CA-IR-234

Ref: Response to CA-IR-2, HECO T-10, (IRP Incremental Costs).

Please provide the spreadsheets used to compile test year and prior years' base and incremental IRP expenses, as discussed with Alan Hee on September 11, 2008.

HECO Response:

Refer to attached pages 2-16 for spreadsheets.

			HECO IRP			
			Incremental Costs			
YEAR			($000)			
2003			**381**	**(filing)**		
2004			**600**	**(filing)**		
2005	**(filing)**	**338**				3-yr ave.
	base IRP	141	479		1,460	487
					03-05	
2006			496		1,258	419
2007			283		05-07	
2008	**(budget)**	435	377	(update)	1,250	417
2009			**590**	**(budget)**	07-09	

ACT	711						
				Data			
acct	acct desc	RA	EE	Sum of 2006rec	Sum of 2007rec	Sum of 2008bud	Sum of 2009bud
921	ADMIN & GENL EXP - NLABR	PNP	502	156032.04	19773.14	2000	13000
			521	809.63	0	0	0
			522	0	129.81	0	0
		PNP Total		161824.17	19902.95	3000	13000
		PNR	201	0	0	0	0
			501	35103.48	0	0	0
			506	0	0	0	100000
			520	739.88	262.44	0	2000
			521	40.25	23.54	0	500
		PNR Total		35883.61	285.98	0	102500
		PSM	501	43744.06	37582.55	39400	40182
			521	0	0	200	200
		PSM Total		43744.06	37582.55	39600	40382
		PYA	201	-47.43	0	0	0
			301	12	0	0	0
			501	14819.5	0	0	0
			520	0	0	0	0
			521	0	0	0	0
		PYA Total		14784.07	0	0	0
		PYB	462	8303.36	0	0	0
			522	0	0	0	0
		PYB Total		8303.36	0	0	0
		PYP	201	647.41	973.14	0	480
			205	450.81	798.94	1200	625
			301	0	386.08	99	264
			401	0	0	0	50.54
			462	347.61	0	768.88	773.71
			501	264	5914.77	15500	29000
			506	0	0	74039.44	100000
			520	0	21.46	4500	4500
			521	0	1964.47	1050	1050
			522	-372	0	0	1600
		PYP Total		1337.83	10058.86	97157.32	138343.25
	ADMIN & GENL EXP - NLABR Total			308322.38	130599.6	184097.32	350097.25
921 Total				308322.38	130599.6	184097.32	350097.25
Grand Total				495953.35	282591.02	434680.03	589986.08

↑ 15K

Grant Gay Hashiro - 5/23/08

HECO IRP Number 2006-2009

ACT	711						
				Data			
acct	acct desc	RA	EE	Sum of 2006rec	Sum of 2007rec	Sum of 2008bud	Sum of 2009bud
506030	MISC STEAM POWER EXP-KAHE	PYA	201	0	0	500	500
			401	0	0	49.2	52.65
		PYA Total		0	0	549.2	552.65
		PYB	501	0	0	0	10800
		PYB Total		0	0	0	10800
	MISC STEAM POWER EXP-KAHE Total			0	0	549.2	11352.65
506030 Total				0	0	549.2	11352.65
909	SUPERVISION- CUST SERVICE EXP	PSA	501	0	0	0	0
			502	0	0	0	0
		PSA Total		0	0	0	0
	SUPERVISION- CUST SERVICE EXP Total			0	0	0	0
909 Total				0	0	0	0
910	CUSTOMER ASSISTANCE EXPENSES	PSD	501	123125.4	66564	0	0
		PSD Total		123125.4	66564	0	0
		PSM	205	0	0	300	300
			301	0	0	123.75	107.25
			462	0	0	823.8	828.98
			501	64505.57	69943.49	248385.96	222499.95
			520	0	0	0	4400
			521	0	0	400	400
		PSM Total		64505.57	69943.49	250033.51	228536.18
	CUSTOMER ASSISTANCE EXPENSES Total			187630.97	136507.49	250033.51	228536.18
910 Total				187630.97	136507.49	250033.51	228536.18
911	INFORMATIONAL ADVERTISING EXP	PQC	501	0	15483.93	0	0
		PQC Total		0	15483.93	0	0
	INFORMATIONAL ADVERTISING EXP Total			0	15483.93	0	0
911 Total				0	15483.93	0	0
921	ADMIN & GENL EXP - NLABR	P9S	520	0	0	0	0
		P9S Total		0	0	0	0
		PEZ	451	42445.28	47580.53	44340	55872
		PEZ Total		42445.28	47580.53	44340	55872
		PIA	462	0	8594.08	0	0
		PIA Total		0	8594.08	0	0
		PNC	502	0	6594.65	0	0
		PNC Total		0	6594.65	0	0
		PNG	521	0	0	0	0
		PNG Total		0	0	0	0
		PNP	201	315.45	0	0	0
			205	0	0	1000	0
			501	4667.05	0	0	

2009

Ad. 711
Labor

				2007	2009
921	ADMIN & G	P1V Total		51.06	0
		P3V	421	330.66	150
		P3V Total		330.66	150
		P4V	421	8.64	60
		P4V Total		8.64	60
		P5V	421	34.38	0
		P5V Total		34.38	0
		P7V	421	50.28	0
		P7V Total		50.28	0
		P8V	421	26.52	0
		P8V Total		26.52	0
		P9P	421	1.08	0
		P9P Total		1.08	0
		P9S	421	11.88	0
		P9S Total		11.88	0
		P9V	421	335.28	0
		P9V Total		335.28	0
		PBE	421	25.92	0
		PBE Total		25.92	0
		PIA	421	12.96	0
		PIA Total		12.96	0
		PJA	421	55.2	0
		PJA Total		55.2	0
		PKF	421	6.48	0
		PKF Total		6.48	0
		PNC	421	37.8	0
		PNC Total		37.8	0
		PNG	421	522.56	240
		PNG Total		522.56	240
		PNP	421	737.68	0
		PNP Total		737.68	0
		PNR	421	255.22	1500
		PNR Total		255.22	1500
		PSM	421	10126.5	5655
		PSM Total		10126.5	5655
		PXA	421	217.55	0
		PXA Total		217.55	0
		PYA	421	53.13	0
		PYA Total		53.13	0
		PYB	421	7198.26	6150
		PYB Total		7198.26	6150
		PYP	421	23593.18	17650
		PYP Total		23593.18	17650
		PYT	421	231.84	400
		PYT Total		231.84	400
	ADMIN & GENL EXP - NLABI			43924.06	31805
921 Total				43924.06	31805
Grand Total				659999.19	515900.46

	2007	2009	
Labor	659,999.19 X	515,900.46	736,826
Overhead	297,139.81	229,926.04	
Nonlab	282,591.02	589,986.08	
	1,239,730.02	1,326,812.58	

Labor

ACT	711

				Data	
acct	acct desc	RA	EE	Sum of 2007rec	Sum of 2009bud
909	SUPERVIS	P1W	150	1982.61	0
			155	-450.25	0
			421	82.59	0
		P1W Total		1614.95	0
		PSA	150	3535.56	961.76
			155	204.44	0
			421	297.99	80
		PSA Total		4037.99	1041.76
	SUPERVISION- CUST SERV			5652.94	1041.76
909 Total				5652.94	1041.76
910	CUSTOME	PQE	150	34618.04	30354.12
			155	-4285.55	0
			421	4212.76	3810
		PQE Total		34545.25	34164.12
		PSA	150	3843.42	0
			155	275.15	0
			421	420.2	0
		PSA Total		4538.77	0
		PSD	150	8031.6	16431.59
			155	565.88	0
			421	929.56	1855
		PSD Total		9527.04	18286.59
		PSM	150	156702.15	160849.47
			155	20173.2	0
			421	22122.12	22565
		PSM Total		198997.47	183414.47
		PSN	150	779.52	0
			155	143.55	0
			421	103.68	0
		PSN Total		1026.75	0
		PSR	150	1964.59	0
			155	324.37	0
			421	248.42	0
		PSR Total		2537.38	0
	CUSTOMER ASSISTANCE E			251172.66	235865.18
910 Total				251172.66	235865.18
911	INFORMA	PQC	150	4651.32	5205
			155	-671.25	0
			421	675.64	750
		PQC Total		4655.71	5955
	INFORMATIONAL ADVERTIS			4655.71	5955
911 Total				4655.71	5955
920	ADMIN & (	P1V	150	1259.25	0
			155	-649.84	0
		P1V Total		609.41	0
		P3V	150	6287.53	3184.26
			155	-761.06	0
		P3V Total		5526.47	3184.26
		P4V	150	219	1444.56
			155	-58.81	0
		P4V Total		160.19	1444.56
		P5V	150	766.5	0
			155	-187.53	0
		P5V Total		578.97	0
		P7V	150	1204.5	0

920	ADMIN & (	P7V	155	-299.09	0
		P7V Total		905.41	0
		P8V	150	602.25	0
			155	87.71	0
		P8V Total		689.96	0
		P9P	150	5.81	0
			155	-0.88	0
		P9P Total		4.93	0
		P9S	150	131.98	0
			155	-16.75	0
		P9S Total		115.23	0
		P9V	150	8157.75	0
			155	1528.55	0
		P9V Total		9686.3	0
		PBE	150	207.36	0
			155	46.39	0
		PBE Total		253.75	0
		PIA	150	162.87	0
			155	-9.31	0
		PIA Total		153.56	0
		PJA	150	589.26	0
			155	-48.31	0
		PJA Total		540.95	0
		PKF	150	61.79	0
			155	-9.14	0
		PKF Total		52.65	0
		PNC	150	438.61	0
			155	66.21	0
		PNC Total		504.82	0
		PNG	150	5644.38	2885.28
			155	1090.6	0
		PNG Total		6734.98	2885.28
		PNP	150	5456.64	0
			155	1442.72	0
		PNP Total		6899.36	0
		PNR	150	2041.35	12454.5
			155	-174.78	0
		PNR Total		1866.57	12454.5
		PSM	150	73594.11	39245.7
			155	9466.87	0
		PSM Total		83060.98	39245.7
		PXA	150	2524.51	0
			155	-423.29	0
		PXA Total		2101.22	0
		PYA	150	763.37	0
			155	-38.67	0
		PYA Total		724.7	0
		PYB	150	55522.94	50934.3
			155	1221.55	0
		PYB Total		56744.49	50934.3
		PYP	150	176716.45	127661.72
			155	-2291.48	0
		PYP Total		174424.97	127661.72
		PYT	150	1956	3423.2
			155	297.95	0
		PYT Total		2253.95	3423.2
	ADMIN & GENL EXP - LABR			354593.82	241233.52
920 Total				354593.82	241233.52
921	ADMIN & (	P1V	421	51.06	0

2009
Act. 711
Nuller

ACT	711

				Data	
acct	acct desc	RA	EE	Sum of 2007rec	Sum of 2009bud
506030	MISC STE	PYA	201	0	500
			401	0	52.65
		PYA Total		0	552.65
		PYB	501	0	10800
		PYB Total		0	10800
	MISC STEAM POWER E			0	11352.65
506030 Total				0	11352.65
909	SUPERVIS	PSA	501	0	0
			502	0	0
		PSA Total		0	0
	SUPERVISION- CUST S			0	0
909 Total				0	0
910	CUSTOME	PSD	501	66564	0
		PSD Total		66564	0
		PSM	205	0	300
			301	0	107.25
			462	0	828.98
			501	69943.49	222499.95
			520	0	4400
			521	0	400
		PSM Total		69943.49	228536.18
	CUSTOMER ASSISTANC			136507.49	228536.18
910 Total				136507.49	228536.18
911	INFORMA	PQC	501	15483.93	0
		PQC Total		15483.93	0
	INFORMATIONAL ADVE			15483.93	0
911 Total				15483.93	0
921	ADMIN & C	P9S	520	0	0
		P9S Total		0	0
		PEZ	451	47580.53	55872
		PEZ Total		47580.53	55872
		PIA	462	8594.08	0
		PIA Total		8594.08	0
		PNC	502	6594.65	0
		PNC Total		6594.65	0
		PNG	521	0	0
		PNG Total		0	0
		PNP	201	0	0
			205	0	0
			501	0	0
			502	19773.14	13000
			521	0	0
			522	129.81	0
		PNP Total		19902.95	13000
		PNR	201	0	0
			501	0	0
			506	0	100000

NON LABOR

921	ADMIN & (	PNR	520	262.44	2000
			521	23.54	500
		PNR Total		285.98	102500
		PSM	501	37582.55	40182
			521	0	200
		PSM Total		37582.55	40382
		PYA	201	0	0
			301	0	0
			501	0	0
			520	0	0
			521	0	0
		PYA Total		0	0
		PYB	462	0	0
			522	0	0
		PYB Total		0	0
		PYP	201	973.14	480
			205	798.94	625
			301	386.08	264
			401	0	50.54
			462	0	773.71
			501	5914.77	29000
			506	0	100000
			520	21.46	4500
			521	1964.47	1050
			522	0	1600
		PYP Total		10058.86	138343.25
	ADMIN & GENL EXP - NI			130599.6	350097.25
921 Total				130599.6	350097.25
Grand Total				282591.02	589986.08

2009
Acct 711
overhead

ACT	711

				Data	
acct	acct desc	RA	EE	Sum of 2007rec	Sum of 2009bud
588	MISC DIST	PYT	404	0	0
			406	0	0
			422	0	0
			423	0	0
		PYT Total		0	0
	MISC DISTRIBUTION OP			0	0
588 Total				0	0
909	SUPERVIS	P1W	406	70.44	0
			422	225.79	0
			423	122.81	0
		P1W Total		419.04	0
		PSA	406	254.37	63.52
			422	836.59	173.28
			423	288.18	79.73
		PSA Total		1379.14	316.53
	SUPERVISION- CUST SI			1798.18	316.53
909 Total				1798.18	316.53
910	CUSTOME	PQE	406	3391.58	3025.14
			422	11215.15	8252.46
			423	2379.02	2516.36
		PQE Total		16985.75	13793.96
		PSA	406	340.41	0
			422	982.28	0
			423	348.83	0
		PSA Total		1671.52	0
		PSD	406	789.24	1472.87
			422	2552.25	4017.93
			423	667.75	1362.18
		PSD Total		4009.24	6852.98
		PSM	406	17904.92	17916.61
			422	56392.41	48875.79
			423	14399.27	13334.42
		PSM Total		88696.6	80126.82
		PSN	406	79.68	0
			422	288.24	0
			423	67.56	0
		PSN Total		435.48	0
		PSR	406	227.64	0
			422	694.73	0
			423	182.71	0
		PSR Total		1105.08	0
	CUSTOMER ASSISTANC			112903.67	100773.76
910 Total				112903.67	100773.76
911	INFORMA	PQC	406	541.26	595.5
			422	1759.99	1624.5
			423	310.72	431.49
		PQC Total		2611.97	2651.49
	INFORMATIONAL ADVE			2611.97	2651.49

ACT	711

				Data	
acct	acct desc	RA	EE	Sum of 2007rec	Sum of 2009bud
911 Total				2611.97	2651.49
921	ADMIN & (	P1V	406	42.33	0
			422	139.1	0
			423	46.94	0
		P1V Total		228.37	0
		P3V	406	281.57	119.1
			422	911.39	324.9
			423	434.71	263.98
		P3V Total		1627.67	707.98
		P4V	406	6.64	47.64
			422	24.02	129.96
			423	11.73	119.75
		P4V Total		42.39	297.35
		P5V	406	29.69	0
			422	85.32	0
			423	49.21	0
		P5V Total		164.22	0
		P7V	406	44.22	0
			422	133.86	0
			423	73.73	0
		P7V Total		251.81	0
		P8V	406	21.76	0
			422	66.68	0
			423	56.43	0
		P8V Total		144.87	0
		P9P	406	1.13	0
			422	3.08	0
			423	0.42	0
		P9P Total		4.63	0
		P9S	406	12.43	0
			422	33.91	0
			423	9.79	0
		P9S Total		56.13	0
		P9V	406	274.57	0
			422	902.02	0
			423	752.68	0
		P9V Total		1929.27	0
		PBE	404	206.04	0
			406	20.76	0
			422	72.78	0
			423	19.26	0
		PBE Total		318.84	0
		PBY	404	0	0
			406	0	0
			422	0	0
			423	0	0
		PBY Total		0	0
		PIA	405	27.12	0

ACT	711

				Data	
acct	acct desc	RA	EE	Sum of 2007rec	Sum of 2009bud
921	ADMIN & (	PIA	406	12.36	0
			422	36.67	0
			423	12.5	0
		PIA Total		88.65	0
		PIW	405	0	0
			406	0	0
			422	0	0
			423	0	0
		PIW Total		0	0
		PIX	405	0	0
			406	0	0
			422	0	0
			423	0	0
		PIX Total		0	0
		PJA	406	46.98	0
			422	139.84	0
			423	44.94	0
		PJA Total		231.76	0
		PJB	406	0	0
			422	0	0
			423	0	0
		PJB Total		0	0
		PKF	406	5.61	0
			422	18.56	0
			423	4.3	0
		PKF Total		28.47	0
		PNC	406	35.83	0
			422	107.9	0
			423	41.79	0
		PNC Total		185.52	0
		PNG	406	438.74	190.56
			422	1430.64	519.84
			423	522.08	239.19
		PNG Total		2391.46	949.59
		PNL	406	0	0
			422	0	0
			423	0	0
		PNL Total		0	0
		PNP	406	605.54	0
			422	2051.08	0
			423	543.34	0
		PNP Total		3199.96	0
		PNR	406	194.9	1191
			422	651.3	3249
			423	144.95	1032.48
		PNR Total		991.15	5472.48
		PSF	406	0	0
			422	0	0

ACT	711

				Data	
acct	acct desc	RA	EE	Sum of 2007rec	Sum of 2009bud
921	ADMIN & (	PSF	423	0	0
		PSF Total		0	0
		PSM	406	8412.3	4490.07
			422	26968.68	12248.73
			423	6616.43	3253.47
		PSM Total		41997.41	19992.27
		PSP	406	0	0
			422	0	0
			423	0	0
		PSP Total		0	0
		PWA	406	0	0
			407	0	0
			422	0	0
			423	0	0
		PWA Total		0	0
		PXA	405	572.41	0
			406	179.6	0
			422	563.98	0
			423	168.53	0
		PXA Total		1484.52	0
		PYA	405	135.66	0
			406	42.98	0
			422	139.27	0
			423	57.37	0
		PYA Total		375.28	0
		PYB	406	5827.26	4883.1
			422	17135.42	13320.9
			423	4748.9	4222.45
		PYB Total		27711.58	22426.45
		PYJ	405	0	0
			406	0	0
			422	0	0
			423	0	0
		PYJ Total		0	0
		PYP	406	19057.76	14014.1
			422	60708.94	38229.9
			423	13965.07	10583.16
		PYP Total		93731.77	62827.16
		PYT	404	1676.98	3043.2
			406	183.9	317.6
			422	604.48	866.4
			423	174.9	283.78
		PYT Total		2640.26	4510.98
	ADMIN & GENL EXP - NI			179825.99	117184.26
921 Total				179825.99	117184.26
Grand Total				297139.81	220926.04

Acct. 711 O&M
2007
(Nonlabor Only)

Acct...	Dept	*Act #	*Loc #	*Ind #	Expense Category	*EE #	FY07 Act06-07$ RA	YTD Apr 08 Actual $	May-Dec 08 Update $	2008 Estimate
O&M	PS Svcs	711	PHE	NE	Other	462	$8,594	0	0	0
							$8,594	0	0	0
							$8,594	0	0	0
	PwrSup Eng	711	PHE	NE	Materials	201	$0	0	0	0
							$0	0	0	0
					Outside Svcs	501	$0	0	0	0
							$0	0	0	0
					Transportation	301	$0	0	0	0
							$0	0	0	0
			PPO	NE	Materials	201	0	0	$500	$500
							0	0	$500	$500
							$0	0	$500	$500
	Reg Affairs	711	PHE	NE	Materials	201	$0	0	0	0
						205	0	0	$1,000	$1,000
							$0	0	$1,000	$1,000
					Other	521	$0	0	0	0
						522	$130	0	0	0
							$130	0	0	0
					Outside Svcs	501	$0	0	0	0
						502	$19,773	$173	$12,000	$12,173
							$19,773	$173	$12,000	$12,173
							$19,903	$173	$13,000	$13,173
	Sys Plng	711	PHE	NE	Other	462	$0	0	0	0
							$0	0	0	0
			PPO	NE	Outside Svcs	501	0	0	$10,800	$10,800
							0	0	$10,800	$10,800
							$0	0	$10,800	$10,800
	Tech	711	PHE	NE	Other	520	$262	0	$0	$0
						521	$24	0	$0	$0
							$286	0	$0	$0
					Outside Svcs	501	$0	0	0	0
						506	0	0	$0	$0
							$0	0	$0	$0
							$286	0	$0	$0
							$282,591	$26,205	$350,869	$377,075
							$282,591	$26,205	$350,869	$377,075

Say 282.6 Say 26.2 Say 350.9 377.1

5/22/2008 Ensol: CSProcessAreas_O&M_Summary 11:10AM

IRP. O&M
2007/2008
Ad. 711

Acct...	Dept	*Act #	*Loc #	*Ind #	Expense Category	*EE #	FY07 Act06-07$ RA	YTD Apr 08 Actual $	May-Dec 08 Update $	2008 Estimate
O&M	Corp Comm	711	PHE	NE	Outside Svcs	501	$15,484	0	0	0
							$15,484	0	0	0
							$15,484	0	0	0
	CorpAudComp	711	PHE	NE	Other	522	$0	0	0	0
							$0	0	0	0
							$0	0	0	0
	Engy Svcs	711	PHE	NE	Outside Svcs	501	$66,564	0	0	0
							$66,564	0	0	0
				NS	Outside Svcs	502	0	$835	0	$835
							0	$835	0	$835
							$66,564	$835	0	$835
	Fcst&Res	711	P2E	NE	Other	521	0	0	$0	$0
							0	0	$0	$0
					Outside Svcs	501	$37,583	0	$39,400	$39,400
							$37,583	0	$39,400	$39,400
			PHE	NE	Materials	205	0	0	$200	$200
							0	0	$200	$200
					Other	462	0	$476	$870	$1,346
						520	0	0	$0	$0
						521	0	0	$300	$300
							0	$476	$1,170	$1,646
					Outside Svcs	501	$69,943	$2,154	$165,591	$167,745
							$69,943	$2,154	$165,591	$167,745
					Transportation	301	0	0	$83	$83
							0	0	$83	$83
							$107,526	$2,630	$206,443	$209,073
	InfoTech	711	PHE	NE	Other	451	$47,581	$16,210	$30,800	$47,010
							$47,581	$16,210	$30,800	$47,010
							$47,581	$16,210	$30,800	$47,010
	IRP	711	PHE	NE	Materials	201	$973	0	$0	$0
						205	$799	$132	$1,141	$1,273
							$1,772	$132	$1,141	$1,273
					Other	462	$0	0	$0	$0
						520	$21	$799	$2,706	$3,505
						521	$1,964	$183	$849	$1,032
						522	$0	0	$0	$0
							$1,986	$982	$3,555	$4,537
					Outside Svcs	501	$5,915	$3,443	$10,500	$13,943
						505	$0	0	0	0
						506	0	0	$74,039	$74,039
							$5,915	$3,443	$84,539	$87,982
					Transportation	301	$386	$17	$91	$108
							$386	$17	$91	$108
							$10,059	$4,573	$89,326	$93,899
	Legal	711	PHE	NE	Outside Svcs	502	$6,595	$1,785	0	$1,785
							$6,595	$1,785	0	$1,785
							$6,595	$1,785	0	$1,785

NONLABOR ONLY

Acct. 711 - O&M
(All Categories - 2007/2008)

5/22/2008 Ensol: CSProcessArea_O&M_Summary 11:17AM

Ac r...	*Act #	Expense Category	*Loc #	*Ind #	FY07 Act06-07$ RA	YTD Apr 08 Actual $	May-Dec 08 Update $	2008 Estimate
O&M	711	Labor	P2E	NE	$83,061	$20,384	$13,244	$33,628
			PDO	NE	0	0	$13,310	$13,310
			PHE	NE	$500,181	$118,307	$278,649	$396,956
				NS	$3,740	$490	$4,519	$5,010
					$586,982	$139,182	$309,722	$448,904
		Materials	PHE	NE	$1,772	$132	$2,341	$2,473
			PPO	NE	0	0	$500	$500
					$1,772	$132	$2,841	$2,973
		On-Costs	P2E	NE	$52,124	$13,190	$9,427	$22,617
			PDO	NE	0	0	$18,967	$18,967
			PHE	NE	$316,356	$75,265	$181,272	$256,537
				NS	$1,677	$283	$2,055	$2,338
			PPO	NE	0	0	$80	$80
					$370,157	$88,738	$211,801	$300,538
		Other	P2E	NE	0	0	$0	$0
			PHE	NE	$58,576	$17,667	$35,525	$53,192
					$58,576	$17,667	$35,525	$53,192
		Outside Svcs	P2E	NE	$37,583	0	$39,400	$39,400
			PHE	NE	$184,274	$7,555	$262,130	$269,685
				NS	0	$835	0	$835
			PPO	NE	0	0	$10,800	$10,800
					$221,857	$8,390	$312,330	$320,720
		Transportation	PHE	NE	$386	$17	$173	$191
					$386	$17	$173	$191
					$1,239,730	$254,125	$872,392	$1,126,517
					$1,239,730	$254,125	$872,392	$1,126,517
					$1,239,730	$254,125	$872,392	$1,126,517

Non-labor = Only 282,591 26,205 359,869 377,075

CA-IR-235

Ref: HECO-WP-1115 (PEZ Allocations of Information Technology Expenses).

Please provide the PEZ Model 04-30-08 RC.xls electronic file and every other available electronic spreadsheet file that is associated with test year information technology expense development or allocation or with HECO-WP-1115.

HECO Response:

The following electronic files which support the HECO-WP-1115 workpaper are being provided:

- excel file named "CA-IR-235 PEZ Model 04-30-08 RC.xls" (HECO-WP-1115, pages 1-14, 27-28, 30-40);
- excel file named "CA-IR-235 final 2009 workorder estimates.xls" (HECO-WP-1115, pages 41-154);
- excel file named "CA-IR-235 Non-labor 2009 workorder charge adjustments.xls" (HECO-WP-1115, pages 157-161).

There are other workpapers provided in HECO-WP-1115 which are not included in the above.

For example, printouts from the Pillar budgeting system (identified by footers indicating "RptsRA1-Mar08-ITS.CTL") are not available electronically.

CA-IR-236

Ref: HECO-1115, pages 2 and 3 (Information Technology).

For each line item of projected test year IT expense that contributes to the total of $17,365,616, please provide comparable actual expenses incurred in 2006, 2007 and year-to-date 2008 and explain each individually significant change in expense levels in the test year, relative to these recent years.

HECO Response:

Attachment 1 compares IT expenses for the 2009 test year with the expenses for the periods requested. Significant changes between the estimate for 2009 and actual expenses for 2007 were highlighted on HECO-1115, page 3, and at HECO-WP-1115, page 157. A complete list of all non-labor changes between the 2009 test year estimate and actual-2007 expenses by workorder are provided at HECO-WP-1115, pages 158 to 161. The increase in labor (Base Labor and Labor On-Cost) is primarily due to the addition of 3 developer analysts. See discussion at HECO T-11, page 50, line 17 to page 52, line 4 regarding the need for the additional developer analysts. The increase in non-labor charges are due to Outsourced Development Services consultant support (Other-Information Systems Consultants 461 – Development Services), and hardware and software maintenance to support UNIX platform (Outside Services-Infrastructure LAN Maintenance, Outside Services-Infrastructure LAN software Maintenance and Computer Security Analysis). Significant changes between the 2009 test year costs and actual 2006 costs are footnoted and described on page 3 of the Attachment.

