

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**UM 1746**

In the Matter of

OREGON PUBLIC UTILITY COMMISSION

Examining a range of community solar programs and attributes to allow individual customers to share in the costs and benefits of solar facilities.

Response to Staff Questions :  
Northwest Sustainable Energy for  
Economic Development, Oregon  
Solar Energy Industries  
Association, Renewable Northwest,  
Environment Oregon, Portland  
Bureau of Planning and  
Sustainability, Oregonians for  
Renewable Energy Progress

**I. INTRODUCTION**

We welcome the opportunity to provide additional input to the Oregon Public Utility Commission (the Commission) and staff regarding community solar models for the development of recommendations to the Legislature. The first meeting on August 11<sup>th</sup> was helpful in understanding and framing the issues of the Commission, and fostering discussion among stakeholders. The following is a joint response by the undersigned parties (“the Parties”) to UM 1746, submitted to provide input, comments and recommendations on the staff memo released August 14, 2015. It seeks to follow the format outlined in the memo.

**II. REACTION TO ATTRIBUTE CHARACTERISTICS.**

The dialogue and discussion during the meeting was helpful in developing a greater understanding of the other stakeholders’ proposals. In terms of specific proposals, we will refrain from responding to individual stakeholders, and rather address them generally to provide some guiding principles and input on the attributes that staff have defined.

In order to “best balance the resource value benefits, costs and impacts to ratepayers” specified in HB 2941 Section 3(3), there are still a number of unknowns. As discussed during the meeting, the UM 1716 docket will work to define methodology and numerical values for a resource value of solar. In the future, elements of this methodology could be used which apply to the structure of a community solar program. For instance, there may be transmission and distribution attributes of a community solar resource value that are different than for on-site solar. However, we should not wait until the UM 1716 docket is complete to develop a program model, nor make bill credit rates contingent on the resource value of solar. Rather, the resource value of solar could be used to determine the differential, to the extent there is one, between bill credit rates provided to customers and the value of the community solar to ratepayers and the utility generally. We should allow for the possibility that community solar could indeed provide a net benefit to the utility and all ratepayers over time.

Our approach to the issue recognizes that there may be program costs that are appropriate to be recovered through a ratemaking process. As a solution, we propose that there be a minimum target of capacity (in MW) for a community solar program in each of the investor-owned utilities, as well as a threshold (as a percentage of the utilities’ revenue requirement) to set an upper limit on the deployment of community solar through the community solar program model. This will serve to mitigate the impacts of project development. The balance between the “resource value benefits, costs and impacts to ratepayers” does not need to equal out to zero. It should, however, be reasonable and in line with the broader goals of the Commission and the Legislature, if

seeking to actually create a community solar program model that motivates projects to happen and delivers benefits to a broad range of customers.

### **III. NARROWING THE FIELD**

As noted, some stakeholders have advocated for maximum flexibility in the development of the PUC recommendation, allowing many different program models and attributes to fit the definition of Community Solar for the purposes of this docket. We feel that the Commission should promote a clear definition and program model that meets numerous objectives, and sets boundaries about what constitutes community solar. Or alternately, develop a different term that categorizes the type of program that the Commission is recommending.

Specifically, we do not believe that programs that rely primarily on REC transactions, even from specific resources, or that do not deliver energy benefits in the form of bill credits, should be considered community solar in this docket. Those programs are generally part of existing green power marketing programs and exist primarily to convey environmental attributes to customers who make voluntary contributions. Community solar as defined in this docket should seek to deliver long-term benefits similar to that of on-site solar to participants who make a commitment to a project. This necessarily includes bill credits as a mechanism, and the opportunity for long-term net economic benefit to participants.

### **IV. RESPONSE TO ATTRIBUTES AS DEFINED BY PUC STAFF**

## **1 - Legislative Intent**

The 2015 Community Solar legislation, introduced as HB 2941 and ultimately passed into law and signed by Governor Brown, was the subject of numerous public hearings in the House Environment and Energy Committee and the Senate Business and Transportation Committee, as well as a stakeholder “working group” led by Senator Lee Beyer. The initial intent of the bill as introduced by Representative Paul Holvey was to create an active community solar program, modeled after the Colorado Community Solar Gardens legislation passed in 2010, with specific modifications for the Oregon market. While the final HB 2941 was significantly different than the introduced version, the record shows that a bipartisan group of legislators, and the public, strongly support the concept of community solar, in particular as a means of opening the solar market to residential and commercial customers who are unable to access the benefits of on-site solar.

