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Attorney for Intervenor Idaho Irrigation Pumpers Association, Inc.

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

**IN THE MATTER OF THE APPLICATION
OF ROCKY MOUNTAIN POWER FOR A
CERTIFICATE OF CONVENIENCE AND
NECESSITY AUTHORIZING
CONSTRUCTION OF THE BOARDMAN-
TO-HEMMINGWAY 500-KV
TRANSMISSION LINE PROJECT**

CASE NO. PAC-E-23-01

**IDAHO IRRIGATION PUMPERS
ASSOCIATION, INC.'S COMMENTS**

COMES NOW Idaho Irrigation Pumpers Association, Inc. ("IIPA") and pursuant to Order No. 35726, herein provide its comments in support of Rocky Mountain Power's ("RMP") Application, as follows:

Background

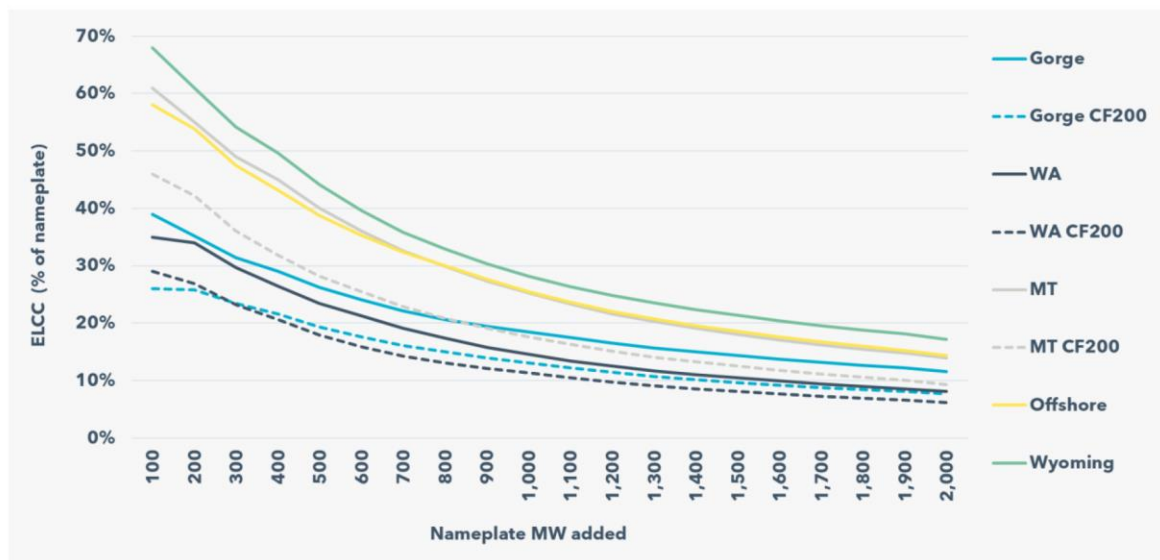
Nearly one-third of IIPA's members are RMP customers. As customers, IIPA's primary interest in this docket is to ensure that RMP provides safe, reliable, and low-cost energy. A portion of IIPA's members also provide valuable demand response service to RMP. IIPA's secondary interest in this proceeding assesses the impact of B2H on RMP's demand response program. IIPA is generally supportive of the B2H transmission project. In these comments IIPA provides observations on the regional energy characteristics that support approval of the project. However, IIPA has not performed a comprehensive analysis and validation of RMP's models and analysis of project design or economics. Given the limited scope of IIPA's review of this project, IIPA's comments should be understood to be supplemental to the review of other parties.

RMP's filing asserts that B2H provides a benefit for service of Oregon load. The extent to which these benefits are experienced by Idaho customers are largely dependent on multi state jurisdictional treatment and are not addressed by IIPA in these comments. Beyond the need to serve Oregon load, IIPA believes that B2H could provide value generally to Idaho customers.

Reduced Energy Costs

Oregon and Washington have recently enacted legislation that puts energy service in those states on a path towards 100% non-carbon emitting energy service by 2030 to 2040. The regional market ramifications continue to evolve. However, it is likely this legislation will significantly increase the value of inter-regional transmission. This is because within localized geographies renewable generation is highly correlated. As a result, each incremental tranche of localized renewable generation provides declining load carrying capability. The figure below illustrates the ELCC for Portland General Electric for incremental wind generation.

