# Prepay Framework

Live Meeting June 27<sup>th</sup> and 28<sup>th</sup> 9am-12pm

Call-in information:

June 27<sup>th</sup>: Dial USA Toll-Free: 877- 322-9654; at the prompt, enter participant code 320823.

June 28th: Dial USA Toll-Free: 877-807-5706; at the prompt, enter participant code 228865.



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#### **Disclaimer**

- BPA is providing this information and analytical frame work ("Material") to you, your utility and any other employees or agents of your utility ("You") for the sole purpose of assisting You in understanding the basic framework of the Power Prepay Program that BPA is now considering for possible implementation. BPA does not warrant the effectiveness or completeness or accuracy of the Material in any way and the Material should not be relied on by You in your pricing, formulation or preparation of any offer, or a decision not to provide any offers should BPA ultimately establish the Power Prepay Program. Please understand that it is possible that the Material may not comport with the final terms and conditions of the Power Prepay Program. By accepting the Material, You assume all responsibility for its use and agree to waive, to the extent permissible by law, any claim of any nature whatsoever against BPA based on the Material or its use.
- Representations in this package are for illustrative purposes only.
- Participation decisions should be based upon your own financial analysis.
- Customers should contact their own counsel, Financial Advisor or other consultant to determine their legal authority and to review their financial analysis.

#### **Basic Customer Framework**

- Customers have four hurdles they may want to consider while evaluating if they want to participate in this program.
  - 1. Legal Authority: Do they have the legal authority to participate in the program?
  - 2. Philosophy or Utility's Policy: What is the position on BPA's prepay program?
  - 3. Business Case: From a macro prospective, does participation in the program have enough value to the utility?
  - 4. Evaluation Model: What to consider when evaluating how much to bid on a block of power.

Legal Authority

Philosophy or Policy

**Business Case** 

## **Legal Authority**



Participating customers should confirm their legal authority to enter into a transaction.

Legal Authority

Philosophy or Policy

**Business Case** 

### **Philosophy or Policy**



- BPA has designed the prepay program in an open collaborative forum with customers and other stakeholders to ensure equity among participants and non-participants.
- Each utility has to determine its individual philosophy and policy towards BPA's prepay program and whether or not to participate.

Legal Authority

Philosophy or Policy

**Business Case** 

#### **Business Case**



- BPA has developed a Business Case

  Model to help utilities understand some of the basic features of the program, should it proceed.

  Regional Participation Effects expenses due to capital cuts in lie necessary for BP-14 rate case if B sources of capital:

  Enter the narrual dollar amount of expenses due to capital cuts in lie necessary for BP-14 rate case if B sources of capital:

  Enter the Not-year amount of dollar amount of the program.
- This model evaluates potential future rate impacts without the prepay program if the utility decides to seek to participate or not in the program.

Enter the annual dollar amount of revenue financing, and/or additional O&M expenses due to capital:

Enter the two-year amount of dollars achieved in the 2014 Prepay offering from other utilities than input in the customer section:

Once Above Two Values are entered, please run the "Update Rate Base"

Customer Participation Effects

Customer Name

This customer can bid at most 2 Blocks
2

Prepay Limit (number of blocks)

Desired Level of Particiaption

Enter the # of Blocks

Enter Assumed Incentive Rate
Savings Rate on Cash/Alternative Investment Rate
Savings Rate on Cash/Alternative Investment Rate
Discount Rate for NPV Calculations
3.360%

Enter Amount Financed with Cash (cannot exceed \$6,808,001)

BPA Implied Cost of Capital for Prepay

Remaining Amount to be Financed \$
Total Amount of Prepay \$

Representations in this package are summary Outputs Illustrative Purposes only - Subject to Change for illustrative purposes only.

Participation decisions should be based upon your own financial analysis.

