



EAU CLAIRE, WI

Solar Project Portal Webinar: Site Assessments for Local Governments

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Moonshot Goals

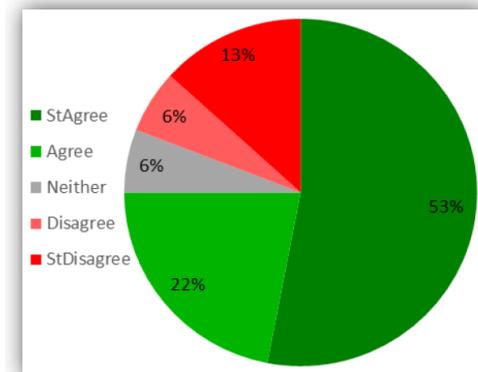
Paris Agreement



Local Action

By 2050
Carbon Neutrality +
100% Renewable Energy

The City of Eau Claire should set a **community-wide** goal to reduce greenhouse gases.



Growing the Solar Market



Multiple Award Winners

Recognized in Two Categories

- ✓ Adams County, CO
- ✓ Chicago, IL
- ✓ Jefferson County, CO
- ✓ Kansas City, MO
- ✓ Linn County, IA
- ✓ Pima County, AZ
- ✓ Plano, TX
- ✓ San Carlos, CA
- ✓ Saratoga Springs, NY
- ✓ Somerville, MA
- ✓ Ypsilanti, MI

Recognized in Three Categories

- ✓ Columbia, MO
- ✓ Eau Claire, WI
- ✓ Minneapolis, MN
- ✓ Sacramento, CA
- ✓ Santa Monica, CA
- ✓ Washington, DC

Recognized in Four Categories

- ✓ Lafayette, CO
- ✓ New York City, NY
- ✓ Sonoma County, CA

Five Time Winner

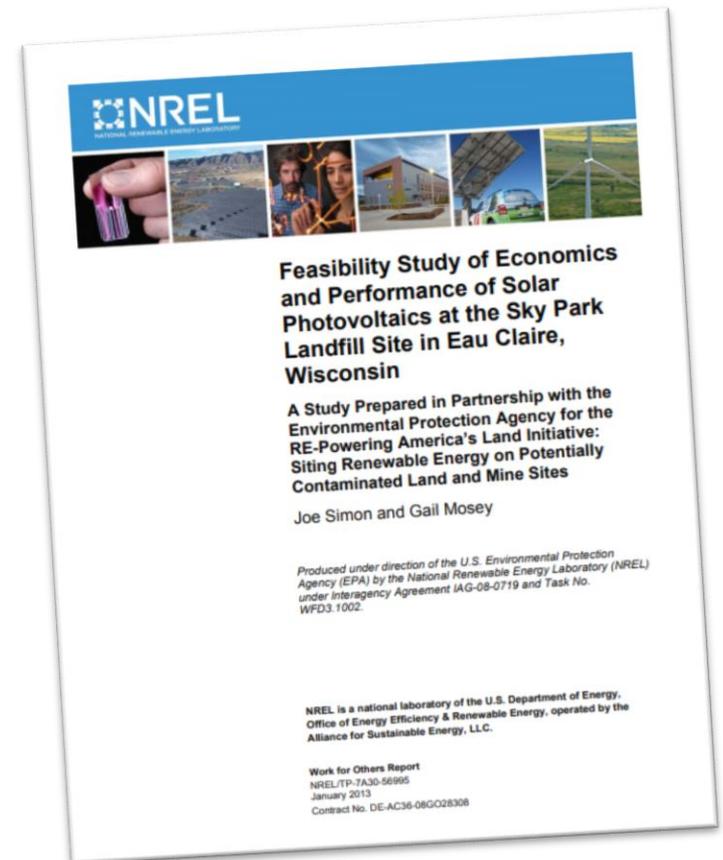
- ✓ San Antonio, TX



Community Solar

**EPA's RE-Powering
America's Land Initiative**

**NREL Site Assessment @
closed City Landfill**



Community Solar

Xcel Energy's MW array



Photo credit: PJ Nelson

Public Swimming Pool



Municipal Solar

- Went out for Request for Quotes
- Leveraged NREL solar trainings and guidance on Request for Quote
- <https://www.nrel.gov/state-local-tribal/local-governments.html>
- 12 site feasibility study; total 1.5 MW of potential
- Sized according to utility data, peak demand and retail return, etc.