Figure 144. Winter wind ELCCs



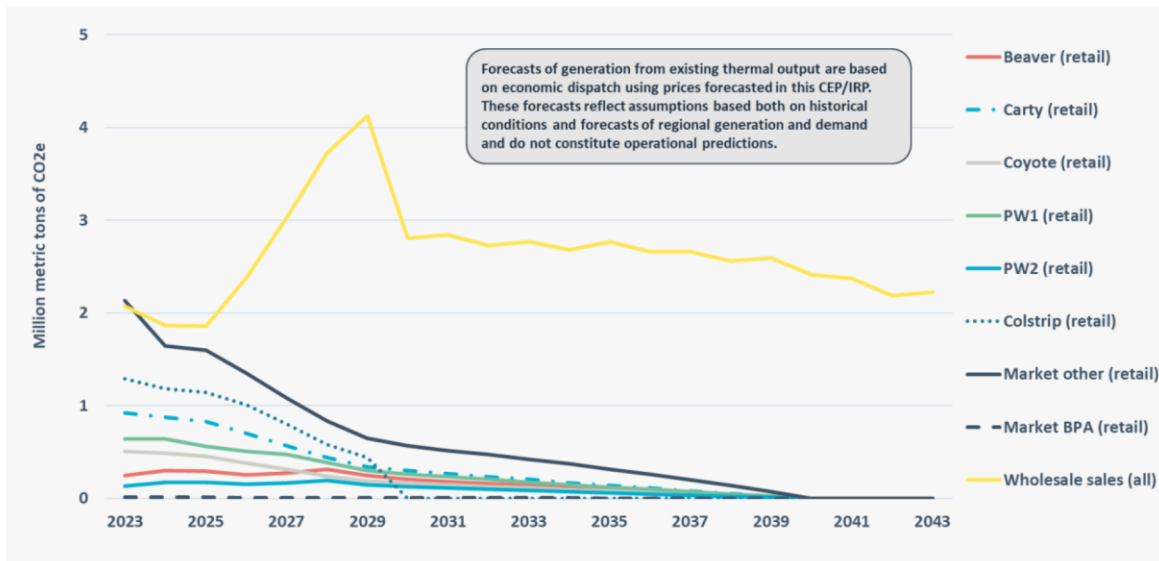
All wind geographies face declining ELCC as the total capacity additions increase. However, wind located in Montana, Wyoming, and Offshore have nearly doubled the ELCC of

generation located in Washington and the Columbia Gorge, which is geographically close to PGE. This is because PGE (and most other Pacific utilities) already rely on over 1 GW of local wind generation while PGE has no Wyoming wind generation. The low ELCC offered by incremental wind means that if Pacific utilities procure enough local renewable generation to satisfy 100 percent of capacity needs, they will have surplus energy supply which is expected to create periods of very low cost and economic energy. PGE's preferred portfolio will generate 6 GWa of zero marginal cost energy in 2043 while PGE's retail load only requires 3 MWa in that year.¹ Other Pacific utilities are planning similar buildouts of renewable energy and it is reasonable to expect market pressures will drive down wholesale prices in Oregon and Washington.

In addition to causing low wholesale energy market prices, IIPA expects Pacific carbon standards will lead to substantial market capacity even in hours where local utilities face capacity shortfalls. This is because the Pacific Northwest will have a large fleet of natural gas generators that will be constrained from providing capacity service to local consumers due to carbon restrictions. As Pacific Northwest utilities begin to approach the zero carbon emissions line, existing gas generation facilities will be prevented from service capacity needs even in peak hours. The figure below illustrates this by showing PGE's plans to increase wholesale sales of related carbon emitting resources while simultaneously decreasing retail sales thereof.

¹ This approximation is calculated from PGE's 2023 IRP Tables 2 and 3 and Figure 42.

Figure 181. Total (retail + wholesale) GHG emissions under a linear reduction glidepath (Reference Case)⁵⁵⁵



Note that after 2040 PGE’s retail customers will be served by 100 percent carbon free energy while wholesale sales emissions will be higher in 2043 than in 2023, despite the closure of PGE’s coal fleet in 2030 and despite the fact that PGE’s portfolio adds no carbon producing generation in the planning period. Note also that PGE’s wholesale purchases of emitting resources declines from 2 million MTCO₂e to zero over the same time period. All of these emitting resources will be available to serve capacity needs in states that do not have as strict carbon standards as Oregon and Washington.

Coinciding with an increase in the availability of low cost clean energy and low cost emitting capacity will be a shortage of non-emitting capacity. Recent heat domes in the Pacific Northwest have illustrated the inability of wind to provide non-emitting capacity to the region. Heat domes are driven by the absence of jet-streams and cause a negative correlation between demand and supply of renewable energy. The 4-hour storage resources that utilities are planning to procure are insufficient to outlast extended heat dome events. This will lead to an ongoing struggle for non-emitting and reliable capacity.