Rate Effects Due to Program Participation

Revenues
Loads in MVh (combined)
Incentive (S)
IN OUSE of CASH
If USE of Cash Levelized Is USE Cash With Rapid Repayment
Rate Datas (MWh)
Avoided Rate Impact Assuming \$6,000 to of Prepayments and \$0,000

Rate Effects Due to Program Participation		2012		2013		2014		2015	2016		2017
Revenues Loads in MWh (combined)	\$	2,072,684 74,954	\$	2,081,902 75,082	\$	2,481,102 75,406	\$	2,492,271 75,748	2,595,608 76,298	\$	2,606,042 76,440
Incentive (\$)											
If NO USE of CASH	\$	-	\$	12,811	\$	25,622	\$	25,622	\$ 25,622	\$	25,622
If USE of Cash Levelized	\$		\$	47,801	\$	95,601	\$	95,601	\$ 95,601	\$	95,601
Is USE Cash with Rapid Repayment	\$	-	\$	24,492	\$	45,313	\$	40,376	\$ 35,390	\$	30,354
Rate Deltas (\$/MWh)											
Avoided Rate Impact Assuming \$6,808,001 of Prepayments and \$0,000											
Revenue Financing and/or Higher O&M Costs Imbedded in Rates	S		\$		\$		\$		\$	\$	
Additional Rate Benefit if Incentive Applied to Customer Power Rates											
If NO USE of CASH	\$	-	\$	(0.17)	\$	(0.34)	\$	(0.34)	\$ (0.34)	\$	(0.34)
If USE of Cash Levelized	\$	-	\$	(0.64)	\$	(1.27)	\$	(1.26)	\$ (1.25)	\$	(1.25)
le LISE Cash with Panid Panayment	è	_	¢	(0.33)	¢	(0.60)	ė	(0.53)	(0.46)	è	(0.40)

6.808.001

**Legal Authority** 

Philosophy or Policy

**Business Case** 

#### **Evaluation Model**



- This model does not take into account various financing structure questions, for example:
  - Funding the prepayment with cash or issuing debt?
  - If issuing debt:
    - What is the borrowing cost?
    - What is the cost of issuance associated with the debt?
    - Will interest be capitalized?
    - Will there be a reserve fund?
    - If there is a reserve fund, what will the earnings rate be on the funds?
    - Will the utility hedge credit spread risk?
    - How long will the proceeds be escrowed until payment is made to BPA?
  - What is the target incentive?
- Representations in this model are for illustrative purposes only. Participation decisions should be based upon your own financial analysis.

Legal Authority

Philosophy or Policy

**Business Case** 

## Formulating A Bid (Breakeven)

 The first step in formulating a bid is to identify the breakeven point for a bid if funding the prepayment through a debt offering.



 The breakeven point is where the monthly debt service on the debt equals the monthly credits and is driven by the borrowing rate.

• Assuming a 3.50% customer financing rate, the breakeven point is \$7.06 million

Amount of borrowing which can be supported when interest cost is factored in

Program Parameters	
Program Start	4/1/2013
First Credit Provided	5/1/2013
Program End	10/1/2028
# of Months	186
Size of 1 Block (per month)	50,000
Number of blocks bid	1
Total Annual Value of Block(s) Total Value of Block(s) through Term	600,000 9,300,000
Customer Inputs	
Delivery/Prepayment Date	4/1/2013
First Interest Payment	10/1/2013
First Year Months	10/1/2010
First Principal Payment	10/1/2013
	3.50%

