Northern Grid

2022 Annual Western Interregional Coordination

March 4, 2022
NorthernGrid is the outcome of a single transmission planning region, facilitating regional transmission planning, enabling one common set of data and assumptions, identifying regional transmission projects through a single stakeholder forum, and eliminating duplicative administrative processes.
Planning Member Footprint: 14 Western Regional Members
Summary from Previous 2020–21 Planning Cycle

• Production Cost Model used to generate scenarios
• Members reviewed scenarios and selected hour snapshots of interest
• 8 Seasonal baseline powerflow case developed
• 22 Regional Combinations Evaluated
• ~1200 Regional Contingencies Run
Regional Projects Selected into the 2020-21 Regional Transmission Plan
Final 2020–21 Regional Transmission Plan:
Approved by MPC on 12/8/2021
Notification provided to members on 12/13/2021
Report Posted to NorthernGrid website
Regional Transmission Plan
for the 2020-2021
NorthernGrid Planning Cycle

NorthernGrid Member Planning Committee (MPC)
Approval Date: December 8, 2021
A new year a new assessment cycle…

• What is changing around NorthernGrid?

• What changes is NorthernGrid making?
General changes at NorthernGrid:

- NWPP now is Western Power Pool
- Technical analysis to be moved in-house
- New member – welcome NV Energy!
- Some interregional projects are now regional projects
- New MC and MPC co-chairs – welcome Mike Magruder (MC) and Rikin Shah (MPC)
- DOE study outreach
Next Steps after 2020-21 cycle:

Debrief / Lessons Learned – solicit stakeholder input

- Review of study scope development process
- Increased coordination with Enrolled Parties and States Committee to develop the study scope
- Request for improved interface between interregional needs
- Outreach to other resources performing related assessments (WECC, Department of Commerce)
- Desire for other case type options (WECC base case)
- PCM / Round Trip opportunities coordinated with WECC
Study Scope Drafting Team (SSDT) invites more stakeholder comments up-front in the study scope process. MPC still approves study scope.
Study Scope Drafting Team Discussion

- Significant state policy changes with potential for significant regional changes (an understatement!)
- Electrification, EVs, Conservation, Demand Side Management
- Differences between IRP, L&R, and WECC base case data sets
- Appropriate data sets for primary analysis versus sensitivity
- Seasonal / system conditions to assess
- Tool use and appropriateness for data conclusions
- Potential for economic study options
Member Data Submittal Window:

- The NorthernGrid member data submittal window closed February 22, 2022
- Deadline for Developer project submittals is March 31
- Data submittals are being reviewed for completeness.
- Discussion of L&R submittal versus IRP contents
- Conservation and DSM a key factor
Member Load Submittals – Puget Sound region

Historic loads from FERC 714 reporting

Load scaled from TPWR’s load - 1.3 scale factor, based on BPA actual/forecast values

SNPD not a BA so doesn’t have FERC 714 hourly reporting – TPWR shape used and scaled to approximate SNPD load profile
Member Load Submittals – Eastern WA / North ID Utilities

Historic loads from FERC 714 reporting
Member Load Submittals – BPA, PGE

Historic loads from FERC 714 reporting
Member Load Submittals – Mountain and Basin region

Historic loads from FERC 714 reporting

PACW and PACE combined
Resource Changes:

- Conversation regarding IRP level needs, L&R acceptable reporting, and WECC base case level modeling.
- With new resources, capacity factor needs create potential for oversupply.
- PCM dispatch challenges for zero cost resources
- Additional challenges for treatment of battery and other storage
Any Questions?
THANK YOU!