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April 5, 2022

### **MEMORANDUM**

**TO: Council Members**

**FROM: Jennifer Light**

**SUBJECT: Power Division Priorities for 2022**

### **BACKGROUND:**

**Presenter:** Jennifer Light

**Summary:** Staff will present on the power division priorities for 2022.

Staff is working on developing a high-level multi-year work plan to identify and prioritize work needed to support implementation of the 2021 Power Plan, as well as preparation for a mid-term assessment and the development of the Council's ninth power plan. This presentation will focus on our near-term priorities that will support us in fulfilling our longer-term objectives.

This presentation is not a discussion of the draft work plan for a potential Lower Snakes River Dam power analysis. Rather, it focuses on the work the division is undertaking independent of any potential decision on whether to pursue that analysis.

# Power Division Priorities for 2022

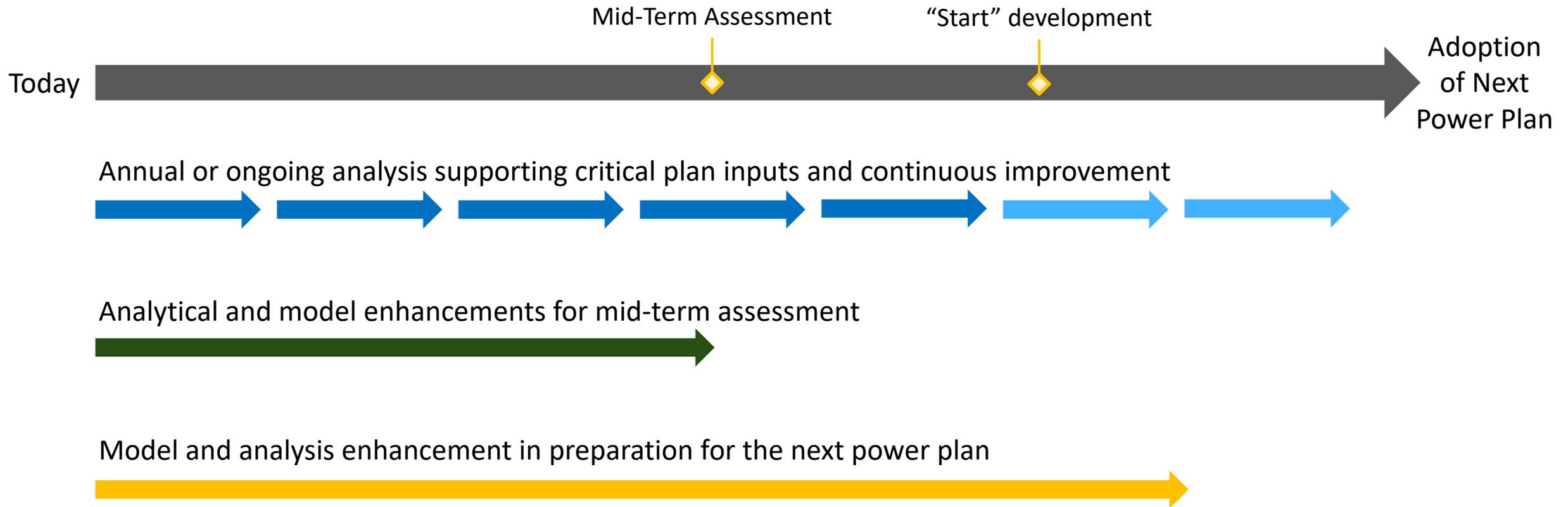
Jennifer Light

April 12, 2022

# Obligatory Caveat Slide

- Priorities are independent of the Council decision on whether to pursue the Lower Snake River Dam analysis
- Several moving pieces in the division, which will likely require us to revisit and reprioritize
- Lots of additional work in the division not captured here
  - We can share each team's work plan if interested

