Richard Devlin Chair Oregon

> **Ted Ferrioli** Oregon

Guy Norman Washington

Patrick Oshie Washington



Bo Downen Vice Chair Montana

Doug Grob Montana

> Jim Yost Idaho

Jeffery C. Allen Idaho

March 2, 2021

MEMORANDUM

TO: Power Committee

FROM: Chad Madron

SUBJECT: Power Plan Project Timing Check-In

BACKGROUND:

Presenter: Ben Kujala, Chad Madron

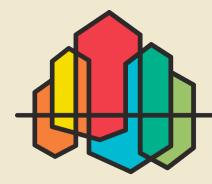
Summary: Staff will provide an overview of power plan related presentations and

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

committee work.

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2021 NW Power Plan Status



THE 2021 NORTHWEST

POWER PLAN

FOR A SECURE & AFFORDABLE ENERGY FUTURE

Topics From Last 3 Months

- January 12
 - Power Plan Timing <u>Update</u>
 - <u>Overview</u> of Hydrogen
 - Exports/Imports in RPM
 - Review of Baseline Conditions Modeling Results
- January 28
 - <u>Update</u> on Power Plan Needs Assessment (Adequacy Reserve Margin)
 - Baseline Conditions Modeling Results Update
 - Relative costs of resources and update on Robustness of EE scenario approach
- February 9 + 10
 - Robustness of EE Scenario Findings
 - State of Utilities Report and Update on 2020 Loads and Covid Impacts
 - <u>Summary</u> of Baseline Condition Modeling Results for Power Plan
 - Other past <u>Plan Related Presentations to the Power Committee or Full Council...</u>



Plan Related Topics This Month

Power Committee

- Update on Power Plan Needs Assessment (ASCC)
- Summary of System Integration Forum's exploration of energy equity in the 2021 Power Plan
- Rates and Bills Modeling and Regional Portfolio Model (RPM)
- Power Plan Timing Update

Full Council

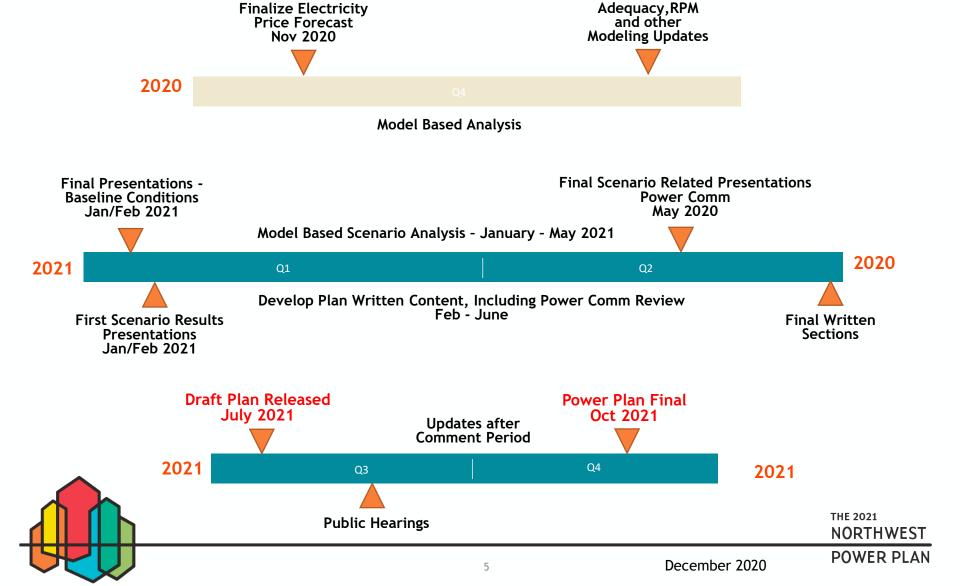
- Robustness of EE Scenario Summary
- State of the Region's EE Programs: Successes and Challenges of Adapting to COVID



Proposed Schedule Updates

2021 Power Plan Work Schedule

Revised December 2020



March

- Update on Power Plan Needs Assessment (ASCC)
- Rates and Bills Modeling

Late March

- Early Coal Retirement
- Greenhouse Gas Tipping Point

April

- Extra Regional Markets and Adequacy
- Markets for Energy/Capacity
- Early look at BPA Scenario

Late April

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

May

- Bonneville Portfolio
 - Including related load, model runs, other findings
- Overview of Pathways to Decarbonization Scenario

Late May

- Pathways to Decarbonization Scenario
- Written material for plan review



These dates will likely change

June

- Scenario discussion wrap up
- Written material for plan review

Late June

 Written material for plan review

July

- Written material for plan review
- Release of Draft Plan

August

- Public Comment
- Planning for public hearings

August/September

- Public Hearings
- Plan updates between draft and final

October

Release final plan



These dates will likely change



Extra Slides for Reference

Scenario Analysis

- Summary of Baseline Condition Modeling Results for Power Plan (02/2021)
- Robustness of EE Scenario Findings (02/2021)
- Relative costs of resources and update on Robustness of EE scenario approach (01/28/2020)
- 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

- <u>Update</u> on Power Plan Needs Assessment (Adequacy Reserve Margin) (01/28/2020)
- Baseline Conditions Modeling Results Update (01/28/2020)
- Exports/Imports in RPM (01/2021)
- Review of Baseline Conditions Modeling Results (01/2021)
- 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)



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- Resource Strategy Continued
 - First look 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 <u>Methodology</u> (09/2020)
 - Adequacy <u>Update</u> (ASCC/ARM) for 2021 Power Plan Part 2
 - Electricity Price <u>Forecast</u> 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 (08/2020)</u>
- <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

- <u>Update</u> 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)
- Solar, Battery Storage, and Solar + Battery Storage Reference Plants (10/2019)
- Review of Existing System and WECC-Wide Coal Retirements (09/2019)



- 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)
 - <u>Economic drivers</u> for the plan (04/2019)
 - <u>Upstream Methane</u> (01/2020)
 - Update on Wholesale Electricity Price Forecast and Avoided Emissions Rate (11/2019)
 - Natural Gas Price Forecast for 2021 Power Plan (11/2019)
- Climate Change
 - <u>Update</u> on Climate Scenario Selection (04/2020)
 - <u>General Circulation Model</u> Scenario Selection (11/2019)
 - Intro to <u>Climate change</u> and the 2021 power plan (04/2019)



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PLUS:

- State of Utilities Report and Update on 2020 Loads and Covid Impacts (02/2021)
- Overview of Hydrogen (01/2021)
- State of Electric Utilities 2019 (12/2020)
- <u>DEI at Advisory Committees</u> key takeaways (12/2020)
- 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)
- Stakeholder survey regarding use of previous plan's written content and supporting materials (07/2020)
- Update on New Version of GENESYS (05/2020)
- Draft DR Supply Curves (03/2020)
- Review State Clean Energy Policies and Impact on 2021 Plan Analysis
- Briefing 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)
- <u>Consistent Treatment</u> of Quantifiable Resource Costs (03/2019)
- <u>Proposed discount rate</u> for the 2021 Power Plan (02/2019)