Due to issues of property ownership, limited financial resources, or siting, only a small percentage of Oregonians have access to the opportunity and benefits for energy savings that solar provides. Community solar expands participation in the solar marketplace, while delivering benefits similar to that of on-site solar. These benefits include, but are not limited to, energy savings and bill reduction, and the expectation of having participants finance initial costs while recouping their investment over time. With regard to bill reduction in the form of credits, HB 2941 Section 3(1) directs the Commission to look at program models and attributes, with the following minimum set of considerations:

“For purposes of this subsection, attributes of different community solar program designs include ownership structure, eligibility criteria, length and terms of contracts, subscription pricing and how bill credits are calculated.”

The legislative language clearly states that bill credits are a key function of whatever program model is recommended, and is a program element we strongly endorse.

With regard to whether the Commission recommend a specific community solar program design versus a broader list of attributes to the Legislature, we believe that legislators were looking for guidance and expertise from the Commission in the form of a more specific program recommendation. The time compressed nature of the upcoming 2016 legislative session also suggests that it would be most beneficial to have a solid starting point in the form of a specific program recommendation from which to draft a bill. The short time window allotted, with the Nov 1st deadline for the completion of the UM 1746 process appears to support this intent to have a tangible program design developed going into the session.

## **2 - Definition of Community Solar in Oregon**

There are a number of different working definitions in the marketplace, and no legally binding terminology around community solar or shared solar. National-level organizations including the National Renewable Energy Lab (NREL)<sup>1</sup> and Interstate Renewable Energy Council (IREC)<sup>2</sup> have programs and model rules that define the terms, and there are national programs underway seeking to deploy more community/

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<sup>1</sup> NREL – A Guide to Community Solar, 2010: “Community Solar is defined as a solar-electric system that, through a voluntary program, provides power and/or financial benefit to, or is owned by, multiple community members.”

<sup>2</sup> IREC – Model Rules for Shared Renewable Energy Programs, 2014: “programs that enable multiple customers to share the economic benefits of one renewable energy system via their individual utility bills.”

shared solar models. As noted previously in our comments, there are a number of elements that we feel should be present in order for a program design to be considered as community solar in this docket in Oregon. Staff defined some of the similarities and differences between stakeholder proposals. While we may seek to elaborate on and discuss these elements further, the Commission should clearly define a list of criteria of what constitutes Community Solar. From our perspective, these criteria should include:

- On-bill crediting for participating customers in a community solar project, with opportunity for net economic benefit
- Proportional allocation of community solar array output based on some subscription mechanism
- Community Solar program or array ownership eligible to a broad range of entities, including for-profit, non-profit, governmental, and utility organizations
- A geographical relationship between the participating customer and the community solar array, and at minimum a requirement that it be in the same utility service territory.
- Administration of bill credits by the utility, with the opportunity for marketing, project development, and subscription management functions to be performed by subscriber organizations, including for and non-profit organizations.

### **3 - Eligibility/Limitations Attribute – Potential Characteristics:**

- **Customer type**

Our initial response did define some boundaries about which customer types should be eligible to participate in community solar offerings. In reviewing input from other stakeholders, we are open to allowing all customers, including residential, commercial, industrial, and governmental entities to play a role as participants. However, there should be mechanisms in place to ensure that there is indeed community involvement by smaller account holders in each project, and that projects are not developed exclusively by large entities. Our suggestion is requiring a minimum of 10 customers, and a standard where at least half the capacity is held by customers with subscriptions under 25kW equivalent capacity. This could allow for larger customers to participate at higher levels of capacity, but would ensure that those larger customers do not dominate the community solar market entirely.