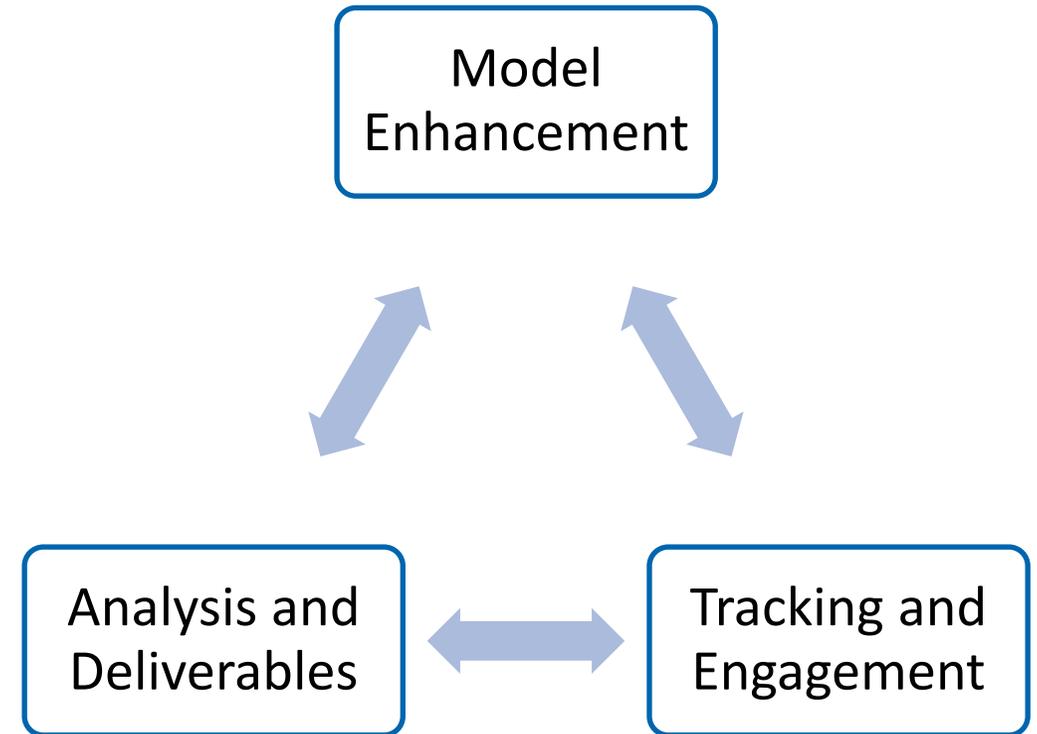
# Long-Term Perspective



Not to scale

# Main Categories of Work

- Advancing our modeling ecosystem is critical to much of the work across the division
- Modeling supports analysis and many of our deliverables, which can also improve and help us hone our models
- Equally important is engaging with the region to inform our work and share expertise



# 2022 Priorities: Model Enhancement (1)

## Continued improvement of GENESYS model

- Goal: Improve model assumptions and increase regional buy in for use this year in adequacy assessment and other studies
- “Adopt a Dam” process
  - Project by project review of current model constraints
  - Leverage planner and operator expertise to improve the interpretation of constraints



# 2022 Priorities: Model Enhancement (2)

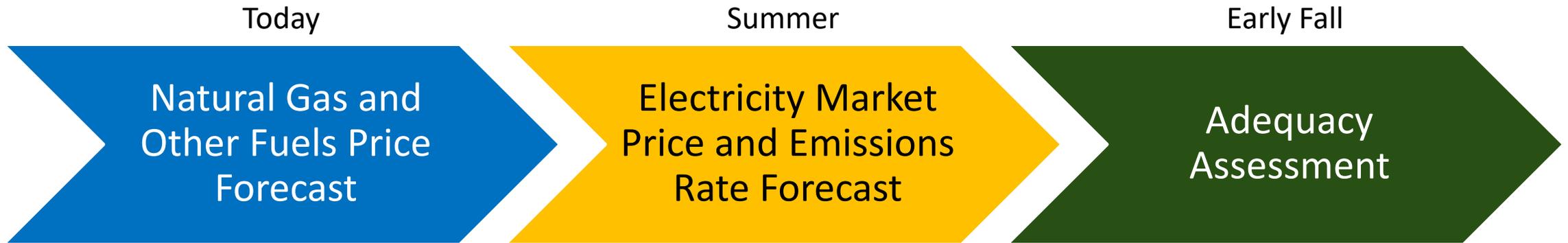


- Development new approach to long-term load forecasting
  - Goal is to have a new long-term load forecast model by the mid-term assessment
  - Starting now with an assessment of our needs, which requires input and buy in from across the division
    - What do we need to inform future development of resource supply curves?
    - How broad should the geographic scope be to support planning and adequacy studies?
  - Also working on improving data components that will ultimately feed into the forecast (e.g. transportation loads)
- Exploring updates to the short-term economic forecast as well

# 2022 Priorities: Model Enhancement (3)

-  ■ Expanding and improving our understanding of WECC-wide fundamentals to inform Council analysis
-  ■ Enhancing the load shape library to improve our understanding of the timing of energy use and savings
-  ■ Developing building models to improve analysis of energy efficiency and demand response
-  ■ Starting exploration into alternative approach to capital expansion modeling (i.e. RPM)

# 2022 Priorities: Analysis (1)



- Consideration of New Adequacy Metrics
  - Continuing the conversation of moving towards a multi-metric adequacy standard
  - Aim to have some recommendations this year, but will likely need time to vet and finalize

*Note: The work of continuing to improve GENESYS and completion of these studies is consistent with prep required for the LSRD analysis*

# 2022 Priorities: Analysis (2)



- Improving our valuation of the benefits and costs of various resources, in light of the changing power system
  - RTF conducting two studies to develop methods for valuing flexibility and resilience provide by energy efficiency
    - These are intended to provide a starting point for improving our consideration of these values for all resources, as applicable



- Broadening extreme weather analysis
  - RTF conducting a study to explore performance of technologies under extreme weather
    - Council will be undertaking broader analysis in later years to understand impacts of extreme events on the power system

# 2022 Priorities: Tracking



- Monitor and evaluate the region's evolving power system and policies to ensure our analysis is keeping pace with and informing the rapidly changing industry
  - Ongoing updates of the generating resources project database and tools
  - Review and tracking of WECC-wide integrated resource plans
  - Tracking emerging technologies to understand what is getting traction
  - Following federal and state efficiency standards and building codes updates
  - Conduct annual Regional Conservation Progress survey
  - Expanding annual emissions updates to include other relevant sectors
  - Tracking utility, state, and federal policies
  - Track regional demand response implementation

# Division Work Planning Next Steps

- Continue to map out a high-level multi-year work plan
  - More recommendations from the 2021 Plan that we need to undertake with the region (e.g. exploring impact on hydro from renewables, upstream methane emissions study, etc.)
  - Staff have identified other projects that will enhance our analysis in this changing power system
  - Staffing changes may require us to shift around priorities
- Revisit near-term priorities and work plan with Council members Q3