

Summary of Results

FINAL 12/12/02

Table 1: Look Forward - LB CRAC4 for April '03 - September '03	
Increased Revenue Required (LB CRAC%)	40.24%
Total Increase in revenue in dollars	\$210,810,866
Increase in the Slice Rate	39.51%
Increase in the non-Slice Rate	38.53%

Table 2: LB CRAC True Up: April '02 to September '02	
Total Bill Adjustment for Slice - 120 Day Rule	\$ 725,956
Total Bill Adjustment for non-Slice - (0 Day Rule + 120 Day Rule)	\$ 1,605,630
Total Bill Adjustment Slice + non-Slice	\$ 2,331,586
Adjustment factor for each Slice customer	0.000459
Adjustment factor for each non-Slice customer	0.000586

BPA's Current Forecast for Future LB CRAC's			
note: This is being provided for your planning. These numbers will change.			
	<u>CRAC5</u>	<u>CRAC6</u>	<u>CRAC7</u>
LB CRAC%	29%	35%	29%
Increase in Slice Rate	28%	34%	28%
Increase in non-Slice Rate	28%	33%	28%
	<u>CRAC8</u>	<u>CRAC9</u>	<u>CRAC10</u>
LB CRAC%	34%	29%	34%
Increase in Slice Rate	33%	29%	33%
Increase in non-Slice Rate	32%	28%	32%

Look Forward

LB CRAC4 FINAL 12/12/02

Table 3

Increased Revenue Required (LB CRAC%)	40.24%	revenue required =	\$210,810,866
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Change to Slice Rate	39.51%
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Change to non-Slice Rate	38.53%
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Revised Rates						
	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03
Slice (\$/% Slice per month)	\$1,980,247	\$1,980,247	\$1,980,247	\$1,980,247	\$1,980,247	\$1,980,247
5-yr PF-02 and RL-02 rates						
HLH (\$/MWh)	\$18.26	\$18.19	\$22.79	\$29.96	\$44.36	\$31.78
LLH (\$/MWh)	\$12.22	\$10.04	\$12.19	\$20.35	\$24.84	\$26.03
Demand (\$/kW-mo)	\$2.01	\$1.98	\$2.48	\$3.20	\$3.20	\$3.20
Load Variance (\$/MWh)	\$1.11	\$1.11	\$1.11	\$1.11	\$1.11	\$1.11
Stepped PF-02 Rates						
HLH (\$/MWh)	\$17.43	\$17.36	\$21.96	\$29.13	\$43.53	\$30.95
LLH (\$/MWh)	\$11.39	\$9.21	\$11.36	\$19.52	\$24.01	\$25.20
Demand (\$/kW-mo)	\$2.01	\$1.98	\$2.48	\$3.20	\$3.20	\$3.20
Load Variance (\$/MWh)	\$1.11	\$1.11	\$1.11	\$1.11	\$1.11	\$1.11
IP-02 Rates w IPTAC(A)						
HLH (\$/MWh)	\$23.47	\$23.38	\$27.98	\$35.16	\$49.57	\$36.99
LLH (\$/MWh)	\$17.41	\$15.24	\$17.39	\$25.56	\$30.03	\$31.24
Demand (\$/kW-mo)	\$2.01	\$1.98	\$2.48	\$3.20	\$3.20	\$3.20
IP-02 Rates w IPTAC(B)						
HLH (\$/MWh)	\$25.54	\$25.46	\$30.06	\$37.24	\$51.64	\$39.07
LLH (\$/MWh)	\$19.49	\$17.32	\$19.46	\$27.64	\$32.11	\$33.32
Demand (\$/kW-mo)	\$2.01	\$1.98	\$2.48	\$3.20	\$3.20	\$3.20

Look Forward

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Table 4: Mark-to-Market Prices (\$/MWh)							
	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	AVG.
HLH	32.50	25.52	25.40	37.55	45.35	42.35	34.78
LLH	23.11	16.01	15.95	26.15	31.65	33.40	24.38

Look Forward

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Table 5: Average Net Augmentation Need and Net Short Position				
		<u>Apr-03</u>	<u>Jul-03</u>	<u>Apr-03</u>
		<u>to</u>	<u>to</u>	<u>to</u>
		<u>Jun-03</u>	<u>Sep-03</u>	<u>Sep-03</u>
1 - Net System Load	aMW	6,073	5,723	5,898
2 - Net Augmentation Need (w/losses)	aMW	862	575	719
3 - Net Short Position				
	HLH	aMW	47	0
	LLH	aMW	42	0
			23	21

These numbers are approximate due to the use of simple averaging.

