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.

REPLY BRIEF OF THE ALLIANCE FOR SOLAR CHOICE

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Pursuant to the Administrative Law Judge’s Pre-Hearing Conference Memorandum issued November 9, 2015 and Ruling issued August 10, 2016 in the above-captioned docket, the Alliance for Solar Choice (TASC) hereby submits this reply brief.

I. Introduction

TASC’s advocacy in this proceeding has focused on ensuring that the methodology developed by the Commission to value solar is based on a solid analytical framework by making certain that adequate standards are in place to guarantee data quality, taking into account the different methodological choices for model inputs, and underscoring the importance of using data with hourly precision. TASC also responded in its Initial Brief to a number of issues raised by parties such as arguments for including additional benefits and opposition to PacifiCorp’s proposal to utilize resource deficiency when determining compensation for behind-the-meter (BTM) solar.
This reply brief supports those positions and responds to points made by parties in their initial briefs. Particularly, a number of party recommendations fundamentally misunderstand the purpose of Phase I of this proceeding. We are tasked in this initial phase with examining elements and methodologies.\(^1\) Examining the values for each utility using those adopted methodologies is reserved for the second phase of this proceeding.\(^2\) Nonetheless, a number of parties argue that certain potential inputs have a value of zero and therefore should not be included. In doing so, these parties erroneously conflate the value of a potential input with whether that input is reasonable. To the extent the utilities argue that potential categories of benefits have a zero value, that does not preclude their inclusion in the methodology.

Given that this will be Oregon’s “first comprehensive study into the resource value of solar,” it is essential that, in this phase, the Commission develop a methodology that can account for all potential categories of benefits.\(^3\) In the future, this comprehensive methodology can be tailored to address specific policy proposals. However, at this time, the Commission has refrained from “prejudging potential future uses” in order for the methodology to be deployable for “many potential policy and ratemaking uses.”\(^4\) Therefore, as the Commission has stated, it is important that it take into account the total array of “elements that could directly impact the cost of service to utility customers.”\(^5\)

II. TASC has Focused on Ensuring Data Quality Standards.

A significant portion of TASC’s advocacy in this proceeding has focused on ensuring data quality standards, taking into account methodological choices for inputs, and encouraging

\(^1\) Order No. 15-296 (Sep. 28, 2015) at p. 2.
\(^2\) Id.
\(^3\) Id.
\(^4\) Id.
\(^5\) Id.
the use of data with hourly precision. TASC has also argued that avoided costs should not be assigned zero values simply because they are uncertain or difficult to quantify. In response, Idaho Power states that while they do not disagree with not assuming zero values, there may be instances in which values actually are zero and should be reflected as such. TASC does not disagree with assigning zero values where those values are sufficiently shown to be zero.

TASC additionally has advocated for inclusion of hourly data where possible. Staff states that while they agree with parties’ arguments regarding the importance of further investigation into inputs for each element, determinations regarding the calculation of inputs will take place in the next phase of this proceeding. TASC appreciates Staff’s support for parties’ concerns regarding inputs and acknowledges that certain issues regarding data quality may be more appropriate for the second phase of this proceeding.

III. TASC Supports the Inclusion of Societal Benefits as an Element in Order to Ensure a Comprehensive Study of the Resource Value of Solar.

TASC has argued that the tool should include societal benefits or, if the Commission determines these benefits to be outside the scope of this proceeding, at least placeholders for these benefits. This will be necessary if the RVOS is to be used to evaluate NEM because ORS § 757.300 requires the Commission to “consider the environmental and other public policy benefits of net metering systems” when limiting a utility’s NEM obligations.

Staff and Idaho Power argue against the inclusion of even a placeholder for societal benefits, stating that because Section 757.300 is particular to an assessment of NEM,
consideration of societal benefits here in the RVOS is unnecessary.\textsuperscript{10} This argument ignores the fact that in UM 1758, Staff identified the RVOS as a means to analyze NEM, stating that “[t]he methodology will provide means to value solar generation, whether it is from a solar farm or rooftop array.”\textsuperscript{11} Staff and Idaho Power’s position in this docket, therefore makes little sense and is inconsistent with Staff’s assertions made in other proceedings. If the RVOS is to become a viable tool for assessing NEM, Section 757.300 dictates that it contain placeholders for “environmental and other public policy benefits.” By refraining from including these benefits – or at least placeholders – in the RVOS, the Commission risks expending a great deal of time and effort to create a tool that is all but useless for any later assessment of NEM even though Staff apparently intends to use it as part of its assessment of NEM.

