CASE STUDY SERIES

PLUGGING IN TO RENEWABLES

Featuring:

Lead Author: Lisa Spicka, Sustainable Food Trade Association
Content Contributor: Jessy Ortiz, Outpost Food Coop

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OUTPOST’S MULTI-PRONGED RENEWABLE ENERGY APPROACH

ABOUT OUTPOST CO-OP

Outpost Natural Foods Cooperative is a natural foods retail grocery co-op with four store locations (“Capitol,” “Bay View,” “Mequon,” and “Wauwatosa”) in the Milwaukee metro area. Outpost is member-owned, governed by a board of co-owner directors, employs approximately 410 people and is the one of the larger consumer food co-ops in the nation (in volume of sales). Their 2016 fiscal year ended in just over $48.5M dollars in sales.

At Outpost, the motto is: “We all do better when we work together.” It will be no surprise that their mission focuses on member-owners having a healthy, diverse, and sustainable community and ensuring that the community has access to products and services that promote personal and environmental health.

OUTPOST’S CLIMATE CHANGE VISION

Outpost has focused a large portion of their climate change efforts on boosting access to and use of renewable power, including 1) supporting regional renewable energy infrastructure, 2) installing solar panel arrays, and 3) establishing Solar Solutions—a group buy program offered to Outpost customers which secures bulk-rate solar panel installations for their homes. Check out the summary of Outpost’s efforts to date below and read on to learn how they did it!

SUCCESS AT-A-GLANCE: OUTPOST’S RENEWABLE ENERGY REACH

✓ 100% powered by renewable energy
✓ Over 57,000 kWh of energy generated by the co-op’s solar panels
  ○ Panels produce 10% of the store’s energy needs
  ○ Solar panels produce enough energy to power 6 homes/year!
✓ 26th on the EPA’s 2016 Green Power Partnership retailer list
✓ Five customers (+ more in-process) enrolled in the Solar Solutions group
  ○ >30,000 kWh generated in customers’ homes

Outpost has a long history of environmental commitment and climate change management. In December 2011, Outpost joined the Sustainable Food Trade Association, a Climate Collaborative partner and co-founder. This membership has helped the co-op to track and monitor their sustainability initiatives.

More recently, Outpost has designated combating climate change as their top sustainability priority. As a part of this effort, in 2017 Outpost joined the Climate Collaborative and made a commitment to sourcing 100% of its energy from renewable sources, along with commitments to reduce their climate impact in the areas of energy efficiency, food waste and transportation.
Over time, Outpost has formalized these climate commitments as part of its comprehensive sustainability vision (figure 1). Beyond its Climate Collaborative commitments, the co-op’s “Climate Impact” strategy includes an aggressive green house gas (GHG) reduction goal of reducing its carbon footprint by 50%--even as the store expands.

![Figure 1: Outpost’s Sustainability Vision](image)

**SPARKING A SHIFT: REGIONAL RENEWABLE INFRASTRUCTURE**

Outpost started its installation of solar panels in 2015, but the journey to 100% renewable has been a years-long process, involving a number of partners and programs.

*Renewable Energy through Utilities: The co-op began supporting the development of regional renewable power in 1998 through We Energies’ [Energy for Tomorrow](https://www.we Energies.com) program. Through the program, Outpost paid over-and-above pricing on their monthly electric bill, which was then invested by We Energies’ into renewable energy infrastructure. This first step towards renewable infrastructure didn’t save Outpost money, but it helped Outpost deliver on its commitment to climate. These funds helped grow renewable infrastructure in Wisconsin, including solar and wind power. In 2013, Outpost upped its commitment to renewables by switching to Ethos Green Power to support renewable energy. Outpost purchases Renewable Energy Credits from Ethos to offset any non-renewable sources of their utility's energy mix. The cost compared to Energy for Tomorrow was similar but the Ethos program connected Outpost directly to local renewable energy systems owned by farmers, businesses, communities, and homeowners. Through this program, Outpost is able to source all the energy that’s not produced on-site via renewables, making the company 100% directly powered by renewable energy.*
Electric Car Charging: As a final step in their regional renewable energy infrastructure, the Outpost team began to look at ways they could expand their renewable infrastructure to empower customers to reduce their footprints, as well. In 2014, when Outpost built its Mequon location, the store installed a ChargePoint EV charging station. Due to the success of this station, in 2016, Outpost partnered with Zef Energy to install fast-charging electric car stations at all their store locations. Outpost Co-op owners were given a new benefit as of April 2017—they can charge their cars for free at the “ChargePoint” station at the Mequon store! These charging stations have already yielded some great results.

