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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

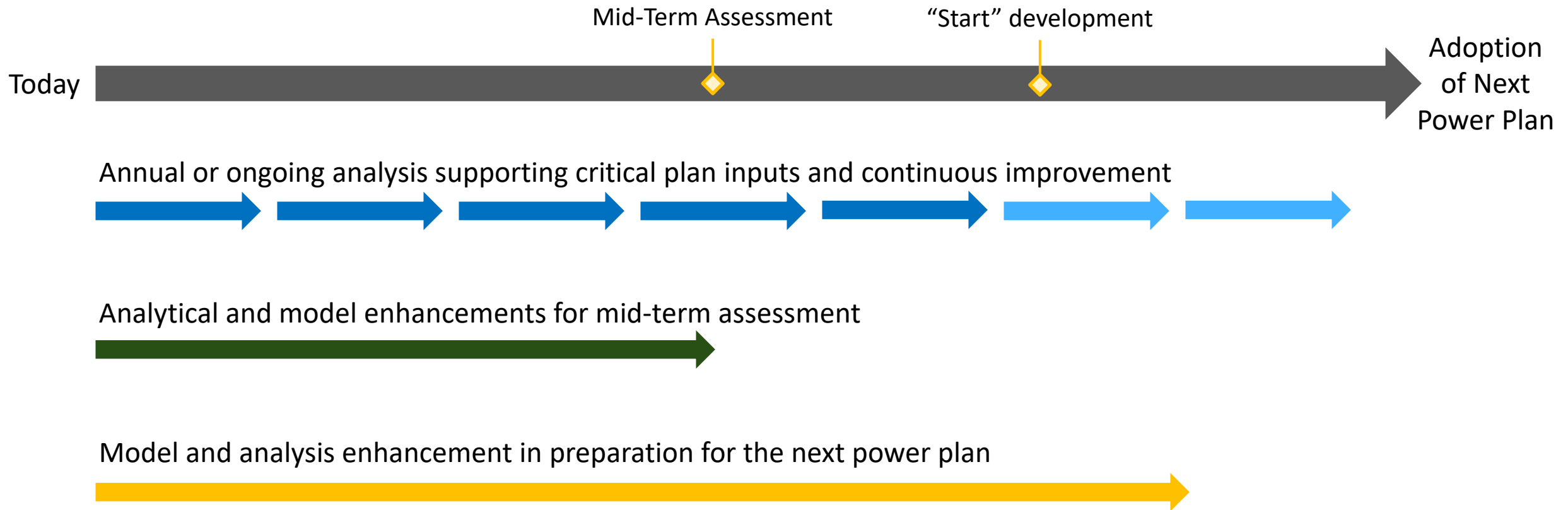
Jennifer Light

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

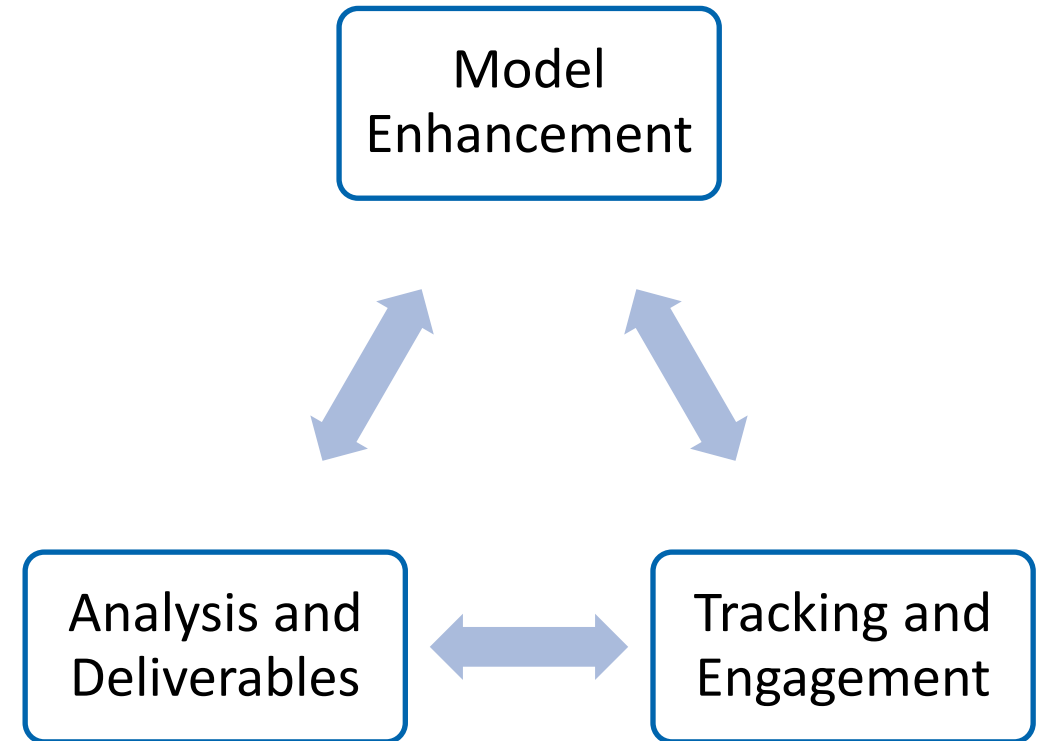
Long-Term Perspective



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)

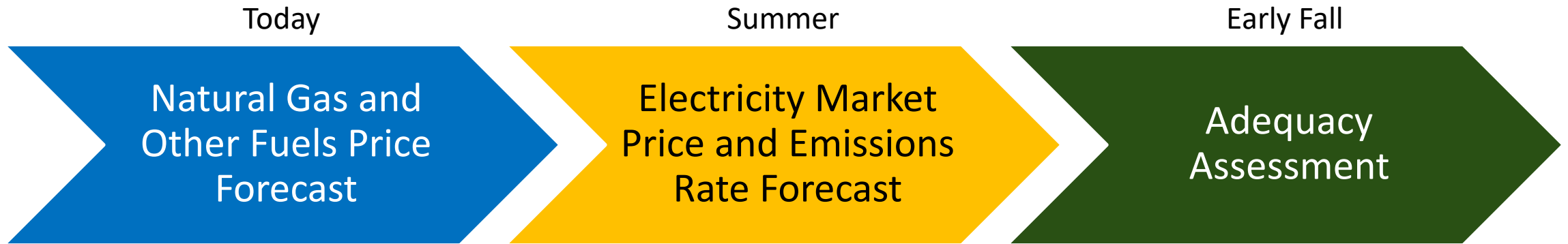


- Development new approach to long-term load forecasting
 - Goal is to have a new long-term load forecast model by the mid-term assessment
 - Starting now with an assessment of our needs, which requires input and buy in from across the division
 - What do we need to inform future development of resource 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