Hawaiian Electric Company, Inc.
ITS costs
2009 Test Year

Charges to ITS Clearing Account

Item	Description of item	Amounts	2009 Fcst Subtotals	Jan-Aug 2008 Act Amounts	Jan-Aug 2008 Act Subtotals	2007 Act Amounts	2007 Act Subtotals		2006 Act Amounts	2006 Act Subtotals
Base Labor										
	Base Labor	4,883,582	**4,883,582**	3,291,173	**3,291,173**	4,446,069	**4,446,069**	A	4,650,258	**4,650,258**
Labor On-Cost	Labor On-cost related to Base Labor	3,262,233	**3,262,233**	2,316,010	**2,316,010**	3,162,501	**3,162,501**	A	3,074,135	**3,074,135**
Material										
Infrastructure LAN	LAN related components, storage tapes, cables	124,293		89,519		118,303			53,450	
Copiers/Printers/Fax	Paper and Printer Supplies (Toner, Fuser, Rollers, staples, maintenance kits)	142,522		94,621		141,943			141,725	
Data Center	Battery modules, Toner, Paper for Data Center Equipmer	30,918		21,751		29,428			42,797	
Dept Misc	Cell phone/pager equipment/services on Procard, office supplies	28,072		24,459		28,072			26,982	
Desktop Business	PC related components (Memory, disk drives, Surge protectors, laptop batteries, key boards, mice)	23,548		16,236		23,548			43,311	
Telecom/Com/Development	Telecom equipment components	21,495		8,752		18,366			8,113	
Total Materials			**370,848**		**255,338**		**359,660**			**316,378**
Other										
Information Systems Consultants (461)										
Development Services	Outsourced Development Services consulting for CIS, HRMS, Benefits System, DARS (reporting system), SQL Server, Oracle Database, Ebusiness Development support	1,955,800		1,013,608		1,192,166		B	760,405	
Mainframe	Outsourced Mainframe technical support	112,000		188,476		60,489			-	
Network Administration	Outsourced Network Security support	81,482		80,614		56,482			-	
Departmental miscellaneous	Other IT initiatives including SOX and organizational issu	97,900		27,875		104,095			220,673	
Total Information Systems Consulting (461)		2,247,182		1,310,573		1,413,232			981,078	
Software licenses (462)										
Infrastructure LAN	LAN software, including Microsoft Enterprise Agreement	134,095		39,060		128,223			59,390	
Desktop Business	Microsoft Enterprise Agreement software	69,243		175,271		69,243			109,221	
Data Center	CA Harvest Change Management software	60,187		-		60,187			-	
Other	Communication system and Development Services softw	52,279		13,831		305,401			140,701	
Total Software Licenses (462)		315,804		228,162		563,054			309,312	
Rents and Equipment Maintenance (570/600)										
Copiers/Printers/FAX	Lease and maintenance cost of XEROX Copiers/Printers	444,941		368,971		444,940		C	237,380	
Infrastructure LAN	Data Circuit monthly lease charges	240,011		155,606		228,445			225,400	
Telecom trunk/circuit charges	PBX trunks, backup Interisland circuits, long distance	196,705		157,193		157,894			127,751	
Data Center	Enterprise storage server and printer lease	65,498		38,580		64,657			74,559	
Total Rents and Equipment Maintenance (570/600)		947,155		720,350		895,936			665,090	
Travel (520/522)										
Mainland		19,289		21,092		20,641			21,127	
Interisland		12,519		-		160			358	
Total Travel (520/522)		31,808		21,092		20,801			21,485	
Total Other			**3,541,949**		**2,280,177**		**2,893,023**			**1,976,965**

CA-IR-236 Att. 1.xls

Hawaiian Electric Company, Inc.
ITS costs
2009 Test Year

Charges to ITS Clearing Account

Item	Description of item	Amounts	2009 Fcst Subtotals	Jan-Aug 2008 Act Amounts	Jan-Aug 2008 Act Subtotals	2007 Act Amounts	2007 Act Subtotals		2006 Act Amounts	2006 Act Subtotals
Outside Services										
Data Center SW Maintenance	Data Center Mainframe Software. Products include: IBM, MacKinney,Allen Systems Group, CA Harvest, Group 1, Computer Associates, Oracle.	709,010		602,763		854,010			798,400	
Infrastructure LAN Maint	Local Area Network and Storage Area Network Hardware maintenance. Products include: HP Smartnet, Aventail, Cisco, Scriptlogic.	655,470		339,975		602,292		D	472,066	
Infrastructure LAN SW Maint	Local Area Network and Unix Software maintenance. Products include: Microsoft, McAffee, NTP, Verisign, Hummingbird, Retina, NSI Doubletake, Websense, Evault, Centrify, HP	443,108		78,359		206,755		E	330,616	
Desktop Bus SW Maintenance	Desktop software maintenance. Products include: Microsoft, McAffee, Aeroprise	412,380		207,320		337,380			401,093	
Data Center OS Svc	Data Center Mainframe Hardware. Products include: IBM, InfoPrint Solutions, Rosetta, Symmetra	385,773		241,518		348,504		F	258,415	
Desktop Business OS Svc	Desktop outsourced support and maintenance. Vendors include: Haztech Environmental, BDI, Century Computers, Toshiba America.	342,466		240,369		342,435		G	220,111	
Desktop Technical SW Maint	Desktop software maintenance. Products include: Microsoft, Axiom, Bentley, Advantica, Intergraph, Intelligent Search.	241,744		131,536		241,744			247,923	
Development - SW Maint	Development Services software maintenance: IBM Websense, Weblogic, Quest Toad, Sybase, Camellia Software, Business Objects, Seagull Software	217,837		88,421		214,098			185,496	
Computer Security Analysis	Computer Security software. Products include: AT&T Intrusion Detection, Security Event and Information Management, Accuvant Vulnerability, Managed Penetration tool	216,100		46,800		6,122		H	-	
Telecom Equip Maint	Avaya telephone system equipment maintenance.	191,387		147,584		182,164			164,438	
Desktop Technical OS Svc	Desktop outsourced support and maintenance. Vendors include: Maintec, Bentley, IC Logic, Xerox, OCE North America, Ricoh	99,200		10,096		99,214			105,287	
HEI Internet Charges OS Svc	Internet charges and email protection services	84,300		61,993		84,341			77,682	
Interisland Circuit Charges	High Speed data circuit charges	70,051		12,069		70,051				
Department Miscellaneous	Gartner Research, Time Warner Roadrunner, Parking, WDI Movers, Water, Background information service	66,914		18,020		66,914			60,107	
Copiers/Printers/FAX	Printer and Copier maintenance. Vendors include: Maintec, Hawaii Business Equipment.	61,738		33,758		61,359			74,443	
Other	Travel, Training, Development, Long Distance, UTC membership	65,175		6,133		65,282			33,678	
Total Outside Services			**4,262,653**		**2,266,714**		**3,782,665**			**3,429,755**
Transportation	ITS Department pool car use	8,450	**8,450**	4,270	**4,270**	7,734	**7,734**		6,931	**6,931**
EFMS Program	Electric Facilities Management Systems Program entails implementing systems that improve work processes;	650,000	**650,000**	438,756	**438,756**	658,700	**658,700**	I	461,139	**461,139**

Hawaiian Electric Company, Inc.
ITS costs
2009 Test Year

Charges to ITS Clearing Account

Item	Description of item	2009 Fcst Amounts	2009 Fcst Subtotals	Jan-Aug 2008 Act Amounts	Jan-Aug 2008 Act Subtotals	2007 Act Amounts	2007 Act Subtotals	2006 Act Amounts	2006 Act Subtotals
	improve information management, including data access & sharing, system interfaces, and asset management; and make our personnel more efficient & effective Consist of several subprojects shown on Workpaper C-1								
EBus Program	EBusiness Program consists of our on-line services, including web page services and e-mail contact with customers, web and database application development and support to provide employees with the information and data jobs. Consist primarily of annual maintenance and support of the EBusiness platform. Cost components are shown on Workpaper C-2	364,000	**364,000**	172,435	**172,435**	293,077	**293,077**	326,787	**326,787**
Other Projects									
Collaborative Communications Program	Collaborative Communications program consist of teleconferencing and videoconferencing systems. These costs represent the non-capital cost components of maintaining these systems.	21,901	**21,901**	10,972	**10,972**	26,052	**26,052**	26,042	**26,042**
Total Charges to ITS Clearing Account			**17,365,616**		**11,035,845**		**15,629,481**		**14,268,390**

Significant 09 vs 06 variances:

A Increase primarily due to 3 additional Developer Analysts in 2009.

B Increase due primarily to Outsourced development services to support CIS and HR Suites in 2009 and additonal outsourced development services consulting expenses for other applications.

C Increase due to program to lease versus purchase Copiers/printers initiated in 2007.

D Increase due to hardware maintenance charges to support UNIX platform and outsourced LAN consulting.

E Increase due to software maintenance charges to support UNIX platform. Decrease in expense level in 2007 vs 2006 is due to timing of annual payments. Payments recorded in Jan and Dec of 2006.

F Increase due to high speed printer charges, battery replacements, cabling charges.

G Increase due to outsourced Desktop Analyst support charges.

H In 2009 this workorder includes security charges previously included in the Infrastructure Lan Maintenance workorder plus new Security Event and Information Management service.

I Outside services costs vary by year as different subprojects are undertaken in each year under the EFMS program.

CA-IR-237

Ref: HECO T-11, pages 19 to 21, & T-11 Response to CA-IR-2, Attachment 27 (Internal Audit Consulting Fees).

The 2009 forecast includes $750,000 for additional consulting fees to assist in conducting various audit activities previously performed by HECO's internal audit staff prior to 2004. Please provide the following:

a. Referring to Attachment 27 of the response of HECO T-11 to CA-IR-2, please explain how the $750,000 forecast estimate was determined.

b. Referring to Attachment 27 of the response of HECO T-11 to CA-IR-2, please explain why the Attachment 27 workpapers do not contain any documentation supporting the basis for or derivation of the $750,000 forecast amount.

c. Referring to page 21 of HECO T-11, please provide a copy of all additional workpapers, calculations, quote sheets, correspondence or other documentation from KMH LLP that was relied upon or otherwise prepared by HECO in quantifying the $750,000 forecast amount.

HECO Response:

a. The $750,000 forecast was determined based on the risk assessment and audit plan for the periods May 2008 through April 2009 (Year 1) and May 2009 through April 2010 (Year 2) as prepared by the Corporate Audit and Compliance Department ("CACD") and presented to HECO's Audit Committee in May 2008. From the two year audit plan, the $750,000 forecast represents the approximate cost of completing the proposed audit projects scheduled to occur between January and December 2009.

A risk assessment is a comprehensive annual exercise that CACD conducts in order to identify high risk areas present in the Company. The risk assessment is based on extensive interviews of Company executives and management, examination of relevant documentation and CACD's accumulated understanding of the Company's processes and procedures. After identifying high risk areas through the risk assessment process, CACD

then designs individual audits to address those high risk areas. It should be noted, however, that the audit plan is designed to be flexible in order to respond to changing risks and risk assessments, to be responsive to issues and concerns raised by the Audit Committee, and to adapt to the changing business environment during the year.

The proposed audit plan for the calendar year 2009 was included in the two year audit plan presented to the Audit Committee on May 2, 2008., It was estimated that the cost of conducting these audit projects through a co-source effort (use of external consultants) would be approximately $750,000. However, the exact hours and budgets required of each specific project were not individually approved by the Audit Committee at the May meeting. Instead, the Committee approved the nature and focus of the projects and will subsequently be provided with updates if and as changes to these projects are proposed by CACD. Currently, based on a more detailed assessment of the projects to be undertaken in 2009, the estimated time required for the projects, and the estimated cost based on the fees for KMH LLP, the total cost for outsourcing 11 proposed projects for 2009 is estimated as follows:

2009	**Project Name**	**Hours**	**Outsource rate per hour**	**Estimated Cost of Audit**
1		400	$ 150	$ 60,000
2		500	135	67,500
3		500	150	75,000
4		500	135	67,500
5		600	150	90,000
6		500	150	75,000
7		450	135	60,750
8		500	135	67,500
9		500	135	67,500
10		500	150	75,000
11		400	135	54,000
		5,350		**$ 759,750**

NOTE: The outsourced rate per hour for IT related audits is higher due to the need for specialty skills.

b. See response to part a.

c. HECO's contract with KMH LLP is included as Attachment 1 and states the rate per hour used in the above calculation of total costs for outsourcing the audit projects. The contract is confidential and will be provided under protective order.

Confidential Information Deleted
Pursuant To Protective Order, Filed on
_____.

Attachment 1 is confidential and will be provided

after a Protective Order is issued in this proceeding.

CA-IR-238

Ref: HECO T-11, pages 19 and 21, & T-11 Response to CA IR 2, Attachment 27 (Internal Audit Consulting Fees).

The 2009 forecast includes $750,000 for additional consulting fees to assist in conducting various audit activities previously performed by HECO's internal audit staff prior to 2004. The referenced testimony also states that, since that time, HECO's Internal Audit staff has spent significant resources on SOX compliance matters. Further, HECO T-11 indicates that use of KMH LLP will commence in the second half of 2008. Please provide the following:

a. Please provide further detail regarding the indicated shift in use of Internal Audit staff personnel from conducting internal audits pre-2005 to SOX compliance work post-2004, including some indication of the change in the number and complexity of internal audits.

b. Since the shift in Internal Audit staff activities post-2005 through the first half of 2008, please explain how HECO met its Internal Audit needs in the absence of the referenced arrangement with KMH LLP.

c. With regard to outsourcing internal audit and internalizing SOX compliance work, please provide comparable actual labor and non-labor expenses incurred in 2004 through 2007, year-to-date 2008, and 2009 test year forecast, explaining individually significant changes in test year expense levels relative to these recent years.

<u>HECO Response:</u>

a. 2004 was the first year of SOX compliance in which Internal Audit resources were utilized, resulting in the reallocation of staffing efforts from an audit focus to a SOX compliance focus. During subsequent years, employee headcount within Internal Audit remained relatively unchanged or, in some years, even decreased. Consequently, there has been a significant decrease in the number of audits and special projects completed by Internal Audit, as timing and resources have been redirected to SOX support. Please refer to Attachment 1 for a summary of the number of audits and special projects completed for the previous ten years. Furthermore, in recent years, in an effort to promote external audit reliance on SOX work performed by Internal Audit and to meet stringent SOX testing

deadlines, Internal Audit staff have been assigned primarily to SOX Compliance and IT reviews and consulting, resulting in limited completed audits and special projects/consulting since 2004.

b. Since the Internal Audit shift in staff activities post-2005 through the first half of 2008, in the absence of the co-sourced services of KMH LLP, non-SOX Internal Audit needs have been met with limited success. Although SOX Compliance is important and has become one of the primary focuses of Internal Audit in recent years, the number of completed risk-based audits has not been sufficient to adequately monitor and evaluate the operational, financial, and compliance risk of the company and to meet the goals and objectives outlined for Internal Audit by its charter. This has been recognized by management and the Audit Committee of the Board of Directors, which necessitated budgeting for co-sourced audit services in 2009. Unbudgeted co-sourced audit services are also being incurred in 2008.

c. Please refer to Attachment 2 for actual labor and non-labor expenses incurred in 2004 through 2007, year-to-date June 2008 and the 2009 test year. For SOX Compliance, consultants (outside services) were used as needed to supplement the Internal Audit staff in order to meet stringent SOX reporting deadlines and to adequately test internal controls. For Audits, Consulting, Special Projects and Administration, for the test year 2009, the 9,790 labor hours for HECO projects represents an increase over previous years, primarily reflecting full Internal Audit staffing in 2009 as compared to vacancies in prior years. Full staffing in 2009 includes administrative and managerial support for the department (previously vacant), as well as time for special projects and consulting with other company

departments, an area which has been neglected due to prior time-intensive commitments to SOX Compliance (as explained earlier).

Note that since June 2008, HECO has incurred expenses from KMH LLP for co-sourced audits of $187,000, and expect to incur additional expenses of $97,000 for co-sourced audits for the remainder of the year. HECO also incurred consulting fees for a special study, which result in expenses of $484,000 during the third quarter of 2008, and expect to incur an addition $70,000 related to that study in the fourth quarter of 2008. In addition, due to the vacancy of the IT Auditor position, HECO incurred KMH fees of $47,000 for SOX IT testing in the third quarter of 2008, and expect to incur an additional $32,000 in the fourth quarter of 2008.

Exhibit CA-IR-238-a

Year	Audits Completed - HECO	Audits Completed - HELCO/MECO	Special Projects & Consulting - HECO	Special Projects & Consulting - HELCO/MECO
YTD 2008	0	1	1	0
2007	1	0	0	0
2006	4 **	1 **	1	0
2005	1	0	5	0
2004	0	0	5	0
2003	11	1	11	0
2002	11	1	5	0
2001	8	1	5	1
2000	7	3	2	0
1999	3	2	1	0
1998	5	2	1	0
1997	4	2	2	3
Total	**55**	**14**	**39**	**4**

** While five audits were completed in 2006, four of these audits were started in 2005, when limited Internal Audit staff were devoted to audits.

Exhibit CA-IR-238-c

	Hours (rounded to the tens)						Dollars (rounded to the hundreds)					
	Actuals					Test year	Actuals					Test year
	2004	2005	2006	2007	YTD June 2008	2009	2004	2005	2006	2007	YTD June 2008	2009
SOX Compliance												
Labor and Overheads-HECO	9,610	7,860	6,440	5,020	1,320	5,500	351,900	307,800	306,900	223,200	53,300	253,000
Labor and Overheads-Billable	1,440	2,090	2,990	2,380	400	2,620	50,400	75,600	130,700	99,300	17,900	151,700
Sub-total Labor and Overheads	11,050	9,950	9,430	7,400	1,720	8,120	402,300	383,400	437,600	322,500	71,200	404,700
Outside Services-HECO							0	0	148,500	116,000	21,000	0
Outside Services-Billable							335,500	66,500	0	59,600	71,800	0
Total Outside Services							335,500	66,500	148,500	175,600	92,800	0
Other Non-labor-HECO							0	2,200	0	100	0	0
Other Non-labor-Billable							0	900	4,300	2,100	0	4,800
Total Other Non-labor							0	3,100	4,300	2,200	0	4,800
Total SOX Compliance							737,800	453,000	590,400	500,300	164,000	409,500
Audits, Consulting, Special Projects, and Administration												
Labor and Overheads-HECO	1,890	4,660	5,910	5,210	3,200	9,790	79,200	199,000	293,500	261,100	156,100	591,900
Labor and Overheads-Billable	340	560	1,500	840	1,415	3,680	13,400	21,600	64,800	41,700	68,400	209,700
Sub-total Labor and Overheads	2,230	5,220	7,410	6,050	4,615	13,470	92,600	220,600	358,300	302,800	224,500	801,600
Outside Services - HECO							0	0	0	0	0	750,000
Other Non-labor-HECO							3,600	28,300	4,000	12,700	2,000	18,400
Other Non-labor-Billable							400	1,800	1,100	300	1,400	3,200
Sub-total Other Non-labor							4,000	30,100	5,100	13,000	3,400	21,600
Total Audits, Consulting, and Special Projects							96,600	250,700	363,400	315,800	227,900	1,573,200
IT Consulting	0	0	550	1,950	590	900	0	0	30,300	110,300	32,600	50,300
Other Activities												
Other Activities-HECO	1,800	4,315	6,005	5,795	2,220	3,400	73,600	168,900	245,600	243,500	101,600	219,800
Other Activities-Billable	0	885	195	5	0	0	0	39300	9000	300	0	0
Sub-total Labor and Overheads	1,800	5,200	6,200	5,800	2,220	3,400	73,600	208,200	254,600	243,800	101,600	219,800
Grand Total	15,080	20,370	23,590	21,200	9,145	25,890	908,000	911,900	1,238,700	1,170,200	526,100	2,252,800

Note: "Billable" amounts noted above are intercompany charges billed to HELCO and MECO

CA-IR-239

Ref: HECO T-11, page 45 (Standard Labor Rates).

Please provide the spreadsheet file used to develop the rate case standard labor rates, including adjustments to reflect 2009 overtime hours.

HECO Response:

The following spreadsheet files used to develop the rate case standard labor rates, including adjustments to reflect 2009 overtime hours, are being provided:

- "CA-IR-239 CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls";
- "CA-IR-239 CA Interview 9.12.2008 - HECOPAYROLL2007$ by RA by Lbrclass (5.5.2008).xls";
- "CA-IR-239 CA Interview 9.12.2008 - 0505 ResLev09 2009 (5.5.2008).xls".

Excerpts of the information contained in these spreadsheets have been cross-referenced in Attachment 1 of this response.

CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls
To Budget 5.5.08

On-Cost Category	Labor Class	Labor Classes (description)	STAT	Rate to Apply to Prod. Hours	Rate to Apply to Non-prod. hours	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GE	BUOC	BU - Off & Clerical	BU	24.97	24.97	25.85	26.85	27.97	29.09	30.21	31.33	32.45	33.57	34.69	35.81	36.92
ED	BUOCB	BU - Off & Clerical (Bs)	BU	23.00	23.00	23.80	24.72	25.76	26.79	27.82	28.85	29.88	30.91	31.94	32.97	34.00
ED	BUOCED	BU - Off & Clerical (ED)	BU	23.49	23.49	24.31	25.25	26.31	27.37	28.42	29.47	30.52	31.57	32.63	33.68	34.73
PS	BUOCI	BU - Off & Clerical (Is)	BU	22.36	22.36	23.15	24.04	25.05	26.05	27.05	28.06	29.06	30.06	31.06	32.06	33.07
CE	BUOCW	BU - Off & Clerical (WA&WP)	BU	24.98	24.98	25.86	26.86	27.98	29.10	30.22	31.34	32.46	33.58	34.70	35.82	36.94
PS	BUOCY	BU - Off & Clerical YA,YC,YF,YG,YJ,YM	BU	22.29	22.29	23.07	23.96	24.96	25.96	26.96	27.96	28.96	29.95	30.95	31.95	32.95
GE	BUTC	BU - Trade & Crft	BU	30.08	30.08	31.13	32.33	33.69	35.04	36.38	37.73	39.08	40.43	41.77	43.12	44.47
ED	BUTCB	BU - Trade & Crft (Bs)	BU	30.08	30.08	31.13	32.33	33.69	35.04	36.38	37.73	39.08	40.43	41.77	43.12	44.47
ED	BUTCED	BU - Trade & Crft (ED)	BU	35.37	35.37	36.60	38.02	39.61	41.20	42.78	44.37	45.95	47.54	49.12	50.70	52.29
PS	BUTCI	BU - Trade & Crft (Is)	BU	34.04	34.04	35.23	36.59	38.13	39.65	41.18	42.70	44.23	45.75	47.28	48.80	50.33
CE	BUTCW	BU - Trade & Crft (WA&WP)	BU	30.08	30.08	31.13	32.33	33.69	35.04	36.38	37.73	39.08	40.43	41.77	43.12	44.47
PS	BUTCY	BU - Trade & Crft (YA,YC,YF,YG,YJ,YM)	BU	30.08	30.08	31.13	32.33	33.69	35.04	36.38	37.73	39.08	40.43	41.77	43.12	44.47
ED	TNDDFT	T&D Drafting	BU	34.61	34.61	35.83	37.21	38.77	40.32	41.87	43.42	44.97	46.53	48.08	49.63	51.18
ED	STRDFT	Structural Drafting	BU	31.25	31.25	32.35	33.60	35.00	36.41	37.81	39.21	40.61	42.01	43.41	44.81	46.21
ED	SUBDFT	Substation Drafting	BU	35.47	35.47	36.72	38.14	39.73	41.32	42.91	44.50	46.09	47.68	49.27	50.86	52.45
ED	SURVBU	Surveyor - BU	BU	28.82	28.82	29.83	30.98	32.28	33.57	34.86	36.16	37.45	38.74	40.03	41.32	42.61
ED	TECDFT	Tech Services Drafting	BU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ED	OHCREW	Overhead Crew	BU	36.68	36.68	37.96	39.43	41.08	42.73	44.37	46.02	47.66	49.30	50.95	52.59	54.23
ED	PTM	Switching (work)	BU	40.16	40.16	41.57	43.17	44.98	46.78	48.58	50.38	52.18	53.98	55.78	57.58	59.38
ED	UGCREW	Underground Crew	BU	39.24	39.24	40.61	42.18	43.95	45.71	47.47	49.23	50.99	52.74	54.50	56.26	58.02
PS	TVLBLR	Boiler Maint Tvl	BU	38.00	38.00	39.33	40.85	42.56	44.26	45.96	47.67	49.37	51.07	52.77	54.47	56.18
PS	TVLELC	Electrical Maint Tvl	BU	40.24	40.24	41.65	43.26	45.07	46.88	48.68	50.48	52.28	54.09	55.89	57.69	59.49
PS	TVLMCH	Machinist Maint Tvl	BU	40.34	40.34	41.75	43.36	45.18	46.99	48.80	50.61	52.41	54.22	56.03	57.83	59.64
PS	TVLTCH	Technical Maint Tvl	BU	42.16	42.16	43.63	45.32	47.22	49.11	51.00	52.89	54.78	56.66	58.55	60.44	62.33
PS	WPPMNT	Waiau Plant Maint	BU	38.14	38.14	39.48	41.00	42.72	44.43	46.14	47.85	49.56	51.27	52.98	54.69	56.40
PS	KPPMNT	Kah Plant Maint	BU	41.12	41.12	42.56	44.20	46.05	47.90	49.74	51.59	53.43	55.27	57.11	58.95	60.80
PS	HPPMNT	Honolulu Plant Maint	BU	36.32	36.32	37.60	39.05	40.68	42.31	43.94	45.57	47.20	48.82	50.45	52.08	53.71
GE	WHMAID	Water/Haz Mat Aide	BU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ED	COMELE	Comm. - Electrician	BU	34.46	34.46	35.66	37.04	38.59	40.14	41.68	43.23	44.77	46.31	47.86	49.40	50.94
ED	COMTEC	Comm. - Tech.	BU	34.46	34.46	35.66	37.04	38.59	40.14	41.68	43.23	44.77	46.31	47.86	49.40	50.94
ED	OPEDIS	Dispatch	BU	41.46	41.46	42.91	44.57	46.43	48.29	50.15	52.01	53.86	55.72	57.58	59.44	61.29
ED	ENGMAP	Mapping - Tech	BU	28.09	28.09	29.07	30.20	31.46	32.72	33.98	35.24	36.50	37.75	39.01	40.27	41.53
ED	INSCRW	Instrument - Tech	BU	34.58	34.58	35.80	37.18	38.73	40.29	41.84	43.39	44.94	46.49	48.03	49.58	51.13
ED	RELCRW	Relay - Tech/Elec	BU	35.29	35.29	36.52	37.93	39.52	41.11	42.69	44.27	45.86	47.43	49.01	50.59	52.17
ED	SUBCRW	Substation Crew	BU	35.83	35.83	37.08	38.52	40.13	41.74	43.34	44.95	46.55	48.16	49.76	51.37	52.98
ED	CONCRW	Construction - Crew	BU	40.28	40.28	41.69	43.30	45.11	46.92	48.73	50.53	52.34	54.14	55.94	57.75	59.55
GE	JPCORD	Joint Pole Coordinator	BU	29.57	29.57	30.61	31.79	33.12	34.45	35.77	37.10	38.42	39.75	41.07	42.40	43.72
GE	RESHER	Technical Researcher	BU	29.61	29.61	30.65	31.83	33.16	34.49	35.82	37.15	38.47	39.80	41.13	42.45	43.78
CE	CUPLNR	Customer Planner	BU	30.96	30.96	32.04	33.28	34.67	36.06	37.45	38.83	40.22	41.61	43.00	44.38	45.77
CE	DEPLNR	Design Planner	BU	36.12	36.12	37.38	38.83	40.45	42.07	43.69	45.31	46.93	48.55	50.16	51.78	53.40
CE	JRPLNR	Junior Customer Planner	BU	26.76	26.76	27.70	28.77	29.98	31.18	32.38	33.58	34.77	35.97	37.17	38.37	39.57
GE	MTELEC	Meter Electricians	BU	32.07	32.07	33.20	34.48	35.92	37.36	38.80	40.24	41.67	43.11	44.55	45.98	47.42
PS	PPDRAF	PP Drafting	BU	32.80	32.80	33.94	35.25	36.73	38.20	39.67	41.14	42.61	44.08	45.55	47.02	48.49
CE	JRDRFT	Junior Drafter	BU	21.78	21.78	22.54	23.41	24.39	25.37	26.35	27.32	28.30	29.28	30.25	31.23	32.20
GE	E	Enabler		54.07	54.07	57.82	60.11	62.82	65.65	68.60	71.69	74.91	78.28	81.81	85.49	89.33
ED	E-B	Enabler - (Bs)		51.46	51.46	54.83	57.20	59.78	62.47	65.28	68.22	71.29	74.49	77.85	81.35	85.01
ED	E-ED	Enabler - (ED)		57.76	57.76	61.55	64.22	67.11	70.13	73.28	76.58	80.03	83.63	87.39	91.32	95.43
PS	E-I	Enabler - (Is)		52.15	52.15	55.57	57.97	60.58	63.31	66.16	69.14	72.25	75.50	78.90	82.45	86.16
CE	E-W	Enabler - WA & WP		51.51	51.51	54.88	57.26	59.83	62.53	65.34	68.28	71.35	74.57	77.92	81.43	85.09
PS	E-Y	Enabler - (YA,YF,YG,YJ,YM)		65.00	65.00	69.26	72.26	75.51	78.91	82.46	86.17	90.05	94.10	98.34	102.76	107.38
GE	EXEC	Executives - Pres/VPs		108.28	108.28	115.38	120.38	125.80	131.46	137.37	143.55	150.01	156.76	163.82	171.19	178.89
GE	F	Facilitator		44.25	44.25	47.15	49.19	51.41	53.72	56.14	58.66	61.30	64.06	66.95	69.96	73.11
ED	F-B	Fac - (Bs)		44.25	44.25	47.15	49.19	51.41	53.72	56.14	58.66	61.30	64.06	66.95	69.96	73.11
ED	F-ED	Fac - (ED)		47.92	47.92	51.06	53.27	55.67	58.18	60.80	63.53	66.39	69.38	72.50	75.76	79.17
PS	F-I	Fac - (Is)		44.25	44.25	47.15	49.19	51.41	53.72	56.14	58.66	61.30	64.06	66.95	69.96	73.11
CE	F-W	Facilitator - WA & WP		44.25	44.25	47.15	49.19	51.41	53.72	56.14	58.66	61.30	64.06	66.95	69.96	73.11
PS	F-Y	Facilitator - (YA,YF,YG,YJ,YM)		44.25	44.25	47.15	49.19	51.41	53.72	56.14	58.66	61.30	64.06	66.95	69.96	73.11
GE	FS	Facilitator - Supv		39.84	39.84	42.45	44.29	46.28	48.36	50.54	52.81	55.19	57.67	60.27	62.98	65.81
ED	FS-B	Fac-Sup - (Bs)		39.98	39.98	42.60	44.45	46.45	48.54	50.72	53.01	55.39	57.89	60.49	63.21	66.06
ED	FS-ED	Fac-Sup - (ED)		47.46	47.46	50.57	52.76	55.14	57.62	60.21	62.92	65.75	68.71	71.81	75.04	78.41
PS	FS-I	Fac-Sup - (Is)		42.52	42.52	45.31	47.27	49.40	51.62	53.95	56.37	58.91	61.56	64.33	67.23	70.25
CE	FS-W	Facilitator - Supv WA & WP		45.31	45.31	48.27	50.37	52.63	55.00	57.48	60.06	62.76	65.59	68.54	71.62	74.85
PS	FS-Y	Fac-Sup - (YA,YF,YG,YJ,YM)		39.84	39.84	42.45	44.29	46.28	48.36	50.54	52.81	55.19	57.67	60.27	62.98	65.81
GE	I	Implementor		22.80	22.80	24.29	25.35	26.49	27.68	28.92	30.23	31.59	33.01	34.49	36.04	37.67
ED	I-B	Implementor - (Bs)		20.95	20.95	22.33	23.29	24.34	25.44	26.58	27.78	29.03	30.33	31.70	33.13	34.62
ED	I-ED	Implementor - (ED)		26.18	26.18	27.89	29.10	30.41	31.78	33.21	34.70	36.27	37.90	39.60	41.39	43.25
PS	I-I	Implementor - (Is)		22.18	22.18	23.64	24.66	25.77	26.93	28.14	29.41	30.73	32.12	33.56	35.07	36.65
CE	I-W	Implementor - WA & WP		19.15	19.15	20.40	21.29	22.24	23.24	24.29	25.38	26.53	27.72	28.97	30.27	31.63
PS	I-Y	Implementor - (YA,YF,YG,YJ,YM)		20.49	20.49	21.84	22.78	23.81	24.88	26.00	27.17	28.39	29.67	31.01	32.40	33.86
GE	TC	Teacher/Coach		31.22	31.22	33.26	34.70	36.26	37.90	39.60	41.38	43.25	45.19	47.23	49.35	51.57
ED	TC-B	Teacher/Coach - (Bs)		31.22	31.22	33.26	34.70	36.26	37.90	39.60	41.38	43.25	45.19	47.23	49.35	51.57
ED	TC-ED	Teacher/Coach - (ED)		30.37	30.37	32.36	33.76	35.28	36.86	38.52	40.26	42.07	43.96	45.94	48.01	50.17
PS	TC-I	Teacher/Coach - (Is)		35.23	35.23	37.54	39.16	40.93	42.77	44.69	46.70	48.80	51.00	53.30	55.69	58.20
CE	TC-W	Teacher/Coach - WA & WP		28.51	28.51	30.38	31.70	33.12	34.61	36.17	37.80	39.50	41.28	43.13	45.07	47.10
PS	TC-Y	Teacher/Coach - (YA,YF,YG,YJ,YM)		31.22	31.22	33.26	34.70	36.26	37.90	39.60	41.38	43.25	45.19	47.23	49.35	51.57
GE	TCS	Teacher/Coach - Supv		31.03	31.03	33.06	34.50	36.05	37.67	39.37	41.14	42.99	44.92	46.94	49.06	51.26
ED	TCS-B	Teacher/Coach - Supv - (Bs)		31.87	31.87	33.96	35.43	37.02	38.69	40.43	42.25	44.15	46.14	48.21	50.38	52.65
ED	TCS-ED	Teacher/Coach - Supv - (ED)		35.42	35.42	37.74	39.38	41.15	43.00	44.94	46.96	49.08	51.28	53.59	56.00	58.52
PS	TCS-I	Teacher/Coach - Supv - (Is)		40.84	40.84	43.52	45.41	47.45	49.58	51.81	54.15	56.58	59.13	61.79	64.57	67.48
CE	TCS-W	Teacher/Coach - Supv - WA & WP		25.49	25.49	27.16	28.34	29.62	30.95	32.34	33.80	35.32	36.91	38.57	40.30	42.12
PS	TCS-Y	Teacher/Coach - Supv -(YA,YF,YG,YJ,YM)		32.48	32.48	34.61	36.11	37.74	39.44	41.21	43.07	45.00	47.03	49.15	51.36	53.67
ED	TNDENG	T&D Engineering		32.36	32.36	34.48	35.97	37.59	39.28	41.05	42.90	44.83	46.85	48.95	51.16	53.46
ED	TRNPLN	Transmission Planning		38.49	38.49	41.01	42.79	44.71	46.73	48.83	51.03	53.32	55.72	58.23	60.85	63.59

CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls
To Budget 5.5.08

On-Cost Category	Labor Class	Labor Classes (description)	STAT	Rate to Apply to Prod. Hours	Rate to Apply to Non-prod. hours	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
ED	PRJMGT	Project Management		38.16	38.16	40.66	42.42	44.33	46.32	48.41	50.59	52.86	55.24	57.73	60.33	63.04
ED	PRJSUP	Project Support		31.36	31.36	33.42	34.87	36.43	38.07	39.79	41.58	43.45	45.40	47.45	49.58	51.81
ED	DISPLN	Distribution Planning		32.89	32.89	35.04	36.56	38.20	39.92	41.72	43.60	45.56	47.61	49.75	51.99	54.33
ED	STRENG	Civil Structural Engineering		36.00	36.00	38.36	40.02	41.82	43.70	45.67	47.73	49.87	52.12	54.46	56.91	59.48
ED	PROTEC	Protection		33.88	33.88	36.10	37.67	39.36	41.13	42.98	44.92	46.94	49.05	51.26	53.56	55.97
ED	SURVEY	Surveyor		32.98	32.98	35.14	36.67	38.32	40.04	41.84	43.73	45.69	47.75	49.90	52.14	54.49
ED	SSENG	Substation Engineering		32.48	32.48	34.61	36.11	37.74	39.44	41.21	43.07	45.00	47.03	49.15	51.36	53.67
ED	TECENG	Tech Services Engineering		37.74	37.74	40.21	41.95	43.84	45.81	47.88	50.03	52.28	54.63	57.09	59.66	62.35
PS	PPENGR	Power Plant Engineer		30.45	30.45	32.45	33.86	35.38	36.97	38.63	40.37	42.19	44.09	46.07	48.15	50.31
PS	PPPLAN	Project Coordinator		31.78	31.78	33.86	35.33	36.92	38.58	40.32	42.13	44.03	46.01	48.08	50.25	52.51
PS	PPSPVR	Supv - Plant Maint		38.22	38.22	40.72	42.49	44.40	46.39	48.48	50.66	52.94	55.33	57.82	60.42	63.14
PS	TVLSPV	Supv - Tvl Maint		39.02	39.02	41.57	43.38	45.33	47.37	49.50	51.73	54.05	56.49	59.03	61.68	64.46
GE	AIRSCI	Air/Noise Scientist		36.79	36.79	39.20	40.90	42.74	44.66	46.67	48.77	50.97	53.26	55.66	58.16	60.78
GE	AIRSPE	Air/Noise Specialist		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GE	CHEMST	Chemist		30.51	30.51	32.51	33.92	35.45	37.04	38.71	40.45	42.27	44.17	46.16	48.24	50.41
GE	WHMSCI	Water/Haz Mat Scientist		35.15	35.15	37.45	39.08	40.84	42.67	44.59	46.60	48.70	50.89	53.18	55.57	58.07
	POLICE	Police work		30.01	30.01	30.01	30.01	30.01	30.01	30.01	30.01	30.01	30.01	30.01	30.01	30.01
ED	TCENGR	Telecomm Engr		28.54	28.54	30.41	31.73	33.16	34.65	36.21	37.84	39.54	41.32	43.18	45.12	47.15
ED	TCSENG	Sr Telecomm Engr		43.46	43.46	46.31	48.31	50.49	52.76	55.13	57.62	60.21	62.92	65.75	68.71	71.80
ED	COMENG	Comm. - Engr		39.69	39.69	42.29	44.12	46.11	48.18	50.35	52.62	54.99	57.46	60.05	62.75	65.57
ED	COMSUP	Comm. - Supv		37.51	37.51	39.97	41.70	43.58	45.54	47.59	49.73	51.97	54.31	56.75	59.31	61.98
ED	OPESPT	Dispatch - Supt		44.17	44.17	47.07	49.11	51.32	53.63	56.04	58.56	61.20	63.95	66.83	69.83	72.98
ED	OPESTF	Dispatch - Staff		39.89	39.89	42.50	44.34	46.34	48.42	50.60	52.88	55.26	57.74	60.34	63.06	65.90
ED	OPESUP	Dispatch - Supv		39.50	39.50	42.08	43.91	45.88	47.95	50.11	52.36	54.72	57.18	59.75	62.44	65.25
ED	ENGSRE	EMS - Supv		43.19	43.19	46.02	48.01	50.17	52.43	54.79	57.25	59.83	62.52	65.34	68.28	71.35
ED	ENGSTF	EMS - Staff		28.87	28.87	30.76	32.10	33.54	35.05	36.63	38.28	40.00	41.80	43.68	45.65	47.70
ED	ENGSUP	Mapping - Supv		28.59	28.59	30.46	31.78	33.21	34.71	36.27	37.90	39.61	41.39	43.25	45.20	47.23
ED	INSENG	Instrument - Engr		38.82	38.82	41.37	43.16	45.10	47.13	49.25	51.47	53.78	56.20	58.73	61.38	64.14
ED	INSSUP	Instrument - Supv		39.52	39.52	42.11	43.94	45.92	47.98	50.14	52.40	54.76	57.22	59.80	62.49	65.30
ED	RELENG	Relay - Engr		42.65	42.65	45.44	47.41	49.55	51.78	54.11	56.54	59.09	61.74	64.52	67.43	70.46
ED	RELSUP	Relay - Supv		36.74	36.74	39.15	40.85	42.68	44.60	46.61	48.71	50.90	53.19	55.59	58.09	60.70
ED	TECSPT	Tech - Supt		51.45	51.45	54.82	57.19	59.77	62.46	65.27	68.20	71.27	74.48	77.83	81.33	84.99
ED	SUBENG	Substation - Engr		38.58	38.58	41.11	42.89	44.82	46.83	48.94	51.14	53.44	55.85	58.36	60.99	63.73
ED	SUBPLN	Substation - Plnr		36.75	36.75	39.16	40.85	42.69	44.61	46.62	48.72	50.91	53.20	55.60	58.10	60.71
ED	SUBSUP	Substation - Supv		36.07	36.07	38.43	40.10	41.90	43.79	45.76	47.82	49.97	52.22	54.57	57.02	59.59
ED	CONSUP	Construction - Supv		39.29	39.29	41.86	43.68	45.64	47.70	49.85	52.09	54.43	56.88	59.44	62.12	64.91
GE	EXEC2	Executives - Other		59.69	59.69	63.60	66.35	69.34	72.46	75.72	79.13	82.69	86.41	90.30	94.36	98.61
CE	CUENGR	Customer Engineer		36.40	36.40	38.79	40.47	42.29	44.19	46.18	48.26	50.43	52.70	55.07	57.55	60.14
CE	PDSUPV	Planning Supv		38.08	38.08	40.57	42.33	44.24	46.23	48.31	50.48	52.75	55.13	57.61	60.20	62.91
GE	MTENGR	Meter Engineers		33.51	33.51	35.71	37.25	38.93	40.68	42.51	44.43	46.42	48.51	50.70	52.98	55.36
GE	MTSUPV	Meter Supv.		36.04	36.04	38.40	40.06	41.87	43.75	45.72	47.78	49.93	52.17	54.52	56.98	59.54
GE	GENPLN	Generation Plng Engineer		37.25	37.25	39.69	41.41	43.27	45.22	47.26	49.38	51.61	53.93	56.35	58.89	61.54
PS	PPELEC	PP Electrical Engineer		29.72	29.72	31.67	33.04	34.53	36.08	37.71	39.40	41.18	43.03	44.97	46.99	49.10
PS	PPPROJ	PP Project Management		39.86	39.86	42.47	44.31	46.30	48.39	50.56	52.84	55.22	57.70	60.30	63.01	65.85
PS	PPMECH	PP Mechanical Engineer		33.61	33.61	35.81	37.36	39.04	40.80	42.64	44.55	46.56	48.65	50.84	53.13	55.52
PS	TECHSV	PP Technical Services		37.13	37.13	39.57	41.28	43.14	45.08	47.11	49.23	51.44	53.76	56.18	58.70	61.35
GE	IRP	IRP Engineer		34.85	37.13	38.74	40.48	42.31	44.21	46.20	48.28	50.45	52.72	55.09	57.57
GS	SUMMER	Summer Hire		14.75	14.75	14.75	14.75	14.75	14.75	14.75	14.75	14.75	14.75	14.75	14.75	14.75

CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls Calc of Std Lbr Rate

copy of summ by lbrclass tab

	Data		2007 calc		2007	2009	2009	0.9887 2009	2009	2009
LAB_COST_CL_L	Sum of Hours	Sum of Amount	actual rate		Average OT	Average OT	adj hours	BU OT adj	adj rate	rev rate
AIRSCI	9,327.50	351,328.65	37.67	AIRSCI	1.06	1.06	9,323.11	0.0000	37.68	36.79
BUOC	259,393.87	6,551,078.15	25.26	BUOC	1.00	1.00	259,393.87	0.0113	24.97	24.97
BUOCB	13,998.58	325,617.71	23.26	BUOCB	1.00	1.00	13,998.58	0.0113	23.00	23.00
BUOCED	15,708.00	373,254.77	23.76	BUOCED	1.00	1.00	15,708.00	0.0113	23.49	23.49
BUOCI	8,963.42	202,750.96	22.62	BUOCI	1.00	1.00	8,963.42	0.0113	22.36	22.36
BUOCW	10,651.08	269,175.67	25.27	BUOCW	1.00	1.00	10,651.08	0.0113	24.98	24.98
BUOCY	3,860.00	87,011.68	22.54	BUOCY	1.00	1.00	3,860.00	0.0113	22.29	22.29
BUTC	114,797.84	3,492,177.19	30.42	BUTC	1.00	1.00	114,797.84	0.0113	30.08	30.08
BUTCED	21,354.00	763,761.31	35.77	BUTCED	1.00	1.00	21,354.00	0.0113	35.37	35.37
BUTCI	254,619.15	8,765,291.06	34.43	BUTCI	1.00	1.00	254,619.15	0.0113	34.04	34.04
CHEMST	11,061.50	345,513.45	31.24	CHEMST	1.06	1.06	11,056.29	0.0000	31.25	30.51
COMELE	11,397.00	397,171.30	34.85	COMELE	1.00	1.00	11,397.00	0.0113	34.46	34.46
COMENG	1,976.50	80,312.27	40.63	COMENG	1.06	1.06	1,975.57	0.0000	40.65	39.69
COMSUP	1,970.00	75,642.16	38.40	COMSUP	1.06	1.06	1,969.07	0.0000	38.42	37.51
CONCRW	4,293.00	174,878.67	40.74	CONCRW	1.00	1.00	4,293.00	0.0113	40.28	40.28
CONSUP	1,829.25	73,579.86	40.22	CONSUP	1.06	1.06	1,828.39	0.0000	40.24	39.29
CUENGR	8,964.50	334,006.32	37.26	CUENGR	1.06	1.06	8,960.28	0.0000	37.28	36.40
CUPLNR	6,110.25	191,340.22	31.31	CUPLNR	1.00	1.00	6,110.25	0.0113	30.96	30.96
DEPLNR	6,027.83	220,183.20	36.53	DEPLNR	1.00	1.00	6,027.83	0.0113	36.12	36.12
DISPLN	10,463.75	352,227.65	33.66	DISPLN	1.06	1.06	10,458.82	0.0000	33.68	32.89
E	25,288.75	1,325,617.94	52.42	E	1.10	1.04	23,936.41	0.0000	55.38	54.07
E-B	1,969.50	98,236.18	49.88	E-B	1.10	1.04	1,864.18	0.0000	52.70	51.46
E-ED	3,855.75	215,898.48	55.99	E-ED	1.10	1.04	3,649.56	0.0000	59.16	57.76
E-I	8,793.50	444,568.93	50.56	E-I	1.10	1.04	8,323.26	0.0000	53.41	52.15
ENGMAP	7,296.00	207,270.55	28.41	ENGMAP	1.00	1.00	7,296.00	0.0113	28.09	28.09
ENGSRE	1,935.50	85,561.79	44.21	ENGSRE	1.06	1.06	1,934.59	0.0000	44.23	43.19
ENGSTF	11,970.50	353,770.58	29.55	ENGSTF	1.06	1.06	11,964.86	0.0000	29.57	28.87
ENGSUP	2,030.75	59,432.49	29.27	ENGSUP	1.06	1.06	2,029.79	0.0000	29.28	28.59
E-W	2,051.00	102,395.01	49.92	E-W	1.10	1.04	1,941.32	0.0000	52.75	51.51
EXEC	25,322.00	2,639,161.67	104.22	EXEC	1.17	1.10	23,798.27	0.0000	110.90	108.28
EXEC2	6,735.75	386,967.14	57.45	EXEC2	1.17	1.10	6,330.43	0.0000	61.13	59.69
E-Y	1,804.00	113,675.17	63.01	E-Y	1.10	1.04	1,707.53	0.0000	66.57	65.00
F	27,657.00	1,252,832.26	45.30	F	1.06	1.06	27,643.97	0.0000	45.32	44.25
F-ED	1,715.75	84,163.77	49.05	F-ED	1.06	1.06	1,714.94	0.0000	49.08	47.92
FS	72,608.96	2,960,848.42	40.78	FS	1.06	1.06	72,574.76	0.0000	40.80	39.84
FS-B	11,638.00	476,367.31	40.93	FS-B	1.06	1.06	11,632.52	0.0000	40.95	39.98
FS-ED	3,695.50	179,562.97	48.59	FS-ED	1.06	1.06	3,693.76	0.0000	48.61	47.46
FS-I	13,179.00	573,722.40	43.53	FS-I	1.06	1.06	13,172.79	0.0000	43.55	42.52
FS-W	1,873.00	86,873.94	46.38	FS-W	1.06	1.06	1,872.12	0.0000	46.40	45.31
GENPLN	15,795.00	602,335.25	38.13	GENPLN	1.06	1.06	15,787.56	0.0000	38.15	37.25
HPPMNT	17,370.00	638,222.87	36.74	HPPMNT	1.00	1.00	17,370.00	0.0113	36.32	36.32
I	115,350.46	2,693,325.78	23.35	I	1.00	1.00	115,350.46	0.0000	23.35	22.80
I-B	4,430.00	95,085.86	21.46	I-B	1.00	1.00	4,430.00	0.0000	21.46	20.95
I-ED	5,373.00	144,025.16	26.81	I-ED	1.00	1.00	5,373.00	0.0000	26.81	26.18
I-I	9,129.75	207,450.74	22.72	I-I	1.00	1.00	9,129.75	0.0000	22.72	22.18
INSCRW	11,989.50	419,384.57	34.98	INSCRW	1.00	1.00	11,989.50	0.0113	34.58	34.58
INSENG	3,726.50	148,092.81	39.74	INSENG	1.06	1.06	3,724.74	0.0000	39.76	38.82
INSSUP	2,024.00	81,693.51	40.46	INSSUP	1.06	1.06	2,023.05	0.0000	40.48	39.52
IRP	6,433.33	229,495.60	35.67	IRP	1.06	1.06	6,430.30	0.0000	35.69	34.85
I-W	1,848.00	36,244.24	19.61	I-W	1.00	1.00	1,848.00	0.0000	19.61	19.15
I-Y	1,852.00	38,872.21	20.99	I-Y	1.00	1.00	1,852.00	0.0000	20.99	20.49
JPCORD	1,852.00	55,387.46	29.91	JPCORD	1.00	1.00	1,852.00	0.0113	29.57	29.57
JRDRFT	1,143.33	25,185.06	22.03	JRDRFT	1.00	1.00	1,143.33	0.0113	21.78	21.78
JRPLNR	8,516.84	230,538.39	27.07	JRPLNR	1.00	1.00	8,516.84	0.0113	26.76	26.76
KPPMNT	56,240.00	2,339,014.50	41.59	KPPMNT	1.00	1.00	56,240.00	0.0113	41.12	41.12
MTELEC	16,862.94	547,072.90	32.44	MTELEC	1.00	1.00	16,862.94	0.0113	32.07	32.07
MTENGR	2,472.00	84,801.76	34.30	MTENGR	1.06	1.06	2,470.84	0.0000	34.32	33.51
MTSUPV	1,676.00	61,832.07	36.89	MTSUPV	1.06	1.06	1,675.21	0.0000	36.91	36.04
OHCREW	244,642.22	9,075,512.08	37.10	OHCREW	1.00	1.00	244,642.22	0.0113	36.68	36.68
OPEDIS	25,191.68	1,056,385.40	41.93	OPEDIS	1.00	1.00	25,191.68	0.0113	41.46	41.46
OPESPT	1,896.50	85,748.73	45.21	OPESPT	1.06	1.06	1,895.61	0.0000	45.24	44.17
OPESTF	9,284.08	379,102.63	40.83	OPESTF	1.06	1.06	9,279.71	0.0000	40.85	39.89
OPESUP	13,198.58	533,642.89	40.43	OPESUP	1.06	1.06	13,192.37	0.0000	40.45	39.50
PDSUPV	3,803.50	148,260.13	38.98	PDSUPV	1.06	1.06	3,801.71	0.0000	39.00	38.08
POLICE	7,818.67	234,661.64	30.01	POLICE	1.00	1.00	7,818.67	0.0000	30.01	30.01
PPDRAF	4,137.25	137,244.63	33.17	PPDRAF	1.00	1.00	4,137.25	0.0113	32.80	32.80
PPELEC	20,459.00	622,524.71	30.43	PPELEC	1.06	1.06	20,449.36	0.0000	30.44	29.72
PPENGR	28,966.75	902,914.43	31.17	PPENGR	1.06	1.06	28,953.10	0.0000	31.19	30.45
PPMECH	23,284.17	800,971.58	34.40	PPMECH	1.06	1.06	23,273.20	0.0000	34.42	33.61

CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls Calc of Std Lbr Rate

copy of summ by lbrclass tab

	Data		2007 calc		2007	2009	2009	2009	2009	2009
LAB_COST_CL_L	Sum of Hours	Sum of Amount	actual rate		Average OT	Average OT	adj hours	BU OT adj	adj rate	rev rate
PPPLAN	5,241.25	170,548.29	32.54	PPPLAN	1.06	1.06	5,238.78	0.0000	32.55	31.78
PPPROJ	9,904.92	404,085.66	40.80	PPPROJ	1.06	1.06	9,900.25	0.0000	40.82	39.86
PPSPVR	11,641.75	455,448.32	39.12	PPSPVR	1.06	1.06	11,636.27	0.0000	39.14	38.22
PRJMGT	7,206.00	281,508.27	39.07	PRJMGT	1.06	1.06	7,202.61	0.0000	39.08	38.16
PRJSUP	3,560.75	114,307.24	32.10	PRJSUP	1.06	1.06	3,559.07	0.0000	32.12	31.36
PROTEC	6,398.50	221,954.60	34.69	PROTEC	1.06	1.06	6,395.49	0.0000	34.70	33.88
PTM	44,364.50	1,802,051.99	40.62	PTM	1.00	1.00	44,364.50	0.0113	40.16	40.16
RELCRW	11,704.50	417,712.78	35.69	RELCRW	1.00	1.00	11,704.50	0.0113	35.29	35.29
RELENG	3,868.00	168,859.08	43.66	RELENG	1.06	1.06	3,866.18	0.0000	43.68	42.65
RELSUP	1,817.50	68,353.06	37.61	RELSUP	1.06	1.06	1,816.64	0.0000	37.63	36.74
RESHER	4,002.17	119,847.74	29.95	RESHER	1.00	1.00	4,002.17	0.0113	29.61	29.61
SSENG	15,190.83	505,209.58	33.26	SSENG	1.06	1.06	15,183.68	0.0000	33.27	32.48
STRDFT	3,754.00	118,676.50	31.61	STRDFT	1.00	1.00	3,754.00	0.0113	31.25	31.25
STRENG	14,085.50	519,097.18	36.85	STRENG	1.06	1.06	14,078.86	0.0000	36.87	36.00
SUBCRW	62,447.40	2,262,837.80	36.24	SUBCRW	1.00	1.00	62,447.40	0.0113	35.83	35.83
SUBDFT	4,116.00	147,693.31	35.88	SUBDFT	1.00	1.00	4,116.00	0.0113	35.47	35.47
SUBENG	1,851.00	73,091.70	39.49	SUBENG	1.06	1.06	1,850.13	0.0000	39.51	38.58
SUBSUP	4,686.58	173,017.72	36.92	SUBSUP	1.06	1.06	4,684.38	0.0000	36.94	36.07
SUMMER	16,235.42	240,413.82	14.81	SUMMER	1.00	1.00	16,235.42	0.0000	14.81	14.81
SURVBU	3,605.50	105,116.60	29.15	SURVBU	1.00	1.00	3,605.50	0.0113	28.82	28.82
SURVEY	7,353.25	248,290.58	33.77	SURVEY	1.06	1.06	7,349.79	0.0000	33.78	32.98
TC	428,993.72	13,707,862.16	31.95	TC	1.06	1.06	428,791.64	0.0000	31.97	31.22
TC-ED	21,739.33	675,722.13	31.08	TC-ED	1.06	1.06	21,729.09	0.0000	31.10	30.37
TCENGR	8,987.00	262,554.61	29.21	TCENGR	1.06	1.06	8,982.77	0.0000	29.23	28.54
TC-I	18,930.67	682,716.29	36.06	TC-I	1.06	1.06	18,921.75	0.0000	36.08	35.23
TCS	35,108.25	1,115,169.84	31.76	TCS	1.06	1.06	35,091.71	0.0000	31.78	31.03
TCS-B	1,764.50	57,573.25	32.63	TCS-B	1.06	1.06	1,763.67	0.0000	32.64	31.87
TCS-ED	37,392.55	1,356,097.60	36.27	TCS-ED	1.06	1.06	37,374.94	0.0000	36.28	35.42
TCSENG	1,822.00	81,058.11	44.49	TCSENG	1.06	1.06	1,821.14	0.0000	44.51	43.46
TCS-I	57,675.92	2,202,579.40	38.19	TCS-I	1.16	1.06	52,653.31	0.0000	41.83	40.84
TCS-W	2,501.00	65,262.08	26.09	TCS-W	1.06	1.06	2,499.82	0.0000	26.11	25.49
TCS-Y	1,801.00	59,894.95	33.26	TCS-Y	1.06	1.06	1,800.15	0.0000	33.27	32.48
TC-W	5,566.50	162,491.63	29.19	TC-W	1.06	1.06	5,563.88	0.0000	29.20	28.51
TECENG	9,530.50	368,204.01	38.63	TECENG	1.06	1.06	9,526.01	0.0000	38.65	37.74
TECHSV	16,332.75	620,864.60	38.01	TECHSV	1.06	1.06	16,325.06	0.0000	38.03	37.13
TECSPT	2,022.00	106,484.58	52.66	TECSPT	1.06	1.06	2,021.05	0.0000	52.69	51.45
TNDDFT	4,141.00	144,984.55	35.01	TNDDFT	1.00	1.00	4,141.00	0.0113	34.61	34.61
TNDENG	22,704.00	752,114.84	33.13	TNDENG	1.06	1.06	22,693.31	0.0000	33.14	32.36
TRNPLN	11,189.75	440,872.87	39.40	TRNPLN	1.06	1.06	11,184.48	0.0000	39.42	38.49
TVLBLR	77,096.75	2,962,985.33	38.43	TVLBLR	1.00	1.00	77,096.75	0.0113	38.00	38.00
TVLELC	26,177.50	1,065,473.33	40.70	TVLELC	1.00	1.00	26,177.50	0.0113	40.24	40.24
TVLMCH	28,062.00	1,144,815.36	40.80	TVLMCH	1.00	1.00	28,062.00	0.0113	40.34	40.34
TVLSPV	9,194.00	367,252.71	39.94	TVLSPV	1.06	1.06	9,189.67	0.0000	39.96	39.02
TVLTCH	18,708.50	797,669.06	42.64	TVLTCH	1.00	1.00	18,708.50	0.0113	42.16	42.16
UGCREW	67,112.73	2,663,517.64	39.69	UGCREW	1.00	1.00	67,112.73	0.0113	39.24	39.24
WHMSCI	14,204.32	511,098.68	35.98	WHMSCI	1.06	1.06	14,197.63	0.0000	36.00	35.15
WPPMNT	57,562.92	2,220,808.12	38.58	WPPMNT	1.00	1.00	57,562.92	0.0113	38.14	38.14
Grand Total	2,904,310.76	100,942,708.39		Grand Total						

HECO
Estimated Wage Increase for BU Merit Employees
Worksheet Name: CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls

Standard labor rate wage rate increase assumptions

BU wage rate increase assumption per email from Teri Kam on 3/7/2008.
BU increases assumes noncompounding. Merit Wage rate increase assumption per email from Miki Furuta-Okayama on 5/5/2008.

