Webinar #9: Electric Portfolio Modeling Process, Final Power Prices, Electric Sensitivities, and Inputs and Observations from Draft Results

10/21/2020

Overview

On October 20, 2020 Puget Sound Energy hosted an online meeting with stakeholders to discuss the electric portfolio modeling process, final power prices, electric sensitivities, and inputs and observations from draft IRP results. Additionally, participants were able to ask questions and make comments using a chat box provided by the Go2Meeting platform.

Below is a report of the questions submitted to the chat box. Answers to the questions were provided verbally by IRP staff during the webinar. Please note that questions were answered in order of relevance to the topic currently being discussed. Questions regarding other topics were answered at the end of the webinar session.

To view a recording of the webinar and to hear responses from staff, please visit the project website at pse-irp.participate.online.

Attendees

A total of 54 stakeholders and PSE staff attended the webinar, plus another 8 attendees who called into the meeting and did not identify themselves (62 people total).

Attendees included: Anders Glader, Anne Newcomb, Ben Farrow, Bill Pascoe, Brian Fadie, Brian Grunkemeyer, Charlie Black, Charlie Inman, Chris Wissel-Tyson, Cody Duncan, Cory Kupersmith, Court Olson, Deborah Reynolds, Don Marsh, Doug Howell, Elyette Weinstein, Eric Fox, Fred Heutte, Graham Horn, James Adcock, Joni Bosh, Joshua Rubenstein, Kathi Scanlan, Katie Ware, Kevin Jones, Kyle Frankiewich, Larry Becker, Mark Tourangeau, Nate Sandvig, Robert Briggs, Stephanie Chase, Steven Griffith, Ted Drennan, Virginia Lohr, Wendy Gerlitz, and Willard Westre.

Questions Received

Questions from attendees are posted in the order in which they were received. The webinar began at 1:00 PM PDT and ended at 4:35 PM PDT.

Name	Time Sent	Comment
Alison Peters	**12:59 PM**	Welcome to the webinar. We're glad you're here.
Charlie Black	**1:06 PM**	Good afternonn. Which topics will be at "Inform" level and which topics will be at "Involve" level?
Deborah Reynolds	**1:07 PM**	Good afternoon, all
Elise Johnson	**1:10 PM**	Hi Charlie! In order of presentation: Electric Portfolio Model is inform; Electric IRP Process is inform; Electric Portfolio Sensitivities is involve
James Adcock	**1:14 PM**	Slide 11 "What does for PSE Only" mean?
James Adcock	**1:16 PM**	Slide 12 "Is the 'Hourly Dispatch Run' part of PSE's modeling efforts?"
Charlie Black	**1:17 PM**	I have a question about Slide 12.
Kathi Scanlan	**1:24 PM**	Slide 11: Thank you for the overview of the electric portfolio model process, including inputs. Would you please indicate which inputs are ready and any others that are still under development. When will these values be discussed with the advisory group, e.g. flexibility benefit
Fred Heutte	**1:33 PM**	Question on slide 18…
James Adcock	**1:38 PM**	+1 Fred
James Adcock	**1:40 PM**	Comment: PSE's idea of the "Real Market Conditions" is that the actual real market will never in the future include actual costing of SCGHG. I think that is a bad assumption, leading potentially to "stranded assets."
Anne Newcomb	**1:46 PM**	Yay!!!
James Adcock	**1:47 PM**	Slide 25 Raise Hand.
Doug Howell	**1:47 PM**	Slide 25 raised hand
Don Marsh	**1:49 PM**	Question on loss of load in summer. And summer forecast.
James Adcock	**1:51 PM**	Slide 29 Raise Hand.
Fred Heutte	**1:52 PM**	I have a comment about the ELCC assessment.
Kyle Frankiewich	**1:53 PM**	1:53 PM: slide 30: I don't understand EUE represented as a percentage, or, if the percentages are ELCC, I don't understand what EUE means in the column labels
Bill Pascoe	**1:54 PM**	Slides 28 & 30 raise hand
Doug Howell	**1:55 PM**	I'm off mute
Doug Howell	**1:55 PM**	The screen says I am off mute
James Adcock	**2:01 PM**	+1 Doug
Alison Peters	**2:08 PM**	Please mute your lines. We are getting some background noise.
Fred Heutte	**2:08 PM**	Here's the reference to the PG&E/SCE/SDG&E July 2020 submission to the California PUC on ELCC values of solar/wind/hybrid resources, based on work by Astrape Consulting: **https://www.pge.com/tariffs/assets/pdf/adviceletter/ELEC_5868-E.pdf**
Mark Tourangeau	**2:09 PM**	Wouldn't a stand alone storage resource have an even greater positive impact on ELCC when it can integrate multiple renewable resources and not be tied to a specific resource for charging for ITC purposes. Additionally, they can provide ancillary services and frequency response.

