



## **Integrating Variable Generation in the Northwest**

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PPC members support responsibly adding cost-effective renewable resources to the region's electric generation mix. Effectively integrating intermittent renewable resources into the federal power system poses a number of challenges that must be properly addressed to ensure effective operations, system reliability and cost allocation.

### **Oversupply Management**

Increasingly, the region experiences an oversupply of generation during surging spring runoff. The challenge is further exacerbated when it occurs during periods of low electrical demand, since there must be a load to use the electricity that is generated to keep the system in balance. During these instances, the Bonneville Power Administration (BPA) has three basic choices:

1. Let the spring runoff go through the turbines and create "excess" electricity that would cause an overload of the system and disrupt reliability (in violation of federal law);
2. Spill the excess water over the dams and exceed Clean Water Act restrictions on nitrogen gas levels in the river (in violation of federal and state law); or
3. Take other steps to reduce generation in the region.

In response to this situation, BPA developed a policy, known as "environmental redispatch," to maintain system reliability, meet standards for protecting fish as well as satisfy BPA's other statutory obligations.

In 2011, wind generators initiated a case against BPA at the Federal Energy Regulatory Commission (FERC), alleging that BPA discriminated against them. But, BPA's environmental redispatch policies applied to all generators – not just wind generation, which actually is the last resource subject to curtailment. Moreover, BPA has the obligation and the authority to meet its reliability, environmental and other statutory responsibilities.

While BPA and some parties in the region were meeting to discuss possible approaches to overgeneration, FERC ruled on December 7, 2011 that BPA's environmental redispatch was a discriminatory policy. FERC gave BPA until March 6 to respond with a new policy. PPC and several other parties found the ruling to be erroneous and unsubstantiated, and filed requests for key issues to be reheard at FERC.

On March 6<sup>th</sup> of this year BPA issued its response to FERC with an Oversupply Management Protocol (OMP) that is to stay in place through March 2013. BPA will compensate wind project owners within BPA's balancing authority when curtailed. Payments would be limited to revenue they would otherwise receive for generating, including production tax credits and renewable energy credits, and will compensate them for lost revenue from power purchase agreements if they have sales contracts signed prior to March 6. BPA proposes splitting costs of this program between users of the federal base power system and wind project owners/purchasers.

After the initial draft of the OMP in late February, PPC filed comments expressing numerous concerns about the policy and reiterating the legal challenges to the FERC order. PPC also noted that new entrants will be on notice of BPA's potential need to curtail them, should build the price of curtailment into their contracts, and therefore should not be compensated in any way. *PPC believes any policy must equitably treat the region's preference customers that have contracts and obligations from the federal system, reflect prudent business practice, and meet legal requirements to protect fish, ensure system reliability, and protect Northwest ratepayers.*

## **Addressing Energy Imbalance**

As more variable generation is added in the West, it will necessitate changes in operations and commercial practices. We are interested in making sure that any changes are beneficial to Northwest consumers, and want to ensure that the proposals are shaped correctly with that firmly in mind. **The best path forward for consumers is to take smaller, incremental steps regarding markets and bolder, more definitive steps towards improving current operational and commercial tools.**

The Energy Imbalance Market (EIM) being proposed for the West is one change that some believe may help with the integration of variable generation and may eliminate some inefficiencies in the sale of energy. But, the jury is still out on the value of an EIM to Northwest consumers with respect to facilitating integration or greater economic efficiency. Further, better studies should be done, including work that looks at a smaller, Northwest-controlled model

The key issue is the need of Balancing Authorities to access and share flexible capacity to balance the moment-to-moment changes in variable generation output. Tools to provide this could include greater capacity reserve sharing, more coordination between balancing authority operations, and more flexible scheduling, among others. Greater access and sharing could allow balancing authorities to integrate more variable generation, while using less capacity overall.

Creation of tools that permit Balancing Authorities to improve access to flexible capacity is a high priority in the West. A west-wide EIM, however, is likely to take a substantial amount of time and funding to explore. Investigation into the feasibility of a narrower approach may be worth some investment of time and resources. But, other tools that can be implemented more quickly, at less cost, and to better effect should be the key focus of Northwest utilities and regulators.

*The growth of wind generation in the Northwest has produced both challenges and opportunities. It is essential that BPA policies on intermittent generation respect BPA's multiple legislative mandates, equitably allocate costs and benefits, and advance the economic and energy supply interests of the Northwest.*