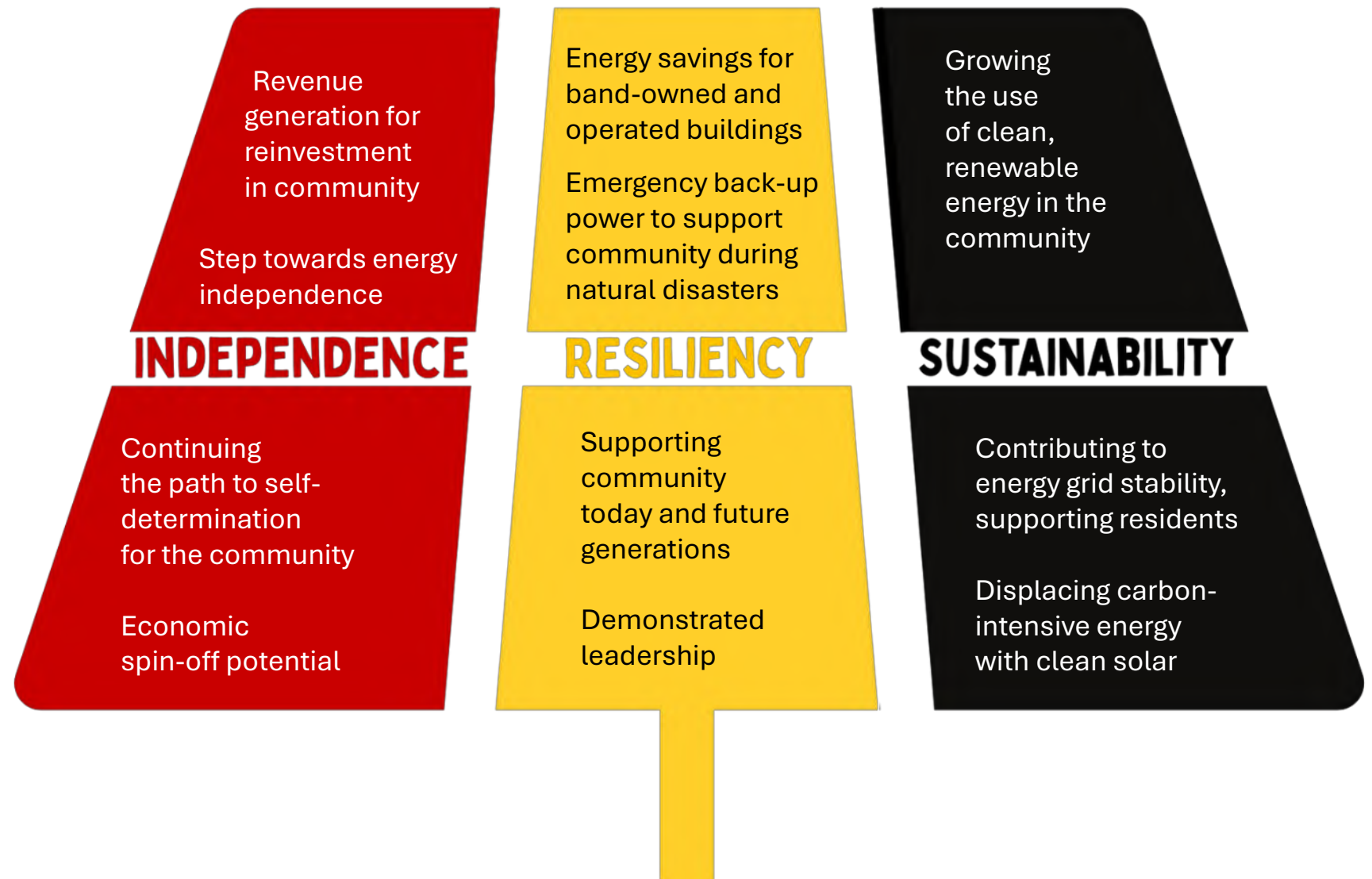
# What were important considerations to decide on a solar farm?

- ✓ Provide **practical, forward-looking and scalable** solutions.
- ✓ Make decisions today that will provide **short-term and long-term benefits**.
- ✓ What is the **best fit** with the community (people, resources and potential).
- ✓ Potential to **build capacity** within the community and through partnerships.
- ✓ Provide **opportunity for community growth and leadership** (including demonstration).
- ✓ Align with **culture and respect** our traditions and beliefs as stewards of the land and resources.
- ✓ Benefit the community and members **for generations to come**.

