

Regional Dialogue
Proposed BPA Tier 1 Block Product Framework
August 29, 2007

Issued on Aug. 27, 2007

For Regional Dialogue Discussion
Purposes Only--Pre-decisional

Slide 1



Issue Addressed

- This presentation presents a proposal for the Block products BPA intends to offer its customers for their Tier 1 service in the Regional Dialogue contracts.
- The Tier 1 Block service that will be paired with the Slice service to create the Slice/Block product is discussed in more detail in a separate document.



Connection to Regional Dialogue Policy

- The Policy states that “at a minimum, BPA will offer the following product types: Load-Following, Block, and Slice.” It goes on to state the following:
 - Block will provide predefined amounts of power to meet a customer’s forecast net requirement load, often in a constant shape in all hours of the year.
 - Other predefined shapes may be possible, subject to product rules that will be worked out in the contract and product development. A customer may choose to purchase only the Block product or pair it with a Slice product.
 - If BPA offers a shaped Block product in addition to a flat Block, BPA’s intention is to propose that the additional shaping costs associated with the shaped Blocks be recovered through a proposed shaping charge that segregates costs into a separate cost pool compared to the costs associated with shaping the FBS to meet the flat Block obligations.
- A reasonable starting place for the design of the Block product is the Block that was offered in the Subscription Contract. However, some of the terms (or lack thereof) used to set up and administer the Blocks have presented unintended challenges. [Additional background on how this product was structured and concerns that have arisen is discussed in Appendix A.]



Issues to Consider when Designing Block Product for RD Contracts

- **HWM Changes:** The Rate Period HWMs will adjust with changes in the named federal resources used to calculate Tier 1 service, changes due to annexations, and the creation of new publics. A customer's net requirement load may also be less than its Contract HWM which would give it room to grow into its HWM. A consistent and simple method to account for such changes needs to be developed for the Tier 1 Block sale.
- **Resource/Load Changes:** BPA will need to accommodate changes in the Block product associated with the RD contracts' load loss provisions (and resource removal rights).
- **Unbundled Rates:** In the RD Tiered Rates Methodology, BPA is attempting to clarify further cost causation so that, in general, customers pay for the cost of the services they take. This should improve customer equity and limit the amount of cross-subsidization. BPA is interested in exploring ways to aid that effort through simplifying the Block product terms and conditions.
- **Rate design and the market may not solve all problems:** BPA is exploring ways to address its increasing winter load-resource deficits and spring load-resource surpluses and there may be instances when leaving this to rate design alone will not be enough.
- **Impact of customer-supported EPIP and BPA's compliance with OMB Circular A-123):** BPA has initiated new internal controls and governance structure to improve the efficiency of our key business processes and reduce the risk we face from unintended cost exposure. Some of the measures BPA is employing to this end are: standardization and simplification of contracts and additional internal decision-making controls.



Objectives to Guide Block Product Design (B-E borrowed from LF product discussion)

Proposed Objectives:

- A. Minimizes disputes between BPA and customers over non-federal resources.
- B. Leaves operational control of customer-owned resources with customers, not BPA.
- C. Does not create material cross-subsidization among classes of BPA customers.
- D. Is reasonably simple to implement.
- E. Gives BPA and customers a reasonable amount of certainty and predictability about their rights and obligations in *meeting retail load and* operating their systems
- F. Recognizes the marketing and operational challenges inherent in the shape of the federal system.



