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April 25, 2006

MEMORANDUM

TO: Council

FROM: Terry Morlan

SUBJECT: Power Division Work Plan and Major Power Issues for 2006

Most of the Power Division work plan is organized around action items in the Council's 5th power plan. In addition, there is a list of other activities not specifically called for in the power plan. These other activities account for a substantial share of the staff's time. They include maintaining and improving the databases and models that support the Council's analytical capability, providing information and analysis to the region, and participating in regional energy policy forums.

Action items in the power plan address most of the major policy issues that we can foresee for 2006 in the power plan. Below is a list of these issues.

- Regional dialogue on the future role of Bonneville
- Regional resource adequacy measures and standards
- Demand response and distributed generation
- Analysis of recovery plan and biological opinion effects on power system
- Transmission organizations and Western reliability initiatives
- Confirmation of wind resources
- Conservation acquisition
- **Integrated Coal Gasification Technology Assessment**

A condensed version of the Power Planning Division Work Plan is attached. The first section of the condensed list addresses the eight major policy issues above. The second section provides more detail on other activities included in the Power Planning Division Work Plan.

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Major Power Issues for 2006

Regional Dialogue:

- Final technical and policy group meetings [end of February]
- Bonneville policy proposal [End April]
- Council facilitate review of aluminum benefits and costs [April June]
- Council review and develop comments [May/July]
- Bonneville policy and ROD [July]
- Monitor progress toward new contracts by 2008

Resource Adequacy:

- Council release of issue paper [February 06]
- Public comment [March/April 06]
- Council adoption of regional energy metric and target [May 06]
- Forum development of regional capacity metric and target [July 06]
- Council release of capacity issue paper [August 06]
- Forum development of resource reporting process [September 06]
- Council adoption of regional capacity metric and target [November 06]
- Forum potential development of further implementation mechanisms (beyond reporting and public assessment of regional results)
- WECC development of westwide capacity and energy metrics and targets, including input from Forum on recommended application to the Northwest [Late 2006]

Demand Response and Distributed Resources:

- Work with utilities to explore development of demand response
- Participate in national and other state processes to develop demand response
- Develop methods of assessing the cost effectiveness of demand response approaches
- Explore ways to facilitate development of distributed resources

Recovery Plan and Biop Analysis:

- Provide input to NOAA Fisheries' effort to develop a new biological opinion
- Provide independent analysis of proposed hydroelectric operations
- Assess potential impacts to power system cost and adequacy

Transmission Organizations and Western Reliability Initiatives:

- ColumbiaGrid developed over next several months
- ColumbiaGrid offers early services (Fall 06)
- Major issue: Ensuring ColumbiaGrid progress toward resolving transmission problems
- WECC loads and resources subcommittee
- NTAC participation
- Others

Wind Confirmation:

- Presentation on wind integration experience and products [June]
- Assemble an advisory group to identify actions need to be taken to confirm the ability to develop the windpower called for in the Plan. Issue wind confirmation plan (2006).
- Work with NTAC to identify long-distance transmission requirements for developing the windpower called for in the Plan (report late 2006 or 2007)
- Assess the effects of shaping windpower on other functions of the hydropower system (2006-07)

Conservation Acquisition:

- Facilitate and coordinate the Regional Technical Forum
- Collect and assess data on utility conservation acquisitions
- Work with NEEA and Oregon Energy Trust
- Participate in national and regional efforts to improve building codes and energy efficiency standards
- Provide input and guidance to utility assessments of conservation potential
- Identify and research improved efficiency technologies

Integrated Coal Gasification Technology Assessment:

- Convene the IGCC Advisory Committee
- Prepare an assessment of the commercial progress of coal gasification power generation technology (by 2007)

Other Staff Work

5th Power plan implementation

(Many power plan implementation activities are covered in the major power issues section)

Transmission Assessment for Plan Resources:

• Work with the Northwest Transmission Assessment Committee (NTAC) of the Northwest Power Pool to develop assessments of the cost and feasibility of new long-distance transmission lines and reinforcements to access new remote generating resources (Phase I of Canada-Northwest-California study expected May 2006).

System Benefits Charge Assessment:

• Report to Power Committee (by 2008)

Plan Implementation and Assessment:

- Quarterly work plan status reports (April, July, October)
- Biennial implementation status report (Jan 2007)
- Ongoing collection of data and monitoring of basic assumptions; e.g. energy prices, demand, power project development, generating technologies, conservation technologies, etc.

Monitor Climate Change Research:

- Council presentation on state of climate change science [May 06]
- Power Committee discussion of Council role and activities [May 06]
- White paper on climate change and its effects in region [June/July 06]
- As data becomes available, reassess potential climate change impacts to the power supply and hydroelectric system
- Work with others to assess the likelihood of various climate change scenarios
- Work with others in the region to develop mitigation strategies
- Investigate the potential to include climate change uncertainty into the portfolio model

Participate in energy policy processes

Participate in Utility IRP Processes

- Attend IRP Technical Advisory Committee meetings as appropriate
- Summarize the current policies in IRPs and aggregate to compare to Council plan
- Check for progress on action items GEN-1 through 6 and 12

Participate in Various Western Energy and Transmission Initiatives

- Contribute to WECC processes on transmission planning, load/resource analysis and other efforts.
- Contribute to the Western Interstate Energy Board natural gas study
- Others as requested

Maintain and enhance tools and data for planning and analysis

Genesys Model Enhancement:

- Update resource and load data
- Review hourly load simulation
- Review thermal resource commitment logic
- Add ability to calculate flood control curves, drafting rights curves, and Canadian reservoir operation
- Add capability to run 70 historical water conditions
- Add capability to run 24 periods per year (as opposed to 14)
- Update model documentation

Design New Demand Forecasting Methods:

- Review and map current and future business requirements/goals for the model [April]
- Identify resource requirements [May]
- Select/develop required tools
- Benchmark/update baseline consumption levels
- Evaluate methods for developing demand response supply curve
- Data updating methods
- Load shapes and temperature adjustment

Continued Development of Olivia:

- Improve the efficiency of Olivia and its portfolio models
- Develop better documentation
- Improve the user interface
- Promote and facilitate the use of Olivia by utilities in the region

Maintain Databases and Information:

- Track energy prices and electricity demand
- Maintain data on existing generating plants
- Update information on new efficiency and generating technologies

Provide information, advice and analysis

Provide data and information as requested:

- Power plan data and interpretation
- Information about regional energy markets
- Generating resources status and costs
- Advice on incorporating risk and uncertainty in planning
- Efficiency technologies and costs

CO2 Production and Policy Assessments:

• Prepare assessments of gross and marginal CO2 production from electric power generation in support of the Oregon Carbon Allocation Task Force, Oregon Energy Trust and Regional Technical Forum (ongoing and as requested)

Coordinate Review of Analyses of Aluminum Impacts:

- Sign interagency agreement with Bonneville (April 06)
- Contract with independent reviewers (End April 06)
- Deliver review to Bonneville (End June 06)

Assess effects of changing policies on regional electricity costs:

Coordinate the Independent Economic Analysis Board:

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