WASHINGTON STATE
HOUSING FINANCE
COMMISSION

Opening doors to a better life

EXPANDING SOLAR ACCESS FOR MULTIFAMILY AFFORDABLE HOUSING

RECOMMENDATIONS FROM THE WASHINGTON STATE HOUSING FINANCE COMMISSION

SUMMARY

The Washington State Legislature should prioritize modification of the state solar production incentive and clarification of third-party ownership to enable the affordable housing sector to access the benefits of solar and take advantage of federal and state solar incentives before they expire or decline to levels that are no longer meaningful.

BACKGROUND

Since 2006, Washington has installed 60 megawatts (MW) of solar on over 10,000 homes and businesses, expanding access to local clean energy while providing long-term cost savings, emissions reductions and protection against rising energy prices. This recent growth has been driven by declining equipment costs and supportive state and federal policies.

However, the benefits of solar generation have primarily accrued to individual homeowners and businesses. Renters, low-income households, nonprofit organizations and multifamily property owners still face significant barriers to accessing the benefits of solar.

The affordable housing sector provides a wide range of housing options and services through diverse business models and building types, which include:

- Nonprofit and for-profit housing developers;
- Properties that are master-metered or individually-metered for utilities;
- Properties where the owner pays utility bills on behalf of residents or where the residents pay their own utility bills; and
- Urban and rural properties, with varying utility costs and roof space.

Modest progress has been made to install solar on multifamily affordable housing. The Evergreen Sustainable Development Standard encourages solar-ready construction,[1] a few properties have installed solar to serve common-area load, and the Washington State Housing Finance Commission has committed $1.5 million of the Sustainable Energy Trust revolving loan fund to finance community solar projects.[2]

Despite these efforts, future policies for solar generation must address the unique challenges faced by the affordable housing sector to ensure more equitable access to solar benefits.

EXISTING FEDERAL INCENTIVES AND POLICIES

Investment Tax Credit and Modified Accelerated Cost Recovery System

The federal Investment Tax Credit (ITC) allows a tax credit of 30 percent of the cost of solar electric or thermal equipment, and is currently available for commercial and residential entities. The equipment must

[1] Affordable housing built with Low-Income Housing Tax Credits or Washington Housing Trust Fund allocations must meet the Evergreen Sustainable Development Standard. www.commerce.wa.gov/wp-content/uploads/2015/12/ESDS-v3.0.pdf

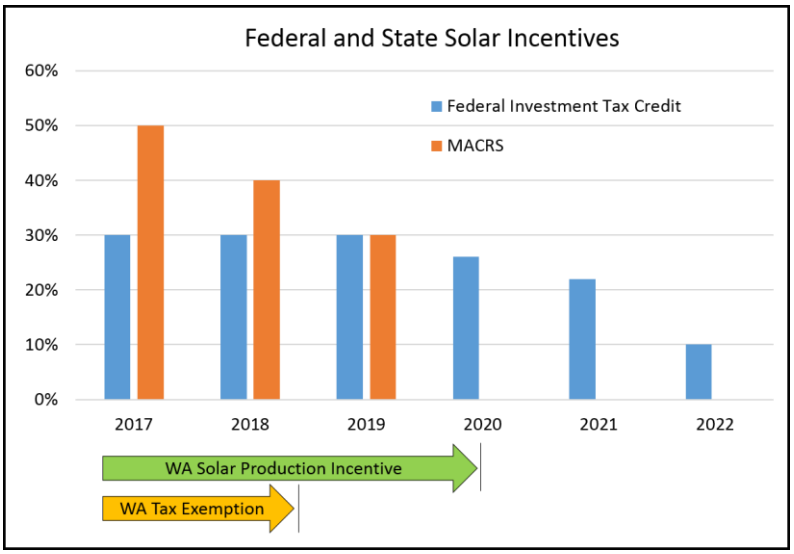
[2] The Commission's community solar commitment consists of $750,000 from the Clean Energy Fund 2, and matching $750,000 of the Commission's Sustainable Energy Trust.

be installed and operational in the year the credit is taken. For corporate entities, the value of the ITC is scheduled to gradually decrease to 10 percent by 2022. The residential ITC expires in 2020.

Modified Accelerated Cost Recovery System (MACRS) allows corporate entities to accelerate solar equipment depreciation over a property life of 5 years for federal tax purposes. MACRS includes bonus depreciation of 50 percent in the first-year of equipment placed in service. The MACRS is not scheduled to expire, however, only solar equipment placed in service before January 1, 2018 is eligible for the 50 percent bonus depreciation, after which the bonus declines.

