Northwest **Power** and **Conservation** Council

Minutes for Resource Adequacy Advisory Steering Committee

March 27, 2025

KC Golden, NWPCC, greeted the room at 9:00am. Ryan Roy, Western Power Pool, said a few welcoming words.

Dor Hirsh Bar Gai, NWPCC, took roll.

Fred Heutte, NW Energy Coalition, said the approach outlined on [Slide 7] broadly makes sense, adding that VoLL has been used for a long time in Texas, despite differences between loss values, and should not be used for broad system planning.

Golden asked if the value of lost load is implicitly picked up when choosing thresholds. Hirsh Bar Gai answered yes by protecting against long duration outages.

Heutte addressed emergency load reduction protocols saying that NERC's EEAs are not in utility control but could be represented in the modeling [Slide 10]. Hirsh Bar Gai said it was good to flag emergency alerts, adding that there is no clear line between a Type I and Type II event. Hirsh Bar Gai said the takeaway message is the alerts allow the region to glean information on an aggregate capability level. Hirsh Bar Gai then pointed to work with stakeholders to try to evaluate the aggregate capabilities.

Heutte agreed with Hirsh Bar Gai, saying the real issue is if the modeling can show where the boundary is for resource adequacy.

Rachel Clark, Tacoma Power, said the region was moving away from critical water and pure energy metrics but went back to using pure energy metrics because of concerns [Slide 12]. Clark asked why this work does not appear to be using up water or an energy supply. Hirsh Bar Gai said all four metrics must be satisfied to be deemed adequate and if one does not meet the threshold then the entire system is inadequate.

Hirsh Bar Gai then addressed Clark's hydro concern, saying the metrics do not define how the region uses the system but give an implication of how the system is operated. Hirsh Bar Gai agreed that the metric does not say how hydro performed over any given second, but the four metrics work together to wholistically show what was protected against. Hirsh Bar Gai then pointed to later slides that will look further into the metrics-to-margin relationships that will look at sending the right thermal/hydro signals.

Clark thought that maybe the model responds to loads over the period, so capacity degrades over an extended event. Hirsh Bar Gai said the metric will not show how hydro performed but it does include hydro constraints, ramp rates, hourly reservoir changes, etc., so challenges will show up as more energy unserved.

Heutte said that the LOLEV is a one in 10 event while the three others are 40-year events, asking for further explanation. Hirsh Bar Gai said the frequency perspective could range from a 1MW to 1000MW event, so having a one in 10 gives the signal that there are not many shortfalls, while a one in 40 gives a better look at the tail end events that the region wants to protect against. Hirsh Bar Gai said this is a philosophical decision. Heutte appreciated the explanation but called the terminology confusing.

Nicholas Garcia, WPUDA, approved of the approach but worried that the climate futures might not accurately represent what was recently experienced including challenging heat domes and cold snaps. Garcia said staff should also ask what the system would look like if the last 10 years of weather and load repeated.

Hirsh Bar Gai called this a good topic, and one discussed in the Climate and Weather Advisory Committee meeting. Hirsh Bar Gai said staff are also thinking about how to incorporate this, adding that if they only test the most challenging years the region would be inadequate more frequently.

Dan Kirschner, NWGA, said he didn't see any pipeline companies mentioned in the consultation list [Slide 14]. Hirsh Bar Gai answered that staff asked utilities about them. Kirschner said the pipeline companies may be able to offer a broader operational perspective that might be useful to the effort. Hirsh Bar Gai noted that staff know this is an important topic and pointed to other staff members that are working on the issue.

Garcia acknowledged that [Slide 18] represents an assessment for the entire region but said he remains concerned that individual outages may be concentrated in specific locations. Garcia worried that certain areas may be responsible for all of the Duration or LOLEV events and wondered if there is a role for looking at specific locations.

Hirsh Bar Gai said the locational value of resources is important for this Plan. Hirsh Bar Gai then said that viewing this work from a regional, metric perspective means that a challenge for one BA translates into it happening in the region. Hirsh Bar Gai explained that staff do not have the proprietary, operational information needed to focus on an individual BA.

John Ollis, NWPCC, added that the model may understand some locational aspects but not the individual positioning of a utility. Ollis used an example of the model showing a shortfall in Tacoma or PSE that staff would interpret as a westside challenge, but staff also cannot see any utility market positions that would protect them.

Garcia agreed that it would not make sense to estimate down to the individual BAs but suggested thinking about characterizing a “west of Cascades” or “all in Montana” event, calling that level of granularity important for the Council to see.

Ollis said staff could do this but noted that the capital expansion model will get the signals needed to build in the appropriate place. Hirsh Bar Gai said the way reserves are monitored help with this effort as well.

Roy asked where the Peek VaR number came from wondering if it was the number of MW lost that survey respondents were comfortable with, or the Loss of Load side, or if utilities thought they could eke out a certain number. Hirsh Bar Gai answered that feedback was limited due to the difference between active versus inactive portfolios. Hirsh Bar Gai said that staff had to extrapolate using BPA dry water tools.

Roy said this shows the value of the WPP’s partnership with the Council. Roy explained that this allows a longer-term regional look and development of programs like the WRAP where the compliance obligation is on the load responsible entity.

Roy addressed [Slide 21] saying the seasonal approach makes sense but admitted that it does introduce some challenges when discussing results. Still, Roy thought it made sense.

Roy clarified that the loss of load event on [Slide 22] was due to it being outside a defined season. Hirsh Bar Gai said not quite explaining the process of using 180 games and ranking the challenges.

Clark asked if staff would have reached the same winter inadequacy conclusion with a CVaR. Hirsh Bar Gai agreed that CVaR is a valuable metric, but the CVaR does not align with the proposed approach. Hirsh Bar Gai said they could test a CVaR, but the region has to determine an average to protect against which would be challenging. Clark disagreed with this approach but said she could live with it.

