BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of	)	
	)	
HAWAII ELECTRIC LIGHT COMPANY, INC.	)	Docket No. 05-0315
	)	
For Approval of Rate Increases and Revised Rate Schedules and Rules.	)	
	)	

FILED
2007 MAR 27 P 2:09
PUBLIC UTILITIES COMMISSION

HELCO
WORKPAPERS IN SUPPORT OF REBUTTAL TESTIMONIES

BOOK 1 OF 2

March 27, 2007

Witness HELCO RT-1

has no rebuttal workpapers.

Witness HELCO RT-2

has no rebuttal workpapers.

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

SUMMARY OF TEST-YEAR REVENUES

	PRESENT RATES			PROPOSED RATES		
	BILLING UNITS (MWH)	UNIT PRICE CENTS/KWH	REVENUES $1000s	BILLING UNITS (MWH)	UNIT PRICE CENTS/KWH	REVENUES 1000s
ENERGY CHARGE:						
NON-FUEL	435400	11.5238	50,174.6			
0 - 300 kWh				34,440.0	12.5244	24,815.3
300 - 1000 kWh				274,571.0	14.6349	27,970.1
Over 1000 kWh				126,389.0	15.4656	7,136.6
Total	435400	11.5238		435,400.0		59,922.0
BASE FUEL	435400	7.6132	33,147.9		16.7455	72,909.9
SUBTOTAL ENERGY			83,322.5			132,831.9
CUSTOMER CHARGE:	BILLS	$/BILL			$/BILL	
Single Phase Svc	736167	10.00	7,361.7		10.00	7,361.7
Three Phase Svc.	309	14.50	4.5		14.50	4.5
SUBTOTAL CUSTOMER			7,366.2			7,366.2
ADJUSTMENTS *			38,867.1			133.0
TOTAL REVENUES			129,555.8			140,331.1

* INCLUDES EMPLOYEE DISC, APT-HSE DISC, MIN CHGE ADJ, LIHEAP ADJ., FOA, AND RENEWABLE CREDIT.

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF CUSTOMERS BY TYPE OF CUSTOMERS

	NUMBER OF BILLS	PERCENT OF TOTAL	MWH SALES	PERCENT OF TOTAL
RECORDED:				
RESIDENTIAL-R	720155	99.2603	414,131.8	99.1011
EMPLOYEES-E	5367	0.7397	3,756.4	0.8989
THREE-PHASE SERVIC	304	0.0419	2,470.1	0.5911
MULTI-RESIDENTIAL	0	0.0000	0.0	0.0000
10% APT. HOUSE	16269	2.2424	11,491.4	2.7499
TOTAL R AND E	725522	100.0000	417,888.2	100.0000

	PERCENT OF TOTAL	NUMBER OF BILLS	PERCENT OF TOTAL	MWH SALES
FORECASTS:				
RESIDENTIAL-R	99.2603	731,028	99.1011	431,486
EMPLOYEES-E	0.7397	5,448	0.8989	3,914
THREE-PHASE SERVIC	0.0419	309	0.5911	2,574
MULTI-RESIDENTIAL	0.0000	0	0.0000	0
10% APT. HOUSE	2.2424	16,515	2.7499	11,973
TOTAL R AND E	100.0000	736,476	100.0000	435,400

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF SALES AND BILLS

RECORDED:	NUMBER OF BILLS	PERCENT OF TOTAL	MWH SALES	PERCENT OF TOTAL
Usage Per Month:				
0 - 300 kWh	187984	25.9102	33,054.7	7.9099
300 - 1000 kWh	458487	63.1941	263,527.9	63.0618
Over 1000 kWh	79051	10.8957	121,305.5	29.0283
TOTAL R AND E	725522	100.0000	417,888.2	100.0000

FORECAST:	PERCENT OF TOTAL	NUMBER OF BILLS	PERCENT OF TOTAL	MWH SALES
Usage Per Month:				
0 - 300 kWh	25.9102	190,822	7.9099	34,440
300 - 1000 kWh	63.1941	465,410	63.0618	274,571
Over 1000 kWh	10.8957	80,244	29.0283	126,389
TOTAL R AND E	100.0000	736,476	100.0000	435,400

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF MINIMUM BILL ADJUSTMENT

	PRESENT RATES
MINIMUM CHRG.,$/MO.	20.00
NON-FUEL EN., $/KWH	0.115238
BASE FUEL EN. $/KWH	0.076132
TOTAL BASE ENERGY	0.191370
F.O.A.,$/KWH	0.08998

CUSTOMER CHRG, $/MO.	10.00
MINIMUM KWH/MONTH	35.54

	PRESENT RATES	
	RECORDED	FORECAST
SALES, MWH		
TOTAL R	417,888.2	435,400.0
LT/EQ TO MIN. KWH	125.7	131.1
% OF TOTAL	0.0301	
NUMBER OF BILLS		
TOTAL R	725522	736,476
LT/EQ TO MIN. KWH	15333	15,565
% OF TOTAL	2.1134	

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF MINIMUM BILL ADJUSTMENT

	PRESENT RATES		
	UNITS BILLED (MWH)	UNIT PRICE ¢/KWH	REVENUES $1000s
IF NO PROVISION FOR MINIMUM CHRG.:			
BASE ENERGY CHARGE	131.1	19.1370	25.1
FUEL OIL ADJ.	131.1	8.9980	11.8
SUBTOTAL			36.9
	BILLS	$/MONTH	
CUSTOMER CHARGE:	15565	10.00	155.7
TOTAL			192.6
AS BILLED WITH MINIMUM CHARGE:	15,565	20.00	311.3
MINIMUM BILL ADJ.			118.7

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF SALES AND BILLS
FOR EMPLOYEE DISCOUNT ADJUSTMENT

	RECORDED	FORECAST
MWH SALES:		
0-300 KWH	85.5	89
300-825 KWH	2,012.9	2,097
825-1000 KWH	651.1	678
>1000 KWH	1,006.9	1,050
TOTAL	3,756.4	3,914
NUMBER OF BILLS:		
0-300 KWH	374	380
300-825 KWH	3,470	3,522
825-1000 KWH	718	729
>1000 KWH	1,523	817
TOTAL	5,367	5,448

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF TEST-YEAR REVENUE ADJUSTMENT
FOR EMPLOYEE DISCOUNT ADJUSTMENT

EMPLOYEE DISCOUNT	UNITS BILLED (MWH)	PRESENT RATES UNIT PRICE $/KWH	REVENUES $1000s
ENERGY CHARGE			
0-300 KWH	89		
300-825 KWH			
First 300 kWh	1056.6		
Remaining kWh	1040.4		
300-825 KWH Total	2097		
Total	2186	19.1370	418.3
FOA	2186	8.9980	196.7
SUBTOTAL			615.0
	BILLS		
CUSTOMER CHARGE	3902	10.00	39.0
TOTAL			654.0
-1/3% EMP. ADJ.			(218.0)

EMPLOYEE DISCOUNT LIMITED to 825 KWH	UNITS BILLED (MWH)	PRESENT RATES UNIT PRICE $/KWH	REVENUES $1000s
ENERGY CHARGE			
825-1000 KWH			
First 300 kWh	219		
kWh above 300	382		
825 - 1000 kWh Total	601		
>1000 KWH			
First 300 kWh	245		
kWh above 300	429		
> 1000 kWh Total	674		
Total	1275	19.1370	244.0
FOA	1275	8.9980	114.7
SUBTOTAL			358.7
	BILLS		
CUSTOMER CHARGE	1546	10.00	15.5
TOTAL			374.2
-1/3% EMP. ADJ.			(124.7)
TOTAL EMPLOYEE ADJ:			(342.7)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF APARTMENT HOUSE COLLECTION ADJUSTMENT

	PRESENT RATES	PROPOSED RATES
MAXIMUM DISC.,$/MO.	55.00	55.00
BASE ENERGY ,$/KWH	0.191370	0.292699
F.O.A., $/KWH	0.089980	0.000000
IRP SURCH.		
FCS		
FCS ADJ		
CUST. CHG., $/BILL	10.00	10.00
KWH BLOCK @ MAX.DISC	159.94	153.74

	PRESENT RATES		PROPOSED RATES	
	RECORDED (KWH)	FORECAST (MWH)	RECORDED (KWH)	FORECAST (MWH)
SALES:				
0-159 (153) KWH	224793	234.2	207,111	215.8
>159 (153) KWH	11266594	11,738.8	11,284,276	11,757.2
TOTAL	11491387	11,973.0	11,491,387	11,973.0
NUMBER OF BILLS:				
0-159 (153) KWH	2463	2,500	2,350	2,385
>159 (153) KWH	13806	14,015	13,919	14,130
TOTAL	16269	16,515	16,269	16,515

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF APARTMENT HOUSE COLLECTION ADJUSTMENT

	PRESENT RATES			PROPOSED RATES		
	UNITS BILLED (MWH)	UNIT PRICE ¢/KWH	REVENUES $1000s	UNITS BILLED (MWH)	UNIT PRICE ¢/KWH	REVENUES $1000s
NO. W/IN MAX. DISC.						
BASE ENERGY CHARGE	234.2	19.1370	44.8	215.8	29.2699	63.2
FUEL OIL ADJ.	234.2	8.9980	21.1	215.8	0.0000	0.0
SUBTOTAL			65.9			63.2
	(bills)			(bills)		
CUSTOMER CHARGE	2,500	10.00	25.0	2,385	10.00	23.9
TOTAL			90.9			87.1
10% APT DISC.			(9.1)			(8.7)
NO. > MAX. DISC.	14,015	5.50	(77.1)	14,130	5.50	(77.7)
APT.-HOUSE REV.ADJ.			(86.2)			(86.4)

HELCO Schedule R

Analysis of Floor Usage Charges (at 15% of Max Usage) vs. Minimum Bills

	Grouped by Maxim kWh		Customer and Energy Charges			Additional Revenue		Minimum Bills (Flr Usage or $20)		Minimum Bills (Flr Usage > $20)		
kWh	# of Accounts	Total kWh	@ Normal Usage	@ Floor Usage	Net Base Bill	Floor Usage	Minimum Bills	Total Count	# of Accounts	Revenue	Bill Count	# of Accounts
<=0	110	0	$8,610.00	$8,610.00	$17,220.00	$0.00	$8,610.00	861	110	$0.00	0	0
<=100	872	324,943	$180,720.40	$107,139.73	$212,211.00	$2,615.29	$28,875.31	4,089	544	$0.00	0	0
<=200	2,492	3,373,845	$1,271,182.69	$479,819.33	$1,281,985.62	$6,161.85	$4,641.08	1,548	409	$0.00	0	0
<=300	4,543	10,273,017	$3,535,553.40	$1,116,052.98	$3,547,158.22	$11,384.63	$220.19	1,475	474	$8,255.25	1,023	343
<=400	5,983	18,850,681	$6,239,085.05	$1,781,925.07	$6,254,393.15	$15,308.10	$0.00	1,648	537	$15,308.10	1,648	537
<=500	6,676	27,204,739	$8,861,213.20	$2,338,069.04	$8,879,598.87	$18,385.67	$0.00	1,649	586	$18,385.67	1,649	586
<=600	7,052	35,189,140	$11,372,429.43	$2,831,402.99	$11,394,064.15	$21,654.72	$0.00	1,704	642	$21,654.72	1,704	642
<=700	6,464	38,393,131	$12,344,537.11	$2,939,879.18	$12,366,921.01	$22,383.90	$0.00	1,465	531	$22,383.90	1,465	531
<=800	5,533	38,113,366	$12,211,550.58	$2,809,033.08	$12,231,930.58	$20,380.00	$0.00	1,147	440	$20,380.00	1,147	440
<=900	4,669	36,322,450	$11,608,331.00	$2,609,241.00	$11,626,089.55	$17,758.55	$0.00	948	367	$17,758.55	948	367
<=1000	3,637	31,421,141	$10,023,144.80	$2,220,114.06	$10,039,449.73	$16,304.93	$0.00	811	310	$16,304.93	811	310
<=1100	2,756	26,231,724	$8,357,003.62	$1,831,736.91	$8,371,509.85	$14,506.23	$0.00	599	231	$14,506.23	599	231
<=1200	2,103	21,793,035	$6,938,796.01	$1,505,196.99	$6,949,600.54	$10,804.53	$0.00	435	180	$10,804.53	435	180
<=1300	1,519	18,804,636	$5,351,326.37	$1,163,440.65	$5,362,106.48	$10,780.11	$0.00	373	138	$10,780.11	373	138
<=1400	1,304	15,614,489	$4,972,678.05	$1,068,572.41	$4,980,505.79	$7,827.74	$0.00	264	111	$7,827.74	264	111
<=1500	917	11,666,367	$3,717,521.67	$799,780.95	$3,726,655.60	$9,133.93	$0.00	254	85	$9,133.93	254	85
<=1600	727	9,764,509	$3,112,621.61	$670,041.70	$3,119,799.54	$7,177.93	$0.00	218	80	$7,177.93	218	80
<=1700	539	7,571,883	$2,414,629.16	$523,850.50	$2,420,132.54	$5,503.38	$0.00	161	59	$5,503.38	161	59
<=1800	444	6,674,774	$2,128,647.17	$453,616.80	$2,130,754.86	$2,107.69	$0.00	55	26	$2,107.69	55	26
<=1900	338	5,307,915	$1,693,924.37	$364,428.85	$1,697,440.53	$3,516.16	$0.00	105	48	$3,516.16	105	48
<=2000	301	5,031,717	$1,606,205.41	$341,789.30	$1,609,179.87	$2,974.46	$0.00	78	31	$2,974.46	78	31
<=3000	1,206	22,402,203	$7,158,332.91	$1,631,777.72	$7,171,991.69	$13,658.78	$0.00	342	137	$13,658.78	342	137
<=4000	272	7,034,444	$2,252,235.10	$525,106.32	$2,257,404.42	$5,169.32	$0.00	94	34	$5,169.32	94	34
<=5000	97	3,104,296	$994,937.32	$236,129.88	$995,784.77	$847.45	$0.00	14	8	$847.45	14	8
<=6000	60	2,382,078	$764,302.12	$179,720.23	$764,559.14	$257.02	$0.00	8	5	$257.02	8	5
<=7000	44	2,075,537	$666,369.47	$150,814.40	$667,247.42	$877.95	$0.00	10	4	$877.95	10	4
<=8000	23	1,210,982	$389,134.95	$80,592.40	$389,134.95	$0.00	$0.00	0	0	$0.00	0	0
<=9000	16	1,015,888	$326,426.27	$69,757.13	$326,448.81	$22.54	$0.00	1	1	$22.54	1	1
<=10000	15	1,075,573	$345,702.73	$74,095.61	$345,838.33	$135.60	$0.00	1	1	$135.60	1	1
<=1000000	46	6,500,068	$2,091,837.37	$431,798.56	$2,092,520.58	$683.21	$0.00	5	3	$683.21	5	3
	60,758	412,728,571	$132,938,989.34	$31,343,533.77	$133,229,657.59	$248,321.67	$42,346.58	20,362	6,132	$236,415.15	13,412	4,938
					$290,668.25		$290,668.25					
							$0.00					

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DOCKET NO. 05-0315
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S:\EnergyServices\MKTPRCE\HELCO RATE CASE TEST YEAR 2006\HELCO Sch R rounded kWh with test rates 03-13-07 summary.xlsSheet1

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF TEST-YEAR REVENUES
LIHEAP

LIHEAP Customers

	kWh	Proposed UNIT PRICE ¢/KWH	$ Savings	Revenues ($000)
0-300 kWh	4723779	12.5244		
300-1000 kWh	3187097	14.6349	67264	$67.3
Over 1000 kWh	190354	15.4656	5599	$5.6
Total	8101230			72.9

SCHEDULE G - GENERAL SERVICE NON-DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

SUMMARY OF TEST-YEAR REVENUES

	BILLING UNITS MWH	PRESENT RATES UNIT PRICE ¢/KWH	PRESENT RATES REVENUES $1000S	PROPOSED RATES UNIT PRICE ¢/KWH	PROPOSED RATES REVENUES $1000S
ENERGY CHARGE:	98,000.0	21.3604	20,933.2	32.2535	31,608.4
	BILLS	$/BILL		$/BILL	
CUSTOMER CHARGE:					
1 PHASE	103,078	28.00	2,886.2	35.00	3,607.7
3 PHASE	26,390	48.00	1,266.7	57.00	1,504.2
SUBTOTAL	129,468		4,152.9		5,111.9
ADJUSTMENTS: *			8,818.0		3.6
TOTAL REVENUES			33,904.1		36,723.9

ADJUSTMENTS INCLUDE FUEL OIL ADJ., RENEWABLE CREDIT,
AND SCHEDULE E ADJ.

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE G & J - GENERAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF CUSTOMERS BY TYPE OF CUSTOMERS

RECORDED:	NUMBER OF BILLS	PERCENT OF TOTAL	MWH SALES	PERCENT OF TOTAL
G: NON-DEMAND	128162	87.7569	96939.3	22.7867
J: DEMAND	17880	12.2431	328481.1	77.2133
TOTAL	146042	100.0000	425420.4	100.0000

FORECASTS:	PERCENT OF TOTAL	NUMBER OF BILLS	PERCENT OF TOTAL	MWH SALES
G: NON-DEMAND	87.3745	129,468	21.6383	98,000.0
J: DEMAND	12.6255	18,708	78.3617	354,900.0
TOTAL	100.0000	148,176	100.0000	452,900.0

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE G & J - GENERAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF CUSTOMERS BY PHASE

	SALES (MWH)	PERCENT OF TOTAL	NUMBER OF BILLS	PERCENT OF TOTAL
RECORDED:				
G: NON-DEMAND				
1 PHASE	58,062.2	59.8954	102038	79.6164
3 PHASE	38,877.2	40.1046	26124	20.3836
SUBTOTAL	96,939.3	100.0000	128162	100.0000
J: DEMAND				
1 PHASE	18,438.4	5.6132	2560	14.3177
3 PHASE	310,042.7	94.3868	15320	85.6823
SUBTOTAL	328,481.1	100.0000	17880	100.0000
G & J: TOTAL				
1 PHASE	76,500.5	17.9823	104598	71.6219
3 PHASE	348,919.9	82.0177	41444	28.3781
TOTAL	425,420.4	100.0000	146042	100.0000

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE G & J - GENERAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF CUSTOMERS BY PHASE

FORECAST:	PERCENT OF TOTAL	SALES (MWH)	PERCENT OF TOTAL	NUMBER OF BILLS
G: NON-DEMAND				
1 PHASE	59.8954	58,697.5	79.6164	103,078
3 PHASE	40.1046	39,302.5	20.3836	26,390
SUBTOTAL	100.0000	98,000.0	100.0000	129,468
J: DEMAND				
1 PHASE	5.6132	19,921.2	14.3177	2,679
3 PHASE	94.3868	334,978.8	85.6823	16,029
SUBTOTAL	100.0000	354,900.0	100.0000	18,708
G & J: TOTAL				
1 PHASE		78,618.7		105,757
3 PHASE		374,281.3		42,419
TOTAL		452,900.0		148,176

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

SUMMARY OF TEST-YEAR REVENUES

	PRESENT RATES			PROPOSED RATES		
	BILLING UNITS MWH	UNIT PRICE ¢/KWH	REVENUES $1000S	BILLING UNITS MWH	PROPOSED RATES UNIT PRICE ¢/KWH	PROPOSED RATES REVENUES $1000S
ENERGY CHARGE:						
0 - 200 KWH/KW	211,908.4	16.4579	34,875.7	217,081.1	26.1538	56,775.0
201 - 400 KWH/KW	112,450.2	14.2407	16,013.7	107,147.6	23.9367	25,647.6
> 400 KWH/KW	30,541.4	13.2397	4,043.6	30,671.3	22.9357	7,034.7
SUBTOTAL	354,900.0		54,933.0	354,900.0		89,457.3
	BILLS	$/BILL		BILLS	$/BILL	
CUSTOMER CHARGE:						
1 PHASE	2,679	33.00	88.4	2,679	39.00	104.5
3 PHASE	16,029	56.00	897.6	16,029	65.00	1,041.9
SUBTOTAL	18,708		986.0	18,708		1,146.4
DEMAND CHARGE:	1,211,882.0	7.00	8,483.2	1,245,222.0	12.00	14,942.7
ADJUSTMENTS:*			31,095.6			(923.1)
TOTAL REVENUES			95,497.8			104,623.3

ADJUSTMENTS INCLUDE PRIMARY SERVICE AND POWER FACTOR ADJ., FUEL OIL ADJ., RIDER ADJ., RENEWABLE CREDIT, AND SCHEDULE E ADJ.

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE G & J - GENERAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF CUSTOMERS BY TYPE OF SERVICE

RECORDED:	NUMBER OF BILLS	PERCENT OF TOTAL	MWH SALES	PERCENT OF TOTAL
G: NON-DEMAND	128,162	87.7569	96,939.3	22.7867
J: DEMAND	17,880	12.2431	328,481.1	77.2133
TOTAL	146,042	100.0000	425,420.4	100.0000

FORECASTS:	PERCENT OF TOTAL	NUMBER OF BILLS	PERCENT OF TOTAL	MWH SALES
G: NON-DEMAND	87.3745	129,468	21.6383	98,000.0
J: DEMAND	12.6255	18,708	78.3617	354,900.0
TOTAL	100.0000	148,176	100.0000	452,900.0

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE G & J - GENERAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF CUSTOMERS BY PHASE

RECORDED:	SALES (MWH)	PERCENT OF TOTAL	NUMBER OF BILLS	PERCENT OF TOTAL
G: NON-DEMAND				
1 PHASE	58,062.2	59.8954	102,038	79.6164
3 PHASE	38,877.2	40.1046	26,124	20.3836
SUBTOTAL	96,939.3	100.0000	128,162	100.0000
J: DEMAND				
1 PHASE	18,438.4	5.6132	2,560	14.3177
3 PHASE	310,042.7	94.3868	15,320	85.6823
SUBTOTAL	328,481.1	100.0000	17,880	100.0000
G & J: TOTAL				
1 PHASE	76,500.5	17.9823	104,598	71.6219
3 PHASE	348,919.9	82.0177	41,444	28.3781
TOTAL	425,420.4	100.0000	146,042	100.0000

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE G & J - GENERAL SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF SALES AND BILLS BY PHASE

FORECAST:	PERCENT OF TOTAL	SALES (MWH)	PERCENT OF TOTAL	NUMBER OF BILLS
G: NON-DEMAND				
1 PHASE	59.8954	58,697.5	79.6164	103,078
3 PHASE	40.1046	39,302.5	20.3836	26,390
SUBTOTAL	100.0000	98,000.0	100.0000	129,468
J: DEMAND				
1 PHASE	5.6132	19,921.2	14.3177	2,679
3 PHASE	94.3868	334,978.8	85.6823	16,029
SUBTOTAL	100.0000	354,900.0	100.0000	18,708
G & J: TOTAL				
1 PHASE		78,618.7		105,757
3 PHASE		374,281.3		42,419
TOTAL		452,900.0		148,176

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

PRI VOLT SERVICE ADJ (DP)

	RECORDED	FORECAST
SALES, MWH		
TOTAL J:	328,481.1	354,900.0
PRI SERVICE (DP)	27,061.2	29,237.7
PERCENT OF TOTAL	8.2383	
NUMBER OF BILLS		
TOTAL J:	17,880	18,708
PRI SERVICE (DP)	365	382
PERCENT OF TOTAL	2.0414	

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

PRI VOLT (DP) - DISTRIBUTION OF SALES AND BILLS

AT PRESENT RATES

	SALES		NUMBER OF BILLS	
RECORDED:	MWH	% OF TOTAL	BILLS	% OF TOTAL
0 - 200 KWH/KW	3,372.5	12.4625	111	30.4110
201 - 400 KWH/KW	14,265.3	52.7149	153	41.9178
> 400 KWH/KW	9,423.4	34.8226	101	27.6712
TOTAL	27,061.2	100.0000	365	100.0000

FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	12.4625	3,643.7	30.4110	116
201 - 400 KWH/KW	52.7149	15,412.6	41.9178	160
> 400 KWH/KW	34.8226	10,181.4	27.6712	106
TOTAL	100.0000	29,237.7	100.0000	382

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

PRI VOLT (DP) - DISTRIBUTION OF SALES AND BILLS

Using Sch J Extract Data - 75% Ratchet at Present; Average Ratchet at Proposed

AT PRESENT RATES

	SALES		NUMBER OF BILLS	
RECORDED:	MWH	% OF TOTAL	BILLS	% OF TOTAL
0 - 200 KWH/KW	3,357.0	12.3364	103	29.1785
201 - 400 KWH/KW	15,667.2	57.5749	168	47.5921
> 400 KWH/KW	8,187.7	30.0887	82	23.2295
TOTAL	27,211.9	100.0000	353	100.0001

FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	12.3364	3,606.9	29.1785	111
201 - 400 KWH/KW	57.5749	16,833.6	47.5921	182
> 400 KWH/KW	30.0887	8,797.2	23.2295	89
TOTAL	100.0000	29,237.7	100.0001	382

AT PROPOSED RATES

	SALES		NUMBER OF BILLS	
RECORDED:	MWH	% OF TOTAL	BILLS	% OF TOTAL
0 - 200 KWH/KW	3,479.7	12.7874	106	30.0283
201 - 400 KWH/KW	16,779.6	61.6626	179	50.7082
> 400 KWH/KW	6,952.6	25.5500	68	19.2635
TOTAL	27,211.9	100.0000	353	100.0000

FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	12.7874	3,738.7	30.0283	115
201 - 400 KWH/KW	61.6626	18,028.7	50.7082	194
> 400 KWH/KW	25.5500	7,470.3	19.2635	73
TOTAL	100.0000	29,237.7	100.0000	382

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

PRI VOLT. (DP) - DETERMINATION OF KW

75% Ratchet at Present; Average Ratchet at Proposed

AT PRESENT RATES

	RECORDED		FORECAST	
LOAD FACTOR BLOCKS	KW-B	KWH/KW	Present	Proposed
0 - 200 KWH/KW	30,103.2	112.03	32,524	32,619.3
201 - 400 KWH/KW	51,333.4	277.90	55,461	61,309.7
> 400 KWH/KW	16,755.2	562.42	18,103	15,300.4
TOTAL	98,191.8	275.60	106,088.0	109,229.4

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

PRI VOLT. (DP) - DETERMINATION OF KW

Using Sch J Extract Data - 75% Ratchet at Present; Average Ratchet at Proposed

AT PRESENT RATES

	RECORDED		FORECAST	
LOAD FACTOR BLOCKS	KW-B	KWH/KW	KW-B	MWH
0 - 200 KWH/KW	34,313.4	97.83	36,869	3,606.9
201 - 400 KWH/KW	55,998.2	279.78	60,167	16,833.6
> 400 KWH/KW	15,492.4	528.50	16,646	8,797.2
TOTAL	105,804.0	257.19	113,682	29,237.7

AT PROPOSED RATES

	RECORDED		FORECAST	
LOAD FACTOR BLOCKS	KW-B	KWH/KW	KW-B	MWH
0 - 200 KWH/KW	34,415.3	101.11	36,977	3,738.7
201 - 400 KWH/KW	61,904.4	271.06	66,512	18,028.7
> 400 KWH/KW	13,093.9	530.98	14,069	7,470.3
TOTAL	109,413.6	248.71	117,558	29,237.7

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

PRI VOLT SERVICE (DP)

AT PRESENT RATES

	LOAD FACTOR BLOCK (KWH/KW)			
	0 - 200	201 - 400	> 400	TOTAL
LOAD FACTOR BLOCK				
0 - 200 KWH/KW	3,643.7	11,092.2	3,620.6	18,356.5
201 - 400 KWH/KW	0.0	4,320.4	3,620.6	7,941.0
> 400 KWH/KW	0.0	0.0	2,940.2	2,940.2
TOTAL	3,643.7	15,412.6	10,181.4	29,237.7

FORECAST AT PRESENT RATES:				
SALES-MWH	3,643.7	15,412.6	10,181.4	29,237.7
BILLS	116	160	106	382
KW, BILLED	32,524	55,461	18,103	106,088

AT PROPOSED RATES

	LOAD FACTOR BLOCK (KWH/KW)			
	0 - 200	201 - 400	> 400	TOTAL
LOAD FACTOR BLOCK				
0 - 200 KWH/KW	3,738.7	12,261.9	3,060.1	19,060.7
201 - 400 KWH/KW	0.0	5,766.8	3,060.1	8,826.9
> 400 KWH/KW	0.0	0.0	1,350.1	1,350.1
TOTAL	3,738.7	18,028.7	7,470.3	29,237.7

FORECAST:				
SALES-MWH	3,738.7	18,028.7	7,470.3	29,237.7
BILLS	115	194	73	382
KW, BILLED	32,619	61,310	15,300	109,229

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF PRIMARY DISCOUNT (DP)

	PRESENT RATES			PROPOSED RATES		
	BILLING UNITS MWH	UNIT PRICE ¢/KWH	REVENUES $1000S	BILLING UNITS MWH	UNIT PRICE ¢/KWH	REVENUES $1000S
ENERGY CHARGE:						
0 - 200 KWH/KW	18,356.5	16.4579	3,021.1	19,060.7	26.1538	4,985.1
201 - 400 KWH/KW	7,941.0	14.2407	1,130.9	8,826.9	23.9367	2,112.9
> 400 KWH/KW	2,940.2	13.2397	389.3	1,350.1	22.9357	309.7
TOTAL	29,237.7		4,541.3	29,237.7		7,407.7
DEMAND CHARGE:	106,088.0	7.00	742.6	109,229.4	12.00	1,310.8
		% ADJ.			% ADJ.	
PRIMARY SERV. ADJ.:		(5.00)	(266.4)		(2.50)	(221.8)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

PRI VOLT SERVICE ADJUSTMENT (DS)

	RECORDED	FORECAST
SALES, MWH		
TOTAL J:	328,481.1	354,900.0
PRI SERVICE (DS)	1,628.0	1,758.9
PERCENT OF TOTAL	0.4956	
NUMBER OF BILLS		
TOTAL J:	17,880	18,708
PRI SERVICE (DS)	60	63
PERCENT OF TOTAL	0.3356	

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

PRI SERVICE (DS) - DISTRIBUTION OF SALES AND BILLS

PRESENT RATES

	SALES		NUMBER OF BILLS	
RECORDED:	MWH	% OF TOTAL	BILLS	% OF TOTAL
0 - 200 KWH/KW	144.3	8.8636	31	51.67
201 - 400 KWH/KW	211.1	12.9668	9	15.00
> 400 KWH/KW	1,272.6	78.1696	20	33.33
TOTAL	1,628.0	100.0000	60	100.00

FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	8.8636	155.9	51.67	33
201 - 400 KWH/KW	12.9668	228.1	15.00	9
> 400 KWH/KW	78.1696	1,374.9	33.33	21
TOTAL	100.0000	1,758.9	100.0000	63

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

PRI SERVICE (DS) - DISTRIBUTION OF SALES AND BILLS

Using Sch J Extract Data - 75% Ratchet at Present; Average Ratchet At Proposed

PRESENT RATES

	SALES		NUMBER OF BILLS	
RECORDED:	MWH	% OF TOTAL	BILLS	% OF TOTAL
0 - 200 KWH/KW	144.6	8.7885	31	51.67
201 - 400 KWH/KW	209.1	12.7106	9	15.00
> 400 KWH/KW	1,291.6	78.5009	20	33.33
TOTAL	1,645.3	100.0000	60	100.00

FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	8.7885	154.6	51.67	33
201 - 400 KWH/KW	12.7106	223.6	15.00	9
> 400 KWH/KW	78.5009	1,380.8	33.33	21
TOTAL	100.0000	1,758.9	100.0000	63

PROPOSED RATES

	SALES		NUMBER OF BILLS	
RECORDED:	MWH	% OF TOTAL	BILLS	% OF TOTAL
0 - 200 KWH/KW	146.4	8.8979	32	53.34
201 - 400 KWH/KW	260.3	15.8205	10	16.33
> 400 KWH/KW	1,238.6	75.2816	18	30.33
TOTAL	1,645.3	100.0000	60	100.00

FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	8.8979	156.5	53.34	34
201 - 400 KWH/KW	15.8205	278.3	16.33	10
> 400 KWH/KW	75.2816	1,324.1	30.33	19
TOTAL	100.0000	1,758.9	100.0000	63

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

PRI SERVICE (DS) - DETERMINATION OF KW

75% Ratchet at Present; Average Ratchet at Proposed

AT PRESENT RATES

	RECORDED		FORECAST	
LOAD FACTOR BLOCKS	KW-B	KWH/KW	Present	Proposed
0 - 200 KWH/KW	1,958.0	73.70	2,115	2,077.1
201 - 400 KWH/KW	653.4	323.08	706	868.4
> 400 KWH/KW	2,525.6	503.88	2,729	2,638.1
TOTAL	5,137.0	316.92	5,550	5,583.6

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

PRI SERVICE (DS) - DETERMINATION OF KW

Using Sch J Extract Data - 75% Ratchet at Present; Average Ratchet at Proposed

AT PRESENT RATES

	RECORDED		FORECAST	
LOAD FACTOR BLOCKS	KW-B	KWH/KW	KW-B	MWH
0 - 200 KWH/KW	1,772.3	81.59	1,895	154.6
201 - 400 KWH/KW	654.3	319.63	700	223.6
> 400 KWH/KW	2,528.8	510.76	2,703	1,380.8
TOTAL	4,955.4	332.03	5,298	1,759.0

AT PROPOSED RATES

	RECORDED		FORECAST	
LOAD FACTOR BLOCKS	KW-B	KWH/KW	KW-B	MWH
0 - 200 KWH/KW	1,740.8	84.10	1,861	156.5
201 - 400 KWH/KW	805.7	323.07	861	278.3
> 400 KWH/KW	2,444.2	506.76	2,613	1,324.1
TOTAL	4,990.7	329.68	5,335	1,758.9

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

PRI VOLT SERVICE (DS)

PRESENT RATES

	LOAD FACTOR BLOCK (KWH/KW)			
	0 - 200	201 - 400	> 400	TOTAL
LOAD FACTOR BLOCK				
0 - 200 KWH/KW	155.9	141.2	545.8	842.9
201 - 400 KWH/KW	0.0	86.9	545.8	632.7
> 400 KWH/KW	0.0	0.0	283.3	283.3
TOTAL	155.9	228.1	1,374.9	1,758.9
FORECAST:				
SALES-MWH	155.9	228.1	1,374.9	1,758.9
BILLS	33	9	21	63
KW, BILLED	2,115	706	2,729	5,550

PROPOSED RATES

	LOAD FACTOR BLOCK (KWH/KW)			
	0 - 200	201 - 400	> 400	TOTAL
LOAD FACTOR BLOCK				
0 - 200 KWH/KW	156.5	173.7	527.6	857.8
201 - 400 KWH/KW	0.0	104.6	527.6	632.2
> 400 KWH/KW	0.0	0.0	268.8	268.8
TOTAL	156.5	278.3	1,324.1	1,758.8
FORECAST:				
SALES-MWH	156.5	278.3	1,324.1	1,758.9
BILLS	34	10	19	63
KW, BILLED	2,077.1	868.4	2,638.1	5,583.6

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF PRI VOLT. ADJ. (DS)

	PRESENT RATES			PROPOSED RATES		
	BILLING UNITS MWH	UNIT PRICE ¢/KWH	REVENUES $1000S	BILLING UNITS MWH	UNIT PRICE ¢/KWH	REVENUES $1000S
ENERGY CHARGE:						
0 - 200 KWH/KW	842.9	16.4579	138.7	857.8	26.1538	224.3
201 - 400 KWH/KW	632.7	14.2407	90.1	632.2	23.9367	151.3
> 400 KWH/KW	283.3	13.2397	37.5	268.8	22.9357	61.7
TOTAL	1,758.9		266.3	1,758.8		437.3
DEMAND CHARGE:	5,550	7.00	38.9	5,583.6	12.00	67.0
		% ADJ.			% ADJ.	
DS ADJ.		(4.00)	(12.2)		(0.60)	(3.0)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

TOTAL CLASS DISTRIBUTION OF SALES AND BILLS

AT PRESENT RATES

	SALES		NUMBER OF BILLS	
RECORDED:	MWH	% OF TOTAL	BILLS	% OF TOTAL
0 - 200 KWH/KW	34,711.2	10.5672	5,206	29.1163
201 - 400 KWH/KW	158,658.6	48.3007	9,346	52.2707
> 400 KWH/KW	135,111.3	41.1321	3,328	18.6130
TOTAL	328,481.1	100.0000	17,880	100.0000

FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	10.5672	37,503.0	29.1163	5,447
201 - 200 KWH/KW	48.3007	171,419.2	52.2707	9,779
> 400 KWH/KW	41.1321	145,977.8	18.6130	3,482
TOTAL	100.0000	354,900.0	100.0000	18,708

AT PROPOSED RATES

sing Sch J Extact Data - 75% at Present; Average Ratchet at Proposed

At Present

	SALES		NUMBER OF BILLS	
RECORDED:	MWH	% OF TOTAL	BILLS	% OF TOTAL
0 - 200 KWH/KW	33,644.9	10.2259	5,024	28.6170
201 - 400 KWH/KW	155,974.6	47.4061	9,184	52.3126
> 400 KWH/KW	139,398.8	42.3681	3,348	19.0704
TOTAL	329,018.4	100.0001	17,556	100.0000

FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	10.2259	36,291.7	28.6170	5,354
201 - 200 KWH/KW	47.4061	168,244.2	52.3126	9,787
> 400 KWH/KW	42.3680	150,364.0	19.0704	3,568
TOTAL	100.0000	354,900.0	100.0000	18,708

At Proposed

	SALES		NUMBER OF BILLS	
RECORDED:	MWH	% OF TOTAL	BILLS	% OF TOTAL
0 - 200 KWH/KW	36,609.8	11.1270	5,272	30.0296
201 - 400 KWH/KW	165,876.7	50.4156	9,273	52.8195
> 400 KWH/KW	126,531.9	38.4574	3,011	17.1508
TOTAL	329,018.4	100.0000	17,556	99.9999

FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	11.1270	39,489.7	30.0296	5,618
201 - 200 KWH/KW	50.4156	178,925.0	52.8195	9,881
> 400 KWH/KW	38.4574	136,485.3	17.1508	3,209
TOTAL	100.0000	354,900.0	99.9999	18,708

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

TOTAL CLASS DETERMINATION OF KW

AT PRESENT RATES

	RECORDED		FORECAST	
LOAD FACTOR BLOCKS	KW	KWH/KW	PRESENT	PROPOSED
0 - 200 KWH/KW	314,566.2	110.35	339,855	357,265.0
201 - 400 KWH/KW	540,006.4	293.81	583,436	623,422.0
> 400 KWH/KW	267,109.8	505.83	288,591	264,535.0
TOTAL	1,121,682.4	292.85	1,211,882	1,245,222

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

TOTAL CLASS DETERMINATION OF KW

Using Sch J Extact Data - 75% at Present; Average Ratchet at Proposed

AT PRESENT RATES

	RECORDED		FORECAST	
LOAD FACTOR BLOCKS	KW	KWH/KW	KW	MWH
0 - 200 KWH/KW	292,251.7	115.12	315,251	36,291.7
201 - 400 KWH/KW	530,557.7	293.98	572,298	168,244.2
> 400 KWH/KW	272,606.8	511.35	294,053	150,364.0
TOTAL	1,095,416.2	300.36	1,181,602	354,899.9

AT PROPOSED RATES

	RECORDED		FORECAST	
LOAD FACTOR BLOCKS	KW	KWH/KW	KW	MWH
0 - 200 KWH/KW	307,233.8	119.16	331,401	39,489.7
201 - 400 KWH/KW	566,917.3	292.59	611,521	178,925.0
> 400 KWH/KW	249,884.3	506.36	269,542	136,485.3
TOTAL	1,124,035.4	292.71	1,212,464	354,900.0

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

DETERMINATION OF SALES BY LOAD FACTOR BLOCKS

AT PRESENT RATES

	LOAD FACTOR BLOCK (KWH/KW)			
	0 - 200	201 - 400	> 400	TOTAL
LOAD FACTOR BLOCK				
0 - 200 KWH/KW	37,503.0	116,687.2	57,718.2	211,908.4
201 - 400 KWH/KW	0.0	54,732.0	57,718.2	112,450.2
> 400 KWH/KW	0.0	0.0	30,541.4	30,541.4
TOTAL	37,503.0	171,419.2	145,977.8	354,900.0
FORECAST:				
SALES - MWH	37,503.0	171,419.2	145,977.8	354,900.0
BILLS	5,447	9,779	3,482	18,708
KW, BILLED	339,855	583,436	288,591	1,211,882

AT PROPOSED RATES

	LOAD FACTOR BLOCK (KWH/KW)			
	0 - 200	201 - 400	> 400	TOTAL
LOAD FACTOR BLOCK				
0 - 200 KWH/KW	39,489.7	124,684.4	52,907.0	217,081.1
201 - 400 KWH/KW	0.0	54,240.6	52,907.0	107,147.6
> 400 KWH/KW	0.0	0.0	30,671.3	30,671.3
TOTAL	39,489.7	178,925.0	136,485.3	354,900.0
FORECAST:				
SALES - MWH	39,489.7	178,925.0	136,485.3	354,900.0
BILLS	5,618	9,881	3,209	18,708
KW, BILLED	357,265	623,422	264,535	1,245,222

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF TEST-YEAR REVENUES

	PRESENT RATES			PROPOSED RATES		
	BILLING UNITS MWH	UNIT PRICE ¢/KWH	REVENUES $1000S	BILLING UNITS MWH	UNIT PRICE ¢/KWH	REVENUES $1000S
ENERGY CHARGE:						
0 - 200 KWH/KW	211,908.4	16.4579	34,875.7	217,081.1	26.1538	56,775.0
201 - 400 KWH/KW	112,450.2	14.2407	16,013.7	107,147.6	23.9367	25,647.6
> 400 KWH/KW	30,541.4	13.2397	4,043.6	30,671.3	22.9357	7,034.7
SUBTOTAL	354,900.0		54,933.0	354,900.0		89,457.3
	BILLS	$/BILL		BILLS	$/BILL	
CUSTOMER CHARGE:						
1 PHASE	2,679	33.00	88.4	2,679	39.00	104.5
3 PHASE	16,029	56.00	897.6	16,029	65.00	1,041.9
SUBTOTAL	18,708		986.0	18,708		1,146.4
DEMAND CHARGE:	1,211,882.0	7.00	8,483.2	1,245,222.0	12.00	14,942.7
ADJUSTMENTS:						
TRANS[illegible]T ADJ (TP)			0.0			0.0
PRI VOLT ADJ (DP)			(266.4)			(221.8)
PRI VOLT ADJ (DS)			(12.2)			(3.0)
PF ADJ			(16.9)			(18.4)
MINIMUM BILL ADJ.			0.0			0.0
RENEWABLE CREDIT						154.6
SCHEDULE E ADJ.			0.0			(90.5)
Rider Adj.			(542.8)			(744.0)
SUBTOTAL			(838.3)			(923.1)
Total Base Revenue:			63,563.9			104,623.3
FIRM CAP. SURCHRG. %		0.000	0.0		0.000	0.0
Other % Adj.						
	MWH			MWH		
FOA, ¢/KWH	354,900.0	8.998	31,933.9	354,900.0	0.000	0.0
Other ¢/KWH Adj.						
Total Rev. Adj.			31,933.9			0.0
Other Adj.						
TOTAL SALES REV.			95,497.8			104,623.3

HAWAII ELECTRIC LIGHT COMPANY, INC.
DOCKET NO. 05-0315 TEST-YEAR 2006
Schedule J - General Service Demand

Determination of Billing Loads By Rate Block For kWm > 200

AT PRESENT RATES	SALES		NUMBER OF BILLS	
RECORDED:	MWH	% OF TOTAL	Bills	% OF TOTAL
0 - 200 KWH/KW	6,314.1	6.52	143	17.44
201 - 400 KWH/KW	48,297.1	49.90	397	48.41
> 400 KWH/KW	42,182.1	43.58	280	34.15
TOTAL	96,793.3	100.00	820	100.00

FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	6.52	6,818	17.44	150
201 - 200 KWH/KW	49.90	52,184	48.41	415
> 400 KWH/KW	43.58	45,576	34.15	293
TOTAL	100.00	104,578	100.00	858

AT PROPOSED RATES
Using Sch J Extract Data - 75% Ratchet at Present; Average Ratchet at Proposed

	SALES		NUMBER OF BILLS	
RECORDED:	MWH	% OF TOTAL	BILLS	% OF TOTAL
0 - 200 KWH/KW	6,090.0	6.64	155	19.40
201 - 400 KWH/KW	50,829.1	55.40	427	53.44
> 400 KWH/KW	34,835.8	37.96	217	27.16
TOTAL	91,754.9	100.00	799	100.00

FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	6.64	6,944	19.40	166
201 - 200 KWH/KW	55.40	57,936	53.44	459
> 400 KWH/KW	37.96	39,698	27.16	233
TOTAL	100.00	104,578	100.00	858

	RECORDED		FORECAST	
LOAD FACTOR BLOCKS	KW	KWH/KW	PRESENT	PROPOSED
0 - 200 KWH/KW	53,044.3	119.03	57,280	59,805
201 - 400 KWH/KW	161,682.6	298.72	174,692	196,003
> 400 KWH/KW	78,573.5	536.85	84,895	72,985
TOTAL	293,300.4	330.01	316,867	328,793

AT PRESENT RATES	*LOAD FACTOR BLOCK (KWH/KW)*			
LOAD FACTOR BLOCK:	0 - 200	201 - 400	> 400	TOTAL
0 - 200 KWH/KW	6,818	34,938	16,979	58,735
201 - 400 KWH/KW	0	17,246	16,979	34,225
> 400 KWH/KW	0	0	11,618	11,618
TOTAL	6,818	52,184	45,576	104,578

AT PROPOSED RATES	LOAD FACTOR BLOCK (KWH/KW)			
LOAD FACTOR BLOCK:	0 - 200	201 - 400	> 400	TOTAL
0 - 200 KWH/KW	6,944	39,201	14,597	60,742
201 - 400 KWH/KW	0	18,735	14,597	33,332
> 400 KWH/KW	0	0	10,504	10,504
TOTAL	6,944	57,936	39,698	104,578

HAWAII ELECTRIC LIGHT COMPANY, INC.
DOCKET NO. 05-0315 TEST-YEAR 2006
Schedule J - General Service Demand

Determination of Billing Loads By Rate Block For kWm > 200

Using Sch J Extract Data - 75% Ratchet at Present; Average Ratchet at Proposed

AT PRESENT RATES	SALES		NUMBER OF BILLS	
	MWH	% OF TOTAL	BILLS	% OF TOTAL
RECORDED:				
0 - 200 KWH/KW	5,802.0	6.32	151	18.90
201 - 400 KWH/KW	45,823.7	49.94	387	48.44
> 400 KWH/KW	40,129.1	43.74	261	32.66
TOTAL	91,754.9	100.00	799	100.00
FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	6.32	6,609	18.90	162
201 - 200 KWH/KW	49.94	52,226	48.44	416
> 400 KWH/KW	43.74	45,743	32.66	280
TOTAL	100.00	104,578	100.00	858

AT PROPOSED RATES	SALES		NUMBER OF BILLS	
	MWH	% OF TOTAL	BILLS	% OF TOTAL
RECORDED:				
0 - 200 KWH/KW	6,090.0	6.64	155	19.40
201 - 400 KWH/KW	50,829.1	55.40	427	53.44
> 400 KWH/KW	34,835.8	37.96	217	27.16
TOTAL	91,754.9	100.00	799	100.00
FORECAST:	% OF TOTAL	MWH	% OF TOTAL	BILLS
0 - 200 KWH/KW	6.64	6,944	19.40	166
201 - 200 KWH/KW	55.40	57,936	53.44	459
> 400 KWH/KW	37.96	39,698	27.16	233
TOTAL	100.00	104,578	100.00	858

AT PRESENT RATES	RECORDED		FORECAST	
LOAD FACTOR BLOCKS	KW	KWH/KW	PRESENT	PROPOSED
0 - 200 KWH/KW	49,478.0	117.26	56,362	
201 - 400 KWH/KW	154,314.3	296.95	175,875	
> 400 KWH/KW	75,864.8	528.96	86,477	
TOTAL	279,657.1	328.10	318,714	

AT PROPOSED RATES	RECORDED		FORECAST	
LOAD FACTOR BLOCKS	KW	KWH/KW	PRESENT	PROPOSED
0 - 200 KWH/KW	51,609.0	118.00		58,847
201 - 400 KWH/KW	173,126.0	293.60		197,330
> 400 KWH/KW	65,239.6	533.97		74,345
TOTAL	289,974.6	316.42		330,522

HAWAII ELECTRIC LIGHT COMPANY, INC.
DOCKET NO. 05-0315 TEST-YEAR 2006
Schedule J - General Service Demand

Revenues for Power Factor Adjustment for Billing Loads By Rate Block For kWm > 200

	PRESENT RATES			PROPOSED RATES		
	BILLING UNITS	UNIT PRICE	REVENUES $000s	BILLING UNITS	UNIT PRICE	REVENUES $000s
ENERGY CHARGE:	MWH	¢/kWh		MWH	¢/kWh	
0 - 200 KWH/KW	58,735	16.4579	$9,666.5	60,742	16.4579	$9,996.9
201 - 400 KWH/KW	34,225	14.2407	$4,873.9	33,332	14.2407	$4,746.7
> 400 KWH/KW	11,618	13.2397	$1,538.2	10,504	13.2397	$1,390.7
TOTAL	104,578		$16,078.6	104,578		$16,134.3
DEMAND CHARGE:	kW	$/kW		kW	$/kW	
ALL BILLING KW	316,867	7.00	$2,218.1	328,793	7.00	$2,301.6
Total Demand and Energy			$18,296.7			$18,435.9

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF POWER FACTOR ADJUSTMENT

FOR kWm > 200

GWH	96.793286	
RKVAH	58.508361	
POWER FACTOR (%)	85.5802	
	PRESENT RATES	CURRENT % PF ADJ at PROPOSED RATES
CALCULATED PF (%)	86.0	86.0
BASE PF (%)	85.0	85.0
DIFF.	(1.0)	(1.0)
ADJ. FOR EA. 1% DIFF	0.0010	0.0010
PF ADJ. RATE	(0.0010)	(0.0010)
Est. for kWm > 200		
TOTAL DMD/ENRGY CHRG	18,296.7	18,435.9
POWER FACTOR ADJ.	(16.9)	(18.4)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

