Northwest Power & Conservation Council
Systems Analysis Advisory Committee
February 17, 2021

John Ollis, NWPCC, began the meeting at 9:00. He noted that John Fazio, NWPCC, made some changes to the February 3 Minutes and asked members to submit their comments as well. Chad Madron, NWPCC, relayed how to best interact with the Go-to-Webinar platform.

Update on Power Plan Needs Assessment, Part 2: Revised Baseline ARMs and Capacity Contribution Studies

Ollis introduced the item noting the complexity of modeling the needs assessment and desire to lockdown the setup of the redeveloped GENESYS model to run a baseline needs assessment, which will provide a sort of control for the various scenario analyses going forward. Ollis grounded everyone in the objective for the needs assessment and the process for getting a strategy and then walked through 1.) the studies presented at the February meeting—ARM results and stand-along capacity contribution studies—2.) modified setups implemented since the February Council meeting that better capture all resource attributes—ARM results and stand -alone capacity contribution studies—and 3.) discussed staff recommendations on preferred setup, soliciting input and feedback of SAAC.

Tomás Morrissey, PNUCC, asked about the assumption that gas could be used whenever in the 24-hour gas nomination period [Slide 15.] Ollis answered that there are different prices for different flow rates and the model allows you to do whatever you want within the day. He said that there is a daily budget of fuel and you can vary a precent up and a percent down, adding that in practice the plants did not change much.

Morrissey noted that there are pipeline penalties during a really tight gas situation and asked if that is blanketed across all conditions or linked to temperature. Ollis said it's across the board in an effort to be conservative and avoid linking to temperature. Ollis admitted that this is causing the system to tighten in surprising ways and suggested that it could be loosened.

Morrissey confirmed that [Slide: Summary of Adequacy Reserve Margin Results] does not include Energy Efficiency. Ollis confirmed that EE, or any resource, is not included in a needs assessment.

Zeecha Van Hoose, Clark PUD, asked if there are fewer, as well as less, adequacy issues [Slide 24.] Ollis confirmed that fewer games have issues but wouldn't say that there are less issues in later years. He did clarify that they are smaller in magnitude and offered to dig deeper and report back.

Morrissey asked what the gas unit ASCC is in the Classic GENESYS [Slide 32.] Fazio replied that it's more than one, adding that they don't model unit commitment, fuel nomination or all of

the constraints that the new model does. He said they model coal and gas plants starting the minute they are needed in the Classic GENESYS.

Sashwat Roy, Renewable NW, asked how adding a battery resource decreases adequacy contributions in all quarters. He also asked if the battery is charging during peak hours, and if so, can the dispatch algorithm be changed to reflect actual system conditions. Fazio answered that they did not allow them to hold reserves which was causing problems in every quarter.

Ollis said this was due to an omission in the initial modeling and is corrected in the new results.

BREAK

Adequacy Reserve Margin Results Part 2

Morrissey asked how the daily nomination schedule of 50% was chosen [Slide 25.] Ollis answered that Westside plants with storage were given 50%, calling it more art than science. He said the 50% for the Eastside came from gas nomination schedules and looking at times of flows.

Ahlmahz Negash, Tacoma Power, asked if the size of the resource addition is causing the negative capacity contributions [Slide 35.] She suggested that a smaller-sized resource could potentially increase capacity contribution or reduce negative capacity contributions. Ollis said stand-alone studies are meant to be indicators, but the ASCC array looks at different amounts of resources. Ollis thought that for a linearly-interpolated value, some of the larger stand-alone values would have a very different ASCC than a smaller one.

Fazio added that an ASCC is not an ELCC, but they do indicate the same sort of thing and generally behave in the same way. Because of this, Fazio agreed a smaller resource addition would reduce the negative capacity contribution but stressed that Ollis is correct that they feed a large number of resources into the RPM and try to catch the effect.

Morrissey asked about the benefit of the short-duration battery contribution [Slide 38] saying it's counter intuitive that it would be more beneficial during longer-duration winter events than shorter-duration summer events. Ollis wasn't sure about the reason but theorized that the ASCC is about getting rid of peak needs, summer outages tend to be smaller and more frequent while a number of large winter outages are due to hydro years from Climate Change data set G with cold temperatures and bad hydro.

Morrissey still did not understand how a short-duration resource could not benefit short-duration summer outages. Ollis explained that it has less to do with the season and more to do with needs seen in the base run. He said there's more need to address in the winter, so capacity contributions are coming out higher. Ollis suspected that the base system is too adequate to do a good capacity contribution study with.

Fazio added that counterintuitive results are a call for further exploration and staff is still seeking. Morrissey suggested picking an earlier year than 2031 as that buildout is very large. Ollis thought that was a good idea and moved to [Slide 39] to explain that it is worth testing different years.

Fazio added that 2023 is a good year to test as it is within the five-year action plan period, it has more problems and it has less of a build-out.

Ollis adjourned at 12:15

Attendees via Go-to-Webinar

John Ollis	NWPCC
John Fazio	NWPCC
Chad Madron	NWPCC
Leann Bleakney	NWPCC
Frank Brown	BPA
Morgan Brummund	Idaho OER
Aaron Bush	PPC
Pat Byrne	BPA
Robert Diffely	BPA
Ben Fitch-Fleischmann	Northwestern
Ryan Fulleman	Tacoma Power
James Gall	Avista Corp
Andrea Goodwin	NWPCC
Eric Graessley	BPA
Jared Hansen	Idaho Power
Elaine Hart	Moment Energy Insights
Fred Heutte	NW Energy Coalition
Massoud Jourabchi	NWPCC
Torsten Kieper	BPA
Shirley Lindstrom	NWPCC
Douglas Logan	
John Lyons	Avista Corp
Shauna McReynolds	PNUCC
Barbara Miller	US Army Corps of Engineers
Tomás Morrissey	PNUCC
Heather Nicholson	
Elizabeth Osborne	NWPCC
Patrick Oshie	NWPCC
Katie Pegan	Idaho OER
Will Price	EWEB
Selisa Rollins	BPA
Sashwat Roy	Renewable NW
Kathi Scanlan	WA UTC

John Shurts	NWPCC
Jamie Stamatson	Montana
Ben Ulrich	EWEB
Zeecha Van Hoose	Clark PUD
Marissa Warren	Idaho OER
Brian Dekiep	NWPCC
Ahlmahz Negash	Tacoma
Cindy Wright	SCL
Mohit Chhabra	NRDC
Ian McGetrick	Idaho Power
Paul Nissley	SCL
Stephanie Price	PSE
Bill Saporito	Umatilla Electric
James Vanden Bos	BPA