

Webinar #13: Market Risk Assessment, Stochastic Analysis, Preferred Portfolio and Clean Energy Action Plan, Overview of the CEIP and Public Participation

3/5/2021

Overview

On March 5, 2021 Puget Sound Energy hosted an online meeting with stakeholders to discuss the market risk assessment, stochastic analysis, preferred portfolio and clean energy action plan, overview of the CEIP and public participation. 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.

Attendee

A total of 75 stakeholders and PSE staff attended the webinar, plus another 4 attendees who called into the meeting and did not identify themselves (79 people total).

Attendees included: Alexandra Streamer, Anne Newcomb, Anthony O'Rourke, Ben Farrow, Bill Pascoe, Bill Westre, Bill Will, Brian Grunkemeyer, Brian Tyson, Bruce Boram, Carryn Vande Griend, Chad Ihrig, Charlie Inman, Christine Bunch, Colin Crowley, Corey Kupersmith, Court Olson, Cuong Nguyen, Dan Catchpole, David Mills, Diann Strom, Don Marsh, Don Vanney, Doug Howell, Elise Johnson, Elizabeth Hossner, Ellyn Murphy, Elyette Weinstein, Fred Heutte, Gurvinder Singh, Irena Netik, Jacob Hibbeln, Allison Jacobs, James Adcock, Jeff Kugel, Jennifer Magat, Jon Lange, Joni Bosh, Josh Jacobs, Kara Durbin, Kasey Curtis, Kate Maracas, Kelly Hall, Kelly Xu, Kendra White, Kevin Jones, Kyle Frankiewicz, Leslie Almond, Loren Molander, Lori Elworth, Lucila Gamino, Marc Alberts, Mark Lenssen, Markus Virta, Marty Saldivar, Michele Kvam, Nate Moore, Paul Wetherbee, Pete Stoppani, Peter Brown, Renchang Dai, Robert Stolarski, Sarah Laycock, Stephanie Chase, Therese Miranda-Blackney, Tom Eckman, Tyler Tobin, Virginia Lohr, Weimin Dang, Wendy Gerlitz, Zac Yanez, and Zhi Chen.

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 5:00 PM PDT.

Name	Time Sent	Comment
Alexandra Streamer	1:10 PM	Good afternoon, stakeholders! Orienting anyone who is new to the 2021 IRP process to the chat box today
Kyle Frankiewicz	1:13 PM	Hello all! The commission has posted a recording of last week's recessed open meeting. It can be found here: https://wutc.app.box.com/v/OpenMeetings
Doug Howell	1:14 PM	I would like to share a concern about the CEIP earlier rather than waiting to the end as I expect there will be lots of drop off
Alexandra Streamer	1:16 PM	Thanks, Doug. I've added you to the queue with a raised hand. We'll call on you during our next Q&A break
Doug Howell	1:16 PM	Slide 11 - How long is your firm transition and can it be renewed or expanded?
James Adcock	1:17 PM	Slide 12: Why isn't there a large amount of dispatchable hydro from BPA showing in the "PNW" part of the slide?
Jon Lange	1:19 PM	why is the solar and wind contribution going down over time. is there no plan to replace the solar and/or wind as the existing resources reach end of life? Solar and Wind have shown to be one of the most cost effective resource, correct?
Court Olson	1:22 PM	Agree with Doug Howell's request.
Kyle Frankiewicz	1:23 PM	slide 14: this is a great comparison, appreciate the context. What did similar RA studies look like a few years ago? Was this dramatic drop-off in supply something that was forecast in 2016?
Elyette Weinstein	1:24 PM	I agree with Doug's comments about needed meaningful public participation.
Kate Maracas	1:24 PM	2nd Doug's recommendation for less presentation and more 2-way dialogue. PSE is helpful in providing full slide decks in advance; advocates can prepare questions and comments from those. I strongly agree we should use our consultative dialog time to address top ten or so issues during webinars.
Kyle Frankiewicz	1:29 PM	Re: Doug's comment on public participation in the CEIP, I'd like to highlight the recently-adopted commission rules on this subject. https://apps.leg.wa.gov/wac/default.aspx?cite=480-100-655
Fred Heutte	1:29 PM	Hi, I will have some questions/comments when the presentation is done on slide 18.
Bill Westre	1:32 PM	S-18 raise hand
Kyle Frankiewicz	1:33 PM	slide 17: how did CA export power to PSE during the state's own capacity shortage? Also, i'd appreciate a brief description of the stages of emergency, what triggers them and what options are made available when a utility declares an emergency.
James Adcock	1:33 PM	Slide 17: If PSE in practice keeps getting into trouble during the summer months, then why does PSE keep "modeling" that they will get into trouble during the winter months?
Jon Lange	1:34 PM	Slide 15 - is this graph representing volume of outgoing energy sales or incoming?
Doug Howell	1:34 PM	Slide 18 - what do you mean by "capacity" in the first bullet? Are you talking about flexible capacity i.e. peakers?
Kyle Frankiewicz	1:35 PM	slide 18: What is the distinction between a 'capacity need' and a 'market risk adjusted capacity need'? Which of these needs will PSE's 2021 IRP preferred portfolio be tailored to meet?

