Biennial Assessment of the Fifth Power Plan

Interim Report on Energy Policies

November 30, 2006

One of the key actions that can affect the implementation the Council's plan is change to energy policy at both the state and national level. As part of the Biennial Assessment of the Plan, we have summarized some of the key legislative and policy changes that have taken place since the Plan was adopted. Sections of this assessment below address national changes and changes in each of the states in the Pacific Northwest.

National

Energy Policy Act of 2005

The electricity title, Title XII, of the Energy Policy Act of 2005 made a number of significant changes in the framework for the electric power industry in the U.S. Two changes are most relevant to the Council's planning efforts. The Act changed the way system reliability is overseen and it created a federal backstop transmission siting authority in what has historically been a state arena. It also expanded the jurisdiction of Federal Energy Regulatory Commission (FERC) over third-party access to the transmission systems of otherwise unregulated transmission providers, such as Bonneville and publicly owned utilities. These changes will be described below.

None of these changes appear to require modifications to the Fifth Power Plan.

The Energy Policy Act of 2005 also includes a wide array of policy initiatives targeting improved energy efficiency and generating resources. These include activity in research and development, education, pilot programs, state program funding, and tax incentives among others. Many of these depend upon actual funding being approved, but others are very likely to have some direct effect in the Pacific Northwest.

Mandatory Reliability Standards

The Act made reliability standards mandatory for all participants in the industry. It did this by allowing for the creation of an Electric Reliability Organization (ERO) and Regional Reliability Organizations (RROs, like WECC) that could create and implement mandatory reliability standards. These entities would be subject to FERC jurisdiction, as would all participants in the industry, as a backstop to ensure their implementation. This jurisdiction newly includes entities, like Bonneville or publicly owned utilities that are not FERC-jurisdictional for other purposes. NERC (now called the North American Electric Reliability Corporation) has applied for and been designated by FERC to be the ERO under the law. A delegation agreement establishing the relationship between NERC and WECC is before the WECC board for approval at its December meeting.

This is significant because prior to this time industry standards, though widely observed, were ultimately voluntary, except for those entities that, in the West, had voluntarily signed the WECC Reliability Management System (RMS) Agreement. In addition to making the standards mandatory, the Act put an independent regulator, FERC, in charge of approving the standards. Failure to observe NERC standards, as well as the inadequacy of some of the standards, was widely observed to be one of the causes of the 2003 Northeast blackout.

There is one important exception, however, to the impact of the new regulatory regime. Neither the ERO nor FERC is authorized to order the construction of additional generation or transmission capacity or to set and enforce compliance with adequacy standards, an authority that is reserved to the states.

FERC Backstop Transmission Siting Authority

A second section of Title XII provides for a FERC backstop of state transmission line siting authority under the following conditions:

- When states do not have authority to site transmission facilities or to consider the interstate benefits of a project,
- Where an applicant does not qualify for siting under state law, or
- Where the state siting body has withheld approval for more than a year or conditioned approval in such a way as to make the proposed project economically infeasible or unable to significantly reduce congestion.

This authority applies only to proposed transmission lines that are within national interest electric transmission corridors, as previously designated by DOE. DOE has not yet designated any corridors.

This new authority was largely opposed by the states, who currently are the sole siting authorities for electric transmission lines.[1] FERC has interpreted a state's "withholding approval" to include denial of a project, in its recently issued final order setting out the rules by which it will implement the authority.

Open Access for Non-Jurisdictional Utilities

The Act also gives FERC the authority to order otherwise non-jurisdictional transmission providers, like Bonneville or publicly owned utilities to provide third party access to their transmission systems on a comparable basis (rates, terms and conditions) to that which they provide for themselves or affiliated marketers. It is not clear what the effect of this new authority will be, since, as noted below, most non-jurisdictional transmission providers already largely adhere to the same pro forma OATT as jurisdictional utilities, because of the reciprocity requirement that jurisdictional utilities only have to offer open access service to those that provide it to them.

[1] FERC already had exclusive siting authority over interstate gas transmission pipelines.

Energy Efficiency

The Energy Policy Act of 2005 includes a wide array of policy initiatives targeting improved energy efficiency and renewables. These include activity in research and development, education, pilot programs, state program funding, and tax incentives among others. Many of these depend upon actual funding being approved, but others are very likely to have some direct effect in the Pacific Northwest.