1 - Net System Load = System Load - Load reductions

2 - Net Augmentation Need = Net System Load - System Capability (w/transmission losses of 1.8%).

3 - The net short position is the simple average of the HLH and LLH actual net short positions for the given months.

Table 6: Selected 6-mo. Total Cost and Revenue Calculations	
1 - Augmentation Pre-Purchase Costs	\$ 225,257,551
2 - Net Short Costs	\$ 2,079,950
3 - Load Reduction Costs	\$ 170,797,608
4 - Total Gross Augmentation Costs in LB CRAC	\$ 299,222,156
5 - Revenues from Resale of Augmentation Quantity	\$ 88,411,290
6 - Net Augmentation Costs (= 4-5)	\$ 210,810,866
7 - Total Revenues from Slice before LB CRAC	\$ 186,667,096
8 - Total Revenues from non-Slice products before LB CRAC	\$ 337,244,730
9 - Total CRAC'able revenue before LB CRAC (= 7+8)	\$ 523,911,826
LB CRAC% (= 6/9)	40.24%

1- Sum of augmentation pre-purchases and power buyback for rate mitigation. Cost of rate mitigation deals with Slice/Block included here. IOU power conversion costs here also. (Cost of IOU and DSI load reduction deals are contained in row 3). Rate mitigation buyback costs include both premium portion and cost of deals tied to LB CRAC.

2 - Net short costs = cost of meeting BPA's net short position

3 - All costs associated with load reductions from IOU, DSIs, and load following publics.

4 - If row 4 total is less than sum of rows (1+2+3), some costs in rows 1+2 are being excluded from recovery from LB CRAC. Chase product is included as a credit in the calculation of Total Gross Augmentation Costs.

8 - Total revenue from non-Slice products that are subject to LB CRAC before application of LB CRAC.

Look Forward

LB CRAC4

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Table 7: Average 6-mo. Costs and Loads		units	Apr-June	July-Sept.	6 months
Slice Load		aMW	1,600	1,600	1,600
PF Base Load		aMW			
	HLH	aMW	3,958	3,674	3,613
	LLH	aMW	3,594	3,305	3,239
RL Base Load		aMW			
	HLH	aMW	999	999	999
	LLH	aMW	999	999	999
IP Base Load		aMW			
	HLH	aMW	1,195	1,195	1,195
	LLH	aMW	1,195	1,195	1,195
Augmentation Pre-Purchase Costs					
(note: this includes mkt. Pre-purchase cost					
+ fixed portion of power buybacks)					
	HLH	\$	17,037,181	25,225,978	21,131,579
	LLH	\$	13,095,615	18,726,585	15,911,100
Load Reduction Costs					
	HLH	\$	16,157,958	16,162,642	16,160,300
	LLH	\$	12,244,735	12,367,201	12,305,968
LDD Slice Costs		\$	427,842	427,842	427,842
LDD Non-Slice Costs		\$	727,201	1,217,137	972,169
C&R Slice Costs		\$	583,860	583,860	583,860
C&R Non-Slice Costs		\$	2,535,285	2,539,056	2,537,170

These numbers are approximate due to the use of simple averaging of actual numbers.

Table 8: Average 6-mo. Loads, Rate Mitigation, System Capability					
			Apr-June	July-Sept.	6 months
1 - System Load		aMW	8,003	7,649	7,826
2 - System Capability		aMW	5,225	5,158	5,192
3 - Load Reduction		aMW	1,931	1,926	1,928
	Public	aMW	129	132	131
	DSI	aMW	1,031	1,031	1,031
	IOU	aMW	620	613	616
	Other	aMW	150	150	150
4 - Augmentation Market Purchases					
	HLH	aMW	726	1,405	1,065
	LLH	aMW	973	1,463	1,218
5 - Augmentation Power Buybacks					
	HLH	aMW	153	151	152
	LLH	aMW	156	157	157

These numbers are approximate due to the use of simple averaging of actual numbers. Each row in this table is the simple average of the actual numbers in the analysis for that variable.

