



Public Community Meeting Minutes

Project: Orchard Storage Project

Location: Bognor Community Centre

Meeting Date: November 1, 2023

Nameplate Capacity: Orchard Storage Project - 100MW Battery Energy Storage

Proponent: Shift Solar Inc.

Summary

A Public meeting was hosted by Shift Solar to present information on the proposed Orchard Storage project and give members of the public an opportunity to provide comments, concerns and ask questions.

The Community Centre was open at 5:30pm for folks to arrive, grab a coffee or snack and find a seat. Shift was available for questions as well. At or around 6pm, Shift presented a PowerPoint (slides to follow), that provided project name, legal name of the proponent and contact information, nameplate capacity, type of technology, info about Shift, information about the IESO procurement, information about energy storage, the project proposed location and connection including a scale map, and a project timeline.

Shift Solar made a point to start this meeting by highlighting the project name (as it had changed from our initial notices). Originally Bruce Trail Storage (but due to trademark), it has been changed to Orchard Storage.

Following the presentation, Shift opened the floor for Q&As (notes by Stantec to follow).

Notification

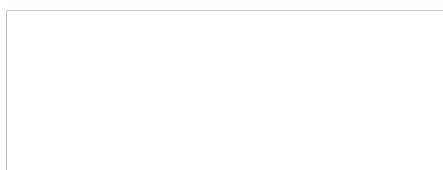
Notice of the Public Community Meeting was provided through the following mechanisms:

- Email to Chief Administrative Officer equivalent of the municipality Margaret Wilton-Siegel, Deputy Clerk
- Registered mail notices to property owners of land adjacent to the boundaries of the project site
- Email to other regulatory agencies and stakeholders identified as having potential interest
- Although the project is not located on indigenous lands, Email notice was sent to Saugeen Ojibway First Nation
- Newspaper ad in Grey Bruce This Week posted October 26th, 2023.

Attendance

There were 17 people in attendance.

A-56 Mill Street East, Unit 183
Acton, Ontario L7J 1H3
CANADA



1-416-953-3495
shiftsolar.ca

To: Mike Brugge
Shift Solar
Project/File: 160901047

From: Dominique Zeldin and Justine Lunt
Stantec Consulting Ltd.
Date: November 8, 2023

Reference: Orchard Storage Open House Q&A Summary

PRESENTATION DATE: November 1, 2023

PRESENTATION BY: Mike Brugge, Mario De Agüero, Benoit Pinot de Villechenon

PRESENTATION START TIME: 5:57 pm

Q AND A START TIME: 6:15 pm

END TIME: 6:35 pm

Question: How much sound comes out of batteries?

Answer: It depends how close you are to the containers. The max is roughly 60db at the container. There are provincial requirements that state it must be lower than 40 decibels for the closest receptor/residence.

Question: How much ground source contamination from the batteries in a fire?

Answer: No contamination as there is very little liquid elements to lithium-ion batteries and it is contained within each cell. There is some fire risk, and smoke is potentially harmful, but there are plans in place to mitigate that and make sure that doesn't occur. Fire safety has greatly increased over time for these projects.

Question: Will there be generation and storage?

Answer: No, only storage.

Question: Where does the energy come from?

Answer: It will be pulled from the grid in off-peak times.

Question: Where is the site?

Answer: Border of Owen Sound and Meaford; Owen Sound transformer substation is across the street, site is south of Superior Street and east of Highway 6.

Question: Is it beside the Bruce Trail?

Answer: It is adjacent to the trail. We will work to visually conceal as best as we can to preserve the current aesthetics.

Question: You're taking the energy from the grid, and what is the point of storing it?

Answer: Yes, we're taking it off the grid when it's not needed and putting it back during peak times. Increases the reliability of the grid, available on shorter notice.

Question: Why does the parcel of land look much larger on the public notice?

Answer: The notice shows the whole property, but the footprint is only 15 -20 acres.

Question: What's the purpose of putting it in the northeast corner where the houses are?

Reference: Orchard Storage Open House Q&A Summary

Answer: That side of the site is closer to the transmission line, there are also other easements on the property, but the exact position is still up for determination dependent on further studies such as noise etc.

Question: Will there be light pollution?

