

Orange County Solar

Solar Case Study

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Motivation & Objectives

Orange County, as the first Climate Smart Certified (CSC) County, is making sustainability efforts to decrease our carbon footprint.



Photo credit: Brendan Casey

EMERGENCY SERVICES CENTER

Project Development Structure

- Offsets 40% of Emergency Service Center and Fire Training facilities' electricity
- No cost to build or maintain except for mowing (approximately \$6,000/yr)
- Site: Approximately 23 sloping acres
- Size: 1.7 MW-DC. 7K panels on three fields
- Annual energy production: 1,7000,000 kWh (145 KWh/month)
- Cost: PPA with Solar City (now Tesla)
- Timeline: Commenced in 2014 --> Operational June 2017

Challenges

- Obstacles connecting system (interconnection)
- Fire (summer '17) took the system offline for a month.
- Transformer died so system down for a month in summer '18
- Hindsight/new leadership would have negotiated contract differently to realize greater savings to taxpayers



Hudson Valley Regional Council

Navigating Large-Scale Solar in Your Community —
Municipal Solar Tour 2018

Orange County



ORANGE COUNTY COMMUNITY COLLEGE

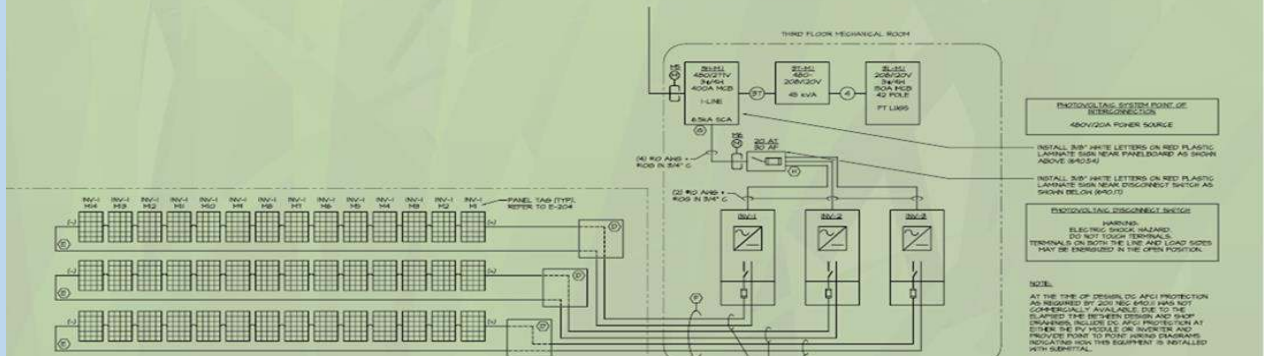
Newburgh Kaplan Hall

- 15 KW - offsets building electric consumption (about 2% of total demand)
- Costs were not available as price was built into total project

Middletown Rowley Center

- 10.5 KW - offsets building electric consumption
- Costs were not available as price was built into total project
- Educational kiosk in lobby demonstrating solar production (see below graphic)

On-Site Renewable Energy - Photovoltaic panels mounted on the roof are capable of converting solar radiation to 10.5 kilowatts of usable electricity for the building. The interactive touch screen to the left displays the real-time energy production of the photovoltaic panels.



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