

BPA's Draft Slice Report: Experience to Date and Initial Proposal for Future

May 31, 2005

Background

In response to customer requests, BPA implemented the Slice product in 2001. After 3 ½ years of experience with the product, BPA believes that it is important to review the product's performance to date and to move toward informed decisions about its future as part of the Regional Dialogue on long-term BPA power sales. BPA has not made any decisions about the future of the product. We are offering this assessment of experience to date and going-forward options to Slice customers, non-Slice customers and interested regional stakeholders for discussion. Decisions on future sales of Slice will be made in January 2006 through the long-term Regional Dialogue process.

BPA's original intent was to issue a draft evaluation of experience with Slice, followed later by a proposal for the future of Slice. Because the crucial decision to be made is the future of Slice, BPA has combined both the retrospective evaluation of Slice with options for going forward in this report.

Conformance to Slice Principles

The principles BPA established for Slice in 1998 were the following.

1. *No risk or cost shift to non-Slice ratepayers.*
2. *No risk or cost shift to taxpayers.*
3. *Slice must recover its share of fish-related costs.*
4. *No interference in FCRPS operating decisions.*
5. *No change in federal law.*

We have examined experience to date against these principles. Evaluation against the principles is complex and not yet definitive. Our draft findings, in summary, are that, in many respects, the first 3½ years of Slice implementation have been successful and consistent with the original Slice principles, but that there are also areas of concern. Each of the principles is addressed below, followed by discussion of areas of concern.

Risk or cost transfer to non-Slice ratepayers: There is no clear indication of unintended cost shifts from Slice to non-Slice customers during the first three years of operation. As intended, Slice customers appear to have borne the appropriate percentage of water and market variability

risks during the low water and low market in 2002, and have taken reduced hydro generation due to low water conditions through 2005. However, as addressed below, the ongoing Slice true-up dispute with Slice customers may lead to a major shift of costs to non-Slice products. Also as addressed below, there is concern about transfers of costs and risks in connection with operational flexibility.

Risk transfer to taxpayers: Slice has not interfered with BPA's ability to meet its obligations to the U.S. Treasury and has assisted through transfer of water risk to Slice customers during the low water years of 2002-2005.

Recovery of fish-related costs: The "proportional share" contract principle was designed to assure all interested parties that fish and wildlife programs would remain intact and Slice customers would continue to bear their fair share of all program costs. To date there has been no indication that fish-related costs have shifted to non-Slice customers or that total funding available for fish and wildlife programs has been reduced as a result of the Slice product. However, as addressed below, Slice customers have challenged BPA's treatment of fish credits in the true-up dispute.

Operational decisions: Slice customers have not interfered in federal operational decisions related to fish or other purposes. However, as addressed below, operational decisions for non-power purposes have not proved to be cleanly separable from those for marketing purposes, which has created concerns over cost and risk shifts in the future. As addressed below, the impact of Slice load variability on BPA's ability to extract maximum generation from the system is a concern.

Federal law: No changes in the law have been necessary to implement and carry out the Slice product. However, as addressed below, it is critical that BPA exercise caution and develop means to ensure that Slice product flexibility remain consistent with the legal underpinnings of the product and not undermine the basic requirement load service purpose in the future.

Areas of concern

The evaluation illuminated some areas of concern that need to be addressed and resolved.

True-up dispute: The still-pending dispute over Slice true-up threatens major cost shifts to non-Slice customers, threatens the debt optimization program that is a source of interest cost savings and capital for needed infrastructure, and challenges fundamental principles of fairness and equal access to BPA rate decision making. An unfavorable outcome will severely limit, if not eliminate, BPA's ability to offer the Slice product post 2011.

Relationship wedge: Slice has become a source of significant friction in the relationships between Slice and non-Slice customers, and between BPA and Slice customers. This "relationship" issue centers on equity perceptions and has spilled over into a larger arena, creating a division within public power itself and tainting BPA's relationships with customers in areas other than Slice. Slice customers are frequently dissatisfied with contract interpretation or implementation issues, leading to persistent conflict between the agency and Slice customers.