Crosswalk Proposed Objectives to RD Interests and Agency Decision Factors

Agency Key Decision Factors	Regional Dialogue List of Interests	Proposed Objectives for Block Product Design
Business/Finance	Lowest Tier 1 Costs and Tier 1 Rates	C, E, F
Business/Finance	Durability/Stability/Contract Enforceability	A, B, C, D, E,
External Stakeholders	Customer/Regional Support and Equity	A, B, C, D, E
External Stakeholders BPA's People/Processes	Certainty of Obligations for All Parties	A, E
Business/Finance	Promote Infrastructure Development Consistent with the NW Power Act	
External Stakeholders Environmental	Consistency with BPA Stewardship Obligations	
Legal	Consistency with BPA statutes	
Business/Finance BPA's People/Processes	Simplicity	D
External Stakeholders	Advance National Objectives	



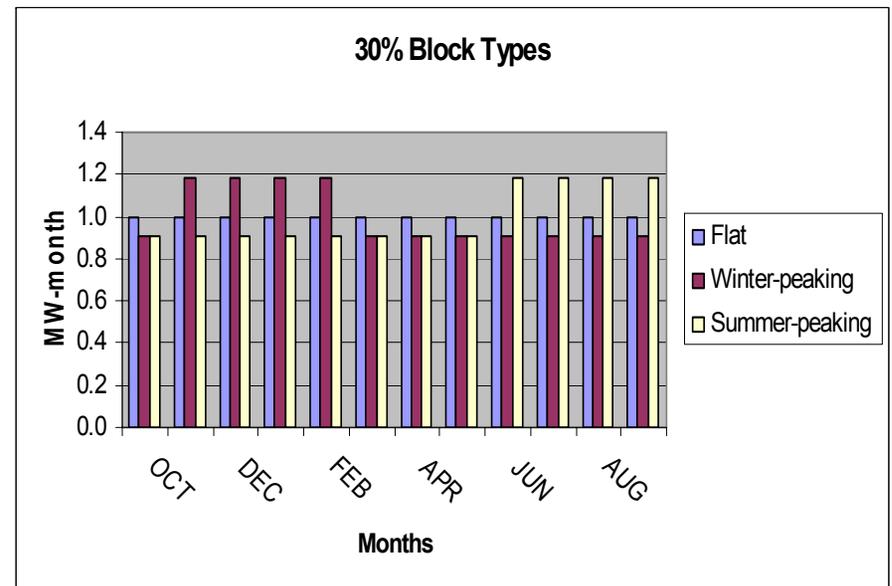
Proposed Design of the Block Product

- **Initial Tier 1 Block Amount:** A comparison of the customer's annual net requirement and Contract HWM would be made to help set how much firm consumer load would be served with Block at a Tier 1 rate. This Block purchase would be equal in all hours of the month.
- **Block Alternatives:** The Block customer would choose from a set number of Block alternatives for its Tier 1 service based on the general shape of its monthly net requirement: flat, winter-peaking, and summer-peaking.
- **Winter-peaking and Summer-peaking Blocks:** The block amounts in the four designated winter months (Nov-Feb) or summer months (Jun-Sept) are up to 30% greater than the block amounts across the remaining months of the year.
- **HLH/LLH Shape:** This proposal envisions structuring the Block as flat within the month. However, BPA may consider offering customers that only take a Block for their Tier 1 service the additional option of splitting the HLH and LLH amounts within the month in a manner different from the 56-44 that already exists. This allowance would provide customers additional flexibility to meet their load, by offering additional flexibility in shape.



Proposed Design of Block Product, continued...

- BPA proposes the “**three set Block shapes**” approach because it gives customers choice regarding how to meet their load below their HWM while removing much of the controversy about monthly net requirements.
- Other Issues:
 - 50% (instead of 30%) was also evaluated and poses too great a shift in shape of service.
 - Additional set shapes could be explored including 1) shape of critical FBS, or 2) winter- and summer-peaking.
 - Only a few customers have “summer-peaking” blocks now, so we could explore only offering flat or “winter-peaking.”



Proposed Design of Block Product, Continued...

