STAKEHOLDER FEEDBACK: September 2022

Received	*Stakeholder*	*Question/Comment/Response*
8/18/2022	Elizabeth Graser-Lindsey	Asked for follow up regarding declining ELCC curves at roundtable 8/18
		RESPONSE: Thank you for attending our meeting today. In addition to what Tomás described I have tried to show another way of trying to understand the "story". Declining ELCC curves: These graphs are specific to a type of resource i.e. solar, wind OR & WA, etc. You start on the curve's x axis with a resource of any size; that axis increases the size of the resource as it moves right. On the y axis it shows the value of the ELCC in percentage. ELCC is measured as a ratio of capacity contribution over resource nameplate capacity. Capacity contribution is a measurement of the reliability the resource provides to the grid. As you add more of the same resource the ELCC decreases. The marginal benefit of adding more of the same resource decreases because the amount of outages available to solve decrease as you add more of the same resource. You might be generating more energy but not increasing PGE's ability to produce energy when the grid is most likely to experience electricity shortfalls. We need capacity to achieve grid reliability so in the IRP we look at what benefit generic resources provide (through modeling) in order to plan for PGE's future system needs. If you'd like to chat via phone with Tomas or myself please let me know.
8/18/2022	Elizabeth Graser-Lindsey	Thanks, Jessy, for writing me back to help me understand ELCC curves. This is the part I am trying to understand: " The marginal benefit of adding more of the same resource decreases because the amount of outages available to solve decrease as you add more of the same resource. You might be generating more energy but not increasing PGE's ability to produce energy when the grid is most likely to experience electricity shortfalls". Does the first sentence mean that, for example, adding solar doesn't help solve potential

		outages at the dinner time/after work electricity demand because solar is declining at that time. I also heard comments about maintenance, but what I just said would be about the timing of the resource compared with the timing of the demand. So storage would go a long way in helping solve the inefficiency problem. Did I get that right? This brings to mind another question. What is a 4 hour battery? All the batteries I know of hold energy for weeks, not hours.
		***RESPONSE*:** Here's is a useful E3 paper on ELCC that includes an explanation on declining marginal benefit (see page 7). Tomás is also available for a call if that doesn't cover your question. https://www.ethree.com/wp-content/uploads/2020/08/E3-Practical-Application-of-ELCC.pdf Regarding your additional questions here is my brief explanation: 4-hour battery is one that is able to discharge at its full capacity for four hours. A battery's capacity contribution is the length of time it is able to discharge at its rated power capacity. I hope that helps.
8/31/2022	Chris Brand	Where is your 2022 IRP that takes into account Oregon pushing for no gas powered vehicles on the road by 2035?
		RESPONSE: Hello, Chris, Thank you for your comment. PGE is filing our next IRP on March 30, 2023. PGE models electric vehicle adoption in the Distribution System Plan, available here: https://portlandgeneral.com/about/who-we-are/resource-planning/distribution-system-planning. The DSP Part 2 forecasts electric vehicle adoption while accounting for the relevant policies and rules. We do not include speculation about laws or policies so any future state mandate regarding electric vehicle use is not part of our analysis. That said, PGE is considering a potential sensitivity scenario within the next IRP that reflects the impact of this rule on system capacity and energy needs. Please let us know if you have additional questions.
		We will share your questions and our answers in the next online stakeholder feedback pdf, posted in September. If you have any other questions, please let us know! – IRP Team