Economic Model	Owned Project (with and without Focus on Energy - FOE renewable incentives) ¹	Co-Owned Project (10-15% share City owned with future option to own all)	Hosting 3rd Party PPA (leverage ITC with future option to own all outright)
Sites to Evaluate	<i>Run for all sites</i>	<i>Use judgement</i>	<i>Use judgement</i>
City Role	Purchase project	Lease land to developer, provide some capital	Purchase power from system, lease land to developer

Water Treatment Plant

Sizing Arrays

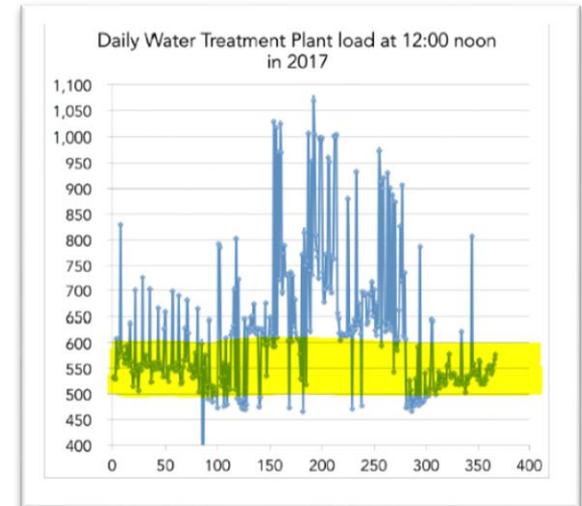
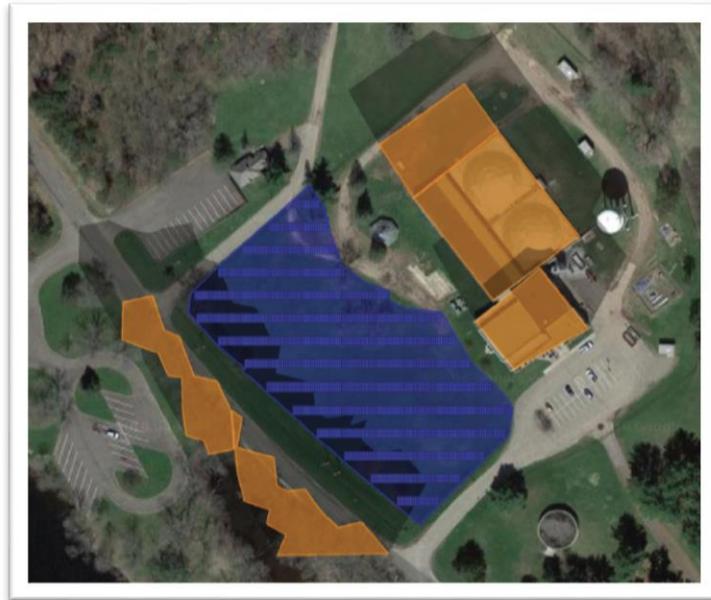
Utility Bills

Peak Demand

Service Location

Site Constraints

Payback



Annual electricity use (kWh/year)	5,791,300 (2015 – 2017 data)
Xcel electric rate current	Large General TOD
Xcel electric rate after solar installation	Large General TOD
Recommended site options for array	Open ground areas around the plant (with tree removal), or Currently forested areas near plant
Maximum system size (kW dc)	600
Array size rationale/limitation	From 10 am to 2 pm the site's 15-minute demand baseline is ~500 kW ac or 600 kW dc

Outcomes

- Decided on direct ownership of arrays
- Appropriated over \$1.5 ml in Capital Improvement Plan
- Upcoming RFP in 2019 for project(s)
- Seek renewable energy grants (Focus on Energy)
- Reviewing storage batteries at Water Treatment Plant for resiliency
- Rely on experts in the field like NREL and EPA!