Contract Exhibit Amendments: A large number of changes have been made to the Slice contract exhibits. Many of these were the inevitable result of conforming the contract to certain real-world conditions not fully anticipated when the contract was written. Many of these were minor, but some were more significant. Though BPA believes that these changes were well considered and reasonable, a few of the more significant ones should have been subject to a more thorough and structured approval process and broader customer and constituent involvement. For example, two significant contract amendments that need to be considered more thoroughly before inclusion in any future contract are: (1) the amendment that provided significant flexibility on the amounts of firm power from FCRPS generation that must be taken to meet a customer's firm consumer net requirements versus power marketed as surplus; and, (2) the amendment that modified the allocation of elective spill from a proportionate sharing, to a more complex formula.

Capacity and operating flexibility: One of the most complex and challenging issues associated with the Slice product is the difficulty of determining hydro system capacity and operating flexibility for Slice customers and for the system. Exhibit J of the Slice contract provides that after all non-power operating obligations are met, "Slice customers shall have the same rights, on a proportional basis, to the Slice System output that the PBL does, except those rights explicitly identified in the Slice contract." However, as BPA stated to the House Subcommittee on Water and Power, "[Slice] does not sell any part of the ownership or the right to operation of the FCRPS to the purchaser. Control of the hydro system operation stays with the federal agencies now charged with making operational decisions." Reconciling the contract provision with PBL's responsibility to optimize the system for efficiency, power value, reliability requirements and non-power constraints has been and will continue to be the greatest challenge, next to resolution of the ongoing litigation over the Slice true up. Specifically:

- **The impact and difficulty of separating power and non-power operating decisions:** A premise of the Slice product is that federal system operational decisions for non-power purposes can be met, and then whatever system flexibility remains available for power sales, including bulk market revenue maximization, can be divided pro rata between BPA and each Slice customer's purchase. This isn't quite the way Slice is implemented. Rather, BPA defines ranges of flexibility for Slice customers to use based on the applicable range of non-power constraints, and Slice customers make their choices about how much power to take within the BPA-defined operational limits. BPA then operates the whole system to meet various power and nonpower objectives, including the Slice requests. Slice customer loads are treated like any other load, though one that is substantially more uncertain. Slice load uncertainty can force BPA to operate outside of its desired or optimal marketing objectives as BPA meets the operational requirements. Our draft conclusion is that this does not appear to be occurring on a regular basis; however, it is not always straightforward how to cleanly separate non-power and marketing operational decisions.
- **Operational flexibility cost shift uncertainty:** The customers have asked for rights to greater levels of flexibility, which they view as consistent with the contract. Cost shifts that might be created through sharing of flexibility were not addressed in BPA's original cost-shift analysis. The complexity of assessing cost shifts that may

be created through allocation of operational flexibilities between the Slice product and the system is high. It may not be possible to be reasonably sure that such division of operational flexibility is not causing cost shifts. Therefore, it does not appear practical or desirable to “slice out” more of the system’s operational flexibilities, and even the current level of flexibility under the Slice product may be problematic.

- **Less-predictable loads affect overall generation capability:** The loads the federal system is operated to meet are significantly more variable and less predictable with Slice than with the most likely alternative power products. This makes BPA less able to manage the hydro system to maximize the generation capability of the whole system over time within the applicable non-power constraints. The load variability and associated generation loss is likely to become greater if there are more Slice sales or more operating flexibility is provided to Slice customers.
- **Greater administrative costs and business complexity:** Monitoring the Slice product requires significant data tracking systems, IT systems and staffing costs. These costs and complexities increase as more operational flexibility is provided to Slice customers. While Slice customers bear the incremental costs, this still runs against BPA’s efforts to control internal costs and reduce the complexity of its business.
- **Diminishing marginal value of additional flexibility:** It appears that the bulk of the capacity value and operating flexibility value is already captured through Slice customers’ current rights to preschedule hourly energy amounts and change those prescheduled amounts 30 minutes before the hour. Providing more operational flexibility will add greater increments of cost and complexity to BPA for diminishing increments of value to Slice customers.
- **New ancillary service flexibilities:** BPA has worked with Slice customers to implement their ability to self-supply operating reserves. However, to do so required accommodations that did not meet TBL’s traditional control area requirements for such services. This remains an area of concern.
- **WAPA precedent:** The Western Area Power Administration (WAPA) recently began selling power through Slice-like contracts and had to address similar issues of operational flexibility. WAPA’s hydro system is far simpler operationally than the FCRPS – for the most part it consists of a series of hydraulically unconnected projects. Despite this simplicity, WAPA customers’ rights to operating flexibility on WAPA’s hydro projects are far less than those provided by BPA to Slice customers. For example, WAPA customers must pre-schedule hourly energy amounts three days in advance with no rights to change those prescheduled amounts after they are set. By contrast, BPA’s Slice customers preschedule hourly energy amounts one day in advance and have rights to change those preschedules 30 minutes before each hour.

