

On July 31st, 2018, Orcas Power and Light Cooperative energized a 504 kW community solar array next to a utility substation on Decatur Island, WA. The nonprofit, member-owned utility Orcas Power & Light Cooperative (OPALCO) provides energy services to the residents of 20 islands in San Juan County – a remote island archipelago in the northwest corner of Washington State.



Community Solar Project on Decatur Island, WA
Source: OPALCO

The impetus for this project was the furtherance of OPALCO’s vision of a sustainable, resilient, and energy-efficient community. With the completion of its first community solar project, OPALCO has taken the first step toward realizing its vision. The main goal for the community solar project was to provide broad access to the benefits of solar energy for a fraction of the cost of rooftop solar. With a future battery installation at the site, the project also aligns with the utility’s Integrated Resource Plan and is a key first step towards providing increased redundancy and the capability to re-route power for emergency services.



The project took about a year and half to come to fruition. The utility started planning the project in early 2017 and subscriptions were marketed to utility members in March 2018. The project sold out in just six weeks with 272 members purchasing subscriptions. Sold in increments of 75 watts at \$150 per unit, there was no limit on how many units a member could purchase. Purchases ranged from one unit to as many as 160 solar units. In exchange for purchasing a subscription, members receive a monthly energy bill credit set at \$0.10/kWh, as well as production incentive payments through Washington State’s Renewable Energy System Incentive Program.

A recent low-income assessment reported that 1,500 households (approximately 13%) in OPALCO’s service territory struggle with affordability. The utility was interested in helping these members with their energy costs and were able to garner a matching grant from the Bonneville Environmental Foundation to dedicate 10% of the array for low income members. In addition, quite a few members accepted an invitation to donate solar units for OPALCO’s low-income program, local non-profits and schools.

As a nonprofit, the utility was not able to utilize the solar federal investment tax credit and raised funds through grants to help defray the upfront cost of building the project. The total project cost (not including the battery project) was close to \$1.8M. It was financed by:

- 70% member subscriptions
- 20% U.S. Department of Agriculture REAP grant
- 5% Bonneville Environmental Foundation grant
- 5% OPALCO Energy Assist Fund

“Solar gives us hope for the current and future inhabitants of our earth - and I love it that our local co-op is offering community solar so that practically everyone can get involved.”

*- Janet Alderton, OPALCO member
(Olson, as cited in NWPPA, August 2018, p. 27)*

MORE IN STORAGE!

With resiliency top of mind, the utility is also in the planning & development stages of a .5 MW/2 MWh battery system which will be located at the project site on Decatur Island. The battery bank will provide storage, without line loss, for the solar production and give the utility the ability to improve load shape, absorb sudden spikes in energy demand and backup critical substation and fiber optic systems. Due to the overwhelming success of the Decatur project, the utility is already planning additional solar plus storage projects to provide back-up power to critical facilities and community disaster meeting points.

FOR MORE INFORMATION

<http://energysavings.opalco.com/energy-savings/renewable-generation/community-solar/>

ABOUT SOLAR PLUS 

The Solar Plus initiative convenes leaders from 22 different entities, including utilities, regulators, the Washington State Energy Office at the Department of Commerce, the Oregon Department of Energy, the solar industry and community-based organizations to tap into our region's unique opportunities to develop solar with an emphasis on equity and inclusion.

The three year effort (2017- 2019) looks beyond energy generation to additional solar value streams, through focus on several areas:

- Deploying more community shared solar
- Building community and grid resilience
- Using solar energy to build wealth for low-income communities and communities of color
- Supporting group purchase opportunities in under served communities
- Supporting the development of career pathways for a thriving, diverse solar industry

Solar Plus envisions a future where the benefits of solar energy are equitably expanded to include renters, households with low incomes, communities of color and all ratepayers. Our community-driven approach seeks to triple the amount of solar, decrease costs, and double the solar jobs in the region by 2020. For more information, visit: solarplusnw.org

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