Answer: There isn't really any need for light full time as the site is not manned overnight but may be lighting for maintenance as required. Mitigation will be looked at during design.

Question: Has Shift Solar acquired the property?

Answer: No, we lease land for the duration of the project, then it is returned to the original state at completion.

Question: So, it's all just finished at 20 years?

Answer: It's mainly based on battery life, so the life span of the battery limits operations. The contract term is also 20 years.

Question: Do you buy the energy and store it? And sell it back to them?

Answer: Yes, the energy is bought when taking from the transmission line and the IESO pays through the contract the times they want it to be available.

Question: What is the risk for fire from this?

Answer: The batteries are designed to industry standards which are becoming very reliable. The system is designed in a way that fire doesn't spread between batteries because of the separation. There is always risk, but we take all the precautions we can, and there are a lot of standards and compliance needs to ensure that things are mitigated for through cell level temperature monitoring that can trigger cooling or isolation.

Question: How do you put out a fire?


Answer: Sprinklers or other forms of suppression are in the containers, an emergency response plan in place to respond in coordination with local area responders.

Question: If you do have a catastrophic failure in a container? Are the containers explosion proof?

Answer: Yes, however there is a special ventilation system to specifically prevent explosions. Cells will burn and off-gas slowly and will not explode.

Question: What's the estimated cost for 100 MW, total cost of project?

Answer: Between 1 and 1.5 million per MW, cost would be 100- 150 million dollars, very high level general estimate.



Orchard Storage- Community Engagement Meeting



WELCOME

Community Engagement Meeting

Welcome, please sign in and provide your contact information if you would like to receive project updates. If you have any questions, there will be a formal Q&A period after the presentation. We will be available until 7:30pm for more private discussions or comments.

| | |
|-------------------------------------|------------------|
| Project Name: | Orchard Storage |
| Date: | November 1, 2023 |
| Legal Name of the Proponent: | Shift Solar Inc. |
| Nameplate Capacity: | 100MW |
| Technology: | LFP Storage |



TODAY'S MEETING

Overview of the Meeting

- Land Acknowledgement
- About Shift Solar
- IESO Procurements
- Why Energy Storage?
- Orchard Storage Project
- Project Timelines
- Q&A



BEFORE WE START

LAND ACKNOWLEDGEMENT

We would like to begin by acknowledging that we are meeting on the traditional lands and treaty territory of the Saugeen Ojibway nation which includes the Chippewas of Nawash Unceded First Nation and the Chippewas of Saugeen First Nation. We also recognize the Metis, whose ancestors shared this land and these waters. We extend our gratitude to all Anishinaabe and Metis people, and their descendants - past, present and future, who continue to care for and inhabit these lands and tend these waters.

ORCHARD STORAGE



ABOUT US

Catalyzing a more sustainable future

Shift Solar Inc. is an Ontario-based solar and energy storage developer with clients in Canada and the United States. Our goal is to expedite the adoption of green energy initiatives and support the shift to sustainable energy infrastructure.

With a development motto of “do the greatest good,” the Shift team is committed to the communities we work in and thus, are focused on engaging with stakeholders.



SYNERGY

A Collaborative Partnership

The local expertise of Shift in project development, combined with Neoen's extensive international experience in developing, building, and operating storage projects, will ensure the creation of a responsible, sustainable, and high-quality project.

Together we will oversee the LT1 RFP and permitting stages.

Subsequently, Neoen will assume sole responsibility for the planning, construction, and long-term operation of the energy storage project





ABOUT US

Neoen is dedicated to the energy transition...

Founded in 2008, Neoen is the leading French independent producer of renewable energy and a major player on the world stage.

Our mission: we design and implement the means to produce the most competitive renewable electricity, sustainably and on a large scale.

Our total capacity in operation or under construction is currently close to 7 GW and we are aiming for more than 10 GW by end 2025, with the ambition to reach 20 GW by 2030.



