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February 9, 2022

MEMORANDUM

TO: Council Members

FROM: Ben Kujala

SUBJECT: Comprehensive discussion of proposed edits to the draft power plan

BACKGROUND:

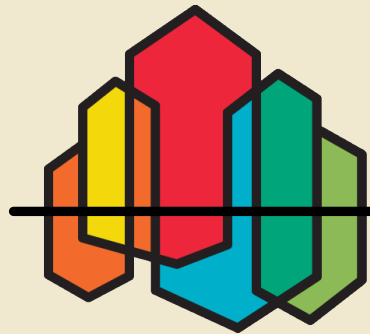
Presenter: Ben Kujala

Summary: This presentation will cover the recommended changes to the draft plan with consideration for the comments received. This presentation combines changes considered by the Power Committee at a January 28th virtual meeting and changes that will be considered or discussed at the Power Committee meeting the day before the Council meeting.

The Council will be provided with a clean copy and a redline copy showing changes from the draft document. However, some changes are still under discussion by the Power Committee. Any revisions or considerations from the committee will be sent to the Council members Tuesday evening after the committee meeting.

Comprehensive Discussion of Proposed Edits to the Draft Power Plan

February 16, 2022



THE 2021
NORTHWEST
POWER PLAN

FOR A SECURE & AFFORDABLE
ENERGY FUTURE

Purpose of this Presentation

The Power Committee discussed a summary of comments at the December meeting:

https://www.nwcouncil.org/sites/default/files/2021_12_p2.pdf

Staff gave recommendations and provided context on the comments at the January meeting:

https://www.nwcouncil.org/sites/default/files/2022_01_p1.pdf

The Power Committee reviewed and gave feedback on proposed changes at their January 28th virtual meeting and the February 15th regularly scheduled committee meeting.

This presentation reviews the comments that prompted the recommended changes to the draft plan document. The Power Committee has reviewed these changes and has referred them to the full Council for consideration.

The staff summary of *comments are in italics* and have been reorganized to allow for consideration within the context of the sections of the plan document.



Section 1: Introduction

Resource Adequacy:

- *The plan's analysis on resource adequacy is not sufficiently vetted and should be heavily caveated or removed with a recommendation to take up further work on adequacy after the completion of the plan.*
- *The plan's recommended resource strategy significantly understates the amount of resource needed to maintain an adequate regional power supply and thus should recommend more resources.*

Review Proposed Changes to Section 1



Section 2: Power Act Requirements for the Power Plan

- No comments referred to the committee for consideration or staff recommended changes



Section 3: Demand Forecast

Natural Gas:

- *The Plan understates the potential for renewable natural gas use in the region*
 - Supporting material has been expanded to provide more information on our sources and assessment of the potential for renewable natural gas

[Review proposed RNG Change](#)



Section 4: Forecast of Regional Reserve and Reliability Requirements

Resource Adequacy (also considered in Section 1):

- *The plan's analysis on resource adequacy is not sufficiently vetted and should be heavily caveated or removed with a recommendation to take up further work on adequacy after the completion of the plan.*
- *The plan's recommended resource strategy significantly understates the amount of resource needed to maintain an adequate regional power supply and thus should recommend more resources.*

Review Proposed Changes to Section 4



Section 5: Energy Conservation Program

Note additional considerations related to conservation will be discussed in Section 6

- *MCS on “conversion to electric space & water heating” implies the Council is encouraging fuel switching*
- *The plan should explicitly outline what cooperative actions the region, the Council, and Bonneville should take to address a future shortfall in EE acquisition and set forth the conditions that trigger these actions*
- *Clarify the EE cost-effectiveness methodology*
 - Supporting material was expanded and a footnote was added linking to the supporting material
- *Council should set utility-specific EE targets and propose a surcharge for those that miss the target*
- *Explicitly include weatherization measures in the target for EE*
- *Utilities should weatherize all tribal homes by 2025*

Review proposed change on Objective of Conservation Program Section



Section 6: Resource Development Plan

Decarbonization:

- *The plan should account for Oregon and Washington’s more aggressive greenhouse gas regulations*
 - Supporting material revised to explore magnitude and direction of changes associated with legislation in Oregon and Washington
- *The draft plan does not fully incorporate reasonable decarbonization and electrification assumptions and thus doesn’t call for sufficient resource additions*
- *The plan should account for regional utilities’ resource planning to achieve decarbonization goals*

Greenhouse Gas Policy:

- *The plan should clarify and update assumptions relating to current and future greenhouse gas policies*
 - Supporting material updated to clarify assumptions used
- *The plan should modify how the pathways to decarbonization analysis is focused, incorporated and considered*
- *Reject new natural gas plants and new building use in the Plan*

Climate Change:

- *The plan should remove the assertion on page 6-46 that climate change will result in fewer extreme winter events*



Section 6: Resource Development Plan (2)

Resource Adequacy (also considered in Section 1):

- *The plan's recommended resource strategy significantly understates the amount of resource needed to maintain an adequate regional power supply and thus should recommend more resources.*

Conservation:

- *Conservation (EE) level (target) should be higher*
- *Conservation (EE) level (target) should be lower*
- *1000 aMW should be the cost-effective level, but the regional target should remain as the 750-1000 range*
 - *Given we use the range, using 1000 aMW as a level for cost-effectiveness raises concerns on consistency with the statute*
- *Point target instead of a range*



Section 6: Resource Development Plan (3)

Demand Response:

