Richard Devlin Chair Oregon

> **Ted Ferrioli** Oregon

Guy Norman Washington

Patrick Oshie Washington



Bo Downen Vice Chair Montana

Montana

Jim Yost Idaho

Jeffery C. Allen Idaho

January 7, 2021

MEMORANDUM

TO: Power Committee

FROM: Chad Madron

SUBJECT: Power Plan Project Timing Check-In

BACKGROUND:

Presenter: Ben Kujala, Chad Madron

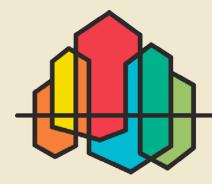
Summary: Staff will provide an overview of power plan related presentations and

findings to date and discuss the schedule for the coming months of power

committee work.

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2021 NW Power Plan Status



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POWER PLAN

FOR A SECURE & AFFORDABLE ENERGY FUTURE

Topics From Last 3 Months

- November
 - Wholesale Electricity Price Forecast <u>Update</u>
- December 3
 - First look at redeveloped GENESYS result
- December 15
 - Power Plan timing <u>overview</u> Including new proposed draft release date
 - State of Electric Utilities 2019
 - <u>DEI at Advisory Committees</u> key takeaways
 - Overview of updates to Regional Portfolio Model
 - First look at Baseline Conditions RPM Results
 - Adequacy results from Redeveloped GENESYS
- Other past <u>Plan Related Presentations to the Power Committee or Full Council...</u>



This Month

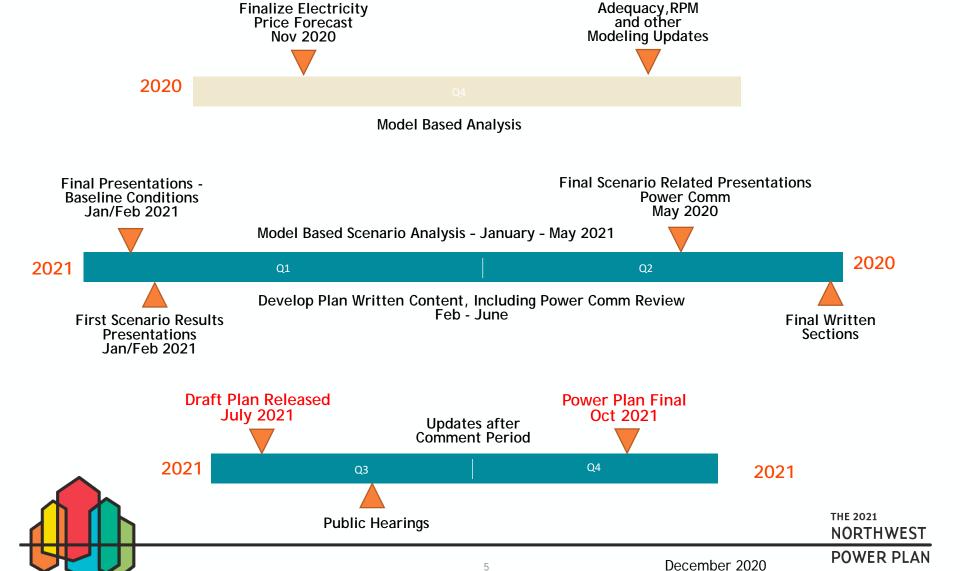
- Power Plan Timing Update
- Overview of Hydrogen
- Exports/Imports in RPM
- Review of Baseline Conditions Modeling Results
- Update on Power Plan needs assessment (ARM)



Proposed Schedule Updates

2021 Power Plan Work Schedule

Revised December 2020



Late January

- Baseline Conditions (if needed)
- Robustness of EE
- Update on Power Plan needs assessment
- Relative Costs of Resources

February

Modeling findings and updates as needed

Late February

Early Coal Retirement

March

- Extra Regional Markets and Adequacy
- Markets for Energy/Capacity

Late March

 Greenhouse Gas Tipping Point

April

- Bonneville Portfolio
 - Including related load, model runs, other findings



These dates will likely change

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Late April

- Bonneville Portfolio
 - Including related load, model runs, other findings
 - Pathways to Decarbonization inputs

May

- Bonneville wrap up if needed
- Pathways to Decarbonization
- Early written material review

Late May

- Pathways to Decarbonization wrap up
- Written material for plan review

June

 Written material for plan review

Late June

 Written material for plan review

July

- Written material for plan review
- Release of Draft Plan



These dates will likely change

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Extra Slides for Reference

Scenario Analysis

- BPA scenario <u>update</u> (06/2020)
- Review of Plan Scenarios Part 1 (01/2020) & Part 2 (02/2020)
- Scenarios proposed for <u>inclusion</u> (07/2019)