- **Balancing the Block between Months:** Customers will be obligated to meet the remainder of their loads not met by their Block amounts with non-federal resources and market purchases and sales in order to follow their loads.
- **Structured Approach to Changes in the Tier 1 Block Amounts:** If, over the course of the contract term, there is a need to change the Tier 1 Block due to the reasons described on Slide 4, the changed Block sale will be ***required to retain the same set shape***.
 - **Example:** If a 10 aMW reduction for the year must be made to a 100 aMW Block (because BPA has reduced customers' Rate Period HWMs), then the Block amount in each month will be adjusted downward by $(10/100) \times 100 = 10\%$. Therefore, for a "winter-peaking" Block, more power will be shaved off the winter months than the rest of the months.
- **Tier 2 from BPA:** When chosen by the customer, service at Tier 2 to Block customers would be in the form of a flat block and in a pre-defined amount established at contract signing. Some Tier 2 rate alternatives would not be available to Slice/Block customers.
- **Block Shaping Charge:** This charge is addressed in a later slide.



Block Shaping Charge

- Per the Regional Dialogue Policy, BPA intends to charge those customers taking a Shaped Block for the additional shaping service provided. The same shaping charges would apply to the load following customers as well, either individually, or as a pool.
- Some rate design approaches, such as the recommended design from the rates team, will produce rates that reflect these costs without the need for an additional charge.
- The table below shows a charge based on the comparison in value between the shaped blocks and a flat block. The shaping charges the rates group has produced compare the shapes (including flat) to 1937 critical monthly system shape.

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOT
Market Prices	50	58	61	55	56	54	44	39	37	46	51	54	
PF	27	27	27	27	27	27	27	27	27	27	27	27	
Mkt-PF	23	31	34	28	29	27	17	12	10	19	24	27	
Flat	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	12
value	23	31	34	28	29	27	17	12	10	19	24	27	282
Winter-peaking	0.9	1.2	1.2	1.2	1.2	0.9	0.9	0.9	0.9	0.9	0.9	0.9	12.0
value	21	37	40	33	34	24	16	11	9	17	22	25	290
													Shaping Charge (\$/MWh) = 0.64
Summer-peaking	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.2	1.2	1.2	1.2	12.0
value	21	28	31	25	26	24	16	11	11	23	29	32	279
													Shaping Charge (\$/MWh) = -0.31

Market prices are rate case values based on Aurora. Other sources may be used such as forward Mid-C forecasts.



Three Alternatives to Evaluate Against Objectives

- Alternative 1: **Modified Status Quo.** Calculate monthly blocks based on customer's forecasted monthly net requirement for the first contract year of power deliveries, and if taking Slice, less the monthly critical Slice amount the customer has contractually committed to purchase.
- Alternative 2: **Three set Block shapes.** For a "winter-peaking Block" the block amounts in the *four* designated winter months (Nov-Feb) or for a "summer-peaking Block" the summer months (Jun-Sept) is 30% greater than the block amounts across the remaining months of the year. Flat *shape* is another option. Net requirement remains an *annual* value. The Block combined with the Slice product is flat across *all hours of* the year.
- Alternative 3: **Only Flat Blocks Available.** No shape other than flat is offered.
- **Assumed Condition:** In all the alternatives, changes to the Blocks during the contract term will be required to result in the same shaped Block.
- This analysis assumes the blocks are flat within the month.



Evaluation Against Objectives

Objective	Alt. 1	Alt. 2	Alt. 3	Explanation <small>+ means alt. supports, - means alt. does not support, 0 means alt. is neutral</small>
A. Minimizes disputes between BPA and customers over non-federal resources.	-	+	+	Monthly net requirement calculations are more challenging to administer than those done annually. However, if customers with diverse resources and market access choose the Load Following product rather than Block, then BPA would have to administer this calculation anyway.
B. Leaves operational control of customer-owned resources with customers, not BPA	+	+	+	All alternatives leave operational control of non-federal resources with customers. Alts 2 & 3 may cause customers to say BPA is forcing them to take a different monthly BPA block shape than their monthly net requirement, leading them to buy and sell when they otherwise would not.
C. Does not create material cross-subsidization among classes of BPA customers.	-	+	+	Applying the customer's slice of monthly critical against their monthly net requirement will still lead to extremes for the monthly block amounts (high winters and low springs). To the extent BPA is not realizing full expected value for the surplus created in the spring (because of spill and just the sheer amount of power BPA sometimes has to move in that period), the non-Slice rates are higher.
D. Is reasonably simple to implement.	-	+	+	From BPA's perspective Alt. 3 may be more simple than 2 to implement, however, it may be more difficult for some customers to implement because it requires that they managing more of the balancing across months than 1 or 2.
E. Gives BPA and customers a reasonable amount of certainty and predictability about their rights and obligations in operating their systems.	0	0	0	The Alts are neutral with regard to this objective because we have assumed as a rule that changes to the blocks in Alts. 1-3 will be required to retain the same shape established. However, BPA may have difficulty holding to this rule in Alt. 1 because it will have set a precedent of monthly net requirements.
F. Recognizes the marketing and operational challenges inherent in the shape of the federal system.	-	+	+	Applying the critical Slice shape against a customer's monthly net requirement, as in Alt. 1, will exacerbate the seasonally extreme-shaped Blocks we currently have. Alts 2 & 3 will not do this.



