BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

UM 2005

In the Matter of PUBLIC UTILITY COMMISSION OF OREGON, Investigation into Distribution System Planning.	INTRODUCTORY COMMENTS OF RENEWABLE NORTHWEST

I. INTRODUCTION

Renewable Northwest thanks the Oregon Public Utility Commission ("Commission") and Commission Staff ("Staff") for this opportunity to submit responses to Staff's May 23, 2019 Questionnaire for Stakeholders, Energy Trust of Oregon ("ETO"), and Commission Staff ("Questionnaire") as Staff initiates this investigation into distribution system planning ("DSP"). We appreciate Staff's work to explore the role of distribution system planning in optimizing system efficiency and identifying value, and we hope our perspective will help inform this investigation.

II. COMMENTS

Renewable Northwest structured these comments around the questions Staff posed in their Questionnaire. Where we prefer not to comment on a particular question, we so indicate in our response.

1) Commission principles for distribution system planning:
a) What principles should the Commission adopt? Please explain and define.

Renewable Northwest recommends several principles for the Commission to adopt for DSP processes, some of which are rooted in recent proceedings at and direction from the Commission.

Back in January 2017, in comments on Portland General Electric's ("PGE") 2016 Integrated Resource Plan ("IRP"), Staff made a case laying out some of the key principles or elements of

effective distribution system planning.[1] Staff pointed to the potential for "increased adoption of Distributed Energy Resources (DERs) … to greatly change the power sector," specifically calling out the possibility of "two way managed power flow, with distributed generation, storage, and advanced controls."[2] Staff also pointed out that "[i]n many states, the DSP process is directly tied to grid modernization efforts."[3]

Renewable Northwest filed comments in May 2017 "enthusiastically support[ing] Staff's intent to investigate, define, and potentially implement Distribution System Plans."[4] We agreed with Staff that "existing utility planning processes and initiatives may not be in alignment and appear unable to fully capture the potential of distributed energy resources."[5] We further noted that "DSPs could help maximize the value of additional DERs owing to their ability to provide greater understanding of the locational values of DERs," adding that "DSPs could enable the design of economic signals to incentivize DER with the greatest system value."[6]

In Order No. 17-386, the Commission required PGE to begin engaging with DSP, specifically requiring that PGE "[w]ork with Staff and other parties to advance distributed energy resource forecasting and distributed energy resource representation in the IRP process" and "[w]ork with Staff to define a proposal for opening a distribution system planning investigation."[7]

Then in January 2018, the Commission initiated the process required by the Oregon Legislative Assembly's passage of SB 978, inviting stakeholders to begin engaging in an investigation of "how developing industry trends, technologies and policy drivers in the electricity sector might impact the existing regulatory system and incentives currently employed by the Commission."[8]

While the SB 978 investigation was far-ranging, one key point Renewable Northwest raised in its engagement was the potential of performance-based regulation ("PBR") "to realign utility incentives with Oregon's public policy goals."[9] In its final report to the legislature, the Commission committed to "launch a performance-based regulation process to align utility incentives with customer objectives," inviting proposals "under the PUC's existing 'alternative form of regulation' statute."[10] Specifically, the Commission pointed out that "[d]emand-side and

[1] Oregon Public Utility Commission, Docket No. LC 66, Staff's Initial Comments at 33 (Jan. 24, 2017).
[2] *Id.*
[3] *Id.*
[4] Oregon Public Utility Commission, Docket No. LC 66, Final Comments of Renewable Northwest at 16 (May 12, 2017).
[5] *Id.*
[6] *Id.*
[7] Oregon Public Utility Commission, Docket No. LC 66, Order No. 17-386 at 19 (Oct. 9, 2017).
[8] SB 978, section 1(1) (2017).
[9] Oregon Public Utility Commission, SB 978, Written Comments of Renewable Northwest at 4 (July 10, 2018).
[10] Oregon Public Utility Commission, *SB 978 Actively Adapting to the Changing Electricity Sector* at 3 (Sept. 2018).

distributed options, which might be less expensive than utility-scale investments, are … disadvantaged in a regulatory system that rewards both utility capital investments and higher electricity sales."[11] In order to better align utility incentives with actions on the distribution system that could effectively serve utility customers and achieve Oregon policy goals, the Commission recognized that "[c]hanging the incentive structure would first require us to identify the new values and new desired outcomes, and to determine how such outcomes might be measured and successfully achieved."[12]

Finally, in February of 2019, Staff released a white paper as the first step in this DSP investigation.[13] In the white paper, Staff centered the Governor's Climate Agenda and the potential for DSP to help achieve Oregon's climate goals.[14] Then in addition to laying out a potential framework for this investigation and subsequent DSP processes, Staff highlighted ways DSP could serve as "a critical step in moving the state's expectations for a modern grid forward," namely by facilitating a "transition to a more responsive platform that is capable of minimizing the frequency and impact of outages (e.g., automated outage restoration), supporting decarbonization (e.g., better integrating renewables), optimizing system performance (e.g., volt-var management), and enabling customers to deploy DERs in a manner that minimizes their costs while maximizing system benefits (e.g., more accessible hosting capacity data, advanced price signals)."[15] Staff called out decarbonization, transportation electrification, energy efficiency, and expanding access to clean energy as policy goals that DSP could help achieve.[16]