MMARY OF RIDER M, RIDER T, RIDER A, SCHEDULE U ADJUSTMENTS

CUSTOMER ID	PRESENT RATES ($000's)	PROPOSED RATES ($000's)
JM(B)2	(14.1)	(24.2)
JM(B)3	(12.1)	(16.1)
JM(B)4	(22.8)	(30.9)
JM(B)5	(10.7)	(15.9)
JM(B)6	(6.7)	(11.6)
JM(B)7	(61.7)	(83.0)
JM(B)8	(29.3)	(38.7)
JM(B)9	(10.3)	(13.7)
JM(B)10	(11.7)	(15.5)
JM(B)11	(10.0)	(13.3)
JM(B)12	(27.2)	(36.9)
JM(B)13	(5.3)	(7.9)
JM(B)14	(27.2)	(36.4)
JM(B)15	(4.4)	(6.4)
JM(B)16	(18.2)	(25.7)
JM(B)17	(5.8)	(8.5)
JM(B)18	(22.0)	(29.4)
JM(B)19	(22.6)	(30.0)
JM(B)23	(27.5)	(36.5)
JM(B)24	(20.1)	(27.6)
JM(B)25	(9.1)	(12.7)
JM(B)26	(24.4)	(39.7)
JM(B)27	(21.4)	(35.2)
JM(B)28	(11.6)	(16.4)
JT1	(0.5)	(0.6)
JT2	(47.9)	(45.8)
JT3	0.0	0.0
JT4	(0.5)	(0.6)
JT5	(2.2)	(2.4)
JT6	(3.2)	(3.2)
JT7	(3.4)	(3.9)
JT8	(1.2)	(1.2)
JT9	(15.7)	(17.3)
JA1	23.3	21.8
J/U1	(55.3)	(78.6)
Total	(542.8)	(744.0)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)2	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			226.0	
BILLING KW	226.0		56.5	
EXCESS OFF-PEAK KW				
KWH/MONTH	7,867.0		7,867.0	
POWER FACTOR (%)	88.0		88.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	7,867.0	1295	7,867.0	1295
201 - 400 KWH/KW	0.0	0	0.0	0
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	7,867.0	1295	7,867.0	1,295
DEMAND CHARGE		1582		396
VOLT. SERV. ADJ.		0		0
PF ADJ.		-9		(5)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		708		708
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		699		713
TOTAL REV. PER MONTH ($)		3576		2,404
TOTAL REV. PER YEAR ($000's)		42.9		28.8
RIDER M ADJ. ($000's/YR)				(14.1)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)2	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			226.0	
BILLING KW	226.0		56.5	
EXCESS OFF-PEAK KW				
KWH/MONTH	7,867.0		7,867.0	
POWER FACTOR (%)	88.0		88.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	7,867.0	2058	7,867.0	2058
201 - 400 KWH/KW	0.0	0	0.0	0
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	7,867.0	2058	7,867.0	2,058.0
DEMAND CHARGE		2712		678
VOLT. SERV. ADJ.		0		0
PF ADJ.		-14		(8)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-14		2
TOTAL REV. PER MONTH ($)		4756		2,738
TOTAL REV. PER YEAR ($000's)		57.1		32.9
RIDER M ADJ. ($000's/YR)				(24.2)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)3	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			87.0	
BILLING KW	252.0		186.8	
EXCESS OFF-PEAK KW				
KWH/MONTH	138,200.0		138,200.0	
POWER FACTOR (%)	74.0		74.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	50,400.0	8295	37,360.0	6149
201 - 400 KWH/KW	50,400.0	7177	37,360.0	5320
> 400 KWH/KW	37,400.0	4952	63,480.0	8405
SUBTOTAL	138,200.0	20424	138,200.0	19,874
DEMAND CHARGE		1764		1,308
VOLT. SERV. ADJ.		0		0
PF ADJ.		244		233
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		12435		12,435
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		12679		12,678
TOTAL REV. PER MONTH ($)		34867		33,860
TOTAL REV. PER YEAR ($000's)		418.4		406.3
RIDER M ADJ. ($000's/YR)				(12.1)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)3	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			87.0	
BILLING KW	263.0		197.8	
EXCESS OFF-PEAK KW				
KWH/MONTH	138,200.0		138,200.0	
POWER FACTOR (%)	74.0		74.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	52,600.0	13757	39,560.0	10346
201 - 400 KWH/KW	52,600.0	12591	39,560.0	9469
> 400 KWH/KW	33,000.0	7569	59,080.0	13550
SUBTOTAL	138,200.0	33917	138,200.0	33,365.0
DEMAND CHARGE		3156		2,374
VOLT. SERV. ADJ.		0		0
PF ADJ.		408		393
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		408		403
TOTAL REV. PER MONTH ($)		37481		36,142
TOTAL REV. PER YEAR ($000's)		449.8		433.7
RIDER M ADJ. ($000's/YR)				(16.1)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)4	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			179.3	
BILLING KW	330.9		196.4	
EXCESS OFF-PEAK KW				
KWH/MONTH	116,517.0		116,517.0	
POWER FACTOR (%)	87.0		87.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	66,180.0	10892	39,280.0	6465
201 - 400 KWH/KW	50,337.0	7168	39,280.0	5594
> 400 KWH/KW	0.0	0	37,957.0	5025
SUBTOTAL	116,517.0	18060	116,517.0	17,084
DEMAND CHARGE		2316		1,375
VOLT. SERV. ADJ.		0		0
PF ADJ.		-41		(37)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		10484		10,484
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		10443		10,457
TOTAL REV. PER MONTH ($)		30819		28,916
TOTAL REV. PER YEAR ($000's)		369.8		347.0
RIDER M ADJ. ($000's/YR)				(22.8)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)4	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			179.3	
BILLING KW	331.3		196.8	
EXCESS OFF-PEAK KW				
KWH/MONTH	116,517.0		116,517.0	
POWER FACTOR (%)	87.0		87.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	66,260.0	17330	39,360.0	10294
201 - 400 KWH/KW	50,257.0	12030	39,360.0	9421
> 400 KWH/KW	0.0	0	37,797.0	8669
SUBTOTAL	116,517.0	29360	116,517.0	28,384.0
DEMAND CHARGE		3976		2,362
VOLT. SERV. ADJ.		0		0
PF ADJ.		-67		(61)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-67		(51)
TOTAL REV. PER MONTH ($)		33269		30,695
TOTAL REV. PER YEAR ($000's)		399.2		368.3
RIDER M ADJ. ($000's/YR)				(30.9)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)5	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			116.0	
BILLING KW	116.0		29.0	
EXCESS OFF-PEAK KW				
KWH/MONTH	16,533.0		16,533.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	16,533.0	2721	5,800.0	955
201 - 400 KWH/KW	0.0	0	5,800.0	826
> 400 KWH/KW	0.0	0	4,933.0	653
SUBTOTAL	16,533.0	2721	16,533.0	2,434
DEMAND CHARGE		812		203
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		1488		1,488
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		1488		1,498
TOTAL REV. PER MONTH ($)		5021		4,135
TOTAL REV. PER YEAR ($000's)		60.3		49.6
RIDER M ADJ. ($000's/YR)				(10.7)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)5	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			116.0	
BILLING KW	116.0		29.0	
EXCESS OFF-PEAK KW				
KWH/MONTH	16,533.0		16,533.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	16,533.0	4324	5,800.0	1517
201 - 400 KWH/KW	0.0	0	5,800.0	1388
> 400 KWH/KW	0.0	0	4,933.0	1131
SUBTOTAL	16,533.0	4324	16,533.0	4,036.0
DEMAND CHARGE		1392		348
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		5716		4,394
TOTAL REV. PER YEAR ($000's)		68.6		52.7
RIDER M ADJ. ($000's/YR)				(15.9)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)6	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			108.5	
BILLING KW	137.6		56.2	
EXCESS OFF-PEAK KW				
KWH/MONTH	7,707.0		7,707.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	7,707.0	1268	7,707.0	1268
?01 - 400 KWH/KW	0.0	0	0.0	0
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	7,707.0	1268	7,707.0	1,268
DEMAND CHARGE		963		393
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		693		693
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		693		703
TOTAL REV. PER MONTH ($)		2924		2,364
TOTAL REV. PER YEAR ($000's)		35.1		28.4
RIDER M ADJ. ($000's/YR)				(6.7)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)6	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			108.5	
BILLING KW	138.3		56.9	
EXCESS OFF-PEAK KW				
KWH/MONTH	7,707.0		7,707.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	7,707.0	2016	7,707.0	2016
201 - 400 KWH/KW	0.0	0	0.0	0
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	7,707.0	2016	7,707.0	2,016.0
DEMAND CHARGE		1660		683
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		3676		2,709
TOTAL REV. PER YEAR ($000's)		44.1		32.5
RIDER M ADJ. ($000's/YR)				(11.6)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)7	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			472.0	
BILLING KW	476.0		122.0	
EXCESS OFF-PEAK KW				
KWH/MONTH	155,400.0		155,400.0	
POWER FACTOR (%)	79.0		79.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	95,200.0	15668	24,400.0	4016
201 - 400 KWH/KW	60,200.0	8573	24,400.0	3475
> 400 KWH/KW	0.0	0	106,600.0	14114
SUBTOTAL	155,400.0	24241	155,400.0	21,605
DEMAND CHARGE		3332		854
VOLT. SERV. ADJ.		0		0
PF ADJ.		165		135
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		13983		13,983
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		14148		14,128
TOTAL REV. PER MONTH ($)		41721		36,587
TOTAL REV. PER YEAR ($000's)		500.7		439.0
RIDER M ADJ. ($000's/YR)				(61.7)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)7	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			472.0	
BILLING KW	476.0		122.0	
EXCESS OFF-PEAK KW				
KWH/MONTH	155,400.0		155,400.0	
POWER FACTOR (%)	79.0		79.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	95,200.0	24898	24,400.0	6382
201 - 400 KWH/KW	60,200.0	14410	24,400.0	5841
> 400 KWH/KW	0.0	0	106,600.0	24449
SUBTOTAL	155,400.0	39308	155,400.0	36,672.0
DEMAND CHARGE		5712		1,464
VOLT. SERV. ADJ.		0		0
PF ADJ.		270		229
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		270		239
TOTAL REV. PER MONTH ($)		45290		38,375
TOTAL REV. PER YEAR ($000's)		543.5		460.5
RIDER M ADJ. ($000's/YR)				(83.0)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)8	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			212.3	
BILLING KW	328.5		169.3	
EXCESS OFF-PEAK KW				
KWH/MONTH	130,720.0		130,720.0	
POWER FACTOR (%)	87.0		87.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	65,700.0	10813	33,860.0	5573
201 - 400 KWH/KW	65,020.0	9259	33,860.0	4822
> 400 KWH/KW	0.0	0	63,000.0	8341
SUBTOTAL	130,720.0	20072	130,720.0	18,736
DEMAND CHARGE		2300		1,185
VOLT. SERV. ADJ.		0		0
PF ADJ.		-45		(40)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		11762		11,762
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		11717		11,732
TOTAL REV. PER MONTH ($)		34089		31,653
TOTAL REV. PER YEAR ($000's)		409.1		379.8
RIDER M ADJ. ($000's/YR)				(29.3)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)8	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			212.3	
BILLING KW	329.1		169.9	
EXCESS OFF-PEAK KW				
KWH/MONTH	130,720.0		130,720.0	
POWER FACTOR (%)	87.0		87.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	65,820.0	17214	33,980.0	8887
201 - 400 KWH/KW	64,900.0	15535	33,980.0	8134
> 400 KWH/KW	0.0	0	62,760.0	14394
SUBTOTAL	130,720.0	32749	130,720.0	31,415.0
DEMAND CHARGE		3949		2,039
VOLT. SERV. ADJ.		0		0
PF ADJ.		-73		(67)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-73		(57)
TOTAL REV. PER MONTH ($)		36625		33,397
TOTAL REV. PER YEAR ($000's)		439.5		400.8
RIDER M ADJ. ($000's/YR)				(38.7)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)9	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			75.1	
BILLING KW	93.9		37.6	
EXCESS OFF-PEAK KW				
KWH/MONTH	51,783.0		51,783.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	18,780.0	3091	7,520.0	1238
201 - 400 KWH/KW	18,780.0	2674	7,520.0	1071
> 400 KWH/KW	14,223.0	1883	36,743.0	4865
SUBTOTAL	51,783.0	7648	51,783.0	7,174
DEMAND CHARGE		657		263
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		4659		4,659
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		4659		4,669
TOTAL REV. PER MONTH ($)		12964		12,106
TOTAL REV. PER YEAR ($000's)		155.6		145.3
RIDER M ADJ. ($000's/YR)				(10.3)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)9	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			75.1	
BILLING KW	94.1		37.8	
EXCESS OFF-PEAK KW				
KWH/MONTH	51,783.0		51,783.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	18,820.0	4922	7,560.0	1977
?01 - 400 KWH/KW	18,820.0	4505	7,560.0	1810
> 400 KWH/KW	14,143.0	3244	36,663.0	8409
SUBTOTAL	51,783.0	12671	51,783.0	12,196.0
DEMAND CHARGE		1129		454
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		13800		12,660
TOTAL REV. PER YEAR ($000's)		165.6		151.9
RIDER M ADJ. ($000's/YR)				(13.7)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)10	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			85.2	
BILLING KW	96.0		32.1	
EXCESS OFF-PEAK KW				
KWH/MONTH	38,903.0		38,903.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	19,200.0	3160	6,420.0	1057
201 - 400 KWH/KW	19,200.0	2734	6,420.0	914
> 400 KWH/KW	503.0	67	26,063.0	3451
SUBTOTAL	38,903.0	5961	38,903.0	5,422
DEMAND CHARGE		672		225
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		3500		3,500
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		3500		3,510
TOTAL REV. PER MONTH ($)		10133		9,157
TOTAL REV. PER YEAR ($000's)		121.6		109.9
RIDER M ADJ. ($000's/YR)				(11.7)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)10	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			85.2	
BILLING KW	96.5		32.6	
EXCESS OFF-PEAK KW				
KWH/MONTH	38,903.0		38,903.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	19,300.0	5048	6,520.0	1705
201 - 400 KWH/KW	19,300.0	4620	6,520.0	1561
> 400 KWH/KW	303.0	69	25,863.0	5932
SUBTOTAL	38,903.0	9737	38,903.0	9,198.0
DEMAND CHARGE		1158		391
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		10895		9,599
TOTAL REV. PER YEAR ($000's)		130.7		115.2
RIDER M ADJ. ($000's/YR)				(15.5)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)11	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			74.5	
BILLING KW	96.6		40.7	
EXCESS OFF-PEAK KW				
KWH/MONTH	36,858.0		36,858.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	19,320.0	3180	8,145.0	1340
201 - 400 KWH/KW	17,538.0	2498	8,145.0	1160
> 400 KWH/KW	0.0	0	20,568.0	2723
SUBTOTAL	36,858.0	5678	36,858.0	5,223
DEMAND CHARGE		676		285
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		3316		3,316
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		3316		3,326
TOTAL REV. PER MONTH ($)		9670		8,834
TOTAL REV. PER YEAR ($000's)		116.0		106.0
RIDER M ADJ. ($000's/YR)				(10.0)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)11	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			74.5	
BILLING KW	97.1		41.2	
EXCESS OFF-PEAK KW				
KWH/MONTH	36,858.0		36,858.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	19,420.0	5079	8,245.0	2156
201 - 400 KWH/KW	17,438.0	4174	8,245.0	1974
> 400 KWH/KW	0.0	0	20,368.0	4672
SUBTOTAL	36,858.0	9253	36,858.0	8,802.0
DEMAND CHARGE		1165		495
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		10418		9,307
TOTAL REV. PER YEAR ($000's)		125.0		111.7
RIDER M ADJ. ($000's/YR)				(13.3)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)12	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			215.9	
BILLING KW	387.2		225.3	
EXCESS OFF-PEAK KW				
KWH/MONTH	131,967.0		131,967.0	
POWER FACTOR (%)	82.0		82.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	77,440.0	12745	45,055.0	7415
201 - 400 KWH/KW	54,527.0	7765	45,055.0	6416
> 400 KWH/KW	0.0	0	41,857.0	5542
SUBTOTAL	131,967.0	20510	131,967.0	19,373
DEMAND CHARGE		2710		1,577
VOLT. SERV. ADJ.		0		0
PF ADJ.		70		63
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		11874		11,874
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		11944		11,947
TOTAL REV. PER MONTH ($)		35164		32,897
TOTAL REV. PER YEAR ($000's)		422.0		394.8
RIDER M ADJ. ($000's/YR)				(27.2)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)12	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			215.9	
BILLING KW	388.3		226.4	
EXCESS OFF-PEAK KW				
KWH/MONTH	131,967.0		131,967.0	
POWER FACTOR (%)	82.0		82.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	77,660.0	20311	45,275.0	11841
201 - 400 KWH/KW	54,307.0	12999	45,275.0	10837
> 400 KWH/KW	0.0	0	41,417.0	9499
SUBTOTAL	131,967.0	33310	131,967.0	32,177.0
DEMAND CHARGE		4660		2,717
VOLT. SERV. ADJ.		0		0
PF ADJ.		114		105
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		114		115
TOTAL REV. PER MONTH ($)		38084		35,009
TOTAL REV. PER YEAR ($000's)		457.0		420.1
RIDER M ADJ. ($000's/YR)				(36.9)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)13	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			62.3	
BILLING KW	195.2		148.5	
EXCESS OFF-PEAK KW				
KWH/MONTH	35,317.0		35,317.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	35,317.0	5812	29,695.0	4887
201 - 400 KWH/KW	0.0	0	5,622.0	801
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	35,317.0	5812	35,317.0	5,688
DEMAND CHARGE		1366		1,039
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		3178		3,178
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		3178		3,188
TOTAL REV. PER MONTH ($)		10356		9,915
TOTAL REV. PER YEAR ($000's)		124.3		119.0
RIDER M ADJ. ($000's/YR)				(5.3)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)13	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			62.3	
BILLING KW	197.8		151.1	
EXCESS OFF-PEAK KW				
KWH/MONTH	35,317.0		35,317.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	35,317.0	9237	30,215.0	7902
201 - 400 KWH/KW	0.0	0	5,102.0	1221
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	35,317.0	9237	35,317.0	9,123.0
DEMAND CHARGE		2374		1,813
VOLT. SERV. ADJ.		0		0
PF ADJ		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		11611		10,946
TOTAL REV. PER YEAR ($000's)		139.3		131.4
RIDER M ADJ. ($000's/YR)				(7.9)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		*RIDER M (OPTION B)*	
JM(B)14	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			219.5	
BILLING KW	289.8		125.2	
EXCESS OFF-PEAK KW				
KWH/MONTH	88,433.0		88,433.0	
POWER FACTOR (%)	83.0		83.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	57,960.0	9539	25,040.0	4121
2^1 - 400 KWH/KW	30,473.0	4340	25,040.0	3566
> 400 KWH/KW	0.0	0	38,353.0	5078
SUBTOTAL	88,433.0	13879	88,433.0	12,765
DEMAND CHARGE		2029		876
VOLT. SERV. ADJ.		0		0
PF ADJ.		32		27
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		7957		7,957
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		7989		7,994
TOTAL REV. PER MONTH ($)		23897		21,635
TOTAL REV. PER YEAR ($000's)		286.8		259.6
RIDER M ADJ. ($000's/YR)				(27.2)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)14	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			219.5	
BILLING KW	300.7		136.1	
EXCESS OFF-PEAK KW				
KWH/MONTH	88,433.0		88,433.0	
POWER FACTOR (%)	83.0		83.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	60,140.0	15729	27,220.0	7119
201 - 400 KWH/KW	28,293.0	6772	27,220.0	6516
> 400 KWH/KW	0.0	0	33,993.0	7797
SUBTOTAL	88,433.0	22501	88,433.0	21,432.0
DEMAND CHARGE		3608		1,633
VOLT. SERV. ADJ.		0		0
PF ADJ.		52		46
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		52		56
TOTAL REV. PER MONTH ($)		26161		23,121
TOTAL REV. PER YEAR ($000's)		313.9		277.5
RIDER M ADJ. ($000's/YR)				(36.4)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)15	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			46.2	
BILLING KW	69.6		35.0	
EXCESS OFF-PEAK KW				
KWH/MONTH	12,880.0		12,880.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	12,880.0	2120	6,990.0	1150
201 - 400 KWH/KW	0.0	0	5,890.0	839
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	12,880.0	2120	12,880.0	1,989
DEMAND CHARGE		487		245
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		1159		1,159
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		1159		1,169
TOTAL REV. PER MONTH ($)		3766		3,403
TOTAL REV. PER YEAR ($000's)		45.2		40.8
RIDER M ADJ. ($000's/YR)				(4.4)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)15	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			46.2	
BILLING KW	70.8		36.2	
EXCESS OFF-PEAK KW				
KWH/MONTH	12,880.0		12,880.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	12,880.0	3369	7,230.0	1891
201 - 400 KWH/KW	0.0	0	5,650.0	1352
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	12,880.0	3369	12,880.0	3,243.0
DEMAND CHARGE		850		434
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		4219		3,687
TOTAL REV. PER YEAR ($000's)		50.6		44.2
RIDER M ADJ. ($000's/YR)				(6.4)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)16	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			164.0	
BILLING KW	195.2		72.2	
EXCESS OFF-PEAK KW				
KWH/MONTH	40,293.0		40,293.0	
POWER FACTOR (%)	78.0		78.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	39,040.0	6425	14,440.0	2377
201 - 400 KWH/KW	1,253.0	178	14,440.0	2056
> 400 KWH/KW	0.0	0	11,413.0	1511
SUBTOTAL	40,293.0	6603	40,293.0	5,944
DEMAND CHARGE		1366		505
VOLT. SERV. ADJ.		0		0
PF ADJ.		56		45
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		3626		3,626
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		3682		3,681
TOTAL REV. PER MONTH ($)		11651		10,130
TOTAL REV. PER YEAR ($000's)		139.8		121.6
RIDER M ADJ. ($000's/YR)				(18.2)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)16	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			164.0	
BILLING KW	196.0		73.0	
EXCESS OFF-PEAK KW				
KWH/MONTH	40,293.0		40,293.0	
POWER FACTOR (%)	78.0		78.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	39,200.0	10252	14,600.0	3818
201 - 400 KWH/KW	1,093.0	262	14,600.0	3495
> 400 KWH/KW	0.0	0	11,093.0	2544
SUBTOTAL	40,293.0	10514	40,293.0	9,857.0
DEMAND CHARGE		2352		876
VOLT. SERV. ADJ.		0		0
PF ADJ.		90		75
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		90		85
TOTAL REV. PER MONTH ($)		12956		10,818
TOTAL REV. PER YEAR ($000's)		155.5		129.8
RIDER M ADJ. ($000's/YR)				(25.7)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)17	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			65.2	
BILLING KW	170.0		121.1	
EXCESS OFF-PEAK KW				
KWH/MONTH	30,867.0		30,867.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	30,867.0	5080	24,220.0	3986
201 - 400 KWH/KW	0.0	0	6,647.0	947
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	30,867.0	5080	30,867.0	4,933
DEMAND CHARGE		1190		848
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		2777		2,777
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		2777		2,787
TOTAL REV. PER MONTH ($)		9047		8,568
TOTAL REV. PER YEAR ($000's)		108.6		102.8
RIDER M ADJ. ($000's/YR)				(5.8)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)17	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			65.2	
BILLING KW	172.6		123.7	
EXCESS OFF-PEAK KW				
KWH/MONTH	30,867.0		30,867.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	30,867.0	8073	24,740.0	6470
201 - 400 KWH/KW	0.0	0	6,127.0	1467
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	30,867.0	8073	30,867.0	7,937.0
DEMAND CHARGE		2071		1,484
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		10144		9,431
TOTAL REV. PER YEAR ($000's)		121.7		113.2
RIDER M ADJ. ($000's/YR)				(8.5)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)18	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			164.2	
BILLING KW	281.0		157.9	
EXCESS OFF-PEAK KW				
KWH/MONTH	108,050.0		108,050.0	
POWER FACTOR (%)	91.0		91.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	56,200.0	9249	31,570.0	5196
201 - 400 KWH/KW	51,850.0	7384	31,570.0	4496
> 400 KWH/KW	0.0	0	44,910.0	5946
SUBTOTAL	108,050.0	16633	108,050.0	15,638
DEMAND CHARGE		1967		1,105
VOLT. SERV. ADJ.		0		0
PF ADJ.		-112		(100)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		9722		9,722
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		9610		9,632
TOTAL REV. PER MONTH ($)		28210		26,375
TOTAL REV. PER YEAR ($000's)		338.5		316.5
RIDER M ADJ. ($000's/YR)				(22.0)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)18	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			164.2	
BILLING KW	281.5		158.4	
EXCESS OFF-PEAK KW				
KWH/MONTH	108,050.0		108,050.0	
POWER FACTOR (%)	91.0		91.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	56,300.0	14725	31,670.0	8283
201 - 400 KWH/KW	51,750.0	12387	31,670.0	7581
> 400 KWH/KW	0.0	0	44,710.0	10255
SUBTOTAL	108,050.0	27112	108,050.0	26,119.0
DEMAND CHARGE		3378		1,900
VOLT. SERV. ADJ.		0		0
PF ADJ.		-183		(168)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-183		(158)
TOTAL REV. PER MONTH ($)		30307		27,861
TOTAL REV. PER YEAR ($000's)		363.7		334.3
RIDER M ADJ. ($000's/YR)				(29.4)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)19	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			164.2	
BILLING KW	280.8		157.7	
EXCESS OFF-PEAK KW				
KWH/MONTH	149,233.0		149,233.0	
POWER FACTOR (%)	89.0		89.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	56,160.0	9243	31,530.0	5189
201 - 400 KWH/KW	56,160.0	7998	31,530.0	4490
> 400 KWH/KW	36,913.0	4887	86,173.0	11409
SUBTOTAL	149,233.0	22128	149,233.0	21,088
DEMAND CHARGE		1966		1,104
VOLT. SERV. ADJ.		0		0
PF ADJ.		-96		(89)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		13428		13,428
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		13332		13,349
TOTAL REV. PER MONTH ($)		37426		35,541
TOTAL REV. PER YEAR ($000's)		449.1		426.5
RIDER M ADJ. ($000's/YR)				(22.6)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)19	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			164.2	
BILLING KW	282.0		158.9	
EXCESS OFF-PEAK KW				
KWH/MONTH	149,233.0		149,233.0	
POWER FACTOR (%)	89.0		89.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	56,400.0	14751	31,770.0	8309
201 - 400 KWH/KW	56,400.0	13500	31,770.0	7605
> 400 KWH/KW	36,433.0	8356	85,693.0	19654
SUBTOTAL	149,233.0	36607	149,233.0	35,568.0
DEMAND CHARGE		3384		1,906
VOLT. SERV. ADJ.		0		0
PF ADJ.		-160		(150)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-160		(140)
TOTAL REV. PER MONTH ($)		39831		37,334
TOTAL REV. PER YEAR ($000's)		478.0		448.0
RIDER M ADJ. ($000's/YR)				(30.0)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)23	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			199.5	
BILLING KW	343.5		193.9	
EXCESS OFF-PEAK KW				
KWH/MONTH	188,200.0		188,200.0	
POWER FACTOR (%)	88.0		88.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	68,700.0	11307	38,775.0	6382
201 - 400 KWH/KW	68,700.0	9783	38,775.0	5522
> 400 KWH/KW	50,800.0	6726	110,650.0	14650
SUBTOTAL	188,200.0	27816	188,200.0	26,554
DEMAND CHARGE		2405		1,357
VOLT. SERV. ADJ.		0		0
PF ADJ.		-91		(84)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		16934		16,934
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		16843		16,860
TOTAL REV. PER MONTH ($)		47064		44,771
TOTAL REV. PER YEAR ($000's)		564.8		537.3
RIDER M ADJ. ($000's/YR)				(27.5)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)23	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			199.5	
BILLING KW	345.8		196.2	
EXCESS OFF-PEAK KW				
KWH/MONTH	188,200.0		188,200.0	
POWER FACTOR (%)	88.0		88.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	69,160.0	18088	39,235.0	10261
201 - 400 KWH/KW	69,160.0	16555	39,235.0	9392
> 400 KWH/KW	49,880.0	11440	109,730.0	25167
SUBTOTAL	188,200.0	46083	188,200.0	44,820.0
DEMAND CHARGE		4150		2,354
VOLT. SERV. ADJ.		0		0
PF ADJ.		-151		(142)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-151		(132)
TOTAL REV. PER MONTH ($)		50082		47,042
TOTAL REV. PER YEAR ($000's)		601.0		564.5
RIDER M ADJ. ($000's/YR)				(36.5)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)24	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			197.0	
BILLING KW	229.8		82.1	
EXCESS OFF-PEAK KW				
KWH/MONTH	41,950.0		41,950.0	
POWER FACTOR (%)	89.0		89.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	41,950.0	6904	16,410.0	2701
201 - 400 KWH/KW	0.0	0	16,410.0	2337
> 400 KWH/KW	0.0	0	9,130.0	1209
SUBTOTAL	41,950.0	6904	41,950.0	6,247
DEMAND CHARGE		1609		574
VOLT. SERV. ADJ.		0		0
PF ADJ.		-34		(27)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		3775		3,775
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		3741		3,758
TOTAL REV. PER MONTH ($)		12254		10,579
TOTAL REV. PER YEAR ($000's)		147.0		126.9
RIDER M ADJ. ($000's/YR)				(20.1)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)24	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			197.0	
BILLING KW	243.0		95.3	
EXCESS OFF-PEAK KW				
KWH/MONTH	41,950.0		41,950.0	
POWER FACTOR (%)	89.0		89.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	41,950.0	10972	19,050.0	4982
201 - 400 KWH/KW	0.0	0	19,050.0	4560
> 400 KWH/KW	0.0	0	3,850.0	883
SUBTOTAL	41,950.0	10972	41,950.0	10,425.0
DEMAND CHARGE		2916		1,143
VOLT. SERV. ADJ.		0		0
PF ADJ.		-56		(46)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-56		(36)
TOTAL REV. PER MONTH ($)		13832		11,532
TOTAL REV. PER YEAR ($000's)		166.0		138.4
RIDER M ADJ. ($000's/YR)				(27.6)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)25	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			90.3	
BILLING KW	120.0		52.3	
EXCESS OFF-PEAK KW				
KWH/MONTH	24,480.0		24,480.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	(5.0)		(5.0)	
ENERGY CHARGE				
0 - 200 KWH/KW	24,000.0	3950	10,455.0	1721
201 - 400 KWH/KW	480.0	68	10,455.0	1489
> 400 KWH/KW	0.0	0	3,570.0	473
SUBTOTAL	24,480.0	4018	24,480.0	3,683
DEMAND CHARGE		840		366
VOLT. SERV. ADJ.		-243		(202)
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		2203		2,203
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		1960		2,011
TOTAL REV. PER MONTH ($)		6818		6,060
TOTAL REV. PER YEAR ($000's)		81.8		72.7
RIDER M ADJ. ($000's/YR)				(9.1)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)25	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			90.3	
BILLING KW	123.8		56.1	
EXCESS OFF-PEAK KW				
KWH/MONTH	24,480.0		24,480.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	(5.0)		(5.0)	
ENERGY CHARGE				
0 - 200 KWH/KW	24,480.0	6402	11,215.0	2933
2^1 - 400 KWH/KW	0.0	0	11,215.0	2685
> 400 KWH/KW	0.0	0	2,050.0	470
SUBTOTAL	24,480.0	6402	24,480.0	6,088.0
DEMAND CHARGE		1486		673
VOLT. SERV. ADJ.		-394		(338)
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-394		(328)
TOTAL REV. PER MONTH ($)		7494		6,433
TOTAL REV. PER YEAR ($000's)		89.9		77.2
RIDER M ADJ. ($000's/YR)				(12.7)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)26	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			385.0	
BILLING KW	469.8		181.1	
EXCESS OFF-PEAK KW				
KWH/MONTH	42,500.0		42,500.0	
POWER FACTOR (%)	91.0		91.0	
VOLT. ADJ.	(5.0)		(5.0)	
ENERGY CHARGE				
0 - 200 KWH/KW	42,500.0	6995	36,210.0	5959
201 - 400 KWH/KW	0.0	0	6,290.0	896
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	42,500.0	6995	42,500.0	6,855
DEMAND CHARGE		3289		1,267
VOLT. SERV. ADJ.		-514		(406)
PF ADJ.		-62		(49)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		3824		3,824
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		3248		3,379
TOTAL REV. PER MONTH ($)		13532		11,501
TOTAL REV. PER YEAR ($000's)		162.4		138.0
RIDER M ADJ. ($000's/YR)				(24.4)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)26	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			385.0	
BILLING KW	490.0		201.3	
EXCESS OFF-PEAK KW				
KWH/MONTH	42,500.0		42,500.0	
POWER FACTOR (%)	91.0		91.0	
VOLT. ADJ.	(5.0)		(5.0)	
ENERGY CHARGE				
0 - 200 KWH/KW	42,500.0	11115	40,250.0	10527
201 - 400 KWH/KW	0.0	0	2,250.0	539
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	42,500.0	11115	42,500.0	11,066.0
DEMAND CHARGE		5880		2,415
VOLT. SERV. ADJ.		-850		(674)
PF ADJ.		-102		(81)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-952		(745)
TOTAL REV. PER MONTH ($)		16043		12,736
TOTAL REV. PER YEAR ($000's)		192.5		152.8
RIDER M ADJ. ($000's/YR)				(39.7)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)27	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			321.9	
BILLING KW	367.0		125.6	
EXCESS OFF-PEAK KW				
KWH/MONTH	32,350.0		32,350.0	
POWER FACTOR (%)	64.0		64.0	
VOLT. ADJ.	(5.0)		(5.0)	
ENERGY CHARGE				
0 - 200 KWH/KW	32,350.0	5324	25,115.0	4133
201 - 400 KWH/KW	0.0	0	7,235.0	1030
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	32,350.0	5324	32,350.0	5,163
DEMAND CHARGE		2569		879
VOLT. SERV. ADJ.		-395		(302)
PF ADJ.		166		127
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		2911		2,911
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		2682		2,746
TOTAL REV. PER MONTH ($)		10575		8,788
TOTAL REV. PER YEAR ($000's)		126.9		105.5
RIDER M ADJ. ($000's/YR)				(21.4)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)27	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			321.9	
BILLING KW	373.8		132.4	
EXCESS OFF-PEAK KW				
KWH/MONTH	32,350.0		32,350.0	
POWER FACTOR (%)	64.0		64.0	
VOLT. ADJ.	(5.0)		(5.0)	
ENERGY CHARGE				
0 - 200 KWH/KW	32,350.0	8461	26,475.0	6924
201 - 400 KWH/KW	0.0	0	5,875.0	1406
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	32,350.0	8461	32,350.0	8,330.0
DEMAND CHARGE		4486		1,589
VOLT. SERV. ADJ.		-647		(496)
PF ADJ.		272		208
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-375		(278)
TOTAL REV. PER MONTH ($)		12572		9,641
TOTAL REV. PER YEAR ($000's)		150.9		115.7
RIDER M ADJ. ($000's/YR)				(35.2)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)27	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			197.4	
BILLING KW	197.4		118.4	
EXCESS OFF-PEAK KW				
KWH/MONTH	55,229.0		55,229.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	39,480.0	6498	23,688.0	3899
201 - 400 KWH/KW	15,749.0	2243	23,688.0	3373
> 400 KWH/KW	0.0	0	7,853.0	1040
SUBTOTAL	55,229.0	8741	55,229.0	8,312
DEMAND CHARGE		1382		829
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		4970		4,970
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		4970		4,980
TOTAL REV. PER MONTH ($)		15093		14,121
TOTAL REV. PER YEAR ($000's)		181.1		169.5
RIDER M ADJ. ($000's/YR)				(11.6)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER M ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER M (OPTION B)	
JM(B)27	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
CURTAILABLE DMD			197.4	
BILLING KW	197.4		118.4	
EXCESS OFF-PEAK KW				
KWH/MONTH	55,229.0		55,229.0	
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	39,480.0	10326	23,688.0	6195
201 - 400 KWH/KW	15,749.0	3770	23,688.0	5670
> 400 KWH/KW	0.0	0	7,853.0	1801
SUBTOTAL	55,229.0	14096	55,229.0	13,666.0
DEMAND CHARGE		2369		1,421
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		16465		15,097
TOTAL REV. PER YEAR ($000's)		197.6		181.2
RIDER M ADJ. ($000's/YR)				(16.4)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER T	
JT1	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			47.4	%
% OFF-PEAK KWH			52.6	%
BILLING KW	25.6		25.5	
EXCESS OFF-PEAK KW				
KWH/MONTH	11,761.0		11,761.0	
ON-PEAK KWH & SURCHG.			5,574.7	139
OFF-PEAK KWH & CREDIT			6,186.3	(195)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	5,120.0	843	5,100.0	839
201 - 400 KWH/KW	5,120.0	729	5,100.0	726
> 400 KWH/KW	1,521.0	201	1,561.0	207
SUBTOTAL	11,761.0	1773	11,761.0	1,716
DEMAND CHARGE		179		179
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		1058		1058
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		1058		1,068
TOTAL REV. PER MONTH ($)		3,010		2,963
TOTAL REV. PER YEAR ($000)		36.1		35.6
RIDER T ADJ ($000/YR)				(0.5)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER T	
JT1	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			47.4	%
% OFF-PEAK KW			52.6	%
BILLING KW	25.6		25.5	
EXCESS OFF-PEAK KW				
KWH/MONTH	11,761.0		11,761.0	
ON-PEAK KWH & SURCHG.			5,574.7	139
OFF-PEAK KWH & CREDIT			6,186.3	(195)
POWER FACTOR (%)	85.0		85.0	
KVarHr / Mo	59,147.0		59,147.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	5,120.0	1339	5,100.0	1334
201 - 400 KWH/KW	5,120.0	1226	5,100.0	1221
> 400 KWH/KW	1,521.0	349	1,561.0	358
SUBTOTAL	11,761.0	2914	11,761.0	2,857
DEMAND CHARGE		307		306
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		3,221		3,173
TOTAL REV. PER YEAR ($000)		38.7		38.1
RIDER T ADJ ($000/YR)				(0.6)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER T	
JT2	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			2.1 %	
% OFF-PEAK KW			97.9 %	
BILLING KW	470.0		411.3	
EXCESS OFF-PEAK KW				
KWH/MONTH	110,000.0		110,000.0	
ON-PEAK KWH & SURCHG.			2,310.0	58
OFF-PEAK KWH & CREDIT			107,690.0	(3,392)
POWER FACTOR (%)	87.0		87.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
´ - 200 KWH/KW	94,000.0	15470	82,260.0	13,538
201 - 400 KWH/KW	16,000.0	2279	27,740.0	3,950
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	110,000.0	17749	110,000.0	14,154
DEMAND CHARGE		3290		2,879
VOLT. SERV. ADJ.		0		0
PF ADJ.		-42		(41)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		9898		9,898
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		9856		9,867
TOTAL REV. PER MONTH ($)		30,895		26,900
TOTAL REV. PER YEAR ($000)		370.7		322.8
RIDER T ADJ ($000/YR)				(47.9)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER T	
JT2	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			2.1 %	
% OFF-PEAK KW			97.9 %	
BILLING KW	471.0		440.7	
EXCESS OFF-PEAK KW				
KWH/MONTH	110,000.0		110,000.0	
ON-PEAK KWH & SURCHG.			2,310.0	58
OFF-PEAK KWH & CREDIT			107,690.0	(3,392)
POWER FACTOR (%)	87.0		87.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
- 200 KWH/KW	94,200.0	24637	88,140.0	23,052
201 - 400 KWH/KW	15,800.0	3782	21,860.0	5,233
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	110,000.0	28419	110,000.0	24,951
DEMAND CHARGE		5652		5,288
VOLT. SERV. ADJ.		0		0
PF ADJ.		-68		(67)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-68		(57)
TOTAL REV. PER MONTH ($)		34,003		30,182
TOTAL REV. PER YEAR ($000)		408.0		362.2
RIDER T ADJ ($000/YR)				(45.8)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER T	
JT3	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			54.8	%
% OFF-PEAK KW			45.2	%
BILLING KW	41.5		41.4	
EXCESS OFF-PEAK KW				
KWH/MONTH	20,346.0		20,346.0	
ON-PEAK KWH & SURCHG.			11,149.6	279
OFF-PEAK KWH & CREDIT			9,196.4	(290)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	8,300.0	1366	8,280.0	1,363
201 - 400 KWH/KW	8,300.0	1182	8,280.0	1,179
> 400 KWH/KW	3,746.0	496	3,786.0	501
SUBTOTAL	20,346.0	3044	20,346.0	3,032
DEMAND CHARGE		291		290
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		1831		1,831
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		1831		1,841
TOTAL REV. PER MONTH ($)		5,166		5,163
TOTAL REV. PER YEAR ($000)		62.0		62.0
RIDER T ADJ ($000/YR)				0.0

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER T	
JT3	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			54.8 %	
% OFF-PEAK KW			45.2 %	
BILLING KW	42.4		42.3	
EXCESS OFF-PEAK KW				
KWH/MONTH	20,346.0		20,346.0	
ON-PEAK KWH & SURCHG.			11,149.6	279
OFF-PEAK KWH & CREDIT			9,196.4	(290)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
J - 200 KWH/KW	8,480.0	2218	8,460.0	2,213
201 - 400 KWH/KW	8,480.0	2030	8,460.0	2,025
> 400 KWH/KW	3,386.0	777	3,426.0	786
SUBTOTAL	20,346.0	5025	20,346.0	5,013
DEMAND CHARGE		509		508
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		5,534		5,531
TOTAL REV. PER YEAR ($000)		66.4		66.4
RIDER T ADJ ($000/YR)				0.0

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER T	
JT4	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			49.5	%
% OFF-PEAK KW			50.5	%
BILLING KW	32.1		32.1	
EXCESS OFF-PEAK KW				
KWH/MONTH	15,286.0		15,286.0	
ON-PEAK KWH & SURCHG.			7,566.6	189
OFF-PEAK KWH & CREDIT			7,719.4	(243)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	6,420.0	1057	6,420.0	1,057
201 - 400 KWH/KW	6,420.0	914	6,420.0	914
> 400 KWH/KW	2,446.0	324	2,446.0	324
SUBTOTAL	15,286.0	2295	15,286.0	2,241
DEMAND CHARGE		225		225
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		1375		1,375
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		1375		1,385
TOTAL REV. PER MONTH ($)		3,895		3,851
TOTAL REV. PER YEAR ($000)		46.7		46.2
RIDER T ADJ ($000/YR)				(0.5)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER T	
JT4	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			49.5	%
% OFF-PEAK KW			50.5	%
BILLING KW	33.8		33.8	
EXCESS OFF-PEAK KW				
KWH/MONTH	15,286.0		15,286.0	
ON-PEAK KWH & SURCHG.			7,566.6	189
OFF-PEAK KWH & CREDIT			7,719.4	(243)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	6,760.0	1768	6,760.0	1,768
201 - 400 KWH/KW	6,760.0	1618	6,760.0	1,618
> 400 KWH/KW	1,766.0	405	1,766.0	405
SUBTOTAL	15,286.0	3791	15,286.0	3,737
DEMAND CHARGE		406		406
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		4,197		4,153
TOTAL REV. PER YEAR ($000)		50.4		49.8
RIDER T ADJ ($000/YR)				(0.6)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER T	
JT5	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			44.1 %	
% OFF-PEAK KW			55.9 %	
BILLING KW	92.0		89.2	
EXCESS OFF-PEAK KW				
KWH/MONTH	23,867.0		23,867.0	
ON-PEAK KWH & SURCHG.			10,525.3	263
OFF-PEAK KWH & CREDIT			13,341.7	(420)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	18,400.0	3028	17,840.0	2,936
201 - 400 KWH/KW	5,467.0	779	6,027.0	858
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	23,867.0	3807	23,867.0	3,637
DEMAND CHARGE		644		624
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		2148		2,148
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		2148		2,158
TOTAL REV. PER MONTH ($)		6,599		6,419
TOTAL REV. PER YEAR ($000)		79.2		77.0
RIDER T ADJ ($000/YR)				(2.2)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER T	
JTS	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			44.1 %	
% OFF-PEAK KW			55.9 %	
BILLING KW	92.8		89.6	
EXCESS OFF-PEAK KW				
KWH/MONTH	23,867.0		23,867.0	
ON-PEAK KWH & SURCHG.			10,525.3	263
OFF-PEAK KWH & CREDIT			13,341.7	(420)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	18,560.0	4854	17,920.0	4687
201 - 400 KWH/KW	5,307.0	1270	5,947.0	1424
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	23,867.0	6124	23,867.0	5,954
DEMAND CHARGE		1114		1,075
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		7,238		7,039
TOTAL REV. PER YEAR ($000)		86.9		84.5
RIDER T ADJ ($000/YR)				(2.4)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER T	
JT6	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			37.7 %	
% OFF-PEAK KW			62.3 %	
BILLING KW	89.2		88.1	
EXCESS OFF-PEAK KW				
KWH/MONTH	25,946.0		25,946.0	
ON-PEAK KWH & SURCHG.			9,781.6	245
OFF-PEAK KWH & CREDIT			16,164.4	(509)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	17,840.0	2936	17,620.0	2,900
201 - 400 KWH/KW	8,106.0	1154	8,326.0	1,186
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	25,946.0	4090	25,946.0	3,822
DEMAND CHARGE		624		617
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		2335		2,335
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		2335		2,345
TOTAL REV. PER MONTH ($)		7,049		6,784
TOTAL REV. PER YEAR ($000)		84.6		81.4
RIDER T ADJ ($000/YR)				(3.2)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER T	
JT6	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			37.7	%
% OFF-PEAK KW			62.3	%
BILLING KW	90.5		89.8	
EXCESS OFF-PEAK KW				
KWH/MONTH	25,946.0		25,946.0	
ON-PEAK KWH & SURCHG.			9,781.6	245
OFF-PEAK KWH & CREDIT			16,164.4	(509)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	18,100.0	4734	17,960.0	4,697
201 - 400 KWH/KW	7,846.0	1878	7,986.0	1,912
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	25,946.0	6612	25,946.0	6,345
DEMAND CHARGE		1086		1,078
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		7,698		7,433
TOTAL REV. PER YEAR ($000)		92.4		89.2
RIDER T ADJ ($000/YR)				(3.2)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER T	
JT7	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			23.7 %	
% OFF-PEAK KW			76.3 %	
BILLING KW	87.3		82.0	
EXCESS OFF-PEAK KW				
KWH/MONTH	14,442.0		14,442.0	
ON-PEAK KWH & SURCHG.			3,422.8	86
OFF-PEAK KWH & CREDIT			11,019.2	(347)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
[illegible] - 200 KWH/KW	14,442.0	2377	14,442.0	2,377
201 - 400 KWH/KW	0.0	0	0.0	0
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	14,442.0	2377	14,442.0	2,116
DEMAND CHARGE		611		574
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		1299		1,299
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		1299		1,309
TOTAL REV. PER MONTH ($)		4,287		3,999
TOTAL REV. PER YEAR ($000)		51.4		48.0
RIDER T ADJ ($000/YR)				(3.4)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF RIDER T ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER T	
JT7	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			23.7 %	
% OFF-PEAK KW			76.3 %	
BILLING KW	93.0		87.0	
EXCESS OFF-PEAK KW				
KWH/MONTH	14,442.0		14,442.0	
ON-PEAK KWH & SURCHG.			3,422.8	86
OFF-PEAK KWH & CREDIT			11,019.2	(347)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
[illegible] - 200 KWH/KW	14,442.0	3777	14,442.0	3,777
201 - 400 KWH/KW	0.0	0	0.0	0
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	14,442.0	3777	14,442.0	3,516
DEMAND CHARGE		1116		1,044
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		4,893		4,570
TOTAL REV. PER YEAR ($000)		58.7		54.8
RIDER T ADJ ($000/YR)				(3.9)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
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ESTIMATE OF RIDER T ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER T	
JT8	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			36.5 %	
% OFF-PEAK KW			63.5 %	
BILLING KW	29.5		29.5	
EXCESS OFF-PEAK KW				
KWH/MONTH	10,087.0		10,087.0	
ON-PEAK KWH & SURCHG.			3,681.8	92
OFF-PEAK KWH & CREDIT			6,405.2	(202)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
. - 200 KWH/KW	5,900.0	971	5,900.0	971
201 - 400 KWH/KW	4,187.0	596	4,187.0	596
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	10,087.0	1567	10,087.0	1,457
DEMAND CHARGE		207		207
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		908		908
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		908		918
TOTAL REV. PER MONTH ($)		2,682		2,582
TOTAL REV. PER YEAR ($000)		32.2		31.0
RIDER T ADJ ($000/YR)				(1.2)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
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ESTIMATE OF RIDER T ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER T	
JT8	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			36.5 %	
% OFF-PEAK KW			63.5 %	
BILLING KW	29.7		29.7	
EXCESS OFF-PEAK KW				
KWH/MONTH	10,087.0		10,087.0	
ON-PEAK KWH & SURCHG.			3,681.8	92
OFF-PEAK KWH & CREDIT			6,405.2	(202)
POWER FACTOR (%)	85.0		85.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	5,940.0	1554	5,940.0	1,554
201 - 400 KWH/KW	4,147.0	993	4,147.0	993
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	10,087.0	2547	10,087.0	2,437
DEMAND CHARGE		356		356
VOLT. SERV. ADJ.		0		0
PF ADJ.		0		0
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		0		10
TOTAL REV. PER MONTH ($)		2,903		2,803
TOTAL REV. PER YEAR ($000)		34.8		33.6
RIDER T ADJ ($000/YR)				(1.2)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
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ESTIMATE OF RIDER T ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER T	
JT9	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			38.1 %	
% OFF-PEAK KW			61.9 %	
BILLING KW	531.0		518.8	
EXCESS OFF-PEAK KW				
KWH/MONTH	118,117.0		118,117.0	
ON-PEAK KWH & SURCHG.			45,002.6	1,125
OFF-PEAK KWH & CREDIT			73,114.4	(2,303)
POWER FACTOR (%)	90.0		90.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
[illegible] - 200 KWH/KW	106,200.0	17478	103,760.0	17,077
201 - 400 KWH/KW	11,917.0	1697	14,357.0	2,045
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	118,117.0	19175	118,117.0	17,944
DEMAND CHARGE		3717		3,632
VOLT. SERV. ADJ.		0		0
PF ADJ.		-114		(114)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		10628		10,628
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		10514		10,524
TOTAL REV. PER MONTH ($)		33,406		32,100
TOTAL REV. PER YEAR ($000)		400.9		385.2
RIDER T ADJ ($000/YR)				(15.7)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
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ESTIMATE OF RIDER T ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER T	
JT9	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
% ON-PEAK KWH			38.1 %	
% OFF-PEAK KW			61.9 %	
BILLING KW	552.4		535.6	
EXCESS OFF-PEAK KW				
KWH/MONTH	118,117.0		118,117.0	
ON-PEAK KWH & SURCHG.			45,002.6	1,125
OFF-PEAK KWH & CREDIT			73,114.4	(2,303)
POWER FACTOR (%)	90.0		90.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
^ - 200 KWH/KW	110,480.0	28895	107,120.0	28,016
201 - 400 KWH/KW	7,637.0	1828	10,997.0	2,632
> 400 KWH/KW	0.0	0	0.0	0
SUBTOTAL	118,117.0	30723	118,117.0	29,470
DEMAND CHARGE		6629		6,427
VOLT. SERV. ADJ.		0		0
PF ADJ.		-187		(185)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		10
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-187		(175)
TOTAL REV. PER MONTH ($)		37,165		35,722
TOTAL REV. PER YEAR ($000)		446.0		428.7
RIDER T ADJ ($000/YR)				(17.3)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
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ESTIMATE OF RIDER A ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		RIDER A	
JA1	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
			0.0	
BILLING KW	484.0		279.5	
STANDBY KW	0.0		455.0	
KWH/MONTH	224,100.0		224,100.0	
POWER FACTOR (%)	89.0		89.0	
VOLT. ADJ.	(5.0)		(5.0)	
ENERGY CHARGE				
0 - 200 KWH/KW	96,800.0	15931	55,900.0	9200
201 - 400 KWH/KW	96,800.0	13785	55,900.0	7961
> 400 KWH/KW	30,500.0	4038	112,300.0	14868
SUBTOTAL	224,100.0	33754	224,100.0	32,029
DEMAND CHARGE		3388		1,957
STANDBY CHARGE				4,928
VOLT. SERV. ADJ.		-1857		(1,699)
PF ADJ.		-149		(136)
EXCESS OFF-PEAK CHRG		0		0
TOD METERING		0		0
ECAC ADJ.		20165		20,165
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		18159		18,330
TOTAL REV. PER MONTH ($)		55,301		57,244
TOTAL REV. PER YEAR ($000's)		663.6		686.9
RIDER A ADJ. ($000's/YR)				23.3

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
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ESTIMATE OF RIDER A ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		RIDER A	
JA1	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
BILLING KW	455.0		279.5	
STANDBY KW	0.0		455	
KWH/MONTH	224,100.0		224,100.0	
POWER FACTOR (%)	89.0		89.0	
VOLT. ADJ.	(5.0)		(5.0)	
ENERGY CHARGE				
0 - 200 KWH/KW	91,000.0	23800	55,900.0	14620
201 - 400 KWH/KW	91,000.0	21782	55,900.0	13381
> 400 KWH/KW	42,100.0	9656	112,300.0	25757
SUBTOTAL	224,100.0	55238	224,100.0	53,758.0
DEMAND CHARGE		5460		3,354
STANDBY CHARGE				5,230
VOLT. SERV. ADJ.		-3035		(2,856)
PF ADJ.				
EXCESS OFF-PEAK CHRG		0		0
TOD METERING				0
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-3035		(2,856)
TOTAL REV. PER MONTH ($)		57663		59,486
TOTAL REV. PER YEAR ($000's)		692.0		713.8
RIDER A ADJ. ($000's/YR)				21.8

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF SCHEDULE U ADJUSTMENT

	PRESENT RATES			
	SCHEDULE J		SCHEDULE U	
J/U1	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
ON-PEAK KW				
BILLING KW	309.0		25.0	
TOTAL KWH/MONTH	81,983.0		81,983.0	
ON-PEAK KWH			250.0	
OFF-PEAK KWH			81,733.0	
POWER FACTOR (%)	91.0		91.0	
VOLT. ADJ.	0.0		0.0	
ENERGY CHARGE				
0 - 200 KWH/KW	61,800.0	10171		
201 - 400 KWH/KW	20,183.0	2874		
SUBTOTAL	81,983.0	13045		
ON-PEAK ENERGY CHRG			250.0	41.1
OFF-PEAK ENERGY CHRG			81,733.0	9,845.4
SUBTOTAL				9,886.5
DEMAND CHARGE		2163		575
VOLT. SERV. ADJ.		0		0
PF ADJ.		-91		-94
CUSTOMER CHARGE		56		200
ECAC ADJ.		7377		7377
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		7342		7,483
TOTAL REV. PER MONTH ($)		22,550		17,945
TOTAL REV. PER YEAR ($000)		270.6		215.3
SCHED U ADJ ($000/YR)				(55.3)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 05-0315 TEST-YEAR 2006
FINAL RATES EFFECTIVE FEBRUARY 15, 2001 D&O No. 18365

ESTIMATE OF SCHEDULE U ADJUSTMENT

	PROPOSED RATES			
	SCHEDULE J		SCHEDULE U	
J/U1	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:				
MEASURED KW				
ON-PEAK KW				
BILLING KW	309.0		25.0	
TOTAL KWH/MONTH	81,983.0		81,983.0	
ON-PEAK KWH			250.0	
OFF-PEAK KWH			81,733.0	
POWER FACTOR (%)	91.0		91.0	
VOLT. ADJ.	0.0		0.0	
KVarHr / Mo	30,917.0		30,917.0	
ENERGY CHARGE				
0 - 200 KWH/KW	61,800.0	16163		
201 - 400 KWH/KW	20,183.0	4831		
> 400 KWH/KW	0.0	0		
SUBTOTAL	81,983.0	20994		
ON-PEAK ENERGY CHRG			250.0	65.4
OFF-PEAK ENERGY CHRG			81,733.0	17,266.9
SUBTOTAL				17,332.3
ON-PEAK DMD CHRG		3708		700
OFF-PEAK DMD CHRG				
VOLT. SERV. ADJ.		0		0
PF ADJ.		-148		(162)
CUSTOMER CHARGE		65		200
ECAC ADJ.		0		0
IRP ADJ.				
FCS				
FCS ADJ.				
SUBTOTAL		-83		38
TOTAL REV. PER MONTH ($)		24,619		18,070
TOTAL REV. PER YEAR ($000)		295.4		216.8
SCHED U ADJ ($000/YR)				(78.6)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE H - COMMERCIAL COOKING, HEATING,
AIR CONDITIONING & REFRIGERATION SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

SUMMARY OF TEST-YEAR REVENUES

	BILLING UNITS MWH	PRESENT RATES UNIT PRICE CENTS/KWH	PRESENT RATES REVENUES $1000s	PROPOSED RATES UNIT PRICE CENTS/KWH	PROPOSED RATES REVENUES $1000s
ENERGY CHARGE:	17200	15.9189	2,738.1	26.4183	4543.9
	KW	$/KW		$/KW	
CAPACITY CHARGE:	57,328	7.00	401.3	9.00	516.0
	BILLS	$/BILL/MO		$/BILL/MO	
CUSTOMER CHARGE:					
1 PHASE	1,412	28.00	40.8	34.00	49.5
3 PHASE	1,024	45.00	77.0	54.00	92.4
SUBTOTAL	2,436		117.8		141.9
ADJUSTMENTS: *			1,547.7		2.7
TOTAL REVENUES			4,804.9		5,204.5

* INCLUDES FOA, RENEWABLE CREDIT AND SCH. E ADJ.

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE H - COMMERCIAL COOKING, HEATING,
AIR CONDITIONING & REFRIGERATION SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF CUSTOMERS BY TYPE OF CUSTOMERS

	NUMBER OF BILLS	PERCENT OF TOTAL	MWH SALES	PERCENT OF TOTAL
RECORDED:				
RATE H: NON-DEMAND	2770	77.1803	8,225.0	43.4895
RATE K: DEMAND	819	22.8197	10,687.6	56.5105
TOTAL	3589	100.0000	18,912.6	100.0000

	PERCENT OF TOTAL	NUMBER OF BILLS	PERCENT OF TOTAL	MWH SALES
FORECASTS:				
RATE H: NON-DEMAND	76.8939	2,436	41.2791	7,100.0
RATE K: DEMAND	23.1061	732	58.7209	10,100.0
TOTAL	100.0000	3,168	100.0000	17,200.0

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE H - COMMERCIAL COOKING, HEATING,
AIR CONDITIONING & REFRIGERATION SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF CUSTOMERS BY PHASE

RECORDED:	NUMBER OF BILLS	PERCENT OF TOTAL	BILLED KW	KWH/KW	MWH
RATE H: NON-DEMAND					
1 PHASE	1606	57.9783	8681.8	336	2,920.4
3 PHASE	1164	42.0217	14193.6	374	5,304.6
TOTAL	2770	100.0000	22875.4	360	8,225.0
RATE K: DEMAND					
1 PHASE	49	5.9829	1840.2	305	560.5
3 PHASE	770	94.0171	37949.7	267	10,127.1
TOTAL	819	100.0000	39789.9	269	10,687.6
RATES H & K TOTAL					
1 PHASE	1655	46.1131	10522		3,480.9
3 PHASE	1934	53.8869	52143.3		15,431.7
TOTAL	3589	100.0000	62665.3		18912.6

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE H - COMMERCIAL COOKING, HEATING,
AIR CONDITIONING & REFRIGERATION SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF CUSTOMERS BY PHASE

	RECORDED		FORECAST		
RATE H: NON-DEMAND	MWH	PRECENT OF TOTAL	MWH	KW	KWH/KWb
1 PHASE	2,920.4	35.5063	2,520.9	7503	336
3 PHASE	5,304.6	64.4937	4,579.1	12244	374
TOTAL	8,225.0	100.0000	7,100.0	19747	360
RATE K: DEMAND					
1 PHASE	560.5	5.2442	529.7	1737	305
3 PHASE	10,127.1	94.7558	9,570.3	35844	267
TOTAL	10,687.6	100.0000	10,100.0	37581	269
RATES H & K TOTAL					
1 PHASE			3,050.6	9240	
3 PHASE			14,149.4	48088	
TOTAL			17,200.0	57328	

FORECASTS:	PERCENT OF TOTAL	NUMBER OF BILLS
RATE H: NON-DEMAND		
1 PHASE	57.9783	1,412
3 PHASE	42.0217	1,024
TOTAL	100.0000	2,436
RATE K: DEMAND		
1 PHASE	5.9829	44
3 PHASE	94.0171	688
TOTAL	100.0000	732
RATES H & K TOTAL		
1 PHASE	46.1131	1,456
3 PHASE	53.8869	1,712
TOTAL	100.0000	3,168

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P - LARGE POWER SERVICE
SUMMARY OF TEST-YEAR REVENUE
DOCKET NO. 05-0315 TEST-YEAR 2006

		PRESENT RATES		PROPOSED RATES	
	BILLING UNITS	UNIT PRICE	REVENUES $1000S	UNIT PRICE	REVENUES $1000S
ENERGY CHARGE:	(MWH)	CENTS/KWH		CENTS/KWH	
0 - 200 KWH/k	97,978	15.229	14,921.1	24.0599	23,573.4
201 - 400 KWH/k	93,216	13.049	12,163.6	21.8797	20,395.4
> 400 KWH/k	46,906	12.0458	5,650.2	20.8767	9,792.4
SUBTOTAL	238,100		32,734.9		53761.2
DEMAND CHARGE:	(KW)	$/KW		$/KW	
0 - 500 KW	318,134	11.25	3,579.0	19.50	6,203.6
OVER 500 KW	176,093	10.75	1,893.0	19.00	3,345.8
SUBTOTAL	494,227		5,472.0		9,549.4
	BILLS	$/BILL		$/BILL	
CUSTOMER CHARGE:	732	375.00	274.5	500.00	366.0
ADJUSTMENTS:			19,654.0		(1,914.9)
TOTAL REVENUES			58,135.4		61,761.7

* INCLUDES POWER FACTOR, DISTRIBUTION VOLTAGE, FUEL OIL, SCH. E ADJ., RENEWABLE CREDIT AND RIDERS.

