



TOWN OF LA POINTE

MADELINE ISLAND

240 Big Bay Road
PO Box 270
LA POINTE, WI 54850
715-747-6913

Request for Proposal

38kW Ground-mounted Solar Photovoltaic Array plus 30kW/60kWh Battery Energy Storage Microgrid at Emergency Services Building, Town of La Pointe, Madeline Island, WI

Summary:

The Town of La Pointe, WI, is requesting proposals to install 38 kW DC of solar photovoltaic, plus a 30kW/60kWh battery storage system, at its Emergency Services Building (ESB) at 320 Big Bay Road (on Madeline Island).

Timeline:

The anticipated schedule for this request:

- RFP published: Wednesday Nov. 15, 2023
- Initial deadline for responses: Monday Jan. 8, 2024, 4:00 p.m. Central Time
- Town Board opens responses: Tuesday Jan. 9, 2024, 4:45 p.m. Central Time

Responses will be reviewed by staff and by the Town's Energy Committee, which will make a recommendation to the Town Board. The Town Board reserves the right to reject any and all proposals.

Response requirements:

Responses should be delivered by the Jan. 8 deadline to:

Town of La Pointe
PO Box 270
240 Big Bay Road
La Pointe, WI 54850

Responses will be accepted at the above address between 8 a.m. and 4 p.m. Central Time, Monday through Friday, excluding holidays observed by the Town. Developers should be aware that delivery to the Island may be affected by ferry schedules and other conditions beyond the Town's control.

Responses can also be submitted in PDF format by email to: clerk@townoflapointewi.gov. (Please copy Bill Bailey at billebailey2@gmail.com.)

Project Description:

The solar modules will be ground-mounted and grid-tied to Xcel Energy. The solar modules must be bifacial, ground-mounted and adjustable to at least a 35- to 40-degree tilt angle. The lower edge of the modules must have a ground clearance of 4 feet to accommodate snow shedding. The modules must be Tier 1 and on the

[California Energy Commission Solar Equipment List](#). The modules must also comply with EIGP Buy American requirements. The selected modules must have a total capacity near 38kW, but not over 39kW.

The solar system design must use a Sol-Ark 30k-3P-208V Hybrid Inverter (see Appendix C). The Emergency Services Building is 3-phase 208 volts with 400-amp service.

The system must include a Battery Energy Storage System (BESS) that is compatible with the Sol-Ark Inverter, be 30kW, and a 2-hour battery of at least 60 kWh. Sol-Ark lists several suppliers that produce compatible batteries; it will produce its own battery in coming months. The BESS and Sol-Ark Inverter will be placed inside the ESB, as determined from the Floor Plan in Appendix A.

The Sol-Ark Hybrid Inverter will also integrate with the existing Generac backup propane generator; tie-in should be included in your bid.

A site plan is included in Appendix B, which shows the proposed location of the solar array.

The project is contingent upon the Town receiving an award through the 2023 round of the state's Energy Innovation Grant Program (EIGP). The Town intends to submit an application in early 2024, with awards announced in spring 2024. This RFP will assist with firm cost estimates for the grant application and in selecting a contractor once a grant is awarded. It is anticipated that contracts with the selected contractor would be signed in May 2024. EIGP details are expected to be released on November 30, 2023; updated information can be found at the [Wisconsin Public Service Commission website](#).

To schedule a site visit or request more information to complete this RFP, please email Ray Hakola, facilities manager for the Town of La Pointe: facilities@townoflapointewi.gov. The Town is receiving technical support from Bill Bailey of Cheq Bay Renewables; he can be reached at billebailey2@gmail.com or 715-209-2218.

The EIGP includes Buy American and Davis-Bacon (Federal Prevailing Wage) provisions. Documentation of the Buy American requirement comes from the manufacturer. Sol-Ark is Buy American compliant and can provide the necessary documentation. The selected BESS, solar modules, and racking also must comply; it will be the responsibility of the successful bidder to supply documentation from their suppliers. Further information about these requirements can be found on the [Wisconsin Office of Energy Innovation website](#).