## We heard some questions. Let's start with these ones:

- How will the solar farm benefit all three Reserves?
- Who will operate the solar farm?
- How much land is needed, and where will the solar farm be located?
- How will we ensure the safety and security of people and community?
- Do other First Nations have solar farms?

# How will the solar farm benefit all three Reserves?



## Abegweit Solar Community Farm: Powering a more self-sustaining Abegweit.

Community | Economy | Environment

# Who will operate the Abegweit Solar Farm?

- 100% Abegweit owned and operated.
- Abegweit will be responsible for the day-to-day operations.
- More technical maintenance requirements would be contracted.
- Staffing and long-term maintenance plan would be put in place by Abegweit.
- Employment opportunities for community members.

Sheep grazing in Slemon Park Utility-Scale Solar Farm



Coles team identifying what kind of grass to plant for the sheep.



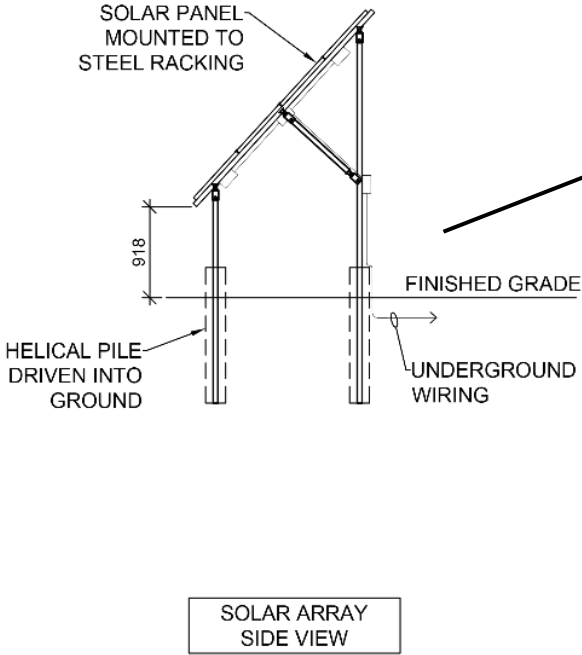
# How much land is needed and where will the Solar Farm be located?

- Confirmed: located in Scotchfort
- Requires 20 acres of land (+/- 17 acres of panels plus a buffer zone and fencing)
- Specific location confirmed by Chief and Council based on testing and assessments

## Why Scotchfort?

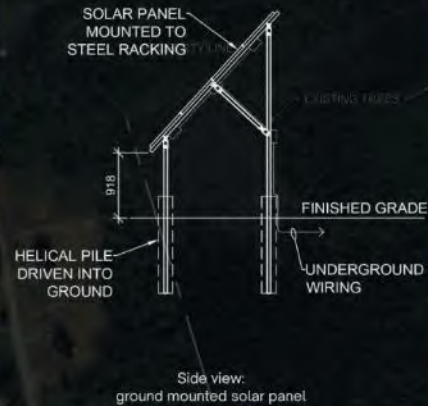
- Close to the Maritime Electric high voltage transmission line along Route 2, so easier and lower investment to connect to the public utility grid.
- Nearby clustering of band-owned and operated buildings for community use.
- Land available that is located away from homes and community.

# Scotchfort Map





## The logo for Abegweit Solar Energy features a circular emblem at the top. Inside the circle is a stylized sun with a yellow center and red rays, set against a background of a woven basket pattern. A single feather is positioned to the right of the sun. Below the emblem, the word "Abegweit" is written in a large, white, cursive script. Underneath "Abegweit", the words "SOLAR ENERGY" are written in a smaller, white, sans-serif, all-caps font. The entire logo is set against a background of a green, textured landscape.