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P - LARGE POWER SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF CUSTOMERS BY SERVICE TYPE

RECORDED:	NUMBER OF BILLS	PERCENT OF TOTAL	MWH SALES	PERCENT OF TOTAL
TP	0	0.0000	0.0	0.0000
DP	337	43.8802	138,458.5	58.2801
DS	24	3.1250	4,888.5	2.0577
SEC	407	52.9948	94,227.4	39.6623
TOTAL	768	100.0000	237,574.4	100.0000

FORECASTS:	PERCENT OF TOTAL	NUMBER OF BILLS	PERCENT OF TOTAL	MWH SALES
TP	0.0000	0	0.0000	0
DP	43.8802	321	58.2801	138,765
DS	3.1250	23	2.0577	4,899
SEC	52.9948	388	39.6623	94,436
TOTAL	100.0000	732	100.0000	238,100

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P - LARGE POWER SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF KW BY TYPE OF CUSTOMERS

	RECORDED		FORECASTS	
TYPE OF CUSTOMERS	KW	KWH/KW	KW	MWH
TP	0.0	#DIV/0!	0.0	0
DP	287,690.1	481.28	288,325	138,765
DS	10,518.0	464.78	10,540	4,899
SEC	194,928.4	483.39	195,362	94,436
TOTAL	493,136.5	481.76	494,227	238,100

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P DIST. SEC. SERVICE (DS)
DOCKET NO. 05-0315 TEST-YEAR 2006

DISTRIBUTION OF SALES BY LOAD FACTOR BLOCK

	UPPER LIM OF BLK. AS % OF AVE. USE/BILL	CUM UNIT @ EA. UPPER LIM. AS % OF TOTAL	% UNITS BILLED IN EA. BLOCK	UNITS BILLED IN EA. BLOCK
DEMAND CHARGE:				
0 - 500 KW	109.10	95.22	95.22	10,036
> 500 KW		100.00	4.78	504
TOTAL			100.00	10,540
ENERGY CHARGE:				
0 - 200 KWH/KW		43.03	43.03	2,108
201 - 400 KWH/KW		82.91	39.88	1,954
> 400 KWH/KW		100.00	17.09	837
TOTAL			100.00	4,899

FORECASTS:

SALES, MWH	4,899
BILLS	23
KW	10,540
KWH/BILL	213,000
KW/BILL	458.3

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P ESTIMATE OF DIST. SEC. (DS) ADJ.
DOCKET NO. 05-0315 TEST-YEAR 2006

RATE BLOCKS	BILLING UNITS	PRESENT RATES UNIT PRICI	PRESENT RATES REVENUES $1000S	PROPOSED RATES UNIT PRICI	PROPOSED RATES REVENUES $1000S
DEMAND CHARGE:	KW	$/KW		$/KW	
0 - 500 KW	10,036	11.25	112.9	19.50	195.7
> 500 KW	504	10.75	5.4	19.00	9.6
SUBTOTAL	10,540		118.3		205.3
ENERGY CHARGE:	MWH	CENTS/KWH		CENTS/KWH	
0 - 2[illegible] KWH/KW	2,108	15.2290	321.0	24.0599	507.2
201 - 400 KWH/KW	1,954	13.0488	255.0	21.8797	427.5
> 400 KWH/KW	837	12.0458	100.8	20.8767	174.7
SUBTOTAL	4,899		676.8		1,109.4
TOTAL ENERGY & DEMAND			795.1		1,314.7
		% ADJ.		% ADJ.	
DS ADJ.		(4.0)	(31.8)	(0.6)	(7.9)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P DIST. PRI. SERVICE (DP)
DISTRIBUTION OF SALES BY LOAD FACTOR BLOCK
DOCKET NO. 05-0315 TEST-YEAR 2006

	UPPER LIM OF BLK. AS % OF AVE. USE/BILL	CUM UNIT @ EA. UPPER LIM. AS % OF TOTAL	% UNITS BILLED IN EA. BLOCK	UNITS BILLED IN EA. BLOCK
DEMAND CHARGE:				
0 - 500 KW	55.67	49.18	49.18	141,798
> 500 KW		100.00	50.82	146,527
TOTAL			100.00	288,325
ENERGY CHARGE:				
0 - 200 KWH/KW		41.56	41.56	57,671
201 - 400 KWH/KW		81.12	39.56	54,895
> 400 KWH/KW		100.00	18.88	26,199
TOTAL			100.00	138,765

FORECASTS:

SALES, MWH	138,765
BILLS	321
KW	288,325
KWH/BILL	432,290
KW/BILL	898.2

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P ESTIMATE OF DIST. PRI. (DP) ADJ.
DOCKET NO. 05-0315 TEST-YEAR 2006

		PRESENT RATES		PROPOSED RATES	
RATE BLOCKS	BILLING UNITS	UNIT PRICI	REVENUES $1000S	UNIT PRICI	REVENUES $1000S
DEMAND CHARGE:	KW	$/KW		$/KW	
0 - 500 KW	141,798	11.25	1,595.2	19.50	2,765.1
> 500 KW	146,527	10.75	1,575.2	19.00	2,784.0
SUBTOTAL	288,325		3,170.4		5,549.1
ENERGY CHARGE:	MWH	CENTS/KWH		CENTS/KWH	
0 - 200 KWH/KW	57,671	15.2290	8,782.7	24.0599	13,875.6
201 - 400 KWH/KW	54,895	13.0488	7,163.1	21.8797	12,010.9
> 400 KWH/KW	26,199	12.0458	3,155.9	20.8767	5,469.5
SUBTOTAL	138,765		19,101.7		31,356.0
TOTAL ENERGY & DEMAND			22,272.1		36,905.1
		% ADJ.		% ADJ.	
DP ADJ.		(5.0)	(1,113.6)	(2.5)	(922.6)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P LARGE POWER SERVICE
DISTRIBUTION OF SALES BY LOAD FACTOR BLOCK
DOCKET NO. 05-0315 TEST-YEAR 2006

	UPPER LIM OF BLK. AS % OF AVE. USE/BILL	CUM UNIT @ EA. UPPER LIM. AS % OF TOTAL	% UNITS BILLED IN EA. BLOCK	UNITS BILLED IN EA. BLOCK
DEMAND CHARGE:				
0 - 500 KW	74.05	64.37	64.37	318,134
> 500 KW		100.00	35.63	176,093
TOTAL			100.00	494,227
ENERGY CHARGE:				
0 - 200 KWH/KW		41.15	41.15	97,978
201 - 400 KWH/KW		80.30	39.15	93,216
> 400 KWH/KW		100.00	19.70	46,906
TOTAL			100.00	238,100

FORECASTS:

SALES, MWH	238,100
BILLS	732
KW	494,227
KWH/BILL	325,273
KW/BILL	675.2

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P ESTIMATE OF POWER FACTOR ADJ.
DOCKET NO. 05-0315 TEST-YEAR 2006

GWH	237.5744	
RKVAH	84.1752	
POWER FACTOR	94.2584	
	PRESENT RATES	CURRENT % PF ADJ at PROPOSED RATES
CALCULATED PF (%)	94	94
BASE PF (%)	85	85
DIFF.	(9)	(9)
ADJ. FOR EA. 1% DIF	0.0015	0.0015
PF ADJ. RATE	(0.0135)	(0.0135)
TOTAL DMD/ENERGY CH	38,206.9	63,310.6
PF ADJ. @ Current	(515.8)	(854.7)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P - LARGE POWER SERVICE
SUMMARY OF RIDER ADJUSTMENTS
DOCKET NO. 05-0315 TEST-YEAR 2006

In $000s	PRESENT RATES	PROPOSED RATES
PM(B)1	(18.8)	(27.0)
PM(B)21	(36.8)	(52.3)
PM(B)22	(37.8)	(57.3)
PM(T)22	(28.0)	(37.5)
PM(A)23	12.4	(13.9)
TOTAL	(109.0)	(188.0)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P - LARGE POWER SERVICE
ESTIMATE OF RIDER M ADJUSTMENT
DOCKET NO. 05-0315 TEST-YEAR 2006

PM(B)1	PRESENT RATES				PROPOSED RATES			
	SCHEDULE P		RIDER M(B)		SCHEDULE P		RIDER M(B)	
	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:								
MEASURED KW	0.0		0.0		0		0	
CURTAILABLE DMD	0		107.7		0		107.7	
BILLING KW	570.7		489.9		570.7		489.9	
EXCESS OFF-PEAK K	0		0		0		0	
KWH/MONTH	272483		272483		272483		272483	
POWER FACTOR (%)	72		72		72		72	
VOLT. DISC. (%)	0		0		0		0	
KVARH/MONTH								
ENERGY CHARGE								
0 - 200 KWH/KW	114140	17,382	97980	14,921	114140	27,462	97980	23,574
201 - 400 KWH/KW	114140	14,894	97980	12,785	114140	24,973	97980	21,438
> 400 KWH/KW	44203	5325	76523	9,218	44203	9228	76523	15975
	272483	37,601	272483	36,924	272483	61,663	272483	60,987
DEMAND CHARGE								
0 - 500 KW	500	5625	489.9	5511	500	9750	489.9	9553
> 500 KW	70.7	760	0	0	70.7	1343	0	0
	570.7	6,385	489.9	5,511	570.7	11,093	489.9	9,553
VOLT. DISC. ADJ.		0		0		0		0
PF ADJ.		858		827		1419		1376
EXCESS OFF-PEAK CHRG				0				0
TOD METER CHARGE:		0		10		0		10
FUEL OIL ADJ	272483	24518	272483	24518	272483	0	272483	0
SUBTOTAL		25376		25355		1419		1386
TOTAL REV. PER MONTH ($)		69,362		67,790		74,175		71,926
TOTAL REV. PER YEAR ($1000)		832.3		813.5		890.1		863.1
RIDER M ADJ.($1000/YR)				(18.8)				(27.0)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P - LARGE POWER SERVICE
ESTIMATE OF RIDER M ADJUSTMENT
DOCKET NO. 05-0315 TEST-YEAR 2006

PM(B)22	PRESENT RATES				PROPOSED RATES			
	SCHEDULE P		RIDER M(B)		SCHEDULE P		RIDER M(B)	
	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:								
MEASURED KW	0.0		0.0		0		0	
CURTAILABLE DMD	0		257.3		0		257.3	
BILLING KW	682		489.0		682		489.0	
EXCESS OFF-PEAK K	0		0		0		0	
KWH/MONTH	239600		239600		239600		239600	
POWER FACTOR (%)	91		91		91		91	
VOLT. DISC. (%)	-5		-5		-2.5		-5	
ENERGY CHARGE								
0 - 200 KWH/KW	136400	20,772	97800	14,894	136400	32,818	97800	23,531
201 - 400 KWH/KW	103200	13,466	97800	12,762	103200	22,580	97800	21,398
> 400 KWH/KW	0	0	44000	5,300	0	0	44000	9186
	239600	34,238	239600	32,956	239600	55,398	239600	54,115
DEMAND CHARGE								
0 - 500 KW	500	5625	489	5501	500	9750	489	9536
> 500 KW	182	1957	0	0	182	3458	0	0
	682	7,582	489	5,501	682	13,208	489	9,536
VOLT. DISC. ADJ.		(2,091)		(1,923)		(1,715)		(1,591)
PF ADJ.		-376		-346		-617		-573
EXCESS OFF-PEAK CHRG				0				0
TOD METER CHARGE:		0		10		0		10
FUEL OIL ADJ	239600	21559	239600	21559	239600	0	239600	0
SUBTOTAL		19092		19300		-2332		-2154
TOTAL REV. PER MONTH ($)		60,912		57,757		66,274		61,497
TOTAL REV. PER YEAR ($1000)		730.9		693.1		795.3		738.0
RIDER M ADJ.($1000/YR)				(37.8)				(57.3)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P - LARGE POWER SERVICE
ESTIMATE OF RIDER M ADJUSTMENT
DOCKET NO. 05-0315 TEST-YEAR 2006

PM(B)21	PRESENT RATES				PROPOSED RATES			
	SCHEDULE P		RIDER M(B)		SCHEDULE P		RIDER M(B)	
	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:								
MEASURED KW	0.0		0.0		0		0	
CURTAILABLE DMD	0		210.3		0		210.3	
BILLING KW	361.3		203.6		361.3		203.6	
EXCESS OFF-PEAK K	0		0		0		0	
KWH/MONTH	245400		245400		245400		245400	
POWER FACTOR (%)	89		89		89		89	
VOLT. DISC. (%)	0		0		0		0	
ENERGY CHARGE								
0 - 200 KWH/KW	72260	11,004	40720	6,201	72260	17,386	40720	9,797
201 - 400 KWH/KW	72260	9,429	40720	5,313	72260	15,810	40720	8,909
> 400 KWH/KW	100880	12152	163960	19,750	100880	21060	163960	34229
	245400	32,585	245400	31,264	245400	54,256	245400	52,935
DEMAND CHARGE								
0 - 500 KW	361.3	4065	203.6	2291	361.3	7045	203.6	3970
> 500 KW	0	0	0	0	0	0	0	0
	361.3	4,065	203.6	2,291	361.3	7,045	203.6	3,970
VOLT. DISC. ADJ.		0		0		0		0
PF ADJ.		-220		-201		-368		-341
EXCESS OFF-PEAK CHRG				0				0
TOD METER CHARGE:		0		10		0		10
FUEL OIL ADJ	245400	22081	245400	22081	245400	0	245400	0
SUBTOTAL		21861		21890		-368		-331
TOTAL REV. PER MONTH ($)		58,511		55,445		60,933		56,574
TOTAL REV. PER YEAR ($1000)		702.1		665.3		731.2		678.9
RIDER M ADJ.($1000/YR)				(36.8)				(52.3)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P - LARGE POWER SERVICE
ESTIMATE OF RIDER T ADJUSTMENT
DOCKET NO. 05-0315 TEST-YEAR 2006

P(T)22	PRESENT RATES				PROPOSED RATES			
	SCHEDULE P		RIDER T		SCHEDULE P		RIDER T	
	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:								
% ON-PEAK KWH	0.0		20.2		0		20.2	
% OFF-PEAK KWH	0		79.8		0		79.8	
BILLING KW	527.7		432.5		527.7		432.5	
EXCESS OFF-PEAK KW	0		0		0		0	
KWH/MONTH	63900		63,900.0		63900		63,900.0	
ON-PEAK KWH & SURCHG.			12,907.8	322.7			12,907.8	322.7
OFF-PEAK KWH & CREDIT			50,992.2	(1,606.3)			50,992.2	(1,606.3)
POWER FACTOR (%)	82		82		82		82	
VOLT. DISC. (%)	0		0		0		0	
ENERGY CHARGE								
0 - 200 KWH/KW	63900	9,731	63900	9,731	63900	15,374	63900	15,374
201 - 400 KWH/KW	0	0	0	0	0	0	0	0
> 400 KWH/KW	0	0	0	0	0	0	0	0
	63900	9,731	63900	9,731	63900	15,374	63900	15,374
DEMAND CHARGE								
0 - 500 KW	500	5625	432.5	4866	500	9750	432.5	8434
> 500 KW	27.7	298	0	0	27.7	526	0	0
	527.7	5,923	432.5	4,866	527.7	10,276	432.5	8,434
VOLT. DISC. ADJ.		0		0		0		0
PF ADJ.		70		66		115		107
EXCESS OFF-PEAK CHRG				0				0
TOD METER CHARGE:		0		10		0		10
FUEL OIL ADJ	63900	5750	63900	5750	63900	0	63900	0
SUBTOTAL		5820		5826		115		117
TOTAL REV. PER MONTH ($)		21,474		19,139		25,765		22,641
TOTAL REV. PER YEAR ($1000)		257.7		229.7		309.2		271.7
RIDER M ADJ.($1000/YR)				(28.0)				(37.5)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE P - LARGE POWER SERVICE
ESTIMATE OF RIDER A ADJUSTMENT
DOCKET NO. 05-0315 TEST-YEAR 2006

P(A)23	PRESENT RATES				PROPOSED RATES			
	SCHEDULE P		RIDER A		SCHEDULE P		RIDER A	
	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)	BILLING UNITS	REVENUES ($)
BILLING LOAD/MO.:								
MEASURED KW	0.0		0.0		0		0	
BILLING KW	686		265.2		686		265.2	
STANDBY KW	0		730		0		730	
KWH/MONTH	196000		196000		196000		196000	
POWER FACTOR (%)	93		93		93		93	
VOLT. DISC. (%)	0		0		0		0	
ENERGY CHARGE								
0 - 20[illegible] KWH/KW	137200	20,894	53040	8,077	137200	33,010	53040	12,761
201 - 400 KWH/KW	58800	7,673	53040	6,921	58800	12,865	53040	11,605
> 400 KWH/KW	0	0	89920	10,832	0	0	89920	18772
	196000	28,567	196000	25,830	196000	45,875	196000	43,138
DEMAND CHARGE								
0 - 500 KW	500	5625	265.2	2984	500	9750	265.2	5171
> 500 KW	186	2000	0	0	186	3534	0	0
	686	7,625	265.2	2,984	686	13,284	265.2	5,171
STANDBY CHARGE				8,322.00				9,563.00
VOLT. DISC. ADJ.		0		0		0		0
PF ADJ.		-434		-346		-710		-580
EXCESS OFF-PEAK CHRG				0				0
TOD METER CHARGE:		0		0		0		0
FUEL OIL ADJ	196000	17636	196000	17636	196000	0	196000	0
FIRM CAP SUR ADJ	196000	0	196000	0	196000	0	196000	0
SUBTOTAL		17202		17290		-710		-580
TOTAL REV. PER MONTH ($)		53,394		54,426		58,449		57,292
TOTAL REV. PER YEAR ($1000)		640.7		653.1		701.4		687.5
RIDER M ADJ.($1000/YR)				12.4				(13.9)

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE F - STREET LIGHTING SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

SUMMARY OF TEST-YEAR REVENUE ESTIMATES

		PRESENT RATES		PROPOSED RATES	
	BILLING UNITS (MWH)	UNIT PRICE ¢/KWH	REVENUES $1000S	UNIT PRICE ¢/KWH	REVENUES $1000S
ENERGY CHARGE					
0 - 150 KWH/KW	1,922.6	22.7311	437.0	34.689	666.9
> 150 KWH/KW	2,477.4	16.5301	409.5	28.4883	705.8
SUBTOTAL	4,400.0		846.5		1,372.7
ADJUSTMENTS*			403.2		6.9
TOTAL REVENUES			1,249.7		1,379.6

* INCLUDES MIN CHGE ADJ, FOA & RENEWABLE CREDIT.

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE F - STREET LIGHTING SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

	RECORDED	FORECASTS
TOTAL F:		
SALES, MWH	4,267.7	4,400.0
BILLED KW	12,783.1	12,817
KWH/KW		
NUMBER OF BILLS	1489	1536
METERED ACCOUNTS:		
SALES, MWH	188.0	194.0
% OF TOTAL	4.41	4.41
BILLED KW	431.9	446
KWH/KW	435	435
NUMBER OF BILLS	298	307
% OF TOTAL	20.01	20.01
FLAT ACCOUNTS:		
SALES, MWH	4,079.6	4206
% OF TOTAL	95.59	95.59
BILLED KW	12351.2	12371
KWH/KW	330.30	340
NUMBER OF BILLS	1191	1229
% OF TOTAL	79.99	79.99

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE F - STREET LIGHTING SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF MINIMUM BILL ADJUSTMENT

	PRESENT RATES	PROPOSED RATES	
MINIMUM CHARGE	35.00	35.00	$/MO.
ENERGY CHG., 0-150LF	22.73110	34.68930	$/KWH
FUEL OIL ADJUSTMENT	8.99800	0.00000	$/KWH
IRP SURCHARGE	0.00000	0.00000	%
FCS ADJUSTMENT			%
CUSTOMER CHARGE	0.00	0.00	$/MO.
MINIMUM KWH/MONTH	110.31	100.90	

	PRESENT RATES		PROPOSED RATES	
	RECORDED	FORECAST	RECORDED	FORECAST
SALES, MWH				
Total F	4,267.7	4400	4,267.7	4400
LT/EQ To MIN KWH	28.2	29	22.1	22.9
% of Total	0.66	0.66	0.52	0.52
NUMBER OF BILLS				
Total F	1,489	1536	1,489	1536
LT/EQ To MIN KWH	456	470	399	412
% of Total	30.62	30.62	26.80	26.8

HAWAII ELECTRIC LIGHT COMPANY, INC.
SCHEDULE F - STREET LIGHTING SERVICE
DOCKET NO. 05-0315 TEST-YEAR 2006

ESTIMATE OF MINIMUM BILL ADJUSTMENT

	PRESENT RATES			PROPOSED RATES		
IF NO PROVISION FOR MINIMUM CHARGE :	UNITS BILLED (MWH)	UNIT PRICE (¢/KWH)	REVENUES $1000s	UNITS BILLED (MWH)	UNIT PRICE (¢/KWH)	REVENUES $1000s
ENERGY CHARGE	29.0	22.731	6.6	22.9	34.6893	7.9
FUEL OIL ADJUSTMENT	29.0	8.998	2.6	22.9	0.000	0.0
			9.2			7.9
	BILLS	$/MONTH		BILLS	$/MONTH	
CUSTOMER CHARGE	470	0.00	0.0	412	0.00	0.0
TOTAL			9.2			7.9
AS BILLED WITH MINIMUM CHARGE:	470	35.00	16.5	412	35.00	14.4
MINIMUM BILL ADJUSTMENT			7.3			6.5

Index of Workpapers for HELCO Rate Case - Rebuttal Testimony
TEST YEAR 2006
DOCKET NO. 05-0315

Header		Page(s)	Description
HELCO - RWP	400	1	Index
HELCO - RWP	402	1-3	TY 2006 Fuel price derivation (confidential)
HELCO - RWP	403	1	Monthly Energy Input Into the Production Simulation
HELCO - RWP	403	2	5-year Historical No-Charge and Loss %
HELCO - RWP	403	3	Transmission Planning Analysis of System Losses
			Base Case Workpapers
HELCO - RWP	404	1	Unadjusted Output From Production Simulation
HELCO - RWP	404	2	Adjusted Output From Production Simulation Application of Calibration Factor
HELCO - RWP	404	3	Derivation of Weighted Average Cost/MBTU for Avoided Cost and Schedule Q Proposed Rates
HELCO - RWP	404	4	Test Year Fuel Oil Expense Summary/Composite Price
HELCO - RWP	404	5-12	Raw Output From Production Simulation Model
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HELCO - RWP	404	35	Load Input File
HELCO - RWP	404	36	Regulating Reserve Input File
HELCO - RWP	404	37-53	Pattern Files
HELCO - RWP	404	54-93	Test Year Derived From 2005 Data Calibration Factors
			Other Workpapers
HELCO - RWP	404	94	Overhaul Schedule Developed by HELCO
HELCO - RWP	404	95	Unit Ratings Used in Production Simulation
HELCO - RWP	404	96	Penalty Factors Used In Production Simulation
HELCO - RWP	404	97	Unit Heat Rate Constants in Production Simulation
HELCO - RWP	404	98	Variable O&M Data
HELCO - RWP	404	99	HELCO Historical Equivalent Forced Outage Rates
HELCO - RWP	404	100	IPP Historical Equivalent Forced Outage Rates
HELCO - RWP	404	101	HELCO Historical Maintenance Outage Rates
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HELCO - RWP	404	103-107	Derivation of Transaction File Inputs
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			Miscellaneous Workpapers
HELCO - RWP	405	1	Historical and Test Year Propane Start-Up Costs
HELCO - RWP	405	2	Historical and Test Year Fuel Additive and Petrospect Costs
HELCO - RWP	405	3	Test Year Ocean Cargo Insurance Costs
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HELCO - RWP	406	1-2	Test Year Sales Efficiency
HELCO - RWP	407	1	Historical HELCO Heat rates
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HELCO - RWP	408	3	Typical Fuel Tank Diagram
HELCO - RWP	408	4	Historical and Test Year Ignitor Diesel Fuel Consumption
HELCO - RWP	408	5	Test Year Industrial Fuel Oil Average Burn Rate
HELCO - RWP	408	6	Test Year Diesel Fuel Average Burn Rate
HELCO - RWP	408	7	Historical 2005 Industrial Fuel Oil Average Burn Rate
HELCO - RWP	408	8	Historical 2005 Diesel Fuel Average Burn Rate
HELCO - RWP	408	9	Actual 2006 Industrial Fuel Oil Average Burn Rate
HELCO - RWP	408	10	Actual 2006 Diesel Fuel Average Burn Rate
HELCO - RWP	409	1-6	Fuel Oil Historical Inventories

NOT CHANGED FROM DIRECT TESTIMONY

This workpaper contains confidential fuel pricing information and has been deleted from this copy. Pages 1 to 3, with the deleted information, will be filed pursuant to an appropriate protective order.

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

NET GENERATION INPUT TO PRODUCTION SIMULATION (MWH)
TEST YEAR 2006
Rebuttal Testimony

	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06
Unadjusted Sales	94,268	86,730	94,686	91,941	96,030	92,610
- DSM	0	0	0	0	0	0
+ No Charge [1]	118	116	135	128	134	138
Sales + NC	94,386	86,846	94,821	92,069	96,163	92,747
Losses [2]	8,362	7,694	8,400	8,157	8,519	8,217
Net-to-Sys	102,748	94,540	103,222	100,226	104,683	100,964

	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Test Year 2006
Unadjusted Sales	98,897	101,937	96,506	100,259	95,571	98,475	1,147,910
- DSM	0	0	0	0	0	0	0
+ No Charge	149	149	159	146	143	139	1,653
Sales + NC	99,046	102,086	96,665	100,405	95,714	98,614	1,149,563
Losses	8,775	9,044	8,564	8,895	8,479	8,736	101,842
Net-to-Sys	107,820	111,130	105,229	109,300	104,194	107,350	1,251,405

Reference
HELCO-201

[1] No Charge: 1,653 MWH based on 2005 year actual. HELCO-WP-403, page 2.

[2] Losses: 8.14% of Net-to-System. HELCO-WP-403, page 3.

Hawaii Electric Light Company, Inc.

HISTORICAL NO CHARGE AND LOSS PERCENTAGE
RECORDED SALES

	2001	2002	2003	2004	2005	2006	2001-2005 (5-yr Ave)
Recorded Sales (MWH)	959,607	995,198	1,046,147	1,082,807	1,116,487	1,148,761	1,040,049
No Charge (MWH)	1,621	1,632	1,700	1,586	1,653	3,533 [1]	1,638
NC as % of UnadjustedSales	0.17%	0.16%	0.16%	0.15%	0.15%	0.31%	0.16%
Sales + No Charge	961,228	996,829	1,047,847	1,084,393	1,118,140	1,152,294	1,041,687
Net-to-System (MWH)	1,050,509	1,087,614	1,140,883	1,181,913	1,217,492	1,252,791	1,135,682
% Losses	8.50%	8.35%	8.15%	8.25%	8.16%	8.02%	8.28%

Test Year 2006 Unadjusted Sales (HELCO-WP-403, page 1)	=	1,147,910	MWH
No Charge Using 2001-2005 (5-yr) Average % of Unadjusted Sa	=	1,813	MWH
No Charge Using 2005 % of Unadjusted Sales	=	1,700	MWH
No Charge Using 2001-2005 (5-yr) Average MWH	=	1,638	MWH
No Charge Using 2005 MWH	=	1,653	MWH
Test Year 2006 No Charge Assumption:			
No Charge Using 2005 MWH	**=**	**1,653**	**MWH**

[1] The No Charge for 2006 includes station off-line useage whereas in the previous years it was not included.

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.
TEST YEAR 2006 Estimated Demand & Energy Losses

	Demand Losses For System Peak (MW)	Demand Losses For System Peak Percent	Demand Losses For System Minimum (MW)	Demand Losses For System Minimum Percent	Energy Losses (GWH)	Energy Losses Percent
A. HELCO Net Gen	107.0	52.2%	37.0	43.7%	541.3	43.26%
B. Delivered to HELCO GSU Tsf.	107.0	52.2%	37.0	43.7%	541.3	43.26%
HELCO GSU Tsf Losses	0.7	0.3%	0.2	0.2%	3.6	0.29%
C. HELCO Gen Delivered To 69 kV	106.3	51.8%	36.9	43.5%	537.7	42.97%
IPP Gen Injection	98.2	47.8%	47.7	56.3%	710.1	56.74%
Delivered To Transmission	204.5	99.7%	84.6	99.8%	1247.8	99.71%
Trans Losses	6.3	3.1%	3.7	4.4%	52.9	4.23%
F. Delivered To Dist. Subs	198.2	96.6%	80.9	95.4%	1194.9	95.49%
Dist Tsf Losses	1.8	0.9%	0.8	1.0%	9.4	0.75%
G. Delivered To Dist	196.4	95.7%	80.1	94.5%	1185.5	94.74%
Dist Losses	1.9	0.9%	0.3	0.4%	7.2	0.58%
H. Delivered To Dist/Sec Tsf.	194.6	94.8%	79.7	94.0%	1178.3	94.16%
Sec Tsf Losses	3.2	1.5%	2.5	2.9%	21.7	1.74%
I. Delivered To Sec	191.4	93.3%	77.3	91.1%	1156.6	92.42%
Sec Losses	1.8	0.9%	0.4	0.4%	7.0	0.56%
J. Delivered To Meter	189.6	92.4%	76.9	90.7%	1149.6	91.86%
Company Use	0.3	0.1%	0.1	0.1%	1.7	0.13%
Sales	189.3	92.2%	76.8	90.6%	1147.9	91.73%
Total Losses	15.6	7.6%	7.9	9.3%	101.8	8.14%
System Total	205.2		84.8		1251.4	

Notes:
1) "Total Losses" do not include auxiliary station loads.
2) Percent values are percent of the "System Total."
3) Demand values are estimated assuming there are no transmission line outages and no generating unit outages.
4) Energy generated values are estimated per HELCO-WP-404, pages 1-2.

Hawaii Electric Light Company, Inc.

2006 TEST YEAR PRODUCTION SIMULATION
SUMMARY (UNADJUSTED)
Rebuttal Testimony

Location	Unit No.	Hours Run	Net MWHs	Fuel Consumption BBL	Fuel Consumption MBTU
		PMONTH	*PMONTH*		*PMONTH*
Shipman	3	3,671	19,201	50,190	316,200
	4	3,670	18,534	48,206	303,700
	Total	7,342	37,735	98,397	619,900
Hill	5	7,244	77,572	167,698	1,056,500
	6	6,602	130,831	256,365	1,615,100
	Total	13,846	208,403	424,063	2,671,600
Puna-Steam	Total	7,247	74,507	193,651	1,220,000
Waimea	D12	99	248	444	2,600
	D13	70	176	324	1,900
	D14	65	163	290	1,700
	Total	235	587	1,058	6,200
Kanoelehua	D11	52	104	188	1,100
	D15	135	338	614	3,600
	D16	121	303	546	3,200
	D17	111	278	495	2,900
	Sub Total	420	1,023	1,843	10,800
	CT1	233	830	4,317	25,300
	Total	653	1,853	6,160	36,100
Keahole	D21	1,517	3,793	6,826	40,000
	D22	1,444	3,610	6,502	38,100
	D23	1,321	3,302	5,956	34,900
	Sub Total	4,282	10,705	19,283	113,000
	CT2	625	7,368	17,287	101,300
	CT4	5,254	80,455	157,167	921,000
	CT5	4,975	71,008	141,229	827,600
	Total	15,136	169,536	334,966	1,962,900
Puna-Diesel	CT3	2,193	22,545	49,659	291,000
Dispersed Generators	D24	28	28	51	300
	D25	24	24	34	200
	D26	23	23	34	200
	D27	26	26	34	200
	Total	101	101	154	900
Wind/Hydro					
Lalamilo			1,438		
HelcoHydro			25,295		
	Total		26,733		
Wailuku			27,496		
Other Hydro			1,008		
Kamaoa			4,841		
HRD			34,222		
	Total		67,567		
IPP					
HEP		8,460	419,745		
PGV		7,733	221,944		
	Total		641,689		
IPP Total			709,256		
Helco Total			542,000		
SYSTEM TOTAL			1,251,256	1,108,108	6,808,600

	MBTU/BBL
IFO	6.3
Diesel	5.86

Hawaii Electric Light Company, Inc.

2006 TEST YEAR FUEL CONSUMPTION
PRODUCTION SIMULATION
Rebuttal Testimony

Adjustment for Calibration Factor:

Steam	Net MWHs	Prod Sim Barrels	p. 54 Calibration Factor	Adjusted Barrels	Net KWH / Barrel	Barrels Per Day	MBTU @ 6.30 MBTU / BBL	Net Heat Rate (MBTU/KWH)
Shipman 3	19,201	50,190	1.018	51,094	376	140	321,892	16,764
Shipman 4	18,534	48,206	1.018	49,074	378	134	309,166	16,681
Total	37,735	98,397		100,168	377	274	631,058	16,723
Hill 5	77,572	167,698	1.018	170,717	454	468	1,075,517	13,865
Hill 6	130,831	256,365	1.018	260,980	501	715	1,644,174	12,567
Total	208,403	424,063		431,697	483	1,183	2,719,691	13,050
Puna	74,507	193,651	1.018	197,137	378	540	1,241,963	16,669
Steam Total	320,645	716,111		729,002	440	1,997	4,592,713	14,323

Diesels	Net MWHs	Prod Sim Barrels	p. 54 Calibration Factor	Adjusted Barrels	Net KWH / Barrel	Barrels Per Day	MBTU @ 5.86 MBTU / BBL	Net Heat Rate (MBTU/KWH)
Waimea	587	1,058	1.051	1,112	528	3	6,516	11,101
Kanoelehua	1,023	1,843	1.051	1,937	528	5	11,351	11,096
CT1	830	4,317	1.051	4,538	183	12	26,593	32,040
Total	1,853	6,160		6,475	286	18	37,944	20,477
Keahole	10,705	19,283	1.051	20,267	528	56	118,765	11,094
CT2	7,368	17,287	1.051	18,168	406	50	106,464	14,450
CT4	80,455	157,167	1.051	165,183	487	453	967,972	12,031
CT5	71,008	141,229	1.051	148,431	478	407	869,806	12,249
Total	169,536	334,966		352,049	482	965	2,063,007	12,169
Puna CT3	22,545	49,659	1.051	52,191	432	143	305,839	13,566
Distributed Generators	101	154	1.051	161	627	0	943	9,337
Diesel Total	194,622	391,997		411,988	472	1,129	2,414,250	12,405

Plant	Net MWHs		Adjusted Barrels	Barrels Per Day	Adjusted MBTU	Net HR (MBTU/KWH)
Shipman	37,735		100,168	274	631,058	16,723
Hill	208,403		431,697	1,183	2,719,691	13,050
Puna	74,507		197,137	540	1,241,963	16,669
Waimea	587		1,112	3	6,516	11,101
Kanoelehua/CT1	1,853		6,475	18	37,944	20,477
Keahole/CT2/CT4/CT5	169,536		352,049	965	2,063,007	12,169
Puna CT3	22,545		52,191	143	305,839	13,566
Distributed Generators	101		161	0	943	9,337
Wind/Hydro	26,733					
IPP	709,256	Helco Only MWH				
System	1,251,256	515267	1,140,990	3,126	7,006,961	13,599

Adjustment for EUE and Rounding: [1]

Plant	Net MWHs		Adjusted Barrels	Barrels Per Day	Adjusted MBTU	Net HR (MBTU/KWH)
Shipman	37,754		100,218		631,370	
Hill	208,422		431,736		2,719,935	
Puna	74,526		197,186		1,242,274	
Steam Total	**320,701**		**729,140**		**4,593,579**	14,324
Waimea	606		1,147		6,723	
Kanoelehua/CT1	1,872		6,540		38,326	
Keahole/CT2/CT4/CT5	169,555		352,088		2,063,234	
Puna CT3	22,564	Helco Only MWH	52,234		306,092	
Diesel Total	**194,596**	515416	**412,010**		**2,414,376**	12,407
Distributed Generators	**120**		**191**		**1,117**	
Wind/Hydro	26,733					
Ipp	709,261					
System	1,251,405	(Prod Sim Input)	1,141,340		7,009,073	13,599

[1] Adjustment to prorate 0.149 GWh difference in net generation between prod sim output and input (EUE & Rounding)

Hawaii Electric Light Company, Inc.

DERIVATION OF TEST YEAR 2006
WEIGHTED AVERAGE COST PER MBTU
Rebuttal Testimony

Plant	Type	Adjusted Net MWHs	Adjusted MBTU	Fuel Price ($/MBTU)	Total Fuel Expense ($)	% MBTU
Shipman	Steam	37,754	631,370	9.0619	5,721,436	8.56
Hill	Steam	208,422	2,719,935	9.0619	24,647,868	36.89
Puna	Steam	74,526	1,242,274	9.2601	11,503,638	16.85
Waimea	Diesel	606	6,723	14.9717	100,659	0.09
Kanoelehua	Diesel	1,872	38,326	14.7995	567,213	0.52
Keahole	Diesel	169,555	2,063,234	15.0248	30,999,762	27.99
Puna CT3	Diesel	22,564	306,092	14.8064	4,532,130	4.15
Distributed Generators	Diesel	120	1,117	16.0467	17,930	0.02
	Sub-total	515,416	7,009,073		78,090,636	
Wind/Hydro		26,733	363,565			4.93
IPP		709,261				
		1,251,410	7,372,638		78,090,636	100.00

Plant	Type		Wtd Cost (¢ / MBTU)
Shipman	Steam		77.57
Hill	Steam		334.29
Puna	Steam		156.03
Waimea	Diesel		1.35
Kanoelehua	Diesel		7.70
Keahole	Diesel		420.55
Puna CT3	Diesel		61.45
Distributed Generators	Diesel		0.32
		TOTAL	1,059.26

Hawaii Electric Light Company, Inc.

TEST YEAR 2006 FUEL OIL EXPENSE
Rebuttal Testimony

Plant	(1) Fuel Consumption (BBLs)	(2) Fuel Prices ($/BBL)	(3) = (1) x (2) Fuel Expense ($000)
Shipman	100,218	57.0902	5,721.4
Hill	431,736	57.0902	24,647.9
Puna	197,186	58.3389	11,503.6
Waimea	1,147	87.7341	100.7
Kanoelehua	6,540	86.7252	567.2
Keahole/CT2	352,088	88.0456	30,999.8
CT3	52,234	86.7656	4,532.1
Distributed Generators	191	94.0338	17.9
	1,141,340		78,090.7
	COMPOSITE FUEL PRICE ($ / BBL)		68.4201

Reference
Column 1: HELCO-RWP-404, page 2
Column 2: HELCO-RWP-402, page 1

Case Name: hty06r28
Simulation Period: 2006/ 1 - 2006/12

File	Name
Study Data:	hty2006.stu
Report Control:	hty2006.rfc
Area Data:	helco.are
Plant Data:	helcor.plt
Fuel Class Data:	hty2006.fcl
Spot Fuel Data:	hty06_r3.sfu
Contract Fuel Data:	
Thermal Basic Data:	hty06r21.ubs
Thermal Cost Data:	hty06r26.ucs
Thermal Performance Data:	hty06r27.upf
Thermal NOx Data:	
Hourly Pattern # 1:	ptn1.hcp
Hourly Pattern # 2:	ptn2.hcp
Hourly Pattern # 3:	ptn3.hcp
Hourly Pattern # 4:	ptn4.hcp
Hourly Pattern # 5:	ptn5.hcp
Hourly Pattern # 6:	ptn6.hcp
Hourly Pattern # 7:	ptn7.hcp
Hourly Pattern # 15:	ptn15.hcp
Hydro Data:	hty06r28.hyd
Pumped Storage Data:	
Fixed Energy Transaction Data:	hty06r28.trf
Economy Transaction Data:	
DSM Data:	
Monte Carlo Scenario Data:	hty06r28.mcs
Thermal Maintenance Data:	hty06r13.smt
Hydro Maintenance Data:	
P-S Maintenance Data:	
Load Data:	hty06_r2.ssi
CC Data #1:	hty06_r9.cc1
CC Data #2:	hty06_r1.cc2
CC Data #3:	hty06r24.cc3
CC Data #4:	
CC Maintenance Data:	hty06r13.cmt
Quick Load Pick Up Curve Data:	
Spinning Reserve Data:	hty06_r0.spn

PPC Proprietary Program Licensed to HECO Till 12/2099 HECO PMONTH V.022504
HELCO System (2006) - Rate Case Test Year 2006 (Rebuttal Testimony) Page: 2
No transmission line reconductoring. No Future CHP. 02/23/07 16:47:10

Calendar Year: 2006

Monthly system Load and Capacity Summary

Mnth	Peak Load MW	Mnthly Energy GWh	Load Factor %	Installed Capacity MW	Maint outage MW	Adjusted Capacity MW	Capacity Reserve MW	Capacity Reserve %
Jan	195	102.8	70.8	264.2	9.2	255	60	30.77
Feb	193	94.5	72.9	264.2	20.3	243.9	50.9	26.37
Mar	190	103.2	73	264.2	19.7	244.5	54.5	28.68
Apr	188	100.2	74	264.2	20	244.2	56.2	29.89
May	183	104.7	76.9	264.2	30	234.2	51.2	27.98
Jun	182	101	77	264.2	31.3	232.9	50.9	27.97
Jul	187	107.8	77.5	264.2	20.5	243.7	56.7	30.32
Aug	194	111.1	77	264.2	14	250.2	56.2	28.97
Sep	194	105.2	75.3	264.2	13.5	250.7	56.7	29.23
Oct	200	109.3	73.5	264.2	30	234.2	34.2	17.1
Nov	201	104.2	72	264.2	6.7	257.5	56.5	28.11
Dec	205	107.3	70.4	264.2	0	264.2	59.2	28.88

Summary for Period:

Pea	k Load	(MW):	205
Tot	al Energy	(GWh):	1251.41
Loa	d Factor	(%):	69.69

Month	AM Peak (MW)	PM Peak (MW)	Capacity (MW)	Maint. (MW)	Reserve (MW)	Largest (MW)	LSC (MW)	Diff. (MW)
Jan	169.7	195	264.2	9.2	60	60	195	0
Feb	172.5	193	264.2	20.3	50.9	60	183.9	-9.1
Mar	173.2	190	264.2	19.7	54.5	60	184.5	-5.5
Apr	169.6	188	264.2	20	56.2	60	184.2	-3.8
May	179.1	183	264.2	30	51.2	60	174.2	-8.8
Jun	180.2	182	264.2	31.3	50.9	60	172.9	-9.1
Jul	181.9	187	264.2	20.5	56.7	60	183.7	-3.3
Aug	194	191.3	264.2	14	56.2	60	190.2	-3.8
Sep	184.2	194	264.2	13.5	56.7	60	190.7	-3.3
Oct	187.1	200	264.2	30	34.2	60	174.2	-25.8
Nov	176.7	201	264.2	6.7	56.5	60	197.5	-3.5
Dec	174.8	205	264.2	0	59.2	60	204.2	-0.8

0

PPC Proprietary Program Licensed to HECO Till 12/2099 HECO PMONTH V.022504
HELCO System (2006) - Rate Case Test Year 2006 (Rebuttal Testimony) Page: 3
No transmission line reconductoring. No Future CHP. 02/23/07 16:47:10

Fiscal Year: 2006

Station Summary

	Station	Capacity MW	Unit	Hours	CF %	Energy GWh	MBtu k	Cold Start	Warm Start	Stup Cst M$	Fuel Cst M$	VO&M Cst M$	FO&M Cst M$	Oper Cst $/MWh	Tot Cst $/MWh	Ave Hrt Btu/kWh
2	Shipman3	6.7	1	3671.4	32.7	19.201	316.2	8	254	0	2.8702	0.0761	1.037	151.02	207.45	16470
3	Shipman4	7.2	1	3670.1	29.37	18.534	303.7	8	254	0	2.7567	0.0753	1.037	150.3	208.75	16387
4	Hill5	13.5	1	7243.7	65.56	77.572	1056.5	5	0	0	9.5746	0.1025	2.2338	124.71	153.55	13620
5	Hill6	20.3	1	6601.9	73.53	130.831	1615.1	5	0	0	14.6357	0.167	2.2338	113.14	130.22	12345
6	Puna	14	1	7246.6	60.72	74.507	1220	5	0	0	11.2974	0.2498	2.099	154.98	183.15	16374
10	KanoeD11	2	1	52.1	0.59	0.104	1.1	13	1	0	0.0163	0.0035	0.0023	189.56	211.84	10559
11	WaimeD12	2.5	1	99.1	1.13	0.248	2.6	23	2	0	0.0392	0.0067	0.051	185.03	391.04	10559
12	WaimeD13	2.5	1	70.3	0.8	0.176	1.9	19	1	0	0.0278	0.0047	0.051	185.03	475.39	10559
13	WaimeD14	2.5	1	65.3	0.75	0.163	1.7	16	1	0	0.0258	0.0044	0.051	185.03	497.43	10559
14	KanoeD15	2.5	1	135.1	1.54	0.338	3.6	32	2	0	0.0528	0.0091	0.172	183.07	692.47	10559
15	KanoeD16	2.5	1	121.1	1.38	0.303	3.2	28	2	0	0.0473	0.0081	0.172	183.07	751.46	10559
16	KanoeD17	2.5	1	111.3	1.27	0.278	2.9	25	2	0	0.0435	0.0075	0.172	183.07	801.47	10559
20	KeahoD21	2.5	1	1517	17.31	3.793	40	232	13	0	0.6017	0.099	0.2484	184.76	250.25	10559
21	KeahoD22	2.5	1	1444.2	16.48	3.61	38.1	238	12	0	0.5728	0.0943	0.2484	184.76	253.55	10559
22	KeahoD23	2.5	1	1321	15.07	3.302	34.9	228	11	0	0.5239	0.0862	0.2484	184.76	259.97	10559
23	KanoeCT1	11	1	233.2	0.86	0.83	25.3	51	4	0	0.3749	0	0.0682	451.88	534.05	30534
24	KeahoCT2	12.5	1	624.5	6.73	7.368	101.3	120	10	0	1.5214	0.0778	0.6494	217.04	305.17	13743
25	PunaCT3	20	1	2192.7	12.86	22.545	291	270	0	0	4.3089	0.2904	0.8469	203.19	241.57	12908
26	P6Von	30	1	4384.7	50.03	131.54	136	313	0	0	0.008	0	0	0.06	0.06	1034
27	P6Voff	27	1	3348.3	38.2	90.404	93.8	338	0	0	0.0056	0	0	0.06	0.06	1037
32	Panaewa	1	1	28.4	0.32	0.028	0.3	7	0	0	0.0042	0.0047	0.0078	315.82	591.46	9280
33	Puki	1	1	24.1	0.27	0.024	0.2	6	0	0	0.0036	0.004	0.0078	315.82	640.45	9280
34	Punaluu	1	1	22.6	0.26	0.023	0.2	6	0	0	0.0034	0.0038	0.0078	315.82	661.71	9280
35	Kapua	1	1	25.5	0.29	0.026	0.2	7	0	0	0.0038	0.0043	0.0078	315.82	622.02	9280
36	KeahoCT4	20	1	2519.6	21.29	37.327	431.3	309	0	0	6.4806	0.3383	0.4469	182.11	194.65	11555
37	KeahoCT5	20.5	1	2537.1	20.63	37.071	429.7	227	0	0	6.4559	0.3401	0.4469	182.9	195.38	11591
39	CT4on	20	1	2734.5	24.6	43.128	489.7	182	0	0	7.3573	0.3701	0.4469	178.88	189.54	11354
40	CT5on	20.5	1	2437.9	18.89	33.937	397.9	163	0	0	5.9783	0.3249	0.4469	185.4	198.9	11724
9	Kao-CC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	EDC-CC	60	1	8459.8	79.82	419.745	3428.9	27	13	0	51.5186	2.4575	2.8855	128.59	135.47	8169
1	PPHydro	0.2	1	8760	99.95	1.008	0	0	0	0	0	0	0	0	0	
4	WaiukuH	5.7	1	8760	99.94	27.496	0	0	0	0	0	0	0	0	0	
5	helcohyd	4.2	1	8760	99.95	25.295	0	0	0	0	0	0	0	0	0	
	System					1210.756	10467	2911	583	0	127.11	5.2102	16.3262	109.14	122.77	8645

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HELCO System (2006) - Rate Case Test Year 2006 (Rebuttal Testimony) Page: 4
No transmission line reconductoring. No Future CHP. 02/23/07 16:47:10

Fiscal Year: 2006

Transaction Summary

ID	Transaction	Type	Energy GWh	Engy Cost M$	CAP Cost M$	Total Cost M$	Ave Cost $/MWh
4	lalanilo	CONSTANT PI	1.438	0	0	0	0
5	kamaoa	CONSTANT PI	4.841	0	0	0	0
9	Hawi	CONSTANT PI	34.222	0	0	0	0

PPC Proprietary Program Licensed to HECO Till 12/2099 HECO PMONTH V.022504
HELCO System (2006) - Rate Case Test Year 2006 (Rebuttal Testimony) Page: 5
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Fiscal Year: 2006

Fuel Type Summary

	Type	Energy GWh	Fuel ,000	Fuel Unit	MBtu ,000	Fuel Cost M$	Fuel Cost $/MWh	Heat Rate Btu/kWh	Fuel Cost C/MBtu
S	pot:								
1	PGV	221.944	37.055	Othr	229.7	0.0136	0.06	1035	5.92
2	IND_S/H	246.138	520.957	Bbl	3282	29.7415	120.83	13334	906.19
3	IND_PUNA	74.507	193.651	Bbl	1220	11.2974	151.63	16374	926.01
4	DSL_PUNA	22.545	49.662	Bbl	291	4.3089	191.12	12908	1480.64
5	DSL_KANO	1.852	6.166	Bbl	36.1	0.5347	288.67	19505	1479.95
7	DSLKEAHE	169.537	334.961	Bbl	1962.9	29.4918	173.96	11578	1502.48
9	DSLWAIME	0.587	1.057	Bbl	6.2	0.0928	158.08	10559	1497.17
13	Disperse	0.101	0.159	Bbl	0.9	0.015	148.91	9280	1604.67
41	DSLEDCE	419.745	585.135	Bbl	3428.9	51.5186	122.74	8169	1502.48
45	PropaneS	0	9.282	Othr	9.3	0.0928	0	0	1000
46	PropaneH	0	0.281	Othr	0.3	0.0028	0	0	1000
	Hydro	53.799							

Fuel Class Summary

	Class	Energy GWh	Fuel ,000	Fuel Unit	MBtu ,000	Fuel Cost M$	Fuel Cost $/MWh	Heat Rate Btu/kWh	Fuel Cost C/MBtu
1	Oil	320.646	714.608	Bbl	4502	41.0389	127.99	14041	911.6
2	Diesel	614.266	976.981	Bbl	5725.1	85.9469	139.92	9320	1501.2
4	Geotherm	221.944	37.055	Othr	229.7	0.0136	0.06	1035	5.9
6	Propane	0	9.562	Othr	9.6	0.0956	0	0	1000
7	Disperse	0.101	0.159	Bbl	0.9	0.015	148.91	9280	1604.7
	Hydro	53.8							

PPC Proprietary Program Licensed to HECO Till 12/2099 HECO PMONTH V.022504
HELCO System (2006) - Rate Case Test Year 2006 (Rebuttal Testimony) Page: 6
No transmission line reconductoring. No Future CHP. 02/23/07 16:47:10

Fiscal Year: 2006

System Energy and Cost Summary

Demand	GWh	Cost M$	Cost $/MWh	Supply	GWh	Cost M$	Cost $/MWh
Load:	1251.43			Therml Gen	1156.96	148.6464	128.48
				Hydro Gen:	53.8	0	0
P-S Pumping:	0			P-S Gen:	0	0	0
P-S Payback:	0						
F. E. Sale:	0	0	0	F. E. Purc:	40.5	0	0
Econ. Sale:	0	0	0	Econ. Purc:	0	0	0
Unit Sale:	0	0	0				
Transm Loss:	0			Rej. Fuel:		0	
Dsm Load:	0			Dsm Reduct	0		
				Emerg Purc	0	0	0
Dumped Engy:	0	0	0	E.U. Energy	0.17	0	0
				Lvl Cost:		0	
Total:	1251.43	0	0	Total:	1251.43	148.6464	118.78
				System Net:		148.6464	118.78
				LOLH(hr):	19.4		

PPC Proprietary Program Licensed to HECO Till 12/2099 HECO PMONTH V.022504
HELCO System (2006) - Rate Case Test Year 2006 (Rebuttal Testimony) Page: 7
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Fiscal Year: 2006

Plant Summary

Plant	CF %	Energy GWh	MBtu 1000	Start Ups	Stup Cst M$	Fuel Cst M$	O&M Cst M$	Tot Cst $/MWh
1 Shipman	31	37.7354	620	524	0	5.6269	2.2254	208.09
2 Hill	70.4	208.4029	2671.6	9	0	24.2103	4.7372	138.9
3 Puna	60.8	74.5075	1220	5	0	11.2974	2.3488	183.15
4 Kanoe	1	1.8524	36.1	159	0	0.5347	0.6147	620.51
5 PGV	44.4	221.9437	229.7	651	0	0.0136	0	0.06
7 Waimea	0.9	0.5868	6.2	61	0	0.0928	0.1689	445.92
8 Keahole	19.2	169.5367	1962.9	1746	0	29.4918	4.913	202.93
9 Hydro	100	53.7992	0	0	0	0	0	0
14 EDC	36.8	419.7452	3428.9	40	0	51.5186	5.3431	135.47
15 Disperse	0.3	0.1006	0.9	28	0	0.015	0.0481	626.74
17 PUNACT3	12.9	22.5452	291	270	0	4.3089	1.1373	241.57

Area Summary

	Area	CF %	Energy GWh	MBtu 1000	Start Ups	Stup Cst M$	Fuel Cst M$	O&M Cst M$	Tot Cst $/MWh
---									
1	West	30	643.74	5398.6	1868	0	81.1139	10.4605	142.25
2	East	40	567.015	5068.7	1626	0	45.9961	11.0759	100.65

Fiscal Year: 2006

Yearly Fuel & Var O&M Cost by Subperiod (M$)

Off Peak	Shoulder Peak	Priority Peak	Total
38.96925	65.012077	28.338839	132.3202

Study Period: 2006/Jan - 2006/Dec
Total Fuel & Var O&M Cost by Subperiod (M$)

Off Peak	Shoulder Peak	Priority Peak	Total
38.969254	65.012077	28.338839	132.32016(

Non-Utility Firm Capacity

PGVon Run Summary

Year	Station	Hours	CF %	Energy MWh	MBtu k	Cold Strt Ups	Warm Strt Ups	Stup Cst $	Fuel Cst $	VO&M Cst $	FO&M Cst $	Oper Cst $/MWh	Tot Cst $/MWh	Ave Hrt Btu/kWh
2006	PGVon	4384.6	50.05	131540	135.96	313	0	0	8049	0	0	0.06	0.06	1034
Off Peak:														
2006	PGVon	0	0	0	0	0	0	0	0	0	0	0	0	0
Shoulder Peak:														
2006	PGVon	3131.8	85.81	93957	97.12	313	0	0	5749	0	0	0.06	0.06	1034
Priority Peak:														
2006	PGVon	1252.8	85.81	37582	38.85	0	0	0	2299	0	0	0.06	0.06	1034

PGVoff Run Summary

Year	Station	Hours	CF %	Energy MWh	MBtu k	Cold Strt Ups	Warm Strt Ups	Stup Cst $	Fuel Cst $	VO&M Cst $	FO&M Cst $	Oper Cst $/MWh	Tot Cst $/MWh	Ave Hrt Btu/kWh
2006	PGVoff	3348.3	38.22	90403	93.78	338	0	0	5551	0	0	0.06	0.06	1037
Off Peak:														
2006	PGVoff	3348.3	91.73	90403	93.78	338	0	0	5551	0	0	0.06	0.06	1037
Shoulder Peak:														
2006	PGVoff	0	0	0	0	0	0	0	0	0	0	0	0	0
Priority Peak:														
2006	PGVoff	0	0	0	0	0	0	0	0	0	0	0	0	0

EDC-CC Run Summary

Year	Station	Hours	CF %	Energy MWh	MBtu k	Cold Strt Ups	Warm Strt Ups	Stup Cst $	Fuel Cst $	VO&M Cst $	FO&M Cst $	Oper Cst $/MWh	Tot Cst $/MWh	Ave Hrt Btu/kWh
2006	EDC-CC	8459.9	79.86	419744	3428.89	27	13	0	51518576	2457521	2885564	128.59	135.47	8169
Off Peak:														
2006	EDC-CC	3485.8	66.54	145728	1232.27	24	12	0	18514722	982281	1202324	133.79	142.04	8456
Shoulder Peak:														
2006	EDC-CC	3556.3	89.26	195470	1567.52	3	1	0	23551746	1053961	1202324	125.88	132.03	8019
Priority Peak:														
2006	EDC-CC	1417.8	89.66	78545	629.1	0	0	0	9452109	421279	480915	125.7	131.83	8009

Non-Utility Non-Firm Capacity

PPHydro Run Summary

Year	Station	Hours	CF %	Energy MWh	MBtu k	Cold Strt Ups	Warm Strt Ups	Stup Cst $	Fuel Cst $	VO&M Cst $	FO&M Cst $	Oper Cst $/MWh	Tot Cst $/MWh	Ave Hrt Btu/kWh
2006	PPHydro	8760	71.24	1007	0	0	0	0	0	0	0	0	0	0
Off Peak:														
2006	PPHydro	3650	71.24	419	0	0	0	0	0	0	0	0	0	0
Shoulder Peak:														
2006	PPHydro	3650	71.24	419	0	0	0	0	0	0	0	0	0	0
Priority Peak:														
2006	PPHydro	1460	71.24	167	0	0	0	0	0	0	0	0	0	0

WailukuH Run Summary

Year	Station	Hours	CF %	Energy MWh	MBtu k	Cold Strt Ups	Warm Strt Ups	Stup Cst $	Fuel Cst $	VO&M Cst $	FO&M Cst $	Oper Cst $/MWh	Tot Cst $/MWh	Ave Hrt Btu/kWh
2006	WailukuH	8760	55.43	27495	0	0	0	0	0	0	0	0	0	0
Off Peak:														
2006	WailukuH	3650	55.43	11456	0	0	0	0	0	0	0	0	0	0
Shoulder Peak:														
2006	WailukuH	3650	55.43	11456	0	0	0	0	0	0	0	0	0	0
Priority Peak:														
2006	WailukuH	1460	55.43	4582	0	0	0	0	0	0	0	0	0	0

System Study Summary - Part 1

Yr	Mn	Skip	Mrg Cst flag	Mrg Cst MW	Hydro MW	Monte Carlo	Dep flag	Ld Band %	Ld Band MW	S. R. %	S. R. MW	# of Wkdays	Weekday On-pk 1st hr	Weekday On-pk Last hr	Weekend On-pk 1st hr	Weekend On-pk Last hr
1995	1	0	1	1.0	1.0	2		0.0	0.0	0.0	0.0	7	7	20	1	24

System Study Summary - Part 2

Yr	Mn	EUE Cost	EUE Cost esc	Dump Cost	Dump Cost esc	NOx Cost	SOx Cost	CO2 Cost	HOG Cost	POL Cost	Min Resv	Max Resv	Decm Rate	Base Year
1995	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

Report Control Summary

Yr	Mn	Fiscal Yr Last Mn	Rpt Prd	Yrly Rpt	Stat Rpt	Plant Rpt	Area Rpt	PS Rpt	Cmt/Dsp Diag	Hrly Graph	Wkly Graph	Mnth Graph	Yrly Graph	ALLOC	Capital Expnd	PGNE Opt
1995	1	12	2	0	1	1	1	0	1	1		1	1	0	0	

Report Control Summary - HECO specific

Yr	Mn	80th or 100th
1995	1	0

Area Summary

Yr	Mn	Id	Name	S.R. %	S.R. MW	Ld Adj %	Ld Adj MW	Emg Tie Cap	Emg Tie Cost	Emg Tie Cost e&c	Imp Tie	Exp Tie	Min Gen
1995	1	1	West	0.0	0.0	0.0	0.0	0.0	0.00	0.0			
1995	1	2	East	0.0	0.0	0.0	0.0	0.0	0.00	0.0			

Plant Summary

Yr	Mn	Id	Name
1995	1	1	Shipman
1995	1	2	Hill
1995	1	3	Puna
1995	1	4	Xanoe
1995	1	5	PGV
1995	1	6	HCPC
1995	1	7	Waimea
1995	1	8	Keahole
1995	1	9	Hydro
1995	1	10	Wind
1999	1	14	EDC
1995	1	15	Disperse
1995	1	17	PUNACT3

Plant Summary - HECO specific

Yr	Mo	Id	Name	NOx Cost	SOx Cost	CO2 Cost	ROG Cost	Other Cost
1995	1	1	Shipman	0.00	0.00	0.00	0.00	0.00
1995	1	2	Hill	0.00	0.00	0.00	0.00	0.00
1995	1	3	Puna	0.00	0.00	0.00	0.00	0.00
1995	1	4	Kanoe	0.00	0.00	0.00	0.00	0.00
1995	1	5	PGV	0.00	0.00	0.00	0.00	0.00
1995	1	6	HCPC	0.00	0.00	0.00	0.00	0.00
1995	1	7	Waimea	0.00	0.00	0.00	0.00	0.00
1995	1	8	Keahole	0.00	0.00	0.00	0.00	0.00
1995	1	9	Hydro	0.00	0.00	0.00	0.00	0.00
1995	1	10	Wind	0.00	0.00	0.00	0.00	0.00
1999	1	14	EDC	0.00	0.00	0.00	0.00	0.00
1995	1	15	Disperse	0.00	0.00	0.00	0.00	0.00
1995	1	17	PUNACT3	0.00	0.00	0.00	0.00	0.00

Fuel Class Summary

Yr	Mn	Id	Name	Unit
2006	1	1	Oil	1 BBL
2006	1	2	Diesel	1 BBL
2006	1	3	Wind	6 OTHER2
2006	1	4	Geotherm	6 OTHER2
2006	1	5	Coal	3 TON
2006	1	6	Propane	6 OTHER2
2006	1	7	Disperse	1 BBL

Spot Fuel Summary

Yr	Mn	Id	Name	Class	Fuel Cost	Impl Cost	Cost Esc	Heat Content	SOx	CO2	ROG	Other
2006	1	1	PGV	4 Geotherm	5.9	0.0	0.0	6.20	0.0000	0.0000	0.0000	0.0000
2006	1	2	IND_S/H	1 Oil	906.1	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2006	1	3	IND_PUNA	1 Oil	926.0	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2006	1	4	DSL_PUNA	2 Diesel	1480.6	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2006	1	5	DSL_KANO	2 Diesel	1479.9	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2006	1	7	DSLKEAHE	2 Diesel	1502.4	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2006	1	9	DSLWAIME	2 Diesel	1497.1	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2006	1	13	Disperse	7 Disperse	1604.6	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2006	1	41	DSLEDCE	2 Diesel	1502.4	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2006	1	45	PropaneS	6 Propane	1000.0	0.0	0.0	1.00	0.0000	0.0000	0.0000	0.0000
2006	1	46	PropaneH	6 Propane	1000.0	0.0	0.0	1.00	0.0000	0.0000	0.0000	0.0000

