

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**UM 2011**

In the Matter of

PUBLIC UTILITY COMMISSION OF  
OREGON,

General Capacity Investigation

NORTHWEST AND  
INTERMOUNTAIN POWER  
PRODUCERS COALITION PHASE  
III COMMENTS

**I. INTRODUCTION**

NIPPC submits the following comments in response to the Oregon Public Utility Commission (the “Commission” or “OPUC”) Staff’s request for comments in Phase III of this proceeding on: “Section A. Which Resource Attributes are Appropriate to ‘Capacity’?, Questions 1 – 5.” NIPPC believes that this topic is of relevance for a number of aspects of today’s utility industry, and for that reason wishes to share what may be a unique perspective. Unlike most other participants in this capacity investigation, NIPPC is a trade association whose members and associate members include independent power producers, marketers, and energy service suppliers active in the Pacific Northwest and Western markets and thus is positioned to bring important perspectives to this discussion.

NIPPC’s mission is to represent the interests of its members in developing rules and policies that help achieve a competitive electric power supply market in the Pacific Northwest, including the valuation and ratemaking treatment for capacity. This proceeding is investigating the meaning of the term “capacity,” how capacity is acquired,

and how capacity should be valued.<sup>1</sup> Regardless of how each of these questions is answered, the decisions in this docket will have implications for NIPPC's members to the extent the decisions impact the sale of energy and capacity under direct access, the timing and pricing for utility request for proposals, and the price utilities pay to qualifying facilities.

## II. COMMENTS

NIPPC recognizes the Commission's interest in UM 2011 to evaluate capacity market structures and issues. Nonetheless, given the integrated nature of the industry, the answers to many of the questions posed should be considered within the context of a broader regional scope. In fact, these concepts have been actively discussed and continue to evolve in markets across North America, and so we caution the Commission to think broadly, beyond the State of Oregon, on this topic. For example, E3 recently completed a comprehensive analysis called "Resource Adequacy in the Pacific Northwest", which shows potentially significant capacity deficits, largely due to retiring coal generation and load growth. The Oregon electricity market is not an island unto itself, and NIPPC's answers to the Commission's questions are reflective of what we consider to be relevant to the regional marketplace, particularly as Oregon becomes more integrated with other parts of the west through the Energy Imbalance Market, and the forthcoming Expanded Day Ahead Market.

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<sup>1</sup> *In re Pub. Util. Comm'n of Oregon General Capacity Investigation*, Docket No. UM 2011, Order No. 19-155, Appendix A at 2.

**A. Question 1: Which of the capacity definitions are applicable for which types / categories of capacity, if at all?**

NIPPC suggests that the answers to the first question posed, i.e., which capacity definitions are applicable for which types/categories of capacity, can be answered, at least at a preliminary level, by the Northwest Power Pool’s recently published paper, “Exploring a Resource Adequacy Program for the Pacific Northwest,” October 2019. This document provides useful detail in terms of how to determine the capacity contribution of different resource types, including thermal, variable energy resources, hydroelectric, energy storage, demand response, etc.<sup>2</sup>

This document draws from broad industry knowledge but also, addresses the resource types that are of particular interest to the regional marketplace. For example, the applicability of nameplate capacity makes sense for thermal resources, although, typically this capacity rating is adjusted to reflect forced outage rates either through a deration of capacity or by increasing the Planning Reserves Margin applicable to that resource type. Other definitions, including Effective Load Carrying Capability are used for capturing the energy limited nature of resources such as variable energy resources and storage. For hydroelectric generation, the backbone of the region’s resource portfolio, the determination of capacity must consider historical flows, and what are commonly called “non-power constraints”.

As to the questions that pertain to the need for resource capacity during peak load periods (i.e., “peaking capacity”) this document explains that the determination of

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<sup>2</sup> [https://www.nwpp.org/private-media/documents/2019.11.12\\_NWPP\\_RA\\_Assessment\\_Review\\_Final\\_10-23.2019.pdf](https://www.nwpp.org/private-media/documents/2019.11.12_NWPP_RA_Assessment_Review_Final_10-23.2019.pdf), see pages 32 – 33.

capacity contribution of resource types may be done by using a calculation of contribution during peak periods, e.g., winter peaks, summer peaks, extreme or long duration peaks. The Northwest Power Pool also points out that the capacity contribution is determined by the other resources in a portfolio.

**B. Question 2: To what extent should flexibility and/or ability for the utility to dispatch a given resource (or resource category) be considered? In other words, should it be treated as a distinct capability or type/category of capacity, or as an enhancement to that resource's capability / capacity offering?**

Capacity that can provide dispatch flexibility in terms of fast ramping and regulation (i.e., quick dispatch capability) is valuable, and can be used to support ancillary services. However, not all resources in a portfolio of resources need to have these characteristics.

