Northwest Power and Conservation Council
Meeting Summary
October 13, 2021
Portland, Oregon – Webinar

Council Chair Richard Devlin brought the meeting to order at 8:30 a.m. Council Members Jeffery Allen, Doug Grob, Guy Norman, Patrick Oshie, Jim Yost, Chuck Sams, and Mike Milburn joined the webinar. The next Council Meeting is scheduled for November 17, 2021.

Reports from Committees

Fish and Wildlife Committee

Member Allen, Fish and Wildlife Committee Chair, reported on the Fish and Wildlife Committee Meetings held on October 12, 2021.

1. EPA Work Efforts

Environmental Protection Agency staff provided an update on water quality improvement efforts to reduce water temperatures and total dissolved gasses (TDGs), giving an overview of the recently released Temperature Total Maximum Daily Load (TMDL) requirements for the Lower Snake River and Columbia River. The EPA is going to impose some requirements on dams and other point source discharges throughout the region. They are working on National Pollutant Discharge Elimination System (NPDES) permits and Federal Energy Regulatory Commission (FERC) relicensing requirements. The TMDL regional domain will include the states of Oregon and Washington, but not Idaho. They reviewed efforts to identify, protect, and restore existing and potential cold-water refugia sites for anadromous fish as they work their way back into the basin.

2. Update from Bonneville

Crystal Ball, Director of the Bonneville Fish and Wildlife Program, and Scott Armentrout, Vice President of Environment, Fish and Wildlife, gave a presentation on BPA's achievements over the past year. After a bit of a slowdown due to COVID-19, in fiscal year 2021 they spent 96% of the allocated fish and wildlife funds which is significant. Member Allen noted that their accomplishments are encouraging given the difficulties through the pandemic.

3. Project Adjustment Review

Patty O'Toole, Fish and Wildlife Division Director provided an update on staff work to finalize the Project Adjustment Review Group (PARG) process. Staff has worked this year to update and modernize the process used for the last 17 years to manage within-years

changes to Fish and Wildlife Program projects funded by Bonneville. Staff will reach an agreement with BPA in the coming months on how the PARG will function going forward.

1. Staff Update

Staff provided an overview of the Independent Scientific Review Panel's (ISRP) preliminary findings for 124 projects including hatchery operations and maintenance (O&M), fish screen O&M, habitat restoration, and monitoring and evaluation activities. Of the projects in the review, 73 "meet science review criteria," of which 41 projects have conditional review comments. There are 37 projects that need to provide additional information to determine if they fully meet scientific review criteria. In addition, the ISRP found that 12 projects are not amenable to science review and received a "not applicable" comment. Project sponsors have 2 months submit requested responses.

Power Committee

Member Oshie, Power Committee Chair, reported on the Power Committee Meeting held on October 12, 2021.

2. Oregon Department of Energy Recap of 2021 Legislative Session

Representatives from the Oregon Department of Energy (ODOE) reviewed Oregon's 2021 Legislative Session. The legislature passed a new clean energy standard for the state at 100 percent zero-emissions electricity by 2040, meeting 80 percent of the goal by 2030 and 90 percent by 2035. No new fossil fuel plants will be built in Oregon under the new legislation. There will be an increased public purpose charge collected from all ratepayers and $50 million will be invested to fund incentive programs to meet the goals of the legislation. Electric vehicle (EV) infrastructure will be funded, collected in rates largely through the investor-owned utilities. EV infrastructure will be built in some new commercial, multifamily dwellings and possibly behind the meter in individuals' homes. The legislature directed ODOE to produce a Regional Transmission Organization (RTO) analysis, and analysis of floating offshore wind energy, and a renewable hydrogen study. Finally, the legislature included $10 million for solar power and energy storage grants.

3. Avista Clean Energy Implementation Plan

Avista recently completed a draft of its first Clean Energy Implementation Plan. Electric utilities in Washington are now required to develop these plans to comply with the Clean Energy Transformation Act (CETA), which was adopted in the state during the 2019 legislative session. Clean Energy Implementation Plans outline the pathways utilities plan to use to achieve emissions-reduction milestones, and how they will comply with the requirements in CETA to ensure that the transition to 100 percent clean electricity is equitable to customers. Avista has plans to produce at least 50 gigawatt hours of energy efficiency every year through 2025. Sixty to seventy percent of the plan's energy efficiency

targets will come from the commercial and industrial sectors. The plan also projects 30 megawatts of demand response from industrial customer potential. Avista filed their Clean Energy Implementation Plan this month, and they plan to issue new requests for proposal for resources in the next 6 months.

