





Community Solar Garden Monthly Update

November 2023



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Project Information

Project Name	Mahone Bay Community Solar Gardens		
Owner Name	Town of Mahone Bay		
Project Address	918 Main Street		
Site Area (Acres)	~6 Acres		
System Size (AC / DC)	1.500MWac / 1.816MWdc		
Racking	PHLEGON® Fixed – 2P Continuous (GP Joule Product)		
Modules	LG440N2T-E6 (440Wp Bifacial)		
Inverters/Transformers	Sunny Highpower PEAK3 125-US		
Budget	On budget with contingency		



Summary of Last Few Months

All equipment was received on site and installed.







Redesigned pile system was completed.

Summary of Last Few Months



Roof installed over the inverters which help guard against the elements.





The back access road is completed, hydroseeded and gated.

2023-02-28

Summary of Last Few Months

The Mahone Bay Solar site is nearing the end of its commissioning process. Construction has been successfully completed, and our Owner's Engineer, Jordan Hoogendam, has conducted a thorough site inspection.



Jordan Hoogendam, P.Eng

President, Senior Engineer/Renewable Energy ZON Engineering Inc.

Overview

ZON is carefully reviewing the commissioning reports and providing a punch list to Goldbeck Solar. Goldbeck will address any remaining deficiencies to ensure the quality of their work meets the standards for Substantial Completion.

Once this milestone is achieved, the solar site will be fully operational. During the first few weeks of energizing, ZON will pay close attention to any potential issues requiring Goldbeck's attention before reaching the stage of Final Completion. We anticipate this final phase to be completed within the next couple of weeks.





Overview cont'd

Our Neighbours

AREA and STRUM Consulting continue to work together to address the challenges faced by our neighbors. Strum Consulting has completed a review of the Nowlan's property and created a design for the Sampson property. The Sampson's and Strum are in the final stages of completing the design requirements that will help to manage the water flow onto the property.

Grand Opening

The Open House in Mahone Bay is scheduled for December 11th from 5–8pm at the Fire Station on Hawthorne Street.

There will be a solar panel on site for demonstration and a photo montage to showcase the Town of Mahone Bay Community Solar Garden.



Construction Progress

Scope of Work	Total QTY to be Installed	Installed This Week	Installed To Date	Performed %
Site Trailer and Facilities	1		1	100%
Site Grading (Cut & Fill)	1		1.0	100%
Erosion Control	1		1.0	100%
Security Fence Installation	1		1.00	100%
Pile Installation	297		297	100%
Racking	258		258	100%
Modules	4,128		4,128	100%
PV Wire Pulling (per string)	10,668		10,668	100%
DC Combiner Mechanical Installation & Termination	10		10	100%
Underground Trench (DC)	491		491	100%
Pad for Inverter and AC Panel Board	1		1	100%
Transformer Vault and Pad	1		1	100%
Inverter Mechanical Installation & Termination	10		10	100%
Transformer Installation & Termination	1			100%
AC Panel board Installation & Termination	1			100%
SCADA and Weather Station Installation	1			100%
Substantial Completion	1			90%
Performance Test 1	1			90%
Performance Test 2	1			90%
Demobilization/Site Clean-up / Punch List	1			50%

Health, Safety and Environment

Safety

Days without Injury	Near Misses	First Aids	Recordable
353	0	0	0

Health & Environmental

Event	Date	Mitigation
0	N/A	N/A



Milestones Summary

	Contract Baseline	Scheduled App'd	Actual
LNTP Agreement	20-01-2022	20-01-2022	20-01-2022
EPC Agreement	18-07-2022	18-07-2022	18-07-2022
LNTP Milestone 1	23-03-2022	23-03-2022	23-03-2022
LNTP Milestone 2	07-04-2022	07-04-2022	07-04-2022
LNTP Milestone 3	04-07-2022	04-07-2022	04-07-2022
Mobilization	26-07-2022	26-07-2022	26-07-2022
Modules Delivery (Owner Supplied)	21-09-2022	16-09-2022	16-09-2022
Inverters Delivery (Owner Supplied)	16-09-2022	16-09-2022	16-09-2022
Foundation Delivery	14-09-2022	14-09-2022	21-09-2022
Racking Delivery	30-09-2022	30-09-2022	14-11-2022
Transformer Delivery	28-03-2023	30-05-2023	4 -10-2023
AC Panel Board Delivery	09-05-2023	31-08-2023	15-08-2023
Substantial Performance	25-05-2023	06-09-2023	TBD
Final Completion	22-06-2023	04-08-2023	TBD



