Wawayanda Town Hall

Solar Case Study

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Town Supervisor

Motivation & Objectives
Reduce Town electricity bills & save taxpayer money.

Photo credit: Carla Castillo

Project Development Structure

- Site: Solar array behind Town Hall
- Size: 2.6 acres, 660 kW-DC
- Annual energy production: 547,341.29 kWh
- Cost:
  - N/A, 100% of project cost carried by developer
  - Town will save $750,000 in electricity bills over 10 years
- Power Purchase Agreement
  - Starting at $0.101 kw

Development Process & Timeline

- Data gathering & analysis: Energy audits, September 2015. Based on town electricity usage, 660 kW solar system needed to offset 100% of municipal electricity usage
- Site: Town Hall. Visible to residents & proximate to 3-phase
- Approval 7/8/15
- Construction 3/2018
- Activation: 9/23/2018

Challenges

- Many changes in project managers (12!)
- O&R: High cost estimate for interconnection & system upgrades resulted in higher price negotiated by developer for electricity

Background: Municipal Policy

Solar zoning law

- Town was targeted by solar developers before solar zoning law enacted, previously had permissive zoning
- Fall 2016, first law enacted
- Spring 2018 update to law
  - Lot size: Capped large scale solar systems at 40 acres
- Large scale systems defined as ground-mounted, producing energy primarily for off-site consumption
- Special Use Permit required for large scale solar systems
- Allowed in all zoning districts; minimum 75 foot front yard and 50 foot side and rear yard setbacks; maximum height 15 ft.; 50% maximum lot coverage; screening & fence requirements, decommissioning plan; etc.

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Timeline

Energy Audits	September 2015
Contract with developer	
CESIR Study (performed by O&R) • Coordinated Electrical System Interconnection Review	Original Submission June 2016 CESIR Finalized May 2017
SEQRA	N/A
Construction Began	March 2018
Construction Completed	Auguust 2018
Solar System Activated	September 2018

Other system specifications

Solar Panels	• Number of modules: 1,428 • Output rating: 310w • Manufacturer: TRINA SOLAR • Warranty: Tesla is the warranty owner
Inverters	• Number of inverters: 14 • Output: 2,4000W,480VAC • Manufacturer: Fronius • Warranty: Tesla is the warranty owner
Developer	• Solar City → Tesla