Thermal Basic Summary

Yr	Mn	Id	Name	Area	Plant	# Unit	Hr Cap	Brnh	Firm	Op Type	Qck Strt	PE Der	EnLm SE	Min Dn	Min Up	Ramp Rate	Owner	SR Contrb	VOM Cst	Fms Cst	VOM Dsp	Fms Dsp	SOx Scrub Eff
2006	1	2	Shipman3	2 East	1 Shipman	1	7	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	3	Shipman4	2 East	1 Shipman	1	7	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	4	Hill5	2 East	2 Hill	1	0	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	5	Hill6	2 East	2 Hill	1	0	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	6	Puna	2 East	3 Puna	1	0	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	10	KanoeD11	2 East	4 Kanoe	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	11	WaimeD12	1 West	7 Waimea	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	12	WaimeD13	1 West	7 Waimea	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	13	WaimeD14	1 West	7 Waimea	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	14	KanoeD15	2 East	4 Kanoe	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	15	KanoeD16	2 East	4 Kanoe	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	16	KanoeD17	2 East	4 Kanoe	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	20	KeahoD21	1 West	8 Keahole	1	15	0	0	4	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	21	KeahoD22	1 West	8 Keahole	1	15	0	0	4	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	22	KeahoD23	1 West	8 Keahole	1	15	0	0	4	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	23	KanoeCT1	2 East	4 Kanoe	1	0	0	0	4	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	24	KeahoCT2	1 West	8 Keahole	1	0	0	0	4	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	25	PunaCT3	2 East	17 PUNACT3	1	0	0	0	4	0	0		2	2	9999	100.0	100.0	1	0	1	0	0.0
2006	1	26	PGVon	2 East	5 PGV	1	1	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	27	PGVoff	2 East	5 PGV	1	2	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	32	Panaewa	2 East	15 Disperse	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	33	Ouli	1 West	15 Disperse	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	34	Puna2uu	1 West	15 Disperse	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	35	Kapua	1 West	15 Disperse	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2006	1	36	KeahoCT4	1 West	8 Keahole	1	-3	0	0	3	0	0		2	2	9999	100.0	100.0	1	0	1	0	0.0
2006	1	37	KeahoCT5	1 West	8 Keahole	1	-4	0	0	3	0	0		2	2	9999	100.0	100.0	1	0	1	0	0.0
2006	1	39	CT4on	1 West	8 Keahole	1	-5	0	0	1	0	0		2	2	9999	100.0	100.0	1	0	1	0	0.0
2006	1	40	CT5on	1 West	8 Keahole	1	-6	0	0	1	0	0		2	2	9999	100.0	100.0	1	0	1	0	0.0

Thermal Cost and Variable Summary

Yr	Mn	Id	Name	Spot Fuel	StUp Fuel	Startup Fl Req	Startup Cost	VOM Cost	VOM Esc	FOM Cost	FOM Esc	Capital Cost	Eng Lmt Fuel	VOM Flg	Commit Fnlt	Dsptch Fnlt	Transm Loss	SU Cst Fctr	Erly VOM
2006	1	2	Shipman3	2 IND_S/H	45 PropaneS	17.	0.	1.13	1.0	86413.	1.0	0.00		1	1.07296	1.07296	1.00000	0.00	14.78
2006	1	3	Shipman4	2 IND_S/H	45 PropaneS	17.	0.	1.13	1.0	86413.	1.0	0.00		1	1.07296	1.07296	1.00000	0.00	14.78
2006	1	4	Hill5	2 IND_S/H	46 PropaneH	58.	0.	0.80	1.0	186152.	1.0	0.00		1	1.07526	1.07526	1.00000	0.00	5.54
2006	1	5	Hill6	2 IND_S/H	5 DSL_KANO	0.	0.	0.80	1.0	186152.	1.0	0.00		1	1.07526	1.07526	1.00000	0.00	9.37
2006	1	6	Puna	3 IND_PUNA	3 IND_PUNA	0.	0.	2.63	1.0	174915.	1.0	0.00		1	1.07000	1.07000	1.00000	0.00	7.42
2006	1	10	KanoeD11	5 DSL_KANO	5 DSL_KANO	0.	0.	0.79	1.0	193.	1.0	0.00		1	1.07874	1.07874	1.00000	0.00	65.04
2006	1	11	WaimeD12	9 DSLWAIME	9 DSLWAIME	0.	0.	0.92	1.0	4252.	1.0	0.00		1	1.08227	1.01010	1.00000	0.00	65.04
2006	1	12	WaimeD13	9 DSLWAIME	9 DSLWAIME	0.	0.	0.92	1.0	4252.	1.0	0.00		1	1.08227	1.01010	1.00000	0.00	65.04
2006	1	13	WaimeD14	9 DSLWAIME	9 DSLWAIME	0.	0.	0.92	1.0	4252.	1.0	0.00		1	1.08227	1.01010	1.00000	0.00	65.04
2006	1	14	KanoeD15	5 DSL_KANO	5 DSL_KANO	0.	0.	0.79	1.0	14336.	1.0	0.00		1	1.07874	1.07874	1.00000	0.00	65.04
2006	1	15	KanoeD16	5 DSL_KANO	5 DSL_KANO	0.	0.	0.79	1.0	14336.	1.0	0.00		1	1.07874	1.07874	1.00000	0.00	65.04
2006	1	16	KanoeD17	5 DSL_KANO	5 DSL_KANO	0.	0.	0.79	1.0	14336.	1.0	0.00		1	1.07874	1.07874	1.00000	0.00	65.04
2006	1	20	KeahoD21	7 DSLKEAHE	7 DSLKEAHE	0.	0.	0.09	1.0	20699.	1.0	0.00		1	0.94876	0.94876	1.00000	0.00	65.04
2006	1	21	KeahoD22	7 DSLKEAHE	7 DSLKEAHE	0.	0.	0.09	1.0	20699.	1.0	0.00		1	0.94876	0.94876	1.00000	0.00	65.04
2006	1	22	KeahoD23	7 DSLKEAHE	7 DSLKEAHE	0.	0.	0.09	1.0	20699.	1.0	0.00		1	0.94876	0.94876	1.00000	0.00	65.04
2006	1	23	KanoeCT1	5 DSL_KANO	5 DSL_KANO	0.	0.	0.00	1.0	5681.	1.0	0.00		1	1.07874	1.07874	1.00000	0.00	0.00
2006	1	24	KeahoCT2	7 DSLKEAHE	7 DSLKEAHE	0.	0.	1.18	1.0	54113.	1.0	0.00		1	0.94876	0.94876	1.00000	0.00	110.63
2006	1	25	PunaCT3	4 DSL_PUNA	4 DSL_PUNA	4.	0.	0.94	1.0	70574.	1.0	0.00		1	1.08695	1.08695	1.00000	0.00	122.73
2006	1	26	PGVon	1 PGV	1 PGV	0.	0.	0.00	1.0	0.	1.0	0.00		1	1.11111	1.11111	1.00000	0.00	0.00
2006	1	27	PGVoff	1 PGV	1 PGV	0.	0.	0.00	1.0	0.	1.0	0.00		1	1.11111	1.11111	1.00000	0.00	0.00
2006	1	32	Panaewa	13 Disperse	13 Disperse	0.	0.	17.98	1.0	651.	1.0	0.00		1	1.40115	1.00000	1.00000	0.00	148.92
2006	1	33	Ouli	13 Disperse	13 Disperse	0.	0.	17.98	1.0	651.	1.0	0.00		1	1.40115	1.00000	1.00000	0.00	148.92
2006	1	34	Punaluu	13 Disperse	13 Disperse	0.	0.	17.98	1.0	651.	1.0	0.00		1	1.40115	1.00000	1.00000	0.00	148.92
2006	1	35	Kapua	13 Disperse	13 Disperse	0.	0.	17.98	1.0	651.	1.0	0.00		1	1.40115	1.00000	1.00000	0.00	148.92
2006	1	36	KeahoCT4	7 DSLKEAHE	7 DSLKEAHE	4.	0.	1.14	1.0	37244.	1.0	0.00		1	0.94876	0.94876	1.00000	0.00	117.27
2006	1	37	KeahoCT5	7 DSLKEAHE	7 DSLKEAHE	4.	0.	1.14	1.0	37244.	1.0	0.00		1	0.94876	0.94876	1.00000	0.00	117.27
2006	1	39	CT4on	7 DSLKEAHE	7 DSLKEAHE	4.	0.	1.14	1.0	37244.	1.0	0.00		1	0.94876	0.94876	1.00000	0.00	117.27
2006	1	40	CT5on	7 DSLKEAHE	7 DSLKEAHE	4.	0.	1.14	1.0	37244.	1.0	0.00		1	0.94876	0.94876	1.00000	0.00	117.27

Thermal Performance Summary

Yr	Mn	Id	Name		State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Avg @ Min	FOR	MOR
2006	1	2	Shipman3	MW	5.0000000	5.5700000	6.1300000	6.7000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	32.3443990	6.8132402	0.6128630	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		15.18	6.8
2006	1	3	Shipman4	MW	5.0000000	5.7300000	6.4700000	7.2000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	39.0454159	2.5987974	1.1475386	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		15.18	6.8
2006	1	4	Hi115	MW	9.0000000	10.5000000	12.0000000	13.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	26.3356810	9.5743788	0.1440445	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		4.47	6.0
2006	1	5	Hi116	MW	16.0000000	17.4300000	18.8700000	20.3000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	91.7984567	3.5017454	0.2122299	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		4.47	6.0
2006	1	6	Puna	MW	9.0000000	10.6700000	12.3300000	14.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	52.4400000	10.1100000	0.1100000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		4.47	6.0
2006	1	10	KanoeD11	MW	2.0000000	2.0000000	2.0000000	2.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	6.1493000	4.3231400	1.5804580	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		25.59	2.0
2006	1	11	WaimaD12	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6830000	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		25.59	2.0
2006	1	12	WaimaD13	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6830000	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		25.59	2.0
2006	1	13	WaimaD14	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6830000	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		25.59	2.0
2006	1	14	KanoeD15	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		25.59	2.0
2006	1	15	KanoeD16	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		25.59	2.0
2006	1	16	KanoeD17	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		25.59	2.0
2006	1	20	KeahoD21	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		25.59	2.0
2006	1	21	KeahoD22	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		25.59	2.0
2006	1	22	KeahoD23	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		25.59	2.0

Thermal Performance Summary

Yr	Mn	Id	Name		State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Avg @ Min	FOR	MOR
2006	1	23	KanoeCT1	MW	3.0000000	5.6700000	8.3300000	11.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	74.0422190	9.1501269	0.1272079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		28.14	1.5
2006	1	24	KeahoCT2	MW	8.0000000	9.5000000	11.0000000	12.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	56.9838260	8.8646629	0.0040140	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		9.72	1.5
2006	1	25	PunaCT3	MW	7.5000000	11.6700000	15.8300000	20.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	49.3842317	7.6807581	0.0309678	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		5.49	1.5
2006	1	26	PGVon	MW	30.0000000	30.0000000	30.0000000	30.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		7.10	0.0
2006	1	27	PGVoff	MW	27.0000000	27.0000000	27.0000000	27.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.63	0.0
2006	1	32	Panaewa	MW	1.0000000	1.0000000	1.0000000	1.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	2.8000000	3.2000000	3.2800000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		58.47	0.1
2006	1	33	Ouli	MW	1.0000000	1.0000000	1.0000000	1.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	2.8000000	3.2000000	3.2800000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		58.47	0.1
2006	1	34	Punaluu	MW	1.0000000	1.0000000	1.0000000	1.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	2.8000000	3.2000000	3.2800000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		58.47	0.1
2006	1	35	Kapua	MW	1.0000000	1.0000000	1.0000000	1.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	2.8000000	3.2000000	3.2800000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		58.47	0.1
2006	1	36	KeahoCT4	MW	7.5000000	11.6700000	15.8300000	20.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	49.3842317	7.6807581	0.0309678	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		5.49	1.5
2006	1	37	KeahoCT5	MW	7.5000000	11.8300000	16.1700000	20.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	53.1790579	6.8586778	0.0689441	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		5.49	1.5
2006	1	39	CT4on	MW	7.5000000	11.6700000	15.8300000	20.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	49.3842317	7.6807581	0.0309678	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		5.49	0.0
2006	1	40	CT5on	MW	7.5000000	11.8300000	16.1700000	20.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	53.1790579	6.8586778	0.0689441	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		5.49	0.0

Thermal Maintenance Summary

Id	Name	Year	Month	Day	# of Days
2	Shipman3	2006	1	2	28
2	Shipman3	2006	10	30	28
3	Shipman4	2006	2	20	28
3	Shipman4	2006	6	26	28
4	Hill5	2006	9	4	28
4	Hill5	2006	11	27	21
5	Hill6	2006	1	30	21
5	Hill6	2006	5	8	56
6	Puna	2006	5	15	21
6	Puna	2006	7	31	28
10	KanoeD11	2006	10	30	7
11	WaimeD12	2006	5	8	7
12	WaimeD13	2006	1	16	7
13	WaimeD14	2006	8	14	7
14	KanoeD15	2006	6	19	7
15	KanoeD16	2006	1	23	7
16	KanoeD17	2006	1	2	7
20	KeahoD21	2006	4	17	14
20	KeahoD21	2006	9	4	7
20	KeahoD21	2006	9	25	7
21	KeahoD22	2006	5	8	7
22	KeahoD23	2006	1	2	7
23	KanoeCT1	2006	3	13	7
23	KanoeCT1	2006	6	5	14
24	KeahoCT2	2006	2	20	28
24	KeahoCT2	2006	7	10	7
25	PunaCT3	2006	4	3	7
25	PunaCT3	2006	8	28	14
26	PGVon	2006	4	24	14
26	PGVon	2006	10	16	14
27	PGVoff	2006	4	24	14
27	PGVoff	2006	10	16	14
36	KeahoCT4	2006	1	9	7
36	KeahoCT4	2006	6	26	14
37	KeahoCT5	2006	3	27	7
37	KeahoCT5	2006	7	17	21
39	CT4on	2006	1	9	7
39	CT4on	2006	6	26	14
40	CT5on	2006	3	27	7
40	CT5on	2006	7	17	21

Hydro Basic Summary - Part 1

Yr	Mn	Id	Name	Area	Plant	# Unit	Firm	RR	Cap Der	Rel Cnt	Min Cap	ROR Cap	Max Cap	Schd Eng	FOR	Trns Loss	Owner	Max Eng	Yr Eng
2006	1	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.10	0.10	0.10	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	2	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.07	0.07	0.07	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	3	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.10	0.10	0.10	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	4	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.11	0.11	0.11	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	5	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.15	0.15	0.15	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	6	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.12	0.12	0.12	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	7	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.13	0.13	0.13	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	8	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.12	0.12	0.12	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	9	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.16	0.16	0.16	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	10	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.13	0.13	0.13	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	11	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.07	0.07	0.07	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	12	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.05	0.05	0.05	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	1	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	1.88	1.88	1.88	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	2	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	1.88	1.88	1.88	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	3	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	3.55	3.55	3.55	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	4	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	5.66	5.66	5.66	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	5	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	3.81	3.81	3.81	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	6	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	2.02	2.02	2.02	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	7	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	3.06	3.06	3.06	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	8	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	3.42	3.42	3.42	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	9	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	3.28	3.28	3.28	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	10	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	3.34	3.34	3.34	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	11	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	2.92	2.92	2.92	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	12	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	2.71	2.71	2.71	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	1	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	2.29	2.29	2.29	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	2	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	2.77	2.77	2.77	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	3	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	2.49	2.49	2.49	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	4	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	4.22	4.22	4.22	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	5	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	3.88	3.88	3.88	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	6	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	2.39	2.39	2.39	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	7	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	2.39	2.39	2.39	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	8	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	3.07	3.07	3.07	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	9	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	2.86	2.86	2.86	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	10	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	2.92	2.92	2.92	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	11	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	2.63	2.63	2.63	0.000	0.00	1.00000	100.0	9999.999	0.000
2006	12	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	2.69	2.69	2.69	0.000	0.00	1.00000	100.0	9999.999	0.000

Hydro Basic Summary - Part 2

Yr	Mn	Id	Name	VOM Cost	VOM Esc	FOM Cost	FOM Esc	Cap Cost
2006	1	1	PPHydro	0.00	0.0	0.	0.0	0.
2006	2	1	PPHydro	0.00	0.0	0.	0.0	0.
2006	3	1	PPHydro	0.00	0.0	0.	0.0	0.
2006	4	1	PPHydro	0.00	0.0	0.	0.0	0.
2006	5	1	PPHydro	0.00	0.0	0.	0.0	0.
2006	6	1	PPHydro	0.00	0.0	0.	0.0	0.
2006	7	1	PPHydro	0.00	0.0	0.	0.0	0.
2006	8	1	PPHydro	0.00	0.0	0.	0.0	0.
2006	9	1	PPHydro	0.00	0.0	0.	0.0	0.
2006	10	1	PPHydro	0.00	0.0	0.	0.0	0.
2006	11	1	PPHydro	0.00	0.0	0.	0.0	0.
2006	12	1	PPHydro	0.00	0.0	0.	0.0	0.
2006	1	4	WailukuH	0.00	0.0	0.	0.0	0.
2006	2	4	WailukuH	0.00	0.0	0.	0.0	0.
2006	3	4	WailukuH	0.00	0.0	0.	0.0	0.
2006	4	4	WailukuH	0.00	0.0	0.	0.0	0.
2006	5	4	WailukuH	0.00	0.0	0.	0.0	0.
2006	6	4	WailukuH	0.00	0.0	0.	0.0	0.
2006	7	4	WailukuH	0.00	0.0	0.	0.0	0.
2006	8	4	WailukuH	0.00	0.0	0.	0.0	0.
2006	9	4	WailukuH	0.00	0.0	0.	0.0	0.
2006	10	4	WailukuH	0.00	0.0	0.	0.0	0.
2006	11	4	WailukuH	0.00	0.0	0.	0.0	0.
2006	12	4	WailukuH	0.00	0.0	0.	0.0	0.
2006	1	5	helcohyd	0.00	0.0	0.	0.0	0.
2006	2	5	helcohyd	0.00	0.0	0.	0.0	0.
2006	3	5	helcohyd	0.00	0.0	0.	0.0	0.
2006	4	5	helcohyd	0.00	0.0	0.	0.0	0.
2006	5	5	helcohyd	0.00	0.0	0.	0.0	0.
2006	6	5	helcohyd	0.00	0.0	0.	0.0	0.
2006	7	5	helcohyd	0.00	0.0	0.	0.0	0.
2006	8	5	helcohyd	0.00	0.0	0.	0.0	0.
2006	9	5	helcohyd	0.00	0.0	0.	0.0	0.
2006	10	5	helcohyd	0.00	0.0	0.	0.0	0.
2006	11	5	helcohyd	0.00	0.0	0.	0.0	0.
2006	12	5	helcohyd	0.00	0.0	0.	0.0	0.

Fixed Energy Transaction Summary

Yr	Mn	Id	Name	Type	Area	Firm	Min Cap	Max Cap	Energy	Energy Cost	Energy Cst Esc	Capcty Cost	Capcty Cst Esc	Pk Def	# of Mndays	Weekday On-pk 1st hr	Weekday On-pk Last hr	Weekend On-pk 1st hr	Weekend On-pk Last hr
2007	4	10	Apollo	6 Constant Purchase	2 East	1	7.18	20.50	0.000	0.00	0.0	0.0	0.0	0					
2007	5	10	Apollo	6 Constant Purchase	2 East	1	7.18	20.50	0.000	0.00	0.0	0.0	0.0	0					
2007	6	10	Apollo	6 Constant Purchase	2 East	1	7.18	20.50	0.000	0.00	0.0	0.0	0.0	0					
2007	7	10	Apollo	6 Constant Purchase	2 East	1	7.18	20.50	0.000	0.00	0.0	0.0	0.0	0					
2007	8	10	Apollo	6 Constant Purchase	2 East	1	7.18	20.50	0.000	0.00	0.0	0.0	0.0	0					
2007	9	10	Apollo	6 Constant Purchase	2 East	1	7.18	20.50	0.000	0.00	0.0	0.0	0.0	0					
2007	10	10	Apollo	6 Constant Purchase	2 East	1	7.18	20.50	0.000	0.00	0.0	0.0	0.0	0					
2007	11	10	Apollo	6 Constant Purchase	2 East	1	7.18	20.50	0.000	0.00	0.0	0.0	0.0	0					
2007	12	10	Apollo	6 Constant Purchase	2 East	1	7.18	20.50	5.338	0.00	0.0	0.0	0.0	0					

Fixed Energy Transaction Summary

Yr	Mn	Id	Name	Type	Area	Firm	Min Cap	Max Cap	Energy	Energy Cost	Energy Cst Esc	Capcty Cost	Capcty Cst Esc	Pk Def	# of Wkdays	Weekday On-pk 1st hr	Weekday On-pk Last hr	Weekend On-pk 1st hr	Weekend On-pk Last hr
2006	1	4	lalamilo	6 Constant Purchase	2 East	1	0.07	2.28	0.054	0.00	0.0	0.0	0.0	0					
2006	2	4	lalamilo	6 Constant Purchase	2 East	1	0.18	2.28	0.124	0.00	0.0	0.0	0.0	0					
2006	3	4	lalamilo	6 Constant Purchase	2 East	1	0.11	2.28	0.088	0.00	0.0	0.0	0.0	0					
2006	4	4	lalamilo	6 Constant Purchase	2 East	1	0.19	2.28	0.142	0.00	0.0	0.0	0.0	0					
2006	5	4	lalamilo	6 Constant Purchase	2 East	1	0.15	2.28	0.115	0.00	0.0	0.0	0.0	0					
2006	6	4	lalamilo	6 Constant Purchase	2 East	1	0.23	2.28	0.169	0.00	0.0	0.0	0.0	0					
2006	7	4	lalamilo	6 Constant Purchase	2 East	1	0.23	2.28	0.177	0.00	0.0	0.0	0.0	0					
2006	8	4	lalamilo	6 Constant Purchase	2 East	1	0.22	2.28	0.166	0.00	0.0	0.0	0.0	0					
2006	9	4	lalamilo	6 Constant Purchase	2 East	1	0.16	2.28	0.121	0.00	0.0	0.0	0.0	0					
2006	10	4	lalamilo	6 Constant Purchase	2 East	1	0.14	2.28	0.105	0.00	0.0	0.0	0.0	0					
2006	11	4	lalamilo	6 Constant Purchase	2 East	1	0.12	2.28	0.090	0.00	0.0	0.0	0.0	0					
2006	12	4	lalamilo	6 Constant Purchase	2 East	1	0.11	2.28	0.083	0.00	0.0	0.0	0.0	0					
2006	1	5	kamaoa	6 Constant Purchase	2 East	1	0.29	7.00	0.217	0.00	0.0	0.0	0.0	0					
2006	2	5	kamaoa	6 Constant Purchase	2 East	1	0.52	7.00	0.350	0.00	0.0	0.0	0.0	0					
2006	3	5	kamaoa	6 Constant Purchase	2 East	1	0.36	7.00	0.273	0.00	0.0	0.0	0.0	0					
2006	4	5	kamaoa	6 Constant Purchase	2 East	1	1.05	7.00	0.756	0.00	0.0	0.0	0.0	0					
2006	5	5	kamaoa	6 Constant Purchase	2 East	1	0.58	7.00	0.437	0.00	0.0	0.0	0.0	0					
2006	6	5	kamaoa	6 Constant Purchase	2 East	1	0.80	7.00	0.577	0.00	0.0	0.0	0.0	0					
2006	7	5	kamaoa	6 Constant Purchase	2 East	1	0.72	7.00	0.542	0.00	0.0	0.0	0.0	0					
2006	8	5	kamaoa	6 Constant Purchase	2 East	1	0.66	7.00	0.493	0.00	0.0	0.0	0.0	0					
2006	9	5	kamaoa	6 Constant Purchase	2 East	1	0.61	7.00	0.441	0.00	0.0	0.0	0.0	0					
2006	10	5	kamaoa	6 Constant Purchase	2 East	1	0.41	7.00	0.308	0.00	0.0	0.0	0.0	0					
2006	11	5	kamaoa	6 Constant Purchase	2 East	1	0.48	7.00	0.346	0.00	0.0	0.0	0.0	0					
2006	12	5	kamaoa	6 Constant Purchase	2 East	1	0.13	7.00	0.098	0.00	0.0	0.0	0.0	0					
2006	1	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2006	2	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2006	3	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2006	4	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2006	5	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2006	6	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2006	7	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2006	8	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2006	9	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2006	10	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2006	11	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2006	12	6	ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2006	1	9	Hawi	6 Constant Purchase	2 East	1	3.91	10.56	2.905	0.00	0.0	0.0	0.0	0					
2006	2	9	Hawi	6 Constant Purchase	2 East	1	3.91	10.56	2.625	0.00	0.0	0.0	0.0	0					
2006	3	9	Hawi	6 Constant Purchase	2 East	1	3.91	10.56	2.905	0.00	0.0	0.0	0.0	0					
2006	4	9	Hawi	6 Constant Purchase	2 East	1	3.91	10.56	2.810	0.00	0.0	0.0	0.0	0					
2006	5	9	Hawi	6 Constant Purchase	2 East	1	3.91	10.56	2.905	0.00	0.0	0.0	0.0	0					
2006	6	9	Hawi	6 Constant Purchase	2 East	1	3.91	10.56	2.810	0.00	0.0	0.0	0.0	0					
2006	7	9	Hawi	6 Constant Purchase	2 East	1	3.91	10.56	2.905	0.00	0.0	0.0	0.0	0					
2006	8	9	Hawi	6 Constant Purchase	2 East	1	3.91	10.56	2.905	0.00	0.0	0.0	0.0	0					
2006	9	9	Hawi	6 Constant Purchase	2 East	1	3.91	10.56	2.810	0.00	0.0	0.0	0.0	0					
2006	10	9	Hawi	6 Constant Purchase	2 East	1	3.91	10.56	2.905	0.00	0.0	0.0	0.0	0					
2006	11	9	Hawi	6 Constant Purchase	2 East	1	3.91	10.56	2.810	0.00	0.0	0.0	0.0	0					
2006	12	9	Hawi	6 Constant Purchase	2 East	1	3.91	10.56	2.905	0.00	0.0	0.0	0.0	0					
2007	1	10	Apollo	6 Constant Purchase	2 East	1	7.18	20.50	0.000	0.00	0.0	0.0	0.0	0					
2007	2	10	Apollo	6 Constant Purchase	2 East	1	7.18	20.50	0.000	0.00	0.0	0.0	0.0	0					
2007	3	10	Apollo	6 Constant Purchase	2 East	1	7.18	20.50	0.000	0.00	0.0	0.0	0.0	0					

Combined Cycle Basic Summary

Yr	Mn	Id	Name	Area	Plant	# CT	# ST	Firm	Qck Strt	VO&M	Spot Fuel	StUp Fuel	Owner	FOM Cost	FOM Esc	Capital Cost	CT FOR	ST FOR	MOR	Trans Loss
2006	1	10	EDC-CC	1 West	14 EDC	2	1	0	0	1	41 DSLEDCE	41 DSLEDCE	100.0	240462.	2.0	0.00	1.11	5.07	2.68	1.00000

Combined Cycle Cost and Variable Summary

Yr	Mn	Id	Name	Comb Flag	Hrly Ptn	Min Dn	Min Up	Ramp Rate	VOM Cost	VOM Esc	Hr VOM Cost	Startup Fl Amt	Startup Cost	SR Contrb	VOM Cst	Ems Cst	VOM Dmp	Ems Dmp	Dispatch Penalty	Commitmt Penalty	SOx Scrub Eff
2006	1	10	EDC-CC	3	0	3	10	99999	1.10	2.0	246.56	0.	0.	100.0	1	0	1	0	1.12359	1.12359	0.0
2006	1	10	EDC-CC	2	0	0	10	99999	1.10	2.0	123.88	0.	0.	100.0	1	0	1	0	1.12359	1.12359	0.0
2006	1	10	EDC-CC	1	0	0	10	99999	1.10	2.0	123.88	0.	0.	100.0	1	0	1	0	1.12359	1.12359	0.0

Combined Cycle Performance Summary

Yr	Mn	Id	Name	Comb Flag	Stm Ref		State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Avg @ Min
2006	1	10	EDC-CC	3		MW	16.00	30.67	45.34	60.00					
						I/O Coeff	83.784000	6.442800	0.000167	0.000000	0.000000				
2006	1	10	EDC-CC	2		MW	7.00	14.17	21.33	28.50					
						I/O Coeff	43.422800	6.969000	0.000100	0.000000	0.000000				
2006	1	10	EDC-CC	1		MW	5.00	10.27	15.54	20.80					
						I/O Coeff	56.581900	8.626300	0.010700	0.000000	0.000000				

Combined Cycle Maintenance Summary

Id	Name	Year	Month	Day	# of Days
10	EDC-CC	2006	3	20	7
10	EDC-CC	2006	3	20	7
10	EDC-CC	2006	3	20	7
10	EDC-CC	2006	4	9	14
10	EDC-CC	2006	4	9	3
10	EDC-CC	2006	10	2	14

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

TEST YEAR 2006
Rebuttal Testimony

Hourly Load Profile Input File - HTY06_R2.EEI

Refer to electronic file provided in HELCO's response to CA-IR-34.

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

TEST YEAR 2006
Rebuttal Testimony

Regulating Reserve Input File - HTY06_R0.SPN

Year	Month	Day of Week Monday = 1	Starting Hour	MW
1998	1	1	1	3
1998	1	1	4	5
1998	1	1	12	3
1998	1	1	17	5
1998	1	1	20	3
1998	1	2	4	5
1998	1	2	12	3
1998	1	2	17	5
1998	1	2	20	3
1998	1	3	4	5
1998	1	3	12	3
1998	1	3	17	5
1998	1	3	20	3
1998	1	4	4	5
1998	1	4	12	3
1998	1	4	17	5
1998	1	4	20	3
1998	1	5	4	5
1998	1	5	12	3
1998	1	5	17	5
1998	1	5	20	3
1998	1	6	4	5
1998	1	6	12	3
1998	1	6	17	5
1998	1	6	20	3
1998	1	7	4	5
1998	1	7	12	3
1998	1	7	17	5
1998	1	7	20	3
2006	1	1	1	10
2006	1	2	1	10
2006	1	3	1	10
2006	1	4	1	10
2006	1	5	1	10
2006	1	6	1	10
2006	1	7	1	10

NOT CHANGED FROM DIRECT TESTIMONY

Pattern 3

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	1	1	1	1	1
2006	1	2	1	1	1
2006	1	3	1	1	1
2006	1	4	1	1	1
2006	1	5	1	1	1
2006	1	6	1	1	1
2006	1	7	1	1	1
2006	1	8	1	1	1
2006	1	9	1	1	1
2006	1	10	1	1	1
2006	1	11	1	1	1
2006	1	12	1	1	1
2006	1	13	1	1	1
2006	1	14	1	1	1
2006	1	15	1	1	1
2006	1	16	1	1	1
2006	1	17	1	1	1
2006	1	18	1	1	1
2006	1	19	1	1	1
2006	1	20	1	1	1
2006	1	21	1	1	1
2006	1	22	1	1	1
2006	1	23	1	1	1
2006	1	24	1	1	1
2006	1	25	1	1	1
2006	1	26	1	1	1
2006	1	27	1	1	1
2006	1	28	1	1	1
2006	1	29	1	1	1
2006	1	30	1	1	1
2006	1	31	1	1	1
2006	2	1	1	1	1
2006	2	2	1	1	1
2006	2	3	1	1	1
2006	2	4	1	1	1
2006	2	5	1	1	1
2006	2	6	1	1	1
2006	2	7	1	1	1
2006	2	8	1	1	1
2006	2	9	1	1	1
2006	2	10	1	1	1
2006	2	11	1	1	1
2006	2	12	1	1	1
2006	2	13	1	1	1
2006	2	14	1	1	1
2006	2	15	1	1	1
2006	2	16	1	1	1
2006	2	17	1	1	1
2006	2	18	1	1	1
2006	2	19	1	1	1
2006	2	20	1	1	1
2006	2	21	1	1	1
2006	2	22	1	1	1
2006	2	23	1	1	1
2006	2	24	1	1	1
2006	2	25	1	1	1
2006	2	26	1	1	1
2006	2	27	1	1	1
2006	2	28	1	1	1
2006	3	1	1	1	1
2006	3	1	7	0	1
2006	3	1	22	1	1
2006	3	2	1	1	1
2006	3	2	7	0	1
2006	3	2	22	1	1
2006	3	3	1	1	1
2006	3	3	7	0	1
2006	3	3	22	1	1
2006	3	4	1	1	1
2006	3	4	7	0	1
2006	3	4	22	1	1
2006	3	5	1	1	1
2006	3	5	7	0	1
2006	3	5	22	1	1
2006	3	6	1	1	1
2006	3	6	7	0	1
2006	3	6	22	1	1
2006	3	7	1	1	1
2006	3	7	7	0	1
2006	3	7	22	1	1
2006	3	8	1	1	1
2006	3	8	7	0	1
2006	3	8	22	1	1
2006	3	9	1	1	1
2006	3	9	7	0	1
2006	3	9	22	1	1
2006	3	10	1	1	1
2006	3	10	7	0	1
2006	3	10	22	1	1
2006	3	11	1	1	1
2006	3	11	7	0	1
2006	3	11	22	1	1
2006	3	12	1	1	1
2006	3	12	7	0	1
2006	3	12	22	1	1
2006	3	13	1	1	1
2006	3	13	7	0	1
2006	3	13	22	1	1
2006	3	14	1	1	1
2006	3	14	7	0	1
2006	3	14	22	1	1
2006	3	15	1	1	1
2006	3	15	7	0	1
2006	3	15	22	1	1
2006	3	16	1	1	1
2006	3	16	7	0	1
2006	3	16	22	1	1
2006	3	17	1	1	1
2006	3	17	7	0	1
2006	3	17	22	1	1
2006	3	18	1	1	1
2006	3	18	7	0	1
2006	3	18	22	1	1
2006	3	19	1	1	1
2006	3	19	7	0	1
2006	3	19	22	1	1
2006	3	20	1	1	1
2006	3	20	7	0	1
2006	3	20	22	1	1
2006	3	21	1	1	1
2006	3	21	7	0	1
2006	3	21	22	1	1
2006	3	22	1	1	1
2006	3	22	7	0	1
2006	3	22	22	1	1
2006	3	23	1	1	1
2006	3	23	7	0	1
2006	3	23	22	1	1
2006	3	24	1	1	1
2006	3	24	7	0	1
2006	3	24	22	1	1
2006	3	25	1	1	1
2006	3	25	7	0	1
2006	3	25	22	1	1
2006	3	26	1	1	1
2006	3	26	7	0	1
2006	3	26	22	1	1
2006	3	27	1	1	1
2006	3	27	7	0	1
2006	3	27	22	1	1
2006	3	28	1	1	1
2006	3	28	7	0	1
2006	3	28	22	1	1
2006	3	29	1	1	1
2006	3	29	7	0	1
2006	3	29	22	1	1
2006	3	30	1	1	1
2006	3	30	7	0	1
2006	3	30	22	1	1
2006	3	31	1	1	1
2006	3	31	7	0	1
2006	3	31	22	1	1
2006	4	1	1	1	1
2006	4	1	7	0	1
2006	4	1	22	1	1
2006	4	2	1	1	1
2006	4	2	7	0	1
2006	4	2	22	1	1
2006	4	3	1	1	1
2006	4	3	7	0	1
2006	4	3	22	1	1
2006	4	4	1	1	1
2006	4	4	7	0	1
2006	4	4	22	1	1
2006	4	5	1	1	1
2006	4	5	7	0	1
2006	4	5	22	1	1
2006	4	6	1	1	1
2006	4	6	7	0	1
2006	4	6	22	1	1
2006	4	7	1	1	1
2006	4	7	7	0	1
2006	4	7	22	1	1
2006	4	8	1	1	1
2006	4	8	7	0	1
2006	4	8	22	1	1
2006	4	9	1	1	1
2006	4	9	7	0	1
2006	4	9	22	1	1
2006	4	10	1	1	1
2006	4	10	7	0	1
2006	4	10	22	1	1
2006	4	11	1	1	1
2006	4	11	7	0	1
2006	4	11	22	1	1
2006	4	12	1	1	1
2006	4	12	7	0	1
2006	4	12	22	1	1
2006	4	13	1	1	1
2006	4	13	7	0	1
2006	4	13	22	1	1
2006	4	14	1	1	1
2006	4	14	7	0	1
2006	4	14	22	1	1
2006	4	15	1	1	1
2006	4	15	7	0	1
2006	4	15	22	1	1
2006	4	16	1	1	1
2006	4	16	7	0	1
2006	4	16	22	1	1
2006	4	17	1	1	1
2006	4	17	7	0	1
2006	4	17	22	1	1
2006	4	18	1	1	1
2006	4	18	7	0	1
2006	4	18	22	1	1
2006	4	19	1	1	1

Pattern 3 (continued)

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	4	19	7	0	1
2006	4	19	22	1	1
2006	4	20	1	1	1
2006	4	20	7	0	1
2006	4	20	22	1	1
2006	4	21	1	1	1
2006	4	21	7	0	1
2006	4	21	22	1	1
2006	4	22	1	1	1
2006	4	22	7	0	1
2006	4	22	22	1	1
2006	4	23	1	1	1
2006	4	23	7	0	1
2006	4	23	22	1	1
2006	4	24	1	1	1
2006	4	24	7	0	1
2006	4	24	22	1	1
2006	4	25	1	1	1
2006	4	25	7	0	1
2006	4	25	22	1	1
2006	4	26	1	1	1
2006	4	26	7	0	1
2006	4	26	22	1	1
2006	4	27	1	1	1
2006	4	27	7	0	1
2006	4	27	22	1	1
2006	4	28	1	1	1
2006	4	28	7	0	1
2006	4	28	22	1	1
2006	4	29	1	1	1
2006	4	29	7	0	1
2006	4	29	22	1	1
2006	4	30	1	1	1
2006	4	30	7	0	1
2006	4	30	22	1	1
2006	5	1	1	1	1
2006	5	1	7	0	1
2006	5	1	22	1	1
2006	5	2	1	1	1
2006	5	2	7	0	1
2006	5	2	22	1	1
2006	5	3	1	1	1
2006	5	3	7	0	1
2006	5	3	22	1	1
2006	5	4	1	1	1
2006	5	4	7	0	1
2006	5	4	22	1	1
2006	5	5	1	1	1
2006	5	5	7	0	1
2006	5	5	22	1	1
2006	5	6	1	1	1
2006	5	6	7	0	1
2006	5	6	22	1	1
2006	5	7	1	1	1
2006	5	7	7	0	1
2006	5	7	22	1	1
2006	5	8	1	1	1
2006	5	8	7	0	1
2006	5	8	22	1	1
2006	5	9	1	1	1
2006	5	9	7	0	1
2006	5	9	22	1	1
2006	5	10	1	1	1
2006	5	10	7	0	1
2006	5	10	22	1	1
2006	5	11	1	1	1
2006	5	11	7	0	1
2006	5	11	22	1	1
2006	5	12	1	1	1
2006	5	12	7	0	1
2006	5	12	22	1	1
2006	5	13	1	1	1
2006	5	13	7	0	1
2006	5	13	22	1	1
2006	5	14	1	1	1
2006	5	14	7	0	1
2006	5	14	22	1	1
2006	5	15	1	1	1
2006	5	15	7	0	1
2006	5	15	22	1	1
2006	5	16	1	1	1
2006	5	16	7	0	1
2006	5	16	22	1	1
2006	5	17	1	1	1
2006	5	17	7	0	1
2006	5	17	22	1	1
2006	5	18	1	1	1
2006	5	18	7	0	1
2006	5	18	22	1	1
2006	5	19	1	1	1
2006	5	19	7	0	1
2006	5	19	22	1	1
2006	5	20	1	1	1
2006	5	20	7	0	1
2006	5	20	22	1	1
2006	5	21	1	1	1
2006	5	21	7	0	1
2006	5	21	22	1	1
2006	5	22	1	1	1
2006	5	22	7	0	1
2006	5	22	22	1	1
2006	5	23	1	1	1
2006	5	23	7	0	1
2006	5	23	22	1	1
2006	5	24	1	1	1
2006	5	24	7	0	1
2006	5	24	22	1	1
2006	5	25	1	1	1
2006	5	25	7	0	1
2006	5	25	22	1	1
2006	5	26	1	1	1
2006	5	26	7	0	1
2006	5	26	22	1	1
2006	5	27	1	1	1
2006	5	27	7	0	1
2006	5	27	22	1	1
2006	5	28	1	1	1
2006	5	28	7	0	1
2006	5	28	22	1	1
2006	5	29	1	1	1
2006	5	29	7	0	1
2006	5	29	22	1	1
2006	5	30	1	1	1
2006	5	30	7	0	1
2006	5	30	22	1	1
2006	5	31	1	1	1
2006	5	31	7	0	1
2006	5	31	22	1	1
2006	6	1	1	1	1
2006	6	1	7	0	1
2006	6	1	22	1	1
2006	6	2	1	1	1
2006	6	2	7	0	1
2006	6	2	22	1	1
2006	6	3	1	1	1
2006	6	3	7	0	1
2006	6	3	22	1	1
2006	6	4	1	1	1
2006	6	4	7	0	1
2006	6	4	22	1	1
2006	6	5	1	1	1
2006	6	5	7	0	1
2006	6	5	22	1	1
2006	6	6	1	1	1
2006	6	6	7	0	1
2006	6	6	22	1	1
2006	6	7	1	1	1
2006	6	7	7	0	1
2006	6	7	22	1	1
2006	6	8	1	1	1
2006	6	8	7	0	1
2006	6	8	22	1	1
2006	6	9	1	1	1
2006	6	9	7	0	1
2006	6	9	22	1	1
2006	6	10	1	1	1
2006	6	10	7	0	1
2006	6	10	22	1	1
2006	6	11	1	1	1
2006	6	11	7	0	1
2006	6	11	22	1	1
2006	6	12	1	1	1
2006	6	12	7	0	1
2006	6	12	22	1	1
2006	6	13	1	1	1
2006	6	13	7	0	1
2006	6	13	22	1	1
2006	6	14	1	1	1
2006	6	14	7	0	1
2006	6	14	22	1	1
2006	6	15	1	1	1
2006	6	15	7	0	1
2006	6	15	22	1	1
2006	6	16	1	1	1
2006	6	16	7	0	1
2006	6	16	22	1	1
2006	6	17	1	1	1
2006	6	17	7	0	1
2006	6	17	22	1	1
2006	6	18	1	1	1
2006	6	18	7	0	1
2006	6	18	22	1	1
2006	6	19	1	1	1
2006	6	19	7	0	1
2006	6	19	22	1	1
2006	6	20	1	1	1
2006	6	20	7	0	1
2006	6	20	22	1	1
2006	6	21	1	1	1
2006	6	21	7	0	1
2006	6	21	22	1	1
2006	6	22	1	1	1
2006	6	22	7	0	1
2006	6	22	22	1	1
2006	6	23	1	1	1
2006	6	23	7	0	1
2006	6	23	22	1	1
2006	6	24	1	1	1
2006	6	24	7	0	1
2006	6	24	22	1	1
2006	6	25	1	1	1
2006	6	25	7	0	1
2006	6	25	22	1	1
2006	6	26	1	1	1
2006	6	27	1	1	1
2006	6	28	1	1	1
2006	6	29	1	1	1
2006	6	30	1	1	1
2006	7	1	1	1	1
2006	7	2	1	1	1
2006	7	3	1	1	1
2006	7	4	1	1	1
2006	7	5	1	1	1

Pattern 3 (continued)

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	7	6	1	1	1
2006	7	7	1	1	1
2006	7	8	1	1	1
2006	7	9	1	1	1
2006	7	10	1	1	1
2006	7	11	1	1	1
2006	7	12	1	1	1
2006	7	13	1	1	1
2006	7	14	1	1	1
2006	7	15	1	1	1
2006	7	16	1	1	1
2006	7	17	1	1	1
2006	7	17	7	0	1
2006	7	17	22	1	1
2006	7	18	1	1	1
2006	7	18	7	0	1
2006	7	18	22	1	1
2006	7	19	1	1	1
2006	7	19	7	0	1
2006	7	19	22	1	1
2006	7	20	1	1	1
2006	7	20	7	0	1
2006	7	20	22	1	1
2006	7	21	1	1	1
2006	7	21	7	0	1
2006	7	21	22	1	1
2006	7	22	1	1	1
2006	7	22	7	0	1
2006	7	22	22	1	1
2006	7	23	1	1	1
2006	7	23	7	0	1
2006	7	23	22	1	1
2006	7	24	1	1	1
2006	7	24	7	0	1
2006	7	24	22	1	1
2006	7	25	1	1	1
2006	7	25	7	0	1
2006	7	25	22	1	1
2006	7	26	1	1	1
2006	7	26	7	0	1
2006	7	26	22	1	1
2006	7	27	1	1	1
2006	7	27	7	0	1
2006	7	27	22	1	1
2006	7	28	1	1	1
2006	7	28	7	0	1
2006	7	28	22	1	1
2006	7	29	1	1	1
2006	7	29	7	0	1
2006	7	29	22	1	1
2006	7	30	1	1	1
2006	7	30	7	0	1
2006	7	30	22	1	1
2006	7	31	1	1	1
2006	7	31	7	0	1
2006	7	31	22	1	1
2006	8	1	1	1	1
2006	8	1	7	0	1
2006	8	1	22	1	1
2006	8	2	1	1	1
2006	8	2	7	0	1
2006	8	2	22	1	1
2006	8	3	1	1	1
2006	8	3	7	0	1
2006	8	3	22	1	1
2006	8	4	1	1	1
2006	8	4	7	0	1
2006	8	4	22	1	1
2006	8	5	1	1	1
2006	8	5	7	0	1
2006	8	5	22	1	1
2006	8	6	1	1	1
2006	8	6	7	0	1
2006	8	6	22	1	1
2006	8	7	1	1	1
2006	8	7	7	0	1
2006	8	7	22	1	1
2006	8	8	1	1	1
2006	8	8	7	0	1
2006	8	8	22	1	1
2006	8	9	1	1	1
2006	8	9	7	0	1
2006	8	9	22	1	1
2006	8	10	1	1	1
2006	8	10	7	0	1
2006	8	10	22	1	1
2006	8	11	1	1	1
2006	8	11	7	0	1
2006	8	11	22	1	1
2006	8	12	1	1	1
2006	8	12	7	0	1
2006	8	12	22	1	1
2006	8	13	1	1	1
2006	8	13	7	0	1
2006	8	13	22	1	1
2006	8	14	1	1	1
2006	8	14	7	0	1
2006	8	14	22	1	1
2006	8	15	1	1	1
2006	8	15	7	0	1
2006	8	15	22	1	1
2006	8	16	1	1	1
2006	8	16	7	0	1
2006	8	16	22	1	1
2006	8	17	1	1	1
2006	8	17	7	0	1
2006	8	17	22	1	1
2006	8	18	1	1	1
2006	8	18	7	0	1
2006	8	18	22	1	1
2006	8	19	1	1	1
2006	8	19	7	0	1
2006	8	19	22	1	1
2006	8	20	1	1	1
2006	8	20	7	0	1
2006	8	20	22	1	1
2006	8	21	1	1	1
2006	8	21	7	0	1
2006	8	21	22	1	1
2006	8	22	1	1	1
2006	8	22	7	0	1
2006	8	22	22	1	1
2006	8	23	1	1	1
2006	8	23	7	0	1
2006	8	23	22	1	1
2006	8	24	1	1	1
2006	8	24	7	0	1
2006	8	24	22	1	1
2006	8	25	1	1	1
2006	8	25	7	0	1
2006	8	25	22	1	1
2006	8	26	1	1	1
2006	8	26	7	0	1
2006	8	26	22	1	1
2006	8	27	1	1	1
2006	8	27	7	0	1
2006	8	27	22	1	1
2006	8	28	1	1	1
2006	8	28	7	0	1
2006	8	28	22	1	1
2006	8	29	1	1	1
2006	8	29	7	0	1
2006	8	29	22	1	1
2006	8	30	1	1	1
2006	8	30	7	0	1
2006	8	30	22	1	1
2006	8	31	1	1	1
2006	8	31	7	0	1
2006	8	31	22	1	1
2006	9	1	1	1	1
2006	9	1	7	0	1
2006	9	1	22	1	1
2006	9	2	1	1	1
2006	9	2	7	0	1
2006	9	2	22	1	1
2006	9	3	1	1	1
2006	9	3	7	0	1
2006	9	3	22	1	1
2006	9	4	1	1	1
2006	9	4	7	0	1
2006	9	4	22	1	1
2006	9	5	1	1	1
2006	9	5	7	0	1
2006	9	5	22	1	1
2006	9	6	1	1	1
2006	9	6	7	0	1
2006	9	6	22	1	1
2006	9	7	1	1	1
2006	9	7	7	0	1
2006	9	7	22	1	1
2006	9	8	1	1	1
2006	9	8	7	0	1
2006	9	8	22	1	1
2006	9	9	1	1	1
2006	9	9	7	0	1
2006	9	9	22	1	1
2006	9	10	1	1	1
2006	9	10	7	0	1
2006	9	10	22	1	1
2006	9	11	1	1	1
2006	9	11	7	0	1
2006	9	11	22	1	1
2006	9	12	1	1	1
2006	9	12	7	0	1
2006	9	12	22	1	1
2006	9	13	1	1	1
2006	9	13	7	0	1
2006	9	13	22	1	1
2006	9	14	1	1	1
2006	9	14	7	0	1
2006	9	14	22	1	1
2006	9	15	1	1	1
2006	9	15	7	0	1
2006	9	15	22	1	1
2006	9	16	1	1	1
2006	9	16	7	0	1
2006	9	16	22	1	1
2006	9	17	1	1	1
2006	9	17	7	0	1
2006	9	17	22	1	1
2006	9	18	1	1	1
2006	9	18	7	0	1
2006	9	18	22	1	1
2006	9	19	1	1	1
2006	9	19	7	0	1
2006	9	19	22	1	1
2006	9	20	1	1	1
2006	9	20	7	0	1
2006	9	20	22	1	1
2006	9	21	1	1	1
2006	9	21	7	0	1
2006	9	21	22	1	1
2006	9	22	1	1	1

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Pattern 3 (continued)

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	9	22	7	0	1
2006	9	22	22	1	1
2006	9	23	1	1	1
2006	9	23	7	0	1
2006	9	23	22	1	1
2006	9	24	1	1	1
2006	9	24	7	0	1
2006	9	24	22	1	1
2006	9	25	1	1	1
2006	9	25	7	0	1
2006	9	25	22	1	1
2006	9	26	1	1	1
2006	9	26	7	0	1
2006	9	26	22	1	1
2006	9	27	1	1	1
2006	9	27	7	0	1
2006	9	27	22	1	1
2006	9	28	1	1	1
2006	9	28	7	0	1
2006	9	28	22	1	1
2006	9	29	1	1	1
2006	9	29	7	0	1
2006	9	29	22	1	1
2006	9	30	1	1	1
2006	9	30	7	0	1
2006	9	30	22	1	1
2006	10	1	1	1	1
2006	10	2	1	1	1
2006	10	3	1	1	1
2006	10	4	1	1	1
2006	10	5	1	1	1
2006	10	6	1	1	1
2006	10	7	1	1	1
2006	10	8	1	1	1
2006	10	9	1	1	1
2006	10	10	1	1	1
2006	10	11	1	1	1
2006	10	12	1	1	1
2006	10	13	1	1	1
2006	10	14	1	1	1
2006	10	15	1	1	1
2006	10	16	1	1	1
2006	10	17	1	1	1
2006	10	18	1	1	1
2006	10	19	1	1	1
2006	10	20	1	1	1
2006	10	21	1	1	1
2006	10	22	1	1	1
2006	10	23	1	1	1
2006	10	24	1	1	1
2006	10	25	1	1	1
2006	10	26	1	1	1
2006	10	27	1	1	1
2006	10	28	1	1	1
2006	10	29	1	1	1
2006	10	30	1	1	1
2006	10	31	1	1	1
2006	11	1	1	1	1
2006	11	2	1	1	1
2006	11	3	1	1	1
2006	11	4	1	1	1
2006	11	5	1	1	1
2006	11	6	1	1	1
2006	11	7	1	1	1
2006	11	8	1	1	1
2006	11	9	1	1	1
2006	11	10	1	1	1
2006	11	11	1	1	1
2006	11	12	1	1	1
2006	11	13	1	1	1
2006	11	14	1	1	1
2006	11	15	1	1	1
2006	11	16	1	1	1
2006	11	17	1	1	1
2006	11	18	1	1	1
2006	11	19	1	1	1
2006	11	20	1	1	1
2006	11	21	1	1	1
2006	11	22	1	1	1
2006	11	23	1	1	1
2006	11	24	1	1	1
2006	11	25	1	1	1
2006	11	26	1	1	1
2006	11	27	1	1	1
2006	11	28	1	1	1
2006	11	29	1	1	1
2006	11	30	1	1	1
2006	12	1	1	1	1
2006	12	2	1	1	1
2006	12	3	1	1	1
2006	12	4	1	1	1
2006	12	5	1	1	1
2006	12	6	1	1	1
2006	12	7	1	1	1
2006	12	8	1	1	1
2006	12	9	1	1	1
2006	12	10	1	1	1
2006	12	11	1	1	1
2006	12	12	1	1	1
2006	12	13	1	1	1
2006	12	14	1	1	1
2006	12	15	1	1	1
2006	12	16	1	1	1
2006	12	17	1	1	1
2006	12	18	1	1	1
2006	12	19	1	1	1
2006	12	20	1	1	1
2006	12	21	1	1	1
2006	12	22	1	1	1
2006	12	23	1	1	1
2006	12	24	1	1	1
2006	12	25	1	1	1
2006	12	26	1	1	1
2006	12	27	1	1	1
2006	12	28	1	1	1
2006	12	29	1	1	1
2006	12	30	1	1	1
2006	12	31	1	1	1

NOT CHANGED FROM DIRECT TESTIMONY

Pattern 4

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	1	1	1	1	1
2006	1	1	7	0	1
2006	1	1	22	1	1
2006	1	2	1	1	1
2006	1	2	7	0	1
2006	1	2	22	1	1
2006	1	3	1	1	1
2006	1	3	7	0	1
2006	1	3	22	1	1
2006	1	4	1	1	1
2006	1	4	7	0	1
2006	1	4	22	1	1
2006	1	5	1	1	1
2006	1	5	7	0	1
2006	1	5	22	1	1
2006	1	6	1	1	1
2006	1	6	7	0	1
2006	1	6	22	1	1
2006	1	7	1	1	1
2006	1	7	7	0	1
2006	1	7	22	1	1
2006	1	8	1	1	1
2006	1	8	7	0	1
2006	1	8	22	1	1
2006	1	9	1	1	1
2006	1	9	7	0	1
2006	1	9	22	1	1
2006	1	10	1	1	1
2006	1	10	7	0	1
2006	1	10	22	1	1
2006	1	11	1	1	1
2006	1	11	7	0	1
2006	1	11	22	1	1
2006	1	12	1	1	1
2006	1	12	7	0	1
2006	1	12	22	1	1
2006	1	13	1	1	1
2006	1	13	7	0	1
2006	1	13	22	1	1
2006	1	14	1	1	1
2006	1	14	7	0	1
2006	1	14	22	1	1
2006	1	15	1	1	1
2006	1	15	7	0	1
2006	1	15	22	1	1
2006	1	16	1	1	1
2006	1	16	7	0	1
2006	1	16	22	1	1
2006	1	17	1	1	1
2006	1	17	7	0	1
2006	1	17	22	1	1
2006	1	18	1	1	1
2006	1	18	7	0	1
2006	1	18	22	1	1
2006	1	19	1	1	1
2006	1	19	7	0	1
2006	1	19	22	1	1
2006	1	20	1	1	1
2006	1	20	7	0	1
2006	1	20	22	1	1
2006	1	21	1	1	1
2006	1	21	7	0	1
2006	1	21	22	1	1
2006	1	22	1	1	1
2006	1	22	7	0	1
2006	1	22	22	1	1
2006	1	23	1	1	1
2006	1	23	7	0	1
2006	1	23	22	1	1

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	1	24	1	1	1
2006	1	24	7	0	1
2006	1	24	22	1	1
2006	1	25	1	1	1
2006	1	25	7	0	1
2006	1	25	22	1	1
2006	1	26	1	1	1
2006	1	26	7	0	1
2006	1	26	22	1	1
2006	1	27	1	1	1
2006	1	27	7	0	1
2006	1	27	22	1	1
2006	1	28	1	1	1
2006	1	28	7	0	1
2006	1	28	22	1	1
2006	1	29	1	1	1
2006	1	29	7	0	1
2006	1	29	22	1	1
2006	1	30	1	1	1
2006	1	30	7	0	1
2006	1	30	22	1	1
2006	1	31	1	1	1
2006	1	31	7	0	1
2006	1	31	22	1	1
2006	2	1	1	1	1
2006	2	1	7	0	1
2006	2	1	22	1	1
2006	2	2	1	1	1
2006	2	2	7	0	1
2006	2	2	22	1	1
2006	2	3	1	1	1
2006	2	3	7	0	1
2006	2	3	22	1	1
2006	2	4	1	1	1
2006	2	4	7	0	1
2006	2	4	22	1	1
2006	2	5	1	1	1
2006	2	5	7	0	1
2006	2	5	22	1	1
2006	2	6	1	1	1
2006	2	6	7	0	1
2006	2	6	22	1	1
2006	2	7	1	1	1
2006	2	7	7	0	1
2006	2	7	22	1	1
2006	2	8	1	1	1
2006	2	8	7	0	1
2006	2	8	22	1	1
2006	2	9	1	1	1
2006	2	9	7	0	1
2006	2	9	22	1	1
2006	2	10	1	1	1
2006	2	10	7	0	1
2006	2	10	22	1	1
2006	2	11	1	1	1
2006	2	11	7	0	1
2006	2	11	22	1	1
2006	2	12	1	1	1
2006	2	12	7	0	1
2006	2	12	22	1	1
2006	2	13	1	1	1
2006	2	13	7	0	1
2006	2	13	22	1	1
2006	2	14	1	1	1
2006	2	14	7	0	1
2006	2	14	22	1	1
2006	2	15	1	1	1
2006	2	15	7	0	1
2006	2	15	22	1	1

