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September 19, 2016

***VIA ELECTRONIC FILING***

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

Attn: Filing Center

**RE: UM 1716 —PacifiCorp's Reply Brief**

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

If you have questions about this filing, please contact Natasha Siores at (503) 813-6583.

Sincerely,

R. Bryce Dalley  
Vice President, Regulation

Enclosures

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

UM 1716

In the Matter of

PUBLIC UTILITY COMMISSION OF  
OREGON

Investigation to Determine the Resource  
Value of Solar

PACIFICORP'S REPLY BRIEF

**I. INTRODUCTION**

PacifiCorp, d/b/a Pacific Power (PacifiCorp or the Company) continues to support adoption of the resource value of solar (RVOS) calculation methodology proposed by Staff of the Public Utility Commission of Oregon (Commission). The RVOS methodology proposed by Staff is consistent with the Commission's directive to only include elements that "could directly impact the cost of service to utility customers."<sup>1</sup> The RVOS methodology is also dynamic in nature and can accommodate changes depending on the specific applications determined by the Commission. In subsequent proceedings to determine a utility-specific RVOS, and in subsequent proceedings to determine the application of the RVOS, the RVOS methodology will provide a necessary framework for analysis.

**II. DISCUSSION**

The parties to this proceeding generally agree with the inclusion in the RVOS methodology of the elements proposed by Staff. The Commission should adopt the RVOS methodology proposed by Staff and reject attempts to include additional elements at this time.

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<sup>1</sup> *In the Matter of Public Utility Commission of Oregon Investigation to Determine the Resource Value of Solar*, Docket UM 1716, Order No. 15-296 (Sept. 2015) at 2. (Order No. 15-296).

**a. The RVOS Methodology Should Not Include an Element for Reliability, Resiliency, and Security at This Time.**

The Renewable Northwest, Oregon Solar Energy Association, NW Energy Coalition, and Northwest Sustainable Energy for Economic Development (collectively, the Joint Parties), the Alliance for Solar Choice (TASC), the Citizens' Utility Board of Oregon (CUB) and the Oregon Department of Energy (ODOE) continue to argue that the RVOS methodology should include an element for security, resiliency, and reliability.<sup>2</sup> The potential security, resiliency, and reliability benefits of solar are both limited<sup>3</sup> and speculative<sup>4</sup> at this time and, for those reasons, this element should not yet be included in the RVOS methodology.

The Joint Parties erroneously interpret the Commission's guidance for including an element in the methodology—whether the element “could directly impact the cost service to utility customers”<sup>5</sup>—as the sole determining factor for including an element in the methodology. The Joint Parties further argue that excluding the security, resiliency, and reliability element will result in a methodology that “cannot be the best available estimate or approach to developing an estimate of the RVOS.”<sup>6</sup> CUB notes that the security, resiliency, and reliability element is “not a major element of the model” but continues to support including the element in the RVOS methodology.<sup>7</sup> CUB appears to agree with the Joint Parties that distributed resources could, at some point in the future, provide security, resiliency, and reliability benefits.<sup>8</sup> TASC supports

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<sup>2</sup> Initial Brief of the Joint Parties at 4; Initial Brief of TASC at 6; Initial Brief of CUB at 4; Pre-Hearing Brief of ODOE at 1.

<sup>3</sup> “The vast majority of distributed solar generation in Oregon will not provide [security, resiliency, and reliability] benefits.” Opening Brief of Staff at 14.

<sup>4</sup> In explaining the potential security, resiliency, and reliability of non-microgrid solar applications, the Joint Parties state that “the element currently fails to capture benefits that solar *could* provide ratepayers by *potentially* reducing the *likelihood* of outages as well as by providing voltage support.” Initial Brief of Joint Parties at 5. (Emphasis added). The Joint Parties similarly note that while “the capability to provide

‘Security, Reliability, Resiliency’ services, as currently defined, may not be common in Oregon now, it likely will be in the future.” Initial Brief of Joint Parties at 6. (Emphasis added).

<sup>5</sup> Order No. 15-296 at 2.

<sup>6</sup> Initial Brief of Joint Parties at 6.

<sup>7</sup> Initial Brief of CUB at 4.