Doug Howell	1:35 PM	slide 18 - You are adding 1,000 MW of new capacity need extremely late in this IRP process? Why? We knew this was a concern for months.
Joni Bosh	1:36 PM	Slide 18 - is the change from 1500 to 50 MW reflected in the preferred portfolio resource acquisitions, say in slide 41?
Joni Bosh	1:38 PM	SLide 18 - typo in previous question - should be 1500 -500
Kyle Frankiewicz	1:38 PM	Mr. Huette's comments are interesting. I also would appreciate more information regarding how the EIM interacts with securing capacity on a day-ahead and longer-term basis.
Kyle Frankiewicz	1:40 PM	Potentially remedial follow-up for Mr. Weatherbee - what does procurement in the forwards mean? What does the 'spot market' mean, and how might that differ from forwards?
James Adcock	1:40 PM	Comment: When I compare the Mid-C "Evidence" vs. the Evidence from the California AC/DC Interties, the interties don't look bad yet, where 99.9% of the time the PNW is exporting to California, and only 0.01% of the time, during a cold winter snap, is the PNW importing a relatively small amount of power from California.
Elise Johnson	1:40 PM	Sharing questions from Jon Lange with all attendees: why is the solar and wind contribution going down over time. is there no plan to replace the solar and/or wind as the existing resources reach end of life? Solar and Wind have shown to be one of the most cost effective resource, correct?
Elise Johnson	1:41 PM	Slide 15 - is this graph representing volume of outgoing energy sales or incoming?
Kyle Frankiewicz	1:42 PM	So the EIM pulled resources that were being bought and sold on a day-ahead basis into either the EIM or something more like a month-ahead market?
Charlie Black	1:43 PM	What did the market risk assessment assume about physical and financial attributes of forward purchases?
Kyle Frankiewicz	1:44 PM	Like Mr. Black, I'm interested in the cost impacts of this evolution in how the wholesale markets have been operating.
Charlie Black	1:45 PM	For example, are all short-term purchases assumed to be fixed-price, firm physical power supply?
Charlie Black	1:46 PM	Make that short-term and forward purchase up to 3 years forward.
Doug Howell	1:46 PM	+++ to Bill Westre's comments. PSE could have reduced this risk with early action.
Court Olson	1:47 PM	I agree with Bill Westre. PSE is lagging in building capacity to replace Centralia and Colstrip closures, and not rely as much on market purchases which are dwindling.
Court Olson	1:48 PM	BTW, least cost (and cheaper) replacements for coal are wind and solar renewables.
Kyle Frankiewicz	1:49 PM	Thanks, Paul, I'll carry the emergency stages question into the written comments.
Anne Newcomb	1:50 PM	I also agree with Bill W.
Joni Bosh	1:54 PM	Slide 18 Irena what kind of "feedback" on this market change are you looking for?
Irena Netik	2:00 PM	I'd like to respond to Joni's question about the kind of feedback we are looking for. Some questions that come to mind: Is it appropriate to decline to 500 MW in 2027? Or should PSE target a different number? Is this the appropriate pace (200MW reduction per year)? Or anything else that stakeholders can offer.