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	2	16	1	1	1
2006	2	16	7	0	1
2006	2	16	22	1	1
2006	2	17	1	1	1
2006	2	17	7	0	1
2006	2	17	22	1	1
2006	2	18	1	1	1
2006	2	18	7	0	1
2006	2	18	22	1	1
2006	2	19	1	1	1
2006	2	19	7	0	1
2006	2	19	22	1	1
2006	2	20	1	1	1
2006	2	20	7	0	1
2006	2	20	22	1	1
2006	2	21	1	1	1
2006	2	21	7	0	1
2006	2	21	22	1	1
2006	2	22	1	1	1
2006	2	22	7	0	1
2006	2	22	22	1	1
2006	2	23	1	1	1
2006	2	23	7	0	1
2006	2	23	22	1	1
2006	2	24	1	1	1
2006	2	24	7	0	1
2006	2	24	22	1	1
2006	2	25	1	1	1
2006	2	25	7	0	1
2006	2	25	22	1	1
2006	2	26	1	1	1
2006	2	26	7	0	1
2006	2	26	22	1	1
2006	2	27	1	1	1
2006	2	27	7	0	1
2006	2	27	22	1	1
2006	2	28	1	1	1
2006	2	28	7	0	1
2006	2	28	22	1	1
2006	3	1	1	1	1
2006	3	2	1	1	1
2006	3	3	1	1	1
2006	3	4	1	1	1
2006	3	5	1	1	1
2006	3	6	1	1	1
2006	3	7	1	1	1
2006	3	8	1	1	1
2006	3	9	1	1	1
2006	3	10	1	1	1
2006	3	11	1	1	1
2006	3	12	1	1	1
2006	3	13	1	1	1
2006	3	14	1	1	1
2006	3	15	1	1	1
2006	3	16	1	1	1
2006	3	17	1	1	1
2006	3	18	1	1	1
2006	3	19	1	1	1
2006	3	20	1	1	1
2006	3	21	1	1	1
2006	3	22	1	1	1
2006	3	23	1	1	1
2006	3	24	1	1	1
2006	3	25	1	1	1
2006	3	26	1	1	1
2006	3	27	1	1	1
2006	3	28	1	1	1
2006	3	29	1	1	1
2006	3	30	1	1	1

NOT CHANGED FROM DIRECT TESTIMONY

Pattern 4 (continued)

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	3	31	1	1	1
2006	4	1	1	1	1
2006	4	2	1	1	1
2006	4	3	1	1	1
2006	4	4	1	1	1
2006	4	5	1	1	1
2006	4	6	1	1	1
2006	4	7	1	1	1
2006	4	8	1	1	1
2006	4	9	1	1	1
2006	4	10	1	1	1
2006	4	11	1	1	1
2006	4	12	1	1	1
2006	4	13	1	1	1
2006	4	14	1	1	1
2006	4	15	1	1	1
2006	4	16	1	1	1
2006	4	17	1	1	1
2006	4	18	1	1	1
2006	4	19	1	1	1
2006	4	20	1	1	1
2006	4	21	1	1	1
2006	4	22	1	1	1
2006	4	23	1	1	1
2006	4	24	1	1	1
2006	4	25	1	1	1
2006	4	26	1	1	1
2006	4	27	1	1	1
2006	4	28	1	1	1
2006	4	29	1	1	1
2006	4	30	1	1	1
2006	5	1	1	1	1
2006	5	2	1	1	1
2006	5	3	1	1	1
2006	5	4	1	1	1
2006	5	5	1	1	1
2006	5	6	1	1	1
2006	5	7	1	1	1
2006	5	8	1	1	1
2006	5	9	1	1	1
2006	5	10	1	1	1
2006	5	11	1	1	1
2006	5	12	1	1	1
2006	5	13	1	1	1
2006	5	14	1	1	1
2006	5	15	1	1	1
2006	5	16	1	1	1
2006	5	17	1	1	1
2006	5	18	1	1	1
2006	5	19	1	1	1
2006	5	20	1	1	1
2006	5	21	1	1	1
2006	5	22	1	1	1
2006	5	23	1	1	1
2006	5	24	1	1	1
2006	5	25	1	1	1
2006	5	26	1	1	1
2006	5	27	1	1	1
2006	5	28	1	1	1
2006	5	29	1	1	1
2006	5	30	1	1	1
2006	5	31	1	1	1
2006	6	1	1	1	1
2006	6	2	1	1	1
2006	6	3	1	1	1
2006	6	4	1	1	1
2006	6	5	1	1	1
2006	6	6	1	1	1
2006	6	7	1	1	1
2006	6	8	1	1	1
2006	6	9	1	1	1
2006	6	10	1	1	1
2006	6	11	1	1	1
2006	6	12	1	1	1
2006	6	13	1	1	1
2006	6	14	1	1	1
2006	6	15	1	1	1
2006	6	16	1	1	1
2006	6	17	1	1	1
2006	6	18	1	1	1
2006	6	19	1	1	1
2006	6	20	1	1	1
2006	6	21	1	1	1
2006	6	22	1	1	1
2006	6	23	1	1	1
2006	6	24	1	1	1
2006	6	25	1	1	1
2006	6	26	1	1	1
2006	6	26	7	0	1
2006	6	26	22	1	1
2006	6	27	1	1	1
2006	6	27	7	0	1
2006	6	27	22	1	1
2006	6	28	1	1	1
2006	6	28	7	0	1
2006	6	28	22	1	1
2006	6	29	1	1	1
2006	6	29	7	0	1
2006	6	29	22	1	1
2006	6	30	1	1	1
2006	6	30	7	0	1
2006	6	30	22	1	1
2006	7	1	1	1	1
2006	7	1	7	0	1
2006	7	1	22	1	1
2006	7	2	1	1	1
2006	7	2	7	0	1
2006	7	2	22	1	1
2006	7	3	1	1	1
2006	7	3	7	0	1
2006	7	3	22	1	1
2006	7	4	1	1	1
2006	7	4	7	0	1
2006	7	4	22	1	1
2006	7	5	1	1	1
2006	7	5	7	0	1
2006	7	5	22	1	1
2006	7	6	1	1	1
2006	7	6	7	0	1
2006	7	6	22	1	1
2006	7	7	1	1	1
2006	7	7	7	0	1
2006	7	7	22	1	1
2006	7	8	1	1	1
2006	7	8	7	0	1
2006	7	8	22	1	1
2006	7	9	1	1	1
2006	7	9	7	0	1
2006	7	9	22	1	1
2006	7	10	1	1	1
2006	7	10	7	0	1
2006	7	10	22	1	1
2006	7	11	1	1	1
2006	7	11	7	0	1
2006	7	11	22	1	1
2006	7	12	1	1	1
2006	7	12	7	0	1
2006	7	12	22	1	1
2006	7	13	1	1	1
2006	7	13	7	0	1
2006	7	13	22	1	1
2006	7	14	1	1	1
2006	7	14	7	0	1
2006	7	14	22	1	1
2006	7	15	1	1	1
2006	7	15	7	0	1
2006	7	15	22	1	1
2006	7	16	1	1	1
2006	7	16	7	0	1
2006	7	16	22	1	1
2006	7	17	1	1	1
2006	7	18	1	1	1
2006	7	19	1	1	1
2006	7	20	1	1	1
2006	7	21	1	1	1
2006	7	22	1	1	1
2006	7	23	1	1	1
2006	7	24	1	1	1
2006	7	25	1	1	1
2006	7	26	1	1	1
2006	7	27	1	1	1
2006	7	28	1	1	1
2006	7	29	1	1	1
2006	7	30	1	1	1
2006	7	31	1	1	1
2006	8	1	1	1	1
2006	8	2	1	1	1
2006	8	3	1	1	1
2006	8	4	1	1	1
2006	8	5	1	1	1
2006	8	6	1	1	1
2006	8	7	1	1	1
2006	8	8	1	1	1
2006	8	9	1	1	1
2006	8	10	1	1	1
2006	8	11	1	1	1
2006	8	12	1	1	1
2006	8	13	1	1	1
2006	8	14	1	1	1
2006	8	15	1	1	1
2006	8	16	1	1	1
2006	8	17	1	1	1
2006	8	18	1	1	1
2006	8	19	1	1	1
2006	8	20	1	1	1
2006	8	21	1	1	1
2006	8	22	1	1	1
2006	8	23	1	1	1
2006	8	24	1	1	1
2006	8	25	1	1	1
2006	8	26	1	1	1
2006	8	27	1	1	1
2006	8	28	1	1	1
2006	8	29	1	1	1
2006	8	30	1	1	1
2006	8	31	1	1	1
2006	9	1	1	1	1
2006	9	2	1	1	1
2006	9	3	1	1	1
2006	9	4	1	1	1
2006	9	5	1	1	1
2006	9	6	1	1	1
2006	9	7	1	1	1
2006	9	8	1	1	1
2006	9	9	1	1	1
2006	9	10	1	1	1
2006	9	11	1	1	1
2006	9	12	1	1	1
2006	9	13	1	1	1
2006	9	14	1	1	1
2006	9	15	1	1	1
2006	9	16	1	1	1
2006	9	17	1	1	1

NOT CHANGED FROM DIRECT TESTIMONY

Pattern 4 (continued)

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	9	18	1	1	1
2006	9	19	1	1	1
2006	9	20	1	1	1
2006	9	21	1	1	1
2006	9	22	1	1	1
2006	9	23	1	1	1
2006	9	24	1	1	1
2006	9	25	1	1	1
2006	9	26	1	1	1
2006	9	27	1	1	1
2006	9	28	1	1	1
2006	9	29	1	1	1
2006	9	30	1	1	1
2006	10	1	1	1	1
2006	10	1	7	0	1
2006	10	1	22	1	1
2006	10	2	1	1	1
2006	10	2	7	0	1
2006	10	2	22	1	1
2006	10	3	1	1	1
2006	10	3	7	0	1
2006	10	3	22	1	1
2006	10	4	1	1	1
2006	10	4	7	0	1
2006	10	4	22	1	1
2006	10	5	1	1	1
2006	10	5	7	0	1
2006	10	5	22	1	1
2006	10	6	1	1	1
2006	10	6	7	0	1
2006	10	6	22	1	1
2006	10	7	1	1	1
2006	10	7	7	0	1
2006	10	7	22	1	1
2006	10	8	1	1	1
2006	10	8	7	0	1
2006	10	8	22	1	1
2006	10	9	1	1	1
2006	10	9	7	0	1
2006	10	9	22	1	1
2006	10	10	1	1	1
2006	10	10	7	0	1
2006	10	10	22	1	1
2006	10	11	1	1	1
2006	10	11	7	0	1
2006	10	11	22	1	1
2006	10	12	1	1	1
2006	10	12	7	0	1
2006	10	12	22	1	1
2006	10	13	1	1	1
2006	10	13	7	0	1
2006	10	13	22	1	1
2006	10	14	1	1	1
2006	10	14	7	0	1
2006	10	14	22	1	1
2006	10	15	1	1	1
2006	10	15	7	0	1
2006	10	15	22	1	1
2006	10	16	1	1	1
2006	10	16	7	0	1
2006	10	16	22	1	1
2006	10	17	1	1	1
2006	10	17	7	0	1
2006	10	17	22	1	1
2006	10	18	1	1	1
2006	10	18	7	0	1
2006	10	18	22	1	1
2006	10	19	1	1	1
2006	10	19	7	0	1
2006	10	19	22	1	1
2006	10	20	1	1	1
2006	10	20	7	0	1
2006	10	20	22	1	1
2006	10	21	1	1	1
2006	10	21	7	0	1
2006	10	21	22	1	1
2006	10	22	1	1	1
2006	10	22	7	0	1
2006	10	22	22	1	1
2006	10	23	1	1	1
2006	10	23	7	0	1
2006	10	23	22	1	1
2006	10	24	1	1	1
2006	10	24	7	0	1
2006	10	24	22	1	1
2006	10	25	1	1	1
2006	10	25	7	0	1
2006	10	25	22	1	1
2006	10	26	1	1	1
2006	10	26	7	0	1
2006	10	26	22	1	1
2006	10	27	1	1	1
2006	10	27	7	0	1
2006	10	27	22	1	1
2006	10	28	1	1	1
2006	10	28	7	0	1
2006	10	28	22	1	1
2006	10	29	1	1	1
2006	10	29	7	0	1
2006	10	29	22	1	1
2006	10	30	1	1	1
2006	10	30	7	0	1
2006	10	30	22	1	1
2006	10	31	1	1	1
2006	10	31	7	0	1
2006	10	31	22	1	1
2006	11	1	1	1	1
2006	11	1	7	0	1
2006	11	1	22	1	1
2006	11	2	1	1	1
2006	11	2	7	0	1
2006	11	2	22	1	1
2006	11	3	1	1	1
2006	11	3	7	0	1
2006	11	3	22	1	1
2006	11	4	1	1	1
2006	11	4	7	0	1
2006	11	4	22	1	1
2006	11	5	1	1	1
2006	11	5	7	0	1
2006	11	5	22	1	1
2006	11	6	1	1	1
2006	11	6	7	0	1
2006	11	6	22	1	1
2006	11	7	1	1	1
2006	11	7	7	0	1
2006	11	7	22	1	1
2006	11	8	1	1	1
2006	11	8	7	0	1
2006	11	8	22	1	1
2006	11	9	1	1	1
2006	11	9	7	0	1
2006	11	9	22	1	1
2006	11	10	1	1	1
2006	11	10	7	0	1
2006	11	10	22	1	1
2006	11	11	1	1	1
2006	11	11	7	0	1
2006	11	11	22	1	1
2006	11	12	1	1	1
2006	11	12	7	0	1
2006	11	12	22	1	1
2006	11	13	1	1	1
2006	11	13	7	0	1
2006	11	13	22	1	1
2006	11	14	1	1	1
2006	11	14	7	0	1
2006	11	14	22	1	1
2006	11	15	1	1	1
2006	11	15	7	0	1
2006	11	15	22	1	1
2006	11	16	1	1	1
2006	11	16	7	0	1
2006	11	16	22	1	1
2006	11	17	1	1	1
2006	11	17	7	0	1
2006	11	17	22	1	1
2006	11	18	1	1	1
2006	11	18	7	0	1
2006	11	18	22	1	1
2006	11	19	1	1	1
2006	11	19	7	0	1
2006	11	19	22	1	1
2006	11	20	1	1	1
2006	11	20	7	0	1
2006	11	20	22	1	1
2006	11	21	1	1	1
2006	11	21	7	0	1
2006	11	21	22	1	1
2006	11	22	1	1	1
2006	11	22	7	0	1
2006	11	22	22	1	1
2006	11	23	1	1	1
2006	11	23	7	0	1
2006	11	23	22	1	1
2006	11	24	1	1	1
2006	11	24	7	0	1
2006	11	24	22	1	1
2006	11	25	1	1	1
2006	11	25	7	0	1
2006	11	25	22	1	1
2006	11	26	1	1	1
2006	11	26	7	0	1
2006	11	26	22	1	1
2006	11	27	1	1	1
2006	11	27	7	0	1
2006	11	27	22	1	1
2006	11	28	1	1	1
2006	11	28	7	0	1
2006	11	28	22	1	1
2006	11	29	1	1	1
2006	11	29	7	0	1
2006	11	29	22	1	1
2006	11	30	1	1	1
2006	11	30	7	0	1
2006	11	30	22	1	1
2006	12	1	1	1	1
2006	12	1	7	0	1
2006	12	1	22	1	1
2006	12	2	1	1	1
2006	12	2	7	0	1
2006	12	2	22	1	1
2006	12	3	1	1	1
2006	12	3	7	0	1
2006	12	3	22	1	1
2006	12	4	1	1	1
2006	12	4	7	0	1
2006	12	4	22	1	1
2006	12	5	1	1	1
2006	12	5	7	0	1
2006	12	5	22	1	1
2006	12	6	1	1	1
2006	12	6	7	0	1

NOT CHANGED FROM DIRECT TESTIMONY

Pattern 4 (continued)

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	12	6	22	1	1
2006	12	7	1	1	1
2006	12	7	7	0	1
2006	12	7	22	1	1
2006	12	8	1	1	1
2006	12	8	7	0	1
2006	12	8	22	1	1
2006	12	9	1	1	1
2006	12	9	7	0	1
2006	12	9	22	1	1
2006	12	10	1	1	1
2006	12	10	7	0	1
2006	12	10	22	1	1
2006	12	11	1	1	1
2006	12	11	7	0	1
2006	12	11	22	1	1
2006	12	12	1	1	1
2006	12	12	7	0	1
2006	12	12	22	1	1
2006	12	13	1	1	1
2006	12	13	7	0	1
2006	12	13	22	1	1
2006	12	14	1	1	1
2006	12	14	7	0	1
2006	12	14	22	1	1
2006	12	15	1	1	1
2006	12	15	7	0	1
2006	12	15	22	1	1
2006	12	16	1	1	1
2006	12	16	7	0	1
2006	12	16	22	1	1
2006	12	17	1	1	1
2006	12	17	7	0	1
2006	12	17	22	1	1
2006	12	18	1	1	1
2006	12	18	7	0	1
2006	12	18	22	1	1
2006	12	19	1	1	1
2006	12	19	7	0	1
2006	12	19	22	1	1
2006	12	20	1	1	1
2006	12	20	7	0	1
2006	12	20	22	1	1
2006	12	21	1	1	1
2006	12	21	7	0	1
2006	12	21	22	1	1
2006	12	22	1	1	1
2006	12	22	7	0	1
2006	12	22	22	1	1
2006	12	23	1	1	1
2006	12	23	7	0	1
2006	12	23	22	1	1
2006	12	24	1	1	1
2006	12	24	7	0	1
2006	12	24	22	1	1
2006	12	25	1	1	1
2006	12	25	7	0	1
2006	12	25	22	1	1
2006	12	26	1	1	1
2006	12	26	7	0	1
2006	12	26	22	1	1
2006	12	27	1	1	1
2006	12	27	7	0	1
2006	12	27	22	1	1
2006	12	28	1	1	1
2006	12	28	7	0	1
2006	12	28	22	1	1
2006	12	29	1	1	1
2006	12	29	7	0	1
2006	12	29	22	1	1
2006	12	30	1	1	1
2006	12	30	7	0	1
2006	12	30	22	1	1
2006	12	31	1	1	1
2006	12	31	7	0	1
2006	12	31	22	1	1

NOT CHANGED FROM DIRECT TESTIMONY

Pattern 5

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	1	1	1	0	1
2006	1	2	1	0	1
2006	1	3	1	0	1
2006	1	4	1	0	1
2006	1	5	1	0	1
2006	1	6	1	0	1
2006	1	7	1	0	1
2006	1	8	1	0	1
2006	1	9	1	0	1
2006	1	10	1	0	1
2006	1	11	1	0	1
2006	1	12	1	0	1
2006	1	13	1	0	1
2006	1	14	1	0	1
2006	1	15	1	0	1
2006	1	16	1	0	1
2006	1	17	1	0	1
2006	1	18	1	0	1
2006	1	19	1	0	1
2006	1	20	1	0	1
2006	1	21	1	0	1
2006	1	22	1	0	1
2006	1	23	1	0	1
2006	1	24	1	0	1
2006	1	25	1	0	1
2006	1	26	1	0	1
2006	1	27	1	0	1
2006	1	28	1	0	1
2006	1	29	1	0	1
2006	1	30	1	0	1
2006	1	31	1	0	1
2006	2	1	1	0	1
2006	2	2	1	0	1
2006	2	3	1	0	1
2006	2	4	1	0	1
2006	2	5	1	0	1
2006	2	6	1	0	1
2006	2	7	1	0	1
2006	2	8	1	0	1
2006	2	9	1	0	1
2006	2	10	1	0	1
2006	2	11	1	0	1
2006	2	12	1	0	1
2006	2	13	1	0	1
2006	2	14	1	0	1
2006	2	15	1	0	1
2006	2	16	1	0	1
2006	2	17	1	0	1
2006	2	18	1	0	1
2006	2	19	1	0	1
2006	2	20	1	0	1
2006	2	21	1	0	1
2006	2	22	1	0	1
2006	2	23	1	0	1
2006	2	24	1	0	1
2006	2	25	1	0	1
2006	2	26	1	0	1
2006	2	27	1	0	1
2006	2	28	1	0	1
2006	3	1	1	0	1
2006	3	1	7	1	1
2006	3	1	22	0	1
2006	3	2	1	0	1
2006	3	2	7	1	1
2006	3	2	22	0	1
2006	3	3	1	0	1
2006	3	3	7	1	1
2006	3	3	22	0	1
2006	3	4	1	0	1
2006	3	4	7	1	1
2006	3	4	22	0	1
2006	3	5	1	0	1
2006	3	5	7	1	1
2006	3	5	22	0	1
2006	3	6	1	0	1
2006	3	6	7	1	1
2006	3	6	22	0	1
2006	3	7	1	0	1
2006	3	7	7	1	1
2006	3	7	22	0	1
2006	3	8	1	0	1
2006	3	8	7	1	1
2006	3	8	22	0	1
2006	3	9	1	0	1
2006	3	9	7	1	1
2006	3	9	22	0	1
2006	3	10	1	0	1
2006	3	10	7	1	1
2006	3	10	22	0	1
2006	3	11	1	0	1
2006	3	11	7	1	1
2006	3	11	22	0	1
2006	3	12	1	0	1
2006	3	12	7	1	1
2006	3	12	22	0	1
2006	3	13	1	0	1
2006	3	13	7	1	1
2006	3	13	22	0	1
2006	3	14	1	0	1
2006	3	14	7	1	1
2006	3	14	22	0	1
2006	3	15	1	0	1
2006	3	15	7	1	1
2006	3	15	22	0	1
2006	3	16	1	0	1
2006	3	16	7	1	1
2006	3	16	22	0	1
2006	3	17	1	0	1
2006	3	17	7	1	1
2006	3	17	22	0	1
2006	3	18	1	0	1
2006	3	18	7	1	1
2006	3	18	22	0	1
2006	3	19	1	0	1
2006	3	19	7	1	1
2006	3	19	22	0	1
2006	3	20	1	0	1
2006	3	20	7	1	1
2006	3	20	22	0	1
2006	3	21	1	0	1
2006	3	21	7	1	1
2006	3	21	22	0	1
2006	3	22	1	0	1
2006	3	22	7	1	1
2006	3	22	22	0	1
2006	3	23	1	0	1
2006	3	23	7	1	1
2006	3	23	22	0	1
2006	3	24	1	0	1
2006	3	24	7	1	1
2006	3	24	22	0	1
2006	3	25	1	0	1
2006	3	25	7	1	1
2006	3	25	22	0	1
2006	3	26	1	0	1
2006	3	26	7	1	1
2006	3	26	22	0	1
2006	3	27	1	0	1
2006	3	27	7	1	1
2006	3	27	22	0	1
2006	3	28	1	0	1
2006	3	28	7	1	1
2006	3	28	22	0	1
2006	3	29	1	0	1
2006	3	29	7	1	1
2006	3	29	22	0	1
2006	3	30	1	0	1
2006	3	30	7	1	1
2006	3	30	22	0	1
2006	3	31	1	0	1
2006	3	31	7	1	1
2006	3	31	22	0	1
2006	4	1	1	0	1
2006	4	1	7	1	1
2006	4	1	22	0	1
2006	4	2	1	0	1
2006	4	2	7	1	1
2006	4	2	22	0	1
2006	4	3	1	0	1
2006	4	3	7	1	1
2006	4	3	22	0	1
2006	4	4	1	0	1
2006	4	4	7	1	1
2006	4	4	22	0	1
2006	4	5	1	0	1
2006	4	5	7	1	1
2006	4	5	22	0	1
2006	4	6	1	0	1
2006	4	6	7	1	1
2006	4	6	22	0	1
2006	4	7	1	0	1
2006	4	7	7	1	1
2006	4	7	22	0	1
2006	4	8	1	0	1
2006	4	8	7	1	1
2006	4	8	22	0	1
2006	4	9	1	0	1
2006	4	9	7	1	1
2006	4	9	22	0	1
2006	4	10	1	0	1
2006	4	10	7	1	1
2006	4	10	22	0	1
2006	4	11	1	0	1
2006	4	11	7	1	1
2006	4	11	22	0	1
2006	4	12	1	0	1
2006	4	12	7	1	1
2006	4	12	22	0	1
2006	4	13	1	0	1
2006	4	13	7	1	1
2006	4	13	22	0	1
2006	4	14	1	0	1
2006	4	14	7	1	1
2006	4	14	22	0	1
2006	4	15	1	0	1
2006	4	15	7	1	1
2006	4	15	22	0	1
2006	4	16	1	0	1
2006	4	16	7	1	1
2006	4	16	22	0	1
2006	4	17	1	0	1
2006	4	17	7	1	1
2006	4	17	22	0	1
2006	4	18	1	0	1
2006	4	18	7	1	1
2006	4	18	22	0	1
2006	4	19	1	0	1

NOT CHANGED FROM DIRECT TESTIMONY

Pattern 5 (continued)

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	4	19	7	1	1
2006	4	19	22	0	1
2006	4	20	1	0	1
2006	4	20	7	1	1
2006	4	20	22	0	1
2006	4	21	1	0	1
2006	4	21	7	1	1
2006	4	21	22	0	1
2006	4	22	1	0	1
2006	4	22	7	1	1
2006	4	22	22	0	1
2006	4	23	1	0	1
2006	4	23	7	1	1
2006	4	23	22	0	1
2006	4	24	1	0	1
2006	4	24	7	1	1
2006	4	24	22	0	1
2006	4	25	1	0	1
2006	4	25	7	1	1
2006	4	25	22	0	1
2006	4	26	1	0	1
2006	4	26	7	1	1
2006	4	26	22	0	1
2006	4	27	1	0	1
2006	4	27	7	1	1
2006	4	27	22	0	1
2006	4	28	1	0	1
2006	4	28	7	1	1
2006	4	28	22	0	1
2006	4	29	1	0	1
2006	4	29	7	1	1
2006	4	29	22	0	1
2006	4	30	1	0	1
2006	4	30	7	1	1
2006	4	30	22	0	1
2006	5	1	1	0	1
2006	5	1	7	1	1
2006	5	1	22	0	1
2006	5	2	1	0	1
2006	5	2	7	1	1
2006	5	2	22	0	1
2006	5	3	1	0	1
2006	5	3	7	1	1
2006	5	3	22	0	1
2006	5	4	1	0	1
2006	5	4	7	1	1
2006	5	4	22	0	1
2006	5	5	1	0	1
2006	5	5	7	1	1
2006	5	5	22	0	1
2006	5	6	1	0	1
2006	5	6	7	1	1
2006	5	6	22	0	1
2006	5	7	1	0	1
2006	5	7	7	1	1
2006	5	7	22	0	1
2006	5	8	1	0	1
2006	5	8	7	1	1
2006	5	8	22	0	1
2006	5	9	1	0	1
2006	5	9	7	1	1
2006	5	9	22	0	1
2006	5	10	1	0	1
2006	5	10	7	1	1
2006	5	10	22	0	1
2006	5	11	1	0	1
2006	5	11	7	1	1
2006	5	11	22	0	1
2006	5	12	1	0	1
2006	5	12	7	1	1
2006	5	12	22	0	1
2006	5	13	1	0	1
2006	5	13	7	1	1
2006	5	13	22	0	1
2006	5	14	1	0	1
2006	5	14	7	1	1
2006	5	14	22	0	1
2006	5	15	1	0	1
2006	5	15	7	1	1
2006	5	15	22	0	1
2006	5	16	1	0	1
2006	5	16	7	1	1
2006	5	16	22	0	1
2006	5	17	1	0	1
2006	5	17	7	1	1
2006	5	17	22	0	1
2006	5	18	1	0	1
2006	5	18	7	1	1
2006	5	18	22	0	1
2006	5	19	1	0	1
2006	5	19	7	1	1
2006	5	19	22	0	1
2006	5	20	1	0	1
2006	5	20	7	1	1
2006	5	20	22	0	1
2006	5	21	1	0	1
2006	5	21	7	1	1
2006	5	21	22	0	1
2006	5	22	1	0	1
2006	5	22	7	1	1
2006	5	22	22	0	1
2006	5	23	1	0	1
2006	5	23	7	1	1
2006	5	23	22	0	1
2006	5	24	1	0	1
2006	5	24	7	1	1
2006	5	24	22	0	1
2006	5	25	1	0	1
2006	5	25	7	1	1
2006	5	25	22	0	1
2006	5	26	1	0	1
2006	5	26	7	1	1
2006	5	26	22	0	1
2006	5	27	1	0	1
2006	5	27	7	1	1
2006	5	27	22	0	1
2006	5	28	1	0	1
2006	5	28	7	1	1
2006	5	28	22	0	1
2006	5	29	1	0	1
2006	5	29	7	1	1
2006	5	29	22	0	1
2006	5	30	1	0	1
2006	5	30	7	1	1
2006	5	30	22	0	1
2006	5	31	1	0	1
2006	5	31	7	1	1
2006	5	31	22	0	1
2006	6	1	1	0	1
2006	6	1	7	1	1
2006	6	1	22	0	1
2006	6	2	1	0	1
2006	6	2	7	1	1
2006	6	2	22	0	1
2006	6	3	1	0	1
2006	6	3	7	1	1
2006	6	3	22	0	1
2006	6	4	1	0	1
2006	6	4	7	1	1
2006	6	4	22	0	1
2006	6	5	1	0	1
2006	6	5	7	1	1
2006	6	5	22	0	1
2006	6	6	1	0	1
2006	6	6	7	1	1
2006	6	6	22	0	1
2006	6	7	1	0	1
2006	6	7	7	1	1
2006	6	7	22	0	1
2006	6	8	1	0	1
2006	6	8	7	1	1
2006	6	8	22	0	1
2006	6	9	1	0	1
2006	6	9	7	1	1
2006	6	9	22	0	1
2006	6	10	1	0	1
2006	6	10	7	1	1
2006	6	10	22	0	1
2006	6	11	1	0	1
2006	6	11	7	1	1
2006	6	11	22	0	1
2006	6	12	1	0	1
2006	6	12	7	1	1
2006	6	12	22	0	1
2006	6	13	1	0	1
2006	6	13	7	1	1
2006	6	13	22	0	1
2006	6	14	1	0	1
2006	6	14	7	1	1
2006	6	14	22	0	1
2006	6	15	1	0	1
2006	6	15	7	1	1
2006	6	15	22	0	1
2006	6	16	1	0	1
2006	6	16	7	1	1
2006	6	16	22	0	1
2006	6	17	1	0	1
2006	6	17	7	1	1
2006	6	17	22	0	1
2006	6	18	1	0	1
2006	6	18	7	1	1
2006	6	18	22	0	1
2006	6	19	1	0	1
2006	6	19	7	1	1
2006	6	19	22	0	1
2006	6	20	1	0	1
2006	6	20	7	1	1
2006	6	20	22	0	1
2006	6	21	1	0	1
2006	6	21	7	1	1
2006	6	21	22	0	1
2006	6	22	1	0	1
2006	6	22	7	1	1
2006	6	22	22	0	1
2006	6	23	1	0	1
2006	6	23	7	1	1
2006	6	23	22	0	1
2006	6	24	1	0	1
2006	6	24	7	1	1
2006	6	24	22	0	1
2006	6	25	1	0	1
2006	6	25	7	1	1
2006	6	25	22	0	1
2006	6	26	1	0	1
2006	6	27	1	0	1
2006	6	28	1	0	1
2006	6	29	1	0	1
2006	6	30	1	0	1
2006	7	1	1	0	1
2006	7	2	1	0	1
2006	7	3	1	0	1
2006	7	4	1	0	1
2006	7	5	1	0	1

Pattern 5 (continued)

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	7	6	1	0	1
2006	7	7	1	0	1
2006	7	8	1	0	1
2006	7	9	1	0	1
2006	7	10	1	0	1
2006	7	11	1	0	1
2006	7	12	1	0	1
2006	7	13	1	0	1
2006	7	14	1	0	1
2006	7	15	1	0	1
2006	7	16	1	0	1
2006	7	17	1	0	1
2006	7	17	7	1	1
2006	7	17	22	0	1
2006	7	18	1	0	1
2006	7	18	7	1	1
2006	7	18	22	0	1
2006	7	19	1	0	1
2006	7	19	7	1	1
2006	7	19	22	0	1
2006	7	20	1	0	1
2006	7	20	7	1	1
2006	7	20	22	0	1
2006	7	21	1	0	1
2006	7	21	7	1	1
2006	7	21	22	0	1
2006	7	22	1	0	1
2006	7	22	7	1	1
2006	7	22	22	0	1
2006	7	23	1	0	1
2006	7	23	7	1	1
2006	7	23	22	0	1
2006	7	24	1	0	1
2006	7	24	7	1	1
2006	7	24	22	0	1
2006	7	25	1	0	1
2006	7	25	7	1	1
2006	7	25	22	0	1
2006	7	26	1	0	1
2006	7	26	7	1	1
2006	7	26	22	0	1
2006	7	27	1	0	1
2006	7	27	7	1	1
2006	7	27	22	0	1
2006	7	28	1	0	1
2006	7	28	7	1	1
2006	7	28	22	0	1
2006	7	29	1	0	1
2006	7	29	7	1	1
2006	7	29	22	0	1
2006	7	30	1	0	1
2006	7	30	7	1	1
2006	7	30	22	0	1
2006	7	31	1	0	1
2006	7	31	7	1	1
2006	7	31	22	0	1
2006	8	1	1	0	1
2006	8	1	7	1	1
2006	8	1	22	0	1
2006	8	2	1	0	1
2006	8	2	7	1	1
2006	8	2	22	0	1
2006	8	3	1	0	1
2006	8	3	7	1	1
2006	8	3	22	0	1
2006	8	4	1	0	1
2006	8	4	7	1	1
2006	8	4	22	0	1
2006	8	5	1	0	1
2006	8	5	7	1	1
2006	8	5	22	0	1
2006	8	6	1	0	1
2006	8	6	7	1	1
2006	8	6	22	0	1
2006	8	7	1	0	1
2006	8	7	7	1	1
2006	8	7	22	0	1
2006	8	8	1	0	1
2006	8	8	7	1	1
2006	8	8	22	0	1
2006	8	9	1	0	1
2006	8	9	7	1	1
2006	8	9	22	0	1
2006	8	10	1	0	1
2006	8	10	7	1	1
2006	8	10	22	0	1
2006	8	11	1	0	1
2006	8	11	7	1	1
2006	8	11	22	0	1
2006	8	12	1	0	1
2006	8	12	7	1	1
2006	8	12	22	0	1
2006	8	13	1	0	1
2006	8	13	7	1	1
2006	8	13	22	0	1
2006	8	14	1	0	1
2006	8	14	7	1	1
2006	8	14	22	0	1
2006	8	15	1	0	1
2006	8	15	7	1	1
2006	8	15	22	0	1
2006	8	16	1	0	1
2006	8	16	7	1	1
2006	8	16	22	0	1
2006	8	17	1	0	1
2006	8	17	7	1	1
2006	8	17	22	0	1
2006	8	18	1	0	1
2006	8	18	7	1	1
2006	8	18	22	0	1
2006	8	19	1	0	1
2006	8	19	7	1	1
2006	8	19	22	0	1
2006	8	20	1	0	1
2006	8	20	7	1	1
2006	8	20	22	0	1
2006	8	21	1	0	1
2006	8	21	7	1	1
2006	8	21	22	0	1
2006	8	22	1	0	1
2006	8	22	7	1	1
2006	8	22	22	0	1
2006	8	23	1	0	1
2006	8	23	7	1	1
2006	8	23	22	0	1
2006	8	24	1	0	1
2006	8	24	7	1	1
2006	8	24	22	0	1
2006	8	25	1	0	1
2006	8	25	7	1	1
2006	8	25	22	0	1
2006	8	26	1	0	1
2006	8	26	7	1	1
2006	8	26	22	0	1
2006	8	27	1	0	1
2006	8	27	7	1	1
2006	8	27	22	0	1
2006	8	28	1	0	1
2006	8	28	7	1	1
2006	8	28	22	0	1
2006	8	29	1	0	1
2006	8	29	7	1	1
2006	8	29	22	0	1
2006	8	30	1	0	1
2006	8	30	7	1	1
2006	8	30	22	0	1
2006	8	31	1	0	1
2006	8	31	7	1	1
2006	8	31	22	0	1
2006	9	1	1	0	1
2006	9	1	7	1	1
2006	9	1	22	0	1
2006	9	2	1	0	1
2006	9	2	7	1	1
2006	9	2	22	0	1
2006	9	3	1	0	1
2006	9	3	7	1	1
2006	9	3	22	0	1
2006	9	4	1	0	1
2006	9	4	7	1	1
2006	9	4	22	0	1
2006	9	5	1	0	1
2006	9	5	7	1	1
2006	9	5	22	0	1
2006	9	6	1	0	1
2006	9	6	7	1	1
2006	9	6	22	0	1
2006	9	7	1	0	1
2006	9	7	7	1	1
2006	9	7	22	0	1
2006	9	8	1	0	1
2006	9	8	7	1	1
2006	9	8	22	0	1
2006	9	9	1	0	1
2006	9	9	7	1	1
2006	9	9	22	0	1
2006	9	10	1	0	1
2006	9	10	7	1	1
2006	9	10	22	0	1
2006	9	11	1	0	1
2006	9	11	7	1	1
2006	9	11	22	0	1
2006	9	12	1	0	1
2006	9	12	7	1	1
2006	9	12	22	0	1
2006	9	13	1	0	1
2006	9	13	7	1	1
2006	9	13	22	0	1
2006	9	14	1	0	1
2006	9	14	7	1	1
2006	9	14	22	0	1
2006	9	15	1	0	1
2006	9	15	7	1	1
2006	9	15	22	0	1
2006	9	16	1	0	1
2006	9	16	7	1	1
2006	9	16	22	0	1
2006	9	17	1	0	1
2006	9	17	7	1	1
2006	9	17	22	0	1
2006	9	18	1	0	1
2006	9	18	7	1	1
2006	9	18	22	0	1
2006	9	19	1	0	1
2006	9	19	7	1	1
2006	9	19	22	0	1
2006	9	20	1	0	1
2006	9	20	7	1	1
2006	9	20	22	0	1
2006	9	21	1	0	1
2006	9	21	7	1	1
2006	9	21	22	0	1
2006	9	22	1	0	1

NOT CHANGED FROM DIRECT TESTIMONY

Pattern 5 (continued)

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	9	22	7	1	1
2006	9	22	22	0	1
2006	9	23	1	0	1
2006	9	23	7	1	1
2006	9	23	22	0	1
2006	9	24	1	0	1
2006	9	24	7	1	1
2006	9	24	22	0	1
2006	9	25	1	0	1
2006	9	25	7	1	1
2006	9	25	22	0	1
2006	9	26	1	0	1
2006	9	26	7	1	1
2006	9	26	22	0	1
2006	9	27	1	0	1
2006	9	27	7	1	1
2006	9	27	22	0	1
2006	9	28	1	0	1
2006	9	28	7	1	1
2006	9	28	22	0	1
2006	9	29	1	0	1
2006	9	29	7	1	1
2006	9	29	22	0	1
2006	9	30	1	0	1
2006	9	30	7	1	1
2006	9	30	22	0	1
2006	10	1	1	0	1
2006	10	2	1	0	1
2006	10	3	1	0	1
2006	10	4	1	0	1
2006	10	5	1	0	1
2006	10	6	1	0	1
2006	10	7	1	0	1
2006	10	8	1	0	1
2006	10	9	1	0	1
2006	10	10	1	0	1
2006	10	11	1	0	1
2006	10	12	1	0	1
2006	10	13	1	0	1
2006	10	14	1	0	1
2006	10	15	1	0	1
2006	10	16	1	0	1
2006	10	17	1	0	1
2006	10	18	1	0	1
2006	10	19	1	0	1
2006	10	20	1	0	1
2006	10	21	1	0	1
2006	10	22	1	0	1
2006	10	23	1	0	1
2006	10	24	1	0	1
2006	10	25	1	0	1
2006	10	26	1	0	1
2006	10	27	1	0	1
2006	10	28	1	0	1
2006	10	29	1	0	1
2006	10	30	1	0	1
2006	10	31	1	0	1

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	11	1	1	0	1
2006	11	2	1	0	1
2006	11	3	1	0	1
2006	11	4	1	0	1
2006	11	5	1	0	1
2006	11	6	1	0	1
2006	11	7	1	0	1
2006	11	8	1	0	1
2006	11	9	1	0	1
2006	11	10	1	0	1
2006	11	11	1	0	1
2006	11	12	1	0	1
2006	11	13	1	0	1
2006	11	14	1	0	1
2006	11	15	1	0	1
2006	11	16	1	0	1
2006	11	17	1	0	1
2006	11	18	1	0	1
2006	11	19	1	0	1
2006	11	20	1	0	1
2006	11	21	1	0	1
2006	11	22	1	0	1
2006	11	23	1	0	1
2006	11	24	1	0	1
2006	11	25	1	0	1
2006	11	26	1	0	1
2006	11	27	1	0	1
2006	11	28	1	0	1
2006	11	29	1	0	1
2006	11	30	1	0	1
2006	12	1	1	0	1
2006	12	2	1	0	1
2006	12	3	1	0	1
2006	12	4	1	0	1
2006	12	5	1	0	1
2006	12	6	1	0	1
2006	12	7	1	0	1
2006	12	8	1	0	1
2006	12	9	1	0	1
2006	12	10	1	0	1
2006	12	11	1	0	1
2006	12	12	1	0	1
2006	12	13	1	0	1
2006	12	14	1	0	1
2006	12	15	1	0	1
2006	12	16	1	0	1
2006	12	17	1	0	1
2006	12	18	1	0	1
2006	12	19	1	0	1
2006	12	20	1	0	1
2006	12	21	1	0	1
2006	12	22	1	0	1
2006	12	23	1	0	1
2006	12	24	1	0	1
2006	12	25	1	0	1
2006	12	26	1	0	1
2006	12	27	1	0	1
2006	12	28	1	0	1
2006	12	29	1	0	1
2006	12	30	1	0	1
2006	12	31	1	0	1

NOT CHANGED FROM DIRECT TESTIMONY

Pattern 6

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	1	1	1	0	1
2006	1	1	7	1	1
2006	1	1	22	0	1
2006	1	2	1	0	1
2006	1	2	7	1	1
2006	1	2	22	0	1
2006	1	3	1	0	1
2006	1	3	7	1	1
2006	1	3	22	0	1
2006	1	4	1	0	1
2006	1	4	7	1	1
2006	1	4	22	0	1
2006	1	5	1	0	1
2006	1	5	7	1	1
2006	1	5	22	0	1
2006	1	6	1	0	1
2006	1	6	7	1	1
2006	1	6	22	0	1
2006	1	7	1	0	1
2006	1	7	7	1	1
2006	1	7	22	0	1
2006	1	8	1	0	1
2006	1	8	7	1	1
2006	1	8	22	0	1
2006	1	9	1	0	1
2006	1	9	7	1	1
2006	1	9	22	0	1
2006	1	10	1	0	1
2006	1	10	7	1	1
2006	1	10	22	0	1
2006	1	11	1	0	1
2006	1	11	7	1	1
2006	1	11	22	0	1
2006	1	12	1	0	1
2006	1	12	7	1	1
2006	1	12	22	0	1
2006	1	13	1	0	1
2006	1	13	7	1	1
2006	1	13	22	0	1
2006	1	14	1	0	1
2006	1	14	7	1	1
2006	1	14	22	0	1
2006	1	15	1	0	1
2006	1	15	7	1	1
2006	1	15	22	0	1
2006	1	16	1	0	1
2006	1	16	7	1	1
2006	1	16	22	0	1
2006	1	17	1	0	1
2006	1	17	7	1	1
2006	1	17	22	0	1
2006	1	18	1	0	1
2006	1	18	7	1	1
2006	1	18	22	0	1
2006	1	19	1	0	1
2006	1	19	7	1	1
2006	1	19	22	0	1
2006	1	20	1	0	1
2006	1	20	7	1	1
2006	1	20	22	0	1
2006	1	21	1	0	1
2006	1	21	7	1	1
2006	1	21	22	0	1
2006	1	22	1	0	1
2006	1	22	7	1	1
2006	1	22	22	0	1
2006	1	23	1	0	1
2006	1	23	7	1	1
2006	1	23	22	0	1

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	1	24	1	0	1
2006	1	24	7	1	1
2006	1	24	22	0	1
2006	1	25	1	0	1
2006	1	25	7	1	1
2006	1	25	22	0	1
2006	1	26	1	0	1
2006	1	26	7	1	1
2006	1	26	22	0	1
2006	1	27	1	0	1
2006	1	27	7	1	1
2006	1	27	22	0	1
2006	1	28	1	0	1
2006	1	28	7	1	1
2006	1	28	22	0	1
2006	1	29	1	0	1
2006	1	29	7	1	1
2006	1	29	22	0	1
2006	1	30	1	0	1
2006	1	30	7	1	1
2006	1	30	22	0	1
2006	1	31	1	0	1
2006	1	31	7	1	1
2006	1	31	22	0	1
2006	2	1	1	0	1
2006	2	1	7	1	1
2006	2	1	22	0	1
2006	2	2	1	0	1
2006	2	2	7	1	1
2006	2	2	22	0	1
2006	2	3	1	0	1
2006	2	3	7	1	1
2006	2	3	22	0	1
2006	2	4	1	0	1
2006	2	4	7	1	1
2006	2	4	22	0	1
2006	2	5	1	0	1
2006	2	5	7	1	1
2006	2	5	22	0	1
2006	2	6	1	0	1
2006	2	6	7	1	1
2006	2	6	22	0	1
2006	2	7	1	0	1
2006	2	7	7	1	1
2006	2	7	22	0	1
2006	2	8	1	0	1
2006	2	8	7	1	1
2006	2	8	22	0	1
2006	2	9	1	0	1
2006	2	9	7	1	1
2006	2	9	22	0	1
2006	2	10	1	0	1
2006	2	10	7	1	1
2006	2	10	22	0	1
2006	2	11	1	0	1
2006	2	11	7	1	1
2006	2	11	22	0	1
2006	2	12	1	0	1
2006	2	12	7	1	1
2006	2	12	22	0	1
2006	2	13	1	0	1
2006	2	13	7	1	1
2006	2	13	22	0	1
2006	2	14	1	0	1
2006	2	14	7	1	1
2006	2	14	22	0	1
2006	2	15	1	0	1
2006	2	15	7	1	1
2006	2	15	22	0	1

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	2	16	1	0	1
2006	2	16	7	1	1
2006	2	16	22	0	1
2006	2	17	1	0	1
2006	2	17	7	1	1
2006	2	17	22	0	1
2006	2	18	1	0	1
2006	2	18	7	1	1
2006	2	18	22	0	1
2006	2	19	1	0	1
2006	2	19	7	1	1
2006	2	19	22	0	1
2006	2	20	1	0	1
2006	2	20	7	1	1
2006	2	20	22	0	1
2006	2	21	1	0	1
2006	2	21	7	1	1
2006	2	21	22	0	1
2006	2	22	1	0	1
2006	2	22	7	1	1
2006	2	22	22	0	1
2006	2	23	1	0	1
2006	2	23	7	1	1
2006	2	23	22	0	1
2006	2	24	1	0	1
2006	2	24	7	1	1
2006	2	24	22	0	1
2006	2	25	1	0	1
2006	2	25	7	1	1
2006	2	25	22	0	1
2006	2	26	1	0	1
2006	2	26	7	1	1
2006	2	26	22	0	1
2006	2	27	1	0	1
2006	2	27	7	1	1
2006	2	27	22	0	1
2006	2	28	1	0	1
2006	2	28	7	1	1
2006	2	28	22	0	1
2006	3	1	1	0	1
2006	3	2	1	0	1
2006	3	3	1	0	1
2006	3	4	1	0	1
2006	3	5	1	0	1
2006	3	6	1	0	1
2006	3	7	1	0	1
2006	3	8	1	0	1
2006	3	9	1	0	1
2006	3	10	1	0	1
2006	3	11	1	0	1
2006	3	12	1	0	1
2006	3	13	1	0	1
2006	3	14	1	0	1
2006	3	15	1	0	1
2006	3	16	1	0	1
2006	3	17	1	0	1
2006	3	18	1	0	1
2006	3	19	1	0	1
2006	3	20	1	0	1
2006	3	21	1	0	1
2006	3	22	1	0	1
2006	3	23	1	0	1
2006	3	24	1	0	1
2006	3	25	1	0	1
2006	3	26	1	0	1
2006	3	27	1	0	1
2006	3	28	1	0	1
2006	3	29	1	0	1
2006	3	30	1	0	1

Pattern 6 (continued)

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	3	31	1	0	1
2006	4	1	1	0	1
2006	4	2	1	0	1
2006	4	3	1	0	1
2006	4	4	1	0	1
2006	4	5	1	0	1
2006	4	6	1	0	1
2006	4	7	1	0	1
2006	4	8	1	0	1
2006	4	9	1	0	1
2006	4	10	1	0	1
2006	4	11	1	0	1
2006	4	12	1	0	1
2006	4	13	1	0	1
2006	4	14	1	0	1
2006	4	15	1	0	1
2006	4	16	1	0	1
2006	4	17	1	0	1
2006	4	18	1	0	1
2006	4	19	1	0	1
2006	4	20	1	0	1
2006	4	21	1	0	1
2006	4	22	1	0	1
2006	4	23	1	0	1
2006	4	24	1	0	1
2006	4	25	1	0	1
2006	4	26	1	0	1
2006	4	27	1	0	1
2006	4	28	1	0	1
2006	4	29	1	0	1
2006	4	30	1	0	1
2006	5	1	1	0	1
2006	5	2	1	0	1
2006	5	3	1	0	1
2006	5	4	1	0	1
2006	5	5	1	0	1
2006	5	6	1	0	1
2006	5	7	1	0	1
2006	5	8	1	0	1
2006	5	9	1	0	1
2006	5	10	1	0	1
2006	5	11	1	0	1
2006	5	12	1	0	1
2006	5	13	1	0	1
2006	5	14	1	0	1
2006	5	15	1	0	1
2006	5	16	1	0	1
2006	5	17	1	0	1
2006	5	18	1	0	1
2006	5	19	1	0	1
2006	5	20	1	0	1
2006	5	21	1	0	1
2006	5	22	1	0	1
2006	5	23	1	0	1
2006	5	24	1	0	1
2006	5	25	1	0	1
2006	5	26	1	0	1
2006	5	27	1	0	1
2006	5	28	1	0	1
2006	5	29	1	0	1
2006	5	30	1	0	1
2006	5	31	1	0	1
2006	6	1	1	0	1
2006	6	2	1	0	1
2006	6	3	1	0	1
2006	6	4	1	0	1
2006	6	5	1	0	1
2006	6	6	1	0	1
2006	6	7	1	0	1
2006	6	8	1	0	1
2006	6	9	1	0	1
2006	6	10	1	0	1
2006	6	11	1	0	1
2006	6	12	1	0	1
2006	6	13	1	0	1
2006	6	14	1	0	1
2006	6	15	1	0	1
2006	6	16	1	0	1
2006	6	17	1	0	1
2006	6	18	1	0	1
2006	6	19	1	0	1
2006	6	20	1	0	1
2006	6	21	1	0	1
2006	6	22	1	0	1
2006	6	23	1	0	1
2006	6	24	1	0	1
2006	6	25	1	0	1
2006	6	26	1	0	1
2006	6	26	7	1	1
2006	6	26	22	0	1
2006	6	27	1	0	1
2006	6	27	7	1	1
2006	6	27	22	0	1
2006	6	28	1	0	1
2006	6	28	7	1	1
2006	6	28	22	0	1
2006	6	29	1	0	1
2006	6	29	7	1	1
2006	6	29	22	0	1
2006	6	30	1	0	1
2006	6	30	7	1	1
2006	6	30	22	0	1
2006	7	1	1	0	1
2006	7	1	7	1	1
2006	7	1	22	0	1
2006	7	2	1	0	1
2006	7	2	7	1	1
2006	7	2	22	0	1
2006	7	3	1	0	1
2006	7	3	7	1	1
2006	7	3	22	0	1
2006	7	4	1	0	1
2006	7	4	7	1	1
2006	7	4	22	0	1
2006	7	5	1	0	1
2006	7	5	7	1	1
2006	7	5	22	0	1
2006	7	6	1	0	1
2006	7	6	7	1	1
2006	7	6	22	0	1
2006	7	7	1	0	1
2006	7	7	7	1	1
2006	7	7	22	0	1
2006	7	8	1	0	1
2006	7	8	7	1	1
2006	7	8	22	0	1
2006	7	9	1	0	1
2006	7	9	7	1	1
2006	7	9	22	0	1
2006	7	10	1	0	1
2006	7	10	7	1	1
2006	7	10	22	0	1
2006	7	11	1	0	1
2006	7	11	7	1	1
2006	7	11	22	0	1
2006	7	12	1	0	1
2006	7	12	7	1	1
2006	7	12	22	0	1
2006	7	13	1	0	1
2006	7	13	7	1	1
2006	7	13	22	0	1
2006	7	14	1	0	1
2006	7	14	7	1	1
2006	7	14	22	0	1
2006	7	15	1	0	1
2006	7	15	7	1	1
2006	7	15	22	0	1
2006	7	16	1	0	1
2006	7	16	7	1	1
2006	7	16	22	0	1
2006	7	17	1	0	1
2006	7	18	1	0	1
2006	7	19	1	0	1
2006	7	20	1	0	1
2006	7	21	1	0	1
2006	7	22	1	0	1
2006	7	23	1	0	1
2006	7	24	1	0	1
2006	7	25	1	0	1
2006	7	26	1	0	1
2006	7	27	1	0	1
2006	7	28	1	0	1
2006	7	29	1	0	1
2006	7	30	1	0	1
2006	7	31	1	0	1
2006	8	1	1	0	1
2006	8	2	1	0	1
2006	8	3	1	0	1
2006	8	4	1	0	1
2006	8	5	1	0	1
2006	8	6	1	0	1
2006	8	7	1	0	1
2006	8	8	1	0	1
2006	8	9	1	0	1
2006	8	10	1	0	1
2006	8	11	1	0	1
2006	8	12	1	0	1
2006	8	13	1	0	1
2006	8	14	1	0	1
2006	8	15	1	0	1
2006	8	16	1	0	1
2006	8	17	1	0	1
2006	8	18	1	0	1
2006	8	19	1	0	1
2006	8	20	1	0	1
2006	8	21	1	0	1
2006	8	22	1	0	1
2006	8	23	1	0	1
2006	8	24	1	0	1
2006	8	25	1	0	1
2006	8	26	1	0	1
2006	8	27	1	0	1
2006	8	28	1	0	1
2006	8	29	1	0	1
2006	8	30	1	0	1
2006	8	31	1	0	1
2006	9	1	1	0	1
2006	9	2	1	0	1
2006	9	3	1	0	1
2006	9	4	1	0	1
2006	9	5	1	0	1
2006	9	6	1	0	1
2006	9	7	1	0	1
2006	9	8	1	0	1
2006	9	9	1	0	1
2006	9	10	1	0	1
2006	9	11	1	0	1
2006	9	12	1	0	1
2006	9	13	1	0	1
2006	9	14	1	0	1
2006	9	15	1	0	1
2006	9	16	1	0	1
2006	9	17	1	0	1

NOT CHANGED FROM DIRECT TESTIMONY

Pattern 6 (continued)

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	9	18	1	0	1
2006	9	19	1	0	1
2006	9	20	1	0	1
2006	9	21	1	0	1
2006	9	22	1	0	1
2006	9	23	1	0	1
2006	9	24	1	0	1
2006	9	25	1	0	1
2006	9	26	1	0	1
2006	9	27	1	0	1
2006	9	28	1	0	1
2006	9	29	1	0	1
2006	9	30	1	0	1
2006	10	1	1	0	1
2006	10	1	7	1	1
2006	10	1	22	0	1
2006	10	2	1	0	1
2006	10	2	7	1	1
2006	10	2	22	0	1
2006	10	3	1	0	1
2006	10	3	7	1	1
2006	10	3	22	0	1
2006	10	4	1	0	1
2006	10	4	7	1	1
2006	10	4	22	0	1
2006	10	5	1	0	1
2006	10	5	7	1	1
2006	10	5	22	0	1
2006	10	6	1	0	1
2006	10	6	7	1	1
2006	10	6	22	0	1
2006	10	7	1	0	1
2006	10	7	7	1	1
2006	10	7	22	0	1
2006	10	8	1	0	1
2006	10	8	7	1	1
2006	10	8	22	0	1
2006	10	9	1	0	1
2006	10	9	7	1	1
2006	10	9	22	0	1
2006	10	10	1	0	1
2006	10	10	7	1	1
2006	10	10	22	0	1
2006	10	11	1	0	1
2006	10	11	7	1	1
2006	10	11	22	0	1
2006	10	12	1	0	1
2006	10	12	7	1	1
2006	10	12	22	0	1
2006	10	13	1	0	1
2006	10	13	7	1	1
2006	10	13	22	0	1
2006	10	14	1	0	1
2006	10	14	7	1	1
2006	10	14	22	0	1
2006	10	15	1	0	1
2006	10	15	7	1	1
2006	10	15	22	0	1
2006	10	16	1	0	1
2006	10	16	7	1	1
2006	10	16	22	0	1
2006	10	17	1	0	1
2006	10	17	7	1	1
2006	10	17	22	0	1
2006	10	18	1	0	1
2006	10	18	7	1	1
2006	10	18	22	0	1
2006	10	19	1	0	1
2006	10	19	7	1	1
2006	10	19	22	0	1
2006	10	20	1	0	1
2006	10	20	7	1	1
2006	10	20	22	0	1
2006	10	21	1	0	1
2006	10	21	7	1	1
2006	10	21	22	0	1
2006	10	22	1	0	1
2006	10	22	7	1	1
2006	10	22	22	0	1
2006	10	23	1	0	1
2006	10	23	7	1	1
2006	10	23	22	0	1
2006	10	24	1	0	1
2006	10	24	7	1	1
2006	10	24	22	0	1
2006	10	25	1	0	1
2006	10	25	7	1	1
2006	10	25	22	0	1
2006	10	26	1	0	1
2006	10	26	7	1	1
2006	10	26	22	0	1
2006	10	27	1	0	1
2006	10	27	7	1	1
2006	10	27	22	0	1
2006	10	28	1	0	1
2006	10	28	7	1	1
2006	10	28	22	0	1
2006	10	29	1	0	1
2006	10	29	7	1	1
2006	10	29	22	0	1
2006	10	30	1	0	1
2006	10	30	7	1	1
2006	10	30	22	0	1
2006	10	31	1	0	1
2006	10	31	7	1	1
2006	10	31	22	0	1
2006	11	1	1	0	1
2006	11	1	7	1	1
2006	11	1	22	0	1
2006	11	2	1	0	1
2006	11	2	7	1	1
2006	11	2	22	0	1
2006	11	3	1	0	1
2006	11	3	7	1	1
2006	11	3	22	0	1
2006	11	4	1	0	1
2006	11	4	7	1	1
2006	11	4	22	0	1
2006	11	5	1	0	1
2006	11	5	7	1	1
2006	11	5	22	0	1
2006	11	6	1	0	1
2006	11	6	7	1	1
2006	11	6	22	0	1
2006	11	7	1	0	1
2006	11	7	7	1	1
2006	11	7	22	0	1
2006	11	8	1	0	1
2006	11	8	7	1	1
2006	11	8	22	0	1
2006	11	9	1	0	1
2006	11	9	7	1	1
2006	11	9	22	0	1
2006	11	10	1	0	1
2006	11	10	7	1	1
2006	11	10	22	0	1
2006	11	11	1	0	1
2006	11	11	7	1	1
2006	11	11	22	0	1
2006	11	12	1	0	1
2006	11	12	7	1	1
2006	11	12	22	0	1
2006	11	13	1	0	1
2006	11	13	7	1	1
2006	11	13	22	0	1
2006	11	14	1	0	1
2006	11	14	7	1	1
2006	11	14	22	0	1
2006	11	15	1	0	1
2006	11	15	7	1	1
2006	11	15	22	0	1
2006	11	16	1	0	1
2006	11	16	7	1	1
2006	11	16	22	0	1
2006	11	17	1	0	1
2006	11	17	7	1	1
2006	11	17	22	0	1
2006	11	18	1	0	1
2006	11	18	7	1	1
2006	11	18	22	0	1
2006	11	19	1	0	1
2006	11	19	7	1	1
2006	11	19	22	0	1
2006	11	20	1	0	1
2006	11	20	7	1	1
2006	11	20	22	0	1
2006	11	21	1	0	1
2006	11	21	7	1	1
2006	11	21	22	0	1
2006	11	22	1	0	1
2006	11	22	7	1	1
2006	11	22	22	0	1
2006	11	23	1	0	1
2006	11	23	7	1	1
2006	11	23	22	0	1
2006	11	24	1	0	1
2006	11	24	7	1	1
2006	11	24	22	0	1
2006	11	25	1	0	1
2006	11	25	7	1	1
2006	11	25	22	0	1
2006	11	26	1	0	1
2006	11	26	7	1	1
2006	11	26	22	0	1
2006	11	27	1	0	1
2006	11	27	7	1	1
2006	11	27	22	0	1
2006	11	28	1	0	1
2006	11	28	7	1	1
2006	11	28	22	0	1
2006	11	29	1	0	1
2006	11	29	7	1	1
2006	11	29	22	0	1
2006	11	30	1	0	1
2006	11	30	7	1	1
2006	11	30	22	0	1
2006	12	1	1	0	1
2006	12	1	7	1	1
2006	12	1	22	0	1
2006	12	2	1	0	1
2006	12	2	7	1	1
2006	12	2	22	0	1
2006	12	3	1	0	1
2006	12	3	7	1	1
2006	12	3	22	0	1
2006	12	4	1	0	1
2006	12	4	7	1	1
2006	12	4	22	0	1
2006	12	5	1	0	1
2006	12	5	7	1	1
2006	12	5	22	0	1
2006	12	6	1	0	1
2006	12	6	7	1	1

