Northwest Power and Conservation Council

March 30, 2006

MEMORANDUM

TO: Power Committee

FROM: Ken Corum

SUBJECT: Progress toward a Pacific Northwest Demand Resources Project

As part of the Council's 5th Power Plan's Action plan, the staff has been working with a number of parties both inside and outside the region to monitor developments in demand response and to encourage the achievement of all appropriate demand response. Most recently this work has been to develop a proposal for a project, in cooperation with the four state utility commissions, Bonneville and others, that would encourage the development of demand response in our region. I've reported earlier steps in this process to the Power Committee.

On September 7 a scoping committee, an invited group of representatives from the commissions, Bonneville, public power, Climate Solutions and the Regulatory Assistance Project, met at the Council office in Portland. We discussed a number of topics whose resolution would encourage faster development of demand response, and we were able to agree on three topics that we judged to be highest priority. These topics were:

1. Retail price structure,
2. The integration of benefits to the distribution and transmission systems, along with the other benefits of demand response, and
3. Methods of evaluating the cost effectiveness of demand response measures

Rich Sedano of the Regulatory Assistance Project has drafted a proposal for pursuing these three topics (attached). U.S. Department of Energy funds may be available to help support this effort. We're scheduling a conference call with the scoping committee to discuss the proposal and decide on our next steps.

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Pacific Northwest Demand Resources Project

Background

States in the Pacific Northwest, Idaho, Montana, Oregon and Washington, are considering regulatory changes that reflect the increasing value to the electric system of actions by customers. The Northwest Power and Conservation Council is supporting these efforts with staff committee work. This range of customer actions includes:

- end use energy efficiency,
- demand response,
- distributed generation, and
- advanced meters that enable time-sensitive rates.

Some utility and regulatory practices can adversely affect the ability of customers to implement these actions and to benefit from them. Such barriers include (to varying degrees in the region):

- **Flat rates;**
- **Lack of planning for customer resources beyond energy efficiency as a resource option;**
- **Lack of a full evaluation of benefits and costs of customer resources (beyond energy efficiency and meters;**
- The connection between sales and net fixed cost recovery (the throughput incentive);
- Caps in energy efficiency spending;
- Limited demand response offerings;
- Uncertainty as to the degree that capacity is currently a limiting factor in the regional grid, and as to the future development of capacity constraints; and
- Complex or expensive interconnection and operating practices associated with customer generation (including stand by and back up rates).

A group of officials from the four states, the Bonneville Power Administration, a sizeable municipal electric department, Seattle, a public utility district, Clark County, WA, and the Council met on September 7, 2006 to discuss the prospect of elevating the profile of these challenges through a multi-stakeholder regional process to recommend solutions. The group was joined by a representative of alternative energy and technology providers. Reasons for accelerating solutions include:

- the growing recognition that customers are a resource—they can both demand power and supply it;
- the fundamental change of viewing the power system as flowing from customers as well as to customers;
- the breadth of barriers in utility and regulatory systems to these changes;
- the benefits of regional consistency in the solutions;
- the benefits of engaging regional stakeholders in discussion about these issues, including public and private sector voices, and including providers of customer resources (some based in the region) that may be enabled by this effort; and

- awareness that implementation could be accelerated prudently if high level (senior officials, particularly PUC commissioners) regional attention is applied to these challenges.

The Regulatory Assistance Project facilitated this discussion. While it is fair to say that other regional stakeholder processes, such as the Mid-Atlantic Distributed Resources Initiative, or the New England Demand Response Initiative, provide inspiration for this meeting, participants were clear that the discussion needed to settle on ideas that are specific to the needs and current/future circumstances of these four states and this region.

It is important to recognize that the four states, BPA and the Council are already aware of these issues and are taking constructive actions. Utility planning including efficiency as a resource is common practice. BPA is implementing reforms to its planning methods and is looking to customers for resources in parts of its system. There has been interest in several instances in the region in addressing the throughput incentive and in trying innovative pricing. There are efforts to improve interconnection and stand-by rates for customer generation. And the Council offers a forum for staff to discuss these matters as well as a wealth of information through its planning process.

There remains, however, potential for these issues, or a honed subset of them, to receive high level, broad-based attention to clarify the needs and the interests at play, identifying workable solutions, and then carrying through with implementation of change.

The group that met on September 6 agreed that a focused effort among the four states in 2007 would have value. The next section describes how that effort might look.

A Regional Engagement on Regulatory Issues Affecting Distributed Resources

It is important to principals in the Northwest that any regional effort be focused on a small number of solvable issues at any one time. This effort has to fit into busy schedules for commissions, utilities and other stakeholders. The agenda must be short for it to be actionable.

