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June 27, 2007

## **MEMORANDUM**

**TO:** Council Members

**FROM:** Jeff King

**SUBJECT:** CO<sub>2</sub> footprint of the Northwest Power System

The results of a forecast by Council staff of the carbon dioxide (CO<sub>2</sub>) production of the Northwest power system will be presented at the July meeting. This work compares CO<sub>2</sub> production of the power system under a base and alternative future resource scenarios, as follows:

**Base Case:** Future resource development consistent with the recommended portfolio of the Fifth Power Plan

**Low Conservation Achievement:** Future resource development assuming achievement of about 70% of the conservation savings of the recommended portfolio.

**High Renewable Energy Development:** Full achievement of the renewable energy targets of the Montana, Oregon and Washington renewable energy portfolio standards.

**Utility IRP:** Future resource development in accordance with the Integrated Resource Plans of Northwest utilities.

An additional set of studies assessed the CO<sub>2</sub> impacts of removal of the Lower Snake River hydroelectric projects. Three scenarios, varying by replacement resource assumptions (market, all gas and least-cost mix) are compared to the base case described above.

Finally, the effect on cumulative CO<sub>2</sub> production of summer spill at the Lower Snake and Lower Columbia River projects was estimated. The CO<sub>2</sub> effects of spill under 2004 BiOp operation and 2006 Preliminary Injunctive Relief Operation were compared to operation without summer spill (original 2000 BiOp).

Study results will include a Power Point presentation and a summary paper for release to interested parties.

503-222-5161 800-452-5161 Fax: 503-820-2370