Furthermore, Staff states that,

While Staff recognizes that distributed solar generation can have real societal benefits such as reduced air emissions, Staff believes that the appropriate place to consider this information is in public policy forums such as the Legislature, not in electric utility ratemaking proceedings such as this one.\textsuperscript{12}

Staff’s insistence that societal benefits be considered only by the Legislature and not by the Commission in ratemaking proceedings is misplaced. First, this is not a ratemaking proceeding; this is an investigation into the resource value of solar. As the Commission has stated, the task of this docket is to “get the best available estimate or approach to developing an estimate of the resource value of solar.”\textsuperscript{13} To exclude a benefit Staff admits exists is directly at odds with the very task the Commission has laid out for itself in this proceeding. The exclusion of societal benefits also flies directly in the face of consistent Legislative efforts to reduce

\textsuperscript{10} Staff Opening Brief at p. 12; Idaho Power Initial Brief at p. 14.
\textsuperscript{11} Staff, Draft Solar Incentives Report, UM 1758 (July 28, 2016), at p. 11.
\textsuperscript{12} Staff Opening Brief at p. 12.
\textsuperscript{13} Order No. 15-296 at p. 2.
pollution and health impacts of fossil fuel generation through greater utilization of renewable resources.\(^{14}\)

Moreover, there are a number of well-established societal benefits of solar which have been accounted for in similar proceedings around the country. For example, E3 included societal benefits in a recent study into the value of NEM conducted in New York.\(^{15}\) Additionally, Maine’s Final Value of Solar Study included societal benefits of avoided carbon, SO\(_2\) and NO\(_x\) emissions.\(^{16}\) The Vermont Public Service Board also conducted an evaluation of NEM that calculated the cost to non-participating ratepayers and to society both with and without externalized greenhouse gas (GHG) emission costs.\(^{17}\) Additionally, the Minnesota Public Utilities Commission’s (MPUC) value of solar (VOS) statute expressly requires the methodology to account for environmental value, and states that the VOS must compensate customers for the “value to the utility, its customers, and society.”\(^{18}\) Finally, a Minnesota administrative law judge issued a recommendation earlier this year that the MPUC adopt the federal social cost of carbon in meeting the Minnesota statutory requirement that the MPUC “quantify and establish a range of environmental costs associated with each method of electricity generation,” and use those costs “when evaluating and selecting resource options in all proceedings before the Commission,\(^{19}\)

\(^{14}\) See, e.g., SB 838 (2007) (establishing Oregon’s Renewable Portfolio Standard (RPS)); SB 1547 (2016) (increasing the RPS to 50% by 2040 and requiring utilities to eliminate coal from their electric supply).


\(^{18}\) Minn. Stat § 216B.164, Subd. 10(a); See Minn. PUC, Order Approving Distributed Solar Value Methodology, Docket No. E-999/M-14-65 (Apr. 1, 2014), at pp. 1-2, 6.
including resource plan and certificate of need proceedings.”¹⁹ There is therefore no logical reason to exclude societal benefits from this proceeding, as doing so would be inconsistent with similar studies carried out by public utilities commissions throughout the country.

Finally, Staff’s argument that the uses of the RVOS should not be determined at this point directly supports having a robust, accurate and comprehensive accounting of the resource value of solar by not excluding known benefits of solar resources.²⁰ Once the RVOS is used in a particular setting, it can be adjusted by the Commission to more accurately reflect the specific value streams any particular resource is able to provide based on that resource’s characteristics – placement in the grid, delivery profile, use of tracking, etc. However, in the absence of an enumerated set of uses, the RVOS should be as comprehensive as possible so that it may be deployed in the widest variety of contexts.

IV. **TASC Supports the Inclusion of Security, Resiliency and Reliability in Order to Reflect the Full Scope of Potential Benefits of Solar.**

In our Initial Brief, TASC supported parties’ advocacy for including categories of additional benefits.²¹ For instance, the Citizens’ Utility Board (CUB) and Joint Parties²² advocated for the inclusion of resiliency, security and reliability.²³ Staff, Idaho Power and Portland General Electric (PGE) argue that these benefits only accrue in specific instances, such as

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²⁰ Staff Opening Brief at p. 16.
²¹ TASC Initial Brief at p. 6.
²³ CUB Initial Brief at p. 4; Joint Parties Initial Brief at pp. 2-4.
as in a microgrid setting, and that most solar energy systems in the state do not have these capabilities.\textsuperscript{24}

