



825 NE Multnomah, Suite 2000  
Portland, Oregon 97232

August 7, 2015

***VIA ELECTRONIC FILING***

Public Utility Commission of Oregon  
201 High Street SE, Suite 100  
Salem, OR 97301-1166

Attn: Filing Center

**RE: UM 1746—Public Utility Commission of Oregon Report to the Legislature on  
Recommendations for Community Solar Program Designs and Attributes**

PacifiCorp d/b/a Pacific Power encloses for filing its comments in the above-referenced docket.

If you have questions about this filing, please contact Erin Apperson, Manager Regulatory Affairs, at (503) 813-6642.

Sincerely,

R. Bryce Dalley  
Vice President, Regulation

Enclosure

**Submitter:** PacifiCorp d/b/a Pacific Power (PacifiCorp or Company).

### **Brief definition for Community Solar in Oregon**

This is defined as a program to allow utility customers to source their electric supply from Oregon-sited solar projects.

### **Describe your Community Solar Program Design Proposal**

The PacifiCorp proposal allows customers to buy fixed kilowatt-hour blocks of electricity from a solar resource at a fixed price. The same kilowatt-hours are then used to offset the customer's energy usage at their home or business. Customers would subscribe to a specific solar project or group of solar projects that would be owned or contracted for by the utility. Customers benefit by not incurring the upfront investment costs of solar panels and the ongoing maintenance costs that occur with a typical rooftop installation. Instead, customers would buy blocks of solar energy at a fixed (locked-in) energy price for a fixed term, for example, two, five, seven, or ten years; their cost-based delivery rates would continue to be subject to future rate proceedings. The blocks of energy would lock in a portion of their electricity costs for the term they choose. The program could be offered to all customer classes, but initially should be offered to residential and small non-residential projects, as the Voluntary Renewable Energy Tariff proceeding may provide a similar option targeted to large commercial and industrial customers.

### **The Solar Resource**

In general, PacifiCorp supports acquisition of the solar resource through a Request for Proposal (RFP) process. The resource must be located in Oregon and must either interconnect directly with PacifiCorp's transmission or distribution system, or be delivered into PacifiCorp's service territory.

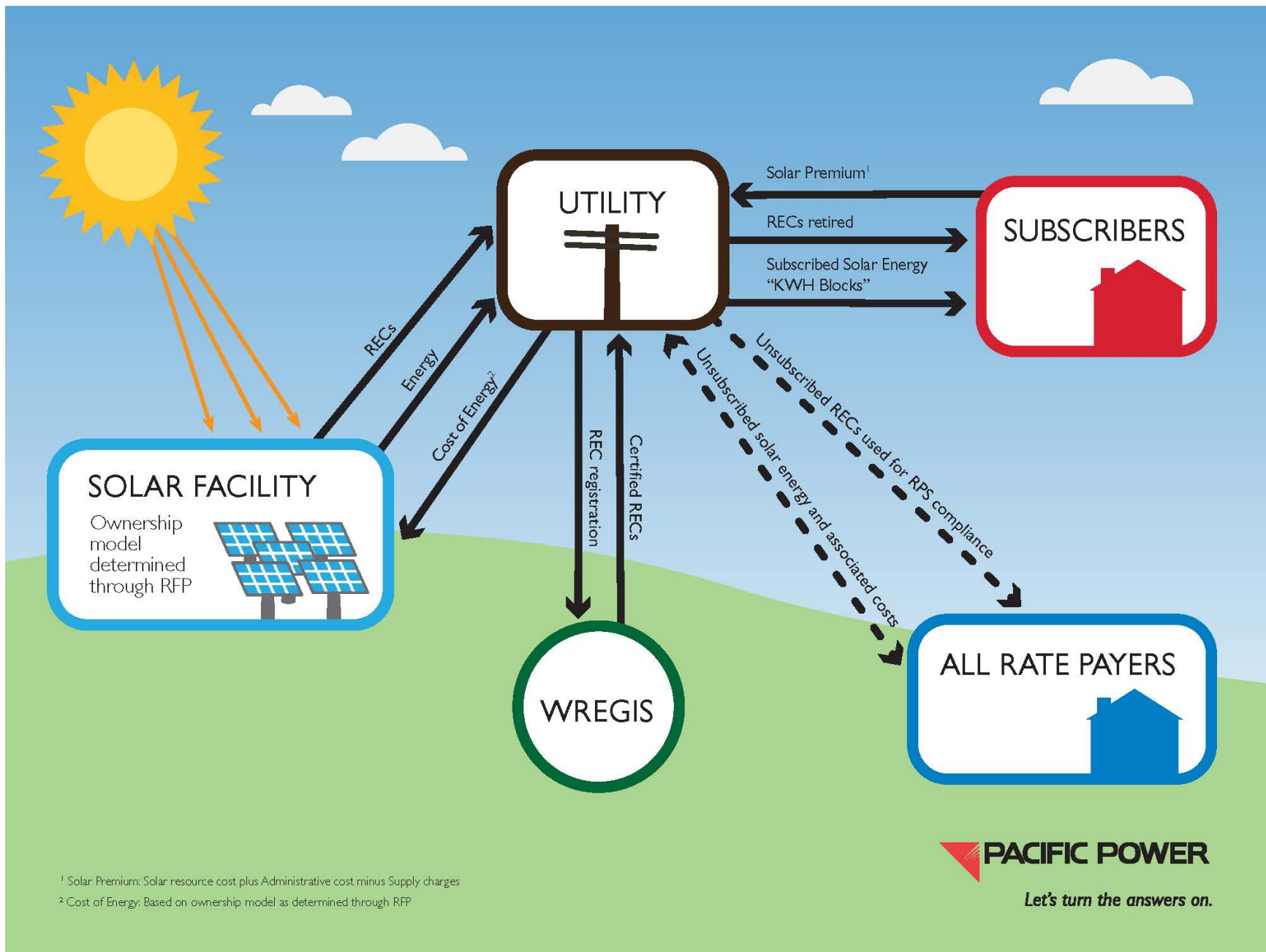
Three different types of structures should be solicited in the RFP: 1) Power Purchase Agreements (PPA); 2) Asset Purchase and Sale Agreements (APSA), also known as Build-Own-Transfer (BOT) arrangements; and 3) Engineer-Procure-Construct (EPC) arrangements. In each case, the Company would take ownership of all the environmental attributes (green tags or renewable energy credits) associated with the underlying resource.

