## Integrated Resource Planning



## **STAKEHOLDER FEEDBACK: March 2022**

Received	Stakeholder	Question/Comment/Response
3/15/2022	FRED HEUTTE NW Energy Coalition	1. On slide 25, when the Sequoia model is making draws from the historical load and resource data, how does it handle the interannual differences and trends? For example, loads in the 1980s were a lot lower than in later years, and the resource mix has shifted considerably. So, are loads grossed up to current levels, or how does the model handle the variations?
		2. On the performance of Christmas Valley/Wasco/McMinnville late summer solar, it is unlikely that longitude plays any role. At the 45th parallel, 1 hour of "solar distance" is about 850 miles, and Wasco to McMinnville is about 120 miles so maybe 10 minutes of solar distance. Other factors such as late afternoon haze on the east side may be more of a factor.
		3. On inverter loading ratio, new solar+battery QF projects such as the Broadview and Gallatin projects in Montana are configured at a 2:1 ILR 160 MW of solar for an 80 MW interconnection, with a 50 MW/200 MWh battery. This represents a reasonable use case to test in the model. One of the big questions going forward is how to represent the range of hybrid resources to identify the configurations that may have the best value specifically for the PGE system.
		Thx fh For details on Broadview, see https://www.ferc.gov/sites/default/files/2021-03/E-3.pdf [ferc.gov]
		<b>RESPONSE:</b> Fred. your March 14 website feedback questions were forwarded to our IRP team and their response is below.
		Regarding the Sequoia model drawing from historical load and resource data: The loads in Sequoia start with the monthly corporate load forecast. The loads are then scaled to hourly values representing 1980 through 2020 weather conditions. For example, in 2025, the model loads are an estimate of forecasted 2025 loads under 41 (1980-2020) weather regimes.

Your question on the performance of Christmas Valley/Wasco /McMinnville: You may be right; the latitude example is a staff hypothesis. Other factors, like haze, may play a larger role.

And ... on how to identify the configurations that may have the best value specifically for the PGE system: We are looking to identify proxy resources that are representative of typical projects we may encounter in the next few years. We will look at the Broadview solar facility and take its characteristics into consideration. We are also monitoring general inverter loading ratio trends (from NREL reports, LBNL report, and other Northwest IRPs), reviewing existing PGE projects, and reviewing data from other sources.

We will share your questions and our answers in the next online stakeholder feedback pdf, posted in April. If you have any other questions, please let us know! – IRP Team