Presentation to:

The Washington State Legislative Joint Committee on Energy Supply and Energy Conservation

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What is ColumbiaGrid?

• Non-profit membership corporation, formed in 2006

• Purposes:
  – Improve reliability and efficiency of regional transmission grid
  – Cost-effective regional transmission planning and expansion
  – Develop solutions to transmission-related issues

• Charges in performing these tasks:
  – Carry out work consistent with the public interest
  – Consider environmental concerns
  – Provide cost-effective solutions
Who is ColumbiaGrid?

• Current Members include:
  – Avista
  – Bonneville Power Administration
  – Chelan County PUD
  – Grant County PUD
  – Puget Sound Energy
  – Seattle City Light
  – Tacoma Power

• Membership invitation open to other Northwest control areas
Who is ColumbiaGrid? (cont’d.)

• Members can amend bylaws, elect Board and determine future Programs to be performed by ColumbiaGrid

• Participation is open to non-members through becoming parties to a particular Functional Agreement. E.g.:
  – Snohomish County PUD
  – Cowlitz County PUD
ColumbiaGrid is a member of WECC and NWPP
  – Operating Committees
  – Planning Committees
  – Market Interface Committee (WECC)
  – Various subcommittees
Providing Planning, OASIS and Reliability Services

Now and future:

- Planning and Expansion Functional Agreement
- Reliability – Operational improvements of transmission grid
- Common Northwest OASIS
Planning Agreement Parties’ Combined Footprint

Facilities of Current Planning Parties includes partial ownership and leased facilities

ColumbiaGrid

Other Western Transmission

April 2017
Planning and Expansion Functional Agreement

ColumbiaGrid Transmission Planning:

- Independent planning staff to perform system analyses
- Single-utility concept using power-flow modeling
- Open stakeholder process
- Steps to encourage construction to ensure reliability
- First draft Biennial Plan now posted and open for public comment: www.columbiagrid.org
OASIS* Functional Agreement

*Open Access Same-time Information System (Ensures equitable information access for transmission customers)

- Provides common web portal for one-stop transmission shopping
- Provides common calculation methodologies

Parties to the OASIS Agreement include:
Avista, BPA, Chelan PUD, Puget, Seattle, Grant PUD, Tacoma, Snohomish PUD
Operational Reliability

• Performed independent analysis and report on BPA’s 2007 Reliability Redispatch pilot program
  – Relieve imminent transmission overloads by swapping generation across the problem area.

• Investigated future improvements in that program and may be closer to a broader, more regional application.
Wind Integration Efforts

• 2008: Opened dialogue with 2 other regional groups: Northern Tier transmission Group and WestConnect – Most major western utilities outside of Canada.

• Dialogue lead to a “Joint Initiative” working on solutions to ease operational impacts of hard-to-predict and variable wind generation.
  – Accommodate further renewable development while ensuring system reliability
  – May provide for expansion of redispatch solutions to transmission operators beyond just BPA.
In Summary

• ColumbiaGrid’s approach is:
  – Regional
  – Independent
  – Collaborative
  – Creative

• Issues:
  – More direct participation – need more players
  – Funding is limited to current members/participants

• More information: www.columbiagrid.org