NOT CHANGED FROM DIRECT TESTIMONY

Pattern 6 (continued)

Year	Month	Day of Week Monday = 1	Hour	Capacity Multiplier	VOM Multiplier
2006	12	6	22	0	1
2006	12	7	1	0	1
2006	12	7	7	1	1
2006	12	7	22	0	1
2006	12	8	1	0	1
2006	12	8	7	1	1
2006	12	8	22	0	1
2006	12	9	1	0	1
2006	12	9	7	1	1
2006	12	9	22	0	1
2006	12	10	1	0	1
2006	12	10	7	1	1
2006	12	10	22	0	1
2006	12	11	1	0	1
2006	12	11	7	1	1
2006	12	11	22	0	1
2006	12	12	1	0	1
2006	12	12	7	1	1
2006	12	12	22	0	1
2006	12	13	1	0	1
2006	12	13	7	1	1
2006	12	13	22	0	1
2006	12	14	1	0	1
2006	12	14	7	1	1
2006	12	14	22	0	1
2006	12	15	1	0	1
2006	12	15	7	1	1
2006	12	15	22	0	1
2006	12	16	1	0	1
2006	12	16	7	1	1
2006	12	16	22	0	1
2006	12	17	1	0	1
2006	12	17	7	1	1
2006	12	17	22	0	1
2006	12	18	1	0	1
2006	12	18	7	1	1
2006	12	18	22	0	1
2006	12	19	1	0	1
2006	12	19	7	1	1
2006	12	19	22	0	1
2006	12	20	1	0	1
2006	12	20	7	1	1
2006	12	20	22	0	1
2006	12	21	1	0	1
2006	12	21	7	1	1
2006	12	21	22	0	1
2006	12	22	1	0	1
2006	12	22	7	1	1
2006	12	22	22	0	1
2006	12	23	1	0	1
2006	12	23	7	1	1
2006	12	23	22	0	1
2006	12	24	1	0	1
2006	12	24	7	1	1
2006	12	24	22	0	1
2006	12	25	1	0	1
2006	12	25	7	1	1
2006	12	25	22	0	1
2006	12	26	1	0	1
2006	12	26	7	1	1
2006	12	26	22	0	1
2006	12	27	1	0	1
2006	12	27	7	1	1
2006	12	27	22	0	1
2006	12	28	1	0	1
2006	12	28	7	1	1
2006	12	28	22	0	1
2006	12	29	1	0	1
2006	12	29	7	1	1
2006	12	29	22	0	1
2006	12	30	1	0	1
2006	12	30	7	1	1
2006	12	30	22	0	1
2006	12	31	1	0	1
2006	12	31	7	1	1
2006	12	31	22	0	1

Pattern 7

Year	Month	Day of Week	Hour	Capacity Multiplier	VOM Multiplier
2006	1	1	1	0	1
2006	1	1	8	1	1
2006	1	1	22	0	1
2006	1	2	1	0	1
2006	1	2	8	1	1
2006	1	2	22	0	1
2006	1	3	1	0	1
2006	1	3	8	1	1
2006	1	3	22	0	1
2006	1	4	1	0	1
2006	1	4	8	1	1
2006	1	4	22	0	1
2006	1	5	1	0	1
2006	1	5	8	1	1
2006	1	5	22	0	1
2006	1	6	1	0	1
2006	1	6	8	1	1
2006	1	6	22	0	1
2006	1	7	1	0	1
2006	1	7	8	1	1
2006	1	7	22	0	1

Pattern 15

Year	Month	Day of Week	Hour	Capacity Multiplier	VOM Multiplier
2002	1	1	1	0	1
2002	1	1	8	1	1
2002	1	1	23	0	1
2002	1	2	1	0	1
2002	1	2	8	1	1
2002	1	2	23	0	1
2002	1	3	1	0	1
2002	1	3	8	1	1
2002	1	3	23	0	1
2002	1	4	1	0	1
2002	1	4	8	1	1
2002	1	4	23	0	1
2002	1	5	1	0	1
2002	1	5	8	1	1
2002	1	5	23	0	1
2002	1	6	1	0	1
2002	1	6	8	1	1
2002	1	6	23	0	1
2002	1	7	1	0	1
2002	1	7	8	1	1
2002	1	7	23	0	1

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

Table A-1
(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

2005 PRODUCTION SIMULATION - CALIBRATION RUN

Shipman Plant		
Actual Net MWH	=	8,108
Actual MBTU	=	153,701
Simulated Net MWH	=	17,126
Simulated MBTU	=	286,000
Puna		
Actual Net MWH	=	88,441
Actual MBTU	=	1,409,457
Simulated Net MWH	=	91,889
Simulated MBTU	=	1,433,600
Waimea Diesels		
Actual Net MWH	=	5,136
Actual MBTU	=	56,152
Simulated Net MWH	=	1,155
Simulated MBTU	=	12,300
Kanoelehua Diesels		
Actual Net MWH	=	1,525
Actual MBTU	=	18,322
Simulated Net MWH	=	858
Simulated MBTU	=	8,800
CT2		
Actual Net MWH	=	13,839
Actual MBTU	=	220,136
Simulated Net MWH	=	10,883
Simulated MBTU	=	154,100
CT4		
Actual Net MWH	=	76,422
Actual MBTU	=	915,242
Simulated Net MWH	=	83,320
Simulated MBTU	=	952,000
DIESEL FUEL		
Actual Net MWH	=	192,483
Actual MBTU	=	2,399,094
Simulated Net MWH	=	182,471
Simulated MBTU	=	2,162,900
Actual Heat Rate	=	12,464
Simulated Heat Rate	=	11,853
Calibration Factor	=	**1.051**

Hill Plant		
Actual Net MWH	=	230,066
Actual MBTU	=	3,015,758
Simulated Net MWH	=	235,647
Simulated MBTU	=	3,025,300
INDUSTRIAL FUEL OIL		
Actual Net MWH	=	326,616
Actual MBTU	=	4,578,917
Simulated Net MWH	=	344,662
Simulated MBTU	=	4,744,900
Actual Heat Rate	=	14,019
Simulated Heat Rate	=	13,767
Calibration Factor	=	**1.018**
Keahole Diesels		
Actual Net MWH	=	2,577
Actual MBTU	=	26,654
Simulated Net MWH	=	1,236
Simulated MBTU	=	12,600
CT1/dispersed		
Actual Net MWH	=	1,505
Actual MBTU	=	27,507
Simulated Net MWH	=	3,125
Simulated MBTU	=	53,800
CT3		
Actual Net MWH	=	26,926
Actual MBTU	=	348,777
Simulated Net MWH	=	18,768
Simulated MBTU	=	249,500
CT5		
Actual Net MWH	=	64,552
Actual MBTU	=	786,303
Simulated Net MWH	=	63,126
Simulated MBTU	=	719,800
HEP		
Actual Net MWH	=	431,413
Actual MBTU	=	-
Simulated Net MWH	=	429,259
Simulated MBTU	=	-
PGV		
Actual Net MWH	=	220,639
Actual MBTU	=	-
Simulated Net MWH	=	214,472
Simulated MBTU	=	

TOTAL SYSTEM						
Actual Net MWH	=	519,099				
Actual MBTU	=	6,978,010				
Simulated Net MWH	=	527,133				
Simulated MBTU	=	6,907,800				
Actual Heat Rate	=	13,443	BTU/kWh			
Simulated Heat Rate	=	13,104	BTU/kWh			
Calibration Factor	=	Actual Heat Rate	/	Simulated Heat Rate		
	=	13,443	/	13,104	=	**1.026**

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

Table A-2a
(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

COMPARISON OF PMONTH TO ACTUALS
2005 CALIBRATION

HEAT RATE (Btu/kWh)

	Shipman			Hill			Puna		
	HCAL2005	RECORDED	% DIFF	HCAL2005	RECORDED	% DIFF	HCAL2005	RECORDED	% DIFF
Jan	0.0	0.0	0.00%	12923.0	13136.4	-1.62%	15398.4	16198.6	-4.94%
Feb	15995.3	17462.9	-8.40%	13006.8	13187.8	-1.37%	15479.4	15655.0	-1.12%
Mar	16949.2	-9222.2	-283.79%	12773.1	12992.0	-1.69%	16084.9	15704.7	2.42%
Apr	16532.3	0.0	0.00%	12929.6	13231.2	-2.28%	15523.6	15879.8	-2.24%
May	16326.5	0.0	0.00%	13127.2	13286.5	-1.20%	15486.9	15810.9	-2.05%
Jun	16479.4	0.0	0.00%	12781.8	13069.9	-2.20%	15509.1	15865.9	-2.25%
Jul	16802.3	27551.9	-39.02%	12846.3	13040.4	-1.49%	16463.4	22045.0	-25.32%
Aug	16604.5	24881.2	-33.27%	12450.9	12879.5	-3.33%	16086.4	16819.8	-4.36%
Sep	16971.5	17539.7	-3.24%	12873.1	13122.0	-1.90%	15500.4	16082.1	-3.62%
Oct	16915.0	18156.2	-6.84%	12781.6	13244.6	-3.50%	15382.4	15745.4	-2.31%
Nov	16880.6	17610.1	-4.14%	12832.1	13076.3	-1.87%	15710.8	15937.2	-1.42%
Dec	17507.9	18956.2	-7.64%	12770.1	13108.2	-2.58%	15753.3	15936.6	-1.15%
2005	16699.8	12444.8	34.19%	12838.3	13113.1	-2.10%	15601.4	15936.9	-2.10%

	Waimea			Kanoelehua			Keahole		
	HCAL2005	RECORDED	% DIFF	HCAL2005	RECORDED	% DIFF	HCAL2005	RECORDED	% DIFF
Jan	12500.0	11094.0	12.67%	0.0	11725.6	-100.00%	11111.1	11388.2	-2.43%
Feb	10488.7	10946.2	-4.18%	10534.1	11577.4	-9.01%	10505.3	11187.7	-6.10%
Mar	6666.7	11067.8	-39.76%	13333.3	12325.8	8.17%	10810.8	11101.0	-2.61%
Apr	0.0	10905.1	-100.00%	0.0	12619.9	-100.00%	0.0	10954.7	-100.00%
May	11764.7	10856.0	8.37%	9090.9	11330.0	-19.76%	8888.9	11051.9	-19.57%
Jun	0.0	11304.8	-100.00%	0.0	11986.4	-100.00%	0.0	11003.8	-100.00%
Jul	11428.6	10810.7	5.72%	11538.5	12186.8	-5.32%	9259.3	8176.8	13.24%
Aug	10256.4	10731.8	-4.43%	8695.7	11689.7	-25.61%	9090.9	10955.0	-17.02%
Sep	11627.9	10731.8	8.35%	9523.8	12957.2	-26.50%	10000.0	10896.5	-8.23%
Oct	11764.7	10737.6	9.57%	8333.3	12139.6	-31.35%	9677.4	10679.8	-9.39%
Nov	11764.7	11212.6	4.92%	9090.9	12086.2	-24.78%	10476.2	10749.5	-2.54%
Dec	12500.0	10932.4	14.34%	9090.9	12014.0	-24.33%	11764.7	10342.3	13.75%
2005	10649.4	10936.3	-2.62%	10256.4	11982.1	-14.40%	10194.2	10339.4	-1.41%

	CT1			CT2			CT3		
	HCAL2005	RECORDED	% DIFF	HCAL2005	RECORDED	% DIFF	HCAL2005	RECORDED	% DIFF
Jan	17647.1	57563.5	-69.34%	13437.5	15369.3	-12.57%	13598.1	13883.6	-2.06%
Feb	17933.3	18580.0	-3.46%	13421.0	14384.8	-6.70%	12412.9	12174.0	1.96%
Mar	18518.5	20943.9	-11.58%	13778.7	16108.8	-14.46%	13402.1	13991.4	-4.21%
Apr	16000.0	0.0	0.00%	15158.9	15636.2	-3.05%	14098.4	12289.4	14.72%
May	17368.4	18448.1	-5.85%	25000.0	15778.3	58.44%	14249.7	13223.2	7.76%
Jun	18750.0	35112.0	-46.60%	0.0	0.0	0.00%	14663.5	18670.1	-21.46%
Jul	16931.2	20580.6	-17.73%	14433.0	16713.6	-13.65%	13796.0	12869.8	7.20%
Aug	17213.1	24279.6	-29.10%	14716.8	16512.0	-10.87%	13947.6	12927.9	7.89%
Sep	16666.7	24915.0	-33.11%	0.0	0.0	0.00%	13459.3	13305.4	1.16%
Oct	17679.6	21129.2	-16.33%	14932.1	16623.7	-10.18%	13562.8	13308.9	1.91%
Nov	17441.9	56516.0	-69.14%	14396.9	16750.8	-14.05%	13139.3	12852.8	2.23%
Dec	17000.0	18948.4	-10.28%	14314.9	15906.8	-10.01%	13690.5	12953.2	5.69%
2005	17639.2	18940.5	-6.87%	14159.7	15876.3	-10.81%	13293.9	12966.1	2.53%

	Dispersed			CT4			CT5		
	HCAL2005	RECORDED	% DIFF	HCAL2005	RECORDED	% DIFF	HCAL2005	RECORDED	% DIFF
Jan	0.0	10034.2	-100.00%	11172.5	11719.1	-4.66%	11309.5	11890.1	-4.88%
Feb	9756.1	10390.1	-6.10%	11056.6	11605.0	-4.73%	11035.9	11715.8	-5.80%
Mar	0.0	10198.6	-100.00%	11778.3	12293.8	-4.19%	11834.8	12585.5	-5.96%
Apr	0.0	9991.3	-100.00%	12000.0	12271.1	-2.21%	11556.2	12726.0	-9.19%
May	0.0	9910.1	-100.00%	11451.7	11733.7	-2.40%	11510.4	12163.1	-5.37%
Jun	0.0	10464.3	-100.00%	11840.8	12089.6	-2.06%	11813.0	12476.2	-5.32%
Jul	0.0	9727.9	-100.00%	11122.3	12003.0	-7.34%	11255.2	11954.4	-5.85%
Aug	0.0	10019.5	-100.00%	11137.6	11699.7	-4.80%	11239.1	12029.7	-6.57%
Sep	0.0	9972.5	-100.00%	11356.1	12127.8	-6.36%	11313.6	12454.8	-9.16%
Oct	0.0	8783.6	-100.00%	11589.9	12199.5	-5.00%	11432.8	12536.5	-8.80%
Nov	0.0	10031.0	-100.00%	11449.1	12358.6	-7.36%	11467.3	11856.2	-3.28%
Dec	0.0	9876.9	-100.00%	11828.9	11976.1	-1.23%	11568.6	12180.9	-5.03%
2005	8391.6	9898.5	-15.22%	11425.8	11968.2	-4.53%	11402.6	12170.9	-6.31%

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

Table A-2b

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

COMPARISON OF PMONTH TO ACTUALS
2005 CALIBRATION

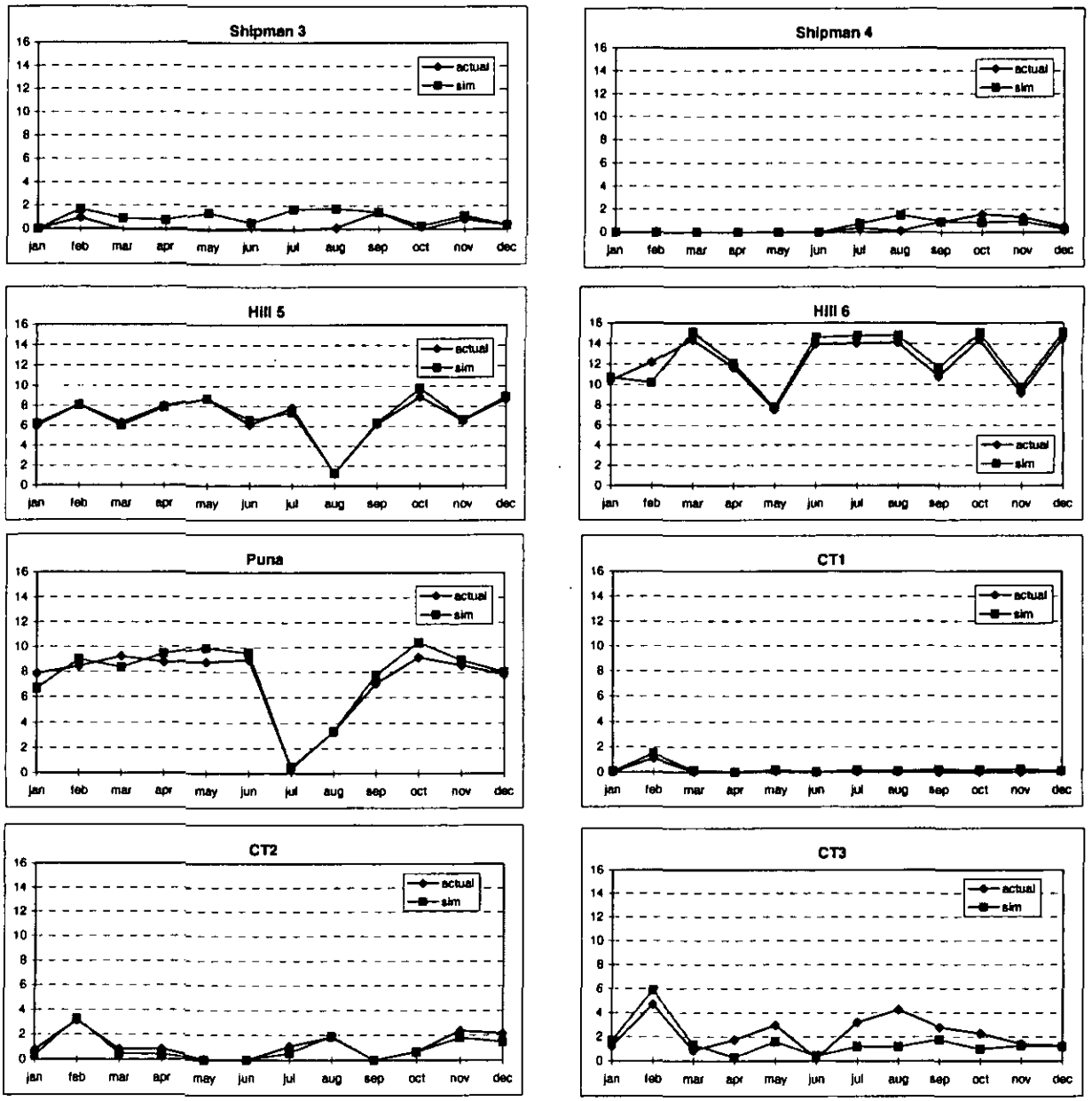
	Net MWHs				% of Net Gen	
Unit	PMONTH	ACTUAL		PMONTH	ACTUAL	DIFF
Shipman 3	11,922	3,387		1.02%	0.29%	0.73%
Shipman4	5,204	4,721		0.44%	0.40%	0.04%
Shipman Total	17,126	8,108		1.46%	0.69%	0.77%
Hill 5	83,944	82,811		7.17%	7.07%	0.10%
Hill 6	151,703	147,255		12.96%	12.57%	0.38%
Hill Total	235,647	230,066		20.13%	19.64%	0.48%
Puna	91,889	88,441		7.85%	7.55%	0.30%
Waimea	1,155	5,136		0.10%	0.44%	-0.34%
Keahole	1,236	2,577		0.11%	0.22%	-0.11%
Kanoelehua	858	1,525		0.07%	0.13%	-0.06%
Dispersed	143	111		0.01%	0.01%	0.00%
CT1	2,982	1,394		0.25%	0.12%	0.14%
CT2	10,883	13,839		0.93%	1.18%	-0.25%
CT3	18,768	26,926		1.60%	2.30%	-0.70%
CT4	83,320	76,422		7.12%	6.53%	0.59%
CT5	63,126	64,552		5.39%	5.51%	-0.12%
PGV	214,472	220,639		18.32%	18.84%	-0.52%
HEP	429,259	431,413		36.66%	36.84%	-0.17%
			Diff			
Total	1,170,864	1,171,151	-286.585			
	527,133	519,099	-0.024%			

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

Figure A-1
(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

COMPARISON OF PMONTH TO ACTUALS
NET ENERGY IN GWH

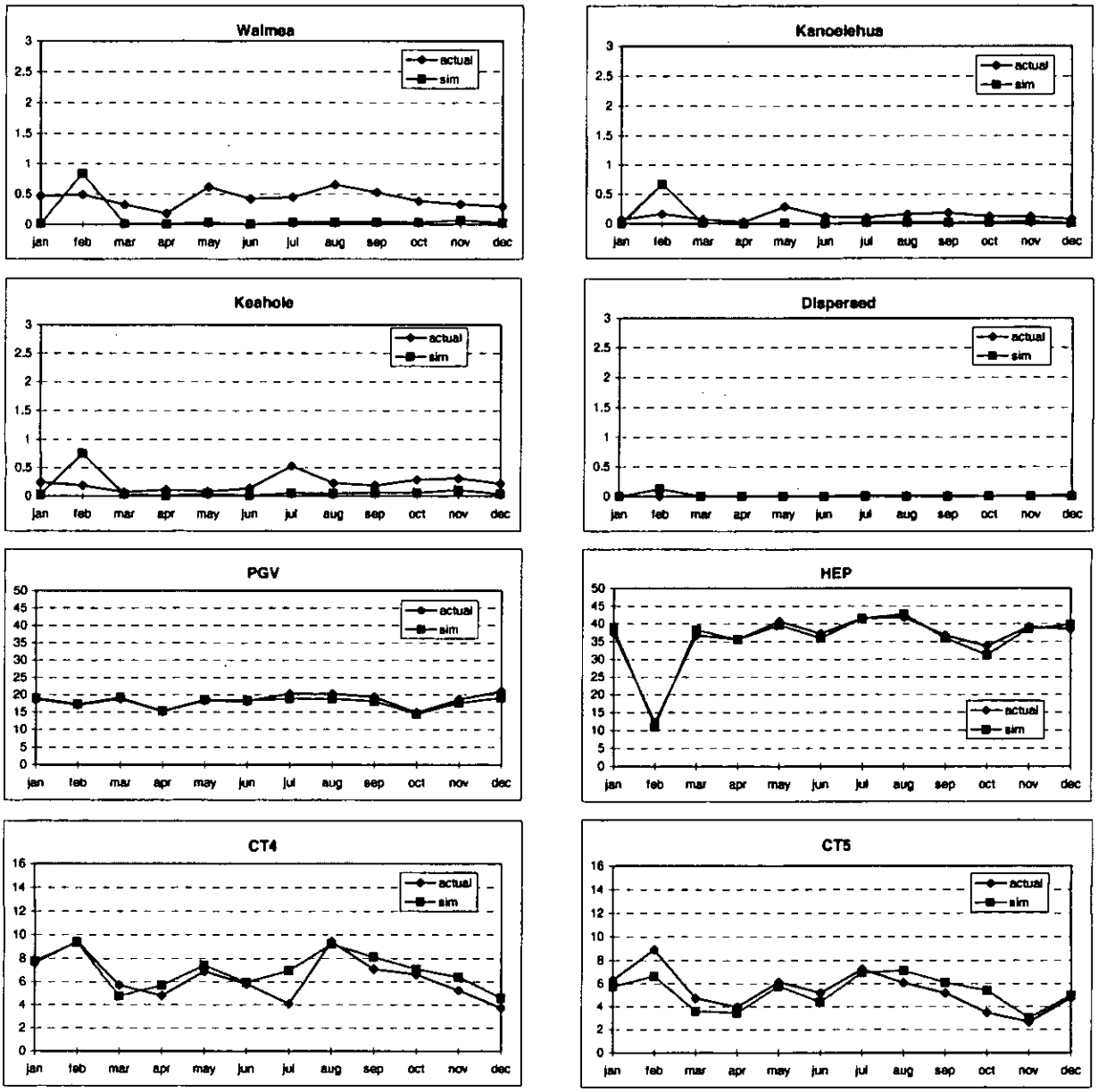


Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

Figure A-1 (continued)
(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

COMPARISON OF PMONTH TO ACTUALS
NET ENERGY IN GWH

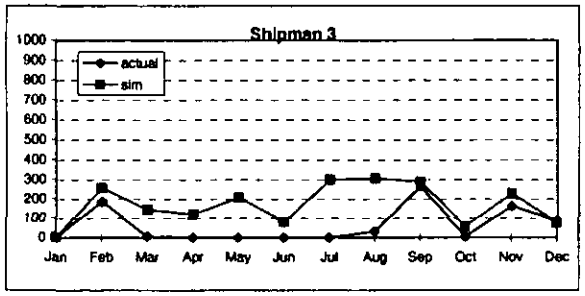


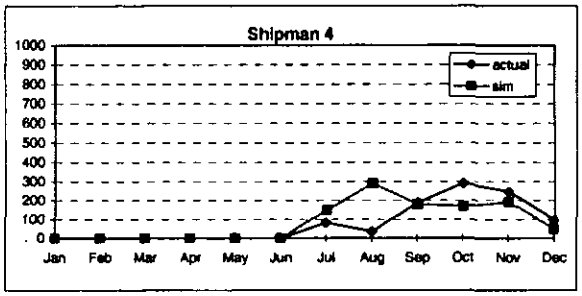
Hawaii Electric Light Company, Inc.

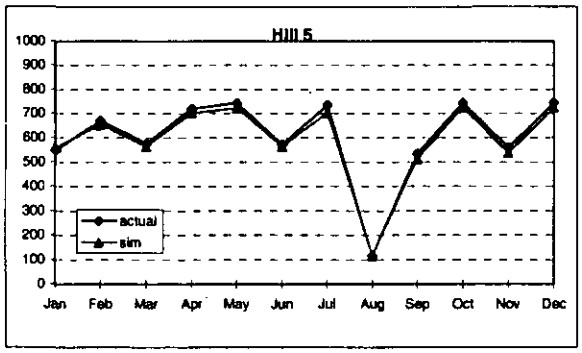
2006 Test Year Calibration Factors

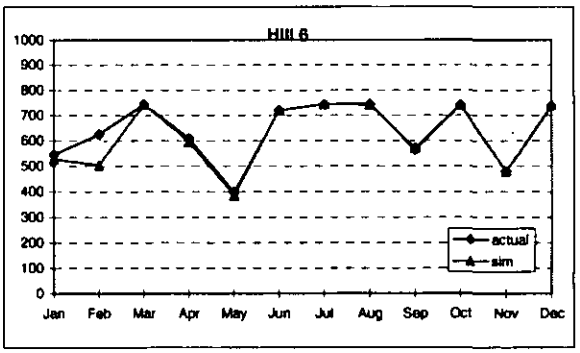
Figure A-2
(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

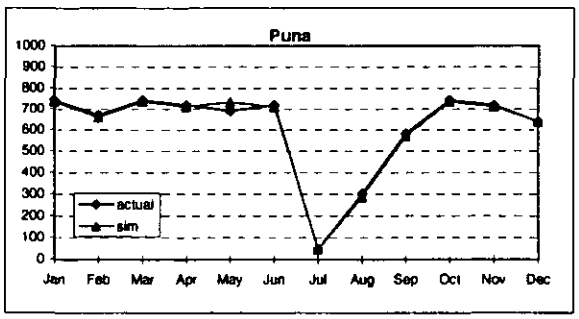
COMPARISON OF PMONTH TO ACTUALS
RUN TIME IN HOURS

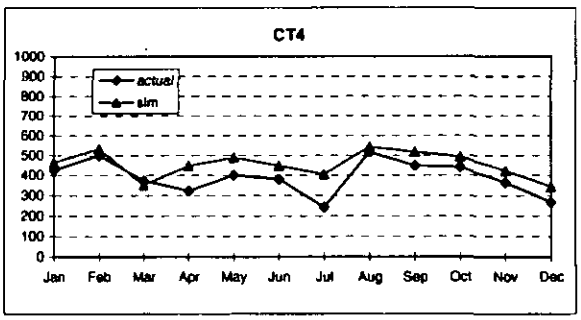


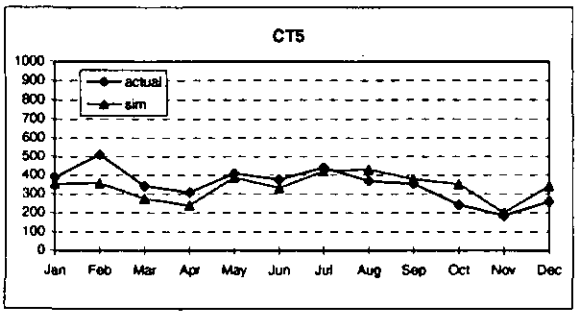












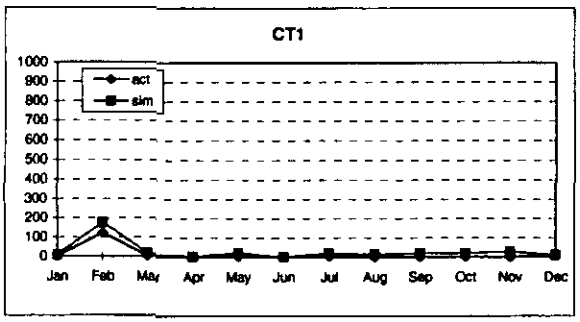
NOT CHANGED FROM DIRECT TESTIMONY

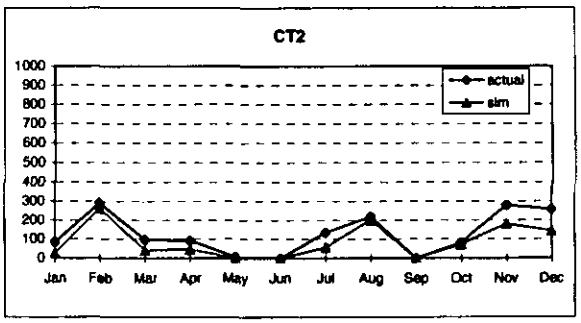
Hawaii Electric Light Company, Inc.

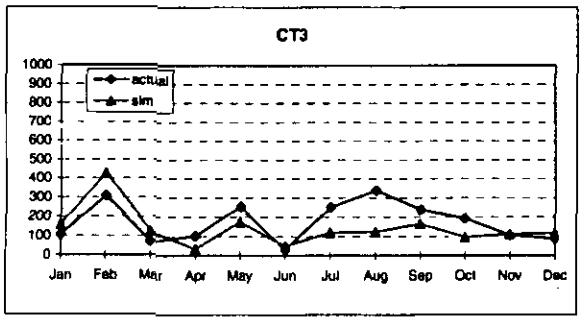
2006 Test Year Calibration Factors

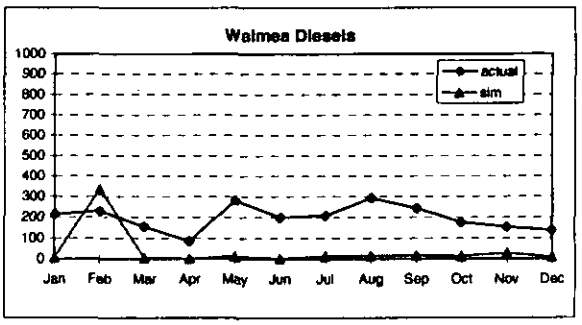
Figure A-2 (continued)
(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

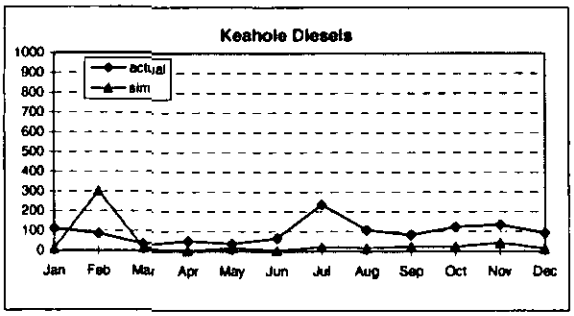
COMPARISON OF PMONTH TO ACTUALS
RUN TIME IN HOURS

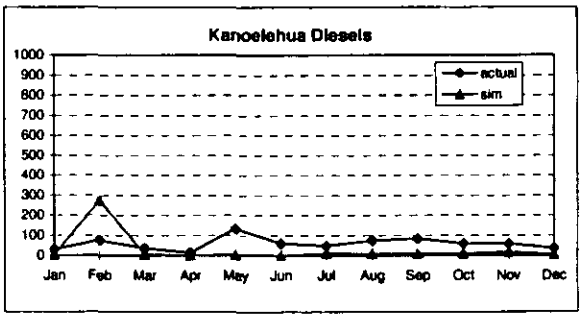


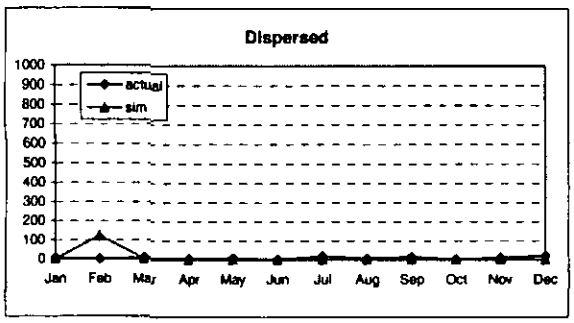












Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

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PPC Proprietary Program Licensed to HECO        Till 12/2099                    HECO PMONTH V.022504
HELCO System - Production Simulation to determine 2005 Calibration              Page:      1
Factor                                                                          03/16/06    10:12:11
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```
Case Name:                      05mc0r1
Simulation Period:              2005/ 1 - 2005/12


File                            Name
------------------------------  --------------------
Study Data:                     htf2000a.stu
Report Control:                 h97bsehp.rfc
Area Data:                      helco.ara
Plant Data:                     helcor.plt
Fuel Class Data:                helco.fcl
Spot Fuel Data:                 hcal05r1.sfu
Contract Fuel Data:
Thermal Basic Data:             05mc0r1.uba
Thermal Cost Data:              05mc0r1.ucs
Thermal Performance Data:       05mc0r1.upf
Thermal NOx Data:
Hourly Pattern #  1:            ptn1.hcp
Hourly Pattern #  2:            ptn2.hcp
Hourly Pattern # 12:            ptn12.hcp
Hourly Pattern # 13:            ptn13.hcp
Hourly Pattern # 15:            ptn15.hcp
Hydro Data:                     hcal05r0.hyd
Pumped Storage Data:
Fixed Energy Transaction Data:  hcal05r0.trf
Economy Transaction Data:
DSM Data:
Monte Carlo Scenario Data:      hcf05mc0.mcs
Thermal Maintenance Data:       05mc0r1.umt
Hydro Maintenance Data:
P-S Maintenance Data:
Load Data:                      hcal05r0.eei
CC Data #1:                     hcal05r2.cc1
CC Data #2:                     hcal05r2.cc2
CC Data #3:                     hcal05r0.cc3
CC Data #4:
CC Maintenance Data:            hcal05r1.cmt
Quick Load Pick Up Curve Data:
Spinning Reserve Data:          hcal2005.spn
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NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

PPC Proprietary Program Licensed to HECO Till 12/2099
HELCO System - Production Simulation to determine 2005 Calibration Factor

HECO PMONTH V.022504
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Calendar Year: 2005

Monthly system Load and Capacity Summary

Mnth	Peak Load MW	Mnthly Energy GWh	Load Factor %	Installe Capacity MW	Maint outage MW	Adjusted Capacity MW	Capacity Reserve MW	Capacity Reserve %
Jan	185	98.8	71.8	260.7	13.9	246.8	61.8	33.41
Feb	181	88.3	72.6	261	73.9	187.1	6.1	3.35
Mar	186	99.8	72.1	260.9	12.2	248.7	62.7	33.72
Apr	181	97.6	74.9	260.6	20.2	240.4	59.4	32.85
May	178	102.3	77.3	260.2	21.2	239	61	34.29
Jun	175	99.5	79	260.6	31.2	229.4	54.4	31.1
Jul	182	105.7	78.1	262.8	19.1	243.7	61.7	33.91
Aug	184	108	78.9	262.8	30.1	232.6	48.7	26.44
Sep	189	104.1	76.5	262.6	33.3	229.3	40.3	21.35
Oct	189	105.5	75	259.2	27.1	232.1	43.1	22.81
Nov	196	102.5	72.7	261.4	34	227.4	31.4	16.02
Dec	197	105.2	71.8	263.5	2.5	261	64	32.51

Summary for Period:

Peak Load	(MW):	197
Total Energy	(GWh):	1217.5
Load Factor	(%):	70.55

Month	AM Peak (MW)	PM Peak (MW)	Capacity (MW)	Maint. (MW)	Reserve (MW)	Largest (MW)	LSC (MW)	Diff. (MW)
Jan	162.8	185	260.7	13.9	61.8	60	186.8	1.8
Feb	161.3	181	261	73.9	6.1	25.8	161.3	-19.7
Mar	168.4	186	260.9	12.2	62.7	60	188.7	2.7
Apr	164.3	181	260.6	20.2	59.4	60	180.4	-0.6
May	174.4	178	260.2	21.2	61	60	179	1
Jun	173.6	175	260.6	31.2	54.4	60	169.4	-5.6
Jul	177.2	182	262.8	19.1	61.7	60	183.7	1.7
Aug	184	181.9	262.8	30.1	48.7	60	172.6	-11.4
Sep	180.3	189	262.6	33.3	40.3	60	169.3	-19.7
Oct	178.5	189	259.2	27.1	43.1	60	172.1	-16.9
Nov	173.4	196	261.4	34	31.4	60	167.4	-28.6
Dec	169.9	197	263.5	2.5	64	60	201	4

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

PPC Proprietary Program Licensed to HECO Till 12/2099
HELCO System - Production Simulation to determine 2005 Calibration Factor

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Fiscal Year: 2005

Station Summary

	Station	Capacity MW	Unit	Hours	CF %	Energy GWh	MBtu k	Cold Start	Warm Start	Stup Cst M$	Fuel Cst M$	VO&M Cst M$	FO&M Cst M$	Oper Cst $/MWh	Tot Cst $/MWh	Ave Hrt Btu/kWh
2	Shipman3	6.7	1	2072.6	20.3	11.922	198	200	37	0	1.4407	0.1338	0	127.79	132.07	16608
3	Shipman4	7.2	1	1028.4	8.25	5.205	88.2	120	13	0	0.713	0.0652	0	142.96	149.53	16942
4	Hill5	13.5	1	7090.3	70.94	83.943	1153.4	7	0	0	8.3665	0.4545	0	104.89	105.08	13740
5	Hill6	20.3	1	7501.9	85.26	151.703	1872	7	0	0	13.7036	0.5269	0	93.73	93.8	12340
6	Puna	14.1	1	7293.6	74.35	91.887	1433.5	4	0	0	10.4068	0.6472	0	120.2	120.3	15600
10	KanoeD11	2	1	26.4	0.3	0.053	0.6	5	0	0	0.0065	0.0005	0	133.76	133.76	10559
11	WaimeD12	2.5	1	149.8	1.71	0.374	4	28	1	0	0.0485	0.0028	0	136.87	136.87	10559
12	WaimeD13	2.5	1	185.9	2.12	0.465	4.9	36	1	0	0.0598	0.0034	0	135.99	135.99	10559
13	WaimeD14	2.5	1	126.4	1.44	0.316	3.3	25	1	0	0.0403	0.0023	0	134.79	134.79	10559
14	KanoeD15	2.5	1	145.4	1.66	0.364	3.8	28	1	0	0.0458	0.0029	0	133.86	133.86	10559
15	KanoeD16	2.5	1	99.3	1.13	0.248	2.6	20	1	0	0.0311	0.002	0	133.31	133.31	10559
16	KanoeD17	2.5	1	77.3	0.88	0.193	2	17	0	0	0.0241	0.0015	0	132.67	132.67	10559
20	KeahoD21	2.5	1	149.1	1.7	0.373	3.9	31	2	0	0.0502	0.0027	0	141.97	141.97	10559
21	KeahoD22	2.5	1	215.4	2.46	0.539	5.7	44	2	0	0.0715	0.004	0	140.15	140.15	10559
22	KeahoD23	2.5	1	130.4	1.49	0.326	3.4	27	1	0	0.0426	0.0024	0	138.02	138.02	10559
23	KanoeCT1	11	1	338.2	3.09	2.983	52.7	58	5	0	0.6608	0	0	221.52	221.52	17653
24	KeahoCT2	13	1	1031.7	9.55	10.883	154	123	9	0	2.1156	0.1156	0	205.02	205.02	14153
25	PunaCT3	20.4	1	1697.9	10.5	18.768	249.4	217	12	0	3.2042	0.1868	0	180.68	180.68	13290
26	PGVon	28.4	1	4969	56.69	130.267	135.3	355	0	0	0.008	0	0	0.06	0.06	1038
27	PGVoff	25.8	1	3549.3	40.49	84.204	87.8	358	0	0	0.0052	0	0	0.06	0.06	1042
32	Panaewa	1	1	62.7	0.72	0.063	0.6	14	0	0	0.0088	0	0	139.6	139.6	9280
33	Olli	1	1	2.1	0.02	0.002	0	0	0	0	0.0003	0	0	139.6	139.6	9280
34	Puna.LL	1	1	9.4	0.11	0.009	0.1	2	0	0	0.0013	0	0	139.6	139.6	9280
35	Kapua	1	1	70.8	0.81	0.071	0.7	16	0	0	0.0099	0	0	139.6	139.6	9280
36	KeahoCT4	20	1	597.7	3.97	6.952	85.8	308	1	0	1.1404	0.0739	0	174.68	174.68	12340
37	KeahoCT5	20.5	1	4068.1	35.13	63.127	719.8	348	10	0	9.6888	0.5211	0	161.73	161.73	11403
39	CT4on	20	1	4857.4	43.57	76.368	866.3	324	0	0	11.6367	0.6232	0	160.54	160.54	11343
10	EDC-CC	60	1	8290.4	81.63	429.26	3463.2	7	1	0	47.0183	2.4273	2.8292	115.19	121.78	8068
1	PPHydro	0.2	1	8642.4	98.6	0.901	0	0	0	0	0	0	0	0	0	
4	WailukuH	8.2	1	8706.2	99.33	29.504	0	0	0	0	0	0	0	0	0	
5	helcohyd	1.1	1	7962.2	90.84	9.075	0	0	0	0	0	0	0	0	0	
	System					1210.35	10595	2729	100	0	110.5493	5.7998	2.8292	96.03	98.47	8754

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

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Fiscal Year: 2005

Transaction Summary

ID	Transaction	Type	Energy GWh	Engy Cost M$	CAP Cost M$	Total Cost M$	Ave Cost $/MWh
4	lalamilo	CONSTANT PURC	1.697	0	0	0	0
5	kamaoa	CONSTANT PURC	4.841	0	0	0	0

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HELCO System - Production Simulation to determine 2005 Calibration Factor Page: 5
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Fiscal Year: 2005

Fuel Type Summary

	Type	Energy GWh	Fuel .000	Fuel Unit	MBtu .000	Fuel Cost M$	Fuel Cost $/MWh	Heat Rate Btu/kWh	Fuel Cost C/MBtu
S	pot:								
1	PGV	214.471	35.975	Othr	223	0.0132	0.06	1040	5.92
2	IND_S/H	252.773	525.314	Bbl	3309.5	24.1967	95.72	13093	731.13
3	IND_PUNA	91.887	227.535	Bbl	1433.5	10.4068	113.26	15600	725.99
4	DSL_PUNA	18.768	42.566	Bbl	249.4	3.2042	170.72	13290	1284.58
5	DSL_KAHO	3.841	10.892	Bbl	63.8	0.7955	207.12	16618	1246.34
7	DSLKEAHE	158.568	313.821	Bbl	1839	24.7458	156.06	11598	1345.62
9	DSLWAIKE	1.155	2.082	Bbl	12.2	0.1486	128.6	10559	1217.91
13	Disperse	0.145	0.23	Bbl	1.3	0.0202	139.6	9280	1504.3
41	DSLEDCE	429.26	590.983	Bbl	3463.2	47.0183	109.53	8068	1357.67
	Hydro	39.48							

Fuel Class Summary

	Class	Energy GWh	Fuel .000	Fuel Unit	MBtu .000	Fuel Cost M$	Fuel Cost $/MWh	Heat Rate Btu/kWh	Fuel Cost C/MBtu
1	Oil	344.66	752.849	Bbl	4742.9	34.6035	100.4	13761	729.6
2	Diesel	611.592	960.343	Bbl	5627.6	75.9124	124.12	9202	1348.9
4	Geotherm	214.471	35.975	Othr	223	0.0132	0.06	1040	5.9
7	Disperse	0.145	0.23	Bbl	1.3	0.0202	139.6	9280	1504.3
	Hydro	39.48							

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

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Fiscal Year: 2005

System Energy and Cost Summary

Demand	GWh	Cost M$	Cost $/MWh	Supply	GWh	Cost M$	Cost $/MWh
Load:	1217.51			Therml Gen:	1170.87	119.1784	101.79
				Hydro Gen:	39.48	0	0
P-S Pumping:	0			P-S Gen:	0	0	0
P-S Payback:	0						
F. E. Sale:	0	0	0	F. E. Purc:	6.54	0	0
Econ. Sale:	0	0	0	Econ. Purc:	0	0	0
Unit Sale:	0	0	0				
Transm Loss:	0			Raj. Fuel:		0	
Dsm Load:	0			Dsm Reductn	0		
				Emerg Purc:	0	0	0
Dumped Engy:	0	0	0	E.U. Energy	0.6	0	0
				Lvl Cost:		0	
Total:	1217.51	0	0	Total:	1217.49	119.1784	97.89
				System Net:		119.1784	97.89
				LOLH(hr):	54.23		

PPC Proprietary Program Licensed to HECO Till 12/2099 HECO PMONTH V.022504
HELCO System - Production Simulation to determine 2005 Calibration Page: 7
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Fiscal Year: 2005

Plant Summary

Plant	CF %	Energy GWh	MBtu 1000	Start Ups	Stup Cst M$	Fuel Cst M$	O&M Cst M$	Tot Cst $/MWh
1 Shipman	14.1	17.1265	286.2	370	0	2.1538	0.199	137.37
2 Hill	79.6	235.6469	3025.4	14	0	22.0702	0.9814	97.82
3 Puna	74.4	91.8869	1433.5	4	0	10.4068	0.6472	120.3
4 Kanoe	2.1	3.8409	61.7	135	0	0.7683	0.0069	201.84
5 PGV	49.1	214.4708	223	713	0	0.0132	0	0.06
7 Waimea	1.8	1.1552	12.2	92	0	0.1486	0.0085	135.95
8 Keahole	22.3	158.5677	1839	1229	0	24.7658	1.3428	164.53
9 Hydro	99.2	39.4798	0	1	0	0	0	0
14 EDC	37.7	429.2596	3463.2	8	0	47.0183	5.2565	121.78
15 Disperse	0.4	0.145	1.3	33	0	0.0202	0	139.6
17 PUNACT3	10.5	18.7682	249.4	229	0	3.2042	0.1868	180.68

Area Summary

Area	CF %	Energy GWh	MBtu 1000	Start Ups	Stup Cst M$	Fuel Cst M$	O&M Cst M$	Tot Cst $/MWh
1 West	32	628.545	5315.1	1349	0	71.9241	6.6078	124.94
2 East	43	581.803	5279.8	1479	0	38.6252	2.0212	69.86

Fiscal Year: 2005

Yearly Fuel & Var O&M Cost by Subperiod (M$)

Off Peak	Shoulder Peak	Priority Peak	Total
35.085464	56.735363	24.528135	116.348961

Study Period: 2005/Jan - 2005/Dec
Total Fuel & Var O&M Cost by Subperiod (M$)

Off Peak	Shoulder Peak	Priority Peak	Total
35.085464	56.735363	24.528135	116.348961

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

System Study Summary - Part 1

Yr	Mo	Skip	Hrg Cst flag	Hrg Cst MW	Hydro MW	Monte Carlo	Dep flag	Ld Band %	Ld Band MW	S. R. %	S. R. MW	# of Wkdays	Weekday On-pk 1st hr	Weekday On-pk Last hr	Weekend On-pk 1st hr	Weekend On-pk Last hr
1995	1	0	0		1.0			0.0	0.0	0.0	0.0	7	7	20	1	24

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

System Study Summary - Part 2

Yr	Mo	EUE Cost	EUE Cost esc	Dump Cost	Dump Cost esc	NOx Cost	SOx Cost	CO2 Cost	ROG Cost	POL Cost	Min Resv	Max Resv	Decm Rate	Base Year
1995	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Report Control Summary

Yr	Mn	Fiscal Last	Yr Mn	Rpt Prd	Yrly Rpt	Stat Rpt	Plant Rpt	Area Rpt	PS Rpt	Cmt/Dep Disp	Erly Graph	Whly Graph	Mnth Graph	Trly Graph	ALLOC	Capital Expsd	PGEN Opt
1995	1		12	2	0	1	1	1	0	1	1		1	1	0	0	

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Report Control Summary - HECO specific

Yr	RD	RMD or RMD	
1995	1		0

PPLMR program licensed to HECO

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Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Area Summary

Yr	Mn	Id	Name	S.R. %	S.R. MW	Ld Adj %	Ld Adj MW	Eng Tie Cap	Eng Tie Cost	Eng Tie Cost sec	Imp Tie	Exp Tie	Min Gen
1995	1	1	West	0.0	0.0	0.0	0.0	0.0	0.00	0.0			
1995	1	2	East	0.0	0.0	0.0	0.0	0.0	0.00	0.0			

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Plant Summary

Yr	Mo	Id	Name
1995	1	1	Shipman
1995	1	2	Hill
1995	1	3	Puna
1995	1	4	Kanoe
1995	1	5	PGV
1995	1	6	HCPC
1995	1	7	Waimea
1995	1	8	Keahole
1995	1	9	Hydro
1995	1	10	Wind
2007	1	11	WH-1
2023	1	12	EH-1
2027	1	13	WH-2
1999	1	14	EDC
1995	1	15	Disperse
1995	1	16	EH-2
1995	1	17	PUNACT3

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Plant Summary - HECO specific

Yr	Mn	Id	Name	NOx Cost	SOx Cost	CO2 Cost	NOQ Cost	Other Cost
1995	1	1	Shipman	0.00	0.00	0.00	0.00	0.00
1995	1	2	Hill	0.00	0.00	0.00	0.00	0.00
1995	1	3	Puna	0.00	0.00	0.00	0.00	0.00
1995	1	4	Kanoe	0.00	0.00	0.00	0.00	0.00
1995	1	5	PGV	0.00	0.00	0.00	0.00	0.00
1995	1	6	HCPC	0.00	0.00	0.00	0.00	0.00
1995	1	7	Waimea	0.00	0.00	0.00	0.00	0.00
1995	1	8	Keahole	0.00	0.00	0.00	0.00	0.00
1995	1	9	Hydro	0.00	0.00	0.00	0.00	0.00
1995	1	10	Wind	0.00	0.00	0.00	0.00	0.00
2007	1	11	WH-1	0.00	0.00	0.00	0.00	0.00
2023	1	12	EH-1	0.00	0.00	0.00	0.00	0.00
2027	1	13	WH-2	0.00	0.00	0.00	0.00	0.00
1999	1	14	EDC	0.00	0.00	0.00	0.00	0.00
1995	1	15	Disperse	0.00	0.00	0.00	0.00	0.00
1995	1	16	EH-2	0.00	0.00	0.00	0.00	0.00
1995	1	17	PUNACT1	0.00	0.00	0.00	0.00	0.00

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Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Fuel Class Summary

Yr	Mn	Id	Name	Unit
1995	1	1	Oil	1 BBL
1995	1	2	Diesel	1 BBL
1995	1	3	Wind	6 OTHER2
1995	1	4	Geotherm	6 OTHER2
1995	1	5	Coal	3 TON
1995	1	6	EXPENSVE	6 OTHER2
1995	1	7	Dispersw	1 BBL

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Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Spot Fuel Summary

Yr	Mn	Id	Name	Class	Fuel Cost	Repl Cost	Cost Esc	Heat Content	NOx	CO2	ROG	Other
2005	1	1	PGV	4 Geotherm	5.9	0.0	0.0	6.20	0.0000	0.0000	0.0000	0.0000
2005	1	2	IND_S/H	1 Oil	674.2	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	2	2	IND_S/H	1 Oil	608.6	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	3	2	IND_S/H	1 Oil	574.8	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	4	2	IND_S/H	1 Oil	582.4	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	5	2	IND_S/H	1 Oil	643.2	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	6	2	IND_S/H	1 Oil	694.3	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	7	2	IND_S/H	1 Oil	807.3	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	8	2	IND_S/H	1 Oil	782.4	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	9	2	IND_S/H	1 Oil	774.2	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	10	2	IND_S/H	1 Oil	773.5	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	11	2	IND_S/H	1 Oil	883.7	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	12	2	IND_S/H	1 Oil	918.5	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	1	3	IND_PUNA	1 Oil	685.9	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	2	3	IND_PUNA	1 Oil	620.3	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	3	3	IND_PUNA	1 Oil	586.6	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	4	3	IND_PUNA	1 Oil	594.2	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	5	3	IND_PUNA	1 Oil	654.9	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	6	3	IND_PUNA	1 Oil	706.0	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	7	3	IND_PUNA	1 Oil	819.0	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	8	3	IND_PUNA	1 Oil	794.1	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	9	3	IND_PUNA	1 Oil	786.0	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	10	3	IND_PUNA	1 Oil	785.2	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	11	3	IND_PUNA	1 Oil	895.5	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	12	3	IND_PUNA	1 Oil	930.3	0.0	0.0	6.30	0.0000	0.0000	0.0000	0.0000
2005	1	4	DSL_PUNA	2 Diesel	1191.2	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	2	4	DSL_PUNA	2 Diesel	1121.2	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	3	4	DSL_PUNA	2 Diesel	1004.9	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	4	4	DSL_PUNA	2 Diesel	1082.9	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	5	4	DSL_PUNA	2 Diesel	1226.4	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	6	4	DSL_PUNA	2 Diesel	1325.2	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	7	4	DSL_PUNA	2 Diesel	1320.8	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	8	4	DSL_PUNA	2 Diesel	1316.6	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	9	4	DSL_PUNA	2 Diesel	1449.3	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	10	4	DSL_PUNA	2 Diesel	1578.6	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	11	4	DSL_PUNA	2 Diesel	1628.0	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	12	4	DSL_PUNA	2 Diesel	1679.4	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	1	5	DSL_KANO	2 Diesel	1190.2	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	2	5	DSL_KANO	2 Diesel	1121.4	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	3	5	DSL_KANO	2 Diesel	1004.3	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	4	5	DSL_KANO	2 Diesel	1082.6	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	5	5	DSL_KANO	2 Diesel	1226.0	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	6	5	DSL_KANO	2 Diesel	1325.0	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	7	5	DSL_KANO	2 Diesel	1320.0	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	8	5	DSL_KANO	2 Diesel	1315.8	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	9	5	DSL_KANO	2 Diesel	1449.2	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	10	5	DSL_KANO	2 Diesel	1578.7	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	11	5	DSL_KANO	2 Diesel	1631.7	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	12	5	DSL_KANO	2 Diesel	1682.7	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	1	7	DSLKEAHE	2 Diesel	1210.3	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	2	7	DSLKEAHE	2 Diesel	1141.1	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Spot Fuel Summary

Yr	Mo	Id	Name	Class	Fuel Cost	Repl Cost	Cost Esc	Heat Content	SOx	CO2	ROG	Other
2005	3	7	DSLKEAHE	2 Diesel	1025.0	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	4	7	DSLKEAHE	2 Diesel	1103.1	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	5	7	DSLKEAHE	2 Diesel	1246.5	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	6	7	DSLKEAHE	2 Diesel	1345.3	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	7	7	DSLKEAHE	2 Diesel	1341.0	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	8	7	DSLKEAHE	2 Diesel	1336.7	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	9	7	DSLKEAHE	2 Diesel	1469.5	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	10	7	DSLKEAHE	2 Diesel	1599.1	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	11	7	DSLKEAHE	2 Diesel	1648.3	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	12	7	DSLKEAHE	2 Diesel	1699.5	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	1	9	DSLWAIME	2 Diesel	1204.0	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	2	9	DSLWAIME	2 Diesel	1134.9	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	3	9	DSLWAIME	2 Diesel	1018.9	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	4	9	DSLWAIME	2 Diesel	1096.9	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	5	9	DSLWAIME	2 Diesel	1240.4	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	6	9	DSLWAIME	2 Diesel	1339.2	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	7	9	DSLWAIME	2 Diesel	1334.8	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	8	9	DSLWAIME	2 Diesel	1330.5	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	9	9	DSLWAIME	2 Diesel	1463.3	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	10	9	DSLWAIME	2 Diesel	1592.5	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	11	9	DSLWAIME	2 Diesel	1641.9	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	12	9	DSLWAIME	2 Diesel	1693.4	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	1	13	Disperse	7 Disperse	1504.3	0.0	3.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	1	41	DSLEDCE	2 Diesel	1210.3	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	2	41	DSLEDCE	2 Diesel	1141.1	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	3	41	DSLEDCE	2 Diesel	1025.0	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	4	41	DSLEDCE	2 Diesel	1103.1	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	5	41	DSLEDCE	2 Diesel	1246.5	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	6	41	DSLEDCE	2 Diesel	1345.3	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	7	41	DSLEDCE	2 Diesel	1341.0	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	8	41	DSLEDCE	2 Diesel	1336.7	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	9	41	DSLEDCE	2 Diesel	1469.5	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	10	41	DSLEDCE	2 Diesel	1599.1	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	11	41	DSLEDCE	2 Diesel	1648.3	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000
2005	12	41	DSLEDCE	2 Diesel	1699.5	0.0	0.0	5.86	0.0000	0.0000	0.0000	0.0000

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Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Thermal Basic Summary

Yr	Mn	Id	Name	Area	Plant	# Unit	Hr Cap	Brnh	Firm	Op Type	Qck Strt	FH Der	ExLm HR	Min Dn	Min Up	Ramp Rate	Owner	HR Contrb	VOM Cst	Fmn Cst	VOM Dep	Fmn Dep	SOx Scrub Eff
2005	1	2	Shipman3	2 East	1 Shipman	1	0	0	0	4	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	9	2	Shipman3	2 East	1 Shipman	1	0	0	0	3	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	3	Shipman4	2 East	1 Shipman	1	0	0	0	4	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	9	3	Shipman4	2 East	1 Shipman	1	0	0	0	3	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	4	Hill5	2 East	2 Hill	1	0	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	5	Hill6	2 East	2 Hill	1	0	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	6	Puna	2 East	3 Puna	1	0	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	10	KanoeD11	2 East	4 Kanoe	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	11	WaimeD12	1 West	7 Waimea	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	12	WaimeD13	1 West	7 Waimea	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	13	WaimeD14	1 West	7 Waimea	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	14	KanoeD15	2 East	4 Kanoe	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	15	KanoeD16	2 East	4 Kanoe	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	16	KanoeD17	2 East	4 Kanoe	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	20	KeaholD21	1 West	8 Keahole	1	15	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	21	KeaholD22	1 West	8 Keahole	1	15	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	22	KeaholD23	1 West	8 Keahole	1	15	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	23	KanoeCT1	2 East	4 Kanoe	1	0	0	0	4	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	24	KeaholCT2	1 West	8 Keahole	1	0	0	0	4	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	25	PunaCT3	2 East	17 PUNACT3	1	0	0	0	4	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	26	PGVon	2 East	5 PGV	1	1	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	27	PGVoff	2 East	5 PGV	1	2	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	32	Panaewa	2 East	15 Disperse	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	33	Ouli	1 West	15 Disperse	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	34	Punaluu	1 West	15 Disperse	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	35	Kapua	1 West	15 Disperse	1	0	0	0	5	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	36	KeaholCT4	1 West	8 Keahole	1	13	0	0	3	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	37	KeaholCT5	1 West	8 Keahole	1	15	0	0	3	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0
2005	1	39	CT4on	1 West	8 Keahole	1	12	0	0	1	0	0		1	1	9999	100.0	100.0	1	0	1	0	0.0

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Hawaii Electric Light Company, Inc.

