

BUTTER SOLAR PORTFOLIO

Solar in St. Charles and the model that made it possible

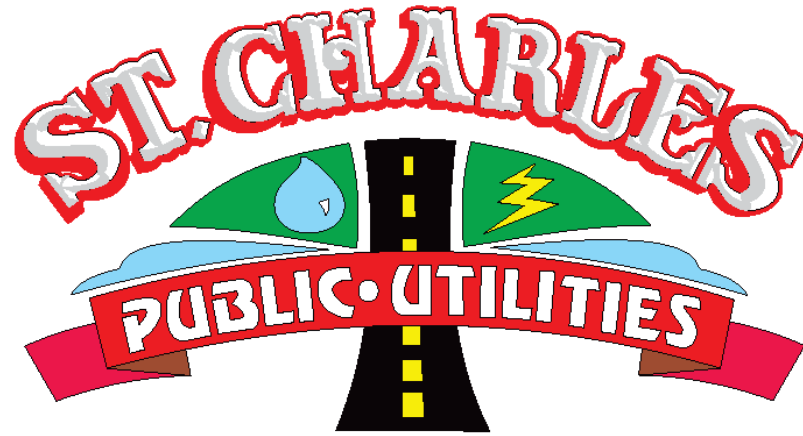
Monday, October 7, 2019

St. Charles, MN | 2:00-4:30pm





Welcome to St. Charles



Proud to Serve!

- Services provided to the community
- Utility investments

Partnering Together

- UMMEG (Upper Midwest Municipal Energy Group).
 - 16 Municipals in Wisconsin, Iowa, and Minnesota
- Organic Valley, OneEnergy Renewables, BluEarth Renewables
- Landowners and Neighbors

The Role of UMMEG

- Project Size—22.6 MW
- 13 partnering UMMEG members translated into 10 projects
- St. Charles role and responsibility
 - 2MW (AC) expected to produce 3,552,000 kWh

Benefits of Solar to UMMEG/St. Charles

- Minimal investment
- Fixed cost of a 25 year PPA
- Capacity Value
- Behind the meter avoided costs



OneEnergy
RENEWABLES



St. Charles MN.

**Powering
the Good™**

About One Energy Renewables

- OneEnergy Renewables is an independent developer of utility and community-scale energy projects across North America
 - 120+ MW (26 projects) in service with another 10MW under construction
 - 13 projects operating or under construction in the upper Midwest
- [Certified B Corp](#), meeting rigorous standards of social and environmental performance, accountability and transparency
- Active throughout the country with offices in Madison, Seattle, Portland, and Maryland