1&2 - These numbers are net of 1,600aMW of Slice and do not include losses.

3 - All DSI, IOU and load following publics rate mitigation deals treated as load reductions.

4 - Includes only market purchases.

5 - Includes only rate mitigation with Block/Slice customers.

LB CRAC True Up

April '02 - September '02
for six months starting in January 2003

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Table 9: Total 6-mo. Incremental Revenue, Incremental Cost, Bill Adjustment Factors		
<i>Rows 1, 2 are the revenues BPA earned only from the LB CRAC part of rates.</i>		
1 - LB CRAC revenues earned from Slice	\$	\$76,055,383
2 - LB CRAC revenues earned from non-Slice products	\$	\$131,458,088
<i>sum</i>	\$	\$207,513,471
<i>Rows 3, 4 are the actual LB CRAC Revenue Requirement</i>		
3 - Revenues required from Slice to cover actual LB CRAC costs	\$	\$76,781,339
4 - Revenues required from non-Slice to cover actual LB CRAC costs	\$	\$132,959,311
<i>sum</i>	\$	\$209,740,650
<i>120 Day Bill Adjustment in Dollars (negative indicates refund to customers)</i>		\$2,227,178
5 - Total Bill Adjustment for Slice - 120 Day Rule	\$	\$725,956
6 - Bill Adjustment for non-Slice - 120 Day Rule	\$	\$1,501,223
7 - Bill Adjustment non-Slice - 0 Day Rule	\$	\$104,408
8 - Total Bill Adjustment for non-Slice - (Sum of 0 Day Rule + 120 Day Rule)	\$	\$1,605,630
9 - Total Bill Adjustment Slice + non-Slice (row 6 + row 8)	\$	\$2,331,586
<i>Rows 10, 11 are the adjustment factors used to determine individual customer bill adjustments</i>		
10 - Adjustment factor for each Slice customer bill		0.000459
11 - Adjustment factor for each non-Slice customer bill		0.000586

- 1 - Incremental Revenues from the LB CRAC increment to the May 2000 Slice rate for Oct. '01- March '02.
- 2 - Incremental Revenues from the LB CRAC increment to the May 2000 non-Slice rates for Oct. '01- March '02.
- 3 - Incremental Augmentation Costs in LB CRAC above May 2000 rates for Slice
- 4 - Incremental Augmentation Costs in LB CRAC above May 2000 rates for non-Slice
- 5 - Row 3 Table 9 - Row 1 Table 9.
- 6 - Row 4 Table 9 - Row 2 Table 9.
- 7 - Row 6 Table 11 - Row 6 Table 10.
- 10 - Applied to Slice payments from customer minus LDD minus C&R.
- 11 - Applied to payments from customer for products subject to LB CRAC minus LDD minus C&R.

LB CRAC True Up

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April '02 - September '02
for six months starting in January 2003

Table 10: Total 6-mo. Cost and Revenue Calculations - 120 Day Rule				
1 - Augmentation Pre-Purchase Costs	\$	\$259,312,177	aMW	1,536
2 - Net Short Costs	\$	\$0	aMW	0
3 - Load Reduction Costs	\$	\$180,922,566		
4 - Gross Augmentation Costs in LB CRAC	\$	\$284,716,372	aMW	609
5 - Revenues from Resale of Augmentation Quantity	\$	\$74,975,723	aMW	609
6 - Actual Net Augmentation Costs in LB CRAC - 120 Day Rule (= 4-5)	\$	\$209,740,650	aMW	609
Rows 7, 8, 9 revenue calculations are the revenues BPA earned under LB CRAC'ed rates				
7 - Total Revenues from Slice	\$	\$263,633,083	aMW	1,600
8 - Total Revenues from non-Slice products	\$	\$456,523,338	aMW	3,800
9 - Total Revenue with LB CRAC Applied (= 7+8)	\$	\$720,156,422		

1- Sum of augmentation pre-purchases and power buyback for rate mitigation. Cost of rate mitigation deals with Slice/Block included here. IOU power conversion costs here also. (Cost of IOU and DSI load reduction deals are contained in row 3). Rate mitigation buyback costs include both premium portion and cost of deals tied to LB CRAC.