EXTENSIVE EXPERIENCE

We have surpassed 1 GW of storage

EUROPE

Yllikkälä Power Reserve (2020)



 30 MW / 30 MWh

Azur (2019), Pod tredan (2022),
Antugnac (2022)



 22 MW / 22 MWh

Storen Power Reserve
(2024⁽¹⁾)



 40 MW / 40 MWh

AMERICAS

Albireo (2020),
Antares (2022)




 14 MW / 10 MWh

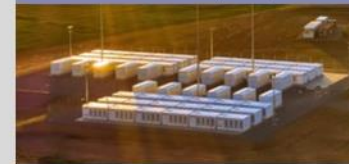
AUSTRALIA

Hornsedale Power Reserve
(2017)



 100 MW / 129 MWh

Hornsedale Power Reserve
Extension (2020)



 50 MW / 64.5 MWh

Victorian Big Battery
(2021)



 300 MW / 450 MWh

Capital Battery (2023⁽¹⁾)



 100 MW / 200 MWh

Western Downs Storage (2024⁽¹⁾)



 200 MW / 400 MWh


Blyth Battery (2025⁽¹⁾)



 200 MW / 400 MWh


DeGrussa (2016)

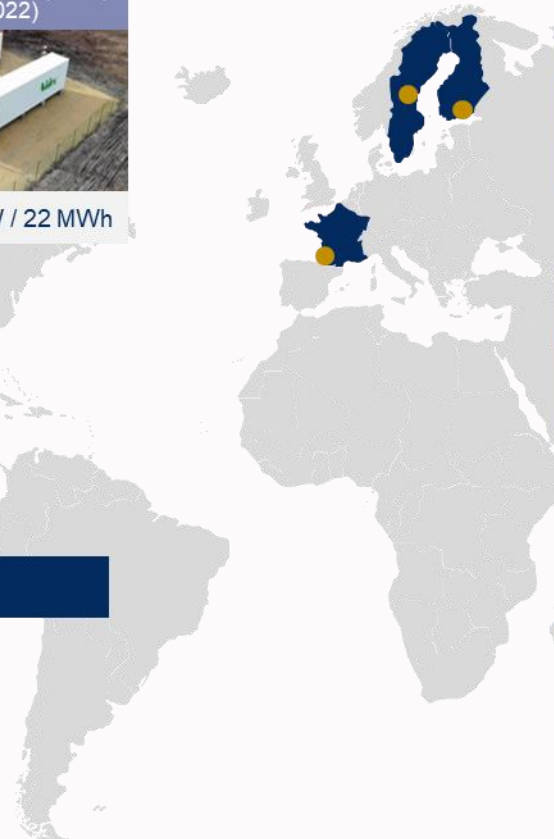


 6 MW / 1.4 MWh

Bulgana (2020)



