# **Summary of Results**

Table 1: Look Forward - LB CRAC9 for Oct '05-March '06			
Increased Revenue Required (LB CRAC%)	24.68%		
Total Increase in revenue in dollars	\$160,658,308		
Increase in the Slice Rate	24.62%		
Increase in the non-Slice Rate	24.40%		

Table 2: LB CRAC7 True Up: Oct '04-Mar '05	
(negative sign = refund to customers)	
Total Bill Adjustment for Slice - 120 Day Rule	\$ \$2,325,908
Total Bill Adjustment for non-Slice - (0 Day Rule + 120 Day Rule)	\$ \$4,775,896
Total Bill Adjustment Slice + non-Slice	\$ \$7,101,804
Adjustment factor for each Slice customer	0.001692
Adjustment factor for each non-Slice customer	0.001429

BPA's Current Forecast for Future LB CRAC's	
note: This is being provided for your planning. These numbers will change.	
	CRAC10
LB CRAC%	29%
Increase in Slice Rate	29%
Increase in non-Slice Rate	29%

6/1/05 LB CRAC Workshop

Oct '05-March '06 Table 3

Increased Revenue Required	24.68%	revenue required =	\$160,658,308
(LB CRAC%)			

Change to Slice Rate 24.62%

Change to non-Slice Rate 24.40%

		Base R	ates with LB Ad	ljustment			
		Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
Slice	(\$/% Slice per month)	\$1,768,894	\$1,768,894	\$1,768,894	\$1,768,894	\$1,768,894	\$1,768,894
5-yr PF-02 and	d RL-02 rates						
HLH	(\$/MWh)	\$20.24	\$27.37	\$28.18	\$25.03	\$23.11	\$20.94
LLH	(\$/MWh)	\$14.63	\$22.03	\$21.61	\$17.59	\$16.35	\$14.21
Demand	(\$/kW-mo)	\$2.19	\$2.87	\$2.87	\$2.69	\$2.53	\$2.26
Load Variance	(\$/MWh)	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Stepped PF-0	2 Rates						
HLH	(\$/MWh)	\$21.36	\$28.49	\$29.30	\$26.15	\$24.23	\$22.06
LLH	(\$/MWh)	\$15.75	\$23.15	\$22.73	\$18.71	\$17.47	\$15.33
Demand	(\$/kW-mo)	\$2.19	\$2.87	\$2.87	\$2.69	\$2.53	\$2.26
Load Variance	(\$/MWh)	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
IP-02 Rates w	PIPTAC(A)						
HLH	(\$/MWh)	\$24.92	\$32.05	\$32.85	\$29.71	\$27.78	\$25.61
LLH	(\$/MWh)	\$19.31	\$26.71	\$26.29	\$22.27	\$21.02	\$18.88
Demand	(\$/kW-mo)	\$2.19	\$2.87	\$2.87	\$2.69	\$2.53	\$2.26
IP-02 Rates w	PIPTAC(B)						
HLH	(\$/MWh)	\$26.78	\$33.91	\$34.72	\$31.57	\$29.64	\$27.48
LLH	(\$/MWh)	\$21.17	\$28.59	\$28.15	\$24.13	\$22.89	\$20.75
Demand	(\$/kW-mo)	\$2.19	\$2.87	\$2.87	\$2.69	\$2.53	\$2.26

6/1/05 LB CRAC Workshop Preliminary Results

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Table 4: Mark-to-Market Prices (\$/MWh)							
	Oct-05 Nov-05 Dec-05 Jan-06 Feb-06 Mar-06 AV						AVG.
HLH	55.95	59.70	64.85	66.63	63.97	59.23	61.72
LLH	48.25	51.70	56.45	57.05	55.20	51.06	53.29

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Oct '05-March '06

Table 5: Average Net Augmentation Need and Net Short Position							
<u> Oct-05</u> <u>Jan-06</u> <u>Oct-05</u>							
		<u>to</u>	<u>to</u>	<u>to</u>			
		Dec-05	Mar-06	Mar-06			
1 - Net System Load	aMW	6,342	6,867	6,604			
2 - Net Augmentation Need (w/losses)	aMW	725	1,030	877			
3 - Net Short Position							
HLH	aMW	0	227	114			
LLH	aMW	0	238	119			