Fish and Wildlife and Power Committee meeting materials for October 2021 can be found here: https://www.nwcouncil.org/meeting/council-meeting-october-13-2021

Council Meeting Agenda Items

1. **Regional Technical Forum: Approval of the RTF 2022 Work Plan, Approval of the RTF 2022 – 2024 Membership**

Regional Technical Forum (RTF) Manager Jennifer Light presented an overview of the proposed 2022 RTF Work Plan and Budget for Council approval. The RTF works on a calendar year and is supported primarily by separate Bonneville and regional utility funding. Under the charter, the Council has authority for approving the RTF's work plan and budget, with input from the RTF Policy Advisory Committee and interested parties.

Member Oshie commented to the Council that the RTF Policy Advisory Committee fully supported the work plan and budget and gave commendations to Light for her management of the RTF program, her Policy Advisory work, and the completion of the plan.

Motion to approve the Regional Technical Forum 2022 Work Plan and Budget

Vice-Chair Norman moved that the Council approve the 2022 Regional Technical Forum Work Plan and Budget in an amount of $2.09 million, as presented by staff and recommended by the Regional Technical Forum Policy Advisory Committee.

Member Yost seconded.
No discussion.
Voice vote – all in favor, none opposed.
Motion was approved.

Light also presented on the appointment of the 2022 – 2024 Member slate including Chair and Vice-Chair for Council approval. Under the charter, the Council – in consultation with the Chair of the Power Committee and the Power Division Director – appoint the RTF members every three years, and 2021 is the last year of the current member appointments. Light recommended that the Council reappoint herself, RTF Manager for the Council, as RTF Chair, and appoint Mark Jerome of CLEAResult as RTF Vice-Chair. Mark has served on the RTF for five previous terms. He has deep expertise in the efficiency industry and in the work of the RTF itself. He is widely respected across the RTF and will serve as an

excellent Vice-Chair in the next three-year term.

Motion to approve the Regional Technical Forum 2022 - 2024 membership appointments

Vice-Chair Norman moved that the Council approve the 2022-2024 Regional Technical Forum membership, including the reappointment of Jennifer Light as RTF Chair and the appointment of Mark Jerome as RTF Vice-Chair, as recommended and presented by staff.

Member Yost seconded.
No discussion.
Voice vote – all in favor, none opposed.
Motion was approved.

Presentation materials are posted with this summary here:
https://www.nwcouncil.org/sites/default/files/2021_1012_4.pdf

2. NorthWestern Energy 2020

Ben Fitch-Fleischmann, Ph.D., Manager of Energy Supply Planning at NorthWestern Energy discussed the 2020 Supplement for the 2019 Electricity Supply Resource Procurement Plan and other matters at NorthWestern Energy in Montana.

NorthWestern Energy (NorthWestern) has assembled its 2020 Supplement to the 2019 Electricity Supply Resource Procurement Plan (2019 Plan) to provide additional information about certain key aspects of the 2019 Plan and ongoing developments in regional markets and supply planning efforts in the Pacific Northwest. The key issues addressed in this 2020 Supplement include:

- The development of a Resource Adequacy program for the region;
- The application of Effective Load Carrying Capability (ELCC) as a measurement of the capacity contribution provided by variable energy resources like wind and solar and energy-limited resources like batteries and pumped hydroelectric (hydro) energy storage;
- An analysis of the duration of events when NorthWestern is capacity deficit and discussion of the implications this has for future resource considerations; and
- Additional modeling scenarios.

The key conclusion of the 2019 Plan remains the same: the region faces an increasing probability of near-term deficits in its power supply during peak load conditions, and the chance of shortages is expected to grow unless the region invests in new capacity.

Outages in California suggest that shortages may be arriving sooner than expected.

According to the California system operator, these shortages occurred in part because "resource planning targets have not kept pace to lead to sufficient resources that can be relied upon to meet demand in the early evening hours."

Fitch-Fleischmann explained that during the heat dome event in June 2021, NorthWestern had periods where they were serving their balancing area load with more than 50% imported power. Of the over 1,900 MW peak load, more than more than 50% of that was being served by power off of their system that they had to import over the transmission system and largely from the Pacific Northwest. He described this as too large a number in terms of capacity needs and the transmission system's limited ability to import that much power.

NorthWestern currently stands out as the utility that relies most heavily on others to meet peak needs. Although other utilities are seeking to add new capacity to serve their customers' peak needs, it is unwise and unreasonable for NorthWestern to expect these utilities to add sufficient extra capacity that would be necessary to meet their peak needs in addition to their own.

Utilities across the region, including NorthWestern, are taking action to maximize the cost-savings from coordinated and efficient sharing of generation resources by taking advantage of geographic diversity in the timing of renewable generation and peak loads. While the timing of peak electricity demands across the region is correlated (the weather patterns are generally similar), there is some variation across different utilities' service areas.