 20 MW / 34 MWh



■ Behind the meter



■ Stand alone



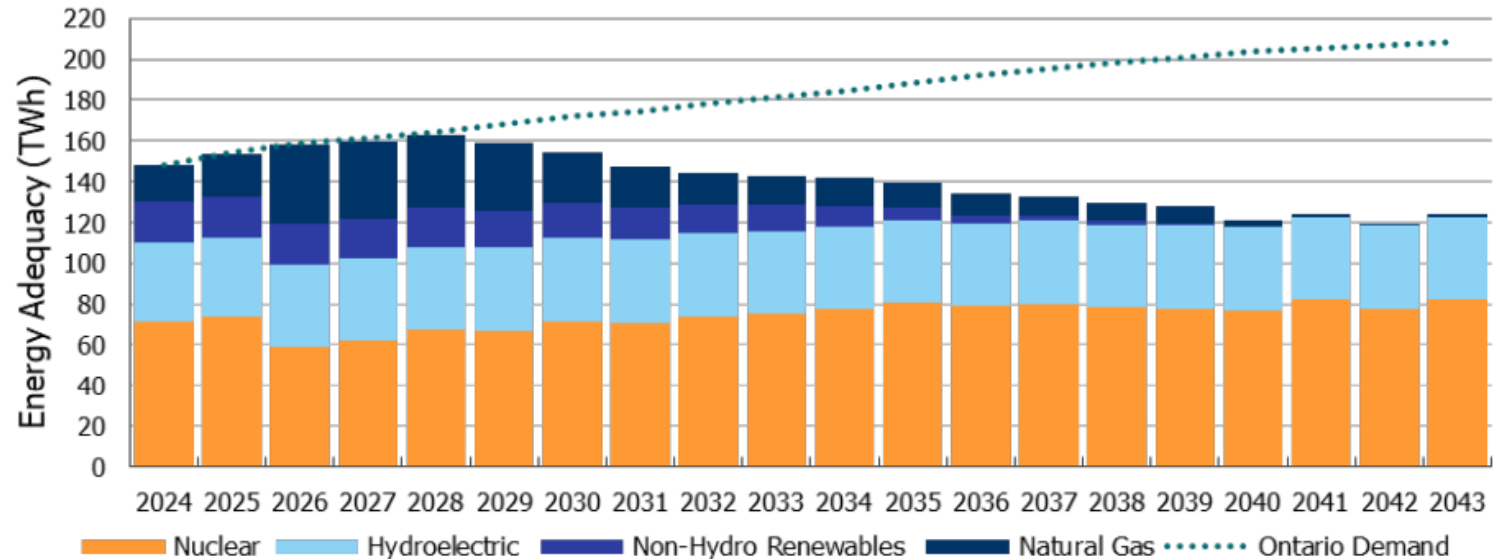
THE NEED FOR NEW STRATEGIES

Ontario is on the brink of an energy crisis

In their planning outlooks, the IESO predicts an energy and capacity shortfall as soon as 2026.

- Between 2025 and 2027, Ontario needs 4,000 MW of new supply
- The gap between demand and generation is expected to expand for 20 years
- Multiple storage projects have been awarded under the E-LT1 procurement and there will be an additional 1,600 MW worth of projects awarded under this LT1 procurement.

Figure 21 | Energy Adequacy Outlook (Case 1)

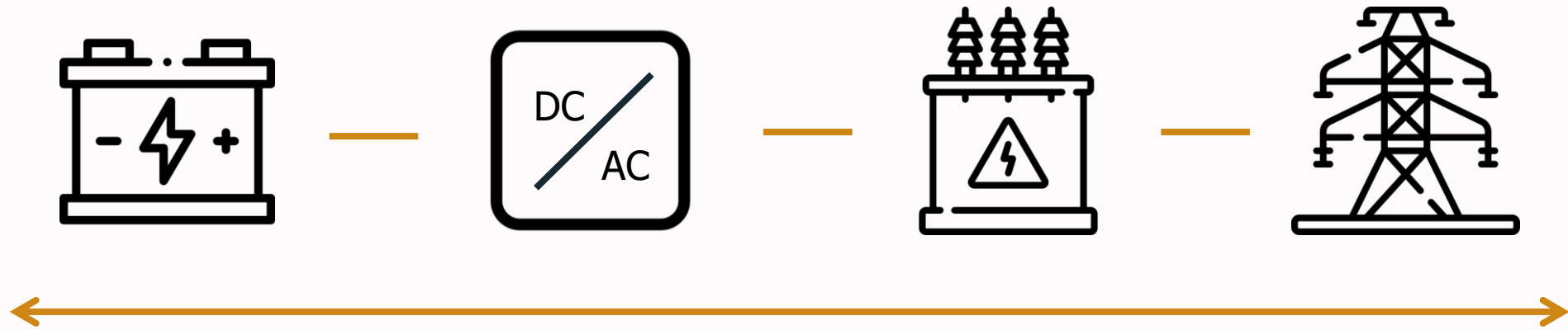


www.ieso.ca/en/Sector-Participants/Planning-and-Forecasting/Annual-Planning-Outlook



THE TECHY BITS

Here's how energy storage works



Flow of Power

Battery Energy Storage Systems (BESS), are power plants that enable energy from the electrical grid, to be stored and then released when customers need power most. Typically in Ontario, storage is charged during the night when nuclear base load and wind power is producing more energy than the demand. Lithium-ion batteries, which are used in mobile phones and electric cars, are currently the most-used storage technology for large scale energy storage projects.



THE TECHY BITS

Here's how energy storage looks



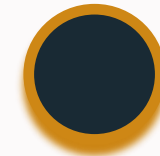
Construction

A site consists of containerized batteries, inverters, medium voltage transformers, gravel internal access roads, buried collector and communication cabling, a small transmission substation, potential garage and operations and maintenance building.