Ollis said staff considered this issue as well but found that CVaR is a tail end expectation while this work is more like drawing a line in the sand about not using emergency resources. Ollis confirmed that staff did consider CVaR and asked for more information. Clark acknowledged that CVaR has modeling issues but was concerned with “the line in the sand” as it will not show the magnitude of the “next worse” option.

Hirsh Bar Gai pointed to the high data center case which had 24 challenges out of 180 years agreeing that a certain group of years presented the most problems. Hirsh Bar Gai said some of the higher numbers are driven by single years with many events.

Clark understood that CVaR was not an option but noted that people care about what could happen in and past a one-of-two situation.

Heutte said he preferred the term “exceedance” over “violation,” explaining his reasoning. Heutte then called the rest of the effort a work in progress, noting that the Council is way ahead of other jurisdictions when it comes to using a multi-metric approach. Heutte addressed seasonality, agreeing staff cannot shift direction now but should revisit the issue in the future.

Hirsh Bar Gai addressed not choosing one binding metric, saying a metric that might require more capacity today might not need it in the future. Hirsh Bar Gai also pointed to the Council’s history of finessing metrics assuring the committee that the work will continue. Heutte agreed and appreciated the approach.

Aliza Seelig, PNUCC, wrote “Thinking about Rachel's CVAR and the discussion. How do we know if we have picked the right level of high-cost events to leave on the table. Or are there more that we should and could cover. How do we better explain.” In the question pane. Hirsh Bar Gai said the upcoming slides address how staff translate the adequacy metrics to the adequacy reserve margins. He said that aspect will have more granular specificity.

Seelig said she was more concerned with what was not covered due to being deemed as more high cost. She said this is beyond just meeting the metrics but a look at what is left on the table by selecting these thresholds.

Seelig then addressed market reliance, asking how the WRAP looks at market reliance and its relationship with the .1 metrics in each season. Seelig asked what people should think about in each season.

Ollis agreed that the trick in this work is avoiding the right amount of cost while still neglecting parts of the tail. Ollis said anecdotally the thresholds do a good job with finding the cutoff point. He pointed to extreme winter events where the cost jump is big, saying staff agree that we might not get every MW there but the cost to do it would be high. Ollis agreed the committee could revisit this.

Hirsh Bar Gai added that it is a balance of cost effectiveness and the risk threshold the group is comfortable with.

Seelig wrote, “Thanks John o. I appreciate your response and knowing that we should explore later. It's great to see Ryan as a co-chair too.” In the question pane.

Heutte felt that market reliance [Slide 23] demands more discussion and priority, explaining how today’s world is completely different that past experiences. Heutte discussed energy flows during challenging winter events, adding that flows from CA are also increasing on normal days due to excess of solar and hydro deficits.

Hirsh Bar Gai said staff are recommending maintaining the current reliance limit for the 9th Plan but plan to revisit this important topic in the future. Heutte called this a “table pounding moment,” saying if not addressed there is a substantial risk of overbuilding in the Ninthe Plan.

Ollis stated that the 2500MW limit is over and above the firm flow staff are counting on from Bridger and/or North Valmy. Ollis said this does not discount looking at the market reliance limit in the future but stressed that net flows of 5000MW into the region are still within staff's interpretation of the market reliance limit.

Heutte understood but countered that Bridger is not that big and may not be available in 2045. Heutte then said the extra 1000MW coming from the south is bigger and if it is not accounted for the models will choose to build resources when the region could rely on the market.

Robert Diffely, BPA, agreed the committee should revisit this issue, as the out-of-region modeling is based on averages and not stochastics, calling it a limitation. Hirsh Bar Gai agreed, calling it a historic reason for taking a more conservative position on market reliance.

Morrissey clarified facts about the weather and load, saying it is not synchronic to the Northwest. Morrissey said if it is really cold in the Northwest does not mean it's cold in the rest of the region.

Hirsh Bar Gai recapped that staff plan to keep the market reliance limit at 2500MW for the Plan and will revisit in the future.

Jennifer Light, NWPCC, called for more input and comments from committee members for staff can to relate to the Council.

Roy thanked committee members for their time and input into this important regional work. Golden agreed and ended the meeting at 11:00am.

Attendees via Zoom Webinar

Dor Hirsh Bar Gai	NWPCC	Paul Barrager	WA UTC
Jennifer Light	NWPCC	Jim McMahon	Better Climate
John Ollis	NWPCC	Doug Grob	NWPCC
Daniel Hua	NWPCC	Malcolm Ainspan	NRG
KC Golden	NWPCC	Mary Kulas	Consultant
Ryan Roy	Western Power Pool	Craig Patterson	independent
John Purvis	Clallam PUD	Robert Petty	BPA
Aliza Seelig	PNUCC	Pat Byrne	BPA
Devin Mounts	PGE	Jared Hansen	Idaho Power
Blake Scherer	Benton PUD	Jean Falconer	OR PUC
Dan Kirschner	NWGA	Elizabeth Hossner	PSE
Ian McGetrick	Idaho Power	Elizabeth Osborne	NWPCC
Mike Hermanson	Avista Corp	Robert Diffely	BPA
Brian Dekiep	NWPCC	Fred Heutte	NW Energy Coalition
Landon Snyder	Snohomish PUD	Rackel Clark	Tacoma Power
Frank Brown	BPA	Peter Jensen	NWPCC
Kaitryn Olson	PSE	Nicolas Garcia	WPUDA
Heather Nicholson	Orcas Power & Light	Tomás Morrissey	NWPCC
Mark Sellers-Vaughn	Cascade Natural		

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