Efforts to develop a program to coordinate the sharing of resources will allow the region's utilities to capture potential benefits of diversity in loads and weather-driven generation and thereby reduce the total cost of a reliable and adequate power supply for the region as a whole and to the participants. The development of this program is being led by the Northwest Power Pool. Though the program is still in development, it is likely that utilities that participate will be required to meet the program's resource adequacy standards or will be assessed penalties for failing to meet those standards.

NorthWestern is actively taking steps to address their capacity shortage. This includes requesting proposals for 1 to 3-year contracts for capacity from existing resources and proposals for longer-term capacity, which could be in the form of new generation resources or longer contracts (>3 years) with existing resources.

Member Grob asked Fitch-Fleischmann how NorthWestern would be positioned currently and going forward if there were to be an extreme weather event given that they're so reliant on the region, there will be more thermal shutdowns, and the paradigm is shifting to renewables.

Fitch-Fleischmann said they are very concerned about a situation like that. The addition of new dispatchable capacity doesn't close the forecast peak load gap. There is a contract with Canadian Hydropower which is a big piece that has firm transmission. Northwestern's portion of Colstrip is not big (just over 200 MW), but it's another key piece. An additional challenge is that there is limited access to new gas supply. Building additional gas generation challenges the gas system in terms of pipeline capacity and access to the gas supply. They are concerned and working aggressively to find contracts for capacity in the region to cover this short-term position. In the long term they'll have to figure out additional sources of capacity whether that's in contracts with resources that have firm transmission that they can bring on to their system, or the addition of new resources located on the system without the need for transmission.

Presentation materials are posted with this summary here:
https://www.nwcouncil.org/sites/default/files/2021_1012_1.pdf

3. PacifiCorp 2021 Integrated Resource Plan

Shay LaBray, Director of Resource Planning at PacifiCorp shared some of the outcomes and highlights of PacifiCorp's 2021 Integrated Resource Plan (IRP).

PacifiCorp filed its 2021 IRP on September 1. This latest rendition of the independently owned utility's 20-year roadmap for the future grapples with many of the same topics that the Council worked through in the draft 2021 Power Plan – retiring thermal units, state clean energy and decarbonization policies, maintaining resource adequacy, augmenting the transmission system, and ensuring reliability and resiliency across PacifiCorp's diverse service territory.

PacifiCorp's 2021 IRP builds upon the results of the 2017 and 2019 IRPs and identifies new investments including those in renewable energy, advanced nuclear (for the first time in a PacifiCorp IRP), storage, demand response, energy efficiency, and modernized transmission. IRP near-term actions include:

- 3,294 megawatts (MW) of renewables with storage capacity through 2024
- Approximately 2,000 MW of additional renewables with storage capacity by the end of 2026
- 500+ MW of new energy efficiency
- 550+ MW of demand response programs
- High-voltage transmission projects
- 500 MW advanced nuclear demonstration project in Wyoming by 2028

For a longer-term view, LaBray shared PacifiCorp's 2021 IRP 20-Year Preferred Portfolio which demonstrates their vision to continue growth into a grid powered by clean energy. These long-term actions include:

- 4,290 MW of incremental savings through energy efficiency programs.
- 5,628 MW of new solar resources (most paired with storage).
- 3,628 MW of new wind resources.
- 4,181 MW of storage collocated with solar resources, 1,400 MW standalone battery storage and a 500 MW pumped hydro storage project.
- 2,448 MW of direct load control programs.
- 500 MW of advanced nuclear in 2028 (Natrium™ demonstration project), with another 1,000 MW of advanced nuclear over the long term.
- Reduction of over 4,000 MW of coal-fueled generation capacity and over 1,550 MW of natural gas-fueled generation capacity through 2040.

Member Grob asked about the geographical transmission capability of the Natrium demonstration project. LaBray said that they modeled the Natrium project at the Naughton facility in Wyoming to come online after the retirement of the two coal units and use the existing transmission there. She noted that the final site selection of the Natrium facility is slated for the end of the year and subject to change pending TerraPower review.

Member Oshie asked what capacity resources PacifiCorp has now by MWH and what is the forecast of the necessary peak capacity for PacifiCorp's system. LaBray said that their system coincident peak load ranges from almost 10,500 MW today to above 12,000 MW through the 2040 and the planning period. They have about 5,200 MW of coal on their system, but the majority of the units are being retired by 2040. Their portfolio is diverse across the system with solar, wind, hydro, and others.

The 20-Year Preferred Portfolio shows significant greenhouse gas emissions reductions driven by coal plant retirements and the addition of renewables and storage. These reductions include:

- 74% reduction in greenhouse gas emissions from 2005 levels by 2030, increasing from a 59% reduction outlined in the 2019 plan.
- 98% reduction in greenhouse gas emissions from 2005 levels by 2050.