Side view:  
ground mounted solar panel



PRELIMINARY ONLY NOT FOR CONSTRUCTION



# Abegweit Community Solar Farm





# Why is this the best site for the Abegweit Community Solar Farm?

## Community Visual Appeal and Safety

- Away from homes and community spaces
- Away from roadside view of community
- Surrounding trees act as green visual and noise barriers (although noise will be limited during operations)
- No impact on potential for future development on additional acres

## Environmental Considerations\*

- Clean up of deadwood in forest from Hurricane Fiona
- Plan to replant healthy trees
- Opportunity to plant native trees and grasses that have cultural significance
- Potential replanting could also benefit solar farms
- No species of cultural significance were identified
- Onsite tree harvesting and removal to take place outside of bird nesting seasons

## Benefits of Trees Near Solar Farm

- Protection from wind
- Protection from visual glare
- Improved efficiency of solar panels with cooler environment from surrounding trees
- Stabilizing soil by reducing erosion and improving soil health to support land integrity and long-term sustainability of solar farm



Abegweit will lead conservation efforts and replanting projects. Community engagement is important.

*\*key findings of Environmental Impact Assessment, including involvement of Abegweit Forestry Division (led by Joose Environmental Consulting Inc.); inclusive of feedback shared by Abegweit First Nation*





## Site Walkthrough



Abegweit will lead conservation efforts and replanting projects.  
Community engagement is important.



**Purposeful planting**



**Species selection**



**Enhanced benefits for community**  
- culturally and environmentally

# How will we ensure the safety and security of people and community?

- A fenced area surrounding the solar farm (with a buffer of land between the arrays and fence)
- Property surrounded by trees
- Security cameras and motion sensors installed at key locations within the facility with 24-hour monitoring
- No hazardous materials storage
- Equipment will undergo regular inspections to ensure there is no risk of accidental leaks



## Do other First Nations have solar farms?

First Nations are investing in solar projects to build energy independence and revenue generation for increased self-reliance.

More than 300 renewable energy projects of different sizes in First Nations communities in Canada. (Clean Foundation)

### Examples of other First Nations:

Glooscap First Nation (Hantsport, NS)

Tobique First Nation (Saint John, NB)

Haida Nation (Haida Gwaii, BC)

Ulkatcho First Nation (Anahim Lake, BC)

T'Sou-ke Nation (Vancouver Island, BC)

Cowessess First Nation (Regina, SK)



Glooscap Energy's Seakist Solar Array, Yarmouth, Nova Scotia

Source: Natural Force Solar (<https://naturalforcessolar.ca/commercial/yarmouth-bar-fisheries/>)



## Community Navigator: Councillor Jacob Jadis

- Listens to Community questions and concerns and shares with the Coles technical team.
- Provides guidance to Project Team to make sure community needs, questions, and concerns are heard.

# Project Team and Project Status



## Prime Consultant, Lead Engineering Firm

**Over 65 years of architectural, engineering, and project management experience, including power distribution and energy management to this project.**

- Has worked with Abegweit on the Community Energy Strategy and Cultural Grounds projects.
- Proven renewable energy projects: PEI Cleantech Innovation Centre (450 kW solar + BESS), Slemon Park 10 MW Solar, City of Charlottetown 100 kW arrays.
- Partners with complementary experts to deliver sustainable, practical solutions.



**Supports the facilitation of the project and provides geotechnical expertise and cultural knowledge.**

- Specializes in developing comprehensive renewable energy solutions that prioritize sustainable energy sovereignty for First Nations communities across Atlantic Canada.
- Committed to creating energy solutions that reflect the needs and values of First Nations communities, ensuring long-term sustainability and resilience.

## Planning and Design Phase

March 2025 -December 2026



### What community will have by the end of phase:

1. Site selection
2. Technical plan
3. Financial feasibility and plan
4. Community employment opportunities identified
5. Construction-ready design and next steps defined
6. Greater community understanding of solar project

## Construction Phase

January 2027- December 2028

### What community will have by the end of phase:

1. Functional solar farm
2. Employment and training
3. Community building connection installation
4. Back-up energy storage system
5. Electrical grid connection

## Operations Phase

January 2029 ongoing

### What community will have during this phase:

1. Operational plan, including staffing and long-term maintenance
2. Source of community back-up power, economic potential, and environmental solution