	BU increase	Merit increase
2007	3.5% eff. Nov (used 0% eff Nov)*	3.50% eff. May 0.25% eff. Sep 0.25% eff. Nov (used 0% eff Nov)*
2008	0.0% eff. Jan (used 3.5% eff Jan)*	(used 0.25% eff. Jan)* 3.50% eff. May 0.30% eff. Sep 0.20% eff. Dec
2009	4.0% eff. Jan	4.00% eff. May 0.30% eff. Sep 0.20% eff. Dec
2010	4.5% eff. Jan	4.00% eff. May 0.30% eff. Sep 0.20% eff. Dec
2011	4.0% eff. Jan	4.00% eff. May 0.30% eff. Sep 0.20% eff. Dec
2012	4.0% eff. Jan	4.00% eff. May 0.30% eff. Sep 0.20% eff. Dec
2013	4.0% eff. Jan	4.00% eff. May 0.30% eff. Sep 0.20% eff. Dec
2014	4.0% eff. Jan	4.00% eff. May 0.30% eff. Sep 0.20% eff. Dec
2015	4.0% eff. Jan	4.00% eff. May 0.30% eff. Sep 0.20% eff. Dec
2016	4.0% eff. Jan	4.00% eff. May 0.30% eff. Sep 0.20% eff. Dec
2017	4.0% eff. Jan	4.00% eff. May 0.30% eff. Sep 0.20% eff. Dec
2018	4.0% eff. Jan	4.00% eff. May 0.30% eff. Sep 0.20% eff. Dec

Extended assumptions from 2014 to 2018

** Percentage increase shifted to 1/1/2008 - respective employees were retroactively paid in 2008.*

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HECO
Estimated Wage Increase for BU Merit Employees
Worksheet Name: CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls

Bargaining Unit	Base yr 2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Jan	1.0000	1.0350	1.0750	1.1200	1.1649	1.2097	1.2545	1.2993	1.3441	1.3889	1.4337	1.4785
Feb	1.0000	1.0350	1.0750	1.1200	1.1649	1.2097	1.2545	1.2993	1.3441	1.3889	1.4337	1.4785
Mar	1.0000	1.0350	1.0750	1.1200	1.1649	1.2097	1.2545	1.2993	1.3441	1.3889	1.4337	1.4785
Apr	1.0000	1.0350	1.0750	1.1200	1.1649	1.2097	1.2545	1.2993	1.3441	1.3889	1.4337	1.4785
May	1.0000	1.0350	1.0750	1.1200	1.1649	1.2097	1.2545	1.2993	1.3441	1.3889	1.4337	1.4785
Jun	1.0000	1.0350	1.0750	1.1200	1.1649	1.2097	1.2545	1.2993	1.3441	1.3889	1.4337	1.4785
Jul	1.0000	1.0350	1.0750	1.1200	1.1649	1.2097	1.2545	1.2993	1.3441	1.3889	1.4337	1.4785
Aug	1.0000	1.0350	1.0750	1.1200	1.1649	1.2097	1.2545	1.2993	1.3441	1.3889	1.4337	1.4785
Sep	1.0000	1.0350	1.0750	1.1200	1.1649	1.2097	1.2545	1.2993	1.3441	1.3889	1.4337	1.4785
Oct	1.0000	1.0350	1.0750	1.1200	1.1649	1.2097	1.2545	1.2993	1.3441	1.3889	1.4337	1.4785
Nov	1.0000	1.0350	1.0750	1.1200	1.1649	1.2097	1.2545	1.2993	1.3441	1.3889	1.4337	1.4785
Dec	1.0000	1.0350	1.0750	1.1200	1.1649	1.2097	1.2545	1.2993	1.3441	1.3889	1.4337	1.4785
Weighted avg. increase	1.000	1.035	1.075	1.120	1.165	1.210	1.255	1.299	1.344	1.389	1.434	1.479
% increase from prior year		3.5%	3.9%	4.2%	4.0%	3.8%	3.7%	3.6%	3.4%	3.3%	3.2%	3.1%

Merit Employees	Base yr 2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Jan	1.0000	1.0401	1.0816	1.1303	1.1811	1.2343	1.2898	1.3479	1.4085	1.4719	1.5381	1.6074
Feb	1.0000	1.0401	1.0816	1.1303	1.1811	1.2343	1.2898	1.3479	1.4085	1.4719	1.5381	1.6074
Mar	1.0000	1.0401	1.0816	1.1303	1.1811	1.2343	1.2898	1.3479	1.4085	1.4719	1.5381	1.6074
Apr	1.0000	1.0401	1.0816	1.1303	1.1811	1.2343	1.2898	1.3479	1.4085	1.4719	1.5381	1.6074
May	1.0350	1.0764	1.1249	1.1755	1.2284	1.2836	1.3414	1.4018	1.4649	1.5308	1.5997	1.6716
Jun	1.0350	1.0764	1.1249	1.1755	1.2284	1.2836	1.3414	1.4018	1.4649	1.5308	1.5997	1.6716
Jul	1.0350	1.0764	1.1249	1.1755	1.2284	1.2836	1.3414	1.4018	1.4649	1.5308	1.5997	1.6716
Aug	1.0350	1.0764	1.1249	1.1755	1.2284	1.2836	1.3414	1.4018	1.4649	1.5308	1.5997	1.6716
Sep	1.0375	1.0795	1.1281	1.1789	1.2319	1.2874	1.3453	1.4058	1.4691	1.5352	1.6043	1.6765
Oct	1.0375	1.0795	1.1281	1.1789	1.2319	1.2874	1.3453	1.4058	1.4691	1.5352	1.6043	1.6765
Nov	1.0375	1.0795	1.1281	1.1789	1.2319	1.2874	1.3453	1.4058	1.4691	1.5352	1.6043	1.6765
Dec	1.0375	1.0816	1.1303	1.1811	1.2343	1.2898	1.3479	1.4085	1.4719	1.5381	1.6074	1.6797
Weighted avg. increase	1.024	1.066	1.112	1.162	1.214	1.269	1.326	1.385	1.448	1.513	1.581	1.652
% increase from prior year		4.04%	4.33%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%

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Prepared by: CORY reviewed & approved Dated:

Approved by: Dated:

* Wage assumptions base year applied to 2018 "2007 [illegible]"
* 2008-2018 applied to 1.1 & 1.2 "2008" – "2018".

Note: 2007-2009 agree to HECO 1109

CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls
Lookuptable OT

		2009 from ResLev file			2007 recorded	
z		1.00	mme	E	(5.1)	1.10
bu		1.00	eme	EXEC		1.17
eme	(0.1)	1.10	nmme	MERIT		1.06
mme		1.04	bu	--		1.00
nmme		1.06	z	--		1.00
				TCS-I	(5.1)	1.16

		2009	from HECOPAYROLL file
bu	(7.1)	0.0113	0.0113
eme		0.00	
mme		0.00	
nmme		0.00	
z		0.00	

* All rates applied on 2.1 & 2.2

CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls
2007 Merit OT (corrected Merit)

pivot copy; "Standard labor rate actual $$ a" tab

ClsType	Merit

			150 prod hrs	150 prod hrs from Transfer	Nonprod hrs from msf835	Ttl prod + nonprod hrs	Total avail hrs		
			A	B	C	D = A+B+C	E	F = D / E	Notes
	Sum of hours								
Class type	LAB_COS	EMPLOYEE_ID_L	Total						
MERIT	F	0000009396	2,197.50		310.00	2,507.50	2,088.00	1.20	
MERIT	F	0000020237	1,860.75		329.50	2,190.25	2,088.00	1.05	
MERIT	F	0000020407	2,424.50		288.50	2,713.00	2,088.00	1.30	
MERIT	F	0000020686	975.00						transfer to FS
MERIT	F	0000020812	1,787.50		312.00	2,099.50	2,088.00	1.01	
MERIT	F	0000021042	1,872.00		216.00	2,088.00	2,088.00	1.00	
MERIT	F	0000021128	192.00						transfer to OPESPT
MERIT	F	0000021181	1,872.00		216.00	2,088.00	2,088.00	1.00	
MERIT	F	0000033776	1,728.25	145.00	248.00	2,121.25	2,088.00	1.02	from E more hrs
MERIT	F	0000034053	1,888.00		242.00	2,130.00	2,088.00	1.02	
MERIT	F	0000034527	2,155.00		144.00	2,299.00	2,088.00	1.10	
MERIT	F	0000034831	769.00						moved to TC
MERIT	F	0000034935	2,013.50		197.00	2,210.50	2,088.00	1.06	
MERIT	F	0000035621	1,701.50						did not work entire yr
MERIT	TCS-B	0000009191	1,764.50		350.00	2,114.50	2,088.00	1.01	
E	E-I	0000009235	2,003.50		300.00	2,303.50	2,088.00	1.10	
E	E-I	0000020454	2,377.00		204.00	2,581.00	2,088.00	1.24	
E	E-I	0000034069	2,653.00		252.00	2,905.00	2,088.00	1.39	
E	E-I	0000035253	1,760.00	152.00	180.00	2,092.00	2,088.00	1.00	transfer from E
E	E-ED	0000009253	2,091.75		336.00	2,427.75	2,088.00	1.16	
E	E-ED	0000009311	1,764.00		324.00	2,088.00	2,088.00	1.00	
E	E-B	0000009337	1,969.50		304.00	2,273.50	2,088.00	1.09	
MERIT	FS-B	0000009378	2,371.00		271.50	2,642.50	2,088.00	1.27	
MERIT	FS-B	0000009569	1,820.50		300.00	2,120.50	2,088.00	1.02	
MERIT	FS-B	0000009783	1,803.00		324.00	2,127.00	2,088.00	1.02	
MERIT	FS-B	0000020048	1,691.00	346.00	269.00	2,306.00	2,088.00	1.10	transfer to FS-ED (more hrs)
MERIT	FS-B	0000020189	548.00	1,331.00	240.00	2,119.00	2,088.00	1.01	transfer from DISPLN
MERIT	FS-B	0000020438	40.00						separation
MERIT	FS-B	0000020442	1,927.50	495.00	254.00	2,676.50	2,088.00	1.28	transfer from TECENG
MERIT	FS-B	0000020662	330.00						more hours in TNDENG
MERIT	FS-B	0000021172	1,106.00						transfer to FS
MERIT	FS-B	0000008810	1.00						
EXEC	EXEC2	0000009437	2,157.75		292.00	2,449.75	2,088.00	1.17	
EXEC	EXEC2	0000009664	2,515.00		270.50	2,785.50	2,088.00	1.33	
EXEC	EXEC2	0000010174	2,063.00		325.00	2,388.00	2,088.00	1.14	
MERIT	TC-I	0000009464	1,782.50		305.00	2,087.50	2,088.00	1.00	
MERIT	TC-I	0000009627	1,832.00		264.00	2,096.00	2,088.00	1.00	
MERIT	TC-I	0000009691	914.00	935.00	288.00	2,137.00	2,088.00	1.02	transfer from CHEMST
MERIT	TC-I	0000020002	1,786.50		301.50	2,088.00	2,088.00	1.00	
MERIT	TC-I	0000020007	1,386.17						transfer to TCS-I
MERIT	TC-I	0000020043	110.00						PPPLAN has more hrs
MERIT	TC-I	0000020279	1,853.50		288.00	2,141.50	2,088.00	1.03	
MERIT	TC-I	0000020497	666.00						transfer to FS-I
MERIT	TC-I	0000020944	660.00	1,185.50	316.00	2,161.50	2,088.00	1.04	transfer from TC
MERIT	TC-I	0000021157	1,497.00	329.00	272.00	2,098.00	2,088.00	1.00	transfer from PPENGR
MERIT	TC-I	0000021162	2,157.50		280.00	2,437.50	2,088.00	1.17	
MERIT	TC-I	0000033560	608.00	1,310.50	168.00	2,086.50	2,088.00	1.00	transfer from AIRSCI
MERIT	TC-I	0000033959	932.00		1,148.00	2,080.00	2,088.00	1.00	
MERIT	TC-I	0000034547	604.00						did not work entire yr
MERIT	TC-I	0000035410	591.00						transfer to PPMECH
MERIT	TC-I	0000035642	1,448.50						did not work entire yr
MERIT	TC-I	0000035836	102.00						did not work entire yr
E	E-Y	0000009562	1,804.00		284.00	2,088.00	2,088.00	1.00	
MERIT	TC-ED	0000009734	928.00						did not work entire yr
MERIT	TC-ED	0000009779	1,536.00	375.50	240.00	2,151.50	2,088.00	1.03	transfer to FS (more hrs)
MERIT	TC-ED	0000009818	1,793.50		428.00	2,221.50	2,088.00	1.06	
MERIT	TC-ED	0000020445	1,855.25		327.00	2,182.25	2,088.00	1.05	
MERIT	TC-ED	0000020453	1,792.00		296.00	2,088.00	2,088.00	1.00	
MERIT	TC-ED	0000020468	528.25						mostly BU
MERIT	TC-ED	0000020556	2,141.08		388.00	2,529.08	2,088.00	1.21	
MERIT	TC-ED	0000020606	1,543.00	352.00	193.00	2,088.00	2,088.00	1.00	transfer from TCS-I
MERIT	TC-ED	0000020795	112.00						transfer to TC
MERIT	TC-ED	0000020928	1,842.50		280.00	2,122.50	2,088.00	1.02	
MERIT	TC-ED	0000033882	2,003.75		216.00	2,219.75	2,088.00	1.06	
MERIT	TC-ED	0000034449	1,872.00		216.00	2,088.00	2,088.00	1.00	
MERIT	TC-ED	0000035098	1,876.00						not enough hrs
MERIT	TC-ED	0000035504	1,916.00						not enough hrs
MERIT	FS-W	0000020333	1,873.00		277.00	2,150.00	2,088.00	1.03	
MERIT	TCS-W	0000020377	2,501.00		216.00	2,717.00	2,088.00	1.30	
MERIT	TCS-Y	0000020389	1,801.00		291.00	2,092.00	2,088.00	1.00	
E	E-W	0000032530	2,051.00		264.00	2,315.00	2,088.00	1.11	
MERIT	IRP	0000020427	1,808.00		280.00	2,088.00	2,088.00	1.00	
MERIT	IRP	0000034679	1,864.00		224.00	2,088.00	2,088.00	1.00	
MERIT	IRP	0000035146	861.33						transfer to TC
MERIT	IRP	0000035175	1,900.00		192.00	2,092.00	2,088.00	1.00	
MERIT	ENGSUP	0000035603	2,030.75		181.25	2,212.00	2,088.00	1.06	
MERIT	F-ED	0000009575	1,715.75	268.50	276.00	2,260.25	2,088.00	1.08	
	Grand Total		1,203,002.21						average

E	A)	1.10
EXEC	B)	1.17
MERIT	C)	1.06
TCS-I	D)	1.16

(A-D)

E	EXEC	MERIT	TCS-I
		1.20	
		1.05	
		1.30	
		1.01	
		1.00	
		1.00	
		1.02	
		1.02	
		1.10	
		1.06	
		1.01	
1.10			
1.24			
1.39			
1.00			
1.16			
1.00			
1.09			
		1.27	
		1.02	
		1.02	
		1.10	
		1.01	
		1.28	
	1.17		
	1.33		
	1.14		
		1.00	
		1.00	
		1.02	
		1.00	
		1.03	
		1.04	
		1.00	
		1.17	
		1.00	
		1.00	
1.00			
		1.03	
		1.06	
		1.05	
		1.00	
		1.21	
		1.00	
		1.02	
		1.06	
		1.00	
		1.03	
		1.30	
		1.00	
1.11			
		1.00	
		1.00	
		1.00	
		1.06	
		1.08	
1.099	1.170	1.060	1.161
(A)	(B)	(C)	(D)

CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls
2007 Merit OT

pivot copy; "Standard labor rate actual $$ a" tab

	ClsType	Merit	150 prod hrs	150 prod hrs from Transfer	Nonprod hrs from msf835	Ttl prod + nonprod hrs	Total avail hrs			E	1.10		
			A	B	C	D = A+B+C	E	F = D / E	Notes	EXEC	1.17		
	Sum of hours									MERIT	1.06		
										TCS-I	1.16		
Class type	LAB_COS	EMPLOYEE_ID_L	Total							E	EXEC	MERIT	TCS-I
TCS-I	TCS-I	0000009119	2,169.00		296.00	2,465.00	2,088.00	1.18					1.18
TCS-I	TCS-I	0000009127	1,786.50		367.00	2,153.50	2,088.00	1.03					1.03
TCS-I	TCS-I	0000009139	2,091.50		324.00	2,415.50	2,088.00	1.16					1.16
TCS-I	TCS-I	0000009275	1,964.00		371.00	2,335.00	2,088.00	1.12					1.12
TCS-I	TCS-I	0000009305	625.50						did not work entire yr				
TCS-I	TCS-I	0000009351	2,452.50		348.00	2,800.50	2,088.00	1.34					1.34
TCS-I	TCS-I	0000009475	2,160.75		288.00	2,448.75	2,088.00	1.17					1.17
TCS-I	TCS-I	0000009707	2,363.50		304.00	2,667.50	2,088.00	1.28					1.28
TCS-I	TCS-I	0000020007	957.00	1,386.17	253.50	2,596.67	2,088.00	1.24	transfer from TC-I				1.24
TCS-I	TCS-I	0000020283	2,458.50		300.00	2,758.50	2,088.00	1.32					1.32
TCS-I	TCS-I	0000020606	352.00						transfer to TC-ED				
TCS-I	TCS-I	0000020757	2,258.50		284.00	2,542.50	2,088.00	1.22					1.22
TCS-I	TCS-I	0000020814	2,163.50		291.00	2,454.50	2,088.00	1.18					1.18
TCS-I	TCS-I	0000020903	2,046.00		173.50	2,219.50	2,088.00	1.06					1.06
TCS-I	TCS-I	0000020907	628.00						mostly BU				
TCS-I	TCS-I	0000021009	1,863.25	112.00	272.00	2,247.25	2,088.00	1.08	from BU				1.08
TCS-I	TCS-I	0000021040	1,087.92	780.75	272.00	2,140.67	2,088.00	1.03	from BU				1.03
TCS-I	TCS-I	0000021152	2,231.50		232.00	2,463.50	2,088.00	1.18					1.18
TCS-I	TCS-I	0000033540	1,892.00		254.00	2,146.00	2,088.00	1.03					1.03
TCS-I	TCS-I	0000033701	2,287.50		256.00	2,543.50	2,088.00	1.22					1.22
TCS-I	TCS-I	0000033723	2,314.50		248.00	2,562.50	2,088.00	1.23					1.23
TCS-I	TCS-I	0000033724	2,213.08		256.00	2,469.08	2,088.00	1.18					1.18
TCS-I	TCS-I	0000034006	1,615.50	652.50	196.00	2,464.00	2,088.00	1.18	transfer from PPENGR				1.18
TCS-I	TCS-I	0000034020	2,108.17		322.50	2,430.67	2,088.00	1.16					1.16
TCS-I	TCS-I	0000034836	1,712.50		803.00	2,515.50	2,088.00	1.20					1.20
TCS-I	TCS-I	0000034840	2,178.50		176.00	2,354.50	2,088.00	1.13					1.13
TCS-I	TCS-I	0000034920	1,868.00		260.00	2,128.00	2,088.00	1.02					1.02
TCS-I	TCS-I	0000035557	1,991.50		176.00	2,167.50	2,088.00	1.04					1.04
TCS-I	TCS-I	0000035564	2,043.50		124.00	2,167.50	2,088.00	1.04					1.04
MERIT	FS-I	0000009021	1,781.00		322.00	2,103.00	2,088.00	1.01				1.01	
MERIT	FS-I	0000009700	2,048.50		280.00	2,328.50	2,088.00	1.12				1.12	
MERIT	FS-I	0000020330	2,084.50		504.00	2,588.50	2,088.00	1.24				1.24	
MERIT	FS-I	0000020497	1,074.00	666.00	348.00	2,088.00	2,088.00	1.00	transfer from TC-I			1.00	
MERIT	FS-I	0000020750	1,788.00		300.00	2,088.00	2,088.00	1.00				1.00	
MERIT	FS-I	0000021110	2,410.50		344.50	2,755.00	2,088.00	1.32				1.32	
MERIT	FS-I	0000034808	1,992.50		199.00	2,191.50	2,088.00	1.05				1.05	
MERIT	FS	0000009070	1,693.00		387.00	2,080.00	2,088.00	1.00				1.00	
MERIT	FS	0000009186	1,197.00						transfer to TCS				
MERIT	FS	0000009328	1,946.48		340.00	2,286.48	2,088.00	1.10				1.10	
MERIT	FS	0000009379	1,872.25		334.75	2,207.00	2,088.00	1.06				1.06	
MERIT	FS	0000009473	1,808.00		332.50	2,140.50	2,088.00	1.03				1.03	
MERIT	FS	0000009747	1,887.98		236.00	2,123.98	2,088.00	1.02				1.02	
MERIT	FS	0000009758	1,035.00						did not work entire yr				
MERIT	FS	0000009779	375.50						TC-ED has more hrs				
MERIT	FS	0000020127	2,128.50		294.50	2,423.00	2,088.00	1.16				1.16	
MERIT	FS	0000020223	1,107.00	1,052.00	256.00	2,415.00	2,088.00	1.16	transfer from AIRSCI			1.16	
MERIT	FS	0000020296	1,356.00	786.50	269.50	2,412.00	2,088.00	1.16	transfer from TC			1.16	
MERIT	FS	0000020321	1,885.50		302.00	2,187.50	2,088.00	1.05				1.05	
MERIT	FS	0000020401	2,637.00		256.00	2,893.00	2,088.00	1.39				1.39	
MERIT	FS	0000020432	2,397.50		264.00	2,661.50	2,088.00	1.27				1.27	
MERIT	FS	0000020434	1,816.00		264.00	2,080.00	2,088.00	1.00				1.00	
MERIT	FS	0000020438	167.50						separation				
MERIT	FS	0000020536	1,930.00	259.00	332.00	2,521.00	2,088.00	1.21	transfer to TECSPT (more hrs)			1.21	
MERIT	FS	0000020582	246.00						separation				
MERIT	FS	0000020594	2,110.75		312.00	2,422.75	2,088.00	1.16				1.16	
MERIT	FS	0000020682	1,900.00		304.00	2,204.00	2,088.00	1.06				1.06	
MERIT	FS	0000020686	1,170.25	975.00	289.50	2,434.75	2,088.00	1.17	transfer from F			1.17	
MERIT	FS	0000020736	980.00						did not work entire yr				
MERIT	FS	0000020746	1,872.00		216.00	2,088.00	2,088.00	1.00				1.00	
MERIT	FS	0000020811	1,865.00		244.00	2,109.00	2,088.00	1.01				1.01	
MERIT	FS	0000020848	2,758.75		280.00	3,038.75	2,088.00	1.46				1.46	
MERIT	FS	0000020889	1,840.00		244.00	2,084.00	2,088.00	1.00				1.00	
MERIT	FS	0000020901	1,896.00		247.00	2,143.00	2,088.00	1.03				1.03	
MERIT	FS	0000020989	1,632.17	226.00	308.00	2,166.17	2,088.00	1.04	transfer from TC			1.04	
MERIT	FS	0000021016	1,296.00										
MERIT	FS	0000021137	509.50						moved to TC				
MERIT	FS	0000021138	1,832.50		266.00	2,098.50	2,088.00	1.01				1.01	
MERIT	FS	0000021172	867.50	1,107.00	240.00	2,214.50	2,088.00	1.06	transfer from FS-B&STRENG			1.06	
MERIT	FS	0000033234	2,530.25		253.00	2,783.25	2,088.00	1.33				1.33	
MERIT	FS	0000033441	1,935.00		224.00	2,159.00	2,088.00	1.03				1.03	
MERIT	FS	0000033774	1,755.00		451.50	2,206.50	2,088.00	1.06				1.06	
MERIT	FS	0000033902	2,126.50		276.00	2,402.50	2,088.00	1.15				1.15	
MERIT	FS	0000034067	2,144.00		252.00	2,396.00	2,088.00	1.15				1.15	
MERIT	FS	0000034181	1,747.00		341.00	2,088.00	2,088.00	1.00				1.00	
MERIT	FS	0000034221	2,345.33		228.00	2,573.33	2,088.00	1.23				1.23	
MERIT	FS	0000034835	1,882.50		211.00	2,093.50	2,088.00	1.00				1.00	
MERIT	FS	0000035022	2,047.25		240.00	2,287.25	2,088.00	1.10				1.10	
MERIT	FS	0000035129	1,264.00						transfer to E				
MERIT	FS	0000035740	1,178.50						did not work entire yr				
MERIT	FS	0000035757	821.00						did not work entire yr				
MERIT	FS	0000035761	816.00						did not work entire yr				
MERIT	SSENG	0000009077	940.00						did not work entire yr				
MERIT	SSENG	0000009625	2,141.00		292.00	2,433.00	2,088.00	1.17				1.17	
MERIT	SSENG	0000020148	2,183.50		212.00	2,395.50	2,088.00	1.15				1.15	
MERIT	SSENG	0000020500	1,815.83		292.00	2,107.83	2,088.00	1.01				1.01	
MERIT	SSENG	0000020521	176.00						transfer to TNDENG				
MERIT	SSENG	0000020937	1,068.50	800.00	216.00	2,084.50	2,088.00	1.00	transfer from TRNPLN			1.00	
MERIT	SSENG	0000033477	1,863.50		272.00	2,135.50	2,088.00	1.02				1.02	
MERIT	SSENG	0000034752	1,810.00		284.00	2,094.00	2,088.00	1.00				1.00	
MERIT	SSENG	0000035099	1,935.00		184.00	2,119.00	2,088.00	1.01				1.01	
MERIT	SSENG	0000035662	1,257.50						did not work entire yr				
MERIT	F	0000008974	349.00						FS-ED has more hrs				
MERIT	F	0000009123	2,049.50		353.00	2,402.50	2,088.00	1.15				1.15	
MERIT	F	0000009388	1,822.00		303.00	2,125.00	2,088.00	1.02				1.02	

CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls
2007 Merit OT

pivot copy; "Standard labor rate actual $$ a" tab

ClsType	Merit

	E	1.10
	EXEC	1.17
	MERIT	1.06
	TCS-I	1.16

Class type	LAB_COS	EMPLOYEE_ID_L	160 prod hrs A	150 prod hrs from Transfer B	Nonprod hrs from msf835 C	Ttl prod + nonprod hrs D = A+B+C	Total avail hrs E	F = D / E	Notes	E	EXEC	MERIT	TCS-I
	Sum of hours												
MERIT	TC	0000035211	2,096.50		146.00	2,242.50	2,088.00	1.07				1.07	
MERIT	TC	0000035221	1,912.00		176.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TC	0000035273	1,870.00		280.00	2,150.00	2,088.00	1.03				1.03	
MERIT	TC	0000035290	1,182.25						did not work entire yr				
MERIT	TC	0000035300	1,712.00						did not work entire yr				
MERIT	TC	0000035336	2,019.00		176.00	2,195.00	2,088.00	1.05				1.05	
MERIT	TC	0000035372	1,905.67		224.00	2,129.67	2,088.00	1.02				1.02	
MERIT	TC	0000035380	1,896.00		188.00	2,084.00	2,088.00	1.00				1.00	
MERIT	TC	0000035466	1,908.33						did not work entire yr				
MERIT	TC	0000035468	736.00						mostly OTHER				
MERIT	TC	0000035483	2,345.75		108.00	2,453.75	2,088.00	1.18				1.18	
MERIT	TC	0000035526	1,936.00		152.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TC	0000035548	1,954.00		136.00	2,090.00	2,088.00	1.00				1.00	
MERIT	TC	0000034404	616.00						did not work entire yr				
MERIT	TC	0000035125	2,066.42						did not work entire yr				
MERIT	TC	0000035577	1,900.00						did not work entire yr				
MERIT	TC	0000035581	1,922.50						did not work entire yr				
MERIT	TC	0000035619	1,588.25						did not work entire yr				
MERIT	TC	0000035620	1,598.08						did not work entire yr				
MERIT	TC	0000035631	1,589.50						did not work entire yr				
MERIT	TC	0000035644	1,525.50						did not work entire yr				
MERIT	TC	0000035652	1,445.00						did not work entire yr				
MERIT	TC	0000035664	824.00						did not work entire yr				
MERIT	TC	0000035737	986.25						did not work entire yr				
MERIT	TC	0000035743	207.17						did not work entire yr				
MERIT	TC	0000035262	1,010.50						did not work entire yr				
MERIT	TC	0000035779	704.00						did not work entire yr				
MERIT	TC	0000035783	692.25						did not work entire yr				
MERIT	TC	0000035801	648.00						did not work entire yr				
MERIT	TC	0000035814	488.00						did not work entire yr				
MERIT	TC	0000035833	168.00						did not work entire yr				
MERIT	TC	0000035841	208.00						did not work entire yr				
MERIT	TC	0000020708	4.00						did not work entire yr				
MERIT	TC-W	0000008370	1,762.00		332.00	2,094.00	2,088.00	1.00				1.00	
MERIT	TC-W	0000009096	1,958.00		355.00	2,313.00	2,088.00	1.11				1.11	
MERIT	TC-W	0000035058	424.00						did not work entire yr				
MERIT	TC-W	0000020282	1,422.50						did not work entire yr				
E	E	0000008397	1,820.00		268.00	2,088.00	2,088.00	1.00		1.00			
E	E	0000009527	2,268.00		280.00	2,548.00	2,088.00	1.22		1.22			
E	E	0000009636	1,679.00		430.00	2,109.00	2,088.00	1.01		1.01			
E	E	0000020263	1,899.50		250.00	2,149.50	2,088.00	1.03		1.03			
E	E	0000020354	1,501.00	409.25	261.00	2,171.25	2,088.00	1.04	transfer to EXEC (more hrs)	1.04			
E	E	0000020481	1,993.75		350.50	2,344.25	2,088.00	1.12		1.12			
E	E	0000020616	1,778.50		309.50	2,088.00	2,088.00	1.00		1.00			
E	E	0000020700	1,965.50		341.00	2,306.50	2,088.00	1.10		1.10			
E	E	0000020803	2,513.50		248.00	2,761.50	2,088.00	1.32		1.32			
E	E	0000020883	1,815.50		274.00	2,089.50	2,088.00	1.00		1.00			
E	E	0000020894	934.25						did not work entire yr				
E	E	0000021124	2,303.25		264.00	2,567.25	2,088.00	1.23		1.23			
E	E	0000033776	145.00						moved to F				
E	E	0000034939	1,848.00		240.00	2,088.00	2,088.00	1.00		1.00			
E	E	0000035129	672.00	1,264.00	152.00	2,088.00	2,088.00	1.00	transfer from FS	1.00			
E	E	0000035253	152.00						transfer to E-I				
EXEC	EXEC	0000008695	28.00						not enough hrs				
EXEC	EXEC	0000008923	2,084.25		378.00	2,462.25	2,088.00	1.18			1.18		
EXEC	EXEC	0000009602	2,621.25		259.50	2,880.75	2,088.00	1.38			1.38		
EXEC	EXEC	0000009701	1,892.00		271.50	2,163.50	2,088.00	1.04			1.04		
EXEC	EXEC	0000010002	2,113.00		230.00	2,343.00	2,088.00	1.12			1.12		
EXEC	EXEC	0000010161	1,457.00						not enough hrs				
EXEC	EXEC	0000010166	2,892.00		128.00	3,020.00	2,088.00	1.45			1.45		
EXEC	EXEC	0000010170	2,061.00		288.00	2,349.00	2,088.00	1.13			1.13		
EXEC	EXEC	0000020036	1,756.00		419.00	2,175.00	2,088.00	1.04			1.04		
EXEC	EXEC	0000020166	1,883.50		272.00	2,155.50	2,088.00	1.03			1.03		
EXEC	EXEC	0000020354	409.25						E has more hrs				
EXEC	EXEC	0000020451	2,395.00		299.00	2,694.00	2,088.00	1.29			1.29		
EXEC	EXEC	0000034060	1,888.75		298.00	2,186.75	2,088.00	1.05			1.05		
EXEC	EXEC	0000034186	1,841.00		320.00	2,161.00	2,088.00	1.03			1.03		
MERIT	FS-ED	0000008974	1,530.00	349.00	256.00	2,135.00	2,088.00	1.02	transfer to F (more hrs)			1.02	
MERIT	FS-ED	0000009442	1,819.50		316.00	2,135.50	2,088.00	1.02				1.02	
MERIT	FS-ED	0000020048	346.00						FS-B has more hrs				
MERIT	TCS	0000009011	2,156.50		328.00	2,484.50	2,088.00	1.19				1.19	
MERIT	TCS	0000009186	801.00	1,197.00	312.00	2,310.00	2,088.00	1.11	transfer from FS			1.11	
MERIT	TCS	0000009324	985.00	1,162.00	340.00	2,487.00	2,088.00	1.19	from OTHER			1.19	
MERIT	TCS	0000009398	1,792.00		304.00	2,096.00	2,088.00	1.00				1.00	
MERIT	TCS	0000009433	2,031.00		340.00	2,371.00	2,088.00	1.14				1.14	
MERIT	TCS	0000009492	1,792.00		302.00	2,094.00	2,088.00	1.00				1.00	
MERIT	TCS	0000020005	377.00						transfer to TC				
MERIT	TCS	0000020295	2,019.00		280.50	2,299.50	2,088.00	1.10				1.10	
MERIT	TCS	0000020493	1,776.00		312.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TCS	0000020651	2,145.00		309.00	2,454.00	2,088.00	1.18				1.18	
MERIT	TCS	0000020693	2,582.00		282.50	2,864.50	2,088.00	1.37				1.37	
MERIT	TCS	0000020756	1,310.50		777.50	2,088.00	2,088.00	1.00				1.00	
MERIT	TCS	0000020856	1,796.00		292.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TCS	0000021107	1,704.50		379.50	2,084.00	2,088.00	1.00				1.00	
MERIT	TCS	0000033301	2,427.50		212.00	2,639.50	2,088.00	1.26				1.26	
MERIT	TCS	0000033782	1,856.00		252.00	2,108.00	2,088.00	1.01				1.01	
MERIT	TCS	0000033969	1,944.75		288.00	2,232.75	2,088.00	1.07				1.07	
MERIT	TCS	0000034797	1,840.00	478.00	209.50	2,527.50	2,088.00	1.21	from BU			1.21	
MERIT	TCS	0000034866	572.00						transfer to TC				
MERIT	TCS	0000034926	623.00						moved to TC				
MERIT	TCS	0000035059	1,890.00		203.00	2,093.00	2,088.00	1.00				1.00	
MERIT	TCS	0000035782	687.50						did not work entire yr				
TCS-I	TCS-I	0000009019	1,394.75		912.00	2,306.75	2,088.00	1.10					1.10
TCS-I	TCS-I	0000009116	2,397.00		522.00	2,919.00	2,088.00	1.40					1.40

CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls
2007 Merit OT

pivot copy; "Standard labor rate actual $$ a" tab

ClsType	Merit

			150 prod hrs	150 prod hrs from Transfer	Nonprod hrs from msf835	Ttl prod + nonprod hrs	Total avail hrs		
			A	B	C	D = A+B+C	E	F = D / E	Notes
	Sum of hours								
Class type	LAB_COS	EMPLOYEE_ID_L	Total						
MERIT	TC	0000021177	1,921.25		264.00	2,185.25	2,088.00	1.05	
MERIT	TC	0000021178	1,561.80		679.12	2,240.92	2,088.00	1.07	
MERIT	TC	0000021193	1,840.00		262.00	2,102.00	2,088.00	1.01	
MERIT	TC	0000021200	1,840.00		256.00	2,096.00	2,088.00	1.00	
MERIT	TC	0000021203	1,816.00		320.00	2,136.00	2,088.00	1.02	
MERIT	TC	0000030268	1,854.00		239.00	2,093.00	2,088.00	1.00	
MERIT	TC	0000033232	1,987.50		210.50	2,198.00	2,088.00	1.05	
MERIT	TC	0000033397	2,203.50		248.00	2,451.50	2,088.00	1.17	
MERIT	TC	0000033411	1,969.50		212.00	2,181.50	2,088.00	1.04	
MERIT	TC	0000033449	1,802.00		290.00	2,092.00	2,088.00	1.00	
MERIT	TC	0000033450	2,068.50		364.00	2,432.50	2,088.00	1.16	
MERIT	TC	0000033455	1,858.00		262.00	2,120.00	2,088.00	1.02	
MERIT	TC	0000033462	1,877.00		248.00	2,125.00	2,088.00	1.02	
MERIT	TC	0000033464	1,940.25		304.00	2,244.25	2,088.00	1.07	
MERIT	TC	0000033505	1,797.00		290.00	2,087.00	2,088.00	1.00	
MERIT	TC	0000033549	1,827.50		264.00	2,091.50	2,088.00	1.00	
MERIT	TC	0000033558	1,837.00		264.00	2,101.00	2,088.00	1.01	
MERIT	TC	0000033631	2,003.50		224.00	2,227.50	2,088.00	1.07	
MERIT	TC	0000033663	1,884.50		200.00	2,084.50	2,088.00	1.00	
MERIT	TC	0000033700	2,118.00		248.00	2,366.00	2,088.00	1.13	
MERIT	TC	0000033793	911.50						did not work entire yr
MERIT	TC	0000033816	1,872.00		236.00	2,108.00	2,088.00	1.01	
MERIT	TC	0000033857	1,816.50		271.50	2,088.00	2,088.00	1.00	
MERIT	TC	0000033864	1,954.00						did not work entire yr
MERIT	TC	0000033904	1,847.00		268.00	2,115.00	2,088.00	1.01	
MERIT	TC	0000033920	1,895.00		234.00	2,129.00	2,088.00	1.02	
MERIT	TC	0000033967	2,109.20		168.00	2,277.20	2,088.00	1.09	
MERIT	TC	0000033970	1,809.25		324.00	2,133.25	2,088.00	1.02	
MERIT	TC	0000033980	2,036.00		268.00	2,304.00	2,088.00	1.10	
MERIT	TC	0000033991	1,860.75		257.50	2,118.25	2,088.00	1.01	
MERIT	TC	0000033996	1,866.00		238.00	2,104.00	2,088.00	1.01	
MERIT	TC	0000034063	2,037.00		301.25	2,338.25	2,088.00	1.12	
MERIT	TC	0000034073	1,912.50		280.00	2,192.50	2,088.00	1.05	
MERIT	TC	0000034172	1,096.50						did not work entire yr
MERIT	TC	0000034191	2,343.00		264.00	2,607.00	2,088.00	1.25	
MERIT	TC	0000034200	1,929.00		236.00	2,165.00	2,088.00	1.04	
MERIT	TC	0000034300	1,844.00		244.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000034328	1,888.00		200.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000034366	1,864.75		252.00	2,116.75	2,088.00	1.01	
MERIT	TC	0000034381	1,880.50		240.00	2,120.50	2,088.00	1.02	
MERIT	TC	0000034389	1,921.00		264.00	2,185.00	2,088.00	1.05	
MERIT	TC	0000034398	1,929.00		187.00	2,116.00	2,088.00	1.01	
MERIT	TC	0000034418	1,891.00		197.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000034424	1,636.50						did not work entire yr
MERIT	TC	0000034460	1,889.00		240.00	2,129.00	2,088.00	1.02	
MERIT	TC	0000034607	2,478.74		200.00	2,678.74	2,088.00	1.28	
MERIT	TC	0000034661	1,958.03		256.00	2,214.03	2,088.00	1.06	
MERIT	TC	0000034663	1,821.00		267.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000034691	1,874.00		214.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000034713	873.00	764.50	531.75	2,169.25	2,088.00	1.04	did not work entire yr
MERIT	TC	0000034714	1,964.75		192.00	2,156.75	2,088.00	1.03	
MERIT	TC	0000034750	2,000.50		148.00	2,148.50	2,088.00	1.03	
MERIT	TC	0000034753	1,508.00						did not work entire yr
MERIT	TC	0000034759	2,004.50		204.75	2,209.25	2,088.00	1.06	
MERIT	TC	0000034760	1,926.25		285.50	2,211.75	2,088.00	1.06	
MERIT	TC	0000034766	1,810.83		279.00	2,089.83	2,088.00	1.00	
MERIT	TC	0000034791	2,001.75		227.75	2,229.50	2,088.00	1.07	
MERIT	TC	0000034792	2,125.00		228.00	2,353.00	2,088.00	1.13	
MERIT	TC	0000034814	1,432.00	428.00	220.00	2,080.00	2,088.00	1.00	from PRJMGT more hrs
MERIT	TC	0000034830	1,968.00		213.00	2,181.00	2,088.00	1.04	
MERIT	TC	0000034831	1,551.00	769.00	217.00	2,537.00	2,088.00	1.22	from F more hrs
MERIT	TC	0000034856	1,844.00		290.50	2,134.50	2,088.00	1.02	
MERIT	TC	0000034861	955.00						did not work entire yr
MERIT	TC	0000034866	1,340.00	572.00	176.00	2,088.00	2,088.00	1.00	transfer from TCS
MERIT	TC	0000034867	1,176.00						did not work entire yr
MERIT	TC	0000034877	1,908.25		248.00	2,156.25	2,088.00	1.03	
MERIT	TC	0000034894	1,608.00		515.00	2,123.00	2,088.00	1.02	
MERIT	TC	0000034916	2,002.00		184.00	2,186.00	2,088.00	1.05	
MERIT	TC	0000034919	1,888.00		200.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000034926	1,417.00	623.00	209.50	2,249.50	2,088.00	1.08	from TCS more hrs
MERIT	TC	0000034985	1,976.00		198.00	2,174.00	2,088.00	1.04	
MERIT	TC	0000034997	1,909.08		205.50	2,114.58	2,088.00	1.01	
MERIT	TC	0000035001	2,255.50		184.00	2,439.50	2,088.00	1.17	
MERIT	TC	0000035002	1,962.00		156.00	2,118.00	2,088.00	1.01	
MERIT	TC	0000035005	519.50						did not work entire yr
MERIT	TC	0000035009	1,909.50		200.00	2,109.50	2,088.00	1.01	
MERIT	TC	0000035020	748.00	1,112.00	244.00	2,104.00	2,088.00	1.01	from OTHER
MERIT	TC	0000035031	1,948.00		192.00	2,140.00	2,088.00	1.02	
MERIT	TC	0000035032	1,889.50		208.00	2,097.50	2,088.00	1.00	
MERIT	TC	0000035039	1,053.00	843.00	229.00	2,125.00	2,088.00	1.02	from BU
MERIT	TC	0000035045	1,231.00						did not work entire yr
MERIT	TC	0000035060	2,031.50		241.50	2,273.00	2,088.00	1.09	
MERIT	TC	0000035072	1,750.25		330.50	2,080.75	2,088.00	1.00	
MERIT	TC	0000035096	8.50						did not work entire yr
MERIT	TC	0000035105	1,860.00		228.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000035106	1,806.00		278.00	2,084.00	2,088.00	1.00	
MERIT	TC	0000035119	1,928.00		168.00	2,096.00	2,088.00	1.00	
MERIT	TC	0000035122	448.00						did not work entire yr
MERIT	TC	0000035123	2,077.50		180.00	2,257.50	2,088.00	1.08	
MERIT	TC	0000035124	324.00						did not work entire yr
MERIT	TC	0000035128	56.00						did not work entire yr
MERIT	TC	0000035146	948.00	861.33	344.00	2,153.33	2,088.00	1.03	transfer from IRP
MERIT	TC	0000035167	277.50						did not work entire yr
MERIT	TC	0000035172	2,315.75		176.00	2,491.75	2,088.00	1.19	

E	1.10
EXEC	1.17
MERIT	1.06
TCS-I	1.16

E	EXEC	MERIT	TCS-I
		1.05	
		1.07	
		1.01	
		1.00	
		1.02	
		1.00	
		1.05	
		1.17	
		1.04	
		1.00	
		1.16	
		1.02	
		1.02	
		1.07	
		1.00	
		1.00	
		1.01	
		1.07	
		1.00	
		1.13	
		1.01	
		1.00	
		1.01	
		1.02	
		1.09	
		1.02	
		1.10	
		1.01	
		1.01	
		1.12	
		1.05	
		1.25	
		1.04	
		1.00	
		1.00	
		1.01	
		1.02	
		1.05	
		1.01	
		1.00	
		1.02	
		1.28	
		1.06	
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		1.04	
		1.03	
		1.03	
		1.06	
		1.06	
		1.00	
		1.07	
		1.13	
		1.00	
		1.04	
		1.22	
		1.02	
		1.00	
		1.03	
		1.02	
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		1.08	
		1.04	
		1.01	
		1.17	
		1.01	
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		1.02	
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		1.02	
		1.09	
		1.00	
		1.00	
		1.00	
		1.00	
		1.00	
		1.08	
		1.03	
		1.19	

CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls
2007 Merit OT

pivot copy; "Standard labor rate actual $$ a" tab

ClsType	Merit

			150 prod hrs	150 prod hrs from Transfer	Nonprod hrs from msf835	Ttl prod + nonprod hrs	Total avail hrs		
			A	B	C	D = A+B+C	E	F = D / E	Notes
	Sum of hours								
Class type	LAB_COS	EMPLOYEE_ID_L	Total						
MERIT	TC	0000020071	2,002.20		270.75	2,272.95	2,088.00	1.09	
MERIT	TC	0000020072	1,817.50		270.50	2,088.00	2,088.00	1.00	
MERIT	TC	0000020084	1,843.50		320.00	2,163.50	2,088.00	1.04	
MERIT	TC	0000020086	1,885.00		306.00	2,191.00	2,088.00	1.05	
MERIT	TC	0000020149	1,832.00		256.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000020171	1,804.00		304.00	2,108.00	2,088.00	1.01	
MERIT	TC	0000020181	1,844.00		289.00	2,133.00	2,088.00	1.02	
MERIT	TC	0000020207	1,847.00		288.00	2,135.00	2,088.00	1.02	
MERIT	TC	0000020211	1,945.82		272.00	2,217.82	2,088.00	1.06	
MERIT	TC	0000020280	1,856.00		240.00	2,096.00	2,088.00	1.00	
MERIT	TC	0000020281	2,251.25		332.00	2,583.25	2,088.00	1.24	
MERIT	TC	0000020285	1,845.50		279.00	2,124.50	2,088.00	1.02	
MERIT	TC	0000020286	1,887.50		254.50	2,142.00	2,088.00	1.03	
MERIT	TC	0000020291	2,070.67		368.00	2,438.67	2,088.00	1.17	
MERIT	TC	0000020296	786.50						transfer to FS
MERIT	TC	0000020297	1,708.00		384.00	2,092.00	2,088.00	1.00	
MERIT	TC	0000020344	1,839.00	32.00	235.00	2,106.00	2,088.00	1.01	from OTHER
MERIT	TC	0000020345	1,792.25		304.00	2,096.25	2,088.00	1.00	
MERIT	TC	0000020350	1,787.17		337.00	2,124.17	2,088.00	1.02	
MERIT	TC	0000020351	1,598.00		506.00	2,104.00	2,088.00	1.01	
MERIT	TC	0000020352	1,771.25		354.00	2,125.25	2,088.00	1.02	
MERIT	TC	0000020359	1,849.00		296.00	2,145.00	2,088.00	1.03	
MERIT	TC	0000020360	1,810.50		276.75	2,087.25	2,088.00	1.00	
MERIT	TC	0000020364	1,750.00		360.00	2,110.00	2,088.00	1.01	
MERIT	TC	0000020372	1,972.18		357.50	2,329.68	2,088.00	1.12	
MERIT	TC	0000020373	1,854.00		283.50	2,137.50	2,088.00	1.02	
MERIT	TC	0000020384	2,208.00		296.00	2,504.00	2,088.00	1.20	
MERIT	TC	0000020385	1,799.28		322.50	2,121.78	2,088.00	1.02	
MERIT	TC	0000020388	1,814.00		303.00	2,117.00	2,088.00	1.01	
MERIT	TC	0000020406	1,718.50						not enough hrs
MERIT	TC	0000020411	1,830.00		284.00	2,114.00	2,088.00	1.01	
MERIT	TC	0000020413	2,082.50		288.00	2,370.50	2,088.00	1.14	
MERIT	TC	0000020421	1,894.50		297.50	2,192.00	2,088.00	1.05	
MERIT	TC	0000020422	1,730.00		358.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000020426	1,922.58		317.50	2,240.08	2,088.00	1.07	
MERIT	TC	0000020437	1,873.75		316.75	2,190.50	2,088.00	1.05	
MERIT	TC	0000020472	1,828.00		288.00	2,116.00	2,088.00	1.01	
MERIT	TC	0000020487	2,048.75		439.00	2,487.75	2,088.00	1.19	
MERIT	TC	0000020501	1,810.25		345.00	2,155.25	2,088.00	1.03	
MERIT	TC	0000020503	1,452.00	316.00	320.00	2,088.00	2,088.00	1.00	transfer from TCENGR
MERIT	TC	0000020513	1,756.00		383.00	2,139.00	2,088.00	1.02	
MERIT	TC	0000020528	1,797.50		296.00	2,093.50	2,088.00	1.00	
MERIT	TC	0000020533	1,828.50		268.00	2,096.50	2,088.00	1.00	
MERIT	TC	0000020535	1,768.50		344.00	2,112.50	2,088.00	1.01	
MERIT	TC	0000020539	2,100.25		365.00	2,465.25	2,088.00	1.18	
MERIT	TC	0000020542	1,836.25		271.50	2,107.75	2,088.00	1.01	
MERIT	TC	0000020552	1,938.35		306.98	2,245.33	2,088.00	1.08	
MERIT	TC	0000020565	1,829.50		300.00	2,129.50	2,088.00	1.02	
MERIT	TC	0000020585	1,876.58		397.00	2,273.58	2,088.00	1.09	
MERIT	TC	0000020618	1,746.00		390.00	2,136.00	2,088.00	1.02	
MERIT	TC	0000020625	1,784.00		304.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000020627	1,706.00		397.00	2,103.00	2,088.00	1.01	
MERIT	TC	0000020657	1,820.00		268.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000020697	2,117.75		296.00	2,413.75	2,088.00	1.16	
MERIT	TC	0000020699	2,147.00		258.00	2,405.00	2,088.00	1.15	
MERIT	TC	0000020702	1,860.00		228.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000020739	1,860.00		243.50	2,103.50	2,088.00	1.01	
MERIT	TC	0000020743	1,837.00		246.25	2,083.25	2,088.00	1.00	
MERIT	TC	0000020763	812.00						did not work entire yr
MERIT	TC	0000020795	1,692.00	112.00	284.00	2,088.00	2,088.00	1.00	transfer from TC-ED
MERIT	TC	0000020801	1,961.50		230.00	2,191.50	2,088.00	1.05	
MERIT	TC	0000020824	1,847.75		244.50	2,092.25	2,088.00	1.00	
MERIT	TC	0000020846	1,915.00		292.00	2,207.00	2,088.00	1.06	
MERIT	TC	0000020876	2,419.00		264.00	2,683.00	2,088.00	1.28	
MERIT	TC	0000020877	1,921.00		276.00	2,197.00	2,088.00	1.05	
MERIT	TC	0000020878	1,288.50	552.00	247.50	2,088.00	2,088.00	1.00	transfer from MTSUPV
MERIT	TC	0000020892	1,941.50		272.00	2,213.50	2,088.00	1.06	
MERIT	TC	0000020898	2,059.00		248.00	2,307.00	2,088.00	1.10	
MERIT	TC	0000020906	1,816.00		272.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000020909	1,268.75		847.75	2,116.50	2,088.00	1.01	
MERIT	TC	0000020913	1,921.00		280.00	2,201.00	2,088.00	1.05	
MERIT	TC	0000020941	1,806.00		297.00	2,103.00	2,088.00	1.01	
MERIT	TC	0000020944	1,185.50						transfer to TC-I
MERIT	TC	0000020950	1,870.50	9.00	236.00	2,115.50	2,088.00	1.01	transfer from STRENG
MERIT	TC	0000020970	140.00						did not work entire yr
MERIT	TC	0000020973	1,681.00						not enough hrs
MERIT	TC	0000020989	226.00						transfer to FS
MERIT	TC	0000021008	1,846.00		242.00	2,088.00	2,088.00	1.00	
MERIT	TC	0000021051	1,824.00		260.00	2,084.00	2,088.00	1.00	
MERIT	TC	0000021058	1,805.50		282.50	2,088.00	2,088.00	1.00	
MERIT	TC	0000021065	1,849.75		267.25	2,117.00	2,088.00	1.01	
MERIT	TC	0000021069	555.25						did not work entire yr
MERIT	TC	0000021071	965.50						did not work entire yr
MERIT	TC	0000021085	168.00						did not work entire yr
MERIT	TC	0000021086	1,872.00		244.00	2,116.00	2,088.00	1.01	
MERIT	TC	0000021087	2,007.25		251.00	2,258.25	2,088.00	1.08	
MERIT	TC	0000021105	1,820.50		332.50	2,153.00	2,088.00	1.03	
MERIT	TC	0000021108	1,838.00		279.00	2,117.00	2,088.00	1.01	
MERIT	TC	0000021133	448.00	1,384.00	256.00	2,088.00	2,088.00	1.00	transfer from TNDENG
MERIT	TC	0000021137	1,802.00	509.50	192.00	2,503.50	2,088.00	1.20	from FS more hrs
MERIT	TC	0000021139	604.00						mostly BU
MERIT	TC	0000021148	1,808.00		272.00	2,080.00	2,088.00	1.00	
MERIT	TC	0000021164	1,741.50		334.50	2,076.00	2,088.00	0.99	
MERIT	TC	0000021176	1,812.00		276.00	2,088.00	2,088.00	1.00	

E	1.10
EXEC	1.17
MERIT	1.06
TCS-I	1.16

E	EXEC	MERIT	TCS-I
		1.09	
		1.00	
		1.04	
		1.05	
		1.00	
		1.01	
		1.02	
		1.02	
		1.06	
		1.00	
		1.24	
		1.02	
		1.03	
		1.17	
		1.00	
		1.01	
		1.00	
		1.02	
		1.01	
		1.02	
		1.03	
		1.00	
		1.01	
		1.12	
		1.02	
		1.20	
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		1.14	
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		1.07	
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		1.18	
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		1.06	
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		1.08	
		1.03	
		1.01	
		1.00	
		1.20	
		1.00	
		0.99	
		1.00	

CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls
2007 Merit OT

pivot copy; "Standard labor rate actual $$ a" tab

ClsType	Merit

			150 prod hrs	150 prod hrs from Transfer	Nonprod hrs from msf835	Ttl prod + nonprod hrs	Total avail hrs						
			A	B	C	D = A+B+C	E	F = D / E	Notes	E	EXEC	MERIT	TCS-I
	Sum of hours												
Class type	LAB_COS	EMPLOYEE_ID_L	Total										
MERIT	TCS-ED	0000020647	1,800.00		288.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TCS-ED	0000020832	2,124.00		248.00	2,372.00	2,088.00	1.14				1.14	
MERIT	TCS-ED	0000020844	2,043.08		298.00	2,341.08	2,088.00	1.12				1.12	
MERIT	TCS-ED	0000020919	2,103.50		232.00	2,335.50	2,088.00	1.12				1.12	
MERIT	TCS-ED	0000021198	1,908.00		272.00	2,180.00	2,088.00	1.04				1.04	
MERIT	TCS-ED	0000033881	345.50						moved to STRENG				
MERIT	TCSENG	0000009530	1,822.00		268.00	2,090.00	2,088.00	1.00				1.00	
MERIT	TECENG	0000020049	1,866.00		232.00	2,098.00	2,088.00	1.00				1.00	
MERIT	TECENG	0000020210	1,793.00		300.00	2,093.00	2,088.00	1.00				1.00	
MERIT	TECENG	0000020230	1,904.50		314.50	2,219.00	2,088.00	1.06				1.06	
MERIT	TECENG	0000020425	1,752.00	1.00	328.00	2,081.00	2,088.00	1.00	moved from STRENG			1.00	
MERIT	TECENG	0000020442	495.00						transfer to FS-B				
MERIT	TECENG	0000034878	1,720.00	264.00	148.00	2,132.00	2,088.00	1.02	transfer from TNDENG			1.02	
MERIT	*TECHSV*	*0000009811*	*2,072.00*		*246.50*	*2,318.50*	*2,088.00*	*1.11*				*1.11*	
MERIT	TECHSV	0000020324	1,796.00		292.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TECHSV	0000020526	1,866.00		286.00	2,152.00	2,088.00	1.03				1.03	
MERIT	TECHSV	0000021091	2,002.00		304.00	2,306.00	2,088.00	1.10				1.10	
MERIT	TECHSV	0000033624	2,584.00		240.00	2,824.00	2,088.00	1.35				1.35	
MERIT	TECHSV	0000034325	1,800.00		287.50	2,087.50	2,088.00	1.00				1.00	
MERIT	TECHSV	0000035048	2,435.50		192.00	2,627.50	2,088.00	1.26				1.26	
MERIT	TECHSV	0000035624	1,665.25						did not work entire yr				
MERIT	TECHSV	0000035831	112.00						did not work entire yr				
MERIT	TECSPT	0000009423	1,763.00		321.00	2,084.00	2,088.00	1.00				1.00	
MERIT	TECSPT	0000020536	259.00						more hrs in FS				
MERIT	TNDENG	0000009689	1,808.00		272.00	2,080.00	2,088.00	1.00				1.00	
MERIT	TNDENG	0000009776	1,739.00		349.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TNDENG	0000020521	1,634.00	176.00	320.00	2,130.00	2,088.00	1.02	transfer from SSENG			1.02	
MERIT	TNDENG	0000020548	1,812.00		284.00	2,096.00	2,088.00	1.00				1.00	
MERIT	*TNDENG*	*0000020549*	*1,476.00*		*608.00*	*2,084.00*	*2,088.00*	*1.00*				*1.00*	
MERIT	TNDENG	0000020662	1,622.00	330.00	284.00	2,236.00	2,088.00	1.07	transfer to FS-B (more hrs)			1.07	
MERIT	TNDENG	0000021133	1,384.00						transfer to TC				
MERIT	TNDENG	0000034047	1,839.00		268.00	2,107.00	2,088.00	1.01				1.01	
MERIT	TNDENG	0000034733	2,037.00		180.00	2,217.00	2,088.00	1.06				1.06	
MERIT	TNDENG	0000034842	2,187.00		200.00	2,387.00	2,088.00	1.14				1.14	
MERIT	TNDENG	0000034843	1,920.00		188.00	2,108.00	2,088.00	1.01				1.01	
MERIT	TNDENG	0000034878	264.00						transfer to TECENG				
MERIT	TNDENG	0000034990	1,905.00		208.00	2,113.00	2,088.00	1.01				1.01	
MERIT	TNDENG	0000035714	1,077.00						did not work entire yr				
MERIT	TRNPLN	0000009654	824.25						transfer to OPESTF				
MERIT	TRNPLN	0000020087	1,785.00		299.00	2,084.00	2,088.00	1.00				1.00	
MERIT	TRNPLN	0000020258	1,788.00		296.00	2,084.00	2,088.00	1.00				1.00	
MERIT	TRNPLN	0000020319	1,800.00		288.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TRNPLN	0000020365	716.00						did not work entire yr				
MERIT	*TRNPLN*	*0000020474*	*1,623.00*	*212.00*	*292.00*	*2,127.00*	*2,088.00*	*1.02*	*transfer from OPESTF*			*1.02*	
MERIT	TRNPLN	0000020489	1,853.50		234.00	2,087.50	2,088.00	1.00				1.00	
MERIT	TRNPLN	0000020937	800.00						transfer to SSENG				
MERIT	TVLSPV	0000008963	1,414.50						did not work entire yr				
MERIT	TVLSPV	0000009141	1,004.50	1,639.00	308.00	2,951.50	2,088.00	1.41	from BU			1.41	
MERIT	TVLSPV	0000020329	2,143.00		302.50	2,445.50	2,088.00	1.17				1.17	
MERIT	TVLSPV	0000034065	1,936.00		305.50	2,241.50	2,088.00	1.07				1.07	
MERIT	TVLSPV	0000034208	2,696.00		276.00	2,972.00	2,088.00	1.42				1.42	
MERIT	WHMSCI	0000009147	2,206.00		304.50	2,510.50	2,088.00	1.20				1.20	
MERIT	WHMSCI	0000020463	1,991.00		236.50	2,227.50	2,088.00	1.07				1.07	
MERIT	WHMSCI	0000020761	2,156.25		239.00	2,395.25	2,088.00	1.15				1.15	
MERIT	WHMSCI	0000033237	1,806.50		281.50	2,088.00	2,088.00	1.00				1.00	
MERIT	WHMSCI	0000033860	1,897.82		279.25	2,177.07	2,088.00	1.04				1.04	
MERIT	WHMSCI	0000034587	1,906.00		224.00	2,130.00	2,088.00	1.02				1.02	
MERIT	WHMSCI	0000034722	1,939.25		251.00	2,190.25	2,088.00	1.05				1.05	
MERIT	WHMSCI	0000035832	301.50						did not work entire yr				
MERIT	TC	0000008353	1,800.00		288.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TC	0000008759	545.00										
MERIT	TC	0000008816	1,825.50		304.00	2,129.50	2,088.00	1.02				1.02	
MERIT	TC	0000009199	1,850.50		360.00	2,210.50	2,088.00	1.06				1.06	
MERIT	TC	0000009298	1,752.00		336.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TC	0000009299	1,837.00		331.50	2,168.50	2,088.00	1.04				1.04	
MERIT	TC	0000009318	1,750.00		356.00	2,106.00	2,088.00	1.01				1.01	
MERIT	TC	0000009332	1,780.00		316.00	2,096.00	2,088.00	1.00				1.00	
MERIT	TC	0000009395	2,329.68		436.00	2,765.68	2,088.00	1.32				1.32	
MERIT	TC	0000009453	1,707.50		380.50	2,088.00	2,088.00	1.00				1.00	
MERIT	TC	0000009488	2,233.50		279.00	2,512.50	2,088.00	1.20				1.20	
MERIT	TC	0000009504	1,832.00		284.00	2,116.00	2,088.00	1.01				1.01	
MERIT	TC	0000009551	1,468.50		636.00	2,104.50	2,088.00	1.01				1.01	
MERIT	TC	0000009560	1,636.00		452.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TC	0000009566	1,776.00		312.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TC	0000009571	1,792.00		296.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TC	0000009599	1,568.50		580.00	2,148.50	2,088.00	1.03				1.03	
MERIT	TC	0000009601	1,816.00		272.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TC	0000009611	1,850.00		258.00	2,108.00	2,088.00	1.01				1.01	
MERIT	TC	0000009699	1,720.00		389.38	2,109.38	2,088.00	1.01				1.01	
MERIT	TC	0000009702	1,893.50		240.00	2,133.50	2,088.00	1.02				1.02	
MERIT	TC	0000009706	1,822.00		339.00	2,161.00	2,088.00	1.03				1.03	
MERIT	TC	0000009708	1,951.00		271.00	2,222.00	2,088.00	1.06				1.06	
MERIT	TC	0000009711	1,864.50		264.00	2,128.50	2,088.00	1.02				1.02	
MERIT	TC	0000009721	2,095.09		327.00	2,422.09	2,088.00	1.16				1.16	
MERIT	TC	0000009727	1,926.25		366.50	2,292.75	2,088.00	1.10				1.10	
MERIT	TC	0000009802	2,489.75		346.00	2,835.75	2,088.00	1.36				1.36	
MERIT	TC	0000009808	1,832.00		256.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TC	0000009812	1,814.25		308.25	2,122.50	2,088.00	1.02				1.02	
MERIT	TC	0000009822	1,856.00		291.00	2,147.00	2,088.00	1.03				1.03	
MERIT	TC	0000020005	1,491.00	377.00	253.00	2,121.00	2,088.00	1.02	transfer from TCS			1.02	
MERIT	TC	0000020011	1,766.00		322.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TC	0000020013	1,798.00		290.00	2,088.00	2,088.00	1.00				1.00	
MERIT	TC	0000020021	1,765.00		366.00	2,131.00	2,088.00	1.02				1.02	
MERIT	TC	0000020025	1,972.00		273.00	2,245.00	2,088.00	1.08				1.08	

E	1.10
EXEC	1.17
MERIT	1.06
TCS-I	1.16

CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls
2007 Merit OT

pivot copy; "Standard labor rate actual $$ a" tab

	ClsType	Merit	150 prod hrs	150 prod hrs from Transfer	Nonprod hrs from msf835	Ttl prod + nonprod hrs	Total avail hrs			E	1.10		
			A	B	C	D = A+B+C	E	F = D / E	Notes	EXEC	1.17		
	Sum of hours									MERIT	1.06		
										TCS-I	1.16		
Class type	LAB_COS	EMPLOYEE_ID_L	Total							E	EXEC	MERIT	TCS-I
MERIT	PPENGR	0000034711	2,079.50		204.00	2,283.50	2,088.00	1.09				1.09	
MERIT	PPENGR	0000034937	2,202.00		268.00	2,470.00	2,088.00	1.18				1.18	
MERIT	PPENGR	0000034951	2,155.25		184.00	2,339.25	2,088.00	1.12				1.12	
MERIT	PPENGR	0000034952	2,242.00		240.00	2,482.00	2,088.00	1.19				1.19	
MERIT	PPENGR	0000035166	1,366.00						transfer to PPSPVR				
MERIT	PPENGR	0000035444	1,915.00		200.00	2,115.00	2,088.00	1.01				1.01	
MERIT	PPENGR	0000035487	2,101.42		152.00	2,253.42	2,088.00	1.08				1.08	
MERIT	PPENGR	0000035488	1,423.50						did not work entire yr				
MERIT	PPENGR	0000035609	1,845.58						did not work entire yr				
MERIT	PPENGR	0000035660	1,566.00						did not work entire yr				
MERIT	PPENGR	0000035822	524.50						did not work entire yr				
MERIT	PPMECH	0000009724	2,301.67		296.00	2,597.67	2,088.00	1.24				1.24	
MERIT	PPMECH	0000020158	1,928.00		372.00	2,300.00	2,088.00	1.10				1.10	
MERIT	PPMECH	0000020502	1,796.00		292.00	2,088.00	2,088.00	1.00				1.00	
MERIT	PPMECH	0000020698	1,796.00		292.00	2,088.00	2,088.00	1.00				1.00	
MERIT	PPMECH	0000021012	1,853.00		240.00	2,093.00	2,088.00	1.00				1.00	
MERIT	PPMECH	0000034734	1,810.00						not enough hrs				
MERIT	PPMECH	0000034924	1,916.00		197.00	2,113.00	2,088.00	1.01				1.01	
MERIT	PPMECH	0000035403	2,016.00		152.00	2,168.00	2,088.00	1.04				1.04	
MERIT	PPMECH	0000035410	1,306.00	591.00	187.50	2,084.50	2,088.00	1.00	from TC-I more hrs			1.00	
MERIT	PPMECH	0000035502	1,941.00		148.00	2,089.00	2,088.00	1.00				1.00	
MERIT	PPMECH	0000035518	2,023.00		128.00	2,151.00	2,088.00	1.03				1.03	
MERIT	PPMECH	0000035563	1,896.00						did not work entire yr				
MERIT	PPMECH	0000035762	701.50						did not work entire yr				
MERIT	PPPLAN	0000020043	1,387.25	110.00	591.50	2,088.75	2,088.00	1.00	transfer to TC-I (more hrs)			1.00	
MERIT	PPPLAN	0000020896	545.50						leave in Sep + transfer				
MERIT	PPPLAN	0000034018	378.00						mostly BU				
MERIT	PPPLAN	0000034377	1,990.50		218.50	2,209.00	2,088.00	1.06				1.06	
MERIT	PPPLAN	0000035767	940.00						did not work entire yr				
MERIT	PPPROJ	0000009597	1,820.00		268.00	2,088.00	2,088.00	1.00				1.00	
MERIT	PPPROJ	0000020402	1,782.00		306.00	2,088.00	2,088.00	1.00				1.00	
MERIT	PPPROJ	0000020885	1,840.00		248.00	2,088.00	2,088.00	1.00				1.00	
MERIT	PPPROJ	0000035016	2,048.00		192.00	2,240.00	2,088.00	1.07				1.07	
MERIT	PPPROJ	0000035427	2,414.92		112.00	2,526.92	2,088.00	1.21				1.21	
MERIT	PPSPVR	0000008326	2,994.00		284.50	3,278.50	2,088.00	1.57				1.57	
MERIT	PPSPVR	0000009153	1,071.50						did not work entire yr				
MERIT	PPSPVR	0000009259	2,035.50		396.58	2,432.08	2,088.00	1.16				1.16	
MERIT	PPSPVR	0000009292	2,233.00		262.00	2,495.00	2,088.00	1.19				1.19	
MERIT	PPSPVR	0000020836	2,025.25		205.50	2,230.75	2,088.00	1.07				1.07	
MERIT	PPSPVR	0000035166	1,282.50	1,366.00	192.00	2,840.50	2,088.00	1.36	transfer from PPENGR			1.36	
MERIT	PRJMGT	0000009705	1,917.00		288.00	2,205.00	2,088.00	1.06				1.06	
MERIT	PRJMGT	0000020428	1,860.50		272.00	2,132.50	2,088.00	1.02				1.02	
MERIT	PRJMGT	0000020486	1,140.00						transfer to AIRSCI				
MERIT	PRJMGT	0000034332	1,860.50		246.00	2,106.50	2,088.00	1.01				1.01	
MERIT	PRJMGT	0000034814	428.00						moved to TC				
MERIT	PRJSUP	0000009661	1,764.75		346.50	2,111.25	2,088.00	1.01				1.01	
MERIT	PRJSUP	0000020868	1,796.00		292.00	2,088.00	2,088.00	1.00				1.00	
MERIT	PROTEC	0000009813	978.00						did not work entire yr				
MERIT	PROTEC	0000020624	1,810.00		278.00	2,088.00	2,088.00	1.00				1.00	
MERIT	PROTEC	0000020864	1,878.50		232.00	2,110.50	2,088.00	1.01				1.01	
MERIT	PROTEC	0000034881	1,316.00						did not work entire yr				
MERIT	PROTEC	0000035824	416.00						did not work entire yr				
MERIT	RELENG	0000009782	1,927.00		320.00	2,247.00	2,088.00	1.08				1.08	
MERIT	RELENG	0000020707	1,941.00		241.00	2,182.00	2,088.00	1.05				1.05	
MERIT	RELSUP	0000021104	1,817.50		292.50	2,110.00	2,088.00	1.01				1.01	
MERIT	STRENG	0000020425	1.00						move to TECENG				
MERIT	STRENG	0000020950	9.00						transfer to TC				
MERIT	STRENG	0000021172	1.00						transfer to FS				
MERIT	STRENG	0000021197	1,793.50		276.00	2,069.50	2,088.00	0.99				0.99	
MERIT	STRENG	0000033870	1,769.00						not enough hrs				
MERIT	STRENG	0000033881	1,508.00	345.50	288.00	2,141.50	2,088.00	1.03	from TCS-ED more hrs			1.03	
MERIT	STRENG	0000034703	1,839.00		255.50	2,094.50	2,088.00	1.00				1.00	
MERIT	STRENG	0000034704	1,552.00		536.00	2,088.00	2,088.00	1.00				1.00	
MERIT	STRENG	0000034818	1,864.00		224.00	2,088.00	2,088.00	1.00				1.00	
MERIT	STRENG	0000035194	1,833.00		264.00	2,097.00	2,088.00	1.00				1.00	
MERIT	STRENG	0000035195	1,916.00		176.00	2,092.00	2,088.00	1.00				1.00	
MERIT	SUBENG	0000009810	1,851.00		267.50	2,118.50	2,088.00	1.01				1.01	
MERIT	SUBSUP	0000009031	2,541.50		321.50	2,863.00	2,088.00	1.37				1.37	
MERIT	SUBSUP	0000009445	2,145.08		468.00	2,613.08	2,088.00	1.25				1.25	
MERIT	SURVEY	0000020368	1,952.50		410.00	2,362.50	2,088.00	1.13				1.13	
MERIT	SURVEY	0000020731	1,942.50		332.00	2,274.50	2,088.00	1.09				1.09	
MERIT	SURVEY	0000020869	1,575.50						not enough hrs				
MERIT	SURVEY	0000035053	1,882.75		236.00	2,118.75	2,088.00	1.01				1.01	
MERIT	TCENGR	0000020503	316.00						transfer to TC				
MERIT	TCENGR	0000034796	1,912.00		172.00	2,084.00	2,088.00	1.00				1.00	
MERIT	TCENGR	0000034989	1,832.00		260.00	2,092.00	2,088.00	1.00				1.00	
MERIT	TCENGR	0000035088	1,937.50		160.00	2,097.50	2,088.00	1.00				1.00	
MERIT	TCENGR	0000034854	1,664.50						did not work entire yr				
MERIT	TCENGR	0000035126	1,325.00						did not work entire yr				
MERIT	TCS-ED	0000008528	1,910.48		256.00	2,166.48	2,088.00	1.04				1.04	
MERIT	TCS-ED	0000008652	2,260.50		312.00	2,572.50	2,088.00	1.23				1.23	
MERIT	TCS-ED	0000008677	1,919.00		408.00	2,327.00	2,088.00	1.11				1.11	
MERIT	TCS-ED	0000008791	2,134.98		276.00	2,410.98	2,088.00	1.15				1.15	
MERIT	TCS-ED	0000009051	2,027.50		332.00	2,359.50	2,088.00	1.13				1.13	
MERIT	TCS-ED	0000009086	272.50						work mostly BU				
MERIT	TCS-ED	0000009314	1,786.50		320.00	2,106.50	2,088.00	1.01				1.01	
MERIT	*TCS-ED*	*0000009476*	*2,108.00*		*304.00*	*2,412.00*	*2,088.00*	*1.16*				*1.16*	
MERIT	TCS-ED	0000009574	2,043.00		296.00	2,339.00	2,088.00	1.12				1.12	
MERIT	TCS-ED	0000009607	447.00						did not work entire yr				
MERIT	TCS-ED	0000009638	2,164.00		320.00	2,484.00	2,088.00	1.19				1.19	
MERIT	TCS-ED	0000020115	1,768.50		352.00	2,120.50	2,088.00	1.02				1.02	
MERIT	TCS-ED	0000020332	2,134.00		240.00	2,374.00	2,088.00	1.14				1.14	
MERIT	TCS-ED	0000020366	1,837.00		252.00	2,089.00	2,088.00	1.00				1.00	
MERIT	TCS-ED	0000020511	2,255.50		284.00	2,539.50	2,088.00	1.22				1.22	

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CA Interview 9.12.2008 - STANDARD LABOR RATE ACTUAL $$ AND HRS 2007 (5.5.2008).xls
2007 Merit OT

pivot copy; "Standard labor rate actual $$ a" tab

	ClsType	Merit	150 prod hrs	150 prod hrs from Transfer	Nonprod hrs from msf835	Ttl prod + nonprod hrs	Total avail hrs			E	EXEC	MERIT	TCS-I
			A	B	C	D = A+B+C	E	F = D / E	Notes	1.10	1.17	1.06	1.16
	Sum of hours												
Class type	LAB_COS	EMPLOYEE_ID_L	Total										
MERIT	AIRSCI	0000020223	1,052.00						transfer to FS				
MERIT	AIRSCI	0000020270	1,811.00	-	291.00	2,102.00	2,088.00	1.01				1.01	
MERIT	AIRSCI	0000020486	833.00	1,140.00	296.00	2,269.00	2,088.00	1.09	transfer from PRJMGT			1.09	
MERIT	AIRSCI	0000020714	1,849.00		239.00	2,088.00	2,088.00	1.00				1.00	
MERIT	AIRSCI	0000033560	1,310.50						tranfer to TC-I				
MERIT	AIRSCI	0000033603	1,830.50		264.00	2,094.50	2,088.00	1.00				1.00	
MERIT	AIRSCI	0000035776	641.50						hired in Sep				
MERIT	CHEMST	0000009466	1,801.50		331.50	2,133.00	2,088.00	1.02				1.02	
MERIT	CHEMST	0000009691	935.00						transfer to TC-I				
MERIT	CHEMST	0000020185	1,859.50		277.00	2,136.50	2,088.00	1.02				1.02	
MERIT	CHEMST	0000020652	1,791.75		310.50	2,102.25	2,088.00	1.01				1.01	
MERIT	CHEMST	0000034664	2,077.25		177.50	2,254.75	2,088.00	1.08				1.08	
MERIT	CHEMST	0000034918	1,916.50		210.50	2,127.00	2,088.00	1.02				1.02	
MERIT	CHEMST	0000035785	680.00						hired in Aug				
MERIT	COMENG	0000020527	1,976.50		315.00	2,291.50	2,088.00	1.10				1.10	
MERIT	COMSUP	0000035021	1,970.00		273.00	2,243.00	2,088.00	1.07				1.07	
MERIT	CONSUP	0000020694	1,829.25		309.00	2,138.25	2,088.00	1.02				1.02	
MERIT	CUENGR	0000009454	1,769.00		323.50	2,092.50	2,088.00	1.00				1.00	
MERIT	CUENGR	0000009455	1,854.00		240.00	2,094.00	2,088.00	1.00				1.00	
MERIT	CUENGR	0000009775	1,789.00		306.00	2,095.00	2,088.00	1.00				1.00	
MERIT	CUENGR	0000020390	1,817.50		291.00	2,108.50	2,088.00	1.01				1.01	
MERIT	CUENGR	0000020929	1,735.00		368.00	2,103.00	2,088.00	1.01				1.01	
MERIT	DISPLN	0000020189	1,331.00						transfer to FS-B				
MERIT	DISPLN	0000020199	1,811.50		280.00	2,091.50	2,088.00	1.00				1.00	
MERIT	DISPLN	0000020981	1,910.00		216.00	2,126.00	2,088.00	1.02				1.02	
MERIT	DISPLN	0000033721	1,881.25		216.00	2,097.25	2,088.00	1.00				1.00	
MERIT	DISPLN	0000034585	1,618.00						error: hrs=2010 only				
MERIT	DISPLN	0000034829	1,912.00		164.00	2,076.00	2,088.00	0.99				0.99	
MERIT	ENGSRE	0000020051	1,935.50		276.00	2,211.50	2,088.00	1.06				1.06	
MERIT	ENGSTF	0000009570	1,799.25		304.00	2,103.25	2,088.00	1.01				1.01	
MERIT	ENGSTF	0000009670	1,939.50		260.00	2,199.50	2,088.00	1.05				1.05	
MERIT	ENGSTF	0000034062	1,848.00		271.00	2,119.00	2,088.00	1.01				1.01	
MERIT	ENGSTF	0000035054	2,006.75		196.00	2,202.75	2,088.00	1.05				1.05	
MERIT	ENGSTF	0000035110	2,194.50		144.00	2,338.50	2,088.00	1.12				1.12	
MERIT	ENGSTF	0000035220	1,990.50		152.00	2,142.50	2,088.00	1.03				1.03	
MERIT	ENGSTF	0000035605	192.00						did not work entire yr				
MERIT	GENPLN	0000009345	1,768.00		364.00	2,132.00	2,088.00	1.02				1.02	
MERIT	GENPLN	0000020886	1,816.00		276.00	2,092.00	2,088.00	1.00				1.00	
MERIT	GENPLN	0000033391	1,724.00		360.00	2,084.00	2,088.00	1.00				1.00	
MERIT	GENPLN	0000033699	1,867.00		241.00	2,108.00	2,088.00	1.01				1.01	
MERIT	GENPLN	0000033977	1,785.00		299.00	2,084.00	2,088.00	1.00				1.00	
MERIT	GENPLN	0000033986	1,360.00						did not work entire yr				
MERIT	GENPLN	0000034560	1,744.00		340.00	2,084.00	2,088.00	1.00				1.00	
MERIT	GENPLN	0000034710	1,855.00		232.50	2,087.50	2,088.00	1.00				1.00	
MERIT	GENPLN	0000034873	1,876.00		208.00	2,084.00	2,088.00	1.00				1.00	
MERIT	INSENG	0000009600	1,896.00		248.00	2,144.00	2,088.00	1.03				1.03	
MERIT	INSENG	0000021025	1,830.50		342.00	2,172.50	2,088.00	1.04				1.04	
MERIT	INSSUP	0000009170	2,024.00		272.00	2,296.00	2,088.00	1.10				1.10	
MERIT	MTENGR	0000035237	1,824.00		264.00	2,088.00	2,088.00	1.00				1.00	
MERIT	MTENGR	0000035799	648.00						did not work entire yr				
MERIT	MTSUPV	0000009672	1,124.00	777.75	232.00	2,133.75	2,088.00	1.02	from MTELEC			1.02	
MERIT	MTSUPV	0000020878	552.00						transfer to TC				
MERIT	OPESPT	0000009575	268.50						transfer to F-ED				
MERIT	OPESPT	0000021128	1,628.00	192.00	286.00	2,106.00	2,088.00	1.01	transfer from F			1.01	
MERIT	OPESTF	0000009138	1,759.50		351.00	2,110.50	2,088.00	1.01				1.01	
MERIT	OPESTF	0000009271	876.00	941.00	396.00	2,213.00	2,088.00	1.06	transfer from OPESUP			1.06	
MERIT	OPESTF	0000009615	1,890.00	393.50	256.00	2,539.50	2,088.00	1.22	transfer from OPESUP			1.22	
MERIT	OPESTF	0000009654	969.50	824.25	303.75	2,097.50	2,088.00	1.00	transfer from OPESTF			1.00	
MERIT	OPESTF	0000009696	1,865.08		276.00	2,141.08	2,088.00	1.03				1.03	
MERIT	OPESTF	0000020429	1,712.00		376.00	2,088.00	2,088.00	1.00				1.00	
MERIT	OPESTF	0000020474	212.00						transfer to TRNPLN				
MERIT	OPESUP	0000008973	1,897.00		470.00	2,367.00	2,088.00	1.13				1.13	
MERIT	OPESUP	0000009046	854.00						did not work entire yr				
MERIT	OPESUP	0000009271	941.00						transfer to OPESTF				
MERIT	OPESUP	0000009578	2,085.50		240.00	2,325.50	2,088.00	1.11				1.11	
MERIT	OPESUP	0000009615	393.50						transfer to OPESTF				
MERIT	OPESUP	0000009651	318.50						most BU				
MERIT	OPESUP	0000020093	2,064.58		333.00	2,397.58	2,088.00	1.15				1.15	
MERIT	OPESUP	0000020834	290.00						most BU				
MERIT	OPESUP	0000032515	2,142.25		352.00	2,494.25	2,088.00	1.19				1.19	
MERIT	OPESUP	0000033626	2,212.25		194.00	2,406.25	2,088.00	1.15				1.15	
MERIT	PDSUPV	0000009763	1,903.50		282.50	2,186.00	2,088.00	1.05				1.05	
MERIT	PDSUPV	0000020361	1,900.00		276.00	2,176.00	2,088.00	1.04				1.04	
MERIT	PPELEC	0000020131	1,935.00		276.00	2,211.00	2,088.00	1.06				1.06	
MERIT	PPELEC	0000020467	1,795.00		382.00	2,177.00	2,088.00	1.04				1.04	
MERIT	PPELEC	0000034044	1,836.00		260.00	2,096.00	2,088.00	1.00				1.00	
MERIT	PPELEC	0000034419	2,145.00		240.00	2,385.00	2,088.00	1.14				1.14	
MERIT	PPELEC	0000034723	468.00						did not work entire yr				
MERIT	PPELEC	0000034730	220.00						did not work entire yr				
MERIT	PPELEC	0000035033	1,907.00		181.00	2,088.00	2,088.00	1.00				1.00	
MERIT	PPELEC	0000035443	2,072.00		124.00	2,196.00	2,088.00	1.05				1.05	
MERIT	PPELEC	0000035503	1,993.00		104.00	2,097.00	2,088.00	1.00				1.00	
MERIT	PPELEC	0000035505	1,989.00		112.00	2,101.00	2,088.00	1.01				1.01	
MERIT	PPELEC	0000035605	1,296.00						did not work entire yr				
MERIT	PPELEC	0000035595	1,779.00						did not work entire yr				
MERIT	PPELEC	0000035796	512.00						did not work entire yr				
MERIT	PPELEC	0000035811	512.00						did not work entire yr				
MERIT	PPENGR	0000020896	1,248.00						leave in Sep + transfer				
MERIT	PPENGR	0000021157	329.00						transfer to TC-I				
MERIT	PPENGR	0000033378	1,379.00	635.50	354.50	2,369.00	2,088.00	1.13	from BU			1.13	
MERIT	PPENGR	0000033837	1,959.50		263.75	2,223.25	2,088.00	1.06				1.06	
MERIT	PPENGR	0000034006	652.50						transfer to TCS-I				
MERIT	PPENGR	0000034152	2,019.00		261.00	2,280.00	2,088.00	1.09				1.09	
MERIT	PPENGR	0000034348	1,959.00		256.00	2,215.00	2,088.00	1.06				1.06	