2 - net short costs = cost of meeting BPA's net short position

3 - All costs associated with load reductions from IOU, DSIs, and load following publics are borne by Slice and non-Slice.

4 - If row 4 total is less than sum of rows (1+2+3), some costs in rows 1+2 are being excluded from recovery from LB CRAC. Also, the Chase product is included as a credit in the calculation of Total Gross Augmentation Costs.

5 - Revenue from the resale of the augmentation quantity using the GRSP formula.

7, 8, 9 - Total revenue earned by BPA from Slice and non-Slice products at rates with LB CRAC.

Table 11: Total 6-mo. Cost and Revenue Calculations - 0 Day Rule				
1 - Augmentation Pre-Purchase Costs - 0 Day Rule	\$	\$263,788,477	aMW	1,561
2 - Net Short Costs - 0 Day Rule	\$	\$0	aMW	0
3 - Load Reduction Costs	\$	\$180,922,566		
4 - Gross Augmentation Costs in LB CRAC - 0 Day Rule	\$	\$284,820,780	aMW	609
5 - Revenues from Resale of Augmentation Quantity	\$	\$74,975,723	aMW	609
6 - Actual Net Augmentation Costs in LB CRAC 0 Day Rule (= 4-5)	\$	\$209,845,057	aMW	609

1- Sum of augmentation pre-purchases and power buyback for rate mitigation. Cost of rate mitigation deals with Slice/Block included here. IOU power conversions costs here also.

(Cost of IOU and DSI load reduction deals are contained in row 3). Rate mitigation buyback costs include both premium portion and cost of deals tied to LB CRAC.

2 - net short costs = cost of meeting BPA's net short position

3 - All costs associated with load reductions from IOU, DSIs, and load following publics are borne by Slice and non-Slice.

4 - If row 4 total is less than sum of rows (1+2+3), some costs in rows 1+2 are being excluded from recovery from LB CRAC. Also, the Chase product is included as a credit in the calculation of Total Gross Augmentation Costs.

5 - Revenue from the resale of the augmentation quantity using the GRSP formula

LB CRAC True Up
 April '02 - September '02

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		<u>Apr</u> <u>to</u> <u>June</u>	<u>July</u> <u>to</u> <u>Sept</u>	<u>Apr</u> <u>to</u> <u>Sept</u>
1 - Net System Load	aMW	6,021	5,758	5,890
2 - System Capability	aMW	5,328	5,328	5,328
3 - Net Augmentation Need (w/losses)	aMW	706	513	609
4 - Net Short Position	aMW	0	0	0
HLH	aMW	0	0	0
LLH	aMW	0	0	0

These numbers are approximate due to the use of simple averaging.

1 - In the True Up, Net System Load equals the system loads BPA served.

2 - Production from the system established in the rate case.

3 - Net Augmentation Need = Net System Load minus System Capability plus transmission losses of 1.8%. It is the simple average of actual monthly net augmentation need used in the model.

4 - The net short position is the simple average of the HLH and LLH actual net short positions for the given months.

LB CRAC True Up
April '02 - September '02

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Table 13: Quarterly Average Loads		units	Apr-June	July-Sept.	Apr-Sept
Slice Load		aMW	1,600	1,600	1,600
PF Load					
	HLH	aMW	3,709	3,478	3,593
	LLH	aMW	3,301	2,993	3,146
RL Load					
	HLH	aMW	350	350	350
	LLH	aMW	350	350	350
IP Load					
	HLH	aMW	66	67	67
	LLH	aMW	66	67	67

These numbers are approximate due to the use of simple averaging of actual numbers.

Table 14: Quarterly LDD & C&R Dollars		units	Apr-June	July-Sept.	Apr-Sept
LDD Slice Costs		\$	456,892	456,892	456,892
LDD Non-Slice Costs		\$	600,120	1,038,563	819,342
C&R Slice Costs		\$	585,937	585,937	585,937
C&R Non-Slice Costs		\$	2,207,259	2,205,391	2,206,325

These numbers are approximate due to the use of simple averaging of actual numbers.