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	ns	
1 - Augmentation Pre-Purchase Costs	\$	172,613,100
2 - Net Short Costs	\$	29,859,156
3 - Load Reduction Costs	\$	105,222,232
4 - Total Gross Augmentation Costs in LB CRAC	\$	268,293,757
5 - Revenues from Resale of Augmentation Quantity	\$	107,635,449
6 - Net Augmentation Costs (= 4-5)	\$	160,658,308
7 - Total Revenues from Slice before LB CRAC	\$	187,530,020
8 - Total Revenues from non-Slice products before LB CRAC	\$	463,407,734
9 - Total CRAC'able revenue before LB CRAC (= 7+8)	\$	650,937,754
LB CRAC% (= 6/9)		24.68%

- 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.

Oct '05-March '06

Table 7: Average 6-mo. Costs and Loa	ads	units	Oct-Nov	Dec-Jan	Feb-Mar
Slice Load		aMW	1,600	1,600	1,600
PF Base Load		aMW			
	HLH	aMW	4,261	4,728	4,492
	LLH	aMW	3,746	4,217	3,979
RL Base Load		aMW			
	HLH	aMW	999	999	999
	LLH	aMW	999	999	999
IP Base Load		aMW			
	HLH	aMW	769	769	769
	LLH	aMW	769	769	769
Augmentation Pre-Purchase Costs					
(note: this includes mkt. Pre-purchase cost	HLH	\$	18,654,851	14,151,791	16,403,321
+ fixed portion of power buybacks)	LLH	\$	14,248,940	10,482,119	12,365,529
Load Reduction Costs					
	HLH	\$	10,147,920	9,893,270	10,020,595
	LLH	\$	7,618,221	7,414,666	7,516,444
LDD Slice Costs		\$	792,780	790,559	791,670
LDD Non-Slice Costs		\$	0	0	0
C&R Slice Costs		\$	77,522	74,903	76,212
C&R Non-Slice Costs		\$	890,535	887,045	888,790

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

Table 8: Average 6-mo. Loads, Rate Mitigation, System Capability						
		Oct-Nov	Dec-Jan	Feb-Mar		
1 - System Load	aMW	7,569	8,055	7,812		
2 - System Capability	aMW	5,630	5,855	5,743		
3 - Load Reduction	aMW	1,227	1,188	1,208		
Public	aMW	0	0	0		
DSI	aMW	497	497	497		
IOU	aMW	613	628	620		
Other	aMW	117	64	90		
4 - Augmentation Market Purchases						
HLH	aMW	1,049	668	859		
LLH	aMW	1,111	687	899		
5 - Augmentation Power Buybacks						
HLH	aMW	121	123	122		
LLH	aMW	128	127	127		

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.

<sup>1&</sup>amp;2 - These numbers are net of 1,600aMW of Slice and do not include losses.

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

<sup>4 -</sup> Includes only market purchases.

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

### **LB CRAC True Up**

Oct '04-Mar '05

Table 9: Total 6-mo. Incremental Revenue, Incremental Cost, Bill Adjustment Factors					
Rows 1, 2 are the revenues BPA earned only from the LB CRAC part of rates.					
1 - LB CRAC revenues earned from Slice	\$	\$41,843,641			
2 - LB CRAC revenues earned from non-Slice products	\$	\$101,544,834			
sum	\$	\$143,388,476			
Rows 3, 4 are the actual LB CRAC Revenue Requirement		. , ,			
3 - Revenues required from Slice to cover actual LB CRAC costs	\$	\$44,169,549			
4 - Revenues required from non-Slice to cover actual LB CRAC costs	\$	\$107,332,556			
sum	\$	\$151,502,105			
120 Day Bill Adjustment in Dollars (negative indicates refund to customers)		\$8,113,629			
5 - Total Bill Adjustment for Slice - 120 Day Rule	\$	\$2,325,908			
6 - Bill Adjustment for non-Slice - 120 Day Rule	\$	\$5,787,722			
7 - Bill Adjustment non-Slice - 0 Day Rule	\$	-\$1,011,825			
8 - Total Bill Adjustment for non-Slice - (Sum of 0 Day Rule + 120 Day Rule)	\$	\$4,775,896			
9 - Total Bill Adjustment Slice + non-Slice (row 5 + row 8)	\$	\$7,101,804			
Rows 10, 11 are the adjustment factors used to determine individual customer bill adj	ustment	ts			
10 - Adjustment factor for each Slice customer bill		0.001692			
11 - Adjustment factor for each non-Slice customer bill		0.001429			