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Hours 09 (Merit)

type	_LbrClass	9-Jan	9-Feb	9-Mar	9-Apr	9-May	9-Jun	9-Jul	9-Aug	9-Sep	9-Oct	9-Nov	9-Dec	FY09	Cnt	Avg hrs /ee	OT %
eme	__EXEC	-2,558	-2,422	-2,561	-2,620	-2,500	-2,438	-2,608	-2,372	-2,428	-2,415	-2,389	-2,571	-29,882			
eme	__EXEC2	-611	-596	-603	-580	-571	-604	-577	-518	-540	-548	-528	-569	-6,845			
														-36,727	**16**	**(2,295.44)**	**(1.10)**
mme	__E	-2,836	-2,658	-2,851	-2,791	-2,752	-2,807	-2,859	-2,648	-2,834	-2,740	-2,641	-2,838	-33,255			
mme	__E-B	-203	-198	-190	-203	-218	-183	-183	-183	-183	-182	-191	-199	-2,316			
mme	__E-ED	-521	-486	-419	-503	-496	-416	-436	-469	-348	-355	-364	-381	-5,194			
mme	__E-I	-829	-755	-824	-825	-775	-816	-841	-773	-785	-794	-756	-821	-9,594			
mme	__E-W	-176	-160	-176	-176	-168	-176	-184	-168	-176	-176	-168	-184	-2,088			
mme	__E-Y	-176	-160	-176	-176	-168	-176	-184	-168	-176	-176	-168	-184	-2,088			
														-54,535	**25**	**(2,181.40)**	**(1.04)**
nmme	__F	-2,556	-2,378	-2,390	-2,506	-2,627	-2,453	-2,419	-2,281	-2,292	-2,358	-2,173	-2,519	-28,952			
nmme	__F-ED	-180	-156	-172	-169	-169	-209	-156	-180	-180	-156	-188	-176	-2,091			
nmme	__FS	-8,774	-8,197	-8,658	-8,651	-8,249	-8,551	-8,647	-8,035	-8,333	-8,369	-8,055	-8,680	-101,199			
nmme	__FS-B	-1,200	-1,245	-1,222	-1,243	-1,311	-1,287	-1,300	-1,315	-1,266	-1,228	-1,347	-1,354	-15,318			
nmme	__FS-ED	-377	-346	-376	-389	-420	-376	-394	-360	-379	-378	-361	-418	-4,574			
nmme	__FS-I	-1,374	-1,246	-1,365	-1,377	-1,300	-1,364	-1,428	-1,305	-1,371	-1,363	-1,296	-1,422	-16,211			
nmme	__TC	-44,785	-42,318	-45,096	-44,835	-43,582	-44,306	-44,865	-42,064	-43,442	-43,243	-42,097	-45,102	-525,735			
nmme	__TC-ED	-2,033	-1,893	-2,044	-2,037	-2,056	-2,055	-2,268	-2,048	-2,192	-2,157	-2,053	-2,268	-25,104			
nmme	__TC-I	-3,626	-3,347	-3,627	-3,571	-3,398	-3,479	-3,653	-3,305	-3,464	-3,440	-3,282	-3,588	-41,780			
nmme	__TCS	-3,993	-3,827	-3,923	-3,962	-3,865	-3,995	-4,041	-3,835	-3,944	-3,902	-3,893	-4,082	-47,262			
nmme	__TCS-B	-190	-190	-172	-180	-180	-180	-180	-180	-198	-180	-188	-196	-2,214			
nmme	__TCS-ED	-4,386	-4,177	-4,335	-4,258	-4,315	-4,046	-4,057	-3,974	-3,976	-4,040	-4,133	-4,518	-50,215			
nmme	__TCS-I	-5,855	-5,328	-5,890	-5,869	-5,580	-5,851	-6,146	-5,656	-6,018	-5,776	-5,571	-6,096	-69,636			
nmme	__TCS-W	-176	-160	-176	-176	-168	-176	-184	-168	-176	-176	-168	-184	-2,088			
nmme	__TCS-Y	-176	-160	-176	-176	-168	-176	-184	-168	-176	-176	-168	-184	-2,088			
nmme	__TC-W	-528	-480	-528	-528	-504	-528	-552	-504	-528	-528	-504	-552	-6,264			
nmme	B_DISPLN	-1,172	-1,172	-1,296	-1,171	-1,203	-1,335	-1,144	-1,138	-1,138	-1,138	-1,192	-1,235	-14,334			
nmme	B_PRJMGT	-1,208	-1,226	-1,201	-1,216	-1,164	-1,085	-1,073	-840	-846	-816	-842	-808	-12,325			
nmme	B_PRJSUP	-436	-447	-392	-405	-446	-409	-429	-403	-400	-395	-419	-417	-4,998			
nmme	B_PROTEC	-876	-922	-1,073	-844	-822	-1,177	-776	-756	-951	-772	-800	-1,928	-11,697			
nmme	B_SSENG	-1,925	-1,934	-1,835	-1,563	-1,488	-2,397	-1,433	-1,384	-2,015	-1,407	-1,412	-2,479	-21,272			
nmme	B_STRENG	-2,163	-2,357	-2,249	-1,887	-1,723	-1,831	-1,680	-1,555	-1,555	-1,456	-1,652	-2,313	-22,421			
nmme	B_SURVEY	-796	-707	-745	-679	-681	-689	-695	-672	-710	-671	-709	-1,266	-9,020			
nmme	B_TCENGR	-984	-1,233	-1,204	-1,012	-978	-1,003	-937	-1,004	-1,064	-1,041	-936	-1,799	-13,195			
nmme	B_TCSENG	-216	-214	-263	-212	-211	-219	-214	-226	-257	-218	-220	-346	-2,816			
nmme	B_TECENG	-1,028	-978	-967	-987	-1,111	-1,005	-1,011	-995	-1,020	-1,001	-1,034	-1,054	-12,191			
nmme	B_TNDENG	-2,815	-2,894	-2,668	-2,746	-2,797	-2,541	-2,477	-2,332	-2,464	-2,515	-2,492	-2,484	-31,225			
nmme	I_PPENGR	-3,637	-3,322	-3,658	-3,578	-3,453	-3,580	-3,707	-3,386	-3,587	-3,502	-3,346	-3,687	-42,443			
nmme	I_PPPLAN	-734	-668	-737	-736	-702	-765	-768	-713	-745	-734	-740	-768	-8,810			
nmme	I_PPSPVR	-1,228	-1,116	-1,230	-1,232	-1,155	-1,241	-1,293	-1,187	-1,267	-1,240	-1,171	-1,280	-14,640			
nmme	I_TVLSPV	-729	-695	-705	-767	-725	-752	-789	-714	-707	-772	-731	-823	-8,909			
nmme	J_AIRSCI	-1,056	-960	-1,056	-1,056	-1,008	-1,056	-1,104	-1,008	-1,056	-1,056	-1,008	-1,104	-12,528			
nmme	J_CHEMST	-1,232	-1,120	-1,232	-1,232	-1,176	-1,232	-1,288	-1,176	-1,232	-1,232	-1,176	-1,288	-14,616			
nmme	J_WHMSCI	-1,584	-1,440	-1,584	-1,584	-1,512	-1,584	-1,656	-1,512	-1,584	-1,584	-1,512	-1,656	-18,792			
nmme	R_COMENG	-188	-188	-240	-188	-188	-188	-188	-195	-188	-188	-196	-220	-2,355			
nmme	R_COMSUP	-193	-257	-197	-188	-193	-193	-201	-196	-212	-225	-233	-241	-2,529			
nmme	R_CONSUP	-142	-142	-142	-142	-142	-142	-417	-417	-142	-154	-154	-170	-2,306			
nmme	R_ENGSRE	-206	-176	-188	-196	-208	-238	-186	-176	-176	-216	-236	-214	-2,416			
nmme	R_ENGSTF	-1,236	-1,236	-1,255	-1,291	-1,283	-1,351	-1,311	-1,291	-1,351	-1,351	-1,287	-1,367	-15,610			
nmme	R_ENGSUP	-193	-193	-205	-193	-225	-193	-213	-193	-193	-193	-201	-201	-2,396			
nmme	R_INSENG	-412	-438	-385	-454	-542	-551	-508	-620	-458	-517	-406	-400	-5,691			
nmme	R_INSSUP	-217	-215	-212	-188	-203	-263	-208	-262	-248	-244	-180	-281	-2,721			
nmme	R_OPESPT	-170	-170	-162	-183	-183	-183	-170	-170	-180	-170	-178	-181	-2,100			
nmme	R_OPESTF	-1,468	-1,468	-1,404	-1,468	-1,564	-1,468	-1,468	-1,468	-1,478	-1,468	-1,532	-1,532	-17,786			
nmme	R_OPESUP	-1,200	-1,200	-1,200	-1,200	-1,392	-1,200	-1,200	-1,200	-1,200	-1,200	-1,200	-1,200	-14,592			
nmme	R_RELENG	-455	-451	-479	-484	-531	-426	-403	-483	-448	-424	-472	-536	-5,592			
nmme	R_RELSUP	-177	-184	-179	-186	-195	-179	-182	-195	-180	-181	-196	-226	-2,260			
nmme	R_SUBENG	-712	-758	-736	-715	-751	-702	-722	-731	-718	-697	-699	-705	-8,646			
nmme	R_SUBPLN	-201	-282	-232	-193	-201	-195	-205	-213	-178	-178	-181	-210	-2,469			
nmme	R_SUBSUP	-416	-561	-532	-409	-423	-426	-424	-433	-397	-397	-413	-474	-5,305			
nmme	R_TECSPT	-182	-166	-180	-160	-186	-162	-170	-182	-166	-182	-182	-174	-2,092			
nmme	W_CUENGR	-880	-800	-880	-880	-840	-880	-920	-840	-880	-880	-840	-920	-10,440			
nmme	W_MTENGR	-352	-320	-352	-352	-336	-352	-368	-336	-352	-352	-336	-368	-4,176			
nmme	W_MTSUPV	-176	-160	-176	-176	-168	-176	-184	-168	-176	-176	-168	-184	-2,088			
nmme	W_PDSUPV	-528	-480	-528	-528	-504	-528	-552	-504	-528	-528	-504	-552	-6,264			
nmme	Y_GENPLN	-1,630	-1,640	-1,641	-1,640	-1,648	-1,621	-1,662	-1,553	-1,590	-1,589	-1,549	-1,659	-19,422			
nmme	Y_IRP	-920	-840	-920	-920	-880	-920	-920	-840	-880	-880	-840	-920	-10,680			
nmme	Y_PPELEC	-2,408	-2,240	-2,260	-2,349	-2,352	-2,464	-4,547	-2,352	-1,883	-1,674	-2,127	-2,576	-29,232			
nmme	Y_PPMECH	-2,310	-2,173	-2,018	-2,005	-2,501	-2,662	-6,219	-2,161	-2,175	-2,008	-2,443	-2,645	-31,320			
nmme	Y_PPPROJ	-848	-837	-837	-809	-810	-810	-890	-890	-983	-822	-790	-957	-10,283			
nmme	Y_TECHSV	-1,936	-1,760	-1,936	-1,936	-1,848	-1,936	-2,024	-1,848	-1,936	-1,936	-1,848	-2,024	-22,968			
nmme	Y_TRNPLN	-1,411	-1,396	-1,409	-1,411	-1,397	-1,410	-1,473	-1,403	-1,412	-1,440	-1,383	-1,481	-17,026			
														-1,477,728	**665**	**(2,220.76)**	**(1.06)**

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Count 09 (Mcrit)

Type	_LbrClass	FY09	9-Jan	9-Feb	9-Mar	9-Apr	9-May	9-Jun	9-Jul	9-Aug	9-Sep	9-Oct	9-Nov	9-Dec	Avg Ct
eme	__EXEC	156	13	13	13	13	13	13	13	13	13	13	13	13	13
eme	__EXEC2	36	3	3	3	3	3	3	3	3	3	3	3	3	3
															16 (E.1)
mme	__E	192	16	16	16	16	16	16	16	16	16	16	16	16	16
mme	__E-B	12	1	1	1	1	1	1	1	1	1	1	1	1	1
mme	__E-ED	24	2	2	2	2	2	2	2	2	2	2	2	2	2
mme	__E-I	48	4	4	4	4	4	4	4	4	4	4	4	4	4
mme	__E-W	12	1	1	1	1	1	1	1	1	1	1	1	1	1
mme	__E-Y	12	1	1	1	1	1	1	1	1	1	1	1	1	1
															25 (E.1)
nmme	__F	161	14	14	14	14	14	13	13	13	13	13	13	13	13
nmme	__F-ED	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	__FS	552	46	46	46	46	46	46	46	46	46	46	46	46	46
nmme	__FS-B	72	6	6	6	6	6	6	6	6	6	6	6	6	6
nmme	__FS-ED	24	2	2	2	2	2	2	2	2	2	2	2	2	2
nmme	__FS-I	84	7	7	7	7	7	7	7	7	7	7	7	7	7
nmme	__TC	2,976	248	248	248	248	248	248	248	248	248	248	248	248	248
nmme	__TC-ED	132	11	11	11	11	11	11	11	11	11	11	11	11	11
nmme	__TC-I	228	19	19	19	19	19	19	19	19	19	19	19	19	19
nmme	__TCS	264	22	22	22	22	22	22	22	22	22	22	22	22	22
nmme	__TCS-B	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	__TCS-ED	252	21	21	21	21	21	21	21	21	21	21	21	21	21
nmme	__TCS-I	360	30	30	30	30	30	30	30	30	30	30	30	30	30
nmme	__TCS-W	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	__TCS-Y	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	__TC-W	36	3	3	3	3	3	3	3	3	3	3	3	3	3
nmme	B_DISPLN	72	6	6	6	6	6	6	6	6	6	6	6	6	6
nmme	B_PRJMGT	48	4	4	4	4	4	4	4	4	4	4	4	4	4
nmme	B_PRJSUP	24	2	2	2	2	2	2	2	2	2	2	2	2	2
nmme	B_PROTEC	48	4	4	4	4	4	4	4	4	4	4	4	4	4
nmme	B_SSENG	96	8	8	8	8	8	8	8	8	8	8	8	8	8
nmme	B_STRENG	96	8	8	8	8	8	8	8	8	8	8	8	8	8
nmme	B_SURVEY	48	4	4	4	4	4	4	4	4	4	4	4	4	4
nmme	B_TCENGR	60	5	5	5	5	5	5	5	5	5	5	5	5	5
nmme	B_TCSENG	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	B_TECENG	60	5	5	5	5	5	5	5	5	5	5	5	5	5
nmme	B_TNDENG	156	13	13	13	13	13	13	13	13	13	13	13	13	13
nmme	I_PPENGR	228	19	19	19	19	19	19	19	19	19	19	19	19	19
nmme	I_PPPLAN	48	4	4	4	4	4	4	4	4	4	4	4	4	4
nmme	I_PPSPVR	72	6	6	6	6	6	6	6	6	6	6	6	6	6
nmme	I_TVLSPV	48	4	4	4	4	4	4	4	4	4	4	4	4	4
nmme	J_AIRSCI	72	6	6	6	6	6	6	6	6	6	6	6	6	6
nmme	J_CHEMST	84	7	7	7	7	7	7	7	7	7	7	7	7	7
nmme	J_WHMSCI	108	9	9	9	9	9	9	9	9	9	9	9	9	9
nmme	R_COMENG	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	R_COMSUP	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	R_CONSUP	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	R_ENGSRE	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	R_ENGSTF	84	7	7	7	7	7	7	7	7	7	7	7	7	7
nmme	R_ENGSUP	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	R_INSENG	24	2	2	2	2	2	2	2	2	2	2	2	2	2
nmme	R_INSSUP	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	R_OPESPT	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	R_OPESTF	96	8	8	8	8	8	8	8	8	8	8	8	8	8
nmme	R_OPESUP	72	6	6	6	6	6	6	6	6	6	6	6	6	6
nmme	R_RELENG	24	2	2	2	2	2	2	2	2	2	2	2	2	2
nmme	R_RELSUP	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	R_SUBENG	48	4	4	4	4	4	4	4	4	4	4	4	4	4
nmme	R_SUBPLN	12	1	1	1	1	1	1	1	1	1	1	1	1	1

CA Interview 9.12.2008 - 0505 ResLev09 2009 (5.5.2008).xls
Count 09

Type	_LbrClass	FY09	9-Jan	9-Feb	9-Mar	9-Apr	9-May	9-Jun	9-Jul	9-Aug	9-Sep	9-Oct	9-Nov	9-Dec	Avg Ct
nmme	R_SUBSUP	24	2	2	2	2	2	2	2	2	2	2	2	2	2
nmme	R_TECSPT	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	W_CUENGR	60	5	5	5	5	5	5	5	5	5	5	5	5	5
nmme	W_MTENGR	24	2	2	2	2	2	2	2	2	2	2	2	2	2
nmme	W_MTSUPV	12	1	1	1	1	1	1	1	1	1	1	1	1	1
nmme	W_PDSUPV	36	3	3	3	3	3	3	3	3	3	3	3	3	3
nmme	W_RECORD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
nmme	Y_GENPLN	108	9	9	9	9	9	9	9	9	9	9	9	9	9
nmme	Y_IRP	60	5	5	5	5	5	5	5	5	5	5	5	5	5
nmme	Y_PPELEC	168	14	14	14	14	14	14	14	14	14	14	14	14	14
nmme	Y_PPMECH	180	15	15	15	15	15	15	15	15	15	15	15	15	15
nmme	Y_PPPROJ	48	4	4	4	4	4	4	4	4	4	4	4	4	4
nmme	Y_TECHSV	132	11	11	11	11	11	11	11	11	11	11	11	11	11
nmme	Y_TRNPLN	96	8	8	8	8	8	8	8	8	8	8	8	8	8
															665

CA Interview 9.12.2008 - HECOPAYROLL2007$ by RA by Lbrclass (5.5.2008).xls
BU OT adj % calc (2009) (BU)

2007 Payroll Data

Type	bu				Factor [1]	0.1132 E			
	A	B	C	D	F = - E x C	G = - E x D	H = A + F	I = B + G	J = D + G
	Data								
	Sum of AMT	Sum of prod hrs	Sum of OT adj $	Sum of OT adj hrs	Adj $	Adj hrs	Adj tot $	Adj tot hrs	Adj OT hrs
Total	52,376,155.10	1,536,674.27	11,977,969.23	200,160.23	(1,355,906)	(22,658)	51,020,249	1,514,016	177,502

2007 Payroll labor rate:	K = A / B		$34.08
2007 Adj Payroll labor rate:	L = H / I		$33.70
Rate difference	M = K - L		$0.39
% difference	N = M / K		**1.13%** (4.1)
Per Pillar:			**2009**
2009 Total BU Supply hours	O	(1.2)	1,714,248
2009 Total BU NPW hours	P	(1.3)	230,143
2009 Total BU Productive hours	Q	(1.4)	1,681,223
2009 Total BU NPW and Prod hours	R = P + Q		1,911,366
BU overtime hours	S = R - O		197,118
BU overtime hrs / prod hours	T = S / Q		11.72%
2007 overtime hrs / prod hrs	D / B		13.03%
2007 adjusted overtime hours / prod hrs	J / I		11.72%

Adjusted the 2007 Overtime hours to result in the same BU overtime hrs / prod hours % as 2009 BU Overtime hrs/productive hrs

CA Interview 9.12.2008 - HECOPAYROLL2007$ by RA by Lbrclass (5.5.2008).xls
SUPPLY (EE SUPPLY) (BU)

_LbrClass	type	FY09
__BUOC	bu	302,760
__BUOCB	bu	16,704
__BUOCED	bu	20,880
__BUOCI	bu	14,616
__BUOCW	bu	12,528
__BUOCY	bu	6,264
__BUTC	bu	125,280
__BUTCED	bu	22,968
__BUTCI	bu	273,528
B_STRDFT	bu	4,176
B_SUBDFT	bu	4,176
B_SURVBU	bu	4,176
B_TECDFT	bu	0
B_TNDDFT	bu	4,176
D_OHCREW	bu	258,912
D_PTM	bu	54,288
D_UGCREW	bu	56,376
I_HPPMNT	bu	22,968
I_KPPMNT	bu	77,256
I_TVLBLR	bu	89,784
I_TVLELC	bu	27,144
I_TVLMCH	bu	31,320
I_TVLTCH	bu	18,792
I_WPPMNT	bu	62,640
R_COMTEC	bu	12,528
R_CONCRW	bu	6,264
R_ENGMAP	bu	10,440
R_INSCRW	bu	12,528
R_OPEDIS	bu	25,056
R_RELCRW	bu	12,528
R_SUBCRW	bu	66,816
W_CUPLNR	bu	6,264
W_DEPLNR	bu	6,264
W_JPCORD	bu	2,088
W_JRDRFT	bu	2,088
W_JRPLNR	bu	12,528
W_MTELEC	bu	18,792
W_RESHER	bu	4,176
Y_PPDRAF	bu	4,176
		1,714,248

(71)

CA Interview 9.12.2008 - HECOPAYROLL2007$ by RA by Lbrclass (5.5.2008).xls
NPW (EE 107 108) (BU)

_LbrClass	type	FY09
__BUOC	bu	-36,280
__BUOCB	bu	-2,344
__BUOCED	bu	-3,112
__BUOCI	bu	-1,933
__BUOCW	bu	-1,424
__BUOCY	bu	-672
__BUTC	bu	-16,068
__BUTCED	bu	-3,180
__BUTCI	bu	-37,358
B_STRDFT	bu	-536
B_SUBDFT	bu	-616
B_SURVBU	bu	-576
B_TECDFT	bu	0
B_TNDDFT	bu	-616
D_OHCREW	bu	-32,735
D_PTM	bu	-8,112
D_UGCREW	bu	-8,208
I_HPPMNT	bu	-3,867
I_KPPMNT	bu	-12,327
I_TVLBLR	bu	-12,420
I_TVLELC	bu	-3,754
I_TVLMCH	bu	-4,332
I_TVLTCH	bu	-2,598
I_WPPMNT	bu	-8,758
R_COMTEC	bu	-1,704
R_CONCRW	bu	-900
R_ENGMAP	bu	-1,160
R_INSCRW	bu	-1,624
R_OPEDIS	bu	-5,136
R_RELCRW	bu	-1,488
R_SUBCRW	bu	-9,408
W_CUPLNR	bu	-872
W_DEPLNR	bu	-872
W_JPCORD	bu	-313
W_JRDRFT	bu	-224
W_JRPLNR	bu	-1,064
W_MTELEC	bu	-2,496
W_RESHER	bu	-568
Y_PPDRAF	bu	-488
		-230,143

(BU)

CA Interview 9.12.2008 - HECOPAYROLL2007$ by RA by Lbrclass (5.5.2008).xls
PROD (EE 150) (gu)

_LbrClass	type	FY09
__BUOC	bu	-270,252
__BUOCB	bu	-15,278
__BUOCED	bu	-19,288
__BUOCI	bu	-12,878
__BUOCW	bu	-11,104
__BUOCY	bu	-5,874
__BUTC	bu	-117,692
__BUTCED	bu	-24,026
__BUTCI	bu	-268,563
B_STRDFT	bu	-6,901
B_SUBDFT	bu	-6,161
B_SURVBU	bu	-3,936
B_TECDFT	bu	0
B_TNDDFT	bu	-5,007
D_OHCREW	bu	-250,942
D_PTM	bu	-60,429
D_UGCREW	bu	-70,691
I_HPPMNT	bu	-20,705
I_KPPMNT	bu	-79,105
I_TVLBLR	bu	-89,410
I_TVLELC	bu	-29,761
I_TVLMCH	bu	-32,217
I_TVLTCH	bu	-21,924
I_WPPMNT	bu	-66,800
R_COMTEC	bu	-12,070
R_CONCRW	bu	-6,000
R_ENGMAP	bu	-10,222
R_INSCRW	bu	-12,160
R_OPEDIS	bu	-23,808
R_RELCRW	bu	-12,289
R_SUBCRW	bu	-65,412
W_CUPLNR	bu	-5,640
W_DEPLNR	bu	-5,416
W_JPCORD	bu	-1,874
W_JRDRFT	bu	-1,864
W_JRPLNR	bu	-11,464
W_MTELEC	bu	-16,764
W_RESHER	bu	-3,608
Y_PPDRAF	bu	-3,688
		-1,681,223

(gu)

CA-IR-240

Ref: HECO T-11, page 45 (Standard Labor Rates & T&D Hours).

As discussed during the on-site interview on September 12, 2008, the T&D non-labor forecast (CA-IR-2, HECO T-8) includes additional outside services costs generally identified as "over demand." HECO T-11 indicated that T&D labor hour information has been compiled to identify the impact of the shift from HECO labor hours to outside contractor. Please provide the referenced compilation in both hard copy and spreadsheet file formats.

HECO Response:

Attachment 1 provides the hard copy of the labor hour information for the energy delivery process area (the process area that accounts for most of the charges to the T&D O&M accounts).

The electronic spreadsheet file of the information in Attachment 1 is being provided as "CA-IR-240 Att. 1 - CA Interview 9.12.08 - T&D hours in SLR (9.15.08).xls."

CA-IR-240 Att. 1 - CA Interview 9.12.08 - T&D hours in SLR (9.15.08).xls
PROD (EE 150)

_LbrClass	Type	VP code	VP	Dept code	Dept	_RA	Resp Area	FY09
__BUOC	bu	PV09	Corp Exc	PH9	SSF	PFS	Corporate Safety	-4,168
__BUOC	bu	PV09	Corp Exc	PH9	SSF	PHF	Facilities Planning	-3,958
__BUTC	bu	PV09	Corp Exc	PH9	SSF	PFS	Corporate Safety	-3,896
__BUTC	bu	PV09	Corp Exc	PH9	SSF	PHB	Facilities Operation	-25,932
__BUOC	bu	PV12	Corp Rel	PQCD	Corp Comm	PQC	Corp Communications	-1,824
__BUOC	bu	PV16	Cust Sol	PS0	Engy Svcs	PSD	Cust Efficiency Pgms	-1,864
__BUOC	bu	PV16	Cust Sol	PSRD	CustTechAp	PSR	Cust Tech Applicatns	-1,866
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBA	Admin-ED Engr	-7,756
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBE	T&D Engineering	-1,816
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBT	Structural	-1,728
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBY	Substn, Protect & Tel	-2,121
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBZ	T&D Technical Svcs	-1,857
B_STRDFT	bu	PV26	En Del	PB9	Engineering	PBT	Structural	-6,901
B_SUBDFT	bu	PV26	En Del	PB9	Engineering	PBY	Substn, Protect & Tel	-6,161
B_SURVBU	bu	PV26	En Del	PB9	Engineering	PBT	Structural	-3,936
B_TECDFT	bu	PV26	En Del	PB9	Engineering	PBZ	T&D Technical Svcs	0
B_TNDDFT	bu	PV26	En Del	PB9	Engineering	PBE	T&D Engineering	-5,007
__BUOCED	bu	PV26	En Del	PD9	C&M	PDC	Control Section	-11,533
__BUOCED	bu	PV26	En Del	PD9	C&M	PDP	Planning	-1,874
__BUTCED	bu	PV26	En Del	PD9	C&M	PDV	Vegetation Management	0
D_OHCREW	bu	PV26	En Del	PD9	C&M	PDD	Training Section	0
D_OHCREW	bu	PV26	En Del	PD9	C&M	PDH	Customer Demand	-3,028
D_OHCREW	bu	PV26	En Del	PD9	C&M	PDJ	West Overhead	-1,196
D_OHCREW	bu	PV26	En Del	PD9	C&M	PDK	East Overhead-Koolau	0
D_OHCREW	bu	PV26	En Del	PD9	C&M	PDL	East Overhead-Ward	0
D_OHCREW	bu	PV26	En Del	PD9	C&M	PDP	Planning	-233
D_OHCREW	bu	PV26	En Del	PD9	C&M	PDS	Operations	-246,485
D_OHCREW	bu	PV26	En Del	PD9	C&M	PDU	Underground	0
D_PTM	bu	PV26	En Del	PD9	C&M	PDF	Field Operation	-60,413
D_PTM	bu	PV26	En Del	PD9	C&M	PDS	Operations	-16
D_UGCREW	bu	PV26	En Del	PD9	C&M	PDS	Operations	-65,297
D_UGCREW	bu	PV26	En Del	PD9	C&M	PDU	Underground	-5,394
W_JPCORD	bu	PV26	En Del	PD9	C&M	PDP	Planning	-1,874
__BUOCED	bu	PV26	En Del	PR0	Sys Op	PRA	Admin-Sys Op	-5,881
R_COMTEC	bu	PV26	En Del	PR0	Sys Op	PRC	Communications	-12,070
R_CONCRW	bu	PV26	En Del	PR0	Sys Op	PRX	Construction Mgt	-6,000
R_ENGMAP	bu	PV26	En Del	PR0	Sys Op	PRE	Operating Engineering	-10,222
R_INSCRW	bu	PV26	En Del	PR0	Sys Op	PRI	Instrument & Control	-12,160
R_OPEDIS	bu	PV26	En Del	PR0	Sys Op	PRD	Operating Dispatch	-23,808
R_RELCRW	bu	PV26	En Del	PR0	Sys Op	PRR	Relay	-12,289
R_SUBCRW	bu	PV26	En Del	PR0	Sys Op	PRS	Substation	-65,412
__BUOC	bu	PV26	En Del	PV9	Supp Svcs	PVF	Fleet	-1,804
__BUOC	bu	PV26	En Del	PV9	Supp Svcs	PVM	Materials Management	-5,349
__BUOC	bu	PV26	En Del	PV9	Supp Svcs	PVP	Purchasing	-7,874
__BUTC	bu	PV26	En Del	PV9	Supp Svcs	PVF	Fleet	-41,526
__BUTC	bu	PV26	En Del	PV9	Supp Svcs	PVM	Materials Management	-44,430
__BUTCED	bu	PV26	En Del	PV9	Supp Svcs	PVL	Electric & Welding Svcs	-24,026
__BUOC	bu	PV30	Fin&Adm	PA0	Gen Acctg	PAD	Cost Accounting	-11,644
__BUOC	bu	PV30	Fin&Adm	PA0	Gen Acctg	PAT	Property Accounting	-3,592
__BUOC	bu	PV30	Fin&Adm	PE0	InfoTech	PEC	Customer Care	-7,552
__BUOC	bu	PV30	Fin&Adm	PE0	InfoTech	PEI	Infrastruct & Oper	-9,506
__BUOC	bu	PV30	Fin&Adm	PE0	InfoTech	PEM	Mailing Services	-7,584
__BUTC	bu	PV30	Fin&Adm	PE0	InfoTech	PEM	Mailing Services	-1,908
__BUOC	bu	PV30	Fin&Adm	PKID	RiskMgt	PKI	Risk Management	-3,523
__BUOCI	bu	PV46	Pwr Sup	PI1D	PS Svcs	PIF	Fuel Resources	-1,816
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIK	Kahe Stn Oper	-1,810
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIM	Maintenance Admin	-1,843
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIP	Plan & Engr	-1,905
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	-1,797
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIW	Waiau Stn Oper	-1,883
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIZ	CIP Stn Maint	-1,824
__BUTCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIH	Honolulu Stn Oper	-40,537
__BUTCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIK	Kahe Stn Oper	-103,732
__BUTCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIW	Waiau Stn Oper	-112,125
__BUTCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIY	CIP Stn Oper	-12,169
I_HPPMNT	bu	PV46	Pwr Sup	PI2D	PS O&M	PIN	Honolulu Stn Maint	-20,705
I_KPPMNT	bu	PV46	Pwr Sup	PI2D	PS O&M	PIL	Kahe Stn Maint	-66,615
I_KPPMNT	bu	PV46	Pwr Sup	PI2D	PS O&M	PIZ	CIP Stn Maint	-12,490
I_TVLBLR	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	-89,410
I_TVLELC	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	-29,761
I_TVLMCH	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	-32,217
I_TVLTCH	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	-21,924
I_WPPMNT	bu	PV46	Pwr Sup	PI2D	PS O&M	PIX	Waiau Stn Maint	-66,800
__BUOC	bu	PV46	Pwr Sup	PJ0	Environ	PJA	Admin-Environ	-1,864
__BUOCY	bu	PV46	Pwr Sup	PY9	PwrSup Eng	PYC	Support Staff	-5,874
Y_PPDRAF	bu	PV46	Pwr Sup	PY9	PwrSup Eng	PYG	PP Drafting	-3,688
__BUOC	bu	PV51	Govt&Comm	PQED	Ed & Cons Aff	PQE	Educ & Cons Affairs	-1,832
__BUOCW	bu	PV57	EnSol	PW9	CID	PWA	Admin-CID	-11,104
W_CUPLNR	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	-5,640
W_DEPLNR	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	-5,416
W_JRDRFT	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	-1,864
W_JRPLNR	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	-11,464
W_MTELEC	bu	PV57	EnSol	PW9	CID	PWX	Engineering & Meter	-16,764
W_RESHER	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	-3,608
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCB	Cust Acctg & Bill	-7,352
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCG	Fld Svc & Collection	-41,352
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCH	Customer Assist Ctr	-50,872
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCM	Meter Reading	-62,864
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCP	Pmt Proc & Supp Ctr	-30,224
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCS	Customer Acct Svcs	-1,784
								-1,681,223

