

**REGIONAL DIALOGUE TECHNICAL WORKSHOP ON
SLICE OPERATIONAL ISSUES
Wednesday P.M., January 15, 2003
BPA Rates Hearing Room, Portland, Oregon**

Approximately 12 people attended.

Terrin Pearson (BPA) and Mary Johannis (BPA) went through a series of post 2006 Slice product operational issues. According to Johannis, if the portion of the system sold as Slice remains below 35 percent, only minor changes will be needed to the Slice contract post 2006. What we can accommodate is in the 35 to 40 percent range; if we get above this range, some major contract changes could be needed, she indicated.

Pearson listed possible changes BPA will seek to make to the contract, if Slice stays at 35 percent or less: require all Slice customers to schedule electronically; resolve GMS/dynamic scheduling issues, which he said would involve revising Exhibit J and “adding some reality” to the level of reserves; ask Slice customers and PBL to meet standards, such as load forecasting, to allow for better system optimization; ask current Slice customers to sign new contracts to avoid the inefficiency that would be created by administering two contracts; and make other changes necessary to accommodate an RTO.

Terry Mundorf (WPAG) said he understood all customers except one schedule electronically. You are saying, “the transition is over,” he clarified. To develop both manual and electronic scheduling is redundant, Pearson replied.

Additional contract changes could be needed if Slice exceeds 35 percent, Johannis explained. BPA currently uses its share of the system to cover such things as forecasting errors to meet hard constraints such as the biological opinion storage targets, she said. If we had only a small share of the system, we could not meet these operational objectives, Johannis indicated. She also pointed out that if the Slice percentage goes above 35 percent, BPA could face additional costs associated with purchases. For example, BPA currently has a contract with PacifiCorp for 575 MW of capacity, Johannis said. If BPA were to have less of the system to work with, we could have to purchase to meet that obligation, resulting in “a financial hit,” she said.

Johannis went on to describe projects that are under way to optimize the federal hydro system. She listed the objectives for optimal operation, from meeting the multiple purposes of the system to honoring treaties, agreements, and contracts. There are concerns regarding optimal operations, cost shifts, and Slice, including TBL’s need for access to generation to meet reliability requirements, Johannis said.

The layers of complication are great, especially given the RTO and SMD proposals, Mundorf commented. Because of FERC, what started as separating business functions, has become something much greater, he said. As TBL and PBL diverge, there are myriad issues, Mundorf stated. Even without the new contract, SMD and RTO could require

significant changes in Slice, Pearson responded. The current contract says when those changes occur, we'll need to consider them, Mundorf agreed.

Another area of concern is with modeling errors and the potential they have for causing PBL to change its planned operation to meet non-power constraints, Johannis said. With 22.6 percent Slice this is manageable, but as the Slice percentage increases, there is more potential for cost shifts, she indicated.

Johannis explained the FCRPS optimization and efficiency improvement projects. System optimization means better use of the water, and plant/unit optimization means both better machines and better use of machines, she said. We expect the tools we get from the efficiency projects to give us better information to set the maxs and mins for Slice purchasers, Johannis added.

There are two major projects under way for FCRPS Optimization, she said: Columbia Vista and the Near Real Time Optimizer (NRTO). Johannis explained the purpose and objectives of each effort, noting that BPA expects to gain 90 aMW annually with Columbia Vista, which looks seven days ahead to optimize power production. Mundorf asked whether information about shifts in generation to higher value periods would be available to Slice purchasers. We wouldn't release business-sensitive information or do studies for individual utilities, Pearson replied. Johannis pointed out that the information would be used to establish maxs and mins for Slice customers.

The Near Real Time Optimizer would be used to optimize production in the hour-ahead time period, she explained. We are expecting by 2009, to gain 135 aMW a year with the NRTO, Johannis said.

There was some discussion of standards for load forecasting errors and what they would contribute to the optimization effort. Johannis said uncertainty pertaining to runoff and load jeopardizes the optimization gains. We're doing as well as we can given the state of the science with runoff forecasting, but we could do better in forecasting load, she said.

How do you forecast the non-Slice load? Tom Haymaker (PNGC) asked. Our hubs work with customers, and we know when industrial load is coming on and make projections for residential load increases, Johannis said. We also consider variations in weather and historical information, she added.

Load-forecasting improvements are a factor in achieving the benefits of the efficiency projects, Johannis continued. Although there are no load-forecasting standards set yet, the current short-term (7 day ahead) goal is +/- 2.5 percent, she said. RTO and SMD initiatives may impose a standard for day-ahead and hour-ahead forecasts, and the expectation is that PBL and Slice customers would use the same standard, Johannis explained. She acknowledged that monetary penalties could be part of future standards.

Currently the seven-day forecast data from Slice customers is insufficient for BPA to develop a precise week-ahead forecast for the system, Johannis reported, so BPA

assumes a constant 22.6 percent for Slice, and the system absorbs most of the variations. If the percentage of Slice increases, there would be a cost shift associated with meeting the variations, which can be significant day to day, she indicated. According to graphs that plot the variation of actual load from the forecasts, the maximum cost to PBL ranged from \$358,000 in May 2002 to almost a million dollars in October 2002. There are tools on the horizon that can improve forecasting, Johannis stated.

Mundorf noted it had been suggested previously that PBL could adopt a more positive tone to describe the situation. Pitch this to Slice customers in terms of “capturing value” versus the potential for cost shifts, he recommended. Mundorf acknowledged that the Slice customers had “bristled” when BPA brought up the topic that Slice might de-optimize FCRPS operations. But you have brought forward the issues in a very positive way – none of the areas are unmanageable, he concluded.

Adjourn: 2:30 p.m.