**Proposed Timeline:**  
(Status as of  
September 2025)

## Planning and Design Phase

■ *Completed*

■ *In Progress*

■ *Future Work*

**Planning  
and Design**  
(Spring 2025-  
End of 2026)

**Construction**  
(2027-2028)

**Operations**  
(Starting 2029)

■ **Community Engagement (ongoing)**

■ **Regulatory/Utility Consultation**

■ **Site Investigations and Assessments**

■ Site and Resource Assessment

■ PV Glare Study

■ Grid and BESS Integration Assessments

■ Environmental Impact Assessment

■ Geotechnical Investigation

■ **Financial Feasibility and Plan**

■ **Final Site Selection**

■ **Preliminary Design**

■ **Final Design and Construction Strategies**



# Learning from Others to Guide Decisions at All Stages

- ☐ How to maximize benefits for Abegweit – community, economy, and environment
- ☐ Most appropriate and relevant renewable energy solution
- ☐ Careful site selection that considers land availability, topography, proximity to infrastructure/grid for connection, existing site conditions, potential constraints, and sustainability factors
- ☐ Careful design that meets long-term needs
- ☐ Proactive management of potential risks
- ☐ Reliability using proven technology
- ☐ Construction/installation considerations
- ☐ Effective monitoring and maintenance practices
- ☐ Local capacity building and opportunities for the community
- ☐ Recycling of solar array, batteries, and transformers
- ☐ And many more...

## Community Benefits and Considerations:

# **Own-source revenue with the sale of energy to the public utility grid**

- Reinvestment of profits into community – decision to be made by Chief and Council with community input.
- Employment and training opportunities for community members.
- Estimated 10-year return on investment (Coles Associates Ltd.).
- Estimated 25 to 30 years expected service life of the installation (Lawrence Berkeley National Laboratory, June 2020).
- Continued pathway to self-determination with community benefiting for generations to come.





# Community Benefits and Considerations:

## Own-source revenue with the sale of energy to the public utility grid

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### CAPITAL INVESTMENT

#### Capital Costs

Solar farm (arrays/module, inverter, structural and electrical, battery energy storage system, installation, development, etc.)

Other capital costs to ensure security, safety and long-term maintenance

#### Investment to Cover Capital Costs

Government funding (based on proposals)

Other capital costs supported by community – to be recovered through Utility-Scale revenue generation

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### OPERATIONAL (Long-term focus)

#### Utility-Scale Revenue

Revenue generated from sale of clean energy to the Grid

#### Less: Operational Costs

Staffing and administration

Monitoring and ongoing maintenance

Finance for infrastructure investment by community

Other costs

#### Equals: Profits Generated for Community

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Further details to be determined as part of financial feasibility study and plan (Planning and Design Phase).

## Health Considerations: **Energy production considered safe for community member health and for environmental health**

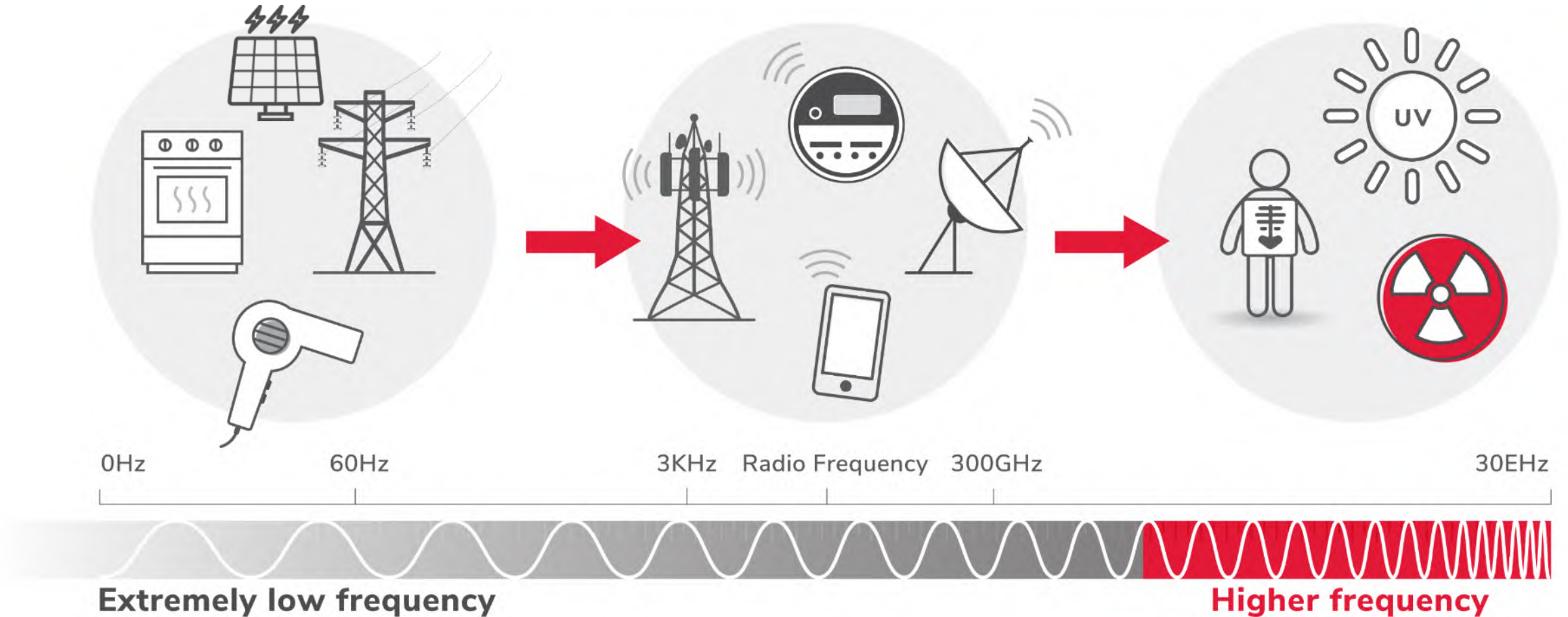
Decades of research have shown that:

