

**Northwest Power & Conservation Council
Generating Resources Advisory Committee
March 31, 2023**

Annika Roberts, NWPCC, began the meeting at 9:00am. Chad Madron, NWPCC, explained how to best interact with the Go-to-Webinar and Box platform. Roberts then introduced herself and Dylan Dsouza, NWPCC, as the new chairs of the GRAC.

Roberts then asked GRAC attendees to introduce themselves, their company, past engagement with the Council/GRAC and their dream Spring Break vacation location [Slide 3.] Most members wished for someplace warm or a deserted theme park.

Robert Diffely, BPA, appreciated the point about Jim Bridger 1 and 2 being converted to natural gas [Slide 13].

Diffely asked when the resources on [Slide 16] were added. Dsouza answered 2022 and the first quarter of 2023.

Information Share [Slide 22]

Stakeholders were invited to share additional resources, provide feedback past Generating Resources work, or suggest what should be on staff's radar.

Avista

John Lyons stated that Avista is getting ready to ship out their draft IRP. He noted cost changes due to a recent RFP. Dsouza asked when these documents will be out. Lyons thought it would be April 10.

Bonneville

Eric Graessley wrote that BPA is still putting together refreshed assumptions for our next LT build and price forecast in the chat.

Clark PUD

Terry Toland said they are continuing to make their gas turbine more flexible so the upgraded combustion system can back down to about 90MW instead of shutting down. He said this improved ramping up and down will benefit renewable integration and reducing Clark's carbon footprint.

Grant PUD

Lisa Stites said they submitted their IRP last fall, and the future already looks different. Because of this their plans are changing and focusing more on the longer term.

Idaho Power

Ian Mcgetrick pointed to 200+MW of announced batteries in the next two years. He reports seeing a big response from developers and have an RFP out now.

Montana Energy Office

Ben Brouwer said Northwestern is planning to submit their 2023 IRP by the end of April and is continuing with their 175MW RICE Unit in the Billings area. He said it could go up later this year or earlier 2024.

UAMPS

Mark Gendron commented about system reliability and resiliency, saying there's a regional and wider WECC void associated with new, clean, flexible capacity and dispatchable resources. He urged staff and the Council to closely examine flexible, clean capacity.

Dsouza agreed that flexibility and reliability are key topics, pointing to recent RTF studies on flexibility and reliability. Roberts said those studies are focused on conservation but will be explored more widely in the coming months.

PSE

Jennifer Magat shared that they just wrapped up their 2023 progress report that found a diverse portfolio mix to meet peak and clean energy needs. She looks forward to learning more about emerging technology.

ODOE

Robert Del Mar spoke about a program for funding community renewable energy and resilience projects. He pointed to a common question about solar/storage projects noting they have a resilience use case. He asked how conflicting use cases get recognized and resolved. (Del Mar was garbled and hard to understand)

WA UTC

Jim Woodward said the presentation slide on state energy policies really sums up what is going on. He pointed to implementing the "alphabet soup" of policies like Clean Energy Transformation Act and the Washington Climate Commitment Act.

Renewable NW

Sashwat Roy noted all the new batteries utilities are seeing in their IRPs and then pointed to a need for long duration energy storage. He thought iron air oxide technology could be a promising solution along with some others. Roy was interested in hearing about these new technologies saying some utilities are new to this and the region needs more conversations.

Portland State University

Rick Williams stated that 2024 changes in the Columbia River Treaty could affect flexibility. He then talked about extreme events, thanking the RTF for their work on it. Williams asked who on the Council analyzes extreme events that may disrupt transmission.

Roberts answered that transmission is a bit out of the Council's realm but is still considered. She pointed to Dan Hua, NWPCC, who works on extreme weather modeling, saying it will be cross organizational work.

Williams said the Council works on the bulk electrical grid but if the grid can't deliver the resource, it's a failure which seems to be in the Council's purview. Jennifer Light, NWPCC, agreed that the Council does not do transmission planning but does look at system capabilities. She said they are broadly looking at extreme weather and wildfire risks. Williams asked to talk further offline.

Charlie Brown, asked how greenhouse gasses are valued and if leaked methane is considered. Roberts pointed him to the resource cost framework for the 2021 Plan which speaks to externalities. She said the social cost of carbon was included in the latest Plan and Steven Simmons, NWPCC, is refreshing the upstream methane emissions study.

Nora Hawkins, WA Dept of Commerce, echoed Del Mar's point, saying she's seeing interest in battery energy storage, rolling out storage + solar for community resiliency, and are interested in monitoring emerging virtual power plant models in WA.

Brian Dombeck, BPA, asked about the timeline on [Slide 20] wondering what the plan is for refreshing or thinking more about emerging tech. Roberts said the mid-term is not a new plan so no new resources would be folding in, but staff keeps tabs on emerging tech. Light added that for core planning they look at cost changes, availability, reliably, and if the technology would work in the next Plan but the mid-term is more of a check in.

Roberts thanked attendees and ended the meeting at 10:30.

Question Pane discussion

Craig Patterson wrote: Biomass is dirtier than coal. How are you addressing that?

- This presentation is focused on what resources have been built since the plan. Not a discussion of the tradeoffs of resources. Thanks for the question.

Craig Patterson wrote: 1/3 of new resources in WEC are battery? Is that true?

- Please refer to the presentation.

Craig Patterson wrote: Pardon me but I'm understanding that climate change is a major driver of this plan. If so, then Biomass is critical if you are curtailing coal.

- Thanks for your comment.

Craig Patterson wrote: How much of those renewables are 'centralized' (larger) and how many decentralized (individual units) ?

Craig Patterson wrote: Can you talk more about batteries - centralized or decentralized and size of batteries?

Attendees via Go-to-Webinar

Annika Roberts, NWPCC
Dylan Dsouza, NWPCC
Chad Madron, NWPCC
Joel Ainsworth, BPA
Leann Bleakney, NWPCC
Mike Babineaux, Northwestern
Ben Brouwer, MT
Charlie Brown, independent
Rob Del Mar, ODOE
Rob Diffely, BPA
Brian Dombeck, BPA
Mark Gendron, UAMPS
Eric Graessley, BPA
Nora Hawkins, WA Commerce
Fred Heutte, NW Energy Coalition

Alexandra Karpoff, PSE
John Lyons, Avista
Jennifer Magat, PSE
Paul Nissley, SCL
Elizabeth Osborne, NWPCC
Sashwat Roy, Renewable NW
Kevin Smit, NWPCC
Lisa Stites, GC PUD
Tyler Tobin, PSE
Terry Toland, Clark PUD
Richard Williams, PSU
Jim Woodward, WA UTC
Craig Patterson, independent
Jim Waddell, Callum County PUD
Aliza Seelig, PNUCC