<sup>8</sup> See CUB/100, Jenks-Hanhan/6, ll 13-15. “While this [element] may not be available as an immediate solar resource value, as penetration increases, distributed generation could add significant value to the system in terms of resiliency and stability.” *Id.*

inclusion of this element, along with other “placeholder” elements for potential societal benefits.<sup>9</sup>

The Joint Parties, CUB, and ODOE all acknowledge that security, resiliency, and reliability costs and benefits are currently speculative but may materialize over time.<sup>10</sup> The mere fact that an element may, at some point in time and for some specific applications, directly impact a utility customer’s cost of service is not sufficient grounds for including an element in the methodology. As noted by Staff, “[i]f the RVOS methodology is to have a broad application, the benefits that a few solar systems may provide to ratepayers in very particular circumstances should not be valued in the methodology.”<sup>11</sup> Therefore, it is not enough that an element could directly impact customer costs; an element should also provide benefits to a broad range of customers and not a limited range of customers in specialized circumstances.

On September 16, 2016, the Energy Trust of Oregon (ETO) provided the parties in this proceeding with its response to informal data requests asking for information regarding installation of microgrids and smart inverters. According to the ETO, only seven percent of total ETO solar installations in Oregon meet the ETO’s definition of a microgrid<sup>12</sup> as of September 15, 2015. Further, only 13 percent of in-progress applications are microgrids as of September 15, 2016. ETO defined microgrids with reference to the ability of system to island and provide power during an outage, benefits that accrue to that specific customer and not to utility ratepayers that are not themselves solar generators. The ETO also indicates that approximately 22 percent of solar projects include smart inverter models that can be updated to provide grid

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<sup>9</sup> Initial Brief of TASC at 6.

<sup>10</sup> Initial Brief of Joint Parties at 6; Initial Brief of CUB at 4; Pre-Hearing Brief of ODOE at 2.

<sup>11</sup> Opening Brief of Staff at 14.

<sup>12</sup> The ETO identified three categories of microgrids:

- 1) Solar plus storage for backup only: A solar installation paired with batteries, capable of islanding the site to provide the customer with power during a utility outage.
- 2) Advanced solar plus storage: A solar installation paired with batteries, capable of both islanding the site to provide the customer with power during an outage and operating in parallel with the utility to optimize onsite solar energy usage, limiting the amount of electricity that is fed back to the grid and/or shifting peak demand. Additionally, some projects in this group have potential to communicate with a utility to provide grid services.
- 3) Solar backup without storage: A solar installation paired with an inverter that is capable of islanding and powering a secure power outlet during power outage.

services as of September 15, 2016. Like microgrids, the benefits of smart inverters are currently limited to the specific customer as opposed to the utility system as a whole.<sup>13</sup> Therefore, the Company supports the recommendation of Staff to not include a separate security, resiliency, and reliability element at this time.

Despite increasing penetration of microgrids and smart inverters, the overall penetration rate for systems truly capable of providing security, resilience, and reliability benefits is still quite low. PacifiCorp agrees that this element may provide benefits at some point in the future,<sup>14</sup> but unlike the Joint Parties, CUB and ODOE, PacifiCorp does not support including a speculative and narrowly applicable element at this time and recommends the Commission consider including this element only after widely available security, resiliency, and reliability benefits can be shown.

**b. Integration and Ancillary Services are Appropriately Considered a Single Element.**

The Joint Parties, TASC, and ODOE propose separating ancillary services into a single, stand-alone element.<sup>15</sup> Similar to the proposed security, resiliency, and reliability element, a stand-alone element for ancillary services is premised on limited and speculative benefits. For example, ODOE acknowledges that “the potential value streams for security, reliability, resiliency and related ancillary services are largely associated with advanced inverter technologies, which have not been deployed and adopted yet in Oregon and may not become part of the mainstream market for many years.”<sup>16</sup> The Joint Parties continue to erroneously apply the Commission’s guidance from Order No. 15-296 to arrive at the conclusion that the mere potential for a direct impact to the costs for utility customers is enough to justify including an

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<sup>13</sup> The ETO provided a link in their letter to an internet article by SMA Inverted titled “How to explain Secure Power Supply to Homeowners.” The article identifies some of the benefits as being able to “charge cell phones after a storm or to power gaming equipment for family competition during an outage. We’ve even heard about a neighbor who used it to keep his beer cold.” See <http://www.smainverted.com/how-to-explain-secure-power-supply-to-homeowners/> (last accessed Sept. 19, 2016). It is unclear how these localized benefits are providing benefits to the entire utility system.

<sup>14</sup> Opening Brief of PacifiCorp at 4.

<sup>15</sup> Initial Brief of Joint Parties at 10; Initial Brief of TASC at 13; Pre-Hearing Brief of ODOE at 2.