- Solar farms have **extremely low to no risk** to:
  - Human health
  - Animal health
  - Soil health
- Solar arrays, transformers and batteries only **emit low levels** of electromagnetic fields, like household appliances, and have low toxicity levels in their design.
- Even when damaged, panels have **shown low to no risk** to human, animal, and soil health.





# THE ELECTROMAGNETIC SPECTRUM



## A selection of more recent solar panel/health research resources:

Collie-Akers, V., Obermeier, S., Mikko, M., & Ostrom, S. (2024). A review of potential public health impacts related to industrial scale wind and solar energy. Lawrence-Douglas County Public Health and University of Kansas Medical Center - Department of Population Health. [www.dgcoks.gov/sites/default/files/2024-](http://www.dgcoks.gov/sites/default/files/2024-03/LDCPH.%20Assessment%20of%20industrial%20scale%20wind%20and%20solar.V1.pdf)

[03/LDCPH.%20Assessment%20of%20industrial%20scale%20wind%20and%20solar.V1.pdf](http://www.dgcoks.gov/sites/default/files/2024-03/LDCPH.%20Assessment%20of%20industrial%20scale%20wind%20and%20solar.V1.pdf)

Cleveland, T. (2017). Health and Safety Impacts of Solar Photovoltaics. NC Clean Energy Technology Center.

<https://nccleantech.ncsu.edu/wp-content/uploads/2019/10/Health-and-Safety-Impacts-of-Solar-Photovoltaics-PV.pdf>

Health Canada. (2024, April 04). Understanding Safety Code 6: Health Canada's radiofrequency exposure guidelines.

Government of Canada. <https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/occupational-exposure-regulations/safety-code-6-radiofrequency-exposure-guidelines.html>

Health Canada. (2022, November 01). Power lines and electrical products: Extremely low frequency electric and magnetic fields. Government of Canada. <https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/everyday-things-emit-radiation/power-lines-electrical-appliances.html>

Energy Storage Canada & Energy Safety Response Group. (n.d.). Battery Energy Storage Systems (BESS): Common Questions & Myths About BESS Safety.

[https://static1.squarespace.com/static/61f81e15f490ed3db8dadda2/t/687921c1f80ffa687397bb6b/1752768967233/BESS+Safety\\_FAQs+25.3+FIN.pdf](https://static1.squarespace.com/static/61f81e15f490ed3db8dadda2/t/687921c1f80ffa687397bb6b/1752768967233/BESS+Safety_FAQs+25.3+FIN.pdf)

Peterson, S. (2024). Solar Panel Shade and Potential Health Impacts. AgriSolar Clearinghouse.