Please provide the following in your proposal:

1. Engineering design and quote for 38kW DC bifacial, ground-mount solar system including Sol-Ark 30kW-3P-208 Hybrid Inverter, compatible 30kW 2-hour BESS, and integration of existing backup generator.
2. Specifications and warranty information on equipment, including BESS, solar modules and racking system.
3. Your workmanship warranty (minimum 2 years; 5 years preferred).
4. Cost of Xcel interconnection fees, state inspection, and any required permits.
5. Your preferred terms of payment.
6. Estimated timeline, with construction starting after an EIGP signed contract (which is anticipated in fall 2024) and completion no later than October 2025.
7. Your price protection strategy (signed contracts will be approximately 6 months out; implementation will begin a minimum of 9 months out). Options might include a contingency line item, negotiation of cost adjustments during the contract phase, or written supplier guarantees.
8. At least three references (with contact information) from previous, similar-sized projects.

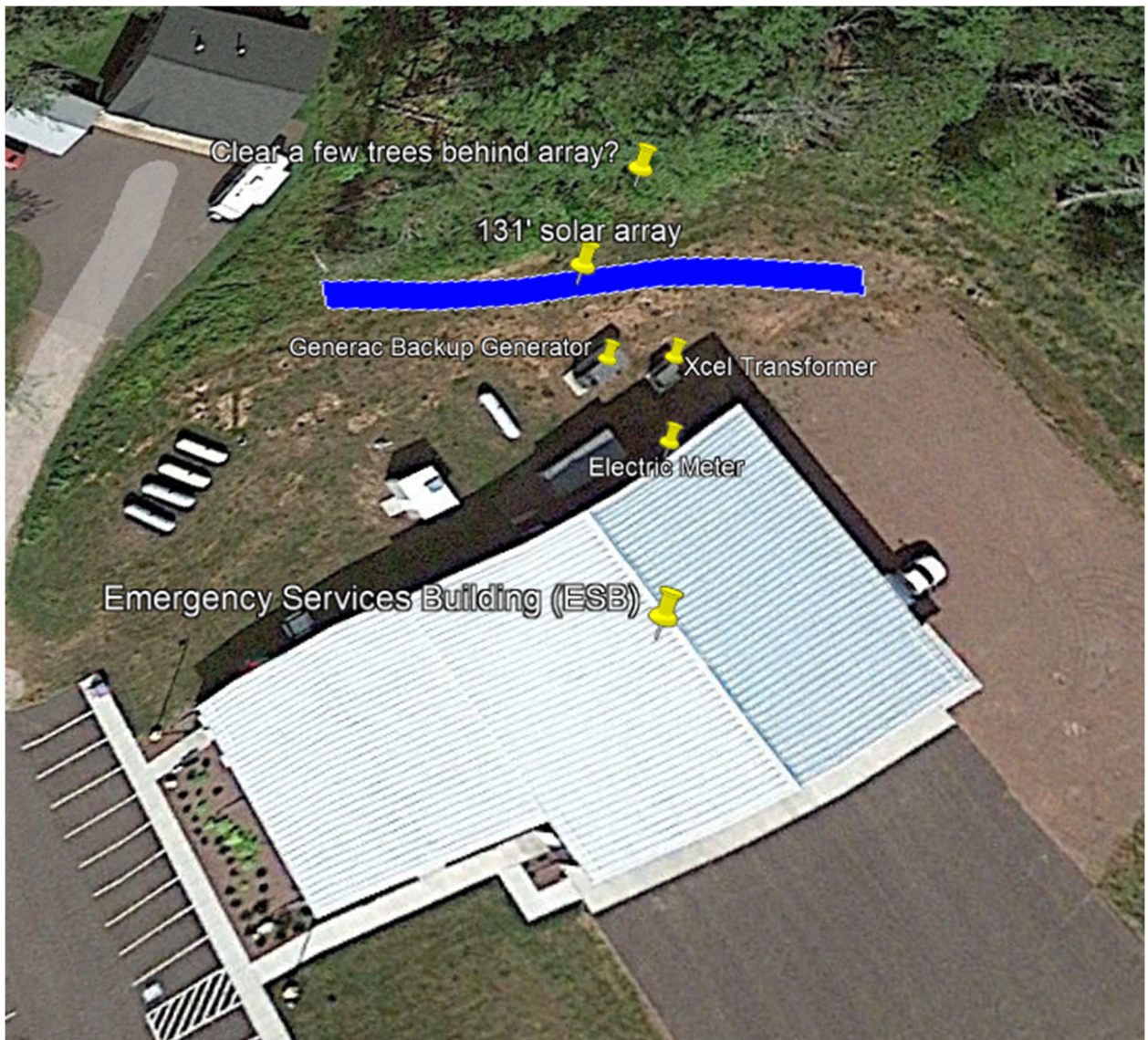
Other requirements:

