A Slice Story:

Why one small rural utility opted for more local control over its power supply

In October 2011, Emerald People’s Utility District (EPUD) joins other Northwest public utilities in entering a new 17-year contract with the Bonneville Power Administration. EPUD is one of 17 BPA customers opting to purchase a Slice/Block product, having made the decision after more than a decade of consideration and analysis. With this new product, roughly half of EPUD’s Tier One power supply will now be tied to a percentage share of the actual output of the federal system.

The Slice product essentially allows a utility to act as a “mini BPA” when it comes to short-term power supply decisions. If the federal system is generating more or less than is needed to cover its loads in a given hour, the individual utility decides how to deal with the surplus or deficit energy. Slice utilities also maintain some flexibility to ramp generation up or down in certain hours. This additional responsibility allows utilities to benefit directly when hydro and market conditions are favorable, but also carries real-time supply and price risk if conditions are unfavorable. The Slice product is typically combined with a Block product from BPA that supplies fixed amounts of energy each hour.

EPUD is an electric-only utility serving 20,000 mostly rural customers in Lane County, Oregon. While EPUD has historically purchased most of its power from BPA, it also has a long track record of investing in conservation and renewable resources. It was partly this focus on non-federal power resources that led EPUD to consider a change in its power purchase arrangement with BPA.

“For us, the decision to purchase the Slice product has always been about local control and the ability to integrate non-federal resources,” said EPUD Power Resources Coordinator Kyle Roadman. “Our Board and citizen committees believe the Slice product offers the most flexibility to achieve our goals in these areas, and that the benefits outweigh the potential risks.”

Even with this outlook however, it’s taken over ten years for Slice to become a reality for EPUD.

Going Slice: Round One

In late 1999 during BPA’s 2002 Wholesale Power Rate Case, EPUD began analyzing the different power products being offered to wholesale customers. At the time, BPA had redesigned their products to offer a variety of options, including an innovative new product called a “Slice of the System,” or Slice. After staff completed its initial analysis, the EPUD Resource Planning Citizens Advisory Committee was called together for a series of meetings to discuss the various products and provide guidance to the Board.

The citizens committee met eight times from May to September 2000, hearing from expert speakers, learning about the products, and discussing pros and cons. After much discussion, the committee unanimously recommended moving forward with a combination Slice/Block product.
“We believe that instead of debating the merits of electricity becoming a commodity, EPUD staff should take the bull by the horns and put Emerald in the best position to choose the most environmentally friendly resources, gain the most flexibility, and garner the benefits of the hydro system for itself while taking on an acceptable amount of risk,” recommended the 2000 Resource Planning Committee. “Only the Slice/Block product can accomplish all of these ends.” The EPUD Board agreed, and a Slice/Block contract was signed on October 26, 2000.

However, in response to the Western Energy Crisis of 2000-2001, the decision was reconsidered. With record-high market prices and poor weather conditions, there was concern that EPUD could face cash flow problems and would need more funds in reserve. As such, EPUD remained a Full-Requirements customer of BPA, but the Board and committee maintained that Slice was still the correct long-term option for the utility.

Going Slice: Round Two

EPUD worked in the interim years to build cash reserves, and by 2007 it was felt that reserve levels were adequate to again pursue Slice as an option. After a thorough analysis of the 2011 BPA products over a period of two years, the EPUD Board approved the Slice/Block contract in December of 2008. The justification this time around was much the same as a decade earlier.

“The Board cited three primary reasons in electing the Slice product in 2008,” said Roadman. “First, our analysis showed that integrating non-federal resources would be easier and less costly under Slice. This was especially attractive, as our Board has a policy to meet all new load growth with renewable resources, conservation, and demand-side management. Second, our Board appreciated the fact that risk management and short-term supply decisions would be based on EPUD’s needs, not BPA’s tolerance for risk/reward. And finally, our analysis also showed that the total cost of a Slice/Block product should be at least equivalent to the cost of a Load-Following product over the life of the contract.”

Mitigating Risk

Once the Board approved moving forward with Slice, EPUD began evaluating external partners to help with the management of the product. After much consideration, EPUD chose The Energy Authority (TEA) of Bellevue, WA because of their extensive history of managing Slice for other Northwest public utilities. TEA will assist EPUD with scheduling and trading, counter-party settlements, risk management and reporting. EPUD also has two full-time internal staff members dedicated to Power Resources.

EPUD staff has worked for the past two years to establish new risk management policies and procedures in preparation for Slice. The utility has adopted an updated Power Risk Management Policy, as well as a detailed set of control procedures. Staff holds weekly operational risk management meetings, in addition to monthly strategic risk meetings that focus on long-term power supply issues. EPUD has also negotiated ISDA (International Swaps and Derivatives Association) agreements with various counterparties in order to perform hedging transactions to reduce power cost uncertainty. With all these
measures in place, EPUD is poised to begin taking a more active role in its power supply come October.

Slice and Beyond...

Looking forward, EPUD hopes to use the Slice/Block product as a driver to integrate new resources into its portfolio. The utility expects to begin using a contracted wind resource to help with load growth in the next few years, and is also working on a pilot demand response program to manage customer appliances during peak load hours. Whatever the future holds in these areas, EPUD is pleased with the fact that it will soon have greater flexibility and control over its own power supply.