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Thermal Cost and Variable Summary

Yr	Mn	Id	Name	Spot Fuel	StUp Fuel	Startup Fl Req	Startup Cost	VOM Cost	VOM Esc	FOM Cost	FOM Esc	Capital Cost	Eng Lst Fuel	VOM Flg	Commit Fnlt	Deptch Fnlt	Transm Loss	SU Cst Fctr	Hrly VOM
2005	1	2	Shipman3	2 IND_S/H	2 IND_S/H	35.	0.	1.68	4.7	0.	4.7	0.00		1	1.07296	1.07296	1.00000	0.00	54.84
2005	9	2	Shipman3	2 IND_S/H	2 IND_S/H	35.	0.	1.68	4.7	0.	4.7	0.00		1	2.00000	2.00000	1.00000	0.00	54.84
2005	1	3	Shipman4	2 IND_S/H	2 IND_S/H	35.	0.	1.68	4.7	0.	4.7	0.00		1	1.07296	1.07296	1.00000	0.00	54.84
2005	9	3	Shipman4	2 IND_S/H	2 IND_S/H	35.	0.	1.68	4.7	0.	4.7	0.00		1	2.00000	2.00000	1.00000	0.00	54.84
2005	1	4	Hill15	2 IND_S/H	5 DSL_KANO	175.	0.	0.73	4.7	0.	4.7	0.00		1	1.07526	1.07526	1.00000	0.00	55.44
2005	1	5	Hill16	2 IND_S/H	5 DSL_KANO	127.	0.	0.73	4.7	0.	4.7	0.00		1	1.07526	1.07526	1.00000	0.00	55.45
2005	1	6	Puna	3 IND_PUNA	3 IND_PUNA	252.	0.	1.20	4.7	0.	4.7	0.00		1	1.07000	1.07000	1.00000	0.00	73.56
2005	3	6	Puna	3 IND_PUNA	3 IND_PUNA	252.	0.	1.20	4.7	0.	4.7	0.00		1	1.07000	1.07000	1.00000	0.00	73.56
2005	1	10	KanoeD11	5 DSL_KANO	5 DSL_KANO	0.	0.	0.82	4.7	0.	4.7	0.00		1	1.07874	1.07874	1.00000	0.00	17.89
2005	1	11	WaimeD12	9 DSLWAIME	9 DSLWAIME	0.	0.	0.86	4.7	0.	4.7	0.00		1	1.01010	1.01010	1.00000	0.00	16.21
2005	1	12	WaimeD13	9 DSLWAIME	9 DSLWAIME	0.	0.	0.86	4.7	0.	4.7	0.00		1	1.01010	1.01010	1.00000	0.00	16.21
2005	1	13	WaimeD14	9 DSLWAIME	9 DSLWAIME	0.	0.	0.86	4.7	0.	4.7	0.00		1	1.01010	1.01010	1.00000	0.00	16.21
2005	1	14	KanoeD15	5 DSL_KANO	5 DSL_KANO	0.	0.	0.82	4.7	0.	4.7	0.00		1	1.07874	1.07874	1.00000	0.00	17.89
2005	1	15	KanoeD16	5 DSL_KANO	5 DSL_KANO	0.	0.	0.82	4.7	0.	4.7	0.00		1	1.07874	1.07874	1.00000	0.00	17.89
2005	1	16	KanoeD17	5 DSL_KANO	5 DSL_KANO	0.	0.	0.82	4.7	0.	4.7	0.00		1	1.07874	1.07874	1.00000	0.00	17.89
2005	1	20	KeahoD21	7 DSLKEAHE	7 DSLKEAHE	0.	0.	0.53	4.7	0.	4.7	0.00		1	0.94876	0.94876	1.00000	0.00	17.02
2005	1	21	KeahoD22	7 DSLKEAHE	7 DSLKEAHE	0.	0.	0.53	4.7	0.	4.7	0.00		1	0.94876	0.94876	1.00000	0.00	17.02
2005	1	22	KeahoD23	7 DSLKEAHE	7 DSLKEAHE	0.	0.	0.53	4.7	0.	4.7	0.00		1	0.94876	0.94876	1.00000	0.00	17.02
2005	1	23	KanoeCT1	5 DSL_KANO	5 DSL_KANO	0.	0.	0.00	4.7	0.	4.7	0.00		1	1.07874	1.07874	1.00000	0.00	0.00
2005	1	24	KeahoCT2	7 DSLKEAHE	7 DSLKEAHE	0.	0.	2.61	4.7	0.	4.7	0.00		1	0.94876	0.94876	1.00000	0.00	84.43
2005	1	25	PunaCT3	4 DSL_PUNA	4 DSL_PUNA	0.	0.	0.47	4.7	0.	4.7	0.00		1	1.08695	1.08695	1.00000	0.00	104.72
2005	4	25	PunaCT3	4 DSL_PUNA	4 DSL_PUNA	0.	0.	0.47	4.7	0.	4.7	0.00		1	1.20000	1.20000	1.00000	0.00	104.72
2005	1	26	PGVon	1 PGV	1 PGV	0.	0.	0.00	2.7	0.	2.7	0.00		1	1.11111	1.11111	1.00000	0.00	0.00
2005	1	27	PGVoff	1 PGV	1 PGV	0.	0.	0.00	2.7	0.	2.7	0.00		1	1.11111	1.11111	1.00000	0.00	0.00
2005	1	32	Panaewa	13 Disperse	13 Disperse	0.	0.	0.00	4.7	0.	4.7	0.00		1	3.00000	3.00000	1.00000	0.00	0.00
2005	6	32	Panaewa	13 Disperse	13 Disperse	0.	0.	0.00	4.7	0.	4.7	0.00		1	3.00000	3.00000	1.00000	0.00	0.00
2005	1	33	Ouli	13 Disperse	13 Disperse	0.	0.	0.00	4.7	0.	4.7	0.00		1	3.00000	3.00000	1.00000	0.00	0.00
2005	6	33	Ouli	13 Disperse	13 Disperse	0.	0.	0.00	4.7	0.	4.7	0.00		1	3.00000	3.00000	1.00000	0.00	0.00
2005	1	34	Punaluu	13 Disperse	13 Disperse	0.	0.	0.00	4.7	0.	4.7	0.00		1	3.00000	3.00000	1.00000	0.00	0.00
2005	6	34	Punaluu	13 Disperse	13 Disperse	0.	0.	0.00	4.7	0.	4.7	0.00		1	3.00000	3.00000	1.00000	0.00	0.00
2005	1	35	Kapua	13 Disperse	13 Disperse	0.	0.	0.00	4.7	0.	4.7	0.00		1	3.00000	3.00000	1.00000	0.00	0.00
2005	6	35	Kapua	13 Disperse	13 Disperse	0.	0.	0.00	4.7	0.	4.7	0.00		1	3.00000	3.00000	1.00000	0.00	0.00
2005	1	36	KeahoCT4	7 DSLKEAHE	7 DSLKEAHE	0.	0.	1.14	4.7	0.	4.7	0.00		1	0.94876	0.94876	1.00000	0.00	110.27
2005	1	37	KeahoCT5	7 DSLKEAHE	7 DSLKEAHE	0.	0.	1.14	4.7	0.	4.7	0.00		1	0.94876	0.94876	1.00000	0.00	110.27
2005	1	39	CT4on	7 DSLKEAHE	7 DSLKEAHE	0.	0.	1.14	2.4	0.	2.4	0.00		1	0.94876	0.94876	1.00000	0.00	110.27

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Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Thermal Performance Summary

Yr	Mn	Id	Name		State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Avg @ Min	FOR	MOR
2005	1	2	Shipman3	MW	5.0000000	5.5700000	6.1300000	6.7000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	32.3443990	6.8132402	0.6128630	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		10.75	1.3
2005	1	3	Shipman4	MW	5.0000000	5.7300000	6.4700000	7.2000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	39.0454160	2.5987974	1.1475306	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		20.51	0.4
2005	1	4	Hill5	MW	9.0000000	10.5000000	12.0000000	13.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	38.0000000	7.0000000	0.3000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		2.56	0.0
2005	10	4	Hill5	MW	9.0000000	10.5000000	12.0000000	13.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	26.3356810	9.5743788	0.1440445	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	*0.0000000*	*0.0000000*	*0.0000000*	*0.0000000*	0.0000000	0.0000000	0.0000000	0.0000000		2.56	*0.0*
2005	1	5	Hill6	MW	16.0000000	17.4300000	18.8700000	20.3000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	91.7984570	3.5017454	0.2122299	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.13	1.6
2005	1	6	Puna	MW	7.1000000	9.7100000	12.3400000	14.1000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	47.0000000	6.7000000	0.3700000	0.0000000	*0.0000000*	*0.0000000*	*0.0000000*	*0.0000000*			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		1.03	0.6
2005	2	6	Puna	MW	7.1000000	9.7100000	12.3400000	14.1000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	52.4400000	10.1100000	0.1100000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		1.03	0.6
2005	1	10	KanoeD11	MW	2.0000000	2.0000000	2.0000000	2.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	6.1493000	4.3231000	1.5805000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		74.93	0.3
2005	1	11	WaimeD12	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		29.86	0.9
2005	1	12	WaimeD13	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		3.41	3.1
2005	1	13	WaimeD14	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	*0.0000000*	*0.0000000*	*0.0000000*	*0.0000000*		21.01	1.1
2005	1	14	KanoeD15	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		1.17	0.4
2005	1	15	KanoeD16	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		18.90	0.8
2005	1	16	KanoeD17	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		27.40	0.3
2005	1	20	KeahoD21	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		40.94	0.9

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Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Thermal Performance Summary

Yr	Mn	Id	Name		State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Avg @ Min	FOR	NOR
2005	1	21	KeahoD22	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		5.80	3.0
2005	1	22	KeahoD23	MW	2.5000000	2.5000000	2.5000000	2.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	7.6833700	4.3261600	1.2636800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		32.51	1.7
2005	1	23	KanoeCT1	MW	3.0000000	5.6700000	8.3300000	11.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	85.4230000	6.6812000	0.1397000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		28.14	1.8
2005	1	24	KeahoCT2	MW	8.0000000	9.6700000	11.3400000	13.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	54.7919700	8.4783150	0.0437120	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		19.52	2.6
2005	1	25	PunaCT3	MW	8.0000000	12.1400000	16.2900000	20.4000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	50.8605300	8.5793770	0.0088150	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		5.04	1.1
2005	1	26	PGVon	MW	25.5000000	25.5000000	25.5000000	25.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	2	26	PGVon	MW	25.7600000	25.7600000	25.7600000	25.7600000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	3	26	PGVon	MW	25.7200000	25.7200000	25.7200000	25.7200000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	4	26	PGVon	MW	25.4500000	25.4500000	25.4500000	25.4500000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	5	26	PGVon	MW	25.0300000	25.0300000	25.0300000	25.0300000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	6	26	PGVon	MW	25.4300000	25.4300000	25.4300000	25.4300000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	7	26	PGVon	MW	27.6200000	27.6200000	27.6200000	27.6200000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	8	26	PGVon	MW	27.5500000	27.5500000	27.5500000	27.5500000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	9	26	PGVon	MW	27.4500000	27.4500000	27.4500000	27.4500000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	10	26	PGVon	MW	24.0100000	24.0100000	24.0100000	24.0100000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0

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Thermal Performance Summary

Yr	Mn	Id	Name		State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Avg @ Min	FOR	NOR
2005	11	26	PGVon	MW	26.1900000	26.1900000	26.1900000	26.1900000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	12	26	PGVon	MW	28.3500000	28.3500000	28.3500000	28.3500000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	1	27	PGVoff	MW	25.5000000	25.5000000	25.5000000	25.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	2	27	PGVoff	MW	25.7600000	25.7600000	25.7600000	25.7600000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	3	27	PGVoff	MW	25.7200000	25.7200000	25.7200000	25.7200000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	4	27	PGVoff	MW	25.4500000	25.4500000	25.4500000	25.4500000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	5	27	PGVoff	MW	25.0300000	25.0300000	25.0300000	25.0300000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	6	27	PGVoff	MW	25.4300000	25.4300000	25.4300000	25.4300000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	7	27	PGVoff	MW	22.0000000	22.0000000	22.0000000	22.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	8	27	PGVoff	MW	22.0000000	22.0000000	22.0000000	22.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	9	27	PGVoff	MW	22.0000000	22.0000000	22.0000000	22.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	10	27	PGVoff	MW	22.0000000	22.0000000	22.0000000	22.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	11	27	PGVoff	MW	22.0000000	22.0000000	22.0000000	22.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	12	27	PGVoff	MW	22.0000000	22.0000000	22.0000000	22.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	1.0000000	1.0000000	0.0000100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		0.00	0.0
2005	1	32	Panaewa	MW	1.0000000	1.0000000	1.0000000	1.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	2.8000000	3.2000000	3.2800000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		33.28	0.0

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(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Thermal Performance Summary

Yr	Mn	Id	Name		State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Avg & Min	FOR	MOR
2005	1	33	Ouli	MW	1.0000000	1.0000000	1.0000000	1.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	2.8000000	3.2000000	3.2800000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		98.24	0.0
2005	1	34	Punaluu	MW	1.0000000	1.0000000	1.0000000	1.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	2.8000000	3.2000000	3.2800000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		88.07	0.2
2005	1	35	Kapua	MW	1.0000000	1.0000000	1.0000000	1.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	2.8000000	3.2000000	3.2800000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		14.29	4.1
2005	1	36	KeahoCT4	MW	7.5000000	11.6700000	15.8300000	20.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	49.3842300	7.6807580	0.0309680	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		4.85	0.0
2005	1	37	KeahoCT5	MW	7.5000000	11.8300000	16.1700000	20.5000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	53.1790600	6.8586780	0.0689440	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		4.21	1.9
2005	1	39	CT4on	MW	7.5000000	11.6700000	15.8300000	20.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				I/O Coeff	49.3842300	7.6807580	0.0309680	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000			
				Availability	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000		4.85	1.2

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Thermal Maintenance Summary

Id	Name	Year	Month	Day	# of Days
2	Shipman3	2005	1	1	39
2	Shipman3	2005	8	1	7
2	Shipman3	2005	10	5	27
2	Shipman3	2005	11	21	25
3	Shipman4	2005	1	1	192
3	Shipman4	2005	11	28	19
4	Hill5	2005	1	8	7
4	Hill5	2005	3	10	7
4	Hill5	2005	6	25	7
4	Hill5	2005	8	6	34
4	Hill5	2005	11	13	7
5	Hill6	2005	1	22	9
5	Hill6	2005	2	1	7
5	Hill6	2005	4	11	5
5	Hill6	2005	5	14	15
5	Hill6	2005	9	12	6
5	Hill6	2005	11	1	10
6	Puna	2005	7	3	48
6	Puna	2005	9	18	6
6	Puna	2005	12	26	4
11	WaimeD12	2005	3	14	12
11	WaimeD12	2005	7	25	17
12	WaimeD13	2005	3	7	14
13	WaimeD14	2005	3	7	7
21	KeahoD22	2005	7	25	14
22	KeahoD23	2005	2	22	12
22	KeahoD23	2005	12	19	7
23	KanoeCT1	2005	2	28	7
23	KanoeCT1	2005	5	31	26
24	KeahoCT2	2005	4	4	7
24	KeahoCT2	2005	5	2	77
24	KeahoCT2	2005	8	23	47
25	PunaCT3	2005	4	18	7
25	PunaCT3	2005	10	17	19
26	PGVon	2005	4	25	5
26	PGVon	2005	10	10	5
27	PGVoff	2005	4	25	5
27	PGVoff	2005	10	10	5
35	Kapua	2005	5	2	14
36	KeahoCT4	2005	3	20	7
36	KeahoCT4	2005	7	14	11
36	KeahoCT4	2005	11	28	12
37	KeahoCT5	2005	3	21	7
37	KeahoCT5	2005	11	7	12
39	CT4on	2005	3	20	7
39	CT4on	2005	7	14	6
39	CT4on	2005	11	28	12

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Hydro Basic Summary - Part 1

Yr	Mo	Id	Name	Area	Plant	# Unit	Firm	SR	Cap Der	Rel Cnt	Min Cap	ROR Cap	Max Cap	Schd Eng	FOR	Trns Loss	Owner	Max Eng	Yr Eng
2005	1	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.12	0.12	0.12	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	2	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.03	0.03	0.03	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	3	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.04	0.04	0.04	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	4	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.12	0.12	0.12	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	5	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.10	0.10	0.10	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	6	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.04	0.04	0.04	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	7	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.08	0.08	0.08	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	8	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.09	0.09	0.09	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	9	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.16	0.16	0.16	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	10	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.21	0.21	0.21	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	11	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.11	0.11	0.11	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	12	1	PPHydro	1 West	9 Hydro	1	1	0	0	0	0.08	0.08	0.08	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	1	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	0.92	0.92	0.92	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	2	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	0.57	0.57	0.57	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	3	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	1.45	1.45	1.45	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	4	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	6.85	6.85	6.85	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	5	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	0.05	0.05	0.05	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	6	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	2.64	2.64	2.64	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	7	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	4.11	4.11	4.11	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	8	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	2.96	2.96	2.96	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	9	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	5.67	5.67	5.67	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	10	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	8.16	8.16	8.16	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	11	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	5.83	5.83	5.83	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	12	4	WailukuH	1 West	9 Hydro	1	1	0	0	0	1.40	1.40	1.40	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	1	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	0.79	0.79	0.79	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	2	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	0.53	0.53	0.53	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	3	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	0.25	0.25	0.25	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	4	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	0.96	0.96	0.96	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	5	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	0.57	0.57	0.57	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	6	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	0.74	0.74	0.74	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	7	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	0.94	0.94	0.94	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	8	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	1.90	1.90	1.90	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	9	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	1.16	1.16	1.16	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	10	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	3.08	3.08	3.08	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	11	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	1.55	1.55	1.55	0.000	0.00	1.00000	100.0	9999.999	0.000
2005	12	5	helcohyd	1 West	9 Hydro	1	1	0	0	0	-0.01	-0.01	-0.01	0.000	0.00	1.00000	100.0	9999.999	0.000

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Hydro Basic Summary - Part 2

Yr	Mn	Id	Name	VOM Cost	VOM Exc	FOM Cost	FOM Exc	Cap Cost
2005	1	1	PPHydro	0.00	0.0	0.	0.0	0.
2005	2	1	PPHydro	0.00	0.0	0.	0.0	0.
2005	3	1	PPHydro	0.00	0.0	0.	0.0	0.
2005	4	1	PPHydro	0.00	0.0	0.	0.0	0.
2005	5	1	PPHydro	0.00	0.0	0.	0.0	0.
2005	6	1	PPHydro	0.00	0.0	0.	0.0	0.
2005	7	1	PPHydro	0.00	0.0	0.	0.0	0.
2005	8	1	PPHydro	0.00	0.0	0.	0.0	0.
2005	9	1	PPHydro	0.00	0.0	0.	0.0	0.
2005	10	1	PPHydro	0.00	0.0	0.	0.0	0.
2005	11	1	PPHydro	0.00	0.0	0.	0.0	0.
2005	12	1	PPHydro	0.00	0.0	0.	0.0	0.
2005	1	4	WailukuH	0.00	0.0	0.	0.0	0.
2005	2	4	WailukuH	0.00	0.0	0.	0.0	0.
2005	3	4	WailukuH	0.00	0.0	0.	0.0	0.
2005	4	4	WailukuH	0.00	0.0	0.	0.0	0.
2005	5	4	WailukuH	0.00	0.0	0.	0.0	0.
2005	6	4	WailukuH	0.00	0.0	0.	0.0	0.
2005	7	4	WailukuH	0.00	0.0	0.	0.0	0.
2005	8	4	WailukuH	0.00	0.0	0.	0.0	0.
2005	9	4	WailukuH	0.00	0.0	0.	0.0	0.
2005	10	4	WailukuH	0.00	0.0	0.	0.0	0.
2005	11	4	WailukuH	0.00	0.0	0.	0.0	0.
2005	12	4	WailukuH	0.00	0.0	0.	0.0	0.
2005	1	5	helcohyd	0.00	0.0	0.	0.0	0.
2005	2	5	helcohyd	0.00	0.0	0.	0.0	0.
2005	3	5	helcohyd	0.00	0.0	0.	0.0	0.
2005	4	5	helcohyd	0.00	0.0	0.	0.0	0.
2005	5	5	helcohyd	0.00	0.0	0.	0.0	0.
2005	6	5	helcohyd	0.00	0.0	0.	0.0	0.
2005	7	5	helcohyd	0.00	0.0	0.	0.0	0.
2005	8	5	helcohyd	0.00	0.0	0.	0.0	0.
2005	9	5	helcohyd	0.00	0.0	0.	0.0	0.
2005	10	5	helcohyd	0.00	0.0	0.	0.0	0.
2005	11	5	helcohyd	0.00	0.0	0.	0.0	0.
2005	12	5	helcohyd	0.00	0.0	0.	0.0	0.

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Fixed Energy Transaction Summary

Yr	Mn	Id	Name	Type	Area	Firm	Min Cap	Max Cap	Energy	Energy Cost	Energy Cst Esc	Capcty Cost	Capcty Cst Esc	Pk Def	# of Wkdays	Weekday On-pk 1st hr	Weekday On-pk Last hr	Weekend On-pk 1st hr	Weekend On-pk Last hr
2005	1	4	lalamilo	6 Constant Purchase	2 East	1	0.02	2.28	0.019	0.00	0.0	0.0	0.0	0					
2005	2	4	lalamilo	6 Constant Purchase	2 East	1	0.26	2.28	0.177	0.00	0.0	0.0	0.0	0					
2005	3	4	lalamilo	6 Constant Purchase	2 East	1	0.15	2.28	0.115	0.00	0.0	0.0	0.0	0					
2005	4	4	lalamilo	6 Constant Purchase	2 East	1	0.29	2.28	0.207	0.00	0.0	0.0	0.0	0					
2005	5	4	lalamilo	6 Constant Purchase	2 East	1	0.18	2.28	0.137	0.00	0.0	0.0	0.0	0					
2005	6	4	lalamilo	6 Constant Purchase	2 East	1	0.27	2.28	0.197	0.00	0.0	0.0	0.0	0					
2005	7	4	lalamilo	6 Constant Purchase	2 East	1	0.27	2.28	0.205	0.00	0.0	0.0	0.0	0					
2005	8	4	lalamilo	6 Constant Purchase	2 East	1	0.20	2.28	0.155	0.00	0.0	0.0	0.0	0					
2005	9	4	lalamilo	6 Constant Purchase	2 East	1	0.22	2.28	0.160	0.00	0.0	0.0	0.0	0					
2005	10	4	lalamilo	6 Constant Purchase	2 East	1	0.21	2.28	0.161	0.00	0.0	0.0	0.0	0					
2005	11	4	lalamilo	6 Constant Purchase	2 East	1	0.12	2.28	0.087	0.00	0.0	0.0	0.0	0					
2005	12	4	lalamilo	6 Constant Purchase	2 East	1	0.09	2.28	0.070	0.00	0.0	0.0	0.0	0					
2005	1	5	kamaoa	6 Constant Purchase	2 East	1	0.29	7.00	0.217	0.00	0.0	0.0	0.0	0					
2005	2	5	kamaoa	6 Constant Purchase	2 East	1	0.52	7.00	0.350	0.00	0.0	0.0	0.0	0					
2005	3	5	kamaoa	6 Constant Purchase	2 East	1	0.36	7.00	0.273	0.00	0.0	0.0	0.0	0					
2005	4	5	kamaoa	6 Constant Purchase	2 East	1	1.05	7.00	0.756	0.00	0.0	0.0	0.0	0					
2005	5	5	kamaoa	6 Constant Purchase	2 East	1	0.58	7.00	0.437	0.00	0.0	0.0	0.0	0					
2005	6	5	kamaoa	6 Constant Purchase	2 East	1	0.80	7.00	0.577	0.00	0.0	0.0	0.0	0					
2005	7	5	kamaoa	6 Constant Purchase	2 East	1	0.72	7.00	0.542	0.00	0.0	0.0	0.0	0					
2005	8	5	kamaoa	6 Constant Purchase	2 East	1	0.66	7.00	0.493	0.00	0.0	0.0	0.0	0					
2005	9	5	kamaoa	6 Constant Purchase	2 East	1	0.61	7.00	0.441	0.00	0.0	0.0	0.0	0					
2005	10	5	kamaoa	6 Constant Purchase	2 East	1	0.41	7.00	0.308	0.00	0.0	0.0	0.0	0					
2005	11	5	kamaoa	6 Constant Purchase	2 East	1	0.48	7.00	0.346	0.00	0.0	0.0	0.0	0					
2005	12	5	kamaoa	6 Constant Purchase	2 East	1	0.13	7.00	0.098	0.00	0.0	0.0	0.0	0					
2005	1	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2005	2	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2005	3	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2005	4	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2005	5	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2005	6	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2005	7	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2005	8	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2005	9	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2005	10	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2005	11	6	Ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					
2005	12	6	ippwind	6 Constant Purchase	2 East	1	0.00	0.00	0.000	0.00	0.0	0.0	0.0	0					

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Load Summary

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2005	Peak (MW)	Energy (GWH)
January	185	98.88
February	181	88.29
March	186	99.84
April	181	97.63
May	178	102.39
June	175	99.57
July	182	105.74
August	184	108.11
September	189	104.16
October	189	105.55
November	196	102.58
December	197	105.28
2005 :	197	1,218.01

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Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Combined Cycle Basic Summary

Yr	Mn	Id	Name	Area	Plant	# CT	# ST	Firm	Qck Strt	VOAM	Spot Fuel	StUp Fuel	Owner	FOM Cost	FOM Esc	Capital Cost	CT FOR	ST FOR	MOR	Trans Loss
2005	1	10	EDC-CC	1 West	14 EDC	2	1	0	0	1	41 DSLEDCE	41 DSLEDCE	100.0	235770.	4.7	0.00	0.53	1.18	0.87	1.00000

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Combined Cycle Cost and Variable Summary

Yr	Mn	Id	Name	Comb Flag	Hrly Ftn	Min Dn	Min Up	Ramp Rate	VOM Cost	VOM Esc	Hr VOM Cost	Startup Fl Amt	Startup Cost	ER Contrb	VOM Cmt	Res Cmt	VOM Dep	Res Dep	Dispatch Penalty	Commitmt Penalty	SOx Scrub Eff
2005	1	10	EDC-CC	3	0	0	10	99999	1.08	4.7	242.92	0.	0.	100.0	1	0	1	0	1.12359	1.12359	0.0
2005	1	10	EDC-CC	1	0	0	10	99999	1.08	4.7	121.52	0.	0.	100.0	1	0	1	0	1.12359	1.12359	0.0
2005	1	10	EDC-CC	2	0	0	10	99999	1.08	4.7	121.46	0.	0.	100.0	1	0	1	0	1.12359	1.12359	0.0

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Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Combined Cycle Performance Summary

Yr	Mn	Id	Name	Comb Flag	Stn Ref		State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Avg @ Min
2005	1	10	EDC-CC	3		MW	12.00	28.00	44.00	60.00					
						I/O Coeff	83.784000	6.442800	0.000167	0.000000	0.000000				
2005	1	10	EDC-CC	2		MW	7.00	14.17	21.33	28.50					
						I/O Coeff	43.422800	6.969000	0.000100	0.000000	0.000000				
2005	1	10	EDC-CC	1		MW	6.00	10.93	15.89	20.80					
						I/O Coeff	56.581900	8.626300	0.010700	0.000000	0.000000				

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Combined Cycle Maintenance Summary

Id	Name	Year	Month	Day	# of Days
10	EDC-CC	2005	2	3	14
10	EDC-CC	2005	2	3	19
10	EDC-CC	2005	9	26	14

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Operating Reserve Requirement Input File
HCAL2005.spn

Year	Month	Day of Week 1 = Monday	Hour	Cap. Mult.	VOM Mult.
2005	1	1	1	4	1
2005	1	1	4	4	1
2005	1	1	12	4	1
2005	1	1	17	4	1
2005	1	1	20	4	1
2005	1	2	4	4	1
2005	1	2	12	4	1
2005	1	2	17	4	1
2005	1	2	20	4	1
2005	1	3	4	4	1
2005	1	3	12	4	1
2005	1	3	17	4	1
2005	1	3	20	4	1
2005	1	4	4	4	1
2005	1	4	12	4	1
2005	1	4	17	4	1
2005	1	4	20	4	1
2005	1	5	4	4	1
2005	1	5	12	4	1
2005	1	5	17	4	1
2005	1	5	20	4	1
2005	1	6	4	4	1
2005	1	6	12	4	1
2005	1	6	17	4	1
2005	1	6	20	4	1
2005	1	7	4	4	1
2005	1	7	12	4	1
2005	1	7	17	4	1
2005	1	7	20	4	1

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Pattern 1

Year	Month	Day of Week 1 = Monday	Hour	Cap. Mult.	VOM Mult.
1998	1	1	1	0	1
1998	1	1	8	1	1
1998	1	1	22	0	1
1998	1	2	8	1	1
1998	1	2	22	0	1
1998	1	3	8	1	1
1998	1	3	22	0	1
1998	1	4	8	1	1
1998	1	4	22	0	1
1998	1	5	8	1	1
1998	1	5	22	0	1
1998	1	6	8	1	1
1998	1	6	22	0	1
1998	1	7	8	1	1
1998	1	7	22	0	1

Pattern 2

Year	Month	Day of Week 1 = Monday	Hour	Cap. Mult.	VOM Mult.
1998	1	1	1	1	1
1998	1	1	8	0	1
1998	1	1	22	1	1
1998	1	2	8	0	1
1998	1	2	22	1	1
1998	1	3	8	0	1
1998	1	3	22	1	1
1998	1	4	8	0	1
1998	1	4	22	1	1
1998	1	5	8	0	1
1998	1	5	22	1	1
1998	1	6	8	0	1
1998	1	6	22	1	1
1998	1	7	8	0	1
1998	1	7	22	1	1

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

2006 Test Year Calibration Factors

(Revised from HELCO Annual Calibration Factor Report for Year 2005 filed March 15, 2006)

Pattern 12

Year	Month	Day of Week 1 = Monday	Hour	Cap. Mult.	VOM Mult.
2005	1	1	1	0	1
2005	1	1	7	1	1
2005	1	1	22	0	1
2005	1	2	1	0	1
2005	1	2	7	1	1
2005	1	2	22	0	1
2005	1	3	1	0	1
2005	1	3	7	1	1
2005	1	3	22	0	1
2005	1	4	1	0	1
2005	1	4	7	1	1
2005	1	4	22	0	1
2005	1	5	1	0	1
2005	1	5	7	1	1
2005	1	5	22	0	1
2005	1	6	1	0	1
2005	1	6	7	1	1
2005	1	6	22	0	1
2005	1	7	1	0	1
2005	1	7	7	1	1
2005	1	7	22	0	1

Pattern 13

Year	Month	Day of Week 1 = Monday	Hour	Cap. Mult.	VOM Mult.
2005	1	1	1	1	1
2005	1	1	7	0	1
2005	1	1	22	1	1
2005	1	2	1	1	1
2005	1	2	7	0	1
2005	1	2	22	1	1
2005	1	3	1	1	1
2005	1	3	7	0	1
2005	1	3	22	1	1
2005	1	4	1	1	1
2005	1	4	7	0	1
2005	1	4	22	1	1
2005	1	5	1	1	1
2005	1	5	7	0	1
2005	1	5	22	1	1
2005	1	6	1	1	1
2005	1	6	7	0	1
2005	1	6	22	1	1
2005	1	7	1	1	1
2005	1	7	7	0	1
2005	1	7	22	1	1

Pattern 15

Year	Month	Day of Week 1 = Monday	Hour	Cap. Mult.	VOM Mult.
2002	1	1	1	0	1
2002	1	1	8	1	1
2002	1	1	23	0	1
2002	1	2	1	0	1
2002	1	2	8	1	1
2002	1	2	23	0	1
2002	1	3	1	0	1
2002	1	3	8	1	1
2002	1	3	23	0	1
2002	1	4	1	0	1
2002	1	4	8	1	1
2002	1	4	23	0	1
2002	1	5	1	0	1
2002	1	5	8	1	1
2002	1	5	23	0	1
2002	1	6	1	0	1
2002	1	6	8	1	1
2002	1	6	23	0	1
2002	1	7	1	0	1
2002	1	7	8	1	1
2002	1	7	23	0	1

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.
Rebuttal Testimony

HELCO
2006 OVERHAUL SCHEDULE
Test Year - Normalized
(DRAFT - 11/18/05)

UNIT	DATE	WEEKS	DESCRIPTION
Keahole CT-2	Feb 20 - Mar 19	4	Governor Control, MFI, Carbo Blast Mods
HEP ST, CT1, & CT2	Apr 9 - 22	2	ST & CT1 Annual, CT2 Semi-Annual
Keahole D-21	Apr 17 - 30	2	Overhaul (Swing Engine Install)
PGV	Apr 24 - May 7	2	Maintenance
Hill Unit No. 6	May 8 - Jul 2	8	Boiler Insp, Tube Repl, Condenser Retube
Kanoelehua CT-1	Jun 5 - 18	2	Gen. Insp., Low Smoke Nozzles & Ignitors
Shipman 4	Jun 26 - Jul 23	4	Boiler Insp., BFW Pumps, Control System
Keahole CT-4	Jun 26 - Jul 9	2	LP Turbine, General Inspection
Keahole CT-5	Jul 17 - Aug 6	3	LP Turbine, Hot Section
Puna Steam	Jul 31 - Aug 27	4	Boiler Inspection, Control System, Turb. Gov.
Puna CT-3	Aug 28 - Sep 10	2	General Inspection
Hill Unit No. 5	Sep 4 - Oct 1	4	Boiler Inspection, Water Purifier
Keahole D-21	Sep 4 - 10	1	Overhaul (Swing Engine Removal)
HEP CT1, CT2	Oct 2 - 15	2	CT1 Semi-Annual, CT2 Annual
PGV	Oct 16 - 29	2	Maintenance
Shipman 3	Oct 30 - Nov 26	4	Boiler Insp., BFW Pumps, Control System

Notes:
1. Removed HEP CT1 Maintenance from Jan06...atypical, rescheduled from Dec05.
2. Keahole CT2 reduced from 6 wks (MFI) to 4 wks...3 wks + 1 wk turbine ovhl (MFI every 5 yrs).
3. 6 wks for HEP ST major every 6 yrs...+ 1 additional wk per yr.
4. Hill 6 increased to 8 wks...+ 2 additional wks for ST major.

DYM

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

HELCO Unit Ratings (Net)
TEST YEAR 2006
Rebuttal Testimony

Unit ID	Reserve Rating (MW)	NTL Rating (MW)	AGC Rating (MW)
Shipman 3	7.10	7.10	6.70
Shipman 4	7.30	7.30	7.20
Hill 5	13.50	13.50	13.50
Hill 6	20.20	20.20	20.30
Puna	14.10	14.10	14.00
Kanoelehua D11	2.00	2.00	2.00
Waimea D12	2.75	2.50	2.50
Waimea D13	2.75	2.50	2.50
Waimea D14	2.75	2.50	2.50
Kanoelehua D15	2.75	2.50	2.50
Kanoelehua D16	2.75	2.50	2.50
Kanoelehua D17	2.75	2.50	2.50
Keahole D21	2.75	2.50	2.50
Keahole D22	2.75	2.50	2.50
Keahole D23	2.75	2.50	2.50
Kanoelehua CT1	11.50	11.50	11.00
Keahole CT2	13.00	13.00	12.50
Puna CT3	20.40	20.40	20.00
Keahole CT4	22.00	22.00	20.00
Keahole CT5	22.00	22.00	20.50
Panaewa D24	1.00	1.00	1.00
Ouli D25	1.00	1.00	1.00
Punaluu D26	1.00	1.00	1.00
Kapua D27	1.00	1.00	1.00
HELCO Total	181.85	179.60	174.20
PGV	30.00	30.00	30.00
HEP	60.00	60.00	60.00
IPP Total	90.00	90.00	90.00
System Total	**271.85**	**269.60**	**264.20**

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

HELCO Commitment/Dispatch Penalty Factors
TEST YEAR 2006
Rebuttal Testimony

Unit ID	Commitment Penalty Factors	Dispatch Penalty Factors
Shipman 3	1.072961	1.072961
Shipman 4	1.072961	1.072961
Hill 5	1.075269	1.075269
Hill 6	1.075269	1.075269
Puna	1.070000	1.070000
Kanoelehua D11	1.078749	1.078749
Waimea D12	1.082270	1.010101
Waimea D13	1.082270	1.010101
Waimea D14	1.082270	1.010101
Kanoelehua D15	1.078749	1.078749
Kanoelehua D16	1.078749	1.078749
Kanoelehua D17	1.078749	1.078749
Keahole D21	0.948767	0.948767
Keahole D22	0.948767	0.948767
Keahole D23	0.948767	0.948767
Kanoelehua CT1	1.078749	1.078749
Keahole CT2	0.948767	0.948767
Puna CT3	1.086957	1.086957
Keahole CT4	0.948767	0.948767
Keahole CT5	0.948767	0.948767
Panaewa D24	1.401150	1.000000
Ouli D25	1.401150	1.000000
Punaluu D26	1.401150	1.000000
Kapua D27	1.401150	1.000000
PGV	1.111111	1.111111
HEP	1.123596	1.123596

Hawaii Electric Light Company, Inc.

HELCO Heat Rate Constants
TEST YEAR 2006
Rebuttal Testimony

Unit ID	A	B	C	Minimum	Maximum
Shipman 3	32.344399	6.8132402	0.6128630	5.00	6.70
Shipman 4	39.045416	2.5987974	1.1475386	5.00	7.20
Hill 5	26.335681	9.5743788	0.1440445	9.00	13.50
Hill 6	91.798457	3.5017454	0.2122299	16.00	20.30
Puna	52.440000	10.1100000	0.1100000	9.00	14.00
Kanoelehua D11	6.149300	4.3231400	1.5804580	2.00	2.00
Waimea D12	7.683000	4.3261600	1.2636800	2.50	2.50
Waimea D13	7.683000	4.3261600	1.2636800	2.50	2.50
Waimea D14	7.683000	4.3261600	1.2636800	2.50	2.50
Kanoelehua D15	7.683370	4.3261600	1.2636800	2.50	2.50
Kanoelehua D16	7.683370	4.3261600	1.2636800	2.50	2.50
Kanoelehua D17	7.683370	4.3261600	1.2636800	2.50	2.50
Keahole D21	7.683370	4.3261600	1.2636800	2.50	2.50
Keahole D22	7.683370	4.3261600	1.2636800	2.50	2.50
Keahole D23	7.683370	4.3261600	1.2636800	2.50	2.50
Kanoelehua CT1	74.042219	9.1501269	0.1272079	3.00	11.00
Keahole CT2	56.983826	8.8646628	0.0040140	8.00	12.50
Puna CT3	49.384232	7.6807581	0.0309678	7.50	20.00
Keahole CT4	49.384232	7.6807581	0.0309678	7.50	20.00
Keahole CT5	53.179058	6.8586778	0.0689441	7.50	20.50
Panaewa D24	2.800000	3.2000000	3.2800000	1.00	1.00
Ouli D25	2.800000	3.2000000	3.2800000	1.00	1.00
Punaluu D26	2.800000	3.2000000	3.2800000	1.00	1.00
Kapua D27	2.800000	3.2000000	3.2800000	1.00	1.00
HEP 1CT-SC	56.5819	8.6263	0.0107	5.00	20.80
HEP 1CT-CC	43.422821	6.9689673	0.00012293	7.00	28.50
HEP 2CT-CC	83.7839864	6.44276042	0.00016737	16.00	60.00

Hawaii Electric Light Company, Inc.

HELCO Operations & Maintenance Costs (2006$)[1]
TEST YEAR 2006
Rebuttal Testimony

Unit ID	Variable O&M ($/MWH net)	Variable O&M ($/hour)
Shipman 3	1.137612	14.783332
Shipman 4	1.137612	14.783332
Hill 5	0.803552	5.540069
Hill 6	0.803552	9.377893
Puna	2.630998	7.424692
Kanoelehua D11	0.792540	65.043268
Waimea D12	0.928296	65.043268
Waimea D13	0.928296	65.043268
Waimea D14	0.928296	65.043268
Kanoelehua D15	0.792540	65.043268
Kanoelehua D16	0.792540	65.043268
Kanoelehua D17	0.792540	65.043268
Keahole D21	0.095734	65.043268
Keahole D22	0.095734	65.043268
Keahole D23	0.095734	65.043268
Kanoelehua CT1	0.000000	0.000000
Keahole CT2	1.182599	110.634587
Puna CT3	0.945332	122.738332
Keahole CT4	1.146214	117.275518
Keahole CT5	1.148110	117.275518
Panaewa D24	17.980761	148.928443
Ouli D25	17.980761	148.928443
Punaluu D26	17.980761	148.928443
Kapua D27	17.980761	148.928443
HEP 1CT-SC	1.12	125.99
HEP 1CT-CC	1.12	125.99
HEP 2CT-CC	1.12	251.98

[1] The variable O&M costs shown are for use in the production simulation and HELCO's Automatic Generation Control ("AGC") for economic dispatch of the above listed units.

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

HELCO Historical Equivalent Forced Outage Rates
TEST YEAR 2006
Rebuttal Testimony

					TY2006	
Unit ID	2002	2003	2004	2005	2002 Ave by Type	2005 Ave by Type
Shipman 3	20.75%	33.19%	27.03%	57.91%	**15.18%**	
Shipman 4	9.62%	15.80%	29.81%	20.51%	**15.18%**	
Hill 5	3.52%	6.69%	53.98%	2.56%		**4.47%**
Hill 6	5.77%	0.51%	0.08%	2.19%		**4.47%**
Puna	14.78%	0.37%	8.77%	8.65%		**4.47%**
Kanoelehua D11	99.52%	99.88%	95.69%	74.93%		**25.59%**
Waimea D12	44.33%	47.91%	58.16%	29.86%		**25.59%**
Waimea D13	38.15%	33.34%	30.11%	3.41%		**25.59%**
Waimea D14	37.99%	17.97%	53.83%	21.01%		**25.59%**
Kanoelehua D15	39.91%	65.40%	68.67%	1.17%		**25.59%**
Kanoelehua D16	69.26%	39.79%	17.20%	18.90%		**25.59%**
Kanoelehua D17	5.36%	49.20%	28.83%	27.40%		**25.59%**
Keahole D21	30.19%	21.87%	85.44%	40.94%		**25.59%**
Keahole D22	26.12%	25.83%	61.36%	5.80%		**25.59%**
Keahole D23	39.36%	38.99%	45.52%	32.51%		**25.59%**
Kanoelehua CT1	94.23%	83.41%	34.65%	28.14%		**28.14%**
Keahole CT2	1.49%	5.85%	9.01%	9.72%		**9.72%**
Puna CT3	16.30%	7.21%	9.69%	5.04%		**5.49%**
Keahole CT4	NA	NA	14.56%	7.22%		**5.49%**
Keahole CT5	NA	NA	2.86%	4.21%		**5.49%**
Panaewa D24	45.61%	83.27%	89.88%	33.28%		**58.47%**
Ouli D25	49.49%	16.64%	83.95%	98.24%		**58.47%**
Punaluu D26	56.56%	51.60%	92.44%	88.07%		**58.47%**
Kapua D27	35.79%	83.14%	53.73%	14.29%		**58.47%**

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

IPP Historical Equivalent Forced Outage Rates
TEST YEAR 2006
Rebuttal Testimony

	2003	2004	2005	**TY2006 2003-2005 (3-yr Ave) by Type**
HEP-CT1	3.19%	0.28%	0.29%	**1.11%**
HEP-CT2	1.00%	1.12%	0.77%	**1.11%**
HEP-ST	5.55%	3.50%	6.15%	**5.07%**
HEP Total	3.08%	1.50%	2.08%	**2.22%**

PGV	2000	2001	2002	2003	2004	2005
Total	3.30%	14.81%	68.73%	24.01%	9.23%	6.48%
On-Peak	N/A	N/A	N/A	29.76%	15.14%	10.90%
Off-Peak	N/A	N/A	N/A	15.97%	0.96%	0.28%

PGV	July 2005	August 2005	September 2005	October 2005	November 2005	December 2005	January 2006	Feb 1-16, 2006
Total	1.73%	2.01%	1.46%	11.96%	5.30%	2.58%	4.55%	10.57%
On-Peak	2.66%	3.44%	2.50%	19.29%	9.09%	4.42%	6.83%	15.72%
Off-Peak	0.43%	0.00%	0.00%	1.70%	0.01%	0.00%	1.35%	3.37%

PGV	**TY2006 July 2005 - Feb 16, 2006**
Total	**4.40%**
On-Peak	**7.10%**
Off-Peak	**0.63%**

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

HELCO Historical Maintenance Outage Rates
TEST YEAR 2006
Rebuttal Testimony

					TY2006		
Unit ID	2002	2003	2004	2005	2005 Ave Adjusted by Type	2002-2005 Ave Adjusted by Type	MOR Rounded in WEEKS
Shipman 3	9.73%	10.14%	3.89%	8.01%	**6.82%**		**4**
Shipman 4	1.76%	3.02%	3.64%	5.63%	**6.82%**		**4**
Hill 5	6.33%	3.51%	1.11%	8.04%	**6.03%**		**3**
Hill 6	1.68%	4.33%	4.53%	6.71%	**6.03%**		**3**
Puna	4.88%	6.23%	4.83%	3.35%	**6.03%**		**3**
Kanoelehua D11	5.01%	23.42%	1.99%	0.33%	**2.04%**		**1**
Waimea D12	8.18%	4.09%	1.72%	8.48%	**2.04%**		**1**
Waimea D13	18.40%	10.07%	2.79%	3.11%	**2.04%**		**1**
Waimea D14	7.85%	4.85%	7.44%	1.19%	**2.04%**		**1**
Kanoelehua D15	0.06%	6.16%	2.05%	0.45%	**2.04%**		**1**
Kanoelehua D16	7.58%	3.36%	1.53%	0.86%	**2.04%**		**1**
Kanoelehua D17	6.97%	7.47%	1.68%	0.39%	**2.04%**		**1**
Keahole D21	7.15%	7.28%	2.35%	0.90%	**2.04%**		**1**
Keahole D22	2.59%	7.64%	1.55%	3.01%	**2.04%**		**1**
Keahole D23	2.56%	4.00%	3.21%	1.71%	**2.04%**		**1**
Kanoelehua CT1	0.08%	0.24%	~~6.74%~~	1.88%		**1.55%**	**1**
Keahole CT2	0.76%	1.84%	2.09%	~~36.45%~~		**1.55%**	**1**
Puna CT3	3.85%	3.67%	1.04%	~~6.14%~~		**1.55%**	**1**
Keahole CT4	NA	NA	~~30.80%~~	~~5.80%~~		**1.55%**	**1**
Keahole CT5	NA	NA	~~22.14%~~	~~5.07%~~		**1.55%**	**1**
Panaewa D24	0.07%	0.00%	0.04%	0.06%	**0.13%**		**0**
Ouli D25	0.05%	3.27%	0.07%	0.06%	**0.13%**		**0**
Punaluu D26	0.04%	0.04%	0.19%	0.27%	**0.13%**		**0**
Kapua D27	0.07%	0.03%	~~4.98%~~	~~4.18%~~	**0.13%**		**0**

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

IPP Historical Maintenance Outage Rates
TEST YEAR 2006
Rebuttal Testimony

	2003	2004	2005	TY2006 2003-2005 (3-yr Ave)
HEP Total	2.24%	3.21%	2.61%	**2.68%**

Hawaii Electric Light Company, Inc.

TEST YEAR 2006 DERIVATION OF
Lalamilo Wind Farm Net Generation (MWH)

Rebuttal Testimony

Month	2001	2002	2003	2004	2005	2006	2001-2005 (5-yr Ave)	TY2006 2002-2006 (5-yr Ave)
January	108	77	42	58	20	76	61	**54**
February	110	184	125	75	177	59	134	**124**
March	159	110	71	113	116	32	114	**88**
April	264	46	156	135	208	166	162	**142**
May	141	74	130	125	138	110	122	**115**
June	100	197	139	201	197	111	167	**169**
July	184	197	173	206	205	106	193	**177**
August	234	173	246	165	156	94	195	**167**
September	229	143	102	122	161	78	151	**121**
October	249	159	92	105	162	8	153	**105**
November	146	141	152	73	87	0	120	**91**
December	186	104	134	108	70	0	121	**83**
Annual Total	2,110	1,605	1,561	1,485	1,697	840	1,691	**1,437**

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

TEST YEAR 2006 DERIVATION OF
HELCO Hydro Net Generation (MWH)

Rebuttal Testimony

Puueo Hydro (before rehabilitation project)

Month	1998	1999	2000	2001	2002	1998-2002 (5-yr Ave)
January	528	1,141	1,337	138	498	729
February	43	1,520	749	764	855	786
March	50	1,683	216	1,342	747	808
April	1,471	1,672	1,511	1,471	445	1,314
May	1,547	1,576	587	1,559	1,138	1,282
June	811	933	54	641	893	667
July	-6	279	997	745	1,632	729
August	-8	720	1,204	1,589	1,618	1,025
September	834	1,351	1,115	1,158	255	942
October	1,393	367	1,467	1,525	-4	949
November	1,544	1,168	314	1,243	-4	853
December	1,691	1,082	1,049	698	-4	903
Annual Total	9,897	13,492	10,601	12,874	8,068	10,986

Puueo Hydro (Based on 3000 kW total capacity after rehabilitation project)

Month	TY2006
January	**1,422**
February	**1,535**
March	**1,577**
April	**2,565**
May	**2,502**
June	**1,301**
July	**1,424**
August	**2,000**
September	**1,840**
October	**1,854**
November	**1,665**
December	**1,763**
Annual Total	**21,449**

Hawaii Electric Light Company, Inc.

TEST YEAR 2006 DERIVATION OF
HELCO Hydro Net Generation (MWH)

Rebuttal Testimony

Waiau Hydro

Month	2001	2002	2003	2004	2005	2006	2001-2005 (5-yr Ave)	**2002-2006 (5-yr Ave)**
January	235	309	77	270	591	166	296	**283**
February	356	-5	0	807	358	495	303	**331**
March	518	39	25	365	186	778	227	**279**
April	488	39	154	719	694	763	419	**474**
May	401	-6	183	634	430	701	329	**389**
June	305	-5	157	634	542	806	327	**427**
July	231	-6	225	619	243	706	262	**357**
August	763	-6	253	444	-2	761	291	**290**
September	549	-5	227	121	8	765	180	**223**
October	602	-5	160	323	399	742	296	**324**
November	504	-5	308	602	180	72	318	**231**
December	307	120	345	739	-4	-4	301	**239**
Annual Total	5,259	463	2,113	6,277	3,626	6,753	3,548	**3,846**

TOTAL HELCO HYDRO NET GENERATION (MWH)

Month	Puueo	Waiau	**TY2006 Total HELCO**
January	1,422	283	**1,705**
February	1,535	331	**1,866**
March	1,577	279	**1,855**
April	2,565	474	**3,039**
May	2,502	389	**2,891**
June	1,301	427	**1,728**
July	1,424	357	**1,781**
August	2,000	290	**2,291**
September	1,840	223	**2,063**
October	1,854	324	**2,177**
November	1,665	231	**1,897**
December	1,763	239	**2,002**
Annual Total	21,449	3,846	**25,295**

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

TEST YEAR 2006 DERIVATION OF
Non-Firm Purchased Power Energy (MWH)

Rebuttal Testimony

Apollo Energy Corporation Wind Farm (existing Kamaoa)

Month	2001	2002	2003	2004	TY2006 2005
January	840	644	567	389	**217**
February	1,719	767	441	532	**350**
March	1,075	431	686	329	**273**
April	1,694	665	1,299	676	**756**
May	1,411	1,285	1,075	336	**438**
June	1,012	774	616	770	**578**
July	1,362	1,351	1,001	735	**543**
August	1,565	1,117	1,411	690	**494**
September	949	840	805	483	**441**
October	977	676	658	361	**308**
November	1,078	840	910	392	**347**
December	1,628	609	711	490	**98**
Annual Total	15,306	9,996	10,178	6,181	**4,841**

HRD (new) [1] Month	TY2006
January	**2,907**
February	**2,626**
March	**2,907**
April	**2,813**
May	**2,907**
June	**2,813**
July	**2,907**
August	**2,907**
September	**2,813**
October	**2,907**
November	**2,813**
December	**2,907**
Annual Total	**34,225**

Other IPP Wind

Month	2001	2002	2003	2004	TY2006 2005
January	1.8	0.0	0.0	0.0	**0.0**
February	1.7	2.2	0.0	0.0	**0.0**
March	2.4	0.0	0.0	0.0	**0.0**
April	2.4	2.3	0.0	0.0	**0.0**
May	0.2	0.0	0.0	0.0	**0.0**
June	0.0	0.0	0.0	0.0	**0.0**
July	0.4	0.0	0.0	1.5	**0.0**
August	1.4	0.0	0.0	0.1	**0.0**
September	0.7	0.5	0.0	0.1	**0.0**
October	0.7	0.0	0.0	0.0	**0.0**
November	0.7	0.0	0.0	0.0	**0.0**
December	0.8	0.0	0.0	0.0	**0.0**
Annual Total	13.2	5.0	0.0	1.7	**0.0**

[1] HRD based on maximum capacity of 10.56 MW and 37% capacity factor.

Hawaii Electric Light Company, Inc.