- *Plan should require more DR and/or have an explicit target for DR*

Hydro Operations:

- *Plan should include scenarios with differing operations*
- *The plan should update hydro operations to match the most recent spill agreement for the Federal Columbia River Power System. It also does not consider effects of potential future changes to fish and wildlife hydro operations.*
 - More on this will be discussed in Section 11



Section 6: Resource Development Plan (4)

Renewables Build:

- *The 3,500 megawatts of renewables by 2027 in the draft plan's resource strategy is too low/too high*

General Generating Resources:

- *The plan resource strategy should specifically recommend new energy storage, distributed generation (e.g. rooftop solar), geothermal energy, small modular reactor (SMR) nuclear, natural gas + carbon capture and sequestration, pumped storage, offshore wind and ocean energy resources, anaerobic digestion (biogas)*
- *The plan resource strategy should specifically not recommend new nuclear or natural gas*
- *The plan should recommend getting rid of existing nuclear and GHG-emitting resources*
- *The plan should include a deeper analysis on emerging technology resources which could become viable and even vital in the plan horizon*



Section 6: Resource Development Plan (5)

Transmission:

- *The plan should include more explanation and discussion about transmission and distribution system elements that are not part of the planning and analysis process and should provide further explanation of how these omissions impact the resource selection process*

Lower Snake River Dams (also considered in section 11):

- *The plan should include a scenario that examines removal of the dams*
- *The plan should recommend removal of the dams*
- *The plan should recommend the dams be preserved as an important part of the system*
- *The Council should maintain the draft plan's current approach of not engaging in analysis of the Lower Snake River Dams*



Section 6: Resource Development Plan (6)

Electricity Markets:

- *Plan should recommend the region integrate piecemeal efforts on markets and adequacy and move toward a comprehensive regional solution, e.g. form an ISO/RTO*
- *The plan should alter its approach to the baseline conditions in the treatment of resource expansion outside the region*
- *The plan should encourage BPA and other utilities to participate in the WRAP.*



Section 7: Forecast of Federal Power Resources and Obligation to Provide Energy

Lower Snake River Dams (also considered in Section 11):

- *The plan should include a scenario that examines removal of the dams*
- *The plan should recommend removal of the dams*
- *The plan should recommend the dams be preserved as an important part of the system*
- *The Council should maintain the draft plan's current approach of not engaging in analysis of the Lower Snake River Dams*



Section 8: Recommendation for Amount of Power and Resource Bonneville Power Should Acquire to Meet or Reduce the Administrator's Obligation

- *Uncertainty in amount of market exposure needs to be explored further and plan should be clear on BPA's role in a potential RTO*
- *Differing thoughts on 36% assumption of Bonneville's portion of regional energy efficiency target*
- *The plan should recommend BPA incorporate equity in programs and operations*
- *The plan should encourage BPA and other utilities to participate in the WRAP.*



Section 9: Cost Effective Methodology for Providing Reserves

Hydro Operations (also considered in section 11):

- *Concerns around assumptions of flexibility within the FCRPS and Mid-Columbia PUD dams related to fish constraints*



Section 10: Recommendations for Research and Development

Climate Change:

- *Include a robust discussion and analysis on planning for extreme and outlier climate events that could have a significant impact on grid resilience and resource adequacy*

Generating Resources:

- *The plan should include R&D items on batteries, ocean & wave energy technologies, electrolytic hydrogen*

Demand Response:

- *The plan should recommend RTF incorporate equity metrics into DR (and EE) measure analysis*



Section 10: Recommendations for Research and Development (2)

Natural Gas:

- *Appreciate the effort to include upstream methane emissions, continue to update the assessment of upstream methane emissions - consult with both industry and scientific experts*

Transmission:

- *The plan should include an integrated review of transmission and generation expansion and/or commit to pursuing that analysis in the next plan*

Equity:

- *We received several comments in support of the work done thus far around equity (e.g. system integration forum on DEI in power planning), with a variety of commenters urging the Council to expand the emphasis*

Hydro Operations (also considered in section 11):

- *Concerns around assumptions of flexibility within the FCRPS and Mid-Columbia PUD dams related to fish constraints*



Section 11: Methodology for Determining Quantifiable Environmental Costs and Benefits and Due Consideration for Environmental Quality, Fish and Wildlife, and Compatibility with the Existing Regional Power System

- *We received several comments concerned that the methodology does not adequately capture the entire scope of environmental costs and benefits of various resources*

Renewables Build:

- *The plan should include consideration for land use and habitat requirements and impacts of siting new transmission and renewable resources*

Hydro Operations:

- *Concerns around assumptions of flexibility within the FCRPS and Mid-Columbia PUD dams related to fish constraints*
- *The plan should update hydro operations to match the most recent spill agreement for the Federal Columbia River Power System. It also does not consider effects of potential future changes to fish and wildlife hydro operations.*



Section 11: Methodology for Determining Quantifiable Environmental Costs and Benefits and Due Consideration for Environmental Quality, Fish and Wildlife, and Compatibility with the Existing Regional Power System (2)

Lower Snake River Dams:

- *The plan should include a scenario that examines removal of the dams*
- *The plan should recommend removal of the dams*
- *The plan should recommend the dams be preserved as an important part of the system*
- *The Council should maintain the draft plan's current approach of not engaging in analysis of the Lower Snake River Dams*



Section 12: Fish and Wildlife Program

- No comments referred to the committee for consideration or staff recommended changes

