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February 4, 2020

MEMORANDUM

TO: Council Members

FROM: Ben Kujala, Chad Madron


SUBJECT: Power Plan Project Timing Check-In

BACKGROUND:

Presenter: Ben Kujala

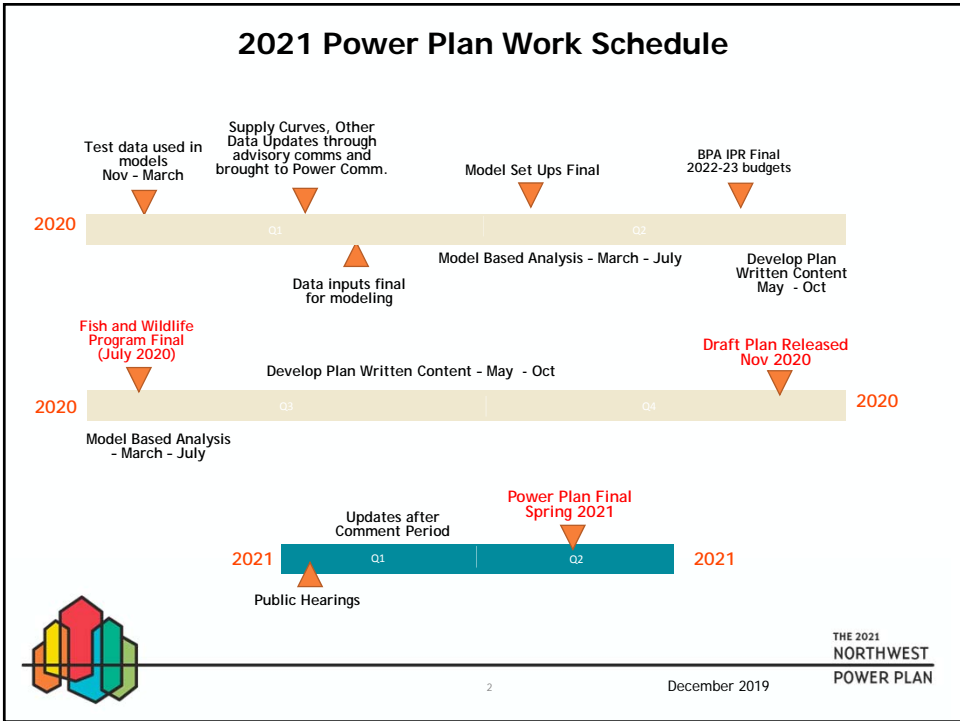
Summary: Staff will provide an overview of power plan related presentations and findings to date and discuss schedule for the next six months of power committee work.

2021 NW Power Plan Status



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FOR A SECURE & AFFORDABLE
ENERGY FUTURE

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Power Committee Process Reviews

- **May 2019**
 - [Overview](#) of Plan and how the proposed resource strategy is developed
 - Natural Gas Price [Forecast](#) and other fuel prices
Transportation [Forecast](#)
 - [Development of Generating Resources Reference Plants](#)
 - [Demand Response Supply Curve Development](#)
- **June 2019**
 - [Forecast load](#) with price effects and forecast load with frozen efficiency
 - Develop energy efficiency [supply curves](#)
 - [Forecast](#) outside the Northwest
 - [Forecast](#) electricity prices



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Power Committee Process Reviews

- **July 2019**
 - Establishing global financial and economic [assumptions](#) for the 2021 Power Plan
 - End Use Gas Load [Forecast](#)
 - Develop Model Conservation Standards and Surcharge [Methodology](#)
 - [Establish existing system parameters and interpret state policies](#)
- **August 2019**
 - [Environmental Methodology](#)
 - [Estimate System Adequacy Requirements](#)
 - [Analyze Resource Strategies](#)
- **September 2019**
 - Develop Cost Effective [Methods](#) for Providing Reserves



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Plan Related Presentations to the Power Committee or Full Council

- Scenario Analysis
 - Review of Plan Scenarios – Part 1 (01/2020)
 - Scenarios proposed for inclusion (07/2019)
- Resource Strategy
 - Updates to RPM Methodologies (01/2020)
 - Overview of Plan and how the proposed resource strategy is developed (05/2019)
- Conservation and Energy Efficiency
 - Update on planning parameters for EE supply curves (8/2019)
- Generation Resources
 - Draft Pumped storage reference plant (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)



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Plan Related Presentations to the Power Committee or Full Council

- Load and Price Forecasts
 - Further Detail on Load Forecast (10/2019)
 - Forecast of Draft Loads w/Frozen Efficiency for 2021 Power Plan/Related GCMs, (09/2019)
 - Economic drivers for the plan (04/2019)
 - Upstream Methane (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
 - General Circulation Model Scenario Selection (11/2019)
 - Intro to Climate change and the 2021 power plan (04/2019)



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Plan Related Presentations to the Power Committee or Full Council

PLUS:

- 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 assumptions 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)
- Proposed discount rate for the 2021 Power Plan (02/2019)



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This Month

- **Scenario Review Part Two**
 - SIF on March 10
- **Generating Resources Reference Plants**
 - Natural Gas
 - Geothermal
- **Updates to Load Forecast based on GCM Selection**



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<p style="text-align: center;">March</p> <ul style="list-style-type: none"> • EE Supply Curves • DR Supply Curves • Historical Regional GHG Emissions Update 	<p style="text-align: center;">April</p> <ul style="list-style-type: none"> • Generation Resources Summary Presentation • EE Typical Meteorological Year Adjustment • Out of Region Load Forecast • CA Climate Inclusive Load Forecast 	<p style="text-align: center;">May</p> <ul style="list-style-type: none"> • Emerging Tech Reference Plant for Scenario Analysis • Updates to Supply Curves for Scenario Analysis • BPA Load Forecast
<p style="text-align: center;">June</p> <ul style="list-style-type: none"> • System Adequacy (ASCC/ARM) • Electricity Price Forecast • BPA Scenario Supply Curves, etc... 	<p style="text-align: center;">July</p> <ul style="list-style-type: none"> • Baseline Conditions Test Runs • Early Coal Retirement Scenario 	<p style="text-align: center;">August</p> <ul style="list-style-type: none"> • EE Robustness • Extra Regional Markets and Adequacy • Markets for Energy/Capacity



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