

**Spring Operations Review Forum**  
**Regional Conference Call**  
**May 20, 2011**  
**1:00 pm**

Meeting materials were posted before the call on BPA's Overgeneration web page at <http://www.bpa.gov/corporate/AgencyTopics/ColumbiaRiverHighWaterMgmt/>.

Steve Oliver of BPA began the call by stating that BPA has conducted environmental redispach (ER) the last three nights.

Steve Kerns of BPA began discussing slide 2, showing information for Bonneville, Grand Coulee, and Lower Granite from the Corps of Engineers (COE) Single Trace Process study posted last Tuesday. Runoff began in earnest last weekend. Beginning Monday, BPA has been coordinating with COE to maintain flows at Vancouver within 1 foot of flood stage. Grand Coulee and Chief Joseph are being operated to balance flows on the lower Snake to meet the flow objective at Bonneville. That is, as lower Snake flows recede, Grand Coulee and Chief Joseph flows need to be increased. Flows are relatively flat across the day to minimize total dissolved gas (TDG). The COE mid-month forecast is 133 Maf – a 5 MAF increase from the May final forecast. This year is characterized by an increase in volume and a shorter time for the runoff: 5 MAF translates to about 2500 ksfd in the next six weeks. COE is concerned about a flood event in the Portland-Vancouver metro area. Slide 3 lists actions BPA has taken to prevent and deal with overgeneration conditions.

Karl Kanbergs of the Corps of Engineers COE elaborated that because the water supply forecast increased, the system is being operated to reduce risk of flooding in the Portland-Vancouver area.

Steve Kerns continued with slide 5, which shows an example of a spill priority list from COE. Schedulers use a list such as this to manage TDG across the system. They start in the leftmost column and work their way down, then move to column 2, and so on. The spill priority list was an effective tool for the last three nights.

Ken Dragoon of the Northwest Power and Conservation Council stated that he didn't understand the table. Steve Kerns explained it further, adding that these values change depending on system conditions. Tony Norris of BPA clarified that flow over the spillway produces TDG and that the numbers in the table are the volume of spill, not the flow past each project. Steve Kerns added that the last three nights there was level 3 spill. Had BPA not conducted ER, there would need to be more spill due to lack of demand, and more numbers on this table would have been shown in green (signifying lack of demand spill). Steve Oliver noted that if people have more questions about this table they should send them to BPA and we can post the answers. Kieran Connolly of BPA stated that BPA would try to develop a better explanation.

Jeff Harris of AES Wind Generation asked when the last time this type of seasonal variation happened was—too much water, snowpack, precipitation causing a large impact on the wind industry. Steve Kerns responded that 1997 was the last really high water year. Last June, however, there was a spike in runoff that caused overgeneration conditions. The Overgeneration website summarizes last June's situation and presents studies for 2012 under various assumed water conditions. Steve Oliver noted the convergence of adding 6,000 megawatts of intermittent generation; even in low to moderate runoff years we can have problems with overgeneration.

Fred Heutte of Northwest Energy Coalition stated that he may send in other questions. Today he asked, relative to slide 5, how do they adjust upward to the next spill level? Steve Kerns responded that they follow the table into the next column, in which the projects may be in a different order than shown on the table, depending on conditions at each. Steve Oliver noted that COE consults with the region, including fisheries agencies, regarding how to manage dissolved gas across the system. Steve Kerns pointed out that the spill table is not static but changes all the time as a function of, for example, temperature and which upstream projects are spilling.

Mark Smith of Calpine stated that it would be helpful to see a slide with exports shown so he could tell if there was underutilized transmission capability. Steve Oliver responded that BPA posts that information: see the Overgeneration website. Mark Smith asked if the information is shown coincident with the turbines. Steve Kerns directed the question to Rich Ellison. Mark Smith added that Calpine is doing everything it can to help the situation.

Rich Ellison of BPA started his presentation by stating that BPA is managing outages for all internal network flows as well as interties. He discussed slides 9-11. The Northern Intertie will be restricted south to north due to work by BCHydro, the derate is not expected to create issues for Environmental Redispatch with export capacity available. The top line on slide 11 shows that the AC+DC interties are being managed to keep them to full capacity.

Ken Dragoon asked, with flows on the Northern Intertie north to south, whether the Northwest is importing generation from British Columbia. Rich Ellison responded that the percentage of these flows are “through flows” which do not sink in the BPA Balancing Area.

Kevin Dickey of Iberdrola asked about the interties in the last three days. Rich Ellison responded that the only path close to full is the DC intertie in heavy load hours. No paths are near full capacity for actual flows, and there have been no curtailments. Kevin Dickey asked why, in light load hours with environmental redispatch, the interties are not fully loaded? Rich Ellison responded that there is no load and basically we have more supply than demand. Kevin Dickey asked whether there have been no buyers at any price. Steve Oliver stated that BPA has offered zero-priced energy, and there has been no load at price zero.

Fred Heutte of the NW Energy Coalition asked whether the zero price included transmission. Steve Oliver clarified that the zero price is delivered.