For example, the EPACT 2005 established federal efficiency standards for 15 new products and requires the US Department of Energy (USDOE) to adopt new or updated standards for nine additional products. Perhaps just as significantly, EPACT 2005 also requires USDOE to update over 20 of the existing federal standards and testing procedures that were long overdue for revision -- some by as much as 15 years. USDOE has committed to Congress that it will accomplish this task within the next five years.

Generating Resources

The EPAct 2005 extended the electricity production tax credit to projects in-service by the end of 2007 and expanded the scope of qualifying resources. The tax credit is currently the key driver of the rapid wind development underway in the Northwest. The "American Jobs Creation Act of 2004" had extended the credit to geothermal, open-loop biomass, solar energy, small irrigation power, landfill gas, municipal solid waste (MSW) combustion, and refined coal in addition to the formerly eligible wind, closed-loop biomass, and poultry-waste energy resources. The EPAct 2005 further expanded the credit to additions to existing hydropower facilities, new hydropower at non-power dams currently holding a FERC license and Indian-owned coal, but removed the solar eligibility. Qualifying hydropower, landfill gas and MSW receive $9/MWh, other qualifying facilities $19/MWh, adjusted for inflation. The credit has not had an effect on resources other than wind comparable to that on wind, largely because of the longer lead times typically required to develop and construct these resources.

A Clean Renewable Energy Bonds (CREBs) program was established as an incentive for projects developed by public entities and not able to take advantage of production tax credits. CREBs are interest-free bonds, yielding a tax credit rather than interest to purchasers. CREBs have been in high demand; this year only about 30% of requested bond amounts have been covered by IRS allocations.

The EPAct 2005 provides a variety of incentives for new nuclear plants, including loan guarantees, insurance against financial impacts of construction delays and a production tax credit. The tax credit is limited to the first 6000 MW of new capacity and will likely be fully subscribed before any commercial plants are proposed in the west. However, up to $1.25 billion is authorized through FY2015 to fund a prototype Next Generation Nuclear Plant to produce both electricity and hydrogen. If appropriated, this plant would be sited at the Idaho National Engineering Laboratory.

Incentives are also provided for integrated gasification combined-cycle plants and other "clean coal" technologies. These include an investment tax credit (capped to support about three gasification projects) and loan guarantees.

The development of wind capacity at a greatly accelerated rate in response to the extended production tax credit could affect the resource acquisition recommendations of the Plan. Further analysis would be needed to establish possible effects.

FERC Order 888 Review

FERC has begun a review of its pro forma open access transmission tariff (OATT) adopted in Order Nos. 888 and 889 in 1996. This is important because the OATT applies directly to all investor-owned utilities (called "public utilities" in the Federal Power Act) and has largely been adopted, as a result of reciprocity provisions for open access service in Order 888, by the major publicly owned transmission owners, including Bonneville. This paper will highlight two areas in the proposed OATT that are relevant to the Council's planning efforts.

In May 2006, FERC issued a Notice of Proposed Rulemaking (NOPR) to amend the pro forma OATT that was established in FERC Order 888. One of the most significant reforms proposed in the NOPR is the requirement for coordinated, open and transparent transmission planning by transmission providers subject to the OATT requirement. The NOPR proposes that each transmission provider's planning process meet eight planning principles set forth in the NOPR. These are coordination, openness, transparency, information exchange, comparability, providing dispute resolution, regional coordination, and performing congestion studies.

- Coordination: The transmission provider must meet with all its transmission customers and interconnected neighbors to develop a transmission plan on a nondiscriminatory basis.
- Openness: Planning meetings must be open to all affected parties.
- Transparency: The transmission provider must disclose to all customers and other stakeholders the basic criteria, assumptions, and data that underlie its transmission plans.
- Information Exchange: Customers are required to provide information regarding needs on a comparable basis (planning horizon and format) as used by transmission providers for their native loads. Market participants must have the right to review draft transmission plans.
- Comparability: The transmission provider must develop a plan that meets the specific service requests of its transmission customers and otherwise treats similarly situated customers comparably in transmission plans.
- Dispute resolution: The transmission provider must propose a dispute resolution process.
- Regional Coordination: The transmission provider must coordinate with interconnected systems to 1) share system plans to ensure they are simultaneously feasible and otherwise use consistent assumptions and data and 2) identify system enhancements that could relieve significant and recurring transmission congestion. FERC encourages such coordination to be across as broad a region as possible.
- Congestion Studies: The transmission provider must annually prepare studies identifying significant and recurring congestion and post them on its OASIS. The studies should report on location and magnitude of the congestion, costs of the congestion, possible

remedies, and the cost associated with relieving it through system enhancements or other means.

