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March 29, 2012

MEMORANDUM

TO: Council Members

FROM: Ken Dragoon

SUBJECT: Wind Integration Forum Oversupply Recommendations Status Report

The Wind Integration Forum (WIF) is a joint effort of the Council and BPA for the purpose of addressing regional issues around accommodating the unique characteristics of wind generation on the Northwest power system. In June 2011, the WIF Steering Committee requested that the Council take a lead role in investigating physical changes to the power system that could address periodic energy oversupply events. Council staff organized the Oversupply Technical Oversight Committee (OTOC), with participants appointed by members of the WIF Steering Committee. OTOC reached agreement on a set of measures meriting further study last December, and is finalizing a report back to the WIF Steering Committee.

Oversupply occurs when available low variable-cost generation is in such great abundance that most thermal units in the region shut down and exports are at or near transmission limits. A key feature of the events is that they tend to occur in the spring when hydro runoff is often high, and during nighttime (or weekend) hours when demand is low. OTOC's recommendations focus on ensuring the economic efficiency of the power system under historically infrequent oversupply conditions. The recommendations were divided into three groups:

High potential and feasibility

- Removing barriers to customers shifting demand into historically light load hours
- Improve power system coordination
- Resistive load banks

Moderate Potential and Feasibility

- Increased generation displacement
- Reduce total dissolved gas levels
- Transmission market enhancements
- Develop an energy imbalance market

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Longer Term Efforts

- Cross balancing area exchanges
- Aquifer recharge
- Electric vehicle charging coordination
- John W Keys III Pumping Station Improvements

In many cases the identified measures are adequately being pursued in existing forums around the Northwest. However it appears that some additional emphasis is reasonable for a few of the recommended measures, including removing barriers to load shifting, improving power system coordination, and pursuing wider displacement markets. Next steps for these efforts will be decided in the Wind Integration Forum Steering Committee once the recommendations have been received.

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