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September 4, 2013

MEMORANDUM

TO: Council Members

FROM: Charlie Black

SUBJECT: Briefing on Coordination of Regional Power and Transmission Planning

The Council is a primary regional power resource planning entity for the Pacific Northwest. As part of its power planning efforts (e.g., Northwest Power Plans, resource adequacy assessments, etc.), the Council must accurately represent the regional transmission system. Similarly, regional transmission planning entities must accurately represent existing and planned power resources for their purposes. Thus, it is important for the Council and the transmission planning entities to coordinate their regional power resource and transmission planning efforts.

Transmission system planning for the Northwest is conducted at several levels. From the broadest perspective, the Western Electricity Coordinating Council (WECC) develops a transmission expansion plan, a reliability assessment and a congestion analysis covering the entire Western Interconnection. Recently, WECC has also been tasked with assessing resource adequacy. At the next level, ColumbiaGrid and Northern Tier Transmission Group (NTTG) coordinate 'subregional' transmission expansion system planning with multiple participating utilities. Individual utilities also conduct their own transmission system expansion planning efforts, for example, Bonneville's Network Open Season process. Each of these transmission planning processes requires assumptions about existing and planned power resources, load forecasts, market prices for wholesale power, etc.

As a result, multiple regional entities, including the Council and regional transmission planning organizations, perform power system analyses. This can lead to parallel analyses that reach potentially inconsistent conclusions. For example, the Council's most recent resource adequacy assessment concluded that the Loss of Load Hours (LOLH) and Expected Unserved Energy

(EUE) for the Northwest are greater than zero in 2014. However, WECC's most recent Long-Term Reliability Assessment submittal to the North American Electric Reliability Corporation reached the following conclusion:

“All probabilistic metrics were zero in all nine assessment areas for both years analyzed. Even the CALN [*California North*] and NORW [*Northwest*] showed zero as their EUE or LOLH in 2014; both areas are at their target reserve margins.”

These inconsistent results indicate a gap in coordinating power resource and transmission planning at the regional level. In particular, there appears to be a need for greater communication with WECC about hydro variability and other defining characteristics of the Northwest power system.

At the Council meeting on September 11, Ben Kujala and John Fazio will provide a briefing on opportunities to coordinate regional power resource and transmission system planning and describe several activities that Council staff is pursuing to promote more effective collaboration.

Coordination Regional Power and Transmission Planning

Coordination

- Coordination with Transmission Planning Organizations
 - Helps establish the Council's Power Plan as a significant source for study inputs
 - Creates linkages between regional transmission and power planning
 - Aligns scenario analyses and mitigates against potentially conflicting conclusions from different organizations

Western Electricity Coordinating Council (WECC)

- The Council participates as a WECC member
- Council Staff has participated in
 - Transmission Expansion Planning Policy Committee
 - Technical Advisory Subcommittee
 - Data Work Group
 - Operating Committee
 - Planning Committee

WECC

- TEPPC Responsibilities:
 1. Oversee and maintain a public database for production cost and related analysis;
 2. Develop and implement Interconnection-wide expansion planning processes in coordination with the Planning Coordination Committee, other WECC committees, Subregional Planning Groups (SPGs) and other stakeholders;
 3. Guide and improve the economic analysis and modeling of the Western Interconnection and conduct transmission studies; and
 4. Prepare Interconnection-wide transmission plans consistent with applicable NERC and WECC reliability standards.

WECC

- Power Planning Coordination Opportunities
 - Resource Team looking at Production Cost Modeling using GridView
 - Scenarios for 20 year studies
 - Long-Term Reliability Assessment
 - Resource Database

ColumbiaGrid

- Council Staff is participating in bi-monthly planning meeting
- ColumbiaGrid is currently selecting a production cost model
- ColumbiaGrid was involved in the Northwest Power Pool (NWPP) Energy Imbalance Market (EIM) Study

Northern Tier Transmission Group (NTTG)

- Council Staff is attending the Planning Committee
- NTTG was involved in NWPP EIM study
- NTTG recently submitted comments to FERC on production cost modeling for transmission cost allocation