These requirements, particularly the last two, would provide additional support for the sub-regional and WECC-wide planning efforts that will provide a framework for achieving Action TX-1 ("The Council will work with Bonneville, other transmission providers, permitting agencies, and project developers to plan for long-distance transmission needs to support the resource development called for in the power plan."). FERC has made positive comments about the WECC planning framework in the NOPR and there are efforts to get FERC to formally recognize it as satisfying, in whole or in part, the providers' obligations under the NOPR.

A second significant reform proposed in the NOPR is a proposed modification of the generation imbalance charges to reduce significantly the penalties that could be imposed on intermittent generators like wind turbines. Generator imbalance charges are charges for differences between scheduled and net real-time generation, imposed to assist control area operation and help avoid reliability problems by creating an incentive for generation operators to maintain schedules. Because they were intended to create an incentive, imbalance charges were often artificially high compared to the control area operator's cost of remedying the situation. This was less of a problem when most generation was actually controllable than it is becoming, with increasing amounts of desirable, but uncontrollable, wind generation in the mix.[2]

FERC suggests for further comment a schedule of imbalance charges like Bonneville's, in which relatively large deviation bands from schedules are associated with imbalance charges that are at or relatively close to the transmission provider's incremental or decremental cost of providing the imbalances itself, rather than narrow deviation bands with punitive charges for exceeding them. Further, the example Bonneville tariff exempts intermittent resources from the third (and most burdensome) deviation band and associated charges.

Idaho

Idaho is developing a new state energy plan. The state will also consider updates to its residential and commercial building codes as part of its regular code revision cycle.

Montana

On April 28, 2005, the Montana Legislature adopted Senate Bill 415, the Renewable Power Production and Rural Economic Development Act. The law requires that 10% of the electricity sold in Montana come from renewable sources by 2010 and 15% by 2015. Also on April 28, 2005, Montana Governor Brian Schweitzer signed the bill, which, in addition to the targets, calls for a renewable energy credit tracking system and leaves open the option to trade renewable energy credits outside of the state. The legislation contains a cost cap that encourages utilities to invest in renewable generation that is cost competitive with conventional generation.

Montana will also be considering updating it residential and commercial building codes as part of its regular code revision cycle.

[2] There were also issues of discrimination between the treatment afforded generation owned by the control area operator and independent generation, but these are less relevant to the generation goals of the plan.

Oregon

In 2005 Oregon adopted efficiency standards on six additional products not covered by the Energy Policy Act of 2005. These included single-voltage external power supplies, incandescent reflector lamps, metal halide lamp fixtures, automatic commercial ice makers, commercial refrigerators and freezers, and unit heaters.

In early 2007, Oregon will be considering changes to its residential energy code. Governor Kulongoski has set a 15 percent savings goal for these revisions.

Oregon Governor Ted Kulongoski has made energy independence a cornerstone of his administration. While the 2005 Oregon legislative session concentrated on utility tax collection practices, the governor is working to develop ways to encourage renewable energy development for the 2007 legislative session.

The most ambitious proposal is for a state Renewable Portfolio Standard. The proposal requires this standard be applied to electric utilities and any energy services suppliers that serve at least 1 percent of the state's electric load, which applies to the state's three investor-owned electric utilities and the nine largest consumer-owned utilities.

The RPS sets interim targets of 5 percent of electric load by 2011, 15 percent by 2015, 20 percent by 2020, and 25 percent by 2025. Oregon's 28 smaller consumer-owned utilities that serve less than 1 percent of Oregon's total electric load must meet 60 percent of their retail load growth by the year 2025 with renewable energy.

Eligible renewable resources for both requirements include wind, solar, wave, geothermal, biomass, hydropower and other renewable resources that were operational after January 1, 1995. Eligible resources do not have to be located in Oregon but must serve Oregon loads.