Differences in Total Monthly Block Amounts by Alternative—a study with a limited number of takers

Status	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	aMW	% Winter Summer	
														+ or - than rest	+ or - than rest
Quo 1/	2057	2458	2769	2810	2747	2542	2077	2052	1850	1993	2004	2019	2281	30	-19
50% 2/	2153	2492	2492	2492	2492	2153	2153	2153	2199	2199	2199	2199	2281	15	-5
30% 3/	2165	2485	2485	2485	2485	2165	2165	2165	2194	2194	2194	2194	2281	14	-6
Flat	2281	2281	2281	2281	2281	2281	2281	2281	2281	2281	2281	2281	2281		

Notes

1/ This uses FY07 monthly shaped blocks in current contracts as proxy for "modified status quo." Shaped block amounts would likely differ if 1) a new monthly net requirement calculation was done for each customer, then 2) new Slice amounts were developed, and then 3) if those Slice amounts were deducted based on the monthly shape of critical.

2/ This uses total FY07 aMW Block amount as basis to calculate monthly, in conjunction with assigning "winter-peaking" to those with current shaped block that has amounts 44% more on average across Nov-Feb as compared to average monthly amounts the rest of the year. 5 customers get this treatment. "Summer-peaking" was assigned to one customer with a 41% greater monthly block on average in Jun-Sept than rest of year. For these 6 customers the shaped months have monthly values that are 50% greater than the amounts in other months. All other customers assumed flat.

3/ This uses total FY07 aMW Block amount as basis to calculate monthly, in conjunction with assigning "winter-peaking" to those with current shaped block that has amounts greater than 30% on average across Nov-Feb compared to average monthly amounts the rest of the year. 7 customers get this treatment. "Summer-peaking" was assigned to one customer with monthly average amounts greater than 30% larger in Jun-Sept than the rest of year. For these 6 customers the shaped months have monthly values that are 50% greater than the amounts in other months. All other customers assumed flat.