Court Olson	2:02 PM	Moving on without answering all questions is, once again, another example of the problem that Doug Howell mentioned earlier. Answering questions later outside of the webinar is not a friendly stakeholder engagement approach. PSE continues to overload these webinars with too much information and too many slides to cover and, consequently, doesn't allow dialogue and interaction. Not a healthy process.
Charlie Black	2:04 PM	Does each gas price stochastic draw cover the entire IRP planning period, or are the draws done separately for each year?
Joni Bosh	2:05 PM	+ C. Black
Charlie Black	2:06 PM	Repeat the same question for the time granularity of draws for the other stochastic inputs
Charlie Black	2:08 PM	If any of the draws cover the entire planning period, this does not adequately represent short-term variability (e.g., year-to-year and variability in prices, hydro conditions, temperature-dependent loads, etc.)
James Adcock	2:10 PM	Comment Slide 26: Not in this cycle, but in cycles moving forward I hope PSE will use BPA's new, recently released hydro modeling data including the effects of climate change.
Charlie Black	2:13 PM	For example, a draw that shows hydro conditions staying above or below normal for 20 years is not realistic
James Adcock	2:13 PM	Slide 28: Can we get access to the representative draws, given that NREL *IS* public data which should not be subject to any PSE's claims of be "proprietary data?"
Charlie Inman	2:15 PM	Hi James, the representative draws will be made available in Appendix H when the final IRP is published.
Doug Howell	2:15 PM	Slide 30. Would you please explain the recent outage at Colstrip Unit 4. It is our understanding it was not expected, related to boiler tubes, and remains a concern. Please clarify.
James Adcock	2:16 PM	Does that include explaining which geographical locations are associated with those draws -- so we can see if the "draws" modeling are "plausible" or not?
Charlie Black	2:16 PM	How will the results of the stochastic analysis be used to inform selection of PSE's preferred resource strategy
Charlie Inman	2:18 PM	James, the corresponding NREL site IDs are included with each dataset.
James Adcock	2:18 PM	Sorry -- my previous question was to Charlie Inman re "Appendix H" draws.
James Adcock	2:29 PM	Comment Slide 34: PSE continues their pattern of the last dozen years of exaggerating how cold plausibly coldest (hourly) winter days can be, with actual recent decades coldest winter day (hour) not being colder than 18 degrees F. In the case of this slide, where PSE is using average *daily* [not hourly] temperatures, then PSE's assumed winter temperature distributions are much too low compared to actual, real, historical daily temperatures from recent decades.
Joni Bosh	2:39 PM	Would you explain again why you can get results for the gas stochastic analysis (slide 36) now, but not the electric (slide 30) until April 1st? Also, will you be correcting the slides the Gurvinder has corrected verbally (31, 33)?
Doug Howell	2:41 PM	Big picture question - why is PSE expecting roughly the same load over 20 years when new state law calls for a 70% reduction of carbon?
Joni Bosh	2:43 PM	Thanks
Christine Bunch	2:44 PM	When do you expect to share the sensitivity analysis?

