

factsheet

March 2007

Congestion management update

Since the fall of 2006, the Bonneville Power Administration has been working on approaches to managing and reducing congestion on its transmission system. This fact sheet provides an update on the progress we have made and provides key dates for when we will be testing the approaches.

Background

In April 2006 BPA issued a white paper, “Challenge for the Northwest: Protecting and managing an increasingly congested transmission system,” that drew attention to the increasing congestion on its transmission system.

The region responded by recognizing the importance of reducing system congestion and indicated a willingness to work with the agency on the issue. As a result, BPA’s senior vice president for Transmission Services formed a Congestion Management Steering Committee consisting of customer group representatives and executives from regional utilities.

After study by several work groups, the steering committee proposed that BPA adopt three approaches to congestion management. Those approaches were outlined in a November 2006 background paper.

All three approaches are interim measures. They are not the final word on congestion management. Through pilot testing them, however, we expect to gain useful information on how to devise more long-term solutions. The three approaches will be tested between June 26, 2007, and Oct. 1, 2007.



The focus of the effort is on four network flowgates (transmission paths) on the BPA grid – two on the I-5 corridor (Paul-Allston and South of Allston) and two in central Washington (North of Hanford and North of John Day).

Interim (or bridge) approach

This is a defensive measure that BPA can employ to keep matters from getting worse after the agency has discovered that the operating transfer capability (OTC) of a flowgate has been or is about to be exceeded.

Under those conditions, the Open Access Same-time Information System (OASIS) will be set to refuse all new hourly reservations on the paths that affect the flowgate for the two hours after the exceedance or until the dispatcher is assured that the system is



sufficiently stable. At the same time customers will be notified in an OASIS posting that reservations will be refused. This function will be operational by June 26, 2007, to coincide with implementation of the reliability redispatch approach.

Reliability redispatch approach

This approach reduces congestion without curtailing schedules by directing specific generators, based on voluntary bids, to adjust their output. BPA and participating generators within the BPA control area successfully tested the concept twice in December 2006.

Much work needs to be done before this is fully operational June 26, 2007. We are currently developing the information system necessary to implement this approach. It will be able to calculate the required movement of generators to relieve flowgate congestion based on each generator's flowgate impact and the cost of each bid. The system must also provide an electronic list of calls BPA dispatchers can make to perform the redispatch. BPA will develop the ability to do the billing and reconciliation for the changes in generation. When the information system is in place, BPA will train bidders, dispatchers and schedulers. That is expected to begin about mid-May.

The redispatch will be limited to generators within BPA's control area during the summer of 2007. We will have an extensive review after the pilot ends. If the pilot is successful, the approach could be expanded in later years. Before it can be expanded, however, we believe that more automation will be required, including automated solutions for handling changes in interchanges between Balancing Authorities.

Hourly ATC methodology approach

The goal is for BPA to develop a way to extend its ability to forecast network flow levels well in advance of the operating hour and, hence, to determine available transfer capability (ATC) and the impact of hourly sales on that capability. With this information, BPA could refuse the specific nonfirm and hourly firm transmission schedules that would cause the system to exceed the operating transfer capability of specific flowgates.

Current models "deem" where generation enters (sources) and is used (sinks) within the BPA network because schedules do not specify the actual points of connection. We are now working on methods and models that correlate schedule information with actual flows, but we don't yet have results sufficient to predict flows with certainty. Work will continue on the methods and models through this coming summer.