Howard Schwartz, State of Washington, Department of Commerce, asked about progress on negotiations with operators of thermal generation outside BPA's balancing authority area and how much PNW thermal generation is operating now. Steve Oliver responded that for the 200-300 MW of thermal in the BPA balancing authority area, when we are in overgeneration conditions, we make a voluntary offer of zero price energy. After that, dispatch sends out orders to take generation to minimum. At present generation is about 50-75 MW. Outside BPA's balancing authority area, we don't know what generation levels are. Howard asked if BPA's goal is to negotiate with operators outside its balancing authority area, how much thermal is there? Are there ways to encourage them to decrease generation? Elliot Mainzer responded that brokers, markets, bilateral agreements, every thermal generator in the PNW including Wyoming, anybody who has the potential to take zero-priced energy is doing so. Other thermal plants are must-run for reliability.

Ken Dragoon, referring to the zero-price offers at the other end of interties, asked whether that includes bilateral sales and all markets. Steve Oliver responded that it includes all markets.

Tom Farnham with Eurus Energy asked whether BPA expected that curtailment would continue only at night, or would it expand beyond light load hours. Steve Kerns responded that the expectation is that curtailment will continue primarily in light load hours, although there is concern about other periods, such as weekends. BPA is hoping to find available demand to absorb generation but is concerned about light load hours in weekends. Tom Farnham asked whether BPA foresees curtailment in hours of normal demand. Steve Kerns stated that he wouldn't rule it out.

Keoni Almeida of the California ISO asked if anyone had any questions for them. Elliot Mainzer noted that his understanding is that in light load hours California is near negative prices, based on information on OASIS. Steve Oliver asked if California is oversupplied. Keoni responded that they are.

Scott Levy of bluefish.org reminded that BPA's Overgeneration website has a link to a nice graphic showing load and hydro, thermal, and wind generation. He noted that, regarding slide 5, if there is a chance during the day to sell power, it might change the light load hour problem. Steve Kerns responded that BPA is doing that. BPA has been selling down to a price of zero in the daytime to relieve pressure in the light load hours.

Fred Heutte asked whether BPA would post when dispatchers give the orders to curtail generation. He asked whether such a posting would provide details such as how many megawatts were restricted or just that notice was sent. Steve Oliver asked if he meant a real-time posting. BPA responded that when environmental redispatch is needed, that will be posted on OASIS. Rich Ellison added that OASIS would show when ER is over also. Steve Oliver clarified that BPA will not post in real-time on its public webpage. Fred

Heutte stated that it would be nice to know when the actual order is posted. Elliot Mainzer responded that BPA doesn't have people to do that.

A caller from EWEB stated that notice comes up on the notice tab on OASIS. He added that selling as much as possible during the day doesn't seem right when generation is reduced. Kieran Connolly said the turbines are fully loaded and cannot produce more; BPA doesn't have extra flexibility lying around. Steve Kerns pointed to slide 8.

A caller asked, with flows on the Northern Intertie north to south, are negative prices displacing regional loads? Steve Kerns responded that he is not willing to speculate. Kieran Connolly added that those flows may be going through BPA's area to other markets. We're doing everything we can to move power. A caller asked if that generation is not subject to environmental redispatch. Steve Oliver reminded that only generation in BPA's balancing authority area is subject to ER.

Kieran Connolly stated that some have had questions about scheduling and ER events. He stated that under the Business Practice, customers operating resources during environmental redispatch should schedule them to the best of their ability, reduce output but control to their schedule. BPA has limited balancing reserve capability and cannot take big swings on a fully loaded system.

Scott Levy asked if there is a policy that would allow high exceedances on the lower Snake to accommodate wind generation. Steve Oliver responded that except under unavoidable conditions, BPA will operate consistent with the Clean Water Act standards. When there is a lack of turbine capacity and lack of market spill, BPA may need to exceed. Scott Levy asked if it is accurate to say that the lower Snake projects are used to balance wind generation. Steve Kerns responded that this time of year they are not used for that purpose. Scott Levy requested that BPA fix its website to show that. Steve Oliver noted that to BPA, to balance means within-hour response to changes in load or generation. This time of year, BPA takes the lower Snake projects off operating reserves; their use depends on the time of year. Scott Levy stated concern that people are getting the idea that the lower Snake projects are used to balance wind. Steve Oliver stated that sometimes they are used for reserves, but now even the Columbia dams are fully loaded and cannot offer reserves. Use for reserves moves around on the system—other times the lower Snake projects are important to managing the system. Scott Levy asked that BPA get back to him regarding when the Snake projects are used to support wind.

A caller from Iberdrola asked if permission had been given to refill Grand Coulee. Steve Kerns responded that the decision had been made to operate the Columbia within a foot of flood stage at Vancouver. The caller asked about the ramp rate at Grand Coulee. Steve Kerns responded that the system is being managed to regulate to flows on the lower river; Grand Coulee will refill quicker later, and the target is to be full for summer.

Elliot Mainzer thanked callers for their input.

There were 153 participants including BPA on the call. The call ended at 1:52 pm.