- **Special carve outs**

We would categorize this attribute more generally as “low income customer benefit”. A variety of mechanisms could be used, including a capacity carve out, to ensure that there is some sharing of benefits and participation opportunities with lower income customers. This was an element that many legislators had interest in during discussions, and we recommend that the issue be a key component of the Commission recommendations. A carve out of project capacity is a tool used in other markets to create a mechanism for broadening the benefit to a more diverse range of participants. If a carve out is used as a mechanism, it should be a minimum of 10% of each community solar array capacity. A program design could also be created that recommends additional incentives, for instance

supporting projects that are located on low-income multi-family properties, or seeking to ensure that low income customers have the opportunity to participate in a subscription at an affordable initial cost. Community solar has a real opportunity to lower energy bills for low-income customers, and increase energy awareness, providing great benefit and complementing existing bill assistance programs.

- **Subscription sizing**

Initially we proposed that there be a limitation in sizing a subscription at 90 percent of annual load. Considering other stakeholder input, and other program design elements, we are comfortable with a program that allows for a subscription that is up to, but does not exceed, annual electricity usage at the participating customer meter. Similar to net-metering, we support the allocation of any bill credits greater than annual usage at a meter towards low-income program participation.

#### **4 - Contract Terms Attribute – Potential Characteristics:**

- **Length**

It is important that there be some stability in expectations of community solar customers and administrators. A 20-year minimum term of an agreement between the subscriber organization, customers and the utility to provide bill crediting is appropriate, and fits within the expected performance lifespan of solar equipment.

- **Termination**

There should be the opportunity for subscription portability, where a customer can transfer a subscription upon moving to a new address in the utility service territory. In the case of a participating customer leaving the service territory, there should be a mechanism for the subscriber organization to “buy-back’ the subscription from the participant at a reduced rate, and then make that subscribed capacity available to other customers. While we would not characterize this structure as a penalty, the participant would not receive the same total benefits that they would if they stayed for the duration of the term. The subscriber organization would be responsible for defining these elements and schedules, and disclosing clearly to participants the expectations. The utility should allow for portability and transferability at minimal or no cost for the participant.

## **5 - Subscription Pricing Attribute – Potential Characteristics:**

- **How calculated?**

The subscriber organization or solar provider should be responsible for setting the price of their subscription. This will foster competition between market actors, and reflect the specific cost structures, administrative efficiencies, and equipment choices made by each community solar project.

- **Design**

There should be flexibility in developing subscription models and pricing that allows for both capacity (kW) and energy-based (kWh) programs. Additionally,

program design should allow for either up-front or incremental payment of subscriptions, which may serve to increase affordability and access to community solar. There may be specific advantages to a project selecting one approach over the other. For instance, if other state tax credits are available for participants (such as the Residential Energy Tax Credit) that are denominated in kW of capacity, then a project may elect to choose that method for designing their subscription model.

- **Other (Consumer Protection)**

As was noted in discussion in the first stakeholder meeting, there is no consumer protection language in the Oregon Revised Statutes (ORS) that applies specifically to community solar offerings. Likewise, there are no provisions that specify relationships and terms for customers who choose to install solar on their property, either directly through a contractor or via a third-party arrangement. However, there are a broad range of activities that cover elements of financial and business transactions in ORS Chapter 646 pertaining to Trade Practices and Antitrust Regulation that may be broadly applicable. Stakeholders discussed the possibility of the Commission overseeing the marketing, costs and activities of community solar subscriber organizations. A subscriber organization should provide transparency, full disclosure of terms, and plain language contracts. We generally feel that this can be done within existing consumer protection standards and laws. We suggest that, if any specific protection is deemed necessary, including community solar programs specifically in the ORS Chapter 646 would be a better route for consumer protection than Commission regulation.

Additionally, there are best practices related to the formation of renewable energy cooperatives that may serve as a useful template in defining practical rules for oversight and consumer protection.

## **6 - Bill Credits Attribute – Potential Characteristics:**

- **How calculated?** The most appropriate way to do bill crediting is to multiply the actual energy generated by a community solar array by a specified bill credit rate, and then apportion that according to the subscription percentage of the participant. For a given customer the calculation would be:

$$(\text{actual energy}) \times (\text{rate}) \times (\text{fractional subscription percentage}) = \text{Bill Credit}$$