Upcoming Activities

- Deficiency List
- Substantial Completion
- Energizing
- Final Completion
- Open House



MEU Modernization Project

Updates





GOAL

To develop and enter into an inter-municipal service agreement (IMSA) to modernize/amalgamate the operations of the Municipal Electric Utilities owned by the Town of Mahone Bay, the Town of Berwick, and the Riverport Electric Light Commission.



TIMELINE

Fall 2023 Spring 2023 Spring 2024 Advertise for Utility Director Aaron Long presented to Sign IMSA ٠ ٠ Negotiate and draft councils/commissions Implement operational AREA/RELC Utility Service efficiencies identified in Meg Hodges hired . Agreement Applied for MIP funding process mapping Sign MEU MOU **Winter 2024 Summer 2023** Hire Utility Director ٠ RFP released for Develop IMSA • recruitment firm Finalize process mapping MOU development Dispatch low hanging ٠ MEU Recharge Retreat fruit

TOP PRIORITY, IN LINE WITH SCHEDULE: Utility Director

- Succession planning for Don Regan
- Given the limited size and budgetary constraints of the MEUs and the recent labour shortage in Nova Scotia, it will be nearly impossible for each organization to individually attract someone of Don's stature and experience.
- Pooling resources is the only way to attract a qualified professional to the role who possesses the expertise to navigate the complexities of the energy sector and drive modernization efforts.
- Significant annual cost savings to share the Utility Director



Utility Director Role

Operational requirements of each MEU with guidance and documentation from Don Regan.

Steady state functions.

Reviewing process mapping – not conducting it but providing input and insight into operations.

Process mapping is not required to conclude before hiring a utility director.



Shared Utility Director

- RFP for Recruitment firm closed September 1, 2023
- Selected KBRS as the firm
- Currently drafting job description and executive brief
- Job posting to be released in November



Recommended Motion #1

That Town Council authorize the hiring of a Utility Director







The purpose of the MOU is to guide the development of the IMSA by focusing on the:

- Reporting structure and dispatch of the hired shared utility director during the Term of this MOU.
- Process mapping.
- Determining the optimal timing of studies ordered by the Nova Scotia Utility and Review Board (UARB) in recent General Rate Application decisions.
- An IMSA to govern collaboration after the Term of this MOU.
- Time tracking of each Party's in-kind resources.
- Council/Commission and staff engagement.



IMSA

The IMSA will outline and govern the:

- Costing structure and funding formula of the IMSA.
- Reporting structure of the IMSA.
- Joint dispatch, and entity of employment, of the utility director.
- Integration of Automatic Metering Infrastructure.
- Update billing software.
- Asset management for improved utility infrastructure.
- Procurement.
- Managing easements.
- Staff rationalization for optimized operations.
- Storm preparedness planning, coordination, and response.
- Insurance.
- Occupational health and safety measures for utility personnel.
- UARB ordered studies.



Process Mapping

To be conducted by Meg Hodges

- Methodical examination of all MEU activities
- Identify "low-hanging fruit"
- Dispatch "low-hanging fruit" with utility director
- Develop IMSA



Regular Project Reporting

Working group meeting monthly with at least two members of each MEU group and AREA. Quarterly update reports to council and commissions.

Utility director to liaise with CAO's and RELC Chair as needed.





The budget remains intact for this project.

There is a nuance to the spending and final reporting to ensure we appropriately allocate all the costs during the project.

The development and adoption of the IMSA (or suite of contracts) and hiring of the Utility Director will happen ahead of the UARB ordered studies to receive the complete funding allocation.









Recommended Motions:

1) That Town Council authorize the hiring of a Utility Director