Fred Heutte	**2:11 PM**	In summary, Astrape's analysis using the SERVM model shows wind ELCC going from 33% to 58% when paired with storage for the BPA region. There isn't data for BPA for solar (not sure why), but for the other regions in California and the West, solar PV with tracking ELCC goes from single digit percentages to nearly 100% with associated storage.
Kyle Frankiewich	**2:14 PM**	slide 30: i believe pumped storage projects are being marketed in slices other than the full 500MW project; that is, PSE could purchase some smaller share of the project instead of the whole thing. Would adjusting the size of the proxy resource cause this analysis to change?
Joni Bosh	**2:19 PM**	Is this planning margin for 2027 higher than in the last IRP - I recall some margin around 18%? Slide 31
Joni Bosh	**2:24 PM**	Non-emitting and renewable have specific definitions in CETA and do not overlap. Can you clarify your terms on slide 33
Nate Sandvig	**2:31 PM**	I have a question
R. C. Olson	**2:33 PM**	Why is DSR not included in the load forecast on slide 36, and when will we see that included in a projected load.
Alison Peters	**2:33 PM**	A reminder to mute please. We are hearing a keyboard in the background.
James Adcock	**2:38 PM**	Comment: Yes meeting PSE's wind needs will take a lot of acreage, but comparing to the size of a major city like Seattle isn't very meaningful given that Washington State has about 850 times the acreage of say Seattle.
R. C. Olson	**2:39 PM**	So when will we see a real demand forecast that includes DSR?
James Adcock	**2:40 PM**	Comment re "storage" -- I don't understand why "storage" cannot be provided via contract with BPA, when "storage" is one of the products called out by federal law that BPA must make available to utilities, including IOUs.
Fred Heutte	**2:48 PM**	Comment: land requirements for wind and solar vary a lot depending on the specific locale, but let's assume 50 acres/MW for wind (with about a 1-2% surface utilization rate) and 8 acres/MW for solar (with a much higher utilization rate but some shared activities possible). For 2000 MW of capacity, that would require 100,000 acres for wind and 16,000 for solar. 100,000 acres is about 150 square miles, and the state of Washington is 71,000 sq mi. I don
Fred Heutte	**2:49 PM**	I don't think the raw amount of land is really the issue, more it's about the right balance between optimizing renewable energy facility placement and other economic, environmental and cultural risk factors.
James Adcock	**2:49 PM**	Yes I agree that wind farm placement is a difficult process to do "right."
Doug Howell	**2:50 PM**	Question on slide 43 - what is GWP factor assumption?
Kevin Jones	**2:50 PM**	Slide 42 - Are the High Impact SCGHG costs from the same document that contains the 2.5% discount SCGHG costs?
Doug Howell	**2:52 PM**	I am trying to clarify and I am no longer on mute but you cannot hear me. Can the organizers un-mute me?
Alison Peters	**2:53 PM**	When we stop again, Doug, we'll bring you off mute.
Elise Johnson	**2:54 PM**	Hi Doug, sorry about that. We are showing you as unmuted like you were before.

Fred Heutte	**2:54 PM**	Fred Heutte (NWEC) (to Everyone): 2:54 PM: On slide 43, NWEC continues to state that the upstream emissions rate is based on obsolete analysis, for both US and Canadian sources of natural gas. We have provided extensive documentation summarized in our parallel comment to the Northwest Power and Conservation Council at: **https://www.nwcouncil.org/sites/default/files/2020_0616_2.pdf**
Bill Westre	**2:56 PM**	S- 47 Where is MT wind shown
Bill Westre	**2:58 PM**	S-48 Please use 750 MW for MT instead of 565 - the Colstrip sale is not approved yet
Don Marsh	**2:58 PM**	S-49 question.
Kathi Scanlan	**2:58 PM**	Slide 49 - please read footnote, it's cutoff
Charlie Black	**2:59 PM**	On Slide 49, why are CCCTs only assumed to be available from within the PSE service area?
Alison Peters	**2:59 PM**	The footnote: *Not including the PSE IP Line (cross Cascades) or Kittitas area transmission which is fully subscribed
Fred Heutte	**3:00 PM**	Question about slide 49
Kyle Frankiewich	**3:00 PM**	slide 47: please describe the distributed solar resource option.
Bill Pascoe	**3:01 PM**	Slide 48 raise hand
Bill Westre	**3:01 PM**	Raise hand
Doug Howell	**3:04 PM**	Would you build a peaker outside of PSE service territory?
Fred Heutte	**3:06 PM**	PNNL annual capacity factor estimates for Oregon offshore wind range from 61% at Port Orford (south coast) to 49% even as far north as Astoria. **https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-29935.pdf**
Doug Howell	**3:09 PM**	True. Litigation parties and public comment clearly shows opposition to PSE's sale of transmission
Fred Heutte	**3:19 PM**	Question on slide 52
Brian Grunkemeyer	**3:19 PM**	My understanding is CETA requires you to expand your DR capabilities. How are you modelling that in the IRP?
Kyle Frankiewich	**3:20 PM**	Brian is correct that PSE is required to acquire all cost-effective demand response. I share his concern that PSE's current consideration of demand response may not be sufficient.
Brian Grunkemeyer	**3:25 PM**	No, Demand Response
Doug Howell	**3:33 PM**	I ask for sensitivities for a ramp rate on conservation for both 6-years and 8-years. I am okay with you now dropping the 6-year ramp rate to make room for other sensitivities.
James Adcock	**3:33 PM**	Slide 60 raise hand.
Virginia Lohr	**3:34 PM**	When will we be able to discuss what it is the survey?