- 1 Incremental Revenues from the LB CRAC increment to the May 2000 Slice rates.
- 2 Incremental Revenues from the LB CRAC increment to the May 2000 non-Slice rates.
- 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

Oct '04-Mar '05

Table 10: Total 6-mo. Cost and Revenue Calculations - 120 Day Rule							
1 - Augmentation Pre-Purchase Costs	\$	\$191,675,455	aMW	1,182			
2 - Net Short Costs	\$	\$9,464,159	aMW	0			
3 - Load Reduction Costs	\$	\$106,555,257					
4 - Gross Augmentation Costs in LB CRAC	\$	\$280,491,213	aMW	1,044			
5 - Revenues from Resale of Augmentation Quantity	\$	\$128,989,108	aMW	1,044			
6 - Actual Net Augmentation Costs in LB CRAC - 120 Day Rule (= 4-5)	\$	\$151,502,105	aMW	1,044			
Rows 7, 8, 9 revenue calculations are the revenues BPA earned under LB (	CRAC'ed ra	ates					
7 - Total Revenues from Slice	\$	\$229,145,725	aMW	1,600			
8 - Total Revenues from non-Slice products	\$	\$556,826,977	aMW	4,960			
9 - Total Revenue with LB CRAC Applied (= 7+8)	\$	\$785,972,703					

- 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	\$	\$191,675,455	aMW	1,182
2 - Net Short Costs - 0 Day Rule	\$	\$8,452,334	aMW	0
3 - Load Reduction Costs	\$	\$106,555,257		
4 - Gross Augmentation Costs in LB CRAC - 0 Day Rule	\$	\$279,479,388	aMW	1,044
5 - Revenues from Resale of Augmentation Quantity	\$	\$128,989,108	aMW	1,044
6 - Actual Net Augmentation Costs in LB CRAC 0 Day Rule (= 4-5)	\$	\$150,490,280	aMW	1,044

- 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 Oct '04-Mar '05

Table 12: Average Net Augmentation Need and Net Short Position					
		<u>Oct</u>	<u>Jan</u>	<u>Oct</u>	
		<u>to</u>	<u>to</u>	<u>to</u>	
		<u>Dec</u>	<u>Mar</u>	<u>Mar</u>	
1 - Net System Load	aMW	6,600	6,845	6,722	
2 - System Capability	aMW	5,541	5,852	5,697	
3 - Net Augmentation Need (w/losses)	aMW	1,078	1,010	1,044	
4 - Net Short Position	aMW	56	15	36	
HLH	aMW	59	16		
LLH	aMW	53	14	34	

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

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

<sup>2 -</sup> Production from the system established in the rate case.

<sup>3 -</sup> 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 Oct '04-Mar '05

Table 13: Quarterly Average Loads		units	Oct-Nov	Dec-Jan	Feb-Mar
Slice Load Served		aMW	1,600	1,600	1,600
PF Load Served					
	HLH	aMW	4,363	4,717	4,538
	LLH	aMW	3,869	4,251	4,058
RL Load Served					
	HLH	aMW	382	382	382
	LLH	aMW	382	382	382
IP Load Served					
	HLH	aMW	268	262	265
	LLH	aMW	268	262	265

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

Table 14: Quarterly LDD & C&R Dollars	units	Oct-Nov	Dec-Jan	Feb-Mar
LDD Slice Costs	\$	392,581	392,581	392,581
LDD Non-Slice Costs	\$	1,065,766	988,156	1,026,961
C&R Slice Costs	\$	583,899	583,899	583,899
C&R Non-Slice Costs	\$	2,257,262	2,252,929	2,255,096

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

Table 15: Average Pre-Purchase Quantiti	ies to Meet Aug	mentation Ne	ed	
	<del>-</del>	Oct-Nov	Dec-Jan	Feb-Mar
1 - Augmentation Market Purchases - 120 D	ay Rule			·
HLH	aMW	1,056	1,052	1,054
LLH	aMW	1,066	1,058	1,062
1 - Augmentation Market Purchases - 0 Day	Rule			
HLH	aMW	1,056	1,052	1,054
LLH	aMW	1,066	1,058	1,062
2 - Augmentation Power Buybacks - 120 Da	y Rule			
HLH	aMW	124	124	124
LLH	aMW	124	124	124
2 - Augmentation Power Buybacks - 0 Day F	Rule			
HLH	aMW	124	124	124
LLH	aMW	124	124	124

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.