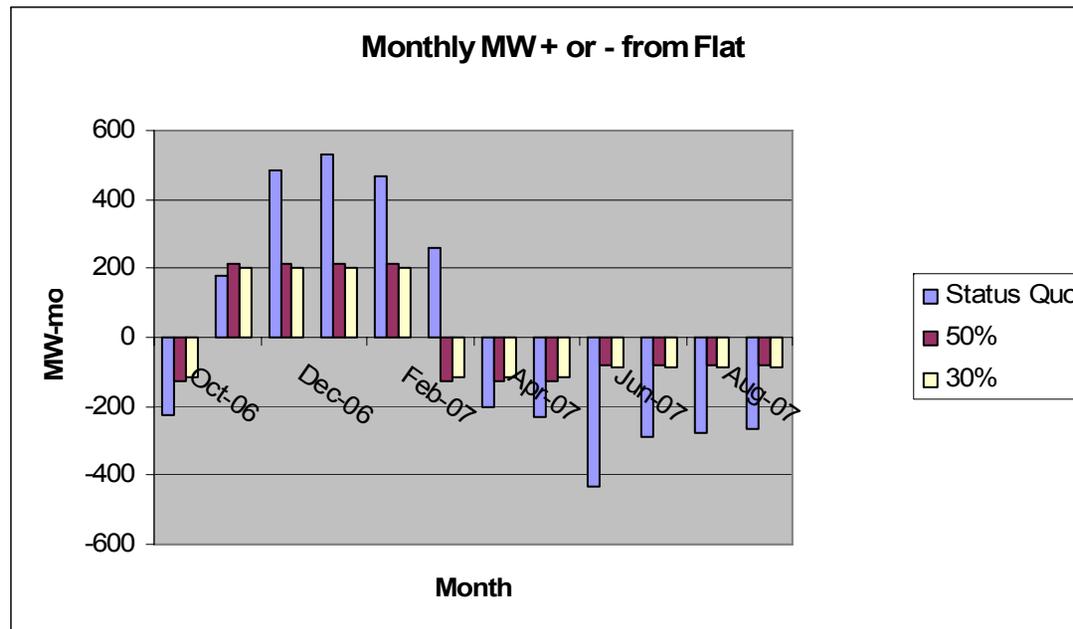
4/ Assumes all current Block purchasers remain so. 28 total customers (including all PNGC members).



Comparison of Shaped Blocks to Flat Block—a study with a limited number of takers

Delta from Flat Annual Block of 2281 aMW

	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
Status Quo	-224	177	487	528	466	260	-205	-230	-431	-288	-277	-263
50%	-129	211	211	211	211	-129	-129	-129	-82	-82	-82	-82
30%	-117	204	204	204	204	-117	-117	-117	-87	-87	-87	-87



Differences in Total Monthly Block Amounts by Alternative—a study of the extreme case

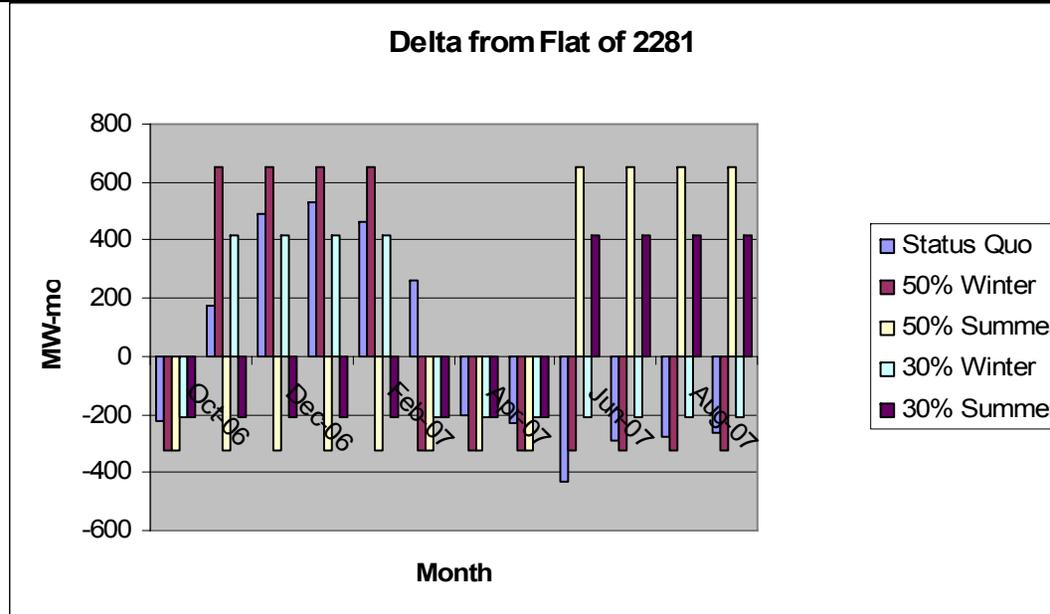
Total Monthly Block Shape															
	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	aMW	% Winter + or - than rest	% Summer + or - than rest
Status Quo 1/ 50%	2057	2458	2769	2810	2747	2542	2077	2052	1850	1993	2004	2019	2281	30	-19
Winter 50%	1956	2933	2933	2933	2933	1956	1956	1956	1956	1956	1956	1956	2281	50	-20
Summer 30%	1956	1956	1956	1956	1956	1956	1956	1956	2933	2933	2933	2933	2281	-20	50
Winter 30%	2074	2696	2696	2696	2696	2074	2074	2074	2074	2074	2074	2074	2281	30	-13
Summer Flat	2074	2074	2074	2074	2074	2074	2074	2074	2696	2696	2696	2696	2281	-13	30
Flat	2281	2281	2281	2281	2281	2281	2281	2281	2281	2281	2281	2281	2281		