LaBray highlighted that PacifiCorp's participation in the energy imbalance market (EIM) has significantly lowered costs for their customers, delivering $310 million in savings. She also showed that PacifiCorp's retail rates have been lower than the U.S. average rates for the past six years. They continue to work with other western power providers and explore market options to improve reliability and increase savings. Reliability and resiliency are major focuses in the 2021 IRP covering investments in grid reinforcement, transmission, and wildfire mitigation risk. LaBray highlighted investments to ensure a reliable grid and investments to modernize the transmission network.

Presentation materials are posted with this summary here:
https://www.nwcouncil.org/sites/default/files/2021_1012_2.pdf

4. Reflection on the State of the Council

Executive Director Bill Edmonds gave a brief history of the Northwest Power Act and the Council and expressed his pride and gratitude for the great work of Council Members, Central, and State Staffs. He said that while certainly not alone in this challenge, the Council has had to operate through the trials of the pandemic – and has done so admirably. He stressed the importance of every division highlighting the tireless work of the Power Division working long hours to complete the 2021 Draft Power Plan, and the great work of the Fish and Wildlife Division coordinating presentations for 122 enhancement and mitigation projects and creating a process to measure toward objectives.
He also emphasized the important work of the DEI working group and the work to develop a comprehensive strategic plan consistent with the Northwest Power Act to help guide the Council's work into the future. Edmonds concluded with a hopeful look forward to a post-COVID future and expressed his confidence that the Council will continue to adapt to changing times and emerge as a stronger organization.

Member Norman commented that he appreciated Bill's recognition of the hard work of staff and in reflecting that he's proud of staff, it shows true leadership.

Chair Devlin expressed that he believes the Council made the right decision in selecting Edmonds to be the Executive Director.

5. Council Business

Council approval of the September 2021 Council Meeting minutes

Vice-Chair Norman moved that the Council approve for the signature of the Vice-Chair the minutes of the September 15, 2021, Council Meeting held in Portland, Oregon via webinar, as presented by staff.

Member Sams seconded.
No discussion.
Voice vote – all in favor, none opposed.
Motion was approved.

Public Comment

Bryce Yonker runs an organization called Grid Forward that works across the wider region to support the acceleration of advanced grid capabilities and innovation on the electric system. Grid Forward plans to submit comments in writing for the 2021 Draft Northwest Power Plan. He was previously able to cover 4 categorical areas of comments at a public hearing for the Draft Plan. These were:

- The Power Plan should more explicitly evaluate a broader range of resources.
- Meeting the needs of the regional energy demand cannot be analyzed with generation in a silo. Other aspects whether it's markets, transmission, modernization capabilities, and regulatory policy elements need to be considered.
- The advancing set of capabilities of the grid through modernization investments are absolutely critical to meeting both the near and long-term needs of the region, and they would strongly encourage some analysis of that in the plan.
- Insights around the inclusion of resiliency analysis of the plan and emphasizing that it can't be an afterthought looking back at the last year with record breaking heat events, record breaking ice storms, the lingering threat of earthquakes, record breaking wildfires.

What he didn't get to mention at the public hearing:

- He didn't find anything in the Draft Plan on cybersecurity, and this should be embedded in everything.
- At the beginning of the Plan it says, "Looking forward 5 or 6 years, the mix of generating resources within the regional power system will likely see modest changes to this composition." Grid Forward would like clarification on what the "modest changes" might be. For example:
    - Advanced meters are going to be pervasive across the region in that timeframe. How might those be leveraged? What would the impact on the system be?
    - Distribution automation technologies are becoming more capable. What, in aggregate, would those assets do to the system?
    - What sort of grid resiliency priorities and threats might implicate modest changes that need to be addressed in the short term?
    - Markets
    - Demand side management
    - Electric vehicle impacts
- They would like to see a more comprehensive demand response recommendation. Grid flexible resources with demand side management capabilities are positioned well to be a cost effective, near term solution to meet the requirements of the Plan.
- They would like to see more than the few paragraphs in the analysis on non-wires alternatives for transmission.
- Misc. – Historically the grid was architected and planned by forecasting demand and

optimizing the deployment of supply. Increasingly ahead, grid managers will need to manage demand and forecast supply. What this does is change the paradigm of planning, and the 8th Plan doesn't fully embrace that change.

Grid Forward plans to file more plans in time for the comment period, and they intend to be a resource however they can to move the Plan forward in a productive direction.

Chair Devlin's Departure

Past and present Council Members and staff took time to acknowledge and celebrate Chair Devlin's time with the Council. They presented Chair Devlin with a plaque for his service, told stories, and expressed their appreciation for Chair Devlin's hard work and diligence.

Chair Devlin expressed his appreciation for Council staff and Members and emphasized the high level of competence in the organization. He closed the meeting and wished everyone the best.

The meeting was adjourned at 12:01 p.m.

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