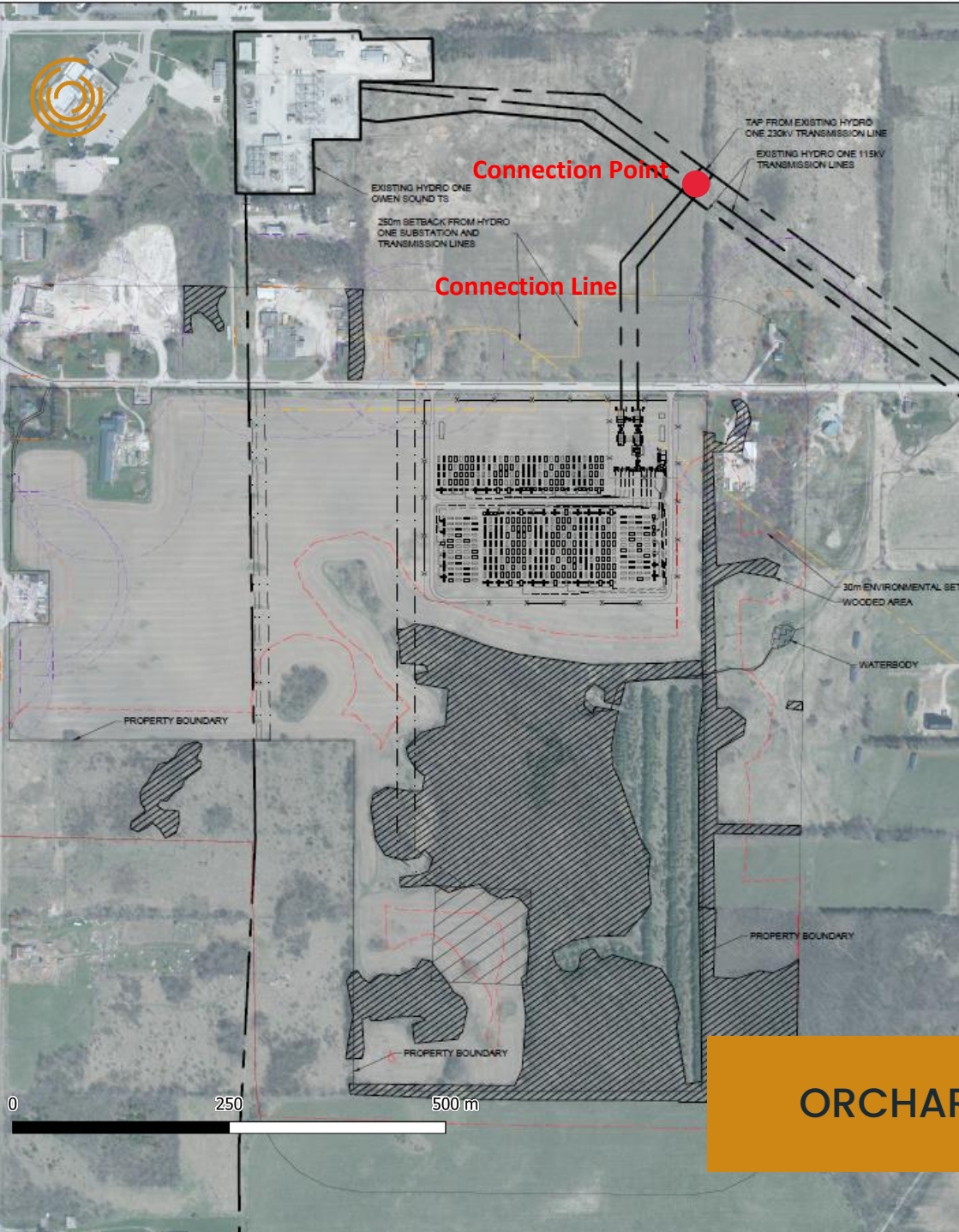
Containerization

Each 20 ft containers holds up to 6MWh of battery “stacks” connected with DC cables to a main protective device. Also included are communication cables, HVAC and fire safety equipment.



Fire Safety

Each container is equipped with fire alarms and detection as well as fire suppression. Battery management systems can monitor battery cell temperatures and allow for mitigation through disconnection and HVAC controls.