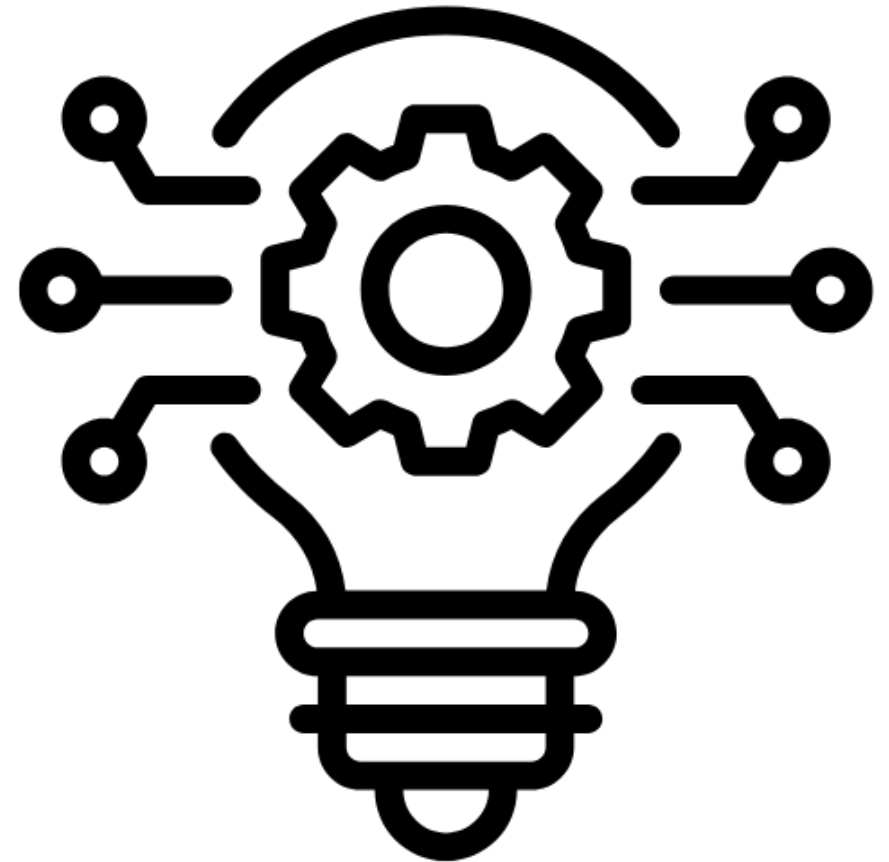
<https://www.agrisolarclearinghouse.org/solar-panel-shade-and-potential-health-impacts/>



Technology:

## Solar panels are established, proven technology, not at risk of becoming obsolete

- Commonly used for 25-30 years; around since 1970s.
- Tailored system; designed with reliability in mind.
- Use of components that can be **replaced without replacing everything**.
- Battery and inverter technologies used for ~20 years as standard components of modern solar installations.
- Proven to support revenue generation by using batteries to store energy when the sun is not visible.



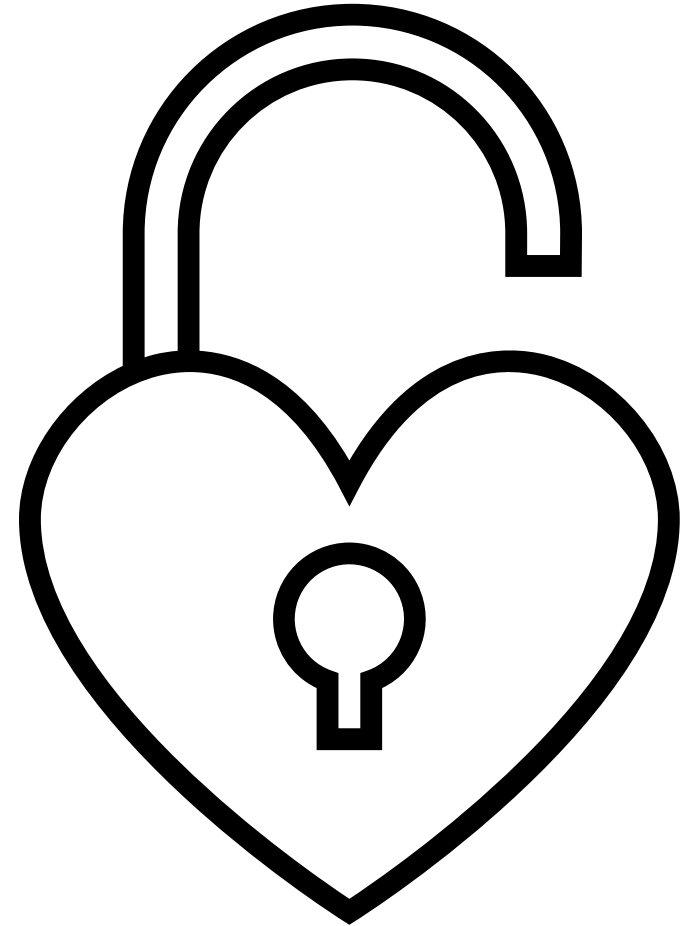
## Safety: **Built to protect community members and panels from accidents.**

