Docket No. UM 2011 – Generic Capacity Investigation
Staff Notes from December 2, 2019 Workshop

On Monday, December 2, 2019, Oregon Public Utility Commission (PUC) Staff held a public workshop in Portland to begin Phase III of UM 2011, the Generic Capacity Investigation.

This document summarizes PUC Staff's notes from the workshop, but attendees are welcome to submit any additional information or comments from the workshop. Please email PUC.FilingCenter@state.or.us and Nicholas.colombo@state.or.us

GOALS OF THIS PHASE III WORKSHOP

- Gain a better understanding of context and possible options:
  - Other Oregon PUC dockets, programs, and models which propose some form of capacity value, and
  - Examples of what some other jurisdictions have done.
- Discuss possible options for methodologies, components, and factors to consider.

REMINDER: PHASE III PUBLIC COMMENTS DUE

As a reminder, Staff posted a series of scoping questions to the UM 2011 docket. The comment request is available at the following link: https://edocs.puc.state.or.us/efdocs/HNA/um2011hna93718.pdf and all documents in the UM 2011 Docket may be viewed at this link: https://apps.puc.state.or.us/edockets/DocketNoLayout.asp?DocketID=21898

Staff Notes from December 2, 2019 Workshop

Attendees:

1. AWEC
2. NIPPC
3. NW Natural
4. Idaho Power
5. Oregon PUC Staff
6. PacifiCorp
7. PGE
8. RAP
9. REC
10. Renewable NW
11. Spark NW

Staff presented a brief overview of other PUC programs and dockets where a capacity value is proposed or utilized. These included the several RVOS dockets (RVOS: UM 1716, 1910, 1911, and 1912), PURPA QF Avoided Costs (UM 1610, 1728 and 1729), Renewable Generators' Contribution to Capacity (UM 1719), and Energy Efficiency Cost Effectiveness (UM 1893). This presentation is available on the eDocket website.

Carl Linvill and Jessica Shipley from the Regulatory Assistance Project (RAP) then provided a high-level overview of capacity discussions nationally, including some conceptual models for how capacity value might be conceived, as well as several selected example from other states that have attempted to address the same issues. This presentation is available on the eDocket website.

Meeting participants asked a number of questions and offered many comments after the presentations. These are summarized below:

- The utility representatives enquired about the goals of the proceeding, timeline, and what the end "work product" would be.
    - There were some differences of opinion regarding what the most preferable work product would be.
        - Some participants believed that a set of Staff recommendations to the Commission in text and/or table form, which describes methodologies for calculating capacity value, would be best.
        - Other participants felt that written descriptions would be best accompanied by a proposed calculation, in an Excel workbook, through which the utilities and Staff could test the methodology using actual inputs from prior IRPs or other programs.
    - There was universal agreement that – regardless of whether the work product will be a written description of methodologies alone or a description accompanied by a formula in Excel – there is simply not enough time between December 2019 and April 2020 to develop these methodologies, work through multiple iterations, test them using real data points, and come to agreement on a best set of recommendations.
        - In light of this, Staff agree that extending the timeline for this investigation would help yield a superior work product. Staff will work with stakeholders to arrange additional workshops through Spring 2020.

- Some stakeholders expressed concern that capacity values in Oregon do not currently take into account the potential value(s) associated with reliability and resiliency, particularly with regard to Public Safety Power Shutoff (PSPS) jurisdictions.
    - Several participants and Staff discussed this topic. It may warrant further investigation, particularly because:
        - There might be a locational aspect to capacity value, and
        - Any future methodologies would ideally be applicable to a variety of resource types, including distributed solar and battery storage, whose ancillary benefits could include increased local grid resiliency.
    - However, a broadly applicable capacity valuation methodology might not be able to account for all factors that influence the total value of a system resource. The scoping phase of this UM 2011 investigation will help determine which factors to include in a methodology, as well as which to exclude.
        - For example, several utility representatives pointed out that, typically, a capacity need and then an associated value is determined through the IRP process. This, in turn, informs resource adequacy evaluations, which in turn informs overall system reliability measures.

- Participants also asked to clarify some of the scoping questions posted to docket prior to the workshop. In particular, participants asked for clarification regarding questions 9, 10 and 14, and whether these pertained to the length of a contract or commitment of a resource, or

whether they pertained to the timing of a resource's availability. Participants also asked for additional time to respond to the questions.
    - After the workshop, Staff posted a revised comment request to the docket, including clarifying language for these questions as well as an extended comment deadline for some of the questions.

After the formal presentations and question-and-answer session, workshop participants took part in a group exercise intended to help identify some of the most important aspects of capacity to be considered as part of this investigation. Each participant was first asked to write down their (brief) answers to the following three questions, on after the other:

- In five years' time, what will be the biggest needs that system operators will face?
- In five years' time, what will be the most important capabilities of resources that are serving load in Oregon?
- Consider the three dimensions of value presented in today's workshop (location, time, and capability). In light of your answers to the above questions, in five years' time what will be the most important types of capacity value?

Participants were then asked to pair off and decide between the sets of responses, which would they agree to be the three most import types of capacity value. Responses included the following (in no particular order):

- A resource which provides long-duration power generation at a low fixed cost
- A resource with high "locational value," which aligns load and supply
    - Similarly, a resource that addresses location-specific operational needs
- A capacity "portfolio" which maximizes the benefits of resource diversity
    - i.e. Locational and temporal characteristics, etc.
- A resource that is always available / dispatchable
- Capacity that facilities the integration of (other) intermittent resources
- Any resource with the highest Effective Load Carrying Capability (ELCC)
- Responsive resources that can balance variable renewable generation on a real-time basis
- Resources that can meet peak load
    - Especially on an uninterrupted basis
    - Particular without the legacy thermal generation that is likely to be retired.
- Resources that satisfy week-ahead and day-ahead bulk system reliability needs

In addition to these characteristics, and many similar ones noted by individual participants, other responses of note included:

- The capability to meet peak load during rare events
    - Which, by implication, might not be as rare as they once were assumed to be
- Similar to the above, the system will have greater need for resources that help provide resiliency during extreme events and/or disasters
- The ability to respond to variability in load and operational conditions due to climate change impacts
- The system will need to integrate high levels of EV charging
- System operators will need the ability to integrate and respond to increasing levels of customer-acquired generation.

As mentioned above, nearly every participant stressed the need for additional time to work through these interrelated issues. As such, Staff will work with stakeholders to schedule additional workshops and comment periods to develop, iterate, and refine the recommendations Staff will eventually present to the Commission later in 2020.

One final note: In light of the audio/visual technology problems which delayed the start of this workshop, Staff have asked PacifiCorp to host the next workshop, January 13, 2020, at their Lloyd Learning Center instead of this same venue. A separate announcement about the change of venue will be posted to the docket.

Reminder: Sign up for the UM 2011 service list to receive future notifications in this docket.

STAFF CONTACT:
Nicholas Colombo
503-871-5486
Nicholas.colombo@state.or.us