All of this background is important to bear in mind in defining DSP principles, as DSP affords the Commission a unique opportunity not only to help Oregon utilities plan for a more distributed modern system, but also to begin identifying new values and desired outcomes that could be addressed through PBR—including those listed by Staff. To that end, Renewable Northwest recommends the following high-level principles:

- DSP should accurately account for and forecast not only the gross amount of DERs on a utility's system but also the locations of existing and expected DERs.
- DSP should affirmatively consider the potential for DERs or other changes or updates to the distribution system to allow a utility to avoid more costly large-scale capital investments.

[11] *Id.* at 17.
[12] *Id.* at 18.
[13] Oregon Public Utility Commission, Docket No. UM 2005, Staff Whitepaper: A Proposal for Electric Distribution System Planning (Feb. 19, 2019).
[14] *Id.* at 3-4 (section titled "Governor's Climate Agenda: Prioritizing a modern, affordable grid"); *see also* State of Oregon Office of the Governor, *Oregon Climate Agenda: A Strong, Innovative, Inclusive Economy While Achieving State Climate Emissions Goals* (2018).
[15] *Id.* at 3.
[16] *Id.*

- DSP should recognize the potential for two-way power flow to meet system needs as more DERs (including electric vehicles and smart appliances) interact with utilities' systems.
- DSP should identify new values and desired outcomes at the distribution level that utilities could be compensated for through PBR, provided they achieve certain metrics.
- DSP should consider whether customer incentives (including, for example, combining time-of-use rates and net-metering for distributed storage resources) might help to achieve identified values and outcomes.
- DSP should account for the potential of DERs and distribution-level investments to help utilities achieve Oregon's climate goals.
- DSP should provide cost transparency for utilities, customers, regulators, and clean energy developers.
- DSP should facilitate an efficient, transparent interconnection process that allows interconnection customers to site clean energy projects (including demand response, storage, and electric vehicles) so as to minimize system upgrade costs and maximize system value (for example, a hosting capacity analysis).
- DSP should allow non-wires alternatives (NWAs) to be transparently selected in order to reduce costs and enable the increased penetration of clean energy at both the distribution and transmission system level.
- DSP should allow for market-based approaches to reduce costs.

b) What level of specificity is most helpful to include in principles?

As the Commission establishes DSP for the first time, it is necessary both to identify principles to guide utilities in undertaking planning processes and to keep those principles broad enough to allow for innovation in a changing electricity system. Renewable Northwest and other stakeholders have seen in other recent Commission processes — for example, those surrounding voluntary renewable energy tariffs — that too much rigidity can hamper utilities' abilities to harness novel solutions to serve customers' interests and achieve Oregon's public policy goals. The level of specificity we have provided in our recommended principles above should hopefully be sufficient to signal to utilities what would be valuable to incorporate into DSP processes without being overly constraining.

2) Maximizing customer value:

a) How would you define "maximize customer value" in the context of distribution system planning?

And

b) What considerations (from Staff whitepaper or other thoughts) are most important to focus upon when maximizing customer value in planning for the distribution system?

As Staff observes in its white paper, the concept of maximizing customer value could mean applying the traditional least-cost, least-risk framing to DSP.[17] However, DSP offers the opportunity to broaden that frame to include other customer values and policy interests, including decarbonization and building system resilience. Put simply, "maximizing customer value" could be defined as increasing system flexibility and reducing costs, while decreasing the impact of necessary investments on low-income and other vulnerable customers.

Because DSP is a new concept in Oregon, it could be an opportunity to consider the PBR principles that the Commission has already explained are ripe for exploration under Oregon's Alternative Form of Regulation ("AFOR") statute.[18]

b) What considerations (from Staff whitepaper or other thoughts) are most important to focus upon when maximizing customer value in planning for the distribution system?

A robust DSP process could maximize customer value through a focus on NWAs.

3) Evaluation of utility distribution system plans:
a) Which criteria or metrics should the Commission use in evaluating the proposed distribution plans (Plans)?

In order to avoid seams between IRPs, transmission, and DSPs, ideally the regulatory criteria should cut across all areas of planning. A fundamental criterion would seem to be the concept of "maximizing customer value" through increased system flexibility (reducing system peaks through demand response, allowing for increased penetration of clean energy on the distribution system, and using the distribution system to more effectively integrate utility-scale renewable generation on the transmission system) and reducing costs.

Any metrics used for evaluating proposed distribution plans should be developed after additional input from stakeholders; at this preliminary juncture, there is not enough information to support meaningful metrics without criteria or goals to assess.

b) How will your organization evaluate and/or otherwise use the proposed Plans?