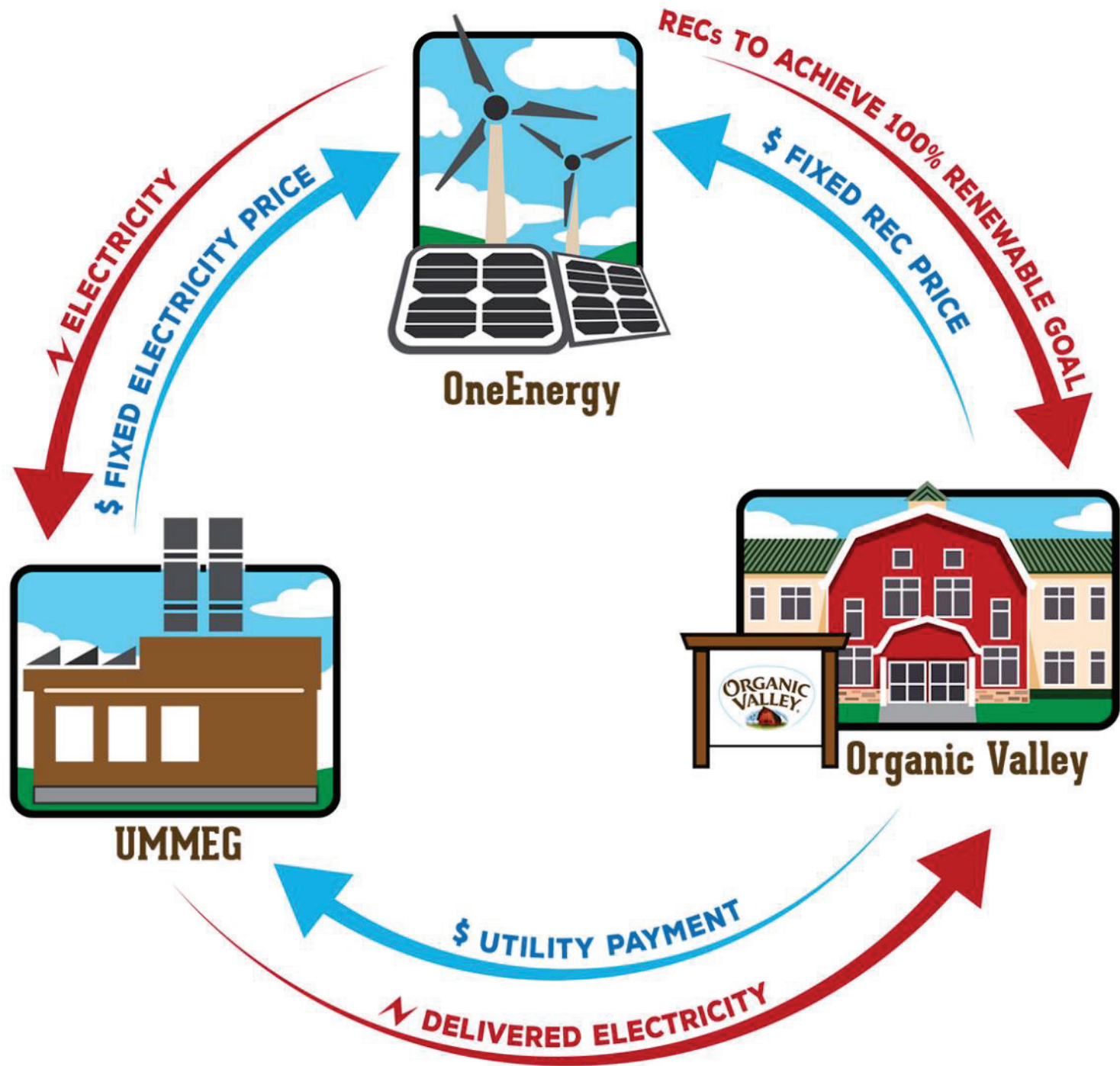




CROPP COOPERATIVE

organic and farmer-owned since 1988



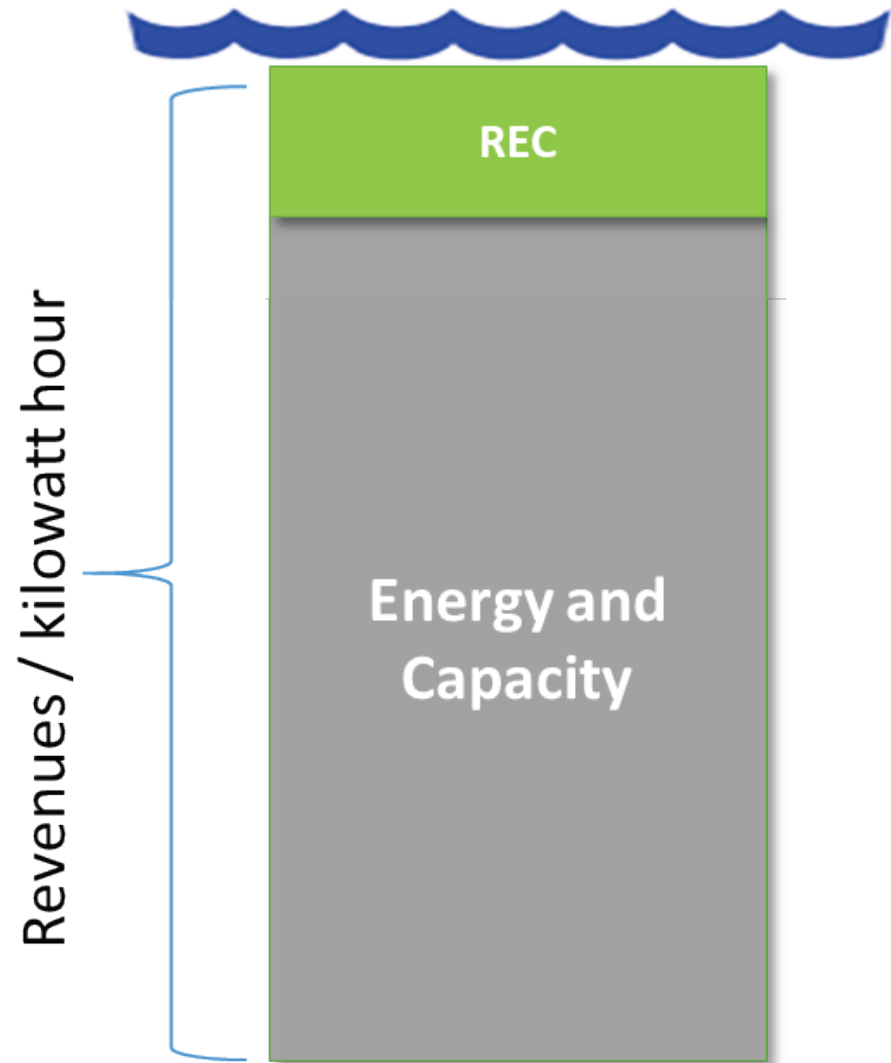


Revenue Structure

Long-term Renewable Energy Credit contract with Organic Valley

Long-term Power Purchase Agreement with local utilities for Energy & Capacity

In theory, this model is replicable anywhere, but most powerful in regulated markets without strong state incentives or specific programs promoting community solar



WPR NEWS



Photo courtesy of Organic Valley

Organic Valley Helps Bring Solar Energy To Southwestern Wisconsin

50 Acres Of Solar Projects Planned Through Partnership With Municipal Utilities, Solar Company

By Hope Kirwan

Published: Monday, November 6, 2017, 1:00pm



INSIGHTS Blog Electricity Organic Valley Goes 100% Renewable through Community Solar

Shares






Organic Valley Goes 100% Renewable through Community Solar

November 8, 2017 | By Laurie Stone

Almost 30 years ago, seven organic farmers from the U.S. Midwest, unhappy with the state of American agriculture, decided to band together and form a cooperative to continue farming sustainably. Today, the [Organic Valley](#) agricultural cooperative, headquartered in La Farge, Wisconsin, is made up of over 2,000 farmers in 36 states. And the cooperative just became part of a unique community-solar partnership that will allow it to become the largest food company in the world to source 100 percent of its electricity from renewable energy.

Organic Valley is a founding member of the [Climate Collaborative](#), a group of 133 natural and organic food companies committed to reversing climate change. At the

10/24/2017

Other Ways to Maintain Economics

A large-scale solar farm is shown, with rows of photovoltaic panels installed on a hillside. The panels are arranged in neat, parallel lines, extending into the distance. The ground is covered with dry, brown grass, suggesting a late autumn or winter setting. The sky is bright blue with scattered white clouds. The overall scene conveys a sense of clean energy and sustainable development.

Build 10 projects as part of single construction mobilization

- Procure all materials together for 32+ MW portfolio
- Single financing counterparty
- USDA Loan



Arcadia, WI – 7.5MWdc
Cashton, WI – 2.6MWdc
St Charles, MN – 2.6MWdc
La Farge, Viola, Merrilan WI