**BLUE** indicates required input **BLACK** indicates automatic calculation

utputs				_		interest of	cost is factor
	A	В	С		E=B+D	F=annual E	<b>G</b> =A-F
	Annual		1		Total	Annual	Credits Minus
Date	Credits	Principal	Rate	Interest	Debt Service	Debt Service	Debt Service
Total	9,300,000	7,060,000		2,205,875	9,265,875	9,265,875	34,125
4/1/13							
10/1/13	300,000	175,000	3.50%	123,550	298,550	298,550	1,450
4/1/14	,	-,		120,488	120,488	-	_
10/1/14	600,000	355,000	3.50%	120,488	475,488	595,975	4,025
4/1/15		,		114,275	114,275	-	-
10/1/15	600,000	370,000	3.50%	114,275	484,275	598,550	1,450
4/1/16				107,800	107,800	-	-
10/1/16	600,000	380,000	3.50%	107,800	487,800	595,600	4,400
4/1/17				101,150	101,150	-	-
10/1/17	600,000	395,000	3.50%	101,150	496,150	597,300	2,700
4/1/18				94,238	94,238	-	-
10/1/18	600,000	410,000	3.50%	94,238	504,238	598,475	1,525
4/1/19				87,063	87,063	-	-
10/1/19	600,000	425,000	3.50%	87,063	512,063	599,125	875
4/1/20				79,625	79,625	-	-
10/1/20	600,000	440,000	3.50%	79,625	519,625	599,250	750
4/1/21				71,925	71,925	-	-
10/1/21	600,000	455,000	3.50%	71,925	526,925	598,850	1,150
4/1/22				63,963	63,963	-	-
10/1/22	600,000	470,000	3.50%	63,963	533,963	597,925	2,075
4/1/23				55,738	55,738	-	-
10/1/23	600,000	485,000	3.50%	55,738	540,738	596,475	3,525
4/1/24				47,250	47,250	-	-
10/1/24	600,000	505,000	3.50%	47,250	552,250	599,500	500
4/1/25				38,413	38,413	-	-
10/1/25	600,000	520,000	3.50%	38,413	558,413	596,825	3,175
4/1/26				29,313	29,313	-	-
10/1/26	600,000	540,000	3.50%	29,313	569,313	598,625	1,375
4/1/27				19,863	19,863	-	-
10/1/27	600,000	560,000	3.50%	19,863	579,863	599,725	275
4/1/28				10,063	10,063	-	-
10/1/28	600,000	575,000	3.50%	10,063	585,063	595,125	4,875

#### Adding a Rate of Return



- As a utility lowers its bid from the breakeven price of \$7.06 million, its debt service is lowered and savings are generated.
- How low a Utility bids will depend on the perceived risk in the prepayment and the utility's desire to receive an additional incentive payment.
- The following table shows the relationships between a lower bid price, spread over the utility's borrowing rate (the implied additional cost to Bonneville), and the savings realized by the utility.

Inputs		Outputs							
			Α .	В	С	D	E=B+D	F=annual E	<b>G</b> =A-F
Program Parameters	_	Date Total	Annual Credits 9,300,000	Principal 6,700,000	Rate	Interest 2,093,175	Total Debt Service 8,793,175	Annual Debt Service 8,793,175	Credits Minus Debt Service 506,825
Program Start 4/1/2	013								
First Credit Provided 5/1/2 Program End 10/1/2 # of Months	013	4/1/13 10/1/13 4/1/14	300,000	165,000	3.50%	117,250 114,363	282,250 114,363	282,250	17,750
Size of 1 Block (per month) 50, Number of blocks bid		10/1/14 4/1/15	600,000	340,000	3.50%	114,363 108,413	454,363 108,413	568,725	31,275
Total Annual Value of Block(s) 600, Total Value of Block(s) through Term 9,300,	000	10/1/15 4/1/16	690,000	350,000	3.50%	108,413 102,288	458,413 102,288	566,825 -	33,175
		10/1/16 4/1/17	600,000	365,000	3.50%	102,288 95,900	467,288 95,900	569,575 -	30,425
Customer Inputs	- 1	10/1/17 4/1/18	600,000	375,000	3.50%	95,900 89,338	470,900 89,338	566,800 -	33,200
Delivery/Prepayment Date 4/1/2		10/1/18	600,000	390,000	3.50%	89,338	479,338	568,675	31,325
First Interest Payment 10/1/2 First Year Months	013 6	4/1/19 10/1/19	600,000	400,000	3.50%	82,513 82,513	82,513 482,513	- 565,025	- 34,975
First Principal Payment 10/1/2		4/1/20	000,000	400,000	3.30 /0	75,513	75,513	-	-
Utility Financing Cost 3.	50%	10/1/20 4/1/21	600,000	415,000	3.50%	75,513 68,250	490,513 68,250	566,025 -	33,975 -
Targeted Incentive Rate	5%	10/1/21 4/1/22	600,000	430,000	3.50%	68,250 60,725	498,250 60,725	566,500 -	33,500
		10/1/22 4/1/23	600,000	445,000	3.50%	60,725 52,938	505,725 52,938	566,450 -	33,550 -
		10/1/23 4/1/24	600,000	460,000	3.50%	52,938 44,888	512,938 44,888	565,875 -	34,125 -
		10/1/24 4/1/25	600,000	480,000	3.50%	44,888 36,488	524,888 36,488	569,775 -	30,225
Lower amount of borrowing can be		10/1/25 4/1/26	600,000	495,000	3.50%	36,488 27,825	531,488 27,825	567,975 -	32,025
supported		10/1/26 4/1/27	600,000	510,000	3.50%	27,825 18,900	537,825 18,900	565,650 -	34,350
		10/1/27 4/1/28	600,000	530,000	3.50%	18,900 9,625	548,900 9,625	567,800 -	32,200
		10/1/28	600,000	550,000	3.50%	9,625	559,625	569,250	30,750