The group agreed that a good process with the engagement of key state and BPA officials would likely accelerate deployment of distributed resources through constructive reforms in utility and regulatory practice.

Issues

The group settled on three policy issues of particular importance whose resolution they felt would benefit greatly from a high level, regional stakeholder process. These address those barriers on page 1 that are described in **boldface** type, and are:

- Developing one or more model retail pricing systems that will better convey to customers the actual costs that their use imposes on the power system;
- Developing ways for integrating demand response and other distributed resources into transmission and distribution planning and investment;

- Developing a common way to measure the cost-effectiveness of demand response and perhaps other distributed resources, such as advanced metering.

There was also interest in developing ways to integrate demand response into energy efficiency programs, and an interest to add this issue if workable.

Here is a little more on each of these:

Retail Pricing - The northwest states have experience experimenting with time sensitive retail rates, and have also tried inclining block rates. The group was interested in working toward standard time-sensitive rate designs that would signal variations in cost of service to customers, and begin to transform the market.

The process would develop model tariffs that address the types of time-sensitive price designs that could be easily applied in state and local jurisdictions. The process would also apply lessons from time-sensitive programs already underway or attempted concerning, for example, expectations, messages to customers, and the degree to which advanced meters are needed to support innovative pricing.

T&D Planning and Investment – BPA has been a national leader in developing non-wires alternatives to investments in transmission facilities. More work is needed on spreading these practices across the region, and extending them to include non-wires solutions in distribution systems.

The process would invite participants to identify an array of promising opportunities to make cost-effective use of non-wires solutions, and then the process would examine reasons, if any, for why this category of solutions does not realize its potential. The process would identify solutions and encourage appropriate jurisdictions to create a roadmap to implement them.

Benefit/Cost Evaluation of Distributed Resources and Advanced Metering – There are many potential benefits that can be secured through investments in distributed resources and advanced metering. Conventional approaches to evaluating utility investments may not capture this broad range of benefits, which may address: system losses, outage detection, automatic shutoff and activation of accounts, meter reading, avoided capacity and energy. Benefits from some time-sensitive rate designs may only be contingent on investments in advanced metering infrastucture.

The process would include a project for stakeholders to work with contracted staff to develop this benefit/cost template such that it can be applied by the states and utilities in the region as they consider these investments. A standard template can make it clear what investments are in the public interest, meriting cost recovery if implemented prudently, and can show which are too costly for the benefits provided.

Addressing ways to integrate demand response into energy efficiency programs can be integrated into these issue areas if participants want to do that.

In each of these areas, the role of the distribution company, and the challenge of harmonizing retail and wholesale energy markets will be important factors. Insights on these factors will hopefully be of ancillary benefit to the participants.

Process

Stakeholder meetings can be effective if a group of roughly 25-45 participants representing a range of public and private interests are engaged actively. Private interests go beyond investor-owned utilities to include alternative energy technology vendors interested in supporting the policies contemplated here.

There is an interest for this process to be strictly limited in duration. This will put pressure on participants to be diligent in contributing to draft solutions so that there is clear progress from meeting to meeting. A realistic assessment of the process at the outset is a duration of eight months with four to six stakeholder meetings from beginning to end. In between meetings, contractors would be working with participants on developing work products in issue oriented subgroups meeting in person and by conference call.

The Council is well-situated to be the "convener" of the process. Its website could be used to inform participants of plans for the process, to post works in progress and finished products, and to provide context and insight through links to other documents and regional processes. RAP would be available to guide the process and provide some or all technical support. Additional technical resources may be worthwhile.

Meeting locations should be as convenient as possible, but should also be as fair to all states as possible. Given the distances involved, the states may decide among themselves between two models – gathering in hub cities like Portland and Seattle, or making the effort to gather in each of the participating states at least once. As these meetings should have dial in capability, the importance of this issue is diminished, but participants should be clear at the outset how this matter will be resolved.

Participation and Oversight

A distinguishing trait of this process is the direct connection between talk and action. Active engagement by a state utility commissioner in each state and senior managers from BPA, locally-owned utilities, and IOUs drives home the point. Consumer advocates and energy offices are also valuable participants.

Pivotal are the state utility commissioners, who would see this process as accelerating the development of investment that is in the public interest and resolving differences before reaching the commission. Participants would see the commissioners as lynchpins to making the process worthwhile. Attendance at meetings by at least one commissioner also makes the point that actions will ensue from the process.

The process would be best served by a steering committee composed of a commissioner from each state, plus BPA and a perhaps public power. The steering committee would assure that the process agenda remains focused in ways that are of most use to decision-makers.

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