

MARCH 15, 2021

Town of Nantucket Municipal Solar Procurement Overview



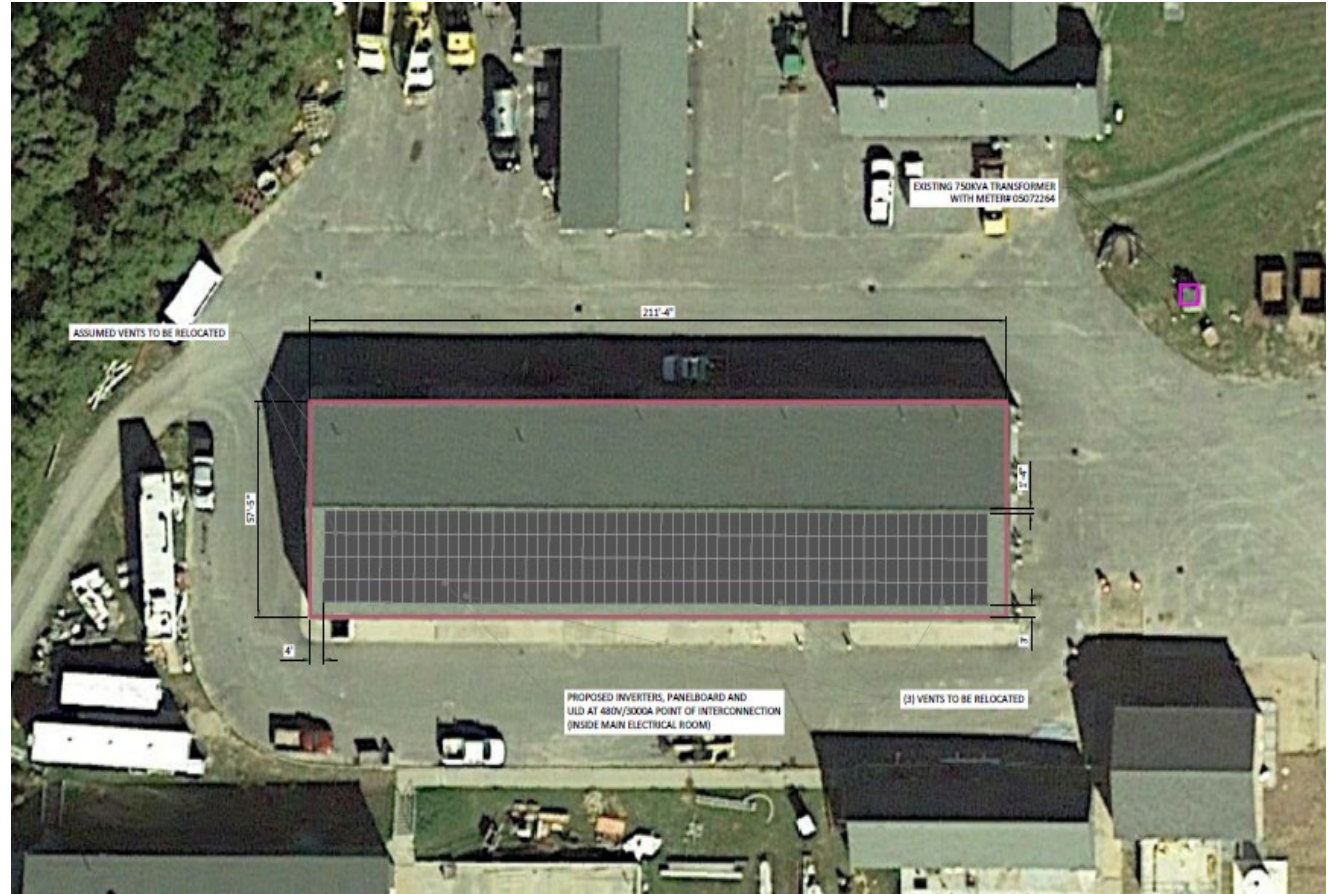
Seth Sakamoto
SunPower Project Developer

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SURFSIDE WWTP SOLAR PROJECT

Project Details & Economic Benefits

Solar Project Details	
System Size	103.84 kW DC
Expected Production	148,894 kWh
% Electricity Offset (kWh)	5.7%
Solar Module Type	SunPower A440
Historic District Commission	Approved
Project Completion Date (Estimated)	Fall 2021
MA DEP Grant	\$200,000
Purchase Price (after MA DEP Grant)	\$59,111
Year 1 Savings	\$28,911
Total 25 Year Savings	\$770,588
Payback Period	2 Years



WANNACOMET WATER COMPANY: WYER'S VALLEY SOLAR PROJECT

Project Details & Economic Benefits

Solar Project Details	
System Size	4.7 MW DC
Product Type	Ground Fixed Tilt
Solar Module Type	SunPower E435
Energy Storage	Tesla (1.265 MW/2.529 MWH)
Historic District Commission	Approved
Project Start Date (Estimated)	Q4 2021
Project Completion Date (Estimated)	Q3 2022
Wannacomet Water Energy Savings (Year 1)	\$164,000
Energy Savings for Other Municipal Accts (Year 1)	\$91,475
Tax Revenue (PILOT) (Year 1)	\$37,265
Year 1 Savings	\$292,740
Total 20 Year Savings	\$5,756,389