<sup>16</sup> Pre-Hearing Brief of ODOE at 2.

element in the methodology. This interpretation of the Commission’s guidance is misplaced and fails to take into consideration the need for the RVOS methodology to be broadly applicable. Therefore, in addition to directly impacting utility customer costs, an element should represent costs and benefits that are broadly applicable to the majority of solar systems. Given that most solar systems lack the ability to provide ancillary services, the Commission should reject proposals to include a separate element for ancillary services in the RVOS methodology at this time.

PacifiCorp also notes that the Joint Parties repeatedly mischaracterize the stakeholder process and Staff’s July 15, 2016 comments in this proceeding. The explanations for each element that were part of the outcome of the stakeholder process during earlier phases of this docket were not universally agreed upon. In addition, Staff’s presentation of elements to the Commission in comments from July 15, 2016 did not recommend elements for inclusion in the methodology, as the Joint Parties claim,<sup>17</sup> but rather recommended elements as “subject to further investigation as elements that *may* be included in the resource value of solar[.]”<sup>18</sup> Staff’s current recommendation to not include a security, resiliency, and reliability elements is consistent with Staff’s earlier recommendation to further investigate the element; Staff investigated and appropriately determined that the element is not appropriate for inclusion in the methodology at this time.

**c. Non-existent Carbon Compliance Costs Should Not Be Included in the RVOS Calculation.**

TASC argues that the carbon compliance value should not be set at zero over the entire 25-year planning horizon because of the possibility that there will be a price on carbon at some point in the future.<sup>19</sup> While this issue is most appropriately addressed in the next phase of this proceeding, PacifiCorp notes that TASC’s position underscores PacifiCorp’s position on two

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<sup>17</sup> Opening Brief of the Joint Parties at 10.

<sup>18</sup> Comments of Staff at 1. (Emphasis added).

<sup>19</sup> Opening Brief of TASC at 12.

related aspects of the RVOS methodology: the RVOS will be most accurate if the levelization period is less than 25 years and the RVOS methodology should be updated as frequently as necessary to achieve the most accurate results.

Currently, PacifiCorp does not incur compliance costs associated with carbon in the state of Oregon. As such, it would be inappropriate, not to mention inaccurate, to include an avoided carbon compliance cost value in the RVOS because it would overstate the benefit of solar to the utility. If the RVOS levelization period is less than 25 years and if the RVOS can be updated as circumstances change, the methodology could allow for including the actual avoided carbon compliance costs at the time the carbon compliance cost is incurred.

As TASC correctly points out, the Company does assume future carbon regulation and models those costs as part of its long-term planning process, but those assumptions are for modeling purposes and are intended to guide the Company's long-term resource planning process.<sup>20</sup> The Commission has noted that "there could be many potential policy and ratemaking uses for the resource value of solar" but has not yet determined any specific uses for the RVOS, including use of the RVOS as a long-term planning tool.

**d. The Commission Should Consider Policy Issues Raised by TASC in the Next Phase of This Proceeding.**

TASC raises a variety of policy questions related to inputs to the methodology. Specifically, TASC requests the Commission provide guidance on the methodologies used to determine utility-specific inputs to the RVOS methodology,<sup>21</sup> that all datasets be made publicly available,<sup>22</sup> and that the Commission provide guidance or requirements to ensure sufficiently granular data inputs.<sup>23</sup> Utility-specific inputs to the methodology will be addressed in a subsequent proceeding and after the elements of the methodology are determined. It is more appropriate to address these policy issues as part of the utility-specific determination of an

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<sup>20</sup> Opening Brief of TASC at 13.

<sup>21</sup> Opening Brief of TASC at 2.

<sup>22</sup> Opening Brief of TASC at 2.

<sup>23</sup> Opening Brief of TASC at 5.

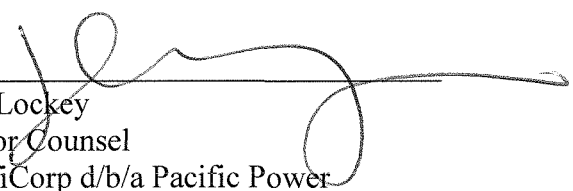
PacifiCorp notes, however, that public access to data sets should be balanced against harm to customers if sensitive information is made publicly available. The Commission's existing process for protective orders in proceedings is sufficient to allow stakeholders access to confidential information without creating undue risk for customers.

### III. CONCLUSION

PacifiCorp respectfully requests that the Commission adopt the RVOS methodology proposed by Staff.

Respectfully submitted this 19<sup>th</sup> day of September, 2016.

By: \_\_\_\_\_

  
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