Charlie Black	2:45 PM	I am interested in hearing how the electric stochastic analysis results will be used to inform the electric resource strategy
James Adcock	2:46 PM	Comment: It sounds like the "conclusion" is getting ahead of the analysis.
Christine Bunch	2:47 PM	are RNG prices included in the analysis for gas?
Anne Newcomb	2:49 PM	In your presentation to the UTC on Friday your new gas plant was expected to run on biofuel. How was this modeled and how does the price compare to NG?
Alexandra Streamer	2:50 PM	Thanks, Anne - if others have follow up questions for Gurvinder and Jennifer, we'll get to those after the break
Jon Lange	3:03 PM	no slide reference - there may be a more appropriate time for this question in the presentation so feel free to address it then: Snohomish PUD is currently piloting a V 2 G (vehicle to Grid) program to analyze the financial case for the offset of it's peak demand. Is PSE currently planning anything like this?
Don Marsh	3:03 PM	+++ on information regarding V2G!
James Adcock	3:04 PM	Slide 41: Raise Hand
Don Marsh	3:04 PM	Slide 41: Raise Hand
Court Olson	3:06 PM	On Slide #41 are the renewable resource figures added nameplate or net after capacity factors are applied.
Markus Virta	3:07 PM	Slide 41: Why is PSE backloading DER adoption to 2031-2045? Solar, Demand response, Energy Storage, etc all are ready to deployable today. What is PSE's logic for the delay in deployment?
Markus Vita	3:10 PM	You are showing distributed solar's widespread adoption/growth happening between 2026-2045 likely after retail Net Metering has been ended by PSE. How do you foresee distributed solar growing in a market without Net Metering?
Court Olson	3:14 PM	Slide 41. With Centralia and Colstrip coal retiring by 2026, there should be about 1057 MW of new power replacing them. Why is PSE not planning to replace the coal with that much wind and solar, especially since current market costs are less than coal or gas (for baseload which is what coal was used for).
Don Marsh	3:18 PM	Slide 44: raise hand
Charlie Black	3:18 PM	Can you please repeat what type of fuel (e.g., RNG or biodiesel) and what fuel price is assumed for the peakers?
Joni Bosh	3:19 PM	Appreciate the detail on when new resources will be added year by year. Will you provide a year by year chart or schedule that shows how existing resources/contracts will be retired?
Katie Ware	3:20 PM	Slide 42 -- what updated assumptions resulted in a decrease of battery storage? And what replaced those procurements, if not renewables or "flexible capacity"?
James Adcock	3:20 PM	+1 Joni: Retirements *are part of IRP planning.
Court Olson	3:26 PM	we are getting echo from Elizabeth that makes her hard to hear.
Bill Westre	3:27 PM	s-41 +++Court , If you replaced all the coal resources you would need additional flexible energy in 2026
Bill Westre	3:30 PM	s41 correction-If you replaced all the coal resources with (2450mw) renewable you wouldn't need the flexible energy.
Anne Newcomb	3:35 PM	In your 711 MW of flexible capacity can you please break this down? sorry if this is redundant

Charlie Black	3:38 PM	Following up on Joni's question about retirements of existing resources - what has PSE assumed about needs and costs for refurbishments of PSE's existing resources between now and 2045 (e.g., 1980s vintage peakers at Whitehorn, Fredonia and Frederickson)?
Katie Ware	3:40 PM	I still don't understand what updated assumptions resulted in reduced battery storage. And if 1500 MW market purchases are assumed, I don't understand how market purchases replaced storage. New question -- I presume you have completed your sensitivity analysis on the 2% cost threshold. How did that sensitivity inform these modified resource additions?
Court Olson	3:46 PM	Please show us the replacement costs that your are using for making retirement decisions. I've seen recent market cost data that show wind and solar resources are being purchased by western state utilities at rates lower than what we have heard for current coal and gas plant costs. How do you explain that these low costs don't promote early retirements of existing gas and coal plants?
Bill Westre	3:48 PM	s-41 If you replaced all the coal resources with (2450mw) renewable you wouldn't need the flexible energy.
Court Olson	3:48 PM	There is more to operational cost than just the initial capital purchase cost.
James Adcock	3:48 PM	Slide 46: Raise Hand
Don Marsh	3:50 PM	What does "BP with Biodiesel" mean? The "BP" part?
Kyle Frankiewicz	3:50 PM	I think it means 'balanced portfolio'
Don Marsh	3:51 PM	That makes sense. Thanks, Kyle!
Kyle Frankiewicz	3:53 PM	slide 47: it'll be interesting to see how this slide looks in the context of the market reliance adjusted system need.
Joni Bosh	3:53 PM	SLide 47 - Alternative compliance options allow for RECs, payments, Energy transformation projects and possibly Spokane burner electricity. What Carbon offsets are you referring to?
Irena Netik	3:54 PM	Thanks Kyle! That's correct. That was the internal naming convention before that became our preferred portfolio.
Bill Westre	3:54 PM	s-47 Explain the content of Alternative Compliance
Don Marsh	3:55 PM	Slide 48 - What is the difference between "Climate Change" and "Environment?" It seemed odd that Sensitivity A scored high on Climate Change, but really bad on Environment. That seems to be a tradeoff in many sensitivities.
Don Marsh	3:56 PM	Slide 48 – raise hand
Anne Newcomb	3:57 PM	Are you sure there will be a sufficient amount of biodiesel for all of these gas plants?
Kyle Frankiewicz	3:59 PM	+1 for Anne's question on biodiesel availability. similar questions for RNG and renewable hydrogen, and how those prospective costs or limitations compare with other CETA compliance approaches
Katie Ware	3:59 PM	slide 50 - raise hand
Charlie Black	4:01 PM	What prices is PSE assuming for its intended purchases of GHG emissions allowances from the CARB auctions?
Charlie Black	4:03 PM	I am looking for PSE's forecast for \$/metric ton prices . How fast are those prices forecasted to increase (e.g., average annual rate of increase)?
James Adcock	4:12 PM	Slide 48 Comment: N1 100% Renewables with Batteries has the highest Resiliency FWIW.