## **Program Mechanics**

- Customers would elect to lock in their block purchase for a fixed term such as two, five, seven or ten years.
- Customers could subscribe to as many blocks as chosen, but their subscription cannot exceed 100 percent of their usage for the previous 12 months (on a kWh basis).
- Excess kWh in an individual month would carry forward and be applied in future months with annual excess expiring in March and the value of the excess donated to low income programs, which is similar to the existing net metering program.
- Subscriptions would be awarded on a first-come, first-served basis until program capacity is reached.
- If customers drop out and subscriptions become available, new customers would be able to subscribe.
- Customers could transfer their subscriptions to other locations in the Company's service territory if the customer moves.
- Subscribers would pay a termination fee if they cancel before the term of their agreement. The cancelation fee would equal six months—the approximate time needed to find a replacement subscriber—of the solar premium per block times the number of blocks subscribed.
- The utility will retain ownership of all environmental attributes, including green tags, renewable energy credits, and carbon emission reduction credits; the credits will be retired by the utility on behalf of subscribers.

## **Solar Energy Blocks**

- Customers can purchase 1 kW blocks of capacity (and associated energy) from the solar resource:
  - The block of capacity would be assigned a fixed amount of energy, for example 200 kWh per month. The energy amount for each block would be finalized once the solar resource is selected and the capacity factor is known.
- Bill credit: The customers kWh charges billed under the standard tariff rates would be reduced by the energy amount (kWh) associated with the customer's solar block subscription.
- The solar premium would include the cost of the resource plus administration costs, net of the supply charges.
  - The solar premium would be in addition to all other standard cost-based charges.



<sup>1</sup> Solar Premium: Solar resource cost plus Administrative cost minus Supply charges

<sup>2</sup> Cost of Energy: Based on ownership model as determined through RFP

## **Questions Related to Community Solar Attributes and Statutory Considerations**

### **1. Ownership Structure and 2. System Characteristics**

The resource acquisition model should be flexible. The primary concerns are to minimize the costs for participating customers and identify efficient projects. These concerns would generally be addressed through a robust RFP process. However, the Company also foresees situations where community solar project development could be leveraged in ways that cannot be directly addressed through a straight cost-based RFP. For example, this could include smaller, community-sited solar projects in response to a specific community demand, projects sited in specific locations to defer system upgrades, or a solar system co-located with storage to maximize system benefits. Prescribing system characteristics at this time may unintentionally foreclose possibilities in the future.

### **3. Eligibility criteria**

The community solar program is a scalable program that can be designed to respond to demand with new projects developed as demand arises. Initially, eligibility could be offered to residential and small non-residential customers, and then expanded to other customer classes.

### **4. Length and terms of contracts**

Customers would enter a contract for a fixed term, for example, two, five, seven, or ten years.

### **5. Subscription price calculation, 6. Bill credits calculation, and 7. Minimizing Cost-Shifting**

Oregon-specific solar energy block rates have not been calculated at this time. For reference, below is information based on a recently filed Rocky Mountain Power solar subscriber program that the Company could adapt for Oregon.

#### **Subscription Price and Bill Credit Calculation Example**

Specific rates and charges for an Oregon program would be calculated based on existing rates in Oregon. The following information is provided to demonstrate the billing mechanisms included within this proposal.

## Solar Energy Blocks

Solar Energy Block Generation Charge will be calculated as follows:

- Solar resource cost: the cost per kWh of the Subscriber Solar Program resource  
*Plus*
- Supply Charges  
*Plus*
- Program administration costs, including:
  - Administration
  - Marketing
  - Other Departments
  - Billing

The incremental cost to subscribing customers (compared to supply charges) will be described as the “solar premium.”

- Solar premium calculation:
  - The solar premium represents the additional cost of the solar energy blocks compared to supply charges.
  - The solar premium is determined as follows: Solar resource cost + program administration costs – supply charges = solar premium.
- The Solar Energy Block Generation Charge in the tariff (and on customers’ bills) will be a single charge (the sum of supply charges and the solar premium).
- The Solar Energy Block Generation Charge in the tariff will be locked in for the selected term (e.g. two, five, or 10 years).
- The Solar Energy Block Generation Charge will *not* include delivery charges; instead, those will be assessed as separate charges.

## **Bill Credit**

- The customers kWh charges billed under the standard tariff rates would be reduced by the energy amount (kWh) associated with the customer's solar block subscription.

## **8. Risk assessment**

### **Solar Facility System Performance**

As a portion of the RFP, performance guarantees will be included which should limit any negative impacts for program subscribers. However, the energy amount per block may be modified over time based on the actual production/performance of the solar resource.

### **Subscription rate and fluctuations in under and over subscription**

The program rates would be designed to cover the forecasted difference between the costs and benefits of the solar resource assuming a 100 percent subscription rate. If a lower subscription rate occurs, the difference for the unsubscribed portion of the solar resource would be attributed to all Oregon customers. This difference may be positive or negative depending on the actual impact to net power costs during the times the program is not 100 percent subscribed.