- **Rate**

The crux of this docket appears to hinge largely on what bill credit rate is provided to participants, and stakeholder perspectives on the adequacy and impact of that rate. We support an effective bill credit rate that provides a similar total value proposition to participating community solar customers as that of on-site solar customers. The easiest method would indeed be to index that to a retail rate of energy. However, in the absence of parity in access to other solar incentives, such as the RETC, we suggest that the Commission be enabled to create an effective rate structure that takes into account goals for community solar deployment. We also suggest that it is in the purview of the Commission to present information to the legislature regarding the impact that changes to state incentives may have on the rates necessary to drive community solar adoption. Specifically, making the RETC available to community solar participants would

have an impact on the rates necessary to make community solar viable, potentially bringing them much closer in line to retail rates. Participating customers could then offset their energy usage with community solar in a way that would be very similar to on-site solar generation. Similarly, the availability of the Energy Trust of Oregon incentives could serve to reduce the effective cost of subscriptions, and could be targeted to incentivize certain sizes or locations of community solar development. A community solar program model should seek parity with the type of current and future incentives that are available for residential and commercial customers pursuing on-site solar development.

- **Energy**

In all cases, the bill credits apportioned to participants should be based on actual energy produced by the community solar array, not on estimated generation. This ensures that all parties share proportionally in the effective management and maintenance of the system, and benefit from years where there is particularly good solar generation (such as 2015).

## **7 - Minimize Cost-Shift Attribute – Potential Characteristics:**

Firstly, we object to the term “cost-shift” being used in defining primary attributes of community solar. No language defining the use of that term is contained in the legislative text of HB 2941. Rather, the bill refers to evaluating costs and benefits of solar to different entities, and we recommend that the Commission seek to be consistent with that legislative direction. While solar deployment may have an impact on total revenues that a utility receives from customers, there are numerous industry

perspectives about what proportional impact that should have on utility shareholders, customers, and rates. There is a widely-recognized throughput incentive for regulated utilities to increase retail sales. However, there are also numerous incentives for various technologies and customer behaviors built into today's rate structures, including those related to efficiency and demand reduction. The revenue impact associated with other customer behaviors has not been compared adequately in our market with that of solar, to determine the scale and relevance of any rate impacts to various customer classes.

To the extent that there are aspects of a community solar program that warrant consideration in a rate case, we do support the development of a total revenue requirement percentage threshold limit. This does seek to balance, as Commission staff has considered, the expected benefits of solar and merits of increased access to solar by participating customers with the interests of all ratepayers.

#### **8 - Risk Attribute – Potential Characteristics:**

The sharing of risk among different entities is an important consideration in community solar program design. Generally, there should be greater allocation of risk to the community solar subscriber organization, and developer. The utility and ratepayers should be isolated from risk by providing bill credits only for actual energy produced. Also, in the case where a community solar array is not fully subscribed after an initial development period, the energy produced should be effectively purchased at some avoided cost rate, which would be lower than the bill credit rate. Subscriber organizations should be able to develop contracts which contain clear distinction of the risk borne by various entities, and have the option of providing performance guarantees

to participating customers to ensure effective operations and maintenance. Standard contract disclosures pertaining to the timing of subscriber payments and the establishment of escrow accounts (for example) during the development of a project could also be a valuable tool in mitigating risk for participants during the development and operation of a project.

## **V. CONCLUSION**

The Parties appreciate the opportunity to submit these comments and responses in the UM 1746 process. We acknowledge the short timeframe of this docket, and look forward to working efficiently with the Commission, Staff and other stakeholders.

We suggest that it would be most beneficial for the Commission to propose a fully developed program model to the legislature, which fulfills the legislative intent of HB 2941. In designing a model program, it should seek to define clear principles that allow customers to access solar energy and receive benefits similar to that of on-site solar. This design should include on-bill crediting, broad participation, a flexible subscription mechanism, geographic boundaries for participants, utility administration, and an ownership model that allows for market competition. The benefits of solar energy include bill savings, energy cost predictability, tax savings, and access to an emission-free electricity source. The Commission can play a valuable role in identifying ways that these benefits can be applied to community solar participants, in a manner that also ensures the opportunity for participation by customers of all income levels. Appropriately designed community solar programs can provide a mechanism for efficient, economic, and equitable deployment of new renewable resources throughout Oregon.

The Parties submit these comments as a further exploration of the topics raised by the Commission and staff, and look forward to discussing the staff proposal further at Staff Workshop 2 in September, 2015.

RESPECTFULLY SUBMITTED this 7th day of August, 2015.

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