THE SOLUTION

Save it for a rainy day

This project is proposed to be a 100 MW battery energy storage system with 4 hours of capacity (400 MWh) connected to the 230kV transmission lines. It will sit on roughly 15 acres of land. Each charge of this battery can power 400 households for an entire month.

Location: Southeast Corner of Highway 6 and Superior Street

Why was this location chosen:

- Close to growing populous to provide power locally
- Close to distribution and major transmission lines for easy interconnection
- Land that is flat and cleared to cause no new environmental disruptions
- Long major roadway for ease of delivery during construction
- Limited residences affected and can be visually concealed

ORCHARD STORAGE



THE PERKS

Here's how your community can benefit



Grid Modernization for Greater Reliability



Conserving Fresh Water Resources



Emission Reduction



Supporting Community Growth

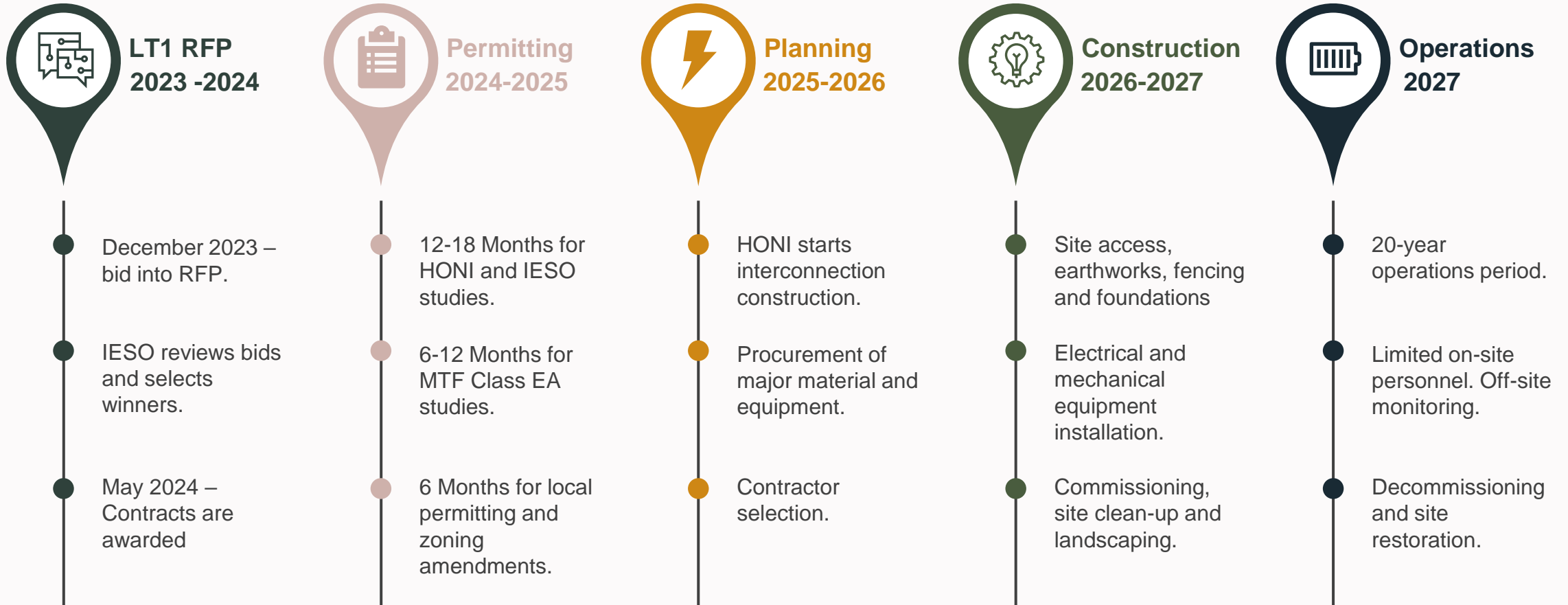


Economic Development



Project Timeline

NEXT STEPS





Questions?



MAILING ADDRESS

A-56 Mill Street East, Unit 183
Acton, Ontario
CANADA
L7J 1H3



OUR WEBSITE

<https://www.shiftsolar.ca/orchard-storage>



AVAILABILITY

Monday – Friday
8:00 – 5:00 PM EST



GET IN TOUCH

info@shiftsolar.ca