Citizens Advisory Committee

Community Solar at the Port of Olympia

Staff Lead:
Commissioner Zita (ejz@portolympia.com)   4 Feb. 2019 (updated 11 March 2019)
Background:
The Port of Olympia installed solar photovoltaic (PV) panels on a warehouse at the Marine Terminal in 2011, and the Farmer's Market (on leased Port land) installed a 37 kW community solar array the same year. Solar PV prices have dropped steeply in recent decades, and 9.5% since the beginning of 2016. The solar industry employs over 3,400 Washingtonians, and is one of the fastest growing and high paying job sectors.

Installing renewable energy infrastructure on public property can advance Port and State goals of
- economic development (supporting good jobs and training opportunities in growing industries),
- community benefit (e.g. providing investment opportunities and access to renewable energy through Community Solar), and
- environmental stewardship (by reducing harm from electricity production).

Local renewable energy efforts provide good examples for the Port of Olympia. The City of Tenino recently announced its TIER[1] program, a collaboration to make the Tenino School District a center for solar energy. They plan to train young people and displaced workers in renewables and grid modernization, and are developing a solar powered emergency management center. Meanwhile, WA State legislators have introduced bills in 2019 to increase solar funding.

Olympia Community Solar[2] is a local non-profit that specializes in community solar development, regulation, and education. They are available to work with the Port of Olympia to plan community solar installations that provide clean energy, job training, and unique investment opportunities for businesses and individuals.

Solar PV installations require good roofs (or ground-mounted posts, at higher expense) and electrical grid connections sufficient to transport the power produced. Olympia Airport has acres of roofs suitable for solar PV installation and ample electrical capacity. Port of Olympia tenants have expressed interest in collaborating on solar PV investments.

Community solar energy systems provide benefits to multiple participating members. An array is built by a group of members who purchase shares. "Community solar projects provide homeowners, renters, and/or businesses access to the benefits of solar energy generation unconstrained by the physical attributes or ownership of their building, or by socio-economic status." Using this model the Port of Olympia could host solar for dozens or hundreds of local residents.

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[1] TIER = Tenino Innovation and Education through Renewables, with PECI (Portland Energy Conservation Inc.), Tenino School District, Tenino City Council, South Sound Solar, Bonneville Energy Foundation.
[2] Olympia Community Solar: https://www.facebook.com/olympiasolar/

Scope of Work: *Produce a REPORT for Commission to consider*

Working with Olympia Community Solar and other TIER partners, evaluate the potential for community solar PV installation(s) on Port of Olympia property to determine the following:

- Understand and outline laws and regulations that govern such projects on Port property.
- Determine available solar power capacity on Port owned property, facilities, and long term green spaces. Consider dual purpose uses for solar installations.
- Calculate how much electric load could be transitioned to solar.
- Determine how much grid capacity is available for interconnection.
- Estimate costs, payback times, and lifespan for potential systems, compared to current electric service.
- Estimate benefits, including but not limited to: reduced power bills, incentives, training & educational opportunities, and community solar investment opportunities.
- Identify target market for community solar subscribers.
- Create a draft fundraising plan for future Port of Olympia based projects.
- Draft Port of Olympia building policy recommendations to incorporate solar in future projects. "Solar readiness"

Timeline: 6-8 months

References:
http://www.chronline.com/news/**tenino**-works-with-portland-based-nonprofit-to-create-renewable-energy/article_fdb3b5bc-1b94-11e9-a27f-5bbb9c0e5122.html
http://www.**farmers-market**.org/solar-project/
https://www.**portolympia**.com/464/Renewable-Energy
https://www.solarstates.org/#state/washington/counties/**solar-jobs**/2017
https://news.energysage.com/how-much-does-the-average-**solar-panel-installation-cost**-in-the-u-s
House Bill 1211 and Senate Bill 5116

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Attachments (with additional contacts): TIER_backgrounder.pdf