Resource Strategy

- First look at Baseline Conditions RPM Results (12/15/2020)
- Adequacy results from Redeveloped GENESYS (12/15/2020)
- Overview of updates to Regional Portfolio Model (12/15/2020)
- <u>First look</u> at redeveloped GENESYS result (12/03/2020)
- Wholesale Electricity Price Forecast <u>Update (11/2020)</u>
- Electricity Price Forecast <u>Updates</u> (10/2020)
- Wholesale Electricity Forecast Results Part 2 (09/2020)
- Challenges with RPM Methodology (09/2020)
- Adequacy <u>Update</u> (ASCC/ARM) for 2021 Power Plan Part 2
- Electricity Price Forecast Part 1 (08/2020)
- Adequacy <u>Update</u> (ASCC/ARM) for 2021 Power Plan Part 1 (08/2020)
- Briefings on Power Plan Analytical Process (02 04/2020)
- <u>Updates</u> to RPM Methodologies (01/2020)
- Overview of Plan and how the proposed resource strategy is developed (05/2019)



Conservation and Energy Efficiency

- Comments on Draft Framework for Conservation Program (10/2020)
- <u>Initial Conservation Target Framework</u> (08/2020)
- <u>EE Supply Curves</u> for Baseline and for Scenario Analysis (05/2020)
- EE Typical Meteorological Year Adjustment (04/2020)
- Draft EE Supply Curves (03/2020)
- Briefing on Lighting Standards and Considerations for the 2021 Power Plan (02/2020)
- <u>Update</u> on planning parameters for EE supply curves (08/2019)

Generation Resources

- Update on WECC-Wide Clean Policy Wrap Up (08/2020)
- <u>Summary</u> of primary generating resource reference plants and emerging tech reference plant for draft 2021 Power Plan (06/2020)
- <u>Update</u> on Existing System, Coal Retirements, and Policies (05/2020)
- <u>Update</u> on historical regional greenhouse gas emissions (04/2020)
- <u>Draft natural gas reference plants</u> & <u>Draft conventional geothermal reference plant</u> (02/2020)
- <u>Draft Pumped storage reference plant</u> (12/2019)
- Onshore Wind Generation Reference Plant (11/2019)
- $\bullet \quad Solar, Battery \, Storage, \, and \, Solar + \, Battery \, Storage \, \underline{Reference \, Plants} \, (10/2019)$
- Review of Existing System and WECC-Wide Coal Retirements (09/2019)



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Load and Price Forecasts

- Load Forecast <u>Updates</u> (08/2020)
- Briefing on upstream methane in Power Plan (06/2020)
- BPA Load forecast (04/2020)
- Out-of-region load forecast and California climate-inclusive load forecast (04/2020)
- <u>Updates</u> to load and other forecasts based on GCM Selection (02/2020)
- Further Detail on <u>Load Forecast</u> (10/2019)
- Forecast of Draft Loads w/Frozen Efficiency for 2021 Power Plan/Related GCMs, (09/2019)
- Economic drivers for the plan (04/2019)
- <u>Upstream Methane</u> (01/2020)
- <u>Update</u> on Wholesale Electricity Price Forecast and Avoided Emissions Rate (11/2019)
- Natural Gas Price <u>Forecast</u> for 2021 Power Plan (11/2019)

Climate Change

- <u>Update</u> on Climate Scenario Selection (04/2020)
- General Circulation Model Scenario Selection (11/2019)
- Intro to Climate change and the 2021 power plan (04/2019)



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PLUS:

- Results from stakeholder survey on use of previous power plan content (08/2020)
- <u>Development</u> of technical written material for the Power Plan (07/2020)
- <u>Stakeholder survey</u> regarding use of previous plan's written content and supporting materials (07/2020)
- <u>Update</u> on New Version of GENESYS (05/2020)
- Draft DR Supply Curves (03/2020)
- Review State Clean Energy Policies and Impact on 2021 Plan Analysis
- <u>Briefing</u> on methodology for quantifying the environmental costs and benefits of new resources for the 2021 Power Plan (09/2019)
- Environmental Methodology Development Primer (8/2019)
- Establishing global financial and economic <u>assumptions</u> for the 2021 Power Plan (07/2019)
- Establish existing system parameters and interpret state policies (07/2019)
- Consistent Treatment of Quantifiable Resource Costs (03/2019)
- <u>Proposed discount rate</u> for the 2021 Power Plan (02/2019)