TEST YEAR 2006 DERIVATION OF
Non-Firm Purchased Power Energy (MWH)

Rebuttal Testimony

Wailuku River Hydro

Month	2001	2002	2003	2004	2005	2006	2001-2005 (5-yr Ave)	**TY2006 2002-2006 (5-yr Ave)**
January	10	2,304	42	1,150	690	2,813	839	**1,400**
February	2,801	2,323	99	1,903	387	1,619	1,503	**1,266**
March	2,304	2,044	16	3,557	1,080	6,519	1,800	**2,643**
April	6,555	878	4,489	5,322	4,936	4,760	4,436	**4,077**
May	2,512	4,424	2,207	2,559	43	4,955	2,349	**2,838**
June	203	1,673	644	2,096	1,906	955	1,304	**1,455**
July	1,051	3,224	2,419	1,027	3,064	1,677	2,157	**2,282**
August	2,056	3,785	3,728	923	2,208	2,111	2,540	**2,551**
September	874	3,240	2,511	0	4,089	2,000	2,143	**2,368**
October	4,212	2,229	545	808	6,078	2,790	2,774	**2,490**
November	4,269	39	3,184	2,861	4,202	245	2,911	**2,106**
December	6,074	784	3,670	3,577	1,044	1,026	3,030	**2,020**
Annual Total	32,923	26,948	23,554	25,782	29,726	31,471	27,787	**27,496**

Other IPP Hydro

Month	2001	2002	2003	2004	2005	2006	2001-2005 (5-yr Ave)	**TY2006 2002-2006 (5-yr Ave)**
January	116	72	90	87	95	60	92	**81**
February	56	71	30	51	26	71	47	**50**
March	80	97	77	67	32	122	70	**79**
April	91	103	91	45	88	102	83	**86**
May	130	133	76	123	82	153	109	**113**
June	119	101	67	91	32	172	82	**93**
July	72	124	102	101	60	101	92	**98**
August	77	150	98	42	71	113	87	**95**
September	128	153	132	31	118	147	113	**116**
October	124	145	102	8	158	100	107	**103**
November	125	97	51	7	86	28	73	**54**
December	132	42	66	26	64	10	66	**42**
Annual Total	1,248	1,289	981	678	910	1,179	1,021	**1,008**

NOT CHANGED FROM DIRECT TESTIMONY

HELCO Production Department - Generation Report for the YEAR 2001

PLANTS	GROSS (KWH)	STATION POWER CONSUMED (KWH) ON-LINE	STATION POWER CONSUMED (KWH) OFF-LINE	NET TO SYSTEM (KWH)**	RUNNING TIME (HRS:MIN)
WIND - LALAMILO	2,110,000	0	0	2,110,000	
WAIAU HYDRO	5,454,605	184,810	10,670	5,259,125	3534:04/ 7073:54
PUUEO HYDRO	12,976,090	84,600	17,100	12,874,390	5195:26/ 6221:04
TOTAL HYDRO	18,430,695	269,410	27,770	18,133,515	
WAIMEA	2,855,630	0	0	2,855,630	1385:48
KEAHOLE	12,709,620	0	0	12,709,620	6068:12
KEAHOLE CT-2	33,008,300	0	0	33,008,300	3595:22
KANOELEHUA	2,688,640	0	0	2,688,640	25:55 / 1449:17
KANOELEHUA CT-1	273,400	0	0	273,400	32:15
PUNA CT-3	27,284,400	865,620	557,820	25,860,960	1997:47
DISPERSED GEN SITES	491,120	0	0	491,120	495:12
OFF-SITE DIESEL					
TOTAL DIESEL	79,311,110	865,620	557,820	77,887,670	
WAIAKEA(SHIPMAN)#1	0	0	405,010	(405,010)	OFF
#3	895,700	65,700	497,100	332,900	210:15
#4	1,505,300	110,300	284,200	1,110,800	319:34
SUBTOTAL SHIPMAN	2,401,000	176,000	1,186,310	1,038,690	
HILL #5	87,937,000	4,520,500	307,500	83,109,000	7924:52
#6	150,449,900	7,944,000	576,000	141,929,900	7187:09
SUBTOTAL HILL	238,386,900	12,464,500	883,500	225,038,900	
HILL (Ignitor Diesel)					
PUNA	86,481,700	7,038,400	660,800	78,782,500	7240:54
PUNA (Ignitor Diesel)					
OFF-SITE BUNKER C					
TOTAL STEAM	327,269,600	19,678,900	2,730,610	304,860,090	
TOTAL GENERATED	427,121,405	20,813,930	3,316,200	402,991,275	
PURCHASED POWER (PP):					
HCPC	69,079,118			69,079,118	
PGV	206,660,432			206,660,432	
HEP	322,288,290			322,288,290	
KAMAOA	15,305,500			15,305,500	
WAILUKU	32,922,709			32,922,709	
OTHER WIND	13,237			13,237	
OTHER HYDRO	1,248,062			1,248,062	
TOTAL PP	647,517,348			647,517,348	
TOTAL GEN'D & PP	1,074,638,753			1,050,508,623	
SAME DATE LAST YR	1,077,501,970			1,047,609,750	2000

SYSTEM HIGH PEAKS	(8/27/01) 156,700 KW	10:49 AM
	(12/17/01) 174,100 KW	6:32 PM
SYSTEM LOW	(5/05/01) 68,900 KW	3:28 AM

Generation Capacity:

Units on Outage:

GALLONS	CARRIED	RECEIVED	STK TRNSF	STRP CORREC	CONSUMED	REMAINING	KWH/BBL	15 Day R/AVG
	69,846	0	218,097	744	229,463	59,224	523	534
	79,547	0	1,042,063	209	1,032,978	88,841	517	530
	169,936	0	3,675,855	1,346	3,653,728	193,409	379	378
	153,162	0	260,019	(7,485)	225,030	141,618	502	515
					39,048		294	
	278,514	0	2,396,386	15,106	2,397,763	292,243	453	468
	5,132	30,228	0	3,378	34,138	4,600	604	
	179,483	8,651,703	(7,592,420)	(373,545)		865,221		
	935,620			(360,247)	7,612,148	1,645,156	430	
BARRELS								
	6,034	0	4,115	0	6,904	3,245	322	333
	37,526	0	468,300	5,082	484,923	25,985	465	467
	6,900	0	32,065	227	30,373	8,819		
	9,926	0	203,760	1,807	204,437	11,056	388	391
	2,485	0	0	9,643	9,363	2,765		
	14,139	680,962	(676,175)	0		18,926		
	67,625			6,889	696,264	59,212	437	
	9,385	Ign Dsl		9,870	39,736	11,584		

NOTE: Ignitor diesels recorded in gallons.

Off-Site D/O Strp Correc		
Sold to HCPC	(341,476)	gal
Trsf to Hill Plt Ignitor	(32,065)	gal
Tesoro Adj	(4)	gal
As shown above	(373,545)	gal
Puna CT-3 Strp Correc		
Actual CT-3 Strp Adj	26,949	gal
Trsf to Puna Plt Ignitor	(9,643)	gal
Trsf for Kanoe/Clean tnker	(2,200)	gal
As shown above	15,106	gal
Kanoelehua Dsl Strp Correc		

Actual Kanoe Dsl Strp Adj = 1,392 gal minus 3,489 gal leak & 5,388 gal trsf to DispGen sites = (7,485) as sho

PEAK LOAD SUMMARY (KW)

Steam-Hilo		43,000
Steam-Puna		14,000
Diesels		26,400
CTs		31,500
Hydros		0
Wind		400
HCPC		22,000
PGV		24,400
HEP		0
Kamaoa		1,100
Wailuku		11,300
TOTAL	(Mon, 12/17/01)	174,100
Last Year	(Thurs, 12/28/00)	170,800

NOT CHANGED FROM DIRECT TESTIMONY

HELCO Production Department - Generation Report for the YEAR 2002

PLANTS	GROSS (KWH)	STATION POWER CONSUMED (KWH) ON-LINE	STATION POWER CONSUMED (KWH) OFF-LINE	NET TO SYSTEM (KWH)**	RUNNING TIME (HRS:MIN)
WIND - LALAMILO	**1,605,000**	**0**	**0**	**1,605,000**	
WAIAU HYDRO	540,900	22,880	54,870	463,150	520:50 / 762:59
PUUEO HYDRO	8,146,880	56,500	22,200	8,068,180	3479:55 / 3963:3
TOTAL HYDRO	**8,687,780**	**79,380**	**77,070**	**8,531,330**	
WAIMEA	8,126,600	0	0	8,126,600	3912:48
KEAHOLE	12,394,950	0	0	12,394,950	5529:41
KEAHOLE CT-2	45,717,500	0	0	45,717,500	4432:33
KANOELEHUA	4,604,430	0	0	4,604,430	20:37 / 2375:09
KANOELEHUA CT-1	501,800	0	0	501,800	59:11
PUNA CT-3	83,391,200	1,582,780	131,560	81,676,860	4984:12
DISPERSED GEN SITES	1,168,540	0	0	1,168,540	1152:17
OFF-SITE DIESEL					
TOTAL DIESEL	**155,905,020**	**1,582,780**	**131,560**	**154,190,680**	
WAIAKEA(SHIPMAN)#1	0	0	44,550	(44,550)	Retired
#3	8,898,200	625,430	1,003,030	7,269,740	1685:01
#4	10,725,300	740,500	671,480	9,313,320	1990:50
SUBTOTAL SHIPMAN	19,623,500	1,365,930	1,719,060	16,538,510	
HILL #5	81,588,700	4,160,400	460,200	76,968,100	7245:30
#6	143,242,200	7,430,600	231,300	135,580,300	7270:15
SUBTOTAL HILL	224,830,900	11,591,000	691,500	212,548,400	
HILL (Ignitor Diesel)					
PUNA	80,721,600	8,033,200	889,900	71,798,500	6640:25
PUNA (Ignitor Diesel)					
OFF-SITE BUNKER C					
TOTAL STEAM	**325,176,000**	**20,990,130**	**3,300,460**	**300,885,410**	
TOTAL GENERATED	**491,373,800**	**22,652,290**	**3,509,090**	**465,212,420**	
PURCHASED POWER (PP):					
HCPC	89,218,849			89,218,849	
PGV	73,900,799			73,900,799	
HEP	421,044,041			421,044,041	
KAMAOA	9,996,000			9,996,000	
WAILUKU	26,947,779			26,947,779	
OTHER WIND	5,022			5,022	
OTHER HYDRO	1,289,007			1,289,007	
TOTAL PP	**622,401,497**			**622,401,497**	
TOTAL GEN'D & PP	**1,113,775,297**			**1,087,613,917**	
SAME DATE LAST YR	1,074,638,753			1,050,508,623	2001

SYSTEM HIGH PEAKS		
	(7/31/02) 161,400 KW	10:13 AM
	(12/30/02) 177,900 KW	6:30 PM
SYSTEM LOW	(2/26/02) 68,300 KW	1:38 AM

Generation Capacity:

Units on Outage:
Shipman Unit No. 1 retired effective February 5, 2002
Waimea Diesel Units No. 8, 9, & 10 retired effective Feb 5, 2002

	CARRIED	RECEIVED	STK TRNSF	STRP CORREC	CONSUMED	REMAINING	KWH/BBL	15 Day R/AVG
GALLONS								
WAIMEA	59,224	0	624,788	2,027	646,241	39,798	528	506
KEAHOLE	88,841	0	962,109	433	978,178	73,205	532	535
KEAHOLE CT-2	193,409	0	4,865,004	819	4,878,332	180,900	394	406
KANOELEHUA	141,618	0	424,249	957	376,316	117,007	514	520
KANOELEHUA CT-1					73,501		287	
PUNA CT-3	292,243	0	6,807,033	65,268	6,902,276	262,268	497	479
DISPERSED GEN SITES	4,600	80,427	0	(1,394)	79,553	4,080	617	
OFF-SITE DIESEL	865,221	13,821,297	(13,683,183)	(429,152)		574,183		
TOTAL DIESEL	**1,645,156**			(361,042)	**13,934,397**	**1,251,441**	**465**	
BARRELS								
WAIAKEA(SHIPMAN)#1								
#3								
#4								
SUBTOTAL SHIPMAN	3,245	0	52,999	68	50,862	5,450	359	345
HILL #5								
#6								
SUBTOTAL HILL	25,985	0	464,313	5,823	458,665	37,456	464	468
HILL (Ignitor Diesel)	8,619	0	31,882	250	27,959	12,992		
PUNA	11,056	0	176,426	1,921	182,261	7,142	398	399
PUNA (Ignitor Diesel)	2,765	0	0	10,837	11,402	2,200		
OFF-SITE BUNKER C	18,926	698,028	(693,738)	0		23,216		
	59,212			7,812	691,788	73,264	434	
TOTAL STEAM	11,584	Ign Die		11,087	39,361	15,192		

NOTE: Ignitor diesels recorded in gallons.

Off-Site D/O Strp Correc

Sold d/o to HCPC	(397,270)	gal
Stk trsfr to H6 Ignitor	(31,882)	gal
As shown above	(429,152)	gal

Puna CT-3 Strp Correc

Act strp adjustment	85,934	gal
Trsfr to Puna Plant Ignitor	(10,837)	gal
Other Adjs	(9,829)	gal
As shown above	65,268	gal

PEAK LOAD SUMMARY (KW)

Steam-Hilo		43,800
Steam-Puna		12,800
Diesels		2,500
CTs		29,900
Hydros		700
Wind		
HCPC		22,100
PGV		5,600
HEP		57,100
Kamaoa		2,200
Wailuku		1,200
TOTAL	(Mon, 12/30/02)	**177,900**
Last Year	(Mon, 12/17/01)	174,100

NOT CHANGED FROM DIRECT TESTIMONY

HELCO Production Department - Generation Report for the YEAR 2003

PLANTS	GROSS (KWH)	STATION POWER CONSUMED (KWH) ON-LINE	STATION POWER CONSUMED (KWH) OFF-LINE	NET TO SYSTEM (KWH)**	RUNNING TIME (HRS:MIN)
WIND - LALAMILO	**1,561,250**	**0**	**0**	**1,561,250**	
WAIAU HYDRO	2,289,310	163,975	12,645	2,112,690	5550:03 / 5605:5
PUUEO HYDRO	0	0	48,450	(48,450)	OFF / OFF
TOTAL HYDRO	**2,289,310**	**163,975**	**61,095**	**2,064,240**	
WAIMEA	7,659,350	0	0	7,659,350	3522:25
KEAHOLE	11,999,030	0	0	11,999,030	5715:17
KEAHOLE CT-2	50,216,500	0	0	50,216,500	4695:06
KANOELEHUA	3,063,640	0	0	3,063,640	6:40 / 1443:55
KANOELEHUA CT-1	749,160	0	0	749,160	86:28
PUNA CT-3	46,731,360	1,321,980	168,420	45,240,960	2919:11
DISPERSED GEN SITES	325,960	0	0	325,960	350:15
OFF-SITE DIESEL					
TOTAL DIESEL	**120,745,000**	**1,321,980**	**168,420**	**119,254,600**	
WAIAKEA(SHIPMAN)#3	4,747,500	344,700	906,855	3,495,945	914:15
#4	5,148,000	362,300	585,945	4,199,755	975:57
SUBTOTAL SHIPMAN	9,895,500	707,000	1,492,800	7,695,700	
HILL #5	74,967,600	3,730,100	367,900	70,869,600	6882:09
#6	138,378,060	7,402,800	437,100	130,538,160	7153:05
SUBTOTAL HILL	213,345,660	11,132,900	805,000	201,407,760	
HILL (Ignitor Diesel)					
PUNA	86,342,700	8,061,400	524,100	76,757,200	7384:08
PUNA (Ignitor Diesel)					
OFF-SITE BUNKER C					
TOTAL STEAM	309,583,860	20,901,300	2,821,900	285,860,660	
TOTAL GENERATED	**434,179,420**	**22,387,255**	**3,051,415**	**408,740,750**	
PURCHASED POWER (PP):					
HCPC	82,252,131			82,252,131	
PGV	175,933,580			175,933,580	
HEP	439,243,225			439,243,225	
KAMAOA	10,178,000			10,178,000	
WAILUKU	23,554,347			23,554,347	
OTHER WIND	0			0	
OTHER HYDRO	981,293			981,293	
TOTAL PP	732,142,576			732,142,576	
TOTAL GEN'D & PP	1,166,321,996			1,140,883,326	
SAME DATE LAST YR	**1,113,775,297**			**1,087,613,917**	2002

SYSTEM HIGH PEAKS			
	(8/06/03) 170,500 KW	10:39 AM	
	(12/30/03) 186,700 KW	6:33 PM	
SYSTEM LOW	(2/22/03) 72,400 KW	3:42 AM	

Generation Capacity:

Units on Outage:

BARRELS	CARRIED	RECEIVED	STK TRNSF	STRP CORREC	CONSUMED	REMAINING	KWH/BBL	15 Day R/AVG
	39,798	0	603,561	(112)	595,643	47,604	540	514
	73,205	0	914,063	236	940,214	47,290	536	537
	180,900	0	5,137,351	647	5,245,096	73,802	402	397
	117,007	0	369,668	(6,451)	247,849	122,321	519	489
					110,054		286	
	262,268	0	3,815,893	33,643	3,892,592	219,212	488	452
	4,080	22,614	0	0	22,486	4,208	609	
	574,183	11,391,403	(10,840,536)	(389,732)		735,318		
	1,251,441			(361,769)	11,053,934	1,249,755	453	
	5,450	0	29,657	(3,423)	26,066	5,618	353	292
	37,456	0	415,655	6,657	424,078	34,590	476	499
	12,992	0	16,032	244	21,145	8,123		
	7,142	0	192,610	6,249	197,024	8,977	392	391
	2,200	0	0	9,577	8,412	3,365		
	23,216	637,932	(637,822)	0		23,326		
	73,264			8,483	647,168	72,511	441	
	15,192	Ign. Dsl		9,821	29,557	11,488		

PEAK LOAD SUMMARY (KW)

Steam-Hilo		20,200
Steam-Puna		11,800
Diesels		4,800
CTs		32,300
Hydros		1,000
Wind		0
HCPC		22,100
PGV		27,000
HEP		59,800
Kamaoa		1,700
Wailuku		6,000
TOTAL	(Tues, 12/30/03	186,700
Last Year	(Mon, 12/30/02)	**177,900**

NOT CHANGED FROM DIRECT TESTIMONY

HELCO Production Department - Generation Report for the YEAR 2004

PLANTS	GROSS (KWH)	STATION POWER CONSUMED (KWH) ON-LINE	STATION POWER CONSUMED (KWH) OFF-LINE	NET TO SYSTEM (KWH)**	RUNNING TIME (HRS:MIN)
WIND - LALAMILO	1,484,610	0	0	1,484,610	3762:33
WAIAU HYDRO	6,479,390	198,490	3,570	6,277,330	6379:26 / 8114:3
PUUEO HYDRO	3,498,230	44,100	7,300	3,446,830	5876:44 / OFF
TOTAL HYDRO	9,977,620	242,590	10,870	9,724,160	
WAIMEA	3,949,400	0	0	3,949,400	1863:31
KEAHOLE	5,268,525	0	0	5,268,525	2578:00
KEAHOLE CT-2	31,517,800	0	0	31,517,800	3134:30
KEAHOLE CT-4	39,084,300	1,006,290	221,260	37,856,750	2339:32
KEAHOLE CT-5	29,046,940	634,590	103,410	28,308,940	1858:55
KANOELEHUA	1,053,030	0	0	1,053,030	7:29 / 515:57
KANOELEHUA CT-1	1,310,140	5,040	0	1,305,100	127:15
PUNA CT-3	32,360,500	1,198,800	308,880	30,852,820	2592:50
DISPERSED GEN SITES	165,630	0	0	165,630	169:16
OFF-SITE DIESEL					
TOTAL DIESEL	143,756,265	2,844,720	633,550	140,277,995	
WAIAKEA(SHIPMAN) #3	4,178,100	305,500	549,400	3,323,200	726:29
#4	4,469,500	349,000	872,300	3,248,200	822:50
SUBTOTAL SHIPMAN	8,647,600	654,500	1,421,700	6,571,400	
HILL #5	47,278,280	2,354,000	604,200	44,320,080	4061:56
#6	153,258,190	7,758,300	310,600	145,189,290	7666:54
SUBTOTAL HILL	200,536,470	10,112,300	914,800	189,509,370	
HILL (Ignitor Diesel)					
PUNA	79,958,300	8,518,300	816,780	70,623,220	6755:30
PUNA (Ignitor Diesel)					
OFF-SITE BUNKER C					
TOTAL STEAM	289,142,370	19,285,100	3,153,280	266,703,990	
TOTAL GENERATED	444,360,865	22,372,410	3,797,700	418,190,755	
PURCHASED POWER (PP):					
HCPC	78,931,409			78,931,409	
PGV	210,614,413			210,614,413	
HEP	441,533,153			441,533,153	
KAMAOA	6,181,000			6,181,000	
WAILUKU	25,782,355			25,782,355	
OTHER WIND	1,723			1,723	
OTHER HYDRO	678,483			678,483	
TOTAL PP	763,722,536			763,722,536	
TOTAL GEN'D & PP	1,208,083,401			1,181,913,291	
SAME DATE LAST YR	1,166,321,996			1,140,883,326	2003

SYSTEM HIGH PEAKS	(9/08/04) 173,600 KW	11:27 AM
	(12/27/04) 194,500 KW	6:42 PM
SYSTEM LOW	(2/29/04) 78,700 KW	3:51 AM

Generation Capacity:

Units on Outage:

GALLONS	CARRIED	RECEIVED	STK TRNSF	STRP CORREC	CONSUMED	REMAINING	KWH/BBL	15 Day R/AVG
	47,604	0	328,117	0	310,105	65,616	535	525
	47,290	0	3,245,432	(2,757,560)	423,560	111,602	522	517
	73,802	0	2,981,396	526,268	3,368,970	212,496	393	377
	0	0	3,109,489	674,279	3,263,415	520,353	487	485
	0	0	1,326,572	1,733,358	2,480,034	579,896	479	432
	122,321	0	247,648	(1,491)	90,126	119,773	491	502
					158,579		346	
	219,212	0	2,924,931	11,218	2,925,677	229,684	443	440
	4,208	12,844	0	0	11,727	5,325	593	
BARRELS	735,318	14,435,290	(14,163,585)	(416,097)		588,926		
	1,249,755			(232,025)	13,032,193	2,433,671	452	
	5,618	20	21,459	335	21,962	5,450	364	342
	34,590	0	384,566	4,670	384,901	38,925	494	476
	8,123	0	16,791	271	17,492	7,693		
	8,977	0	181,224	3,807	181,744	12,264	392	384
	3,365	0	0	16,496	17,200	2,661		
	23,326	592,368	(587,249)	0		28,445		
	72,511			8,812	588,607	85,084	452	
NK	11,488	Ign Dsl		16,767	34,692	10,354		

See attached sheet for strapping corrections explanation.

PEAK LOAD SUMMARY (KW)		
Steam-Hilo		32,000
Steam-Puna		11,700
Diesels		
CTs		34,700
Hydros		1,000
Wind		
HCPC		22,000
PGV		25,600
HEP		59,800
Kamaoa		200
Wailuku		7,500
TOTAL	(Mon, 12/27/04)	194,500
Last Year	(Tues, 12/30/03)	186,700

NOT CHANGED FROM DIRECT TESTIMONY

HELCO Production Department - Generation Report for the YEAR 2005

SYSTEM HIGH PEAKS		
	(8/08/05) 184,000 KW	11:59 AM
	(12/19/05) 197,000 KW	6:33 PM
SYSTEM LOW	(1/11/05) 81,000 KW	3:19 AM

Generation Capacity:

Units on Outage:

PLANTS	GROSS (KWH)	STATION POWER CONSUMED (KWH) ON-LINE	STATION POWER CONSUMED (KWH) OFF-LINE	NET TO SYSTEM (KWH)**	RUNNING TIME (HRS:MIN)
WIND - LALAMILO	1,696,600	0	0	1,696,600	4118:05
WAIAU HYDRO	3,759,440	116,500	17,170	3,625,770	9856:30
PUUEO HYDRO	5,581,270	21,380	17,240	5,542,650	2324:02
TOTAL HYDRO	9,340,710	137,880	34,410	9,168,420	
WAIMEA	5,136,290	0	0	5,136,290	2375:53
KEAHOLE	2,577,200	0	0	2,577,200	1162:02
KEAHOLE CT-2	13,839,070	0	0	13,839,070	1539:23
KEAHOLE CT-4	78,675,200	2,177,280	75,600	76,422,320	4682:26
KEAHOLE CT-5	66,134,800	1,544,400	38,160	64,552,240	4283:46
KANOELEHUA	1,525,070	0	0	1,525,070	702:32
KANOELEHUA CT-1	1,396,600	0	2,880	1,393,720	147:17
PUNA CT-3	28,267,200	936,760	404,600	26,925,840	2079:34
DISPERSED GEN SITES	111,230	0	0	111,230	114:07
OFF-SITE DIESEL					
TOTAL DIESEL	197,662,660	4,658,440	521,240	192,482,980	
WAIAKEA(SHIPMAN) #3	4,578,000	364,300	826,390	3,387,310	744:16
#4	5,314,100	370,500	222,700	4,720,900	940:47
SUBTOTAL SHIPMAN	9,892,100	734,800	1,049,090	8,108,210	
HILL #5	87,386,600	4,294,950	280,600	82,811,050	7267:50
#6	155,830,200	8,234,500	340,400	147,255,300	7654:19
SUBTOTAL HILL	243,216,800	12,529,450	621,000	230,066,350	
HILL (Ignitor Diesel)					
PUNA	98,811,300	9,874,000	495,900	88,441,400	7323:53
PUNA (Ignitor Diesel)					
OFF-SITE BUNKER C					
TOTAL STEAM	351,920,200	23,138,250	2,165,990	326,615,960	
TOTAL GENERATED	560,620,170	27,934,570	2,721,640	529,963,960	
PURCHASED POWER (PP):					
PGV	220,639,012			220,639,012	
HEP	431,412,633			431,412,633	
KAMAOA	4,840,500			4,840,500	
WAILUKU	29,725,630			29,725,630	
OTHER WIND	0			0	
OTHER HYDRO	910,346			910,346	
TOTAL PP	687,528,121			687,528,121	
TOTAL GEN'D & PP	1,248,148,291			1,217,492,081	
SAME DATE LAST YR	1,208,083,401			1,181,913,291	2004

	CARRIED	RECEIVED	STK TRNSF	STRP CORREC	CONSUMED	REMAINING	KWH/BBL	15 Day R/AVG
GALLONS	65,616	0	387,053	404	402,456	50,617	536	
	111,602	0	0	176,808	191,036	97,374	567	
	212,496	0	0	1,540,970	1,577,763	175,703	368	
	520,353	0	6,688,800	(543,623)	6,559,756	105,774	489	
	579,896	0	6,288,005	(916,368)	5,635,622	315,911	481	
	119,773	0	246,911	(21,590)	131,319	24,497	488	
					189,278		309	
	229,684	0	2,511,403	33,677	2,499,765	274,999	452	
	5,325	7,535	0	0	7,874	4,986	593	
BARRELS	588,826	16,154,209	(16,122,172)	(24,015)		596,948		
	2,433,671			246,263	17,194,869	1,646,809	470	
	5,450	0	23,470	(132)	24,397	4,391	375	
	38,925	0	469,328	5,366	478,227	35,392	482	
	7,693	0	24,015	220	20,988	10,940		
	12,264	0	220,869	2,905	223,477	12,561	397	
	2,661	0	0	10,948	11,124	2,485		
	28,445	706,643	(713,667)	0		21,421		
	85,084			8,139	726,101	73,765	449	
NK	10,354	Ign Dsl		11,168	32,112	13,425		

PEAK LOAD SUMMARY (KW)		
Steam-Hilo		46,200
Steam-Puna		14,000
Diesels		6,500
CTs		39,200
Hydros		0
Wind		0
HCPC		
PGV		30,500
HEP		60,000
Kamaoa		0
Wailuku		600
TOTAL	(Mon, 12/19/05)	197,000
Last Year	(Sun, 12/19/04)	179,400

HELCO Production Department - Generation Report for the YEAR 2006

PLANTS	GROSS (KWH)	STATION POWER CONSUMED (KWH) ON-LINE	STATION POWER CONSUMED (KWH) OFF-LINE	NET TO SYSTEM (KWH)**	RUNNING TIME (HRS:MIN)
WIND - LALAMILO	839,870	0	130	839,740	3129:25
WAIAU HYDRO	6,798,370	34,570	10,860	6,752,940	5995:23 / 6533:2
PUUEO HYDRO	16,951,970	59,980	33,670	16,858,320	6492:36 / 6811:3
TOTAL HYDRO	23,750,340	94,550	44,530	23,611,260	
WAIMEA	2,951,530	0	0	2,951,530	1322:42
KEAHOLE	2,108,170	0	0	2,108,170	911:07
KEAHOLE CT-2	9,359,501	0	0	9,359,501	1069:22
KEAHOLE CT-4	80,673,200	1,990,800	43,920	78,638,480	5356:50
KEAHOLE CT-5	59,101,930	1,365,840	36,000	57,700,090	4052:33
KANOELEHUA	889,490	0	0	889,490	401:50
KANOELEHUA CT-1	326,930	0	0	326,930	44:28
PUNA CT-3	21,678,270	634,890	301,830	20,741,550	1620:41
DISPERSED GEN SITES	78,346	0	0	78,346	80:32
OFF-SITE DIESEL					
TOTAL DIESEL	177,167,367	3,991,530	381,750	172,794,087	
WAIAKEA(SHIPMAN) #3	22,618,000	1,774,900	622,200	20,220,900	3758:18
#4	23,348,000	1,763,500	435,700	21,148,800	4171:57
SUBTOTAL SHIPMAN	45,966,000	3,538,400	1,057,900	41,369,700	
HILL #5	96,807,800	4,551,700	0	92,256,100	7729:10
#6	151,741,160	8,177,000	31,300	143,532,860	7522:52
SUBTOTAL HILL	248,548,960	12,728,700	31,300	235,788,960	
HILL (Ignitor Diesel)					
PUNA	100,013,000	9,960,000	244,800	89,808,200	7632:43
PUNA (Ignitor Diesel)					
OFF-SITE BUNKER C					
TOTAL STEAM	394,527,960	26,227,100	1,334,000	366,966,860	
TOTAL GENERATED	596,285,537	30,313,180	1,760,410	564,211,947	
PURCHASED POWER (PP):					
HCPC	0			0	
PGV	212,275,264			212,275,264	
HEP	419,199,981			419,199,981	
KAMAOA	1,340,500			1,340,500	
WAILUKU	31,470,892			31,470,892	
HRD	23,113,228			23,113,228	
OTHER WIND	0			0	
OTHER HYDRO	1,178,765			1,178,765	
TOTAL PP	688,578,630			688,578,630	
TOTAL GEN'D & PP	1,284,864,167			1,252,790,577	
SAME DATE LAST YR	1,248,148,291			1,217,492,081	2005

SYSTEM HIGH PEAKS			
	(6/15/06) 183,700 KW	1:55 PM	
	(12/27/06) 201,300 KW	6:34 PM	
SYSTEM LOW	(3/28/06) 85,000 KW	2:39 AM	

Generation Capacity:

Units on Outage:

BARRELS	CARRIED	RECEIVED	STK TRNSF	STRP CORREC	CONSUMED	REMAINING	KWH/BBL	15 Day R/AVG
	50,617	0	221,748	13,107	232,821	52,651	532	
	97,374	0	0	178,533	166,214	109,693	533	
	175,703	0	0	1,147,727	1,100,217	223,213	357	
	105,774	0	6,837,979	487,919	6,879,016	552,656	480	
	315,911	0	6,915,208	(1,637,338)	5,064,218	529,563	479	
	24,497	0	174,337	(2,344)	76,065	74,260	491	
					46,165		297	
	274,999	0	1,922,003	22,448	1,948,852	270,598	447	
	4,986	6,139	0	(555)	5,597	4,973	588	
	596,948	16,365,753	(16,079,195)	0		683,506		
	1,646,809			209,497	15,519,165	2,701,113	468	
	4,391	0	113,684	165	112,807	5,433	376	
	35,392	0	492,246	7,944	500,226	35,356	471	
	10,940	0	23,731	205	22,230	12,646		
	12,561	0	226,308	1,207	230,282	9,794	390	
	2,485	0	0	16,372	15,512	3,345		
	21,421	837,193	(832,238)	0		26,376		
	73,765			9,316	843,315	76,959	435	
NK	13,425	Ign Dsl		16,577	37,742	15,991		

PEAK LOAD SUMMARY (KW)

Steam-Hilo		45,200
Steam-Puna		13,900
Diesels		0
CTs		55,600
Hydros		1,400
Wind		0
PGV		24,700
HEP		59,800
Kamaoa		0
Wailuku		0
HRD		**700**
TOTAL	(Wed, 12/27/06)	201,300
Last Year	(Mon, 12/19/05)	197,000

Hawaii Electric Light Company, Inc.

PROPANE START-UP COSTS
Total Dollars ($)
Rebuttal Testimony

Line	Plant	2001	2002	2003	2004	2005	2006	TY2006
1	Shipman	6,092	45,921	69,751	136,093	84,711	96,201	**92,800**
2	Hill	4,001	3,597	2,327	2,936	3,530	4,554	**3,389**
3	Total							**96,189**

Reference:
Line 1: Test Year estimate based on output from production simulation, HELCO-RWP-404, page 8.
Line 2: Test Year estimate based on 5-yr average (2002-2006).

Hawaii Electric Light Company, Inc.

FUEL ADDITIVE AND PETROSPECT COSTS
Total Dollars ($)
Rebuttal Testimony

Line	Description	2001	2002	2003	2004	2005	TY2006 2006
1	Fuel Additive	265,850	287,700	170,355	122,700	118,278	**230,913**
2	Petrospect	49,012	58,257	50,105	57,492	69,477	**75,055**

Reference:
Line 1: Based on actual 2006 costs.
Fuel additives are for Hill 5, Hill 6, and Puna Steam units.
Line 2: Based on actual 2006 costs.

Hawaii Electric Light Company, Inc.

TEST YEAR 2006 OCEAN CARGO INSURANCE COSTS
Rebuttal Testimony

Plant	(1) Fuel Expense ($)	(2) Ocean Cargo Insurance Rate (%)	(3) = (1) x (2) Total ($)
Shipman			
January-November	5,150,381	0.1175%	6,052
December	571,059	0.1000%	571
Hill			
January-November	22,629,355	0.1175%	26,589
December	2,018,513	0.1000%	2,019
Puna			
January-November	10,408,224	0.1175%	12,230
December	1,095,415	0.1000%	1,095
Waimea			
January-November	99,044	0.1175%	116
December	1,620	0.1000%	2
Kanoelehua			
January-November	554,629	0.1175%	652
December	12,576	0.1000%	13
Keahole/CT2			
January-November	28,621,514	0.1175%	33,630
December	2,378,251	0.1000%	2,378
CT3			
January-November	4,275,338	0.1175%	5,024
December	256,797	0.1000%	257
	78,072,714		90,627

Reference
Column 1: HELCO-RWP-404, page 4

Hawaii Electric Light Company, Inc.

HISTORICAL OCEAN CARGO INSURANCE COSTS
Rebuttal Testimony

Policy Year	12/1/2000-11/30/2001	12/1/2001-11/30/2002	12/1/2002-11/30/2003	12/1/2003-11/30/2004	12/1/2004-11/30/2005	12/1/2005-11/30/2006	12/1/2006-11/30/2007
Insurance Rate (%)	0.1950%	0.1150%	0.1322%	0.1290%	0.1175%	0.1175%	0.1000%
Total Premium ($)	47,464.95	32,655.40	36,011.28	47,252.70	67,535.48	87,164.77	

Hawaii Electric Light Company, Inc.

TEST YEAR 2006 SALES FUEL EFFICIENCY
Rebuttal Testimony

	Net Gen (MWH)	Fuel (BBL)	Fuel (MBTU)	Net Heat Rate (BTU/KWH)
Steam	320,701	729,140	4,593,579	14,324
Diesel	194,596	412,010	2,414,376	12,407
HELCO Central Station	515,297	1,141,149	7,007,956	13,600
HELCO Wind and Hydro	26,733		363,565	13,600
HELCO Central Station/Wind/Hydro	542,030	1,141,149	7,371,520	13,600
Distributed Generators	120	191	1,117	
Total HELCO	542,149	1,141,340	7,372,638	

SALES PROVIDED BY COMPANY CENTRAL STATION WITH WIND AND HYDRO

	1,147.9	GWH Sales			
	43.31%	542.030	/	1,251.405	= net gen / net system input
	497.2	GWH Sales Provided by Central Station/Wind/Hydro Generation			

SALES FUEL EFFICIENCY for HELCO CENTRAL STATION WITH WIND AND HYDRO

=	MBTU	÷	(GWH Cen.Sta./Wind/Hydro Gen. Sales	x	1,000,000)
=	7,371,520	÷	497,202,159		
=	0.014826	MBTU / KWH Sales			

SALES PROVIDED BY STEAM GENERATION

	1,147.9	GWH Sales			
	25.63%	320.701	/	1,251.405	= net gen / net system input
	294.2	GWH Sales Provided by Steam Generation			

SALES FUEL EFFICIENCY for STEAM GENERATION

=	MBTU	÷	(GWH Steam Generated Sales	x	1,000,000)
=	4,593,579	÷	294,178,041		
=	0.015615	MBTU / KWH Sales			

Hawaii Electric Light Company, Inc.

TEST YEAR 2006 SALES FUEL EFFICIENCY
Rebuttal Testimony

	Net Gen (MWH)	Fuel (BBL)	Fuel (MBTU)	Net Heat Rate (BTU/KWH)
Steam	320,701	729,140	4,593,579	14,324
Diesel	194,596	412,010	2,414,376	12,407
HELCO Central Station	515,297	1,141,149	7,007,956	13,600
HELCO Wind and Hydro	26,733		363,565	13,600
HELCO Central Station/Wind/Hydro	542,030	1,141,149	7,371,520	13,600
Distributed Generators	120	191	1,117	
Total HELCO	542,149	1,141,340	7,372,638	

SALES PROVIDED BY DIESEL GENERATION

	1,147.9	GWH Sales			
	15.55%	194.596	/	1,251.405	= net gen / net system input
	178.5	GWH Sales Provided by Diesel Generation			

SALES FUEL EFFICIENCY for DIESEL GENERATION

=	MBTU	÷	(GWH Diesel Generated Sales	x 1,000,000)
=	2,414,376	÷	178,502,022	
=	0.013526	MBTU / KWH Sales		

SALES PROVIDED BY HELCO WIND/HYDRO GENERATION

	1,147.9	GWH Sales			
	2.14%	26.733	/	1,251.405	= net gen / net system input
	24.5	GWH Sales Provided by Wind/Hydro Generation			

SALES FUEL EFFICIENCY for HELCO WIND/HYDRO GENERATION

=	MBTU	÷	(GWH Wind/Hydro Generated Sales	x 1,000,000)
=	363,565	÷	24,522,097	
=	0.014826	MBTU / KWH Sales		

Hawaii Electric Light Company, Inc.

HISTORICAL NET HEAT RATE
Rebuttal Testimony

Line		2001	2002	2003	2004	2005	2006
	Total Fuel Consumed (MBtu)						
1	HELCO	5,449,794	6,304,493	5,623,569	5,493,559	6,978,010	7,484,779
2	Steam	4,387,718	4,360,312	4,081,282	3,675,258	4,578,917	5,319,486
3	Diesel	1,062,076	1,944,180	1,542,287	1,818,301	2,399,094	2,165,293
	Net Energy Generated (MWh)						
4	HELCO w/ wind & hydro	402,983	465,212	408,741	418,191	529,964	565,569
5	HELCO w/o wind & hydro	382,748	455,076	405,115	406,982	519,099	541,077
6	Steam	304,860	300,885	285,861	266,704	326,616	367,955
7	Diesel	77,888	154,191	119,255	140,278	192,483	173,122
	System Heat Rate (Btu/Net kWh)						
8	HELCO w/ wind & hydro	13,524	13,552	13,758	13,136	13,167	13,234
9	HELCO w/o wind & hydro	14,239	13,854	13,881	13,498	13,443	13,833
10	Steam	14,393	14,492	14,277	13,780	14,019	14,457
11	Diesel	13,636	12,609	12,933	12,962	12,464	12,507

Hawaii Electric Light Company, Inc.

FUEL OIL TANK CAPACITIES - INDUSTRIAL FUEL OIL
Rebuttal Testimony

INDUSTRIAL FUEL OIL	TANK SIZE	NOMINAL CAPACITY (BBL)	MAXIMUM CAPACITY (BBL)	Heel or Unusable (BBL)	Usable Capacity (BBL)	TYPE
HILL / KANOELEHUA						
Tank No. 5A	30' D X 40' H	5,040	4,725	1,008	3,717	Cone Roof; Welded Shell
Tank No. 5B	30' D X 40' H	5,040	4,725	1,008	3,717	Cone Roof; Welded Shell
Tank No. 6	80' D X 42' H	37,632	34,720	7,168	27,552	Cone Roof; Welded Shell
Test Tank	16' D X 32' H	1,311	1,093	72	1,021	Cone Roof; Welded Shell
Subtotal			45,263	9,256	36,007	
SHIPMAN / WAIAKEA						
Tank No. 2	25' D X 20' H	1,750	1,575	700	875	Cone Roof; Welded Shell
Tank No. 3	35' D X 30' H	5,145	4,802	1,372	3,430	Cone Roof; Welded Shell
Subtotal			6,377	2,072	4,305	
PUNA						
Tank No. 1	43' D X 19' 3" H	4,983	4,979	1,355	3,624	Cone Roof; Welded Shell
Tank No. 2	56' D X 25' 1-1/2" H	10,980	10,976	2,634	8,342	Cone Roof; Welded Shell
Day Tank	15' 2-1/4" D X 8' 0-1/2" H	260	260	163	97	Cone Roof; Welded Shell
Subtotal			16,215	4,152	12,063	
GRAND TOTAL			**67,855**	**15,480**	**52,375**	

1. Off-Site Tank at Chevron USA is 30,000 bbls minimum.
2. Heel or Unusable is the dead storage portion of the tank's contents that cannot be withdrawn from the tank.

Hawaii Electric Light Company, Inc.

FUEL OIL TANK CAPACITIES - DIESEL FUEL
Rebuttal Testimony

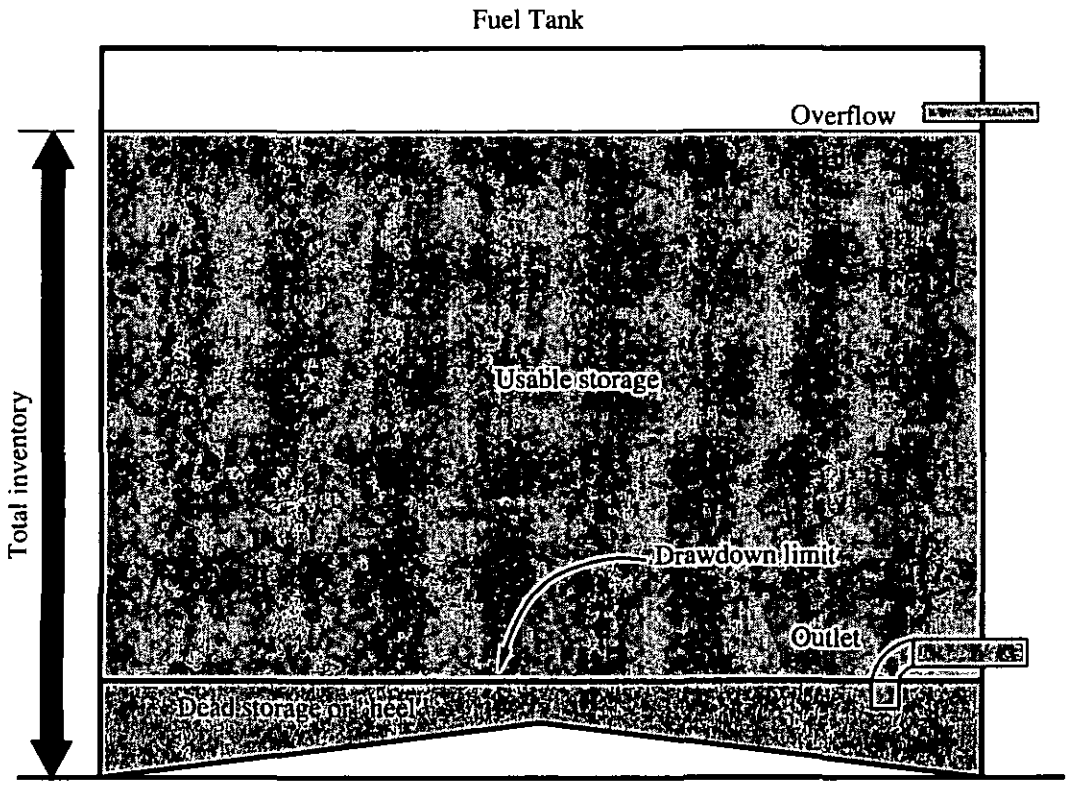
DIESEL FUEL	TANK SIZE	NOMINAL CAPACITY (BBL)	MAXIMUM CAPACITY (BBL)	Heel or Unusable (BBL)	Usable Capacity (BBL)	TYPE
KANOELEHUA						
Tank No. 1	25' D X 30' H	2,625	2,450	175	2,275	Cone Roof; Welded Shell
Tank No. 2	25' D X 24' H	2,100	1,925	175	1,750	Cone Roof; Welded Shell
Ignitor Tank (Hill 6)	14' D X 16' H	439	412	55	357	Cone Roof; Welded Shell
Subtotal			4,787	405	4,382	
WAIMEA						
Tank No. 1	25' D X 12' H	1,050	1,015	262	753	Cone Roof; Welded Shell
Tank No. 2	25' D X 12' H	1,050	1,015	262	753	Cone Roof; Welded Shell
Subtotal			2,030	524	1,506	
KEAHOLE						
Tank No. 1	35' D X 18' H	3,087	2,744	343	2,401	Cone Roof; Welded Shell
Tank No. 2	50' D X 18' H	6,000	5,246	346	4,900	Cone Roof; Welded Shell
Tank No. 3	50' D X 42' H	16,114	13,750	550	13,200	Cone Roof; Welded Shell
Tank No. 4	50' D X 42' H	16,114	13,750	550	13,200	Cone Roof; Welded Shell
CT 4 Day Tank	12' D X 16' H	363	305	20	285	Cone Roof; Welded Shell
CT 5 Day Tank	12' D X 16' H	363	305	20	285	Cone Roof; Welded Shell
Subtotal			36,100	1,829	34,271	
PUNA						
Ignitor Tank	9' 2-3/8" D X 8' 0-1/2" H	95	95	36	59	Cone Roof; Welded Shell
PUNA CT-3						
Tank No. 1	30' D X 32' H	4,032	4,026	189	3,837	Cone Roof; Welded Shell
Tank No. 2	30' D X 32' H	4,032	4,026	189	3,837	Cone Roof; Welded Shell
Day Tank	10' D X 18' H	252	250.5	1	250	Cone Roof; Welded Shell
Subtotal			8,398	415	7,983	
TOTAL			**51,315**	**3,173**	**48,142**	

1. Off site Tank at Chevron USA is 16,000 bbl minimum, 22,000 bbl maximum.
2. Heel or Unusable is the dead storage portion of the tank's contents that cannot be withdrawn from the tank.

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

TYPICAL FUEL TANK DIAGRAM
Rebuttal Testimony



Hawaii Electric Light Company, Inc.

IGNITOR DIESEL FUEL CONSUMPTION
Rebuttal Testimony

Total Fuel Consumed (BBLs)	2001	2002	2003	2004	2005	2006	2001-2005 (5-yr Ave)	**TY2006 2002-2006 (5-yr Ave)**
Hill Plant	723	666	503	416	500	529	562	**523**
Puna Plant	223	271	200	410	265	369	274	**303**

Hawaii Electric Light Company, Inc.

TEST YEAR 2006 AVERAGE BURN RATE FOR FUEL INVENTORY
INDUSTRIAL FUEL OIL
Rebuttal Testimony

Month	Shipman/Hill (Barrels/day)	Puna (Barrels/day)	TOTAL (Barrels/day)
January	1,526	609	2,135
February	1,095	622	1,716
March	**1,664**	**620**	**2,284**
April	**1,779**	**630**	**2,409**
May	1,087	287	1,374
June	852	558	1,410
July	1,575	599	2,174
August	1,767	78	1,845
September	1,268	614	1,882
October	**1,793**	**667**	**2,460**
November	1,525	608	2,133
December	1,458	606	2,064
Annual Average	1,449	541	1,990
TY2006 Burn Rate based on Average of March, April, and October	**1,745**	**639**	**2,384**

Hawaii Electric Light Company, Inc.

TEST YEAR 2006 AVERAGE BURN RATE FOR FUEL INVENTORY
DIESEL FUEL
Rebuttal Testimony

Month	Puna (Barrels/day)	Waimea (Barrels/day)	Kanoelehua (Barrels/day)	Keahole (Barrels/day)	TOTAL (Barrels/day)
January	93	1	7	701	802
February	123	1	9	967	1,100
March	151	8	43	935	1,136
April	132	2	9	1,012	1,154
May	**188**	**2**	**15**	**1,191**	**1,396**
June	**171**	**6**	**23**	**1,052**	**1,252**
July	175	3	21	677	875
August	151	4	23	975	1,153
September	95	3	20	999	1,116
October	**259**	**6**	**32**	**1,360**	**1,656**
November	78	1	6	837	922
December	96	1	5	871	971
Annual Average	143	3	18	965	1,128
TY2006 Burn Rate based on Average of May, June, and October	**206**	**5**	**23**	**1,201**	**1,435**

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

HISTORICAL 2005 AVERAGE BURN RATE FOR FUEL INVENTORY
INDUSTRIAL FUEL OIL
Rebuttal Testimony

Month	Shipman/Hill (Barrels/day)	Puna (Barrels/day)	TOTAL (Barrels/day)
January	1,100	653	1,753
February	**1,608**	**748**	**2,356**
March	1,381	741	2,122
April	1,378	736	2,113
May	1,107	711	1,817
June	1,391	755	2,145
July	1,496	45	1,542
August	1,041	286	1,327
September	1,395	601	1,996
October	**1,723**	**741**	**2,464**
November	1,292	720	2,012
December	**1,634**	**636**	**2,270**
Annual Average	1,379	614	1,993
Average of February, October, and December	**1,655**	**708**	**2,363**

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

HISTORICAL 2005 AVERAGE BURN RATE FOR FUEL INVENTORY
DIESEL FUEL
Rebuttal Testimony

Month	Puna (Barrels/day)	Waimea (Barrels/day)	Kanoelehua (Barrels/day)	Keahole (Barrels/day)	TOTAL (Barrels/day)
January	94	28	5	986	1,113
February	**349**	**33**	**139**	**1,591**	**2,111**
March	67	20	7	790	884
April	123	11	2	704	840
May	215	37	28	822	1,101
June	26	27	10	776	839
July	**226**	**27**	**10**	**875**	**1,137**
August	**302**	**39**	**11**	**1,191**	**1,543**
September	210	33	13	866	1,122
October	167	23	11	765	965
November	104	21	9	793	927
December	86	18	16	783	902
Annual Average	164	26	22	912	1,124
Average of February, July, and August	**292**	**33**	**53**	**1,219**	**1,597**

Hawaii Electric Light Company, Inc.

ACTUAL 2006 AVERAGE BURN RATE FOR FUEL INVENTORY
INDUSTRIAL FUEL OIL
Rebuttal Testimony

Month	Shipman/Hill (Barrels/day)	Puna (Barrels/day)	TOTAL (Barrels/day)
January	**1,879**	**748**	**2,628**
February	1,467	725	2,192
March	1,821	595	2,416
April	1,653	684	2,337
May	1,392	592	1,984
June	1,590	620	2,210
July	1,082	708	1,790
August	1,728	637	2,365
September	**1,988**	**754**	**2,742**
October	1,663	700	2,363
November	**1,892**	**580**	**2,472**
December	1,990	243	2,233
Annual Average	1,679	632	2,311
Average of January, September, and November	**1,920**	**694**	**2,614**

Hawaii Electric Light Company, Inc.

ACTUAL 2006 AVERAGE BURN RATE FOR FUEL INVENTORY
DIESEL FUEL
Rebuttal Testimony

Month	Puna (Barrels/day)	Waimea (Barrels/day)	Kanoelehua (Barrels/day)	Keahole (Barrels/day)	TOTAL (Barrels/day)
January	**228**	**21**	**12**	**1,041**	**1,302**
February	90	18	7	834	949
March	31	10	3	643	686
April	26	8	2	612	647
May	103	12	3	738	855
June	79	10	2	730	820
July	219	13	2	1,003	1,238
August	**332**	**19**	**16**	**1,186**	**1,554**
September	19	8	6	777	810
October	119	24	15	848	1,006
November	**232**	**21**	**10**	**1,056**	**1,318**
December	44	18	17	865	944
Annual Average	127	15	8	861	1,011
Average of January, August, and November	**264**	**20**	**13**	**1,094**	**1,391**

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

FUEL OIL INVENTORY BARRELS - 2001
Rebuttal Testimony

	Industrial Fuel Oil			Diesel Fuel Oil		
Month	Receipts	Consumed	Ending Inventory	Receipts	Consumed	Ending Inventory
Jan	67,625	65,769	52,069	22,500	15,647	36,772
Feb	52,069	60,676	73,769	36,772	9,742	38,102
Mar	73,769	64,283	67,822	38,102	18,847	31,303
Apr	67,822	55,364	69,099	31,303	13,757	33,420
May	69,099	45,599	51,615	33,420	27,241	16,984
Jun	51,615	62,922	40,011	16,984	17,424	21,208
Jul	40,011	61,349	64,678	21,208	10,071	34,867
Aug	64,678	64,541	57,535	34,867	15,618	26,978
Sep	57,535	57,456	77,419	26,978	24,232	36,571
Oct	77,419	44,571	61,055	36,571	9,526	37,019
Nov	61,055	55,089	62,525	37,019	7,101	36,940
Dec	62,525	58,645	59,212	36,940	12,980	39,446
TOTAL	745,222	696,264		372,664	182,188	
Avg Inventory			61,401			32,467
Bbls/Day	2,042	1,908		1,021	499	
Avg Days Supply			32			65

Notes:
1. Ending inventory includes Chevron USA and Tesoro inventory

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

FUEL OIL INVENTORY BARRELS - 2002
Rebuttal Testimony

	Industrial Fuel Oil			Diesel Fuel Oil		
Month	Receipts	Consumed	Ending Inventory	Receipts	Consumed	Ending Inventory
Jan	59,212	59,930	77,388	39,446	8,764	36,960
Feb	77,388	61,390	43,801	36,960	20,450	21,354
Mar	43,801	72,170	55,032	21,354	27,129	31,462
Apr	55,032	40,432	61,273	31,462	36,869	23,453
May	61,273	49,350	59,639	23,453	20,263	28,286
Jun	59,639	63,262	63,634	28,286	29,434	30,853
Jul	63,634	47,985	63,650	30,853	27,763	26,113
Aug	63,650	51,189	60,023	26,113	27,520	28,047
Sep	60,023	64,287	56,212	28,047	34,615	19,157
Oct	56,212	65,892	61,985	19,157	33,497	23,890
Nov	61,985	52,109	74,132	23,890	34,535	26,675
Dec	74,132	63,792	73,264	26,675	31,870	30,158
TOTAL	735,981	691,788		335,696	332,709	
Avg Inventory			62,503			27,201
Bbls/Day	2,016	1,895		920	912	
Avg Days Supply			33			30

Notes:
1. Ending inventory includes Chevron USA and Tesoro inventory

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

FUEL OIL INVENTORY BARRELS - 2003
Rebuttal Testimony

	Industrial Fuel Oil			Diesel Fuel Oil		
Month	Receipts	Consumed	Ending Inventory	Receipts	Consumed	Ending Inventory
Jan	73,264	67,932	53,134	30,158	26,275	28,418
Feb	53,134	59,754	64,607	28,418	17,979	36,294
Mar	64,607	64,155	71,986	36,294	19,849	37,208
Apr	71,986	50,823	68,909	37,208	25,500	31,255
May	68,909	42,277	74,276	31,255	28,824	41,273
Jun	74,276	43,189	65,911	41,273	20,815	35,538
Jul	65,911	49,081	64,380	35,538	22,817	32,711
Aug	64,380	45,755	62,151	32,711	22,097	30,599
Sep	62,151	59,536	73,557	30,599	22,779	32,938
Oct	73,557	65,859	80,181	32,938	21,278	34,519
Nov	80,181	45,966	81,461	34,519	18,479	33,702
Dec	81,461	52,841	72,511	33,702	17,202	30,030
TOTAL	833,817	647,168		404,614	263,893	
Avg Inventory			69,422			33,707
Bbls/Day	2,284	1,773		1,109	723	
Avg Days Supply			39			47

Notes:
1. Ending inventory includes Chevron USA and Tesoro inventory

NOT CHANGED FROM DIRECT TESTIMONY

Hawaii Electric Light Company, Inc.

FUEL OIL INVENTORY BARRELS - 2004
Rebuttal Testimony

	Industrial Fuel Oil			Diesel Fuel Oil		
Month	Receipts	Consumed	Ending Inventory	Receipts	Consumed	Ending Inventory
Jan	72,511	46,897	72,895	30,030	20,382	37,930
Feb	72,895	40,242	56,270	37,930	22,419	24,381
Mar	56,270	50,306	54,159	24,381	26,691	24,706
Apr	54,159	45,848	52,352	24,706	26,440	32,001
May	52,352	46,262	76,998	32,001	28,349	41,377
Jun	76,998	46,666	51,269	41,377	19,807	31,522
Jul	51,269	53,577	67,668	31,522	29,569	28,743
Aug	67,668	43,402	69,676	28,743	34,481	31,911
Sep	69,676	44,272	60,703	31,911	26,012	34,053
Oct	60,703	63,836	83,059	34,053	37,202	48,286
Nov	83,059	58,275	75,395	48,286	19,050	61,013
Dec	75,395	49,024	85,084	61,013	20,714	58,191
TOTAL	792,955	588,607		425,951	311,116	
Avg Inventory			67,127			37,843
Bbls/Day	2,167	1,608		1,164	850	
Avg Days Supply			42			45

Notes:
1. Ending inventory includes Chevron USA and Tesoro inventory

Hawaii Electric Light Company, Inc.

FUEL OIL INVENTORY BARRELS - 2005
Rebuttal Testimony

	Industrial Fuel Oil			Diesel Fuel Oil		
Month	Receipts	Consumed	Ending Inventory	Receipts	Consumed	Ending Inventory
Jan	85,084	54,336	66,726	58,191	34,622	41,503
Feb	66,726	65,978	72,412	41,503	59,171	45,755
Mar	72,412	65,786	78,708	45,755	27,467	41,766
Apr	78,708	63,399	73,317	41,766	25,260	47,567
May	73,317	56,335	68,785	47,567	35,602	34,625
Jun	68,785	64,356	73,631	34,625	25,186	45,660
Jul	73,631	47,791	93,716	45,660	35,216	46,180
Aug	93,716	41,131	89,006	46,180	47,896	38,498
Sep	89,006	59,877	70,779	38,498	33,798	41,646
Oct	70,779	76,374	70,541	41,646	29,940	49,962
Nov	70,541	60,355	77,689	49,962	27,949	41,591
Dec	77,689	70,383	73,765	41,591	28,058	39,529
TOTAL	920,394	726,101		532,944	410,166	
Avg Inventory			75,756			42,857
Bbls/Day	2,522	1,989		1,460	1,124	
Avg Days Supply			38			38

Notes:
1. Ending inventory includes Chevron USA and Tesoro inventory

Hawaii Electric Light Company, Inc.

FUEL OIL INVENTORY BARRELS - 2006
Rebuttal Testimony

	Industrial Fuel Oil			Diesel Fuel Oil		
Month	Receipts	Consumed	Ending Inventory	Receipts	Consumed	Ending Inventory
Jan	73,765	81,454	64,508	39,529	40,402	23,594
Feb	64,508	61,374	74,716	23,594	26,638	40,007
Mar	74,928	74,888	71,418	40,009	21,380	51,248
Apr	71,418	70,109	73,095	51,248	19,534	50,685
May	73,095	61,514	79,339	50,685	26,574	45,224
Jun	79,339	66,468	61,455	45,224	24,507	49,390
Jul	61,455	55,500	67,223	49,390	38,412	38,794
Aug	67,223	73,326	75,227	38,794	48,319	44,045
Sep	75,227	82,253	61,043	44,045	24,342	62,370
Oct	61,043	73,264	59,390	62,370	31,344	65,489
Nov	59,390	74,154	57,143	65,489	39,639	53,174
Dec	57,143	69,223	76,959	53,174	29,311	64,693
TOTAL	818,534	843,527		563,550	370,403	
Avg Inventory			68,460			49,059
Bbls/Day	2,243	2,311		1,544	1,015	
Avg Days Supply			30			48

Notes:
1. Ending inventory includes Chevron USA and Tesoro inventory

Witness HELCO RT-4A

has no rebuttal workpapers.