In addition, in certain cases, a resource's ability to ramp quickly, while a desirable operating characteristic for a generating resource, cannot be utilized in certain circumstances, such as when ramp rate limits are necessary to enable reliable synchronization of the Transmission Provider's system. In other words, the resource capability may be, at times, too much for the system in which it is being integrated.

NIPPC believes that flexibility or ability to dispatch is an inherent capability of certain resource types. In specifically answering Staff's question, flexibility and/or ability to dispatch a resource should be treated as a distinct capability or type/category of capacity, and not as an enhancement to that resource's capability/capacity offering. The inherent flexibility or ability of a resource may enable that resource type to better provide reactive supply, regulation and frequency response, or operating reserves, and should be recognized and attributed appropriately. For example, the dispatchability of hydroelectric

resources and simple-cycle gas-fired turbines are superior to many other resource types. These attributes or capabilities must be noted, but the extent to which they are accounted for depends upon the broader portfolio into which a particular resource is being added.

**C. Question 3: How should potential ancillary services offered by a resource or resource category be considered? Do they represent a distinct category of capacity? Or an enhancement to the available capacity offered by a given resource?**

NIPPC suggests that this question is somewhat redundant to Question 2. In fact, in our answer to Question 2, we point out the fact that resources that can dispatch quickly are often relied upon to provide various ancillary services.

It is also worth pointing out that the dispatch arrangement for resources should also be considered, and that this is often done within a portfolio analysis. By way of example, some generation will be spinning but unloaded, and as a result, is relied upon to provide instantaneous operating reserves. Other resources have quick start or black start capability and therefore are able to provide Supplemental Operating Reserves, or support system restoration. These attributes are, arguably, additional ancillary services, that should be recognized and attributed to a resource type. This should occur even though, within the context of a portfolio, they may not be needed for operations at any particular point in time.

Additionally, ancillary services are transmission reliability services, and so, the Transmission Owner/Operator needs to be a part of this discussion as it (the TO/TOP) decides the parameters of generation operations in order to ensure a reliable transmission system, including what operational considerations need to be addressed between and among adjacent systems. This question about ancillary services raises cross-functional

questions as well, (i.e., questions that involve both the power or merchant function and transmission functions) that should not be ignored.

**D. Question 4: Are there distinct types of capacity that could be separately compensated, assuming that adequate information, communications and control systems are in place?**

As noted above, NIPPC believes that energy markets should be optimized to value reliability and ancillary attributes of various resource types. In addition to robust energy and ancillary services, a capacity market construct can help ensure that reliability is maintained and that resources are appropriately compensated, especially in markets that have bid caps or other structural issues that can suppress energy prices.

NIPPC suggests that separately accounting for what are inherent capacity traits of a resource type could be problematic, because it could result in double-counting. Double counting should be avoided and is likely to occur if these additional “compensation” elements are attributed to resource types. For example, a resource that is operationally able to be controlled or dispatched, and can be quickly ramped up/down, has a significant megawatt nameplate capability, secure fuel source, etc., should be credited for these capacity attributes, but not also assigned capacity “compensation” for RA purposes. NIPPC is not opposed in principle to considering these attributes, but is not convinced at this time that they can be properly accounted for without double counting. Moreover, this consistency in accounting for attributes should be applied to all resource types.

However, the request to consider location is appropriate due to circumstances when a resource type has the inherent ability to serve load, but for an intervening transmission constraint or flowgate. Or put another way, if transmission constraints require resources in a particular load pocket to be available, these local requirements

deserve special recognition from a capacity perspective, so that the value associated with avoiding new transmission resources can be considered. Also, in some cases, a resource that is co-located to load, such as a demand response program, can avoid transmission altogether, and this avoidance of transmission should be recognized. In this latter example, there may also be a need to make investment in the distribution system to accommodate bi-directional flows, or loadings that are greater than originally engineered, and so, there may be a need to not only reflect avoided transmission costs (additional compensation), but to also reflect incremental distribution costs (reduced compensation). This example demonstrates how particular price adjustments should not be based on resource-type specific, but should be evaluated within the context of a portfolio of resources that are intended to serve a defined load profile.

**E. Question 5: Are there other comments pertinent to the questions asked in Phases I and II that you would like to share with all parties, to clarify, deepen, or add nuance to your position or understanding of these issues?**

NIPPC has no additional input on what utilities and stakeholders have already submitted at this time. NIPPC may submit comments to questions raised in Phases I and II in later comments.

### **III. CONCLUSION**

NIPPC appreciates the opportunity to submit comments on this critically important issue for Oregon and the region, and looks forward to continued participation in this proceeding.

Dated this 16th day of December 2019.

Respectfully submitted,

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