Robert Briggs	**3:39 PM**	This is a belated follow-up to discussion surrounding your treatment of social cost of carbon as a fixed cost. Perhaps there are semantic issues that are causing lingering confusion. When you are evaluating the smallest increment of an energy conservation resource in your optimization to decide whether to include it or not in the least-cost portfolio, is that measure evaluated against the cost of energy it saves or is it evaluated against the energy cost savings plus the avoided social cost of greenhouse gas emissions?
Virginia Lohr	**3:39 PM**	Please answer my question.
Kyle Frankiewich	**3:39 PM**	slide 59: i imagine some sensitivities will require more extensive modification of the modeling environment than others. Will the relative complexity of a given sensitivity be a part of PSE's decision-making process?
Elise Johnson	**3:40 PM**	Hi Virginia! We see your question and will get to it when we pause for questions.
Brian Grunkemeyer	**3:42 PM**	Slide 60 - Who cools their house to 65 degrees? Shouldn't you be using say 75 degrees for your CDD base?
Don Marsh	**3:42 PM**	Slide 60: question
James Adcock	**3:55 PM**	Slide 64 raise hand.
Anne Newcomb	**3:56 PM**	Someone is unmuted
Fred Heutte	**3:57 PM**	Comment on slide 66
James Adcock	**3:59 PM**	Slide 66 raise hand.
Kyle Frankiewich	**4:01 PM**	slide 67: please expand on the differences between the Council's study and itron's review
Brian Grunkemeyer	**4:02 PM**	(You can ignore my comment on slide 60)
Robert Briggs	**4:02 PM**	Have you evaluated which base temperature correlates best with PSE's aggregate load? I note that cooling degree hours at base 80°F is frequently use for residential space cooling loads.
Robert Briggs	**4:07 PM**	Comment: The reason why the NWPCC's method is likely the best choice is because most climate models suggest nonlinear responses to climate forcing.
Virginia Lohr	**4:09 PM**	For Sensitivity 22 on modeling federal carbon pricing, I compared the August spreadsheet to the new one so I could see how PSE had changed it based on public input. The new spreadsheet has a brief note on what I said, but it does not have a note that the person who is listed as asking for this sensitivity agreed with me. More alarming is that there is no change in what PSE is proposing to model. I looked at the survey this morning, and for sensitivity 22, it does not say what federal price you will use. I assume that the same has also been done for other sensitivities, but I haven't checked those. How can I and others know if we want to select this sensitivity without knowing what carbon pricing you will actually use?
Charlie Black	**4:11 PM**	Raise hand on carbon tax assumptions.
James Adcock	**4:20 PM**	Note my objection: PSE cuts me off almost immediately, but allows other to continue talking indefinitely.
Alison Peters	**4:20 PM**	Fair point, Jim. Thank you.
Alison Peters	**4:23 PM**	If you haven't had a chance to ask your question on the sensitivities, please type it into the chat so we can move it to the Feedback Report.

		Everything typed in will get a written response. Please identify things that are time sensitive so you can participate in the survey.
Don Marsh	**4:23 PM**	If I were concerned only with reliability, I would vote for NWPCC's model that increases by 0.9 degrees per decade. BUT that may cause huge impacts on COST and ENVIRONMENTAL IMACT. We must wisely choose to consider ratepayers, disadvantages groups, and the health of our planet. Therefore, I want to vote for accuracy, not over build based on inaccurate models. I can't tell if NWPCC is reasonable or not.
James Adcock	**4:25 PM**	+1 Fred's comments -- the changes in the climate of the coastal PNW *does not* look like the changes in the rest of the US, coastal PNW has *uniquely* experienced large increases in the temperatures, and hourly temperatures, of coldest winter days.
Virginia Lohr	**4:29 PM**	You currently cannot complete the survey to say what sensitivities you prefer without also selecting one of their 3 temperatures options.
R. C. Olson	**4:29 PM**	Have any of the analyses considered the increased use of air conditioning with air filtering to reduce the indoor air quality impact from forrest fire smoke?
James Adcock	**4:29 PM**	Re Market prices -- but PSE does not have a responsibility to "guarantee" the prices of the entire PNW, but rather *only* has a responsibility to their own ratepayers. Since Puget now has much more mild coldest-winter-day conditions -- a large change compared to other utilities, PSE should not have to "cover" for other utilities. PSE is responsible to reasonable to "cover" their own exposure to market -- but that is a "market" analysis -- it is no excuse for Puget to get their own modeling of climate change in the own region "wrong."
James Adcock	**4:30 PM**	Note my objection: PSE has frozen me out again.
Kyle Frankiewich	**4:31 PM**	What are the topical fact sheets?