Table 15: Average Pre-Purchase Quantities to Meet Augmentation Need			Apr-June	July-Sept.	Apr-Sept
1 - Augmentation Market Purchases - 120 Day Rule					
	HLH	aMW	638	1,397	1,017
	LLH	aMW	644	1,425	1,034
1 - Augmentation Market Purchases - 0 Day Rule					
	HLH	aMW	688	1,397	1,042
	LLH	aMW	694	1,425	1,059
2 - Augmentation Power Buybacks - 120 Day Rule					
	HLH	aMW	518	498	508
	LLH	aMW	513	514	513
2 - Augmentation Power Buybacks - 0 Day Rule					
	HLH	aMW	518	498	508
	LLH	aMW	513	514	513

These numbers are approximate due to the use of simple averaging of actual numbers.

Each row in this table is the simple average of the actual numbers in the analysis for that variable.

1 - Includes only market purchases.

2 - Includes only rate mitigation with Block/Slice customers and IOU cash for power conversion.

Compare: Forecast to Actuals for LB CRAC2

April '02 - September '02

Table 16: Average Monthly Net System Load, Net Augmentation Need, Net Short Position				
		Forecast	Actual	Actual-Fcst
Net System Load	aMW	6,430	5,890	-540
System Capability	aMW	5,291	5,291	0
Net Augmentation Need (w/losses)	aMW	1,159	609	-550
Net Short Position	aMW	45	0	-45
	HLH	42	0	-42
	LLH	48	0	-48

Table 17: Selected Total Cost and Revenue Calculations				
		Forecast	Actual (120 Day)	Actual-Fcst
Augmentation Pre-Purchase Costs	\$	268,485,497	259,312,177	-9,173,321
Net Short Costs	\$	4,436,748	0	-4,436,748
Load Reduction Costs	\$	166,651,084	180,922,566	14,271,483
Gross Augmentation Costs in LB CRAC	\$	357,943,532	284,716,372	-73,227,159
Revenues from Resale of Augmentation Quantity	\$	143,038,438	74,975,723	-68,062,715
Net Augmentation Costs (= 4-5)	\$	214,905,093	209,740,650	-5,164,444
Revenue Earned from the LB CRAC	\$	214,905,093	207,513,471	-7,391,622

Table 18: Average Monthly Costs and Loads				
		Forecast	Actual	Actual-Fcst
Slice Load to Serve	aMW	1,600	1,600	0
PF Load to Serve	aMW			
	HLH	3,694	3,593	-101
	LLH	3,083	3,146	63
RL Load to Serve	aMW			
	HLH	350	350	0
	LLH	350	350	0
IP Load to Serve	aMW			
	HLH	251	67	-185
	LLH	220	67	-153
Augmentation Pre-Purchase Costs -120 Day (note: this includes mkt. Pre-purchase cost + fixed & var. portion of power buybacks)	HLH \$	25,638,611	25,369,386	-269,225
	LLH \$	19,108,972	17,849,310	-1,259,662
Load Reduction Costs				
	HLH \$	15,908,241	17,234,823	1,326,582
	LLH \$	11,866,940	12,918,938	1,051,998
LDD Slice Costs	\$	322,123	456,892	134,769
LDD Non-Slice Costs	\$	957,827	819,342	-138,485
C&R Slice Costs	\$	585,927	585,937	10
C&R Non-Slice Costs	\$	2,490,132	2,206,325	-283,807

note: These numbers are approximate due to the use of simple averaging of actual numbers.

Table 19: Average Monthly Load Reductions and Power Purchases				
		Forecast	Actual	Actual-Fcst
Load Reduction*				
	Public	aMW	224	NA
	DSI	aMW	1,248	NA
	IOU	aMW	651	NA
Augmentation Market Purchases - 120 Day Rule				
	HLH	aMW	1,079	1,017
	LLH	aMW	1,132	1,034
Augmentation Market Purchases - 0 Day Rule**				
	HLH	aMW	NA	1,042
	LLH	aMW	NA	1,059
Augmentation Power Buybacks - 120 Day Rule				
	HLH	aMW	501	508
	LLH	aMW	524	513
Augmentation Power Buybacks - 0 Day Rule**				
	HLH	aMW	NA	508
	LLH	aMW	NA	513

* Actual load reductions are not calculated.

** For the forecast, implicitly, the 0 day results = 120 day results.