No glare impacting Scotchfort residents, road traffic, and air traffic based on PV Glare Study (Coles Associates Ltd.).

Councillor Jadis and Elliot explained that the batteries – which are the component with some fire risk—are contained and have fire suppressants in their containers to protect against fire spreading.

Proposed plan includes:

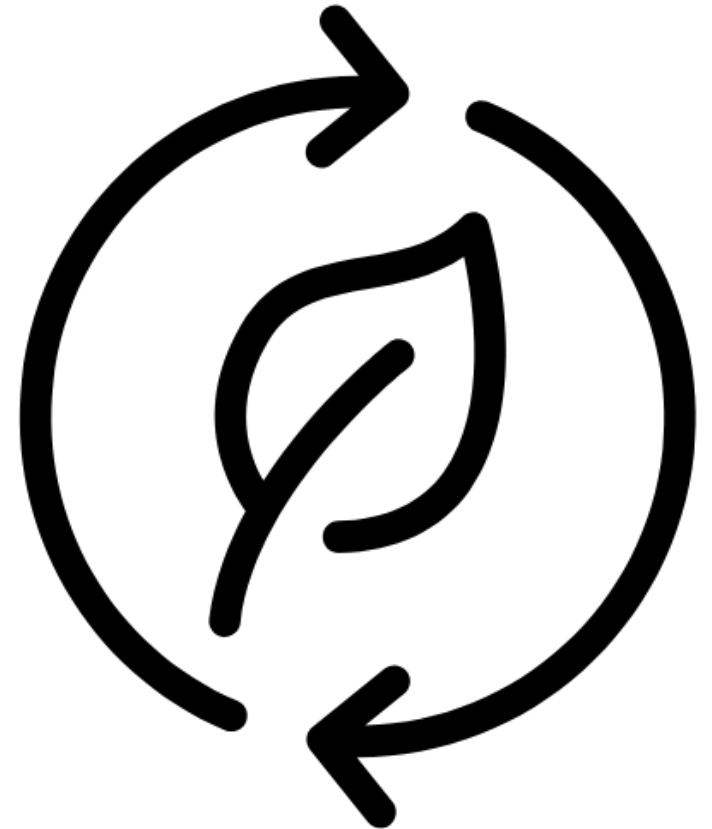
- Fencing to keep people out.
- Fencing with a land buffer to protect panels including from the wind.
- Proper enclosure and security around high voltage equipment.
- Recommendation of security cameras and other equipment.



## Environment and Land:

# Generating renewable, clean energy to support the transition from fossil fuels

- **Builds on existing community home energy initiatives** to increase energy efficiency in homes, transition from oil to cleaner energy sources, build passive solar homes, etc.
- Provides a sustainable, renewable energy source for community buildings/back-up.
- Displaces carbon-intensive energy with clean solar (carbon neutral).
- Replanting of trees, including potential native species.
- Abegweit will receive a plan for proper de-installation and recycling of solar panels and batteries from Coles Associates Ltd.





Sustainability:  
**Community engagement and  
champions in the community  
are also very important.**

How can you get involved?

- Ask questions and learn.
- Reach out to your Community Navigator – Councillor Jacob Jadis.
- Help others understand what the solar farm means to community.
- Participate in other upcoming sessions and share Facebook posts.
- Be part of this exciting opportunity in your community!



# **We Would Love to Hear from You!**

- 1. What other questions do you or others in the community have about the Abegweit Solar Farm?**
- 2. What do you see as the benefits of the Solar Farm to the community, including for generations to come?**



*Abegweit*  
SOLAR ENERGY

Join us next time! Encourage others too.  
Let's keep the conversations going!

**Wela'lioq!**