1/ Assumes status quo as in earlier analysis, as compared to all block load taking either winter-peaking or summer-peaking.



Comparison of Shaped Blocks to Flat Block—a study of the extreme case

Delta from Flat of 2281												
	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
Status Quo	-224	177	487	528	466	260	-205	-230	-431	-288	-277	-263
50% Winter	-326	652	652	652	652	-326	-326	-326	-326	-326	-326	-326
50% Summer	-326	-326	-326	-326	-326	-326	-326	-326	652	652	652	652
30% Winter	-207	415	415	415	415	-207	-207	-207	-207	-207	-207	-207
30% Summer	-207	-207	-207	-207	-207	-207	-207	-207	415	415	415	415



Recommended Framework for Customer Discussions

1. **Changes to Blocks.** When changes to Tier 1 Block purchase amounts are necessary, require change be done in such a manner that the Tier 1 Block retains the same monthly shape set at the start of the contract term. This helps meet the following objectives: certainty of obligations and simple to implement.
2. **Shaping Charge.** Incorporate a shaping charge either as a separate charge or through the “equal scaling” approach to rate design proposed by the rates staff. This helps meet the goals of minimizing cross-subsidization and providing equity across customers.
3. **For the Tier 1 Block product alone.**
 - Based on the customer’s annual net requirement.
 - Offer three shapes using the 30% figure: Flat, Winter-peaking, or Summer-peaking.
 - Amounts are flat within the month. However, continue to explore pre-defined HLH/LLH split alternative approach.



Appendix A

Background: Subscription Contracts

- The Block product was sold with the Slice product, taken as a stand-alone product, and taken with shaping capacity.
- The Block product was structured in the following ways:
 - **Block with Slice:** The Slice customer's *annual* net requirement was calculated, then an aMW of Slice (calculated from the customer's final % Slice) was deducted to produce an *annual* aMW for the Block to fill. The *monthly* Shaped Block was then shaped to the customer's *monthly* net requirement (prior to applying any monthly critical Slice amounts). The Block paired with Slice was equal for all hours within the month. A Flat Block was also offered with the Slice, but no customer selected this option.
 - **Block:** One customer took a Shaped Block contract (with equal HLH and LLH amounts within the month). The shape of the Block between months was based on the customers *monthly* net requirement.
 - **Block with Shaping Capacity:** Two customers took a Shaped Block with Shaping capacity. Their net requirement determinations were more finely calculated, resulting in different monthly HLH and LLH Block amounts served by BPA. Their HLH-LLH splits were 61-39 and 67-33. In addition, these customers paid for the ability to change their HLH amounts at pre-schedule within a pre-determined margin above and below the flat HLH block.



Appendix A Continued

Background: Concerns with Subscription Block

- Reshaping of Blocks
 - Changes to customers' Block amounts occurred because of ConAug program-required decrements, changes in non-federal resources, changes in customer loads (growth and loss), to name a few reasons.
 - At times, these changes have increased BPA's winter month deficit/spring month surplus conditions—the cost consequences of which may not have been completely reflected on what the customer paid.
 - Changes that were left to bilateral negotiations between the customer and BPA likely resulted in a lack of standardization for how changes were executed.
 - The changing nature of these business relationships have created new operational uncertainties for BPA.