However, TASC agrees with Joint Parties who note that the analysis being developed is not limited to mass-market rooftop systems, and that the Commission’s standard is to “consider elements that \textit{could} directly impact the cost of service to utility customers,” rather than elements that “currently do.”\textsuperscript{25} The entire point of developing an RVOS methodology is to guide stakeholders in deliberations about future program design. The extent to which the RVOS does not recognize benefits solar is able to provide will undermine the use of the methodology in determining future avenues of regulatory reform necessary to continue to unlock the benefits of solar resources. Moreover, as the Oregon Department of Energy (ODOE) and CUB note, security, resiliency and reliability may exist outside of a microgrid context as, for instance, distributed solar generation can provide security benefits by offering grid stability.\textsuperscript{26}

Parties’ objections to including these elements in the methodology fundamentally misunderstand the task at hand in this phase of the proceeding, which is to determine categories of elements, not the values for those elements.\textsuperscript{27} The mere fact that a potential benefit may currently have a near-zero value because regulatory policy in Oregon does not support unlocking that benefit does not preclude that element’s inclusion in the methodology as an element that could directly impact the cost of service to utility customers. Identification and valuation of that benefit is essential in assisting stakeholders in understanding the resource value of solar so that regulatory policies can be reformed. TASC therefore supports the inclusion of resiliency, security and reliability in the methodology.

\textsuperscript{24} Staff Opening Brief at pp. 13-14; Idaho Power Initial Brief at p. 10; PGE Opening Brief at p. 4.
\textsuperscript{25} Joint Parties Initial Brief at p. 2; Order No. 15-296 at p. 2.
\textsuperscript{26} ODOE Prehearing Brief at p. 1; CUB Initial Brief at p. 4.
\textsuperscript{27} Order No. 15-296 at p. 2; CUB Initial Brief at p. 2.
V. TASC Supports the Inclusion of RPS Benefits and Utilities’ Progress in Meeting RPS Goals has no Bearing on Whether This Category Should be Included.

TASC has argued that distributed solar provides renewable portfolio standard (RPS) benefits by reducing the load on which the RPS is based.\textsuperscript{28} Idaho Power responds that, since Idaho Power can already meet its RPS requirements, solar provides no RPS benefit.\textsuperscript{29} Additionally, PacifiCorp argues that avoided RPS should not be assumed since the element depends on a number of factors, and that, for instance, a VOS tariff could be adopted whereby load served would not be reduced by distributed generation.\textsuperscript{30}

Both of these responses are misplaced and again misunderstand the task before us in this phase of this proceeding. Although Idaho Power deserves commendation for reaching its RPS goals, that fact is irrelevant to whether solar provides RPS benefits. While the amount for this category may currently be zero for Idaho Power, under Oregon’s current RPS framework the benefit as a category nonetheless exists and should be included.

Idaho Power ignores two facts in making its argument. First, Idaho Power already receives a RPS benefit for DG resources deployed on its grid that have lowered retail sales. Thus, failure to include a RPS benefit ignores a current benefit Idaho Power receives. Furthermore, while Idaho Power may have a zero value for ongoing RPS benefits due to its current compliance, the other utilities may still have a non-zero value for this category.\textsuperscript{31} Finally,

\begin{itemize}
\item \textsuperscript{28} TASC Initial Brief at p. 12.
\item \textsuperscript{29} Idaho Power Initial Brief at pp. 9-10.
\item \textsuperscript{30} PacifiCorp Opening Brief at p. 5.
\item \textsuperscript{31} See, e.g., PacifiCorp, 2017-2021 RPS Plan, UM 1790 (July 15, 2016), Appendix A, at pp. 2-3, \textit{available at} http://edocs.puc.state.or.us/efdocs/HAA/um1790haa112016.pdf (showing a need for Renewable Energy Credits beginning in 2025 after utilizing existing bank of credits through 2024); PGE 2016 Revised Renewable Portfolio Implementation Plan, UM 1788 (July 15, 2016), at pp. 5-6, \textit{available at} http://edocs.puc.state.or.us/efdocs/HAA/um1788haa16923.pdf (laying out procurement strategies for acquiring RPS-eligible resources in 2018 and in subsequent years beginning in 2025).
\end{itemize}
Oregon’s RPS requirements may change, so inclusion of the benefit at this point in time for Idaho Power – even if set to zero value – is appropriate.

Finally, PacifiCorp’s argument would have the Commission prejudge the benefit solar resources are providing today and will provide in the future to PacifiCorp based on a future compensation structure that has not been adopted by the Commission. This argument ignores the fact that the very purpose of including RPS and other potential benefits is to develop a methodology that is flexible enough to support stakeholder evaluation of future proposals for adjusting Oregon policy regarding solar resources.

