

**Northwest Power and Conservation Council  
Resource Adequacy Advisory Committee—Steering  
December 11, 2020**

John Fazio, NWPCC, opened the meeting at 9:30am. Chad Madron, NWPCC, reviewed Go-to-Webinar best practices. Fazio introduced committee co-chairs Rob Petty, BPA and Council member Richard Devlin. Petty greeted the committee and thanked the RAAC technical committee for their good work. He said he is looking forward to hearing more about areas where there is clear alignment among members as well as areas that are less clear.

Devlin added that the Council appreciates advisory committee work and estimated that the Draft 2021 Power Plan would come out in July with the final released in October.

Fazio explained the timing around this year's Resource Adequacy assessment and the importance of generating a preliminary assessment.

**Preliminary 2025 Resource Adequacy Assessment**

**John Fazio, NWPCC**

*Fazio reviewed proposed revisions to the 2025 RA reference case resource assumptions with an emphasis on in-region and out-of-region market supply assumptions. He then summarized comments from the RAAC technical committee and presented preliminary results and results from sensitivity studies for the 2025 adequacy assessment. Fazio also discussed incorporating results from the redeveloped GENESYS. Fazio noted all results presented today are based on the 'classic' GENESYS.*

Petty stated that the ramps shown on [Slide 4] make sense, especially in the afternoon when it is harder to get imports. Fazio referenced BPA's discomfort with both the timing and the magnitude which led to the 1250MW number, adding that representatives from PNUCC also agreed.

Spencer Gray, NIPPC, [Slide 6] asked why import and in-region IPP generation is limited to the same five hours. Fazio answered that the whole west coast will be in the market for these supplies during that time so it made sense to extend the limit to the IPPs. Fazio referenced a sensitivity study that extended the hours of availability for IPP resources and asked for comments around the sensitivities.

Gray said he will have more comments about the sensitivity analysis when presented but teased that the proposed assumption goes in the opposite direction of what IPPs are projecting.

Rob Diffely, BPA, noted that there is no clear way to parse out PacifiCorp East versus PacifiCorp West loads. He voiced concern that the East accounts for approximately 2/3 of PacifiCorp loads and we are stripping away a fair number of renewable resources to dedicate to Pac West load. Diffely added that his concerns were compounded by the closing of eastern coal plants. He

noted that calculating this is difficult but summarized his concern that too many renewables were being stripped from the east and dedicated the western loads.

Fred Heutte, NW Energy Coalition, acknowledged that coal may be going away in the east but lots of new resources are coming on pointing to PacifiCorp's RFP for 4000MW of wind, solar and solar plus battery. Because of this, Heutte insisted that the mix may be changing but the quantity of resource will be there.

Heutte liked the dual reference case approach outlined on [Slide 8] and asked if this will be used with the rest of the RA process and the 2021 Plan. Fazio said the Council has agreed to use the climate change data and this is the only place the historic data will be used. John Ollis, NWPCC, confirmed. Heutte approved of this as it will yield an interesting delta.

Petty noted that the charts on [Slide 11] show summer issues concentrated in a few hours while winter appears to be all heavy load hours. Fazio agreed.

Diffely noted that the bars on [Slide 13] are not aligned with the light load hours. Fazio agreed, calling it a typo.

Diffely confirmed that Cases two, three, and four use average Climate Change values [Slide 17.] Fazio confirmed adding that individual effects will be shown towards the end of the presentation.

Gray said [Slide 18] illustrates power flow changes in the region. He called the blue lines popping up in the belly of the duck curve consistent with how IPP owners and marketers may move resources within the region. He then said the blue lines are more consistent for IPP owners in the NW than the red, reference case. Gray said that, unlike 10 years ago, operators are not relying on a predictable price differential that is as consistent and seasonal between the NW and CA.

Gray then said Case four shows how much the need for new capacity in the medium-term drops. Fazio added that if he removed WY/MT wind from Case 4 then the 15% would be 7%. Is this right?

Petty called results on [Slide 19] interesting, particularly noting that a lot of issues are driven by summer, light load hours. He called this a unique conclusion for the NW system and said the narrative around it will be important. Fazio moved to the Event Spinner for the C ref case with all three Climate Change scenarios to illustrate.

Heutte suggested a possible sensitivity, repeating that PacifiCorp has a big RFP on the table while PGE will issue one in early 2021. He added that PSE is scheduled to produce one at the end of March. Heutte said the primary NW utilities with coal are all putting new resources on the table and will most likely have them in place by 2025. He wondered if there could be a new sensitivity that showed these new resources. Fazio said yes, but wondered about where to get

the data. He called out two possibilities, using the planned resources in PNUCC's NRF (Northwest Regional Forecast) or pulling out information from individual IRPs.

Heutte offered to put together an indicative summary of the three IRPs he mentioned adding that it will not be complete but a good estimate of planned resources. Fazio approved of this effort as did Petty. Devlin called it possibly informative. Tanya Barham, Community Energy Labs, also approved.

### **Recommendations to the Council**

*Fazio said he hoped the RAAC steering committee could provide recommendations for revisions to the reference case resource assumption, recommend sensitivities to run and suggest any other relevant data or results to include in the assessment.*

### **DISCUSSION**

Petty had no objections to the proposed inputs or sensitivities but said explaining the fact that the system is moving from winter, heavy-load hour issues to summer problems driven by light-load hours is key.