Legal concerns. The service purpose of the Slice product is to supply federal power for the “net requirement loads” of the customer that bought the product. The product also provides customers’ rights to some of the occasional surplus power from the system. To legally distinguish the obligation to take power for eligible loads, a monthly test was initially established. This test still operates, but the addition of a 4 percent bandwidth flexibility may have affected the test’s integrity. Although customers may resell surplus power, power sold for use in requirements load cannot be resold. In actual operation, there are recent indications that the Slice product is being used for remarketing opportunities daily, weekly and monthly or even yearly in some cases. This information creates a caution for BPA that it must more closely monitor the customer’s use of the Slice product to ensure that power meant for service to requirements load be so used in these time periods, particularly if additional flexibilities are negotiated.

Future Sales of Slice

Given the discussion above, BPA believes there are three basic options for future Slice sales:

1. Replacement of Slice with flexible power and capacity products at appropriate cost-based rates. This option becomes very likely if the existing litigation regarding true-ups is resolved in a manner that leads to significant cost shifts, capital access problems or debt de-optimization.
2. Continued sales of approximately the current amount of Slice, with some modest reductions in the current level of operating flexibility and with clarification of the limited nature of the capacity rights and flexibility.
3. An expanded sale of Slice but with sharply scaled-back operational flexibilities. For example, limiting the product to three-day-ahead hourly pre-scheduled energy amounts with no rights to change prescheduled amounts, as WAPA has done.

In options 2 and 3, modifications to the Slice contract and rate methodology may be desirable to reduce the rift between Slice and non-Slice customers and to simplify the contract. Putting BPA’s requirements products on the same cost basis is one potential remedy that might have merit. However, the current Slice true-up process has been challenging to implement in a manner satisfactory to both BPA and all customers, and a substitute mechanism could involve similar start-up challenges.

Also under options 2 and 3, the principles for Slice would need to be reviewed and updated as necessary. Sources for these principles would be BPA’s established strategic objectives and other principles that may be advocated by parties during the upcoming long-term Regional Dialogue process.

Next Steps

This Draft Slice Report contains BPA's draft conclusions on the past performance and future direction of Slice. BPA's intent is to initiate a regional discussion of these topics, as part of the ongoing Regional Dialogue. The next steps BPA anticipates are the following:

On or before June 13 - Initial regional input on this draft report: BPA aims to issue its Regional Dialogue policy proposal by the end of July 2005. This policy proposal will address a large number of issues concerning long-term power contracts and rates, including Slice. The draft conclusions in this report will be modified as appropriate based on proposals received by June 13. This is very limited time for initial input, but an extensive regional review process on these draft conclusions on Slice will be initiated by BPA's July Regional Dialogue policy proposal, including public meetings around the region.

By July 1 - Formation of regional Slice review group: BPA proposes to form a group composed of BPA staff, Slice customer staff, and other interested parties to further examine BPA's draft conclusions on the past performance of Slice and BPA's proposal for future direction with the product. BPA envisions working with this group through the public review period on the Regional Dialogue policy proposal (i.e. through October 2005) and potentially beyond.

January 2006 - Final Regional Dialogue Policy and Record of Decision: Based on public comment received on the July policy proposal, BPA plans to issue the final Regional Dialogue Policy and Record of Decision in January 2006. These documents will present BPA's final conclusions on Slice and the other topics addressed in the July Regional Dialogue policy proposal.

January to December 2006 - New contract negotiation: If Option 2 or 3 above is chosen, new Slice contracts for the post-2011 period would be offered by December 2006, with an April 2007 contract signature deadline. BPA's current intent is for all new contracts, Slice and non-Slice, to go into effect no later than 2012.