<sup>1 -</sup> Includes only market purchases.

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

## **Compare: Forecast to Actuals for LB CRAC7**

Oct '04-Mar '05

Table 16: Average Monthly Net System Load, Net Augmentation Need, Net Short Position						
	Forecast Actual Actual-Fo					
Net System Load	aMW	6,509	6,722	214		
System Capability	aMW	5,697	5,697	0		
Net Augmentation Need (w/losses)	aMW	826	1,044	218		
Net Short Position	aMW	0	36	36		
HLH	aMW	0	38	38		
LLH	aMW	0	34	34		

Table 17: Selected Total Cost and Revenue Calculations				
		Forecast	Actual (120 Day)	Actual-Fcst
Augmentation Pre-Purchase Costs	\$	195,878,501	191,675,455	-4,203,045
Net Short Costs	\$	0	9,464,159	9,464,159
Load Reduction Costs	\$	109,628,564	106,555,257	-3,073,308
Gross Augmentation Costs in LB CRAC	\$	244,145,841	280,491,213	36,345,372
Augmentation Costs Covered by Base Rates	\$	101,475,371	128,989,108	27,513,737
Net Augmentation Costs (= 4-5)	\$	142,670,469	151,502,105	8,831,636
Revenue Earned from the LB CRAC	\$	142,670,469	143,388,476	718,006

Table 1	18: Average	Monthly	Costs and Lo	ads	
			Forecast	Actual	Actual-Fcst
Slice Load to Serve		aMW	1,600	1,600	0
PF Load to Serve		aMW			
	HLH	aMW	4,563	4,538	-25
	LLH	aMW	4,031	4,058	28
RL Load to Serve		aMW			
	HLH	aMW	379	382	3
	LLH	aMW	379	382	3
IP Load to Serve		aMW			
	HLH	aMW	265	265	0
	LLH	aMW	265	265	0
Augmentation Pre-Purchase Costs -120 Day					
(note: this includes mkt. Pre-purchase cost	HLH	\$	18,585,681	18,481,788	-103,893
+ fixed & var. portion of power buybacks)	LLH	\$	14,060,736	13,464,121	-596,614
Load Reduction Costs					
	HLH	\$	10,655,509	10,140,860	-514,649
	LLH	\$	7,615,919	7,618,349	2,431
LDD Slice Costs		\$	238,433	392,581	154,148
LDD Non-Slice Costs		\$	1,076,504	1,026,961	-49,543
C&R Slice Costs		\$	582,504	583,899	1,395
C&R Non-Slice Costs		\$	2,395,251	2,255,096	-140,155

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

Table 19: Average Mon	ithly Load Redu	ctions and Pow	ver Purchases	
		Forecast	Actual	Actual-Fcst
_oad Reduction*				
Public	aMW	0	NA	
DSI	aMW	504	NA	
IOU	aMW	620	NA	
Other	aMW	153	NA	
Augmentation Market Purchases - 120 Day Rule				
HLH	aMW	1,056	1,054	-2
LLH	aMW	1,102	1,062	-40
Augmentation Market Purchases - 0 Day Rule**		•		
HLH	aMW	NA	1,054	
LLH	aMW	NA	1,062	
Augmentation Power Buybacks - 120 Day Rule			•	
HLH	aMW	124	124	0
LLH	aMW	122	124	2
Augmentation Power Buybacks - 0 Day Rule**				
´ HLH ´	aMW	NA	124	
LLH	aMW	NA	124	

<sup>\*</sup> Actual load reductions are not calculated.

<sup>\*\*</sup> For the forecast, implicitly, the 0 day results = 120 day results.