VI. TASC Supports Uncoupling Ancillary Benefits from Integration as These Benefits Could Directly Impact the Cost of Service to Utility Customers.

TASC and other parties have argued that ancillary benefits should be uncoupled from integration and separately considered.\textsuperscript{32} A number of parties argue against separately considering ancillary services benefits, arguing that solar does not offer these benefits today. Staff acknowledges that ancillary benefits can be provided by distributed solar generation, but states that few if any systems can presently provide those benefits.\textsuperscript{33} Idaho Power also acknowledges that solar can provide ancillary services but states that Oregon’s distribution system is currently incapable of extracting ancillary services from distributed solar.\textsuperscript{34} PacifiCorp similarly supports Staff’s assertion that it is “uncommon” for solar resources to provide ancillary services and states that these benefits should not be included “until a time when the benefits to the utility are real and measurable.”\textsuperscript{35}

\textsuperscript{32} TASC Initial Brief at pp. 13-14; ODOE Prehearing Brief at p. 2; Joint Parties Initial Brief at p. 10.
\textsuperscript{33} Staff Opening Brief at p. 15.
\textsuperscript{34} Idaho Power Initial Brief at p. 10.
\textsuperscript{35} PacifiCorp Opening Brief at p. 4.
Yet again, Staff and other parties ignore the fact that this phase of the docket is designed to identify benefits “that could directly impact the cost of service to utility customers.” The clear admissions by Staff, Idaho Power and PacifiCorp that distributed solar is capable of providing ancillary benefits supports inclusion of these benefits. While these parties argue that the value for this category is small, that value will be determined in a later date and within a specific context. The value for this category is irrelevant to the question of whether solar can offer ancillary benefits, which Staff, Idaho Power and PacifiCorp answer in the affirmative. Therefore, these benefits, though perhaps having a low value now, could impact the cost of service to utility customers and therefore meet the requirements for inclusion in the RVOS under Order No. 15-296. Moreover, distributed solar can provide ancillary benefits through the avoided need for ancillary services to the extent distributed solar reduces load. E3 has estimated this benefit in the range of 1% of avoided energy costs.

Most importantly, the fact that a benefit can exist but has yet to be fully unlocked should serve as an impetus for regulatory reform to unlock that value, not as a reason to ignore it. To argue that a certain category of benefit should be excluded simply because the present value for that benefit is small hinders the RVOS’ usefulness as a tool for guiding energy policy. The purpose of regulatory reform is to accurately value potential benefits in order to illuminate regulatory changes that can unlock those benefits. In order to do that, the RVOS first must acknowledge the existence of these benefits. TASC therefore recommends that the Commission separately consider ancillary benefits.

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36 Order No. 15-296 at p. 2.
VII. TASC Supports the Inclusion of Carbon Compliance Benefits in Order to Reflect Potential Future Avoided Costs.

TASC has argued that carbon compliance benefits should be considered in the RVOS due to the potential for the future implementation of these requirements. As TASC noted, including this category is in line with industry best practices of making reasonable assumptions to represent future conditions in long-term planning. Indeed, in a recent report, a number of investor-owned utilities, including Ameren Corporation, American Electric Power Company (AEP), Duke Energy, Entergy, Exelon, NRG Energy, NiSource Inc. and OGE Energy, disclosed using internal carbon pricing in their planning processes in order to reflect the expectation of future regulations placing a price on carbon emissions.

In response, Idaho Power argues that their customers do not bear any costs related to carbon emissions and that future compliance costs cannot be determined with any certainty. However, Idaho Power has already identified benefits that accrue to its customers thanks to avoided carbon emissions. Idaho Power has trumpeted its efforts to reduce carbon emissions and noted that its efforts to do so via energy efficiency services and programs directly benefit its customers. Idaho Power has also already acknowledged a number of climate impacts its customers will face due to carbon emissions, including disruption of transmission and distribution systems, service interruptions and extended outages, and changes in hydroelectric

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38 TASC Initial Brief at p. 12.
39 Id.
40 CDP, Putting a price on risk: Carbon pricing in the corporate world (Sep. 2015), at pp. 39-42.
41 Idaho Power Initial Brief at p. 12.
Finally, the federal government has determined that all customers will benefit from carbon emissions reductions as established in the social cost of carbon. It is therefore inaccurate to state that Idaho Power’s customers do not bear any costs related to carbon emissions.

Moreover, although the value of avoided carbon compliance costs may presently be zero, future regulatory conditions may result in non-zero values for this category. Therefore, while carbon compliance costs may not be currently felt by customers, they are a category of potential costs that could directly impact the cost of service to utility customers in the future and should therefore be included. This apparently was the view shared by the Commission when it explicitly addressed the question of carbon compliance in this docket, stating that it “would consider the potential financial costs to utilities of future carbon regulation.”