Devlin said that, as the most lay person in the room, he wondered about IPP availability. He thought the five-hour availability seemed conservative while the 18- or 24-hour availability seemed overly optimistic. He realized the 10-hour availability needs more resources but wondered if the five-hour or 10-hour would be more prudent.

Fazio asked the group about giving the IPPs more hours during the summer [Slide 6.] Gray thought the total number of MW hours available to the NW should be higher. He stressed that he is speaking for the in-region IPPs and not those in the SW or CA. Fazio asked if he liked the 18-hour assumption. Gray said 18 hours seems right according to NW operators but stressed that this comes from informal input.

Fazio said he didn't do a study with five hours for the SW and 10 for IPP but did both with 10. He said he could do a study with five hours in the SW and between 10-18 for NW IPPs. Devlin called that worthwhile saying he preferred 10 hours.

Diffely said that BPA had some concerns with the evening ramp. Fazio said that means no more than 18 hours. Heutte supported no more than 18 because of Gray's information.

Develin asked if there was any idea how California will use their vast amounts of planned storage. Ollis stated that AURORA assumes a lot storage and found a significant need for flexibility and evening imports. He said this points to the state not having enough storage and the market will offer a cheaper option.

Fazio theorized that they will not build storage for all of their solar. Ollis agreed saying they need more resource diversity. Devlin clarified that he's asking if its possible to choose not to

use storage immediately but use it when demand and price are highest. Fazio agreed that would change the slope of the ramp.

Ollis said this asks if the wholesale market economic signal can change the shape of the load. He said there is both opportunity and uncertainty there as this hasn't been done on this scale.

Heutte agreed that the CA PUC RA process is complex and things are dynamic. He said the stand-alone storage is coming on at 1000MW a year for many years. Heutte said the next phase of solar plus batteries is coming too. He suggested that we will not have a clear picture for this RA assessment but a lot more storage is coming and the NW may be able to charge those batteries.

Petty asked if this conversation is about SW assumptions or NW IPP assumptions. He said the SW assumptions make sense as is but the NW IPP assumptions seem conservative and thought the duration could be longer. Fazio said the reference case would have 10 hours of IPP and sensitivities will test 18.

Gray thought that 18 hours would be a reasonable reference case with the SW held to five or 10 hours. Heutte thought the SW could be more than five but not 18. He added that the morning will be an issue. Fazio said he plans to revise the proposed assumptions to make the IPPs available for 10 hours and look at the 18 hours.

Fazio said he will tell the Council that the assumption decision was not unanimous.

Tomás Morrissey, PNUCC, voiced discomfort with increasing summer availability from IPPs or the spot market, referencing events from last summer. He said this is not only an IPP issue but could be NW power plants that already committed sales and then found themselves in need. Morrissey said he was more comfortable with the original assumption and suggested tweaking the language to avoid calling out the IPPs.

Tom Haymaker, Clark PUD, wondered if the question is why would these resources *not* be available, saying if his utility had willing buyers during off peak, he would happily sell product. Fazio said the question is, of their output, what should we rely on for our adequacy assessment. He said the assumption is they will be dispatched to make money. Haymaker pointed to the 14-15,000MW late afternoon summer ramp, noting that a lot of thermal operators would love to be up to that level. He wondered if there is generation left off the table.

Haymaker then said a 5% LOLP has different connotations for summer versus winter. He said the stakes are different when it's freezing and people don't have heat versus the summer. Fazio reminded him that the LOLP doesn't mean loss of load but the likelihood of having to take more expensive actions. Haymaker understood but wondered if the standard should be the same as the region shifts from winter to summer needs.

Fazio pointed to an Action Item to look at the RA standard and consider seasonality in more detail.

Steve Johnson, WA UTC, wrote that it seems like something is odd in the western interconnect if 18 hours cannot be counted on. He also wrote that we can keep looking at CAISO but he didn't think they know what their RA is, how it will work, or how it will affect the NW and the rest of the WI. (WECC)?

Barham wrote that she supports the sensitivities studies.

Fazio recapped the discussion around limiting the reference case assumptions to five, 10 or 18 hours, saying it will all be presented to the Council. He said he will run the sensitivities and if the reference assumptions change, he will let members know before they are presented.

Petty praised the work and wished members a good holiday. Devlin approved of adjourning. Fazio adjourned at 11:40.

#### **Attendees via Go-to-Webinar**

John Fazio	NWPCC
John Ollis	NWPCC
Tanya Barham	Community Energy Labs
Leann Bleakney	NWPCC
Jeff Blend	Montana
Frank Brown	BPA
Aaron Bush	PPC
Pat Byrne	BPA
John Chatburn	Idaho OER
John Cornwell	Oregon
Robert Diffely	BPA
Spencer Gray	NIPPC
Tom Haymaker	Clark PUD
Fred Heutte	NW Energy Coalition
Mike Hoffman	PNNL
Steve Johnson	WA UTC
Tom Kaiserski	Montana
Tomás Morrissey	PNUCC
Elizabeth Osborne	NWPCC
Mark Reller	BPA
Bill Saporito	Umatilla Electric
Paul Schulz	Montana
Aliza Seelig	Seattle City Light
Brian Dekiep	NWPCC
Will Price	EWEB

Dan Catchpole	News Data
Wendy Gerlitz	PSE
Liz Klumpp	BPA
Shay LaBray	PacifiCorp
Douglas Logan	independent
Corinne Milinovich	DVC Law
Kelli Schermerhorn	Northwestern