Seventeen co-op owners have already signed up for free charging at the Mequon ChargePoint station and 637 kWh were used in 284 sessions in FY 2017. These charging sessions add up—the use of renewable energy and the electric cars avoided the burning of over 9,000 pounds of coal and 900 gallons of gas! This translates into keeping 3.98 tons of greenhouse gas emissions out of the atmosphere.

THE SOLAR PANEL SYSTEM – SITE SELECTION & INSTALLATION STATS

The final solar array (below at right) was the result of careful navigation between site selection, stakeholder buy-in, and technical expertise.

The first hurdle was ensuring that store leadership supported this project. To begin this process, the project’s technical lead presented at a series of meetings to review the project details, cost, and environmental and financial benefits. After seeing the potential payback on the system and learning how it would enable them to definitively control a large portion of the renewable energy for the company, leadership quickly approved the plan.

Finding the right site proved to be the bigger challenge. Over time, the primary criteria under consideration included:

- **Roof Condition:** Sufficient weight bearing capacity and durability
- **Square Footage:** Sufficient square footage to support the desired kWh output
- **Energy Consumption:** Preference for a building using a larger relative amount of electricity compared to other Outpost buildings

Figure 2: An Outpost-hosted electric vehicle (EV) charging station.

Figure 3: Solar panel installation at Mequon store
Stakeholder Buy-In: Willingness of the building owner to participate in the project

Given that Bay View hosts the central production kitchen, it was originally selected for the solar installation. However, after obtaining initial buy-in and approval from the landlord, he decided he did not want to invest in a long-term ROI sustainability project. After considering the other stores, the new Mequon location was selected as best meeting the above criteria. Outpost partnered with Sunvest Solar Energy Solutions of Pewaukee to install the panels. The roof size was able to accommodate a 56.32 kWh installation (each panel generates 320 watts of power) that would supply up to an estimated 67,300 kWh annually – the equivalent of 10% of the store’s energy needs! The actual kWh produced in FY 2017 was 57,059; while this was slightly lower than the total production estimated, at the end of the year, figures showed that these panels did indeed supply 10% of the store’s energy needs.

Figure 4: Kilowatt hours produced by solar installation in FY2017

Although there was not any special financing available for the project via SunVest, a grant from Wisconsin Focus on Energy helped offset $31,343 of the project’s total cost of $152,054. The solar panel kWh output saves Outpost just under $7,500 annually, which means a long-term Return on Investment (ROI) of 16 years. Outpost leadership felt that this long-term ROI was worth it to support the Climate Impact portion of their sustainability vision.
SOLAR SOLUTIONS: GROUP BUY PROGRAM

The Outpost team had such a positive experience installing their solar panels that they wanted to help facilitate that experience for others in their community. In partnership with Sunvest, the co-op developed and launched Solar Solutions in the first quarter of 2017. Just as co-ops can offer bulk pricing to members on food products, Solar Solutions provides bulk discounts to members on domestic solar panel installations performed by Sunvest.

Participating member-owners were educated about Solar Solutions in a variety of ways, including an online portal and information sessions held at their store locations.

In 2017, the program’s inaugural year, five households have already completed installation of their solar arrays with more in-process. These five homes, alone, have already generated over 30,000 kWh of energy to date!

THE RESULTS

Hats off to Jessy Servi Ortiz, Outpost’s Sustainability Manager and all the other Outpost staff and leaders who have worked so hard on so many levels to benefit our communities and our environment! Their short-list of impressive accomplishments includes:

- 26th on the EPA’s 2016 Green Power Partnership retailer list
- 100% powered by renewable energy
- 17 members signed up for free electric vehicle charging. Overall, these stations have:
  - Saved 936.5 gallons of gas
  - Avoided the burning of 9,107 pounds of coal
  - Kept 8,323 kg of GHG emissions out of our environment
- Five customers (+ more in-process) enrolled in the Solar Solutions group
  - >30,000 kWh generated in customers’ homes
- Over 57,000 kWh of energy generated by Outpost solar panels
  - Supplies 10% of the store’s energy needs
  - Produces enough energy to power six homes/year
  - Emissions savings equivalent to the carbon sequestered by 1,101 tree seedlings grown for 10 years!