[17] *Id.* at 9.
[18] Oregon Public Utility Commission, *SB 978 Actively Adapting to the Changing Electricity Sector* at 3 (Sept. 2018).

Renewable Northwest will evaluate utilities' plans against the policy objectives of integrating variable generation from renewable sources into an increasingly complex grid and achieving energy-sector decarbonization. The word energy (rather than electricity) is used intentionally, as changes at the distribution-system level provide unique opportunities to support decarbonization of vehicles and buildings as well by facilitating beneficial electrification. In addition to integrating renewables by allowing the distribution and transmission systems to be planned for and operated symbiotically, DSP has the potential to support decarbonization through better shaping load to renewable energy facilities' generating profiles. A plan that achieves customer savings without decarbonization of Oregon's energy system would be inconsistent with energy-system stakeholders' urgent responsibility to turn the tide of climate change.

c) How should distribution system plans be integrated with other planning activities, such as resource planning, interconnection, transmission, or others?

Initially, Renewable Northwest sees value in utilities working on their distribution system plans in parallel with and on the same cycle as IRPs, but potentially staggered so that one can inform the other. Ultimately, holistic integrated grid planning (incorporating DSP, IRP, and transmission) would be the aim.

d) What are reasonable options for stakeholder participation in the planning process: direct engagement in the development of plans, the review of draft and final plans, other?

Distribution system solutions gain a special importance as we move toward a modern grid that is best operated by actively managing load to match variable generation output, and as some grid services (such as frequency support) traditionally supplied by thermal units can instead be supplied by a mix of inverter-based resources including DERs. DSP offers the potential to save customers money by avoiding significant new capital investments, to support a new, complementary paradigm for utility compensation, and, most importantly, to decarbonize our energy sector. Because of its great potential, DSP should feature robust and inclusive stakeholder participation, building upon the findings of the SB 978 process. The IRPs present a promising starting process, in which utilities file formal plans after an in-depth public input process, and additional vetting occurs at the Commission after filing; however, we need to understand the inequities that raise barriers to inclusive participation and move to collaborate with communities most affected by these policies.

e) How often should a utility distribution plan be submitted for Commission review?

In addition to our answer to question 3(c), aligning plans with cost-recovery or a multi-year rate plan could enable new investment patterns and the associated cost savings to be more readily responded to.

4) Planning Scenarios:
a) How should the selection of scenarios used in distribution planning be determined?
and
b) What criteria should be used by utilities to identify relevant planning scenarios?

Our current position is that to minimize seams between IRPs and DSPs the scenarios in the latter should be the same as or adapted/updated from scenarios in the former, with a focus on the most DS-relevant projections such as DER adoptions, EV adoption, and EE and DR. Furthermore, planning scenarios should be reflective of higher level goals (such as decarbonization and beneficial electrification) and the actions needed to drive utility operations toward those ends.

5) Access to grid and planning data by customers and third parties:
a) Discuss categories of data needed by third parties to:
i. Participate in developing system plans.
and
ii. Critically review proposed plans.
and
iii. Prepare commercial projects in response to plans.
At a minimum, grid and planning data should enable customers and third parties to identify constraints on the system in order to facilitate an efficient interconnection process and allow for the adoption of NWAs.

b) Identify any categories of data that may be unsuitable for access, e.g. for reasons of security, trade secret, customer privacy, or burdensomeness.

Stakeholder claims that certain categories of data may be unsuitable for access owing to security or privacy concerns should be scrutinized against what data (other) utilities make available in other jurisdictions and any associated negative impacts.

c) How should and in what format should the results of a hosting capacity analysis or native loading analysis be make available by utilities? Please indicate which formats are currently available and which are not currently available.

Renewable Northwest has no comment at this time.

d) How should the commission evaluate utility investments that enable more transparent interconnection data to be made available? What are the costs and benefits that the Commission should consider?

Renewable Northwest has no comment at this time.

6) Are there other issues or topics not covered here that are relevant to discuss in distribution system planning? If so, what are they and why are they relevant?

Renewable Northwest recommends that this investigation include a review of the Commission's legal authority to regulate utilities' distribution system planning efforts. From our initial review, it appears that the scope of the Commission's authority may be quite broad, and that, as we discuss above, DSP offers the opportunity for the Commission to begin exploring the use of the alternative form of regulation statute to support policy goals. Nevertheless, an understanding of the scope and bounds of the Commission's authority may be helpful as DSP presents new frontiers in Oregon utility regulation. Renewable Northwest plans to address this issue further in future comments.

III. CONCLUSION

Renewable Northwest again thanks Staff for this opportunity to participate in this initial stage of its investigation into distribution system planning. We look forward to further engagement with Staff, utilities, and other stakeholders as this investigation progresses.

Respectfully submitted this 30th day of August, 2019.

/s/ Max Greene
Max Greene
Staff Counsel & Analyst
Renewable Northwest

/s/ Michael O'Brien
Michael O'Brien
Regulatory Director
Renewable Northwest