- A certificate of insurance will be required from the successful bidder, with the Town of La Pointe named as an additional insured.
- The PV + BESS system must meet or exceed all relevant building, electrical and fire codes.
- The successful bidder must be a Wisconsin Focus on Energy Trade Ally and fulfill Focus on Energy requirements so the Town of La Pointe can seek funding through the prescriptive incentive program.
- Successful bidder will need to complete and submit the interconnection application with Xcel Energy and:
 - Coordinate with Town of La Pointe staff or other project team members when completing the interconnection application forms
 - Be available to answer questions, provide additional information, and successfully work with Xcel Energy
 - Attend Xcel's interconnection testing and/or commissioning of the system if requested
 - Provide other standard procedures as needed for successful installation, commissioning, and operation of the system
 - Return the site to as near to original condition as possible

Appendices:

A. Floor Plan

B. Site Map



C. Sol-Ark 30kW-3P-208V Hybrid Inverter Spec Sheet



Solar Input Power 39,000W	
Max Allowed PV Power	39,000W
Max PV Power Delivered to Battery & AC Outputs	30,000W
Max DC Voltage (Voc)	500V @ 36A
MPPT Voltage Range	170-500V
Starting Voltage	150V
Number of MPPT	4
Max Solar Strings Per MPPT	2
Max DC Current per MPPT (Self Limiting)	36A
Max AC Coupled Input into GEN terminal (Micro / String Inverters)	54kW w/ no PV _{DC} ** 30kVA w/ 39kW PV _{DC}

AC Output Power 30kW On-Grid & Off-Grid	
Connections	120V / 208V Three Phase
Continuous AC Power with PV	30,000W 83.4A (208V)
Continuous AC Power from Batteries	30,000W 83.4A (208V)
Surge AC Power 7 sec	45,000VA 125A (208V)
Parallel Stacking	Yes—Up to 12*
Frequency	60/50Hz
Continuous AC Power with Grid or Generator	72,000W 200A L-L (208V)
CEC Efficiency	96.5% (Peak 97.5%)
Idle Consumption Typical—No Load	60W
Sell Back Power Modes	Limited to Household/Fully Grid-Tied
Design (DC to AC)	Transformerless DC
Response Time (Grid-Tied to Off-Grid)	5ms
Power Factor	+/- 0.8 - 1.0

Battery (optional) Output Power 30,000W	
Type Number of Inputs	Li-Ion 2 Inputs
Nominal DC Input	> 300V
Capacity	50 — 9900Ah
Voltage Range	150V—500V
Continuous Battery Charging Output	100A (50A per Input)
Charging Curve	3-Stage w/ Equalization
Grid to Batt Charging Efficiency	96.0%
Battery Fuse	Integrated
Current Shunt for Accurate % SOC	Integrated
External Gen Start Based on Voltage or %SOC	Integrated
REQUIRED Communication to Lithium Battery**	CanBus & RS485

General	
Dimensions (H x W x D)	35.2" x 20.8" x 11.6"
Weight	172 lbs
Enclosure	IP65 / NEMA 3R
Ambient Temperature	-40~60°C, >45°C Derating
Installation Style	Wall-Mounted
Wi-Fi & LAN Communication	Included
Standard Warranty (verified by HALT Testing)	10 years

Protections & Certifications	
Electronics Certified Safety by TÜV Rheinland to NEC & UL Specs	Yes
This Grid support Interactive Inverter complies with UL 1741-2021 (incl UL1741SB), CSA C22.2 No 107.1-16, IEEE 1547-2018 & 1547a-2020 & 1547.1-2020 (SRD V2.0), UL1699B Arc-Fault Circuit-protection Type 1.	Yes
PV DC Disconnect Switch — NEC 240.15	Integrated
Ground Fault Detection — NEC 690.5	Integrated
PV Rapid Shutdown Control — NEC 690.12	Integrated
PV Arc Fault Detection — NEC 690.11	Integrated
PV Input Lightning Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
Surge Protection	DC Type II / AC Type II

*Pending. Please contact Sol-Ark before designing or installing a parallel system.