RMP is well placed to take advantage of the Pacific Northwest's aggressive carbon legislation by securing low-cost energy when renewables are producing, selling clean hydro or wind capacity, and purchasing low cost emitting capacity. RMP can accomplish this while simultaneously reducing its own carbon footprint.

To see this, suppose that RMP imports 100 MWa of clean energy from the Pacific Northwest and uses this energy to offset 100 MWa of coal generation. This results in a reduction of approximately 800,000 MTCO₂e reduction for RMP and lowers RMP's total power costs. Suppose that RMP further sells 100 MW of clean capacity (i.e. hydro or geographically diverse wind and solar)² to the Pacific Northwest at a high price and purchases 100 MW of gas fired capacity at a low price. This further reduces power costs and adds minimally to RMP's carbon footprint.³

Increased System Reliability

RMP is facing a capacity shortage as peak demand grows and coal fired generation reaches end of life. B2H will support RMP's system reliability. RMP's solution to its energy shortage includes new solar generation. However, RMP is already experiencing the consequences of non-geographically diverse solar generation. RMP's capacity needs, net of renewable generation, are driven by a small number of hot summer days. Due to heavy solar penetration this need is limited to a few hours in the evening when air conditioning load remains high but solar generation drops off. It is not cost effective to build a new capacity resource to satisfy a capacity need that only occurs for a few hours each year. As noted above, transmission is essential to bring geographic diversity to non-emitting generation resources.

² PGE's action item 4 includes pursuing capacity contracts in bilateral markets.

³ Assuming 100 hours of capacity service and 0.5 MTCO₂E per MWh, this is approximately 50 MTCO₂E.

Beyond the renewable resource diversity benefits, B2H enhances reliability by providing access to a market that experiences peak demand in different seasons and times of day than RMP. RMP is summer peaking while many Pacific utilities are winter peaking. The same policy goals that are driving Pacific utility transitions to zero carbon emissions will also drive heavy building heat electrification. For example, Puget Sound Energy recently eliminated gas customer line extension allowances to curb growth of residential gas customers. It is reasonable to expect that the Pacific Northwest will continue to be winter peaking for the foreseeable future. The winter peaking nature of Pacific states, combined with their abandonment of emitting capacity resources, means that it is likely that market energy will be available to serve RMP's summer capacity needs.

When market energy is available, market access is one of the most reliable system resources. Energy deliveries from firm market purchases are typically backed by a basket of generation resources and rarely fail to deliver, while even the most reliable gas turbines are subject to frequent planned and unplanned outages.

Positive Impact on Irrigation Demand Response

IIPA expects B2H to be complementary to RMP's irrigation demand response program by increasing market access. Increased market access has the potential to reduce demand response curtailment hours, shift curtailment hours to more practical times of day, and increase value of curtailments to RMP.

Market access reduces the number of times per year the irrigation demand response program is called on. IIPA expects that increased market access will reduce the need to regularly curtail irrigation customers. Many current participants in the irrigation demand response program face substantial crop damage if curtailment occurs too regularly. A preferred outcome for IIPA is

that the irrigation demand service only provides emergency capacity service rather than regular capacity service.

Market access shifts time of day for irrigation demand response to preferable times. B2H market access will increase capacity resources in all hours of the day, not only during peak load. Further, this access will be west of existing solar resources. Western solar resources generate at later hours than eastern resources. IIPA expects both these factors will reduce the need for RMP to dispatch irrigation curtailment in latter time blocks. This outcome is preferable for many irrigators who face labor and technical issues with late curtailments.

Market access increases the participation payments for demand response. The previous discussion illustrates that Pacific states will face increasingly volatile market prices. To the extent that irrigation curtailments occur when Mid-C prices are spiking, B2H may lead to higher value for irrigation demand response.

Conclusion

IIPA's general assessment of regional markets, and IIPA's consultant's familiarity with Pacific clean energy plans, supports the finding that a Certificate of Public Convenience and Necessity for B2H is in the public interest and should be issued by the Commission.

DATED this 25 day of May, 2023.

ECHO HAWK & OLSEN

A handwritten signature in blue ink, appearing to read "Eric L. Olsen", is positioned above a horizontal line.

ERIC L. OLSEN

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 25th day of May, 2023, I served a true, correct and complete copy of the Petition of Idaho Irrigation Pumpers Association, Inc. for Leave to Intervene to each of the following, via U.S. Mail or private courier, email or hand delivery, as indicated below:

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