> ***Impact on Affordable Housing:*** The ITC and MACRS provide tax benefits that significantly shorten the payback term of installing solar equipment. Unfortunately, nonprofit organizations do not have the tax appetite to directly take advantage of either the ITC or MACRS. Certain ownership structures, such as an LLC created solely for the solar equipment, could allow nonprofits to indirectly benefit from the ITC and MACRS, but increase transaction costs for each project.

Timeline of Federal and State Solar Incentives



Public Utilities Regulatory Policy Act Qualifying Facilities

Under Public Utilities Regulatory Policy Act (PURPA), utilities are required to purchase electricity generated from qualifying renewable facilities that have generating capacity less than 80 megawatts (MW).[3] Utilities pay generators' rates up to the utility's avoided cost, which includes energy and capacity costs. Avoided cost rates are lower than retail rates, but usually higher than wholesale market rates. Utilities may offer standard rate contracts[4] for small projects (typically less than 5MW capacity) or negotiate rates for each project for a defined length of time. After the contract expires, the utility and customer may renegotiate rates or the customer may accept the standard rate based on current avoided cost rates. Utility payments to owners of PURPA projects are taxable income, unlike net metering credits.

> ***Impact on Affordable Housing:*** PURPA contract rates can be significantly lower than retail electric rates, and therefore offer smaller financial benefits for customers. However, PURPA projects are not subject to the state net metering size and location requirements and could potentially use community solar models to distribute benefits to participants.

[3] 18 C.F.R. Part 292 Subpart B.

[4] WAC 480-107-095 for investor-owned utilities.

EXISTING STATE INCENTIVES AND POLICIES

Net Metering

State net metering law requires utilities to credit customer bills when a customer-owned renewable energy system produces more than the customer consumes each month.[5] The on-bill credit is paid at the retail rate of electricity. Unused credits carry over from month to month, and any unused credits accrued by April 30 of each calendar year are ceded to the utility. Utilities are required to provide net metering for eligible systems up to 100kW capacity, though utilities may net meter larger systems at their discretion. Solar systems eligible for net metering must be "intended primarily to offset part or all of the customer-generator's requirements for electricity."[6]

The net metering statute technically allows meter aggregation, where readings and billings are combined for all meters at the premise of a customer solar project. However, utilities are authorized to require the customer to pay for software to accommodate meter aggregation.[7] Meter aggregation is similar to virtual net metering, a billing mechanism used in other states to proportionally credit solar production from a community solar project to participants according to their usage or ownership share. Few utilities in Washington have upgraded their billing systems to provide widespread virtual net metering, but many are instead allocating bill credits annually for their own community solar programs.

> ***Impact on Affordable Housing:*** Many property owners pay for common-area utilities and are distinct utility customers from the tenants. Owners seeking to install solar on affordable housing are generally limited to systems that offset common-area demand rather than the entire property. Although meter aggregation could enable solar projects to be scaled to the demand of an entire affordable housing property rather than an individual meter's demand, the statute effectively shifts the cost burden of billing software from the utility to the customers of each project.

Renewable Energy System Cost Recovery (Production Incentive)

The state production incentive pays solar owners for every kilowatt-hour (kWh) of electricity produced, not just the net metered electricity.[8] The current incentive starts at $0.15 per kWh produced, increases to $0.30 per kWh for community solar, and can be as high as $1.08 per kWh if all of the systems components are made in Washington. Annual incentive payments are limited to $5,000 per eligible customer and are paid by utilities, which receive state public utility tax credits equal to total incentive payments made. A utility may issue total annual production incentive payments up to 0.5% percent of net retail sales or $100,000, whichever is greater.

> ***Impact on Affordable Housing:*** Several utilities have already reached the production incentive limits and reduced their incentive rates per customer, creating uncertainty for customers considering installing new solar arrays. Some utilities who have reached their caps have opted to close the program to new customers. The state production incentive expires in 2020, creating further uncertainty about the financial benefits of solar.

Community Solar

Community solar projects allow individuals or organizations that do not own property, do not have adequate solar resource on their property or do not have the upfront capital to invest in solar, to receive the benefits of solar. Participants in community solar projects purchase kW units of the project, which entitle them to a portion of the financial benefits and power generation of the array. Community solar projects are eligible for the state solar production incentive if they have generating capacity of no more

[5] RCW 80.60.030(3)(b).
[6] RCW 80.60.010(10)(d).
[7] RCW 80.60.020(2).
[8] RCW 82.16.120

than 75 kW and are located on property that is either owned by a local governmental entity or owned or leased by the utility that owns the system.[9] Although there is no prohibition to siting community solar projects on other properties, such projects would be ineligible for the state solar production incentive.