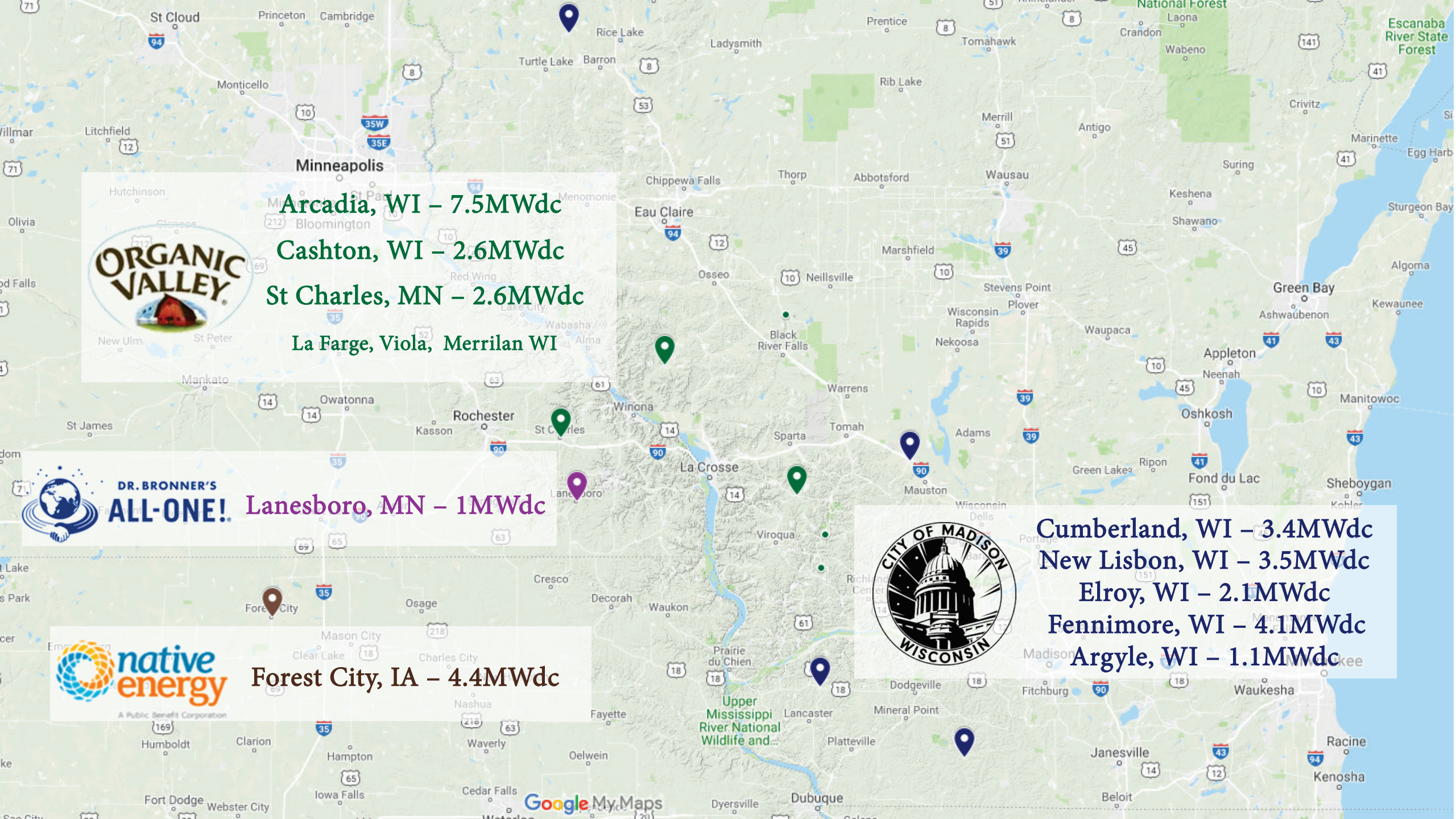
Lanesboro, MN – 1MWdc



Forest City, IA – 4.4MWdc



Cumberland, WI – 3.4MWdc
New Lisbon, WI – 3.5MWdc
Elroy, WI – 2.1MWdc
Fennimore, WI – 4.1MWdc
Argyle, WI – 1.1MWdc



Portfolio By the Numbers

10 projects

32.25 MWdc

~85,000 panels

~45 Million Kilowatt Hours / year

~140 acres will be pasture or pollinator habitat

3 of 10 projects on land owned by municipality,
pay rent in exchange for long-term use of the
property

5 of 10 projects lease the land from private
landowners



Lessons learned

Winter construction is very challenging and adds significant cost and other challenges

Strong relationships are key to ensuring smooth handoff to construction

Optimal portfolio size for financing and procurement in this case may not have matched up exactly with optimal size on construction side

USDA financing more challenging and time-consuming than originally envisioned





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THE SOLAR + TROOP STORAGE EXPERTS





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