#### Adding a Rate of Return



- If a Utility requires too high of an incentive payment, the BPA Implied Cost of Capital may be too high and the utility's bid may not meet the reservation price.
- The following table shows the relationships between a lower bid price, spread over the utility's borrowing rate (the implied additional cost to Bonneville), and the savings realized by the Utility.

#### **Bid Price/Savings Sensitivity**

Total Credits	Total bid	Total Debt Service	Gross Savings	Savings %	BPA Implied Cost of Capital	Spread Over Utility Financing Rate
9,300,000	7,060,000	9,265,875	-	0%	3.50%	0.00%
9,300,000	6,845,000	8,983,413	316,588	3%	3.94%	0.44%
9,300,000	6,700,000	8,793,175	506,825	5%	4.24%	0.74%

(1) Gross savings as a percentage of total credits

#### **Adjusting the Bid for Credit Risk**



- BPA provides an "off ramp" if credit spreads increase over a predetermined amount.
  - When customers bid on a block of credits, they would include a purchase price and an assumed credit spread over Treasuries.
  - If a Utility's credit spread exceeds 25 bps over the stated credit spread at a date determined in the future (very probably the pricing date if a Utility is issuing debt), customers could elect to take an "off ramp" and terminate its prepayment obligation. BPA would reimburse the utility for up to \$100k of reasonable out-of-pocket expenses
  - If a Utility's credit spread is below the 25 bps over the stated credit spread at a date determined in the future, customers would complete the transaction.
  - Customers would benefit if the credit spread at debt pricing proves to be below the set threshold, assuming they priced it into their bid.
  - This approach would guarantee a level of savings to customers assuming they formed their bids to cover the credit spread risk and add the potential for additional savings if the actual credit spread is lower than 25 bps versus the bid.