Finally, the proposal extends the public purpose charge established in legislation passed in 1999. This legislation authorized the creation of the Energy Trust of Oregon, which administers conservation and renewable energy develop programs for electric utilities Pacific Power and PGE and natural gas utilities Northwest Natural, Cascade and Avista.

Washington

Legislation (all 2006 except as noted)

The biggest impact is expected to come from Initiative 937. It requires utilities serving 85-90% of Washington's electricity load to develop and follow conservation plans based on the Council's methodology and achieve targets for renewable energy in 2012, 2016 and 2020. The first conservation plan is due on January 1, 2010 and the targets from that plan need to be achieved within two years. Since these first deadlines are technically after the end of the 5th Power Plan implementation period, the initiative will not directly affect the achievement of the Fifth Plan's goals. However, since the same utilities covered by I-937 will have to do IRPs under HB1010 (see next), many of them will use the Council methodology for the conservation part of their IRP as a warm up to the 2010 deadline. Thus, indirectly, I-937 is likely to push utilities into greater compliance with the Fifth Plan's conservation goals. The initiative will also make it likely that Washington utilities will meet the conservation targets of subsequent power plans. Similarly, as

utilities gear up to the meet the 2012 target of 3% renewables, some of the acquisition will occur in time to be counted for the Fifth Plan's renewables targets and, going forward, Washington utilities are likely to meet or exceed renewables targets of subsequent Power plans.

HB1010 requires utilities with 25,000 or more customers (85+ percent of Washington load) to do integrated resource plans. The first plan must be completed by September 1, 2008. The bill should make it more likely that utilities will acquire conservation and renewable resources comparable to what is in Council Plan.

Increased appliance efficiency standards (2005) were mostly supplanted by federal standards but will help meet the 5th Plan's conservation targets.

Siting reforms and generation incentives should slightly enhance renewables development. These reforms included:

- Raising the net-metering limit to 100 kW, 0.25% of utility peak (HB2352)
- Establishing state authority for transmission siting (HB1020) to pre-empt FERC's EPACT pre-emption.
- Promoting wind (and other renewables) development through expedited siting (HB2402)
- Providing biofuels infrastructure support. While most appropriations are for transportation fuels, anaerobic digesters are also eligible.

Code updates

On November 17, 2006 the WA State Building Code Council adopted a package of amendments to the State energy code that will make elements of the code more stringent while also improving enforcement. This should yield measurable amounts of conservation and enable WA to capture the 5th Power Plan's goals for conservation from energy codes, bring Washington's energy code pretty much in harmony with the Council's specifications for an optimized energy code and, once again, make the Washington state energy code the most energy efficient in the US.

Mercury rulemaking

The Washington Department of Ecology and the Energy Facility Siting and Evaluation Council (EFSEC) are in the midst of a joint rulemaking to establish mercury standards for coal-fired power plants pursuant to the national mercury rule established by EPA. Like many states, Washington has thus far proposed to opt out of the national cap and trade system and instead adopt more stringent mercury emissions standards. The final rule is likely to be adopted in the Fall of 2007 and will have an effect on whether the existing Trans-Alta coal plant will continue operation and whether new conventional coal or IGCC plants will be built.

Carbon Dioxide policies

A governor's package is being developed which may have some further effect on electricity choices.

Fifth Plan Biennial Assessment – National Policy Issues

Northwest Power and Conservation Council

Power Committee

December 12, 2006

Portland

Northwest Power and Conservation Council

Energy Policy Act of 2005 – Title XII

- Mandatory reliability standards
  - FERC enforcement for all industry participants
  - NERC (and WECC) are standard-setting bodies
  - No authority to order new construction or enforce compliance with adequacy standards
- FERC backstop transmission siting authority
  - When state cannot site a proposed line
  - When state withholds approval for more than a year (including denies approval)
  - When state conditions so as to make project infeasible
- Open access for non-jurisdictional utilities

FERC Order 888 Review – Open Access Transmission

- Reform of pro forma Open Access Transmission Tariff (OATT)
  - Practically, applies to all transmission providers
- Planning requirements
  - Openness, regional coordination, congestion studies
  - Supports participation in WECC and regional planning efforts
- Modification of generation imbalance charges for intermittent resources
  - Reduces penalties and focuses directly on cost impacts