Idaho Power’s criticism of inclusion of carbon compliance benefits suffers from the same deficiency as other parties’ criticisms of including additional benefits. Namely, that whether a benefit has a zero value is irrelevant to the question of whether the category of benefit should be included in the methodology because the benefit “could directly impact the cost of service to utility customers.” Additionally, as with other benefits on the horizon, it is essential that potential carbon compliance benefits be included so that the RVOS can be a forward-looking

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45 See Order No. 15-296 at p. 2.
46 Id.
47 Id.
tool that can help guide transformative regulatory reform. TASC therefore believes the RVOS should include a category for consideration of potential carbon compliance benefits.

VIII. **TASC Opposes the use of Resource Deficiency in Determining Compensation for BTM Solar.**

TASC has argued that the use of resource deficiency makes the RVOS problematic for calculating compensation for BTM solar. Nonetheless, Idaho Power and PacifiCorp argue that the generation capacity value should be zero for years that have sufficient capacity and therefore no deferrable investments. However, as Staff has noted, using a utility’s resource deficiency as a starting point for attributing generation capacity value for existing solar resources is problematic because it creates a circularity in the valuation process. For this reason, TASC continues to advocate for the Commission to consider the differences between BTM solar and qualifying facilities (QFs) and refrain from employing the resource deficiency approach in the BTM context.

The California Public Utilities Commission (CPUC) has similarly done away with the Resource Balance Year concept in the context of demand-side resources, determining that “the resource balance year seems like an artifact of a time when distributed energy resources were not a core focus of the system but a value added that could go away at any time.’ . . . Continuing the current system ignores the value of the role distributed energy resources played in past planning decisions and it ignores the Commission clean energy focus.” Oregon’s consistent support for renewables and distributed generation puts the state in the same situation as California. Given

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48 TASC Initial Brief at pp. 7-8.
49 Idaho Power Initial Brief at p. 9; PacifiCorp Opening Brief at p. 3.
50 TASC/200 at p. 5, ln. 9-20 to p. 6, ln. 1-12.
51 See TASC Initial Brief at pp. 7-8.
52 California Public Utilities Commission, D.16-06-007, Decision to Update Portions of the Commission’s Current Cost-Effectiveness Framework, R.14-10-003 (June 5, 2016), at p. 16.
Oregon’s focus on incorporating distributed resources into planning decisions, TASC recommends the Commission take a similar approach here and avoid using resource deficiency when calculating generation capacity value.\(^{53}\)

Additionally, Idaho Power also proposes a transmission and distribution (T&D) deficiency year similar to the generation capacity resource deficiency year.\(^{54}\) TASC believes this proposal similarly suffers from the same defects as the generation capacity resource deficiency year and should therefore be rejected.

Given the problematic nature of using resource deficiency when determining compensation for BTM solar, TASC requests the Commission clarify how the RVOS will be used. Staff has urged the Commission not to determine at this time how the RVOS will be used,\(^{55}\) while Joint Parties have stated that the RVOS should not be limited in its uses.\(^{56}\) Additionally, Idaho Power has urged the Commission to use caution when using the RVOS for a specific purpose and has stated that the RVOS should not be applied to NEM without reevaluating elements and data inputs.\(^{57}\) Given the uncertainty about how the RVOS will be used and the problematic nature of using resource deficiency if the RVOS is used to establish compensation for BTM solar, TASC respectfully requests the Commission clarify that the RVOS will not be used directly for determining compensation for BTM solar.

\(^{53}\) See, e.g., Order No. 07-002, UM 1056, Investigation Into Integrated Resource Planning (Jan. 8, 2007), at pp. 21-22 (“Electric utilities should evaluate distributed generation technologies on par with other supply-side resources and should consider, and quantify where possible, the additional benefits of distributed generation.”); See also Staff Report, PacifiCorp (Docket No. LC 62) Acknowledgement of 2015 Integrated Resource Plan (Nov. 23, 2015), at p. 3 (discussing increasing importance of considering the effects of distributed generation on the grid).

\(^{54}\) Idaho Power Initial Brief at p. 9.

\(^{55}\) Staff Opening Brief at pp. 15-16.

\(^{56}\) Joint Parties Initial Brief at pp. 12-13.

\(^{57}\) Idaho Power Initial Brief at p. 2.
IX. Conclusion

TASC appreciates the opportunity to provide this reply brief and looks forward to addressing the issues identified above in this proceeding.

Respectfully submitted,

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