## **Adjusting the Bid for Credit Risk (Continued)**



<u>Inputs</u>		Outputs							
			Α .	В	С	D	<b>E</b> =B+D	F=annual E	<b>G</b> =A-F
			Annual				Total	Annual	Credits Minus
		Date	Credits	Principal	Rate	Interest	Debt Service	Debt Service	Debt Service
Program Parameters		Total	9,300,000	6,580,000	<del>)                                    </del>	2,213,438	8,793,438	8,793,438	506,563
Program Start	4/1/2013			<u> </u>	$\overline{}$				
First Credit Provided	5/1/2013	4/1/13	X		/ \				
Program End	10/1/2028	10/1/13	300,000	160,000	3.75%	123,375	283,375	283,375	16,625
# of Months	186	4/1/14	/		/ \	120,375	120,375	-	-
Size of 1 Block (per month)	50,000	10/1/14	600,000	325,000	3.75%	120,375	445,375	565,750	34,250
Number of blocks bid	1	4/1/15			/ \	114,281	114,281	-	-
Total Annual Value of Block(s)	600,000	10/1/15	600,000	340,000	3.75%	114,281	454,281	568,563	31,438
Total Value of Block(s) through Term	9,300,000	4/1/16				107,906	107,906	-	-
		10/1/16	600,000	350,000	3.75%	107,906	457,906	565,813	34,188
		4/1/17				101,344	101,344	-	-
Customer Inputs		10/1/17	600,000	365,000	3.75%	101,344	466,344	567,688	32,313
		4/1/ <b>1/8</b>				94,500	94,500	-	-
Delivery/Prepayment Date	4/1/2013	10/ <b>1/</b> 18	600,000	380,000	3.75%	94,500	474,500	569,000	31,000
First Interest Payment	10/1/2013	<b>A</b> /1/19	·			87,375	87,375	-	-
First Year Months	6	10/1/19	600,000	395,000	3.75%	87,375	482,375	569,750	30,250
First Principal Payment	10/1/2013	4/1/20				79,969	79,969	-	-
		10/1/20	600,000	405,000	3.75%	79,969	484,969	564,938	35,063
Utility Financing Cost	3.50%	4/1/21	,			72,375	72,375	-	-
Additional Cushion	0.25%	10/1/21	600.000	425,000	3.75%	72,375	497,375	569,750	30,250
Total Assumed Financing Cost	3.75%	4/1/22	,	-,		64,406	64,406	-	-
3		10/1/22	600,000	440,000	3.75%	64,406	504,406	568,813	31,188
Targeted Incentive Rate	5%	4/1/23	,			56,156	56,156	-	-
· g · · - · · - · · - · · - · ·		10/1/23	600,000	455,000	3.75%	56,156	511,156	567,313	32,688
		4/1/24	,	/,		47,625	47,625	-	-
		10/1/24	600,000	470,000	3.75%	47,625	517,625	565,250	34,750
		4/1/25		., 0,000	0.1070	38,813	38,813	-	
	/	10/1/25	600,000	490,000	3.75%	38,813	528,813	567,625	32,375
Lower amount of borrowing can	be	4/1/26	000,000	100,000	0.1070	29,625	29,625	-	-
supported		10/1/26	600,000	510,000	3.75%	29,625	539,625	569,250	30,750
Supportou		4/1/27	000,000	010,000	0.7073	20,063	20,063	-	-
		10/1/27	600,000	525,000	3.75%	20,063	545,063	565,125	34,875
		4/1/28	000,000	323,000	3.7376	10,219	10,219	505,125	34,073
Higher financing cos	at assumed	10/1/28	600,000	545,000	3.75%	10,219	555,219	565,438	34,563
riighter initiationing cos	a accumod	10/1/20	000,000	343,000	\3.7379	10,219	333,219	303,430	34,503
					\ /				

## **Adjusting the Bid for Credit Risk**



• If a customer is using cash or borrowing from sources like the Cooperative Financing Corporation (CFC), then they should not be exposed to credit spread risk.

	Total bid	Total Credits	Total Debt Service	Gross Savings	Savings %	BPA Implied Cost of Capital	Utility Cost of Capital	Spread Over Utility Financing Rate
Baseline (5% base savings)	6,700,000	9,300,000	8,793,175	506,825	5%	4.24%	3.50%	0.74%
1 25 bps increase in credit spread No cushion included	6,700,000	9,300,000	8,954,313	345,688	4%	4.24%	3.50%	0.74%
2 25 bps increase in credit spread Full cushion included	6,580,000	9,300,000	8,793,438	506,563	5%	4.49%	3.50%	0.99%
3 No increase in spread Full cushion included	6,580,000	9,300,000	8,637,125	662,875	7%	4.49%	3.50%	0.99%

Note: savings % is rounded

#### Valuing a Block Summary



- To help educate customers about the program BPA has developed a simple Evaluation Model to assist utilities in identifying some germane factors.
- The Evaluation model walked customers from the nominal value of the total credits worth \$9.3 million:
  - \$7.060 million to break even
  - \$6.700 million including a 5% incentive
  - \$6.580 million including a 5% incentive and .25% credit risk adjustment
- The Evaluation model did not include other structuring items and participation decisions should be based upon your own financial analysis.
- BPA is providing this information and analytical frame work ("Material") to you, your utility and any other employees or agents of your utility ("You") for the sole purpose of assisting You in understanding the basic framework of the Power Prepay Program that BPA is now considering for possible implementation. BPA does not warrant the effectiveness or completeness or accuracy of the Material in any way and the Material should not be relied on by You in your pricing, formulation or preparation of any offer, or a decision not to provide any offers should BPA ultimately establish the Power Prepay Program. Please understand that it is possible that the Material may not comport with the final terms and conditions of the Power Prepay Program. By accepting the Material, You assume all responsibility for its use and agree to waive, to the extent permissible by law, any claim of any nature whatsoever against BPA based on the Material or its use