



**Quadrennial Energy Review
Second Installment
Electricity: Generation to End-Use
Stakeholder Meeting #3: Salt Lake City, UT
April 25, 2016
Western Electricity Coordinating Council
155 North 400 West
Salt Lake City, UT**

Salt Lake City is the second of six regional QER public input meetings, all of which are based on wholesale market footprints as a convenient approach to capturing and assisting the Interagency QER Task Force in understanding the nation's regional electricity diversity, which is also characterized by differing resource mixes, state policies, and a host of other factors. The Salt Lake City meeting covers the footprint of thirteen of the fourteen states (outside California) which are, all or in part, in the Western Interconnection, and represented by the Western Electricity Coordinating Council. Electricity issues related to California will be covered during a May 10th QER meeting in Los Angeles.

8:00 AM

Doors Open

8:30 – 9:30 AM

Opening Remarks by Deputy Assistant to the President for Energy and Climate Change Dan Utech, Deputy Administrator Joshua Cohen, USDA Rural Utilities Service, and Melanie Kenderdine, Energy Counselor to the Secretary, US Department of Energy

9:30 – 10:45 AM

**Panel 1
Bulk Power Generation and Transmission: How Can We Plan, Build, and Operate the Appropriate Amount for Future Needs?**

The first panel will speak to the many responsibilities and challenges involved in maintenance and operation of the bulk power system of generation and transmission: The system's role in reliability, including how to maintain reliability with an evolving resource mix; the structure of centrally organized and bilateral wholesale electricity markets; the planning, financing, cost-allocation and state and federal siting processes needed to build new generation and transmission; resource diversity; policies affecting how much, if, and when to build, including reducing greenhouse gas emissions and other environmental impacts; multiple jurisdictions and overlapping regulations; changing load growth patterns; innovation and new technologies; increasing interdependencies; and many more.

- Jim Robb, Chief Executive Officer Western Electricity Coordinating Council (WECC)
- Ron Darnell, Executive Vice President for Public Policy, PNM Resources, Inc.
- Doug Hunter, Chief Executive Officer and General Manager, Utah Associated Municipal Power Systems (UAMPS)
- Julia Souder Prochnik, Director of Western Renewable Grid Planning, Natural Resources Defense Council (NRDC)
- Bryce Freeman, Administrator, Wyoming Office of the Consumer Advocate

10:45 AM – Noon

Panel 2

Electricity Distribution and End-Use: How Do We Manage Challenges and Opportunities?

The second panel will consider the implications of a broad array of existing and emerging technologies, as well as new uses on the distribution grid and grid-edge, which together provide both technical and policy challenges and opportunities to the delivery of energy services to customers. Some of these factors affecting the developing distribution grid include: energy efficiency; demand response; distributed generation; digital communications, sensors and control systems; “smart” meters; greater customer engagement; storage; microgrids; electric vehicles. Additionally, seventeen states and the District of Columbia have adopted some form of electric retail choice programs allowing end-use customers to buy electricity from competitive retail suppliers.

Separately, these factors can be challenging for grid operators. Taken together, these evolving characteristics will have impacts that may influence planning, operations, reliability, resiliency, and economics of the distribution grid. The changing nature of the distribution system raises important questions on infrastructure financing and development, affordability, rate design, appropriate valuation, as well as numerous jurisdictional and regulatory issues. Regardless of the challenges these changes present to industry planners and government regulators, they also can create opportunities for customers to enjoy the benefits of new and improved services and with carbon reduction and other environmental improvements, with services sometimes provided by new market entrants.

- Paul Radakovich, Vice President, Transmission and Distribution Operations, Rocky Mountain Power
- Leonard Gold, General Manager, Gila River Community Utility Authority
- Colin Jack, Chief Operating Officer and Engineering Manager, Dixie Power
- Roger Woodworth, Vice President, Avista Corp., and President, Avista Development
- Mark Case, Principal and President, ETC Group
- Laura Nelson, Director, Utah Office of Energy Development

Noon – 1:30 PM

Lunch

1:30 – 2:45 PM

Panel 3
Cyber- and Physical Security and Resilience

Utilities and other owners and operators of electricity sector assets must provide reliable service in the face of multiple risks that test and potentially disrupt the system. Cyber and physical threats to the electricity system are growing. Although there have not been any significant disruptions to electricity service to date, the electricity sector must invest considerable capital and staff resources into protecting against cyber and physical attacks. Owners and operators are also investing to make their system components more resilient not only to potential cyber or physical disruptions, but also to disruptions caused by extreme weather and low-probability events like electromagnetic pulses and geomagnetic disturbances.

The third panel in Salt Lake City will examine efforts to improve system resilience, how actors in this sector are addressing cyber and physical security concerns, and what actions need to be taken by the industries involved, as well as by state, local, and tribal governments, and our neighbors in Canada and Mexico. The panel will also look at how new technologies throughout every part of the system, while improving system performance, may create vulnerabilities not previously considered, and what must be done to allow this sector to continue to provide customers electricity that is reliable, clean, and affordable. Issues for discussion may include implementation of recent changes to standards and laws; sharing of actionable information; roles and responsibilities between asset operators vs who responds and with what authority to incidents; resiliency at both bulk power and distribution; keeping pace with fast changing technologies and actors; and many other challenges and opportunities at the distribution level as well as the bulk power system.

- Mark Gabriel, Administrator and Chief Executive Officer, Western Area Power Administration (WAPA)
- Michael Ball, Director, Corporate Security and Risk, PacifiCorp
- Mike Moon, Vice President, Compliance, Western Electricity Coordinating Council (WECC)
- Tim Roxey, Vice President and Chief E-ISAC Operations Officer, North American Electric Reliability Corporation (NERC)
- Phil Jones, Commissioner, Washington Utilities and Transportation Commission

2:45 PM

Public Comment Period (“Open Mic”)

Each member of the audience who chooses to speak will be permitted five minutes to speak and offer written materials for inclusion in the QER record. Participants will be asked to sign up to speak when they check in.