Kyle Frankiewicz	4:13 PM	It could also be that the model was curtailing the overbuilt renewables, though you'd think that would be occurring in other runs too, and that other builds with fewer renewables would intuitively have lower utility-scale renewable MWhs generated. I really appreciate the company sharing the big spreadsheet, and anticipate that a lot of useful questions will pop up as stakeholders comb through it.
Don Marsh	4:15 PM	James, yes I noticed that. N1 would be great if it weren't for cost and Resource Adequacy. I think it's odd that Resiliency and Resource Adequacy seem to be at odds with each other. It doesn't seem like those would be opposed to each other.
Anne Newcomb	4:18 PM	Do you think it is possible the modeling tool could be favoring gas as well?
Joni Bosh	4:24 PM	Is there some reason the chart on slide 41 does not coordinate with the CEIP time periods? The second time period covers 2026 through 2029, not 2030.
Kyle Frankiewicz	4:28 PM	is there a public process set up for CEIP yet? or will this group get updated when there is on?
Kyle Frankiewicz	4:28 PM	one*
Anne Newcomb	4:33 PM	Will you be reaching out to the tribes?
Don Marsh	4:35 PM	I like the idea of the Equity Advisory Group, but have two concerns. Will PSE really listen? And does this effort have credibility while PSE continues to build the Tacoma LNG plant, which seems to directly contradict tribal rights and equity issues?
Kyle Frankiewicz	4:38 PM	slide 61: i worry that the inform and consult levels under IAP2 aren't the level of impact that customers should have under CETA.
Elyette Weinstein	4:39 PM	Will you travel to the impacted communities to have your meetings? This is critical
Kyle Frankiewicz	4:40 PM	for example, the CBIs should be reflective of direct customer input. CBIs don't necessarily result in a specific action, but 't guarantee any specific action, but customers should be fully in control of defining what they value and how much they value it
Don Marsh	4:44 PM	raise hand
Court Olson	4:44 PM	Slide 62. The reference isn't a website link. How does one sign up?
Irena Netik	4:46 PM	Hi Court - you can email ceip@pse.com .
James Adcock	4:46 PM	SLide 62: Raise Hand
James Adcock	4:48 PM	Slide 63: Raise Hand.
Jon Lange	4:53 PM	one way you could easilly connect with folks is through your extensive mailing list of customers. a good quality one pager soliciting participation.
James Adcock	4:54 PM	Raise Hand in closing
James Adcock	5:00 PM	Why am I not surprised.