> ***Impact on Affordable Housing:*** Community solar projects involve higher administrative costs than customer-owned systems, and thus are more difficult to justify financially without the state solar production incentive. The production incentive restricts the size and location of community solar projects, which has inhibited the number of community solar projects around the state. Further, most utilities have not upgraded their billing systems to efficiently accommodate community solar, meter aggregation or virtual net metering. Although community solar has the potential to benefit affordable housing, current policies actively inhibit such projects.

Sales Tax Exemption

The state sales tax exemption applies to the purchase of equipment capable of generating up to 10 kilowatts. This incentive is scheduled to expire June 30, 2018. The state sales tax exemption is only available for "solar systems that generate 10kW or less."[10]

POLICY OPTIONS TO EXPAND SOLAR ACCESS

The existing incentives were not designed with multifamily housing in mind, and the program rules present barriers for deployment on multifamily properties. The challenges discussed above fall into four broad categories: financial, size and location, metering, and administration. The following policy changes would enable the affordable housing sector to more adequately access solar benefits while federal incentives are still meaningful.

A. Modify Solar Production Incentive

Modification of the production incentive should:

1. Expand property location requirements for community solar project eligibility.
2. Ensure that the incentive rate for community solar is sufficiently higher than the residential and commercial incentive rates to overcome additional administrative costs and inability of nonprofits to access federal tax credits.
3. Increase size limits on eligible projects to allow greater economies of scale.
4. Allow property owners in contract with a third party owner to receive the production incentive (see Option B below).

B. Clarify Third-Party Ownership

In basic third-party ownership models in many other states, a private third-party entity owns the solar array and interfaces with the utility on behalf of a customer. The customer enters a long-term contract for the rights to the electrical production. The third party can claim the federal tax incentives, while the customer should still be able to receive state production incentives. Third-party ownership can simplify capital, location and administrative barriers for multifamily or community solar projects.

The Washington Utilities and Transportation Commission (UTC) has concluded that third-party ownership "likely would be subject to Commission jurisdiction," but that "the current statutory framework falls short" in clarifying the scope of that jurisdiction.[11] The legislature should clarify the degree of jurisdiction the UTC would have over third-party owners of solar projects.

[9] RCW 82.16.110(2)(a).
[10] RCW 82.08.963.
[11] UTC Docket UE-112133. July 2014.

C. Increase System Size Limits

The current system size limit is among the lowest compared to states with similar solar policies,[12] and excludes large solar projects from the state production incentives, state sales tax exemption, and net metering. The net metering statute should be modified to allow solar projects located on multifamily properties to be sized to meet the demand of the entire property, rather than just the property owner's demand.

D. Simplify Community Solar Administration

The process of establishing a community solar project outside of utility ownership is complicated and not standardized. The Washington Department of Commerce is well positioned to streamline the process for community solar project incorporation, through the development of standard legal frameworks and technical assistance.

E. Offset Costs of Virtual Net Metering

Although virtual net metering would allow flexibility for placement and size of solar systems, particularly at multifamily properties and community solar projects, the cost to upgrade utility billing systems to accommodate such a change may be significant. California piloted virtual net metering tariffs under the Multi-family Affordable Solar Housing (MASH) Program to provide "equal and direct benefits of the solar system to low income tenants in an affordable housing complex."[13] Any legislative requirement for utilities to provide virtual net metering in the future should include financial assistance to utilities to offset the cost of upgrading billing systems.

F. Offer Grants

State grants could help overcome the financial barriers to installing solar. The Washington Department of Commerce Energy Efficiency and Solar Grants Program could expand eligibility to include affordable housing providers, in addition to "state public higher education institutions, local government facilities, state agencies and K-12 public school districts."[14] However, grants alone do not address the remaining size, metering or administrative barriers facing the affordable housing sector.

RECOMMENDATIONS

The legislature should prioritize intentional modification of the state production incentive (Option A) and clarification of third-party ownership (Option B) to increase the affordable housing sector's access to the benefits of solar.

[12] Figure 6 Tian, Tian, et al. 2016. *Midmarket Solar Policies in the United States: A Guide for Midsized Solar Customers.* Golden, CO: National Renewable Energy Laboratory (NREL).

[13] www.cpuc.ca.gov/General.aspx?id=5408

[14] www.commerce.wa.gov/growing-the-economy/energy/energy-efficiency-and-solar-grants/