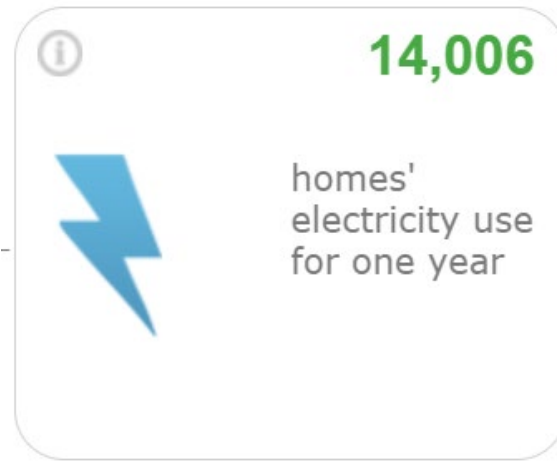
Project Benefits: Sustainability & Resiliency

- **Reduce** dependence on **imported power** from the mainland
- Improve **local grid reliability and resiliency** in the heart of the island (optimal interconnection location)
- “Solar + Storage” to **reduce summer peak-load** to defer the need for costly/disruptive third-undersea delivery cable
- Project will generate **46% of the Town’s annual kWh consumption and 117 million kWh of clean energy over 20 years.**
- Offset **4,230 metric tons of greenhouse gas emissions**, helping to reduce island’s carbon footprint and mitigate the harmful effects of climate change and elevated sea levels.

Greenhouse Gas Emissions



CO2 Emissions



Carbon Sequestration



Project Milestones- Wannacomet Water

Items completed in 2020:

Local Approvals:

- ✓ Procurement Award
- ✓ HDC Approval
- ✓ Select Board Approval
- ✓ Water Company Approval
- ✓ Contract Execution

Items to be completed in 2021:

State Approvals:

- ☐ Natural Heritage Endangered Species Program (NHESP)
- ☐ MA Environmental Policy Act (MEPA)
- ☐ MA Department of Env. Protection (MassDEP)

National Grid:

- ☐ Interconnection
- ☐ SMART Incentives

Expected Start of Construction: Q4 2021

Expected Commercial Operation: Q3 2022



Next Steps

SunPower is working with the Town and the Water Company to manage and mitigate the following key risks to the project:

Environmental Impact

- NHESP determined in late Dec 2020 that the project will result in a “Take”, requiring mitigation
- A Town owned property at 211 Cliff Rd has been identified as the parcel which will provide require mitigation
- SunPower/Town/Water Company/NHESP collaborating to finalize the Conservation Management Permit for 211 Cliff Rd.

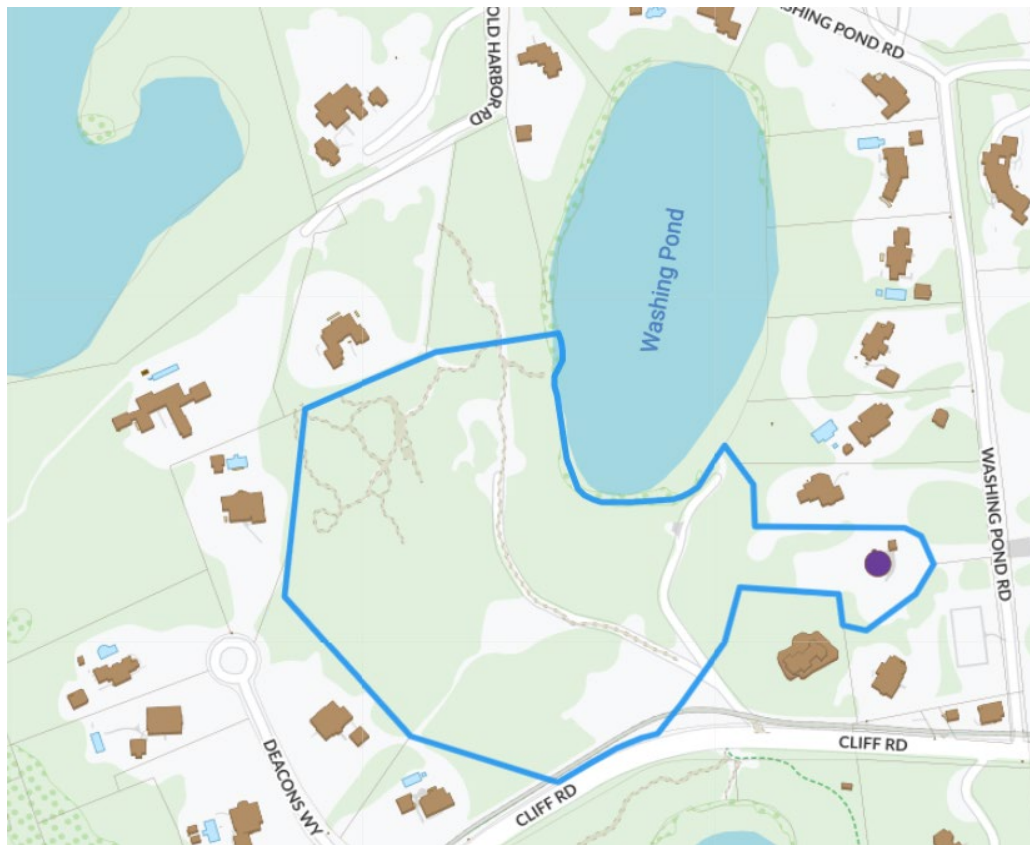
Module Toxicity

- SunPower is working with a MassDEP accredited testing laboratory to test the solar modules to be used for the project for hazardous materials including PFAS

Utility Interconnection

- National Grid is continuing to evaluate the impact of the project on the local distribution and transmission system to determine if any grid upgrades would be required

211 Cliff Rd. Vicinity Map



Additional Project Information

www.nantucket-ma.gov/solarfarm (Listed under the Wannacomet Water Company Department)

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THANK YOU

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our world is powered