Type	bu

Sum of FY09			
VP	RA	Resp Area	Total
Corp Exc	PFS	Corporate Safety	(8,064)
	PHB	Facilities Operation	(25,932)
	PHF	Facilities Planning	(3,958)
Corp Exc Total			**(37,954)**
Corp Rel	PQC	Corp Communications	(1,824)
Corp Rel Total			**(1,824)**
Cust Sol	PSD	Cust Efficiency Pgms	(1,864)
	PSR	Cust Tech Applicatns	(1,866)
Cust Sol Total			**(3,730)**
En Del	PBA	Admin-ED Engr	(7,756)
	PBE	T&D Engineering	(6,823)
	PBT	Structural	(12,565)
	PBY	Substn, Protect & Tel	(8,282)
	PBZ	T&D Technical Svcs	(1,857)
	PDC	Control Section	(11,533)
	PDD	Training Section	0
	PDF	Field Operation	(60,413)
	PDH	Customer Demand	(3,028)
	PDJ	West Overhead	(1,196)
	PDK	East Overhead-Koolau	0
	PDL	East Overhead-Ward	0
	PDP	Planning	(3,981)
	PDS	Operations	(311,798)
	PDU	Underground	(5,394)
	PDV	Vegetation Management	0
	PRA	Admin-Sys Op	(5,881)
	PRC	Communications	(12,070)
	PRD	Operating Dispatch	(23,808)
	PRE	Operating Engineering	(10,222)
	PRI	Instrument & Control	(12,160)
	PRR	Relay	(12,289)
	PRS	Substation	(65,412)
	PRX	Construction Mgt	(6,000)
	PVF	Fleet	(43,330)
	PVL	Electric & Welding Svcs	(24,026)
	PVM	Materials Management	(49,779)
	PVP	Purchasing	(7,874)
En Del Total			**(707,477)**
EnSol	PWA	Admin-CID	(11,104)
	PWP	Planning & Design	(27,992)
	PWX	Engineering & Meter	(16,764)
EnSol Total			**(55,860)**
Fin&Adm	PAD	Cost Accounting	(11,644)
	PAT	Property Accounting	(3,592)
	PEC	Customer Care	(7,552)
	PEI	Infrastruct & Oper	(9,506)
	PEM	Mailing Services	(9,492)
	PKI	Risk Management	(3,523)
Fin&Adm Total			**(45,309)**
Govt&Comm	PQE	Educ & Cons Affairs	(1,832)
Govt&Comm Total			**(1,832)**
Operations	PCB	Cust Acctg & Bill	(7,352)
	PCG	Fld Svc & Collection	(41,352)
	PCH	Customer Assist Ctr	(50,872)
	PCM	Meter Reading	(62,864)
	PCP	Pmt Proc & Supp Ctr	(30,224)
	PCS	Customer Acct Svcs	(1,784)
Operations Total			**(194,448)**
Pwr Sup	PIF	Fuel Resources	(1,816)
	PIH	Honolulu Stn Oper	(40,537)
	PIK	Kahe Stn Oper	(105,542)
	PIL	Kahe Stn Maint	(66,615)
	PIM	Maintenance Admin	(1,843)
	PIN	Honolulu Stn Maint	(20,705)
	PIP	Plan & Engr	(1,905)
	PIT	Traveling Maintenance	(175,109)
	PIW	Waiau Stn Oper	(114,008)
	PIX	Waiau Stn Maint	(66,800)
	PIY	CIP Stn Oper	(12,169)
	PIZ	CIP Stn Maint	(14,314)
	PJA	Admin-Environ	(1,864)
	PYC	Support Staff	(5,874)
	PYG	PP Drafting	(3,688)
Pwr Sup Total			**(632,789)**
Grand Total			**(1,681,223)** (1)

(1) Agrees to HECOPAYROLL2007$ by RA by Lbrclass.xls, BU OT adj % calc (2009) tab, 2009 Total BU Productive hours. See electronic files submitted in response to CA-IR-239.

CA-IR-240 Att. 1 - CA Interview 9.12.08 - T&D hours in SLR (9.15.08).xls
NPW (EE 107 108)

_LbrClass	Type	VP code	VP	Dept code	Dept	_RA	Resp Area	FY09
__BUOC	bu	PV09	Corp Exc	PH9	SSF	PFS	Corporate Safety	-320
__BUOC	bu	PV09	Corp Exc	PH9	SSF	PHF	Facilities Planning	-420
__BUTC	bu	PV09	Corp Exc	PH9	SSF	PFS	Corporate Safety	-280
__BUTC	bu	PV09	Corp Exc	PH9	SSF	PHB	Facilities Operation	-3,312
__BUOC	bu	PV12	Corp Rel	PQCD	Corp Comm	PQC	Corp Communications	-264
__BUOC	bu	PV16	Cust Sol	PS0	Engy Svcs	PSD	Cust Efficiency Pgms	-224
__BUOC	bu	PV16	Cust Sol	PSRD	CustTechAp	PSR	Cust Tech Applicatns	-224
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBA	Admin-ED Engr	-1,072
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBE	T&D Engineering	-328
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBT	Structural	-328
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBY	Substn, Protect & Tel	-328
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBZ	T&D Technical Svcs	-288
B_STRDFT	bu	PV26	En Del	PB9	Engineering	PBT	Structural	-536
B_SUBDFT	bu	PV26	En Del	PB9	Engineering	PBY	Substn, Protect & Tel	-616
B_SURVBU	bu	PV26	En Del	PB9	Engineering	PBT	Structural	-576
B_TECDFT	bu	PV26	En Del	PB9	Engineering	PBZ	T&D Technical Svcs	0
B_TNDDFT	bu	PV26	En Del	PB9	Engineering	PBE	T&D Engineering	-616
__BUOCED	bu	PV26	En Del	PD9	C&M	PDC	Control Section	-1,871
__BUOCED	bu	PV26	En Del	PD9	C&M	PDP	Planning	-313
D_OHCREW	bu	PV26	En Del	PD9	C&M	PDS	Operations	-32,735
D_PTM	bu	PV26	En Del	PD9	C&M	PDF	Field Operation	-8,112
D_UGCREW	bu	PV26	En Del	PD9	C&M	PDS	Operations	-8,208
W_JPCORD	bu	PV26	En Del	PD9	C&M	PDP	Planning	-313
__BUOCED	bu	PV26	En Del	PR0	Sys Op	PRA	Admin-Sys Op	-928
R_COMTEC	bu	PV26	En Del	PR0	Sys Op	PRC	Communications	-1,704
R_CONCRW	bu	PV26	En Del	PR0	Sys Op	PRX	Construction Mgt	-900
R_ENGMAP	bu	PV26	En Del	PR0	Sys Op	PRE	Operating Engineering	-1,160
R_INSCRW	bu	PV26	En Del	PR0	Sys Op	PRI	Instrument & Control	-1,624
R_OPEDIS	bu	PV26	En Del	PR0	Sys Op	PRD	Operating Dispatch	-5,136
R_RELCRW	bu	PV26	En Del	PR0	Sys Op	PRR	Relay	-1,488
R_SUBCRW	bu	PV26	En Del	PR0	Sys Op	PRS	Substation	-9,408
__BUOC	bu	PV26	En Del	PV9	Supp Svcs	PVF	Fleet	-296
__BUOC	bu	PV26	En Del	PV9	Supp Svcs	PVM	Materials Management	-996
__BUOC	bu	PV26	En Del	PV9	Supp Svcs	PVP	Purchasing	-896
__BUTC	bu	PV26	En Del	PV9	Supp Svcs	PVF	Fleet	-6,020
__BUTC	bu	PV26	En Del	PV9	Supp Svcs	PVM	Materials Management	-6,264
__BUTCED	bu	PV26	En Del	PV9	Supp Svcs	PVL	Electric & Welding Svcs	-3,180
__BUOC	bu	PV30	Fin&Adm	PA0	Gen Acctg	PAD	Cost Accounting	-1,312
__BUOC	bu	PV30	Fin&Adm	PA0	Gen Acctg	PAT	Property Accounting	-584
__BUOC	bu	PV30	Fin&Adm	PE0	InfoTech	PEC	Customer Care	-800
__BUOC	bu	PV30	Fin&Adm	PE0	InfoTech	PEI	Infrastruct & Oper	-1,000
__BUOC	bu	PV30	Fin&Adm	PE0	InfoTech	PEM	Mailing Services	-792
__BUTC	bu	PV30	Fin&Adm	PE0	InfoTech	PEM	Mailing Services	-192
__BUOC	bu	PV30	Fin&Adm	PKID	RiskMgt	PKI	Risk Management	-664
__BUOCI	bu	PV46	Pwr Sup	PI1D	PS Svcs	PIF	Fuel Resources	-272
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIK	Kahe Stn Oper	-282
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIM	Maintenance Admin	-256
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIP	Plan & Engr	-270
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	-299
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIW	Waiau Stn Oper	-282
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIZ	CIP Stn Maint	-272
__BUTCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIH	Honolulu Stn Oper	-6,048
__BUTCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIK	Kahe Stn Oper	-14,128
__BUTCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIW	Waiau Stn Oper	-15,542
__BUTCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIY	CIP Stn Oper	-1,640
I_HPPMNT	bu	PV46	Pwr Sup	PI2D	PS O&M	PIN	Honolulu Stn Maint	-3,867
I_KPPMNT	bu	PV46	Pwr Sup	PI2D	PS O&M	PIL	Kahe Stn Maint	-10,343
I_KPPMNT	bu	PV46	Pwr Sup	PI2D	PS O&M	PIZ	CIP Stn Maint	-1,984
I_TVLBLR	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	-12,420
I_TVLELC	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	-3,754
I_TVLMCH	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	-4,332
I_TVLTCH	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	-2,598
I_WPPMNT	bu	PV46	Pwr Sup	PI2D	PS O&M	PIX	Waiau Stn Maint	-8,758
__BUOC	bu	PV46	Pwr Sup	PJ0	Environ	PJA	Admin-Environ	-224
__BUOCY	bu	PV46	Pwr Sup	PY9	PwrSup Eng	PYC	Support Staff	-672
Y_PPDRAF	bu	PV46	Pwr Sup	PY9	PwrSup Eng	PYG	PP Drafting	-488
__BUOC	bu	PV51	Govt&Comm	PQED	Ed & Cons Aff	PQE	Educ & Cons Affairs	-264
__BUOCW	bu	PV57	EnSol	PW9	CID	PWA	Admin-CID	-1,424
W_CUPLNR	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	-872
W_DEPLNR	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	-872
W_JRDRFT	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	-224
W_JRPLNR	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	-1,064
W_MTELEC	bu	PV57	EnSol	PW9	CID	PWX	Engineering & Meter	-2,496
W_RESHER	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	-568
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCB	Cust Acctg & Bill	-1,096
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCG	Fld Svc & Collection	-6,672
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCH	Customer Assist Ctr	-7,592
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCM	Meter Reading	-8,152
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCP	Pmt Proc & Supp Ctr	-3,184
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCS	Customer Acct Svcs	-304
								-230,143

Type	bu

Sum of FY09			
VP	_RA	Resp Area	Total
Corp Exc	PFS	Corporate Safety	(600)
	PHB	Facilities Operation	(3,312)
	PHF	Facilities Planning	(420)
Corp Exc Total			**(4,332)**
Corp Rel	PQC	Corp Communications	(264)
Corp Rel Total			**(264)**
Cust Sol	PSD	Cust Efficiency Pgms	(224)
	PSR	Cust Tech Applicatns	(224)
Cust Sol Total			**(448)**
En Del	PBA	Admin-ED Engr	(1,072)
	PBE	T&D Engineering	(944)
	PBT	Structural	(1,440)
	PBY	Substn, Protect & Tel	(944)
	PBZ	T&D Technical Svcs	(288)
	PDC	Control Section	(1,871)
	PDF	Field Operation	(8,112)
	PDP	Planning	(626)
	PDS	Operations	(40,943)
	PRA	Admin-Sys Op	(928)
	PRC	Communications	(1,704)
	PRD	Operating Dispatch	(5,136)
	PRE	Operating Engineering	(1,160)
	PRI	Instrument & Control	(1,624)
	PRR	Relay	(1,488)
	PRS	Substation	(9,408)
	PRX	Construction Mgt	(900)
	PVF	Fleet	(6,316)
	PVL	Electric & Welding Svcs	(3,180)
	PVM	Materials Management	(7,260)
	PVP	Purchasing	(896)
En Del Total			**(96,240)**
EnSol	PWA	Admin-CID	(1,424)
	PWP	Planning & Design	(3,600)
	PWX	Engineering & Meter	(2,496)
EnSol Total			**(7,520)**
Fin&Adm	PAD	Cost Accounting	(1,312)
	PAT	Property Accounting	(584)
	PEC	Customer Care	(800)
	PEI	Infrastruct & Oper	(1,000)
	PEM	Mailing Services	(984)
	PKI	Risk Management	(664)
Fin&Adm Total			**(5,344)**
Govt&Comm	PQE	Educ & Cons Affairs	(264)
Govt&Comm Total			**(264)**
Operations	PCB	Cust Acctg & Bill	(1,096)
	PCG	Fld Svc & Collection	(6,672)
	PCH	Customer Assist Ctr	(7,592)
	PCM	Meter Reading	(8,152)
	PCP	Pmt Proc & Supp Ctr	(3,184)
	PCS	Customer Acct Svcs	(304)
Operations Total			**(27,000)**
Pwr Sup	PIF	Fuel Resources	(272)
	PIH	Honolulu Stn Oper	(6,048)
	PIK	Kahe Stn Oper	(14,410)
	PIL	Kahe Stn Maint	(10,343)
	PIM	Maintenance Admin	(256)
	PIN	Honolulu Stn Maint	(3,867)
	PIP	Plan & Engr	(270)
	PIT	Traveling Maintenance	(23,403)
	PIW	Waiau Stn Oper	(15,824)
	PIX	Waiau Stn Maint	(8,758)
	PIY	CIP Stn Oper	(1,640)
	PIZ	CIP Stn Maint	(2,256)
	PJA	Admin-Environ	(224)
	PYC	Support Staff	(672)
	PYG	PP Drafting	(488)
Pwr Sup Total			**(88,731)**
Grand Total			**(230,143)** (1)

(1) Agrees to HECOPAYROLL2007$ by RA by Lbrclass.xls, BU OT adj % calc (2009) tab, 2009 Total BU NPW hours. See electronic files submitted in response to CA-IR-239.

CA-IR-240 Att. 1 - CA Interview 9.12.08 - T&D hours in SLR (9.15.08).xls
SUPPLY (EE SUPPLY)

_LbrClass	Type	VP code	VP	Dept code	Dept	_RA	Resp Area	FY09
__BUOC	bu	PV09	Corp Exc	PH9	SSF	PFS	Corporate Safety	4,176
__BUOC	bu	PV09	Corp Exc	PH9	SSF	PHF	Facilities Planning	4,176
__BUTC	bu	PV09	Corp Exc	PH9	SSF	PFS	Corporate Safety	4,176
__BUTC	bu	PV09	Corp Exc	PH9	SSF	PHB	Facilities Operation	29,232
__BUOC	bu	PV12	Corp Rel	PQCD	Corp Comm	PQC	Corp Communications	2,088
__BUOC	bu	PV16	Cust Sol	PS0	Engy Svcs	PSD	Cust Efficiency Pgms	2,088
__BUOC	bu	PV16	Cust Sol	PSRD	CustTechAp	PSR	Cust Tech Applicatns	2,088
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBA	Admin-ED Engr	8,352
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBE	T&D Engineering	2,088
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBT	Structural	2,088
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBY	Substn, Protect & Tel	2,088
__BUOCB	bu	PV26	En Del	PB9	Engineering	PBZ	T&D Technical Svcs	2,088
B_STRDFT	bu	PV26	En Del	PB9	Engineering	PBT	Structural	4,176
B_SUBDFT	bu	PV26	En Del	PB9	Engineering	PBY	Substn, Protect & Tel	4,176
B_SURVBU	bu	PV26	En Del	PB9	Engineering	PBT	Structural	4,176
B_TECDFT	bu	PV26	En Del	PB9	Engineering	PBZ	T&D Technical Svcs	0
B_TNDDFT	bu	PV26	En Del	PB9	Engineering	PBE	T&D Engineering	4,176
__BUOCED	bu	PV26	En Del	PD9	C&M	PDC	Control Section	12,528
__BUOCED	bu	PV26	En Del	PD9	C&M	PDP	Planning	2,088
D_OHCREW	bu	PV26	En Del	PD9	C&M	PDS	Operations	258,912
D_PTM	bu	PV26	En Del	PD9	C&M	PDF	Field Operation	54,288
D_UGCREW	bu	PV26	En Del	PD9	C&M	PDS	Operations	56,376
W_JPCORD	bu	PV26	En Del	PD9	C&M	PDP	Planning	2,088
__BUOCED	bu	PV26	En Del	PR0	Sys Op	PRA	Admin-Sys Op	6,264
R_COMTEC	bu	PV26	En Del	PR0	Sys Op	PRC	Communications	12,528
R_CONCRW	bu	PV26	En Del	PR0	Sys Op	PRX	Construction Mgt	6,264
R_ENGMAP	bu	PV26	En Del	PR0	Sys Op	PRE	Operating Engineering	10,440
R_INSCRW	bu	PV26	En Del	PR0	Sys Op	PRI	Instrument & Control	12,528
R_OPEDIS	bu	PV26	En Del	PR0	Sys Op	PRD	Operating Dispatch	25,056
R_RELCRW	bu	PV26	En Del	PR0	Sys Op	PRR	Relay	12,528
R_SUBCRW	bu	PV26	En Del	PR0	Sys Op	PRS	Substation	66,816
__BUOC	bu	PV26	En Del	PV9	Supp Svcs	PVF	Fleet	2,088
__BUOC	bu	PV26	En Del	PV9	Supp Svcs	PVM	Materials Management	6,264
__BUOC	bu	PV26	En Del	PV9	Supp Svcs	PVP	Purchasing	8,352
__BUTC	bu	PV26	En Del	PV9	Supp Svcs	PVF	Fleet	45,936
__BUTC	bu	PV26	En Del	PV9	Supp Svcs	PVM	Materials Management	43,848
__BUTCED	bu	PV26	En Del	PV9	Supp Svcs	PVL	Electric & Welding Svcs	22,968
__BUOC	bu	PV30	Fin&Adm	PA0	Gen Acctg	PAD	Cost Accounting	12,528
__BUOC	bu	PV30	Fin&Adm	PA0	Gen Acctg	PAT	Property Accounting	4,176
__BUOC	bu	PV30	Fin&Adm	PE0	InfoTech	PEC	Customer Care	8,352
__BUOC	bu	PV30	Fin&Adm	PE0	InfoTech	PEI	Infrastruct & Oper	10,440
__BUOC	bu	PV30	Fin&Adm	PE0	InfoTech	PEM	Mailing Services	8,352
__BUTC	bu	PV30	Fin&Adm	PE0	InfoTech	PEM	Mailing Services	2,088
__BUOC	bu	PV30	Fin&Adm	PKID	RiskMgt	PKI	Risk Management	4,176
__BUOCI	bu	PV46	Pwr Sup	PI1D	PS Svcs	PIF	Fuel Resources	2,088
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIK	Kahe Stn Oper	2,088
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIM	Maintenance Admin	2,088
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIP	Plan & Engr	2,088
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	2,088
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIW	Waiau Stn Oper	2,088
__BUOCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIZ	CIP Stn Maint	2,088
__BUTCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIH	Honolulu Stn Oper	41,760
__BUTCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIK	Kahe Stn Oper	104,400
__BUTCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIW	Waiau Stn Oper	114,840
__BUTCI	bu	PV46	Pwr Sup	PI2D	PS O&M	PIY	CIP Stn Oper	12,528
I_HPPMNT	bu	PV46	Pwr Sup	PI2D	PS O&M	PIN	Honolulu Stn Maint	22,968
I_KPPMNT	bu	PV46	Pwr Sup	PI2D	PS O&M	PIL	Kahe Stn Maint	64,728
I_KPPMNT	bu	PV46	Pwr Sup	PI2D	PS O&M	PIZ	CIP Stn Maint	12,528
I_TVLBLR	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	89,784
I_TVLELC	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	27,144
I_TVLMCH	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	31,320
I_TVLTCH	bu	PV46	Pwr Sup	PI2D	PS O&M	PIT	Traveling Maintenance	18,792
I_WPPMNT	bu	PV46	Pwr Sup	PI2D	PS O&M	PIX	Waiau Stn Maint	62,640
__BUOC	bu	PV46	Pwr Sup	PJ0	Environ	PJA	Admin-Environ	2,088
__BUOCY	bu	PV46	Pwr Sup	PY9	PwrSup Eng	PYC	Support Staff	6,264
Y_PPDRAF	bu	PV46	Pwr Sup	PY9	PwrSup Eng	PYG	PP Drafting	4,176
__BUOC	bu	PV51	Govt&Comm	PQED	Ed & Cons Aff	PQE	Educ & Cons Affairs	2,088
__BUOCW	bu	PV57	EnSol	PW9	CID	PWA	Admin-CID	12,528
W_CUPLNR	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	6,264
W_DEPLNR	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	6,264
W_JRDRFT	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	2,088
W_JRPLNR	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	12,528
W_MTELEC	bu	PV57	EnSol	PW9	CID	PWX	Engineering & Meter	18,792
W_RESHER	bu	PV57	EnSol	PW9	CID	PWP	Planning & Design	4,176
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCB	Cust Acctg & Bill	8,352
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCG	Fld Svc & Collection	48,024
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCH	Customer Assist Ctr	58,464
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCM	Meter Reading	68,904
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCP	Pmt Proc & Supp Ctr	33,408
__BUOC	bu	PV58	Operations	PC0	Cust Svc	PCS	Customer Acct Svcs	2,088
								1,714,248

Type	bu

Sum of FY09			
VP	_RA	Resp Area	Total
Corp Exc	PFS	Corporate Safety	8,352
	PHB	Facilities Operation	29,232
	PHF	Facilities Planning	4,176
Corp Exc Total			**41,760**
Corp Rel	PQC	Corp Communications	2,088
Corp Rel Total			**2,088**
Cust Sol	PSD	Cust Efficiency Pgms	2,088
	PSR	Cust Tech Applicatns	2,088
Cust Sol Total			**4,176**
En Del	PBA	Admin-ED Engr	8,352
	PBE	T&D Engineering	6,264
	PBT	Structural	10,440
	PBY	Substn, Protect & Tel	6,264
	PBZ	T&D Technical Svcs	2,088
	PDC	Control Section	12,528
	PDF	Field Operation	54,288
	PDP	Planning	4,176
	PDS	Operations	315,288
	PRA	Admin-Sys Op	6,264
	PRC	Communications	12,528
	PRD	Operating Dispatch	25,056
	PRE	Operating Engineering	10,440
	PRI	Instrument & Control	12,528
	PRR	Relay	12,528
	PRS	Substation	66,816
	PRX	Construction Mgt	6,264
	PVF	Fleet	48,024
	PVL	Electric & Welding Svcs	22,968
	PVM	Materials Management	50,112
	PVP	Purchasing	8,352
En Del Total			**701,568**
EnSol	PWA	Admin-CID	12,528
	PWP	Planning & Design	31,320
	PWX	Engineering & Meter	18,792
EnSol Total			**62,640**
Fin&Adm	PAD	Cost Accounting	12,528
	PAT	Property Accounting	4,176
	PEC	Customer Care	8,352
	PEI	Infrastruct & Oper	10,440
	PEM	Mailing Services	10,440
	PKI	Risk Management	4,176
Fin&Adm Total			**50,112**
Govt&Comm	PQE	Educ & Cons Affairs	2,088
Govt&Comm Total			**2,088**
Operations	PCB	Cust Acctg & Bill	8,352
	PCG	Fld Svc & Collection	48,024
	PCH	Customer Assist Ctr	58,464
	PCM	Meter Reading	68,904
	PCP	Pmt Proc & Supp Ctr	33,408
	PCS	Customer Acct Svcs	2,088
Operations Total			**219,240**
Pwr Sup	PIF	Fuel Resources	2,088
	PIH	Honolulu Stn Oper	41,760
	PIK	Kahe Stn Oper	106,488
	PIL	Kahe Stn Maint	64,728
	PIM	Maintenance Admin	2,088
	PIN	Honolulu Stn Maint	22,968
	PIP	Plan & Engr	2,088
	PIT	Traveling Maintenance	169,128
	PIW	Waiau Stn Oper	116,928
	PIX	Waiau Stn Maint	62,640
	PIY	CIP Stn Oper	12,528
	PIZ	CIP Stn Maint	14,616
	PJA	Admin-Environ	2,088
	PYC	Support Staff	6,264
	PYG	PP Drafting	4,176
Pwr Sup Total			**630,576**
Grand Total			**1,714,248** (1)

(1) Agrees to HECOPAYROLL2007$ by RA by Lbrclass.xls, BU OT adj % calc (2009) tab, 2009 Total BU Supply hours. See electronic files submitted in response to CA-IR-239.

CA-IR-241

Ref: HECO T-11, pages 50 to 52 (ITS Positions).

With regard to the addition of three ITS positions, please provide the following:

a. Please describe the current status of filling each of the ITS positions.

b. If the response to part (a) above indicates that the ITS positions are currently open, please provide further information regarding current plans and the expected time table for filling each position.

c. In preparing the 2009 rate case forecast, were any reductions in outside service costs expected to be realized with the filling of the three ITS positions? If not, please explain.

HECO Response:

a. All three new merit positions have been approved by executive management. However, they have not yet been filled.

b. The recruitment process for all three new employees is planned to begin in mid-October 2008. HECO will be posting the announcement for the positions internally and externally in mid-October, and expect to conduct interviews soon thereafter, with start dates targeted for early January 2009 or sooner.

c. No. The systems the new merit employees will support are maintained by in-house merit staff, not contractors. The additional employees will provide the means to build out support for products/services not currently supported adequately. These positions are required to support the new enterprise systems' software applications that were installed over the past 3 years. No developers have been hired since the implementation of the Outage Management System (OMS), Mobility Workforce Management (MWM) system, Harvest, the Business Objects and IDARS systems, etc., and the existing staff has temporarily absorbed the additional support requirements on an interim basis. The staff

shortage has led to undesirable situations as illustrated by the current makeup of OMS and MWM support. The primary IT application support person for the OMS is also assigned a secondary support role for the MWM and vice versa. Due to workload constraints said personnel have had very little time to learn their secondary support responsibilities, yet they will still be called upon should the primary person be unavailable for any reason. The extra positions will help reduce some of the workload on the existing staff, provide for cross-training, increase morale, and address other issues associated with an overloaded staff. In addition, the anticipated launch of the new CIS and HRMS in 2009 will further increase those support requirements with more reports to manage, more software under configuration control, more interfaces to troubleshoot, etc.

CA-IR-242

Ref: HECO T-11, page 65 (RO Pipeline).

Please provide the following:

a. Please provide a detailed description of the expected income tax treatment of the portion of the RO Pipeline to be "dedicated to BWS … and included in RO regulatory asset."
b. How will the income tax treatment of the RO Pipeline dedicated to BWS differ from the portion of the RO Pipeline retained by HECO? Please explain.
c. Referring to part (a) above, please explain how the income tax treatment of the RO Pipeline dedicated to BWS has been reflected in the 2009 rate case forecast, providing copies of any additional supporting documents and/or pinpoint references to documentation previously supplied by the Company.

HECO Response:

a. See Attachment 1 for the response to CA-IR-77 (Docket No. 05-0146). However, the MACRS life for the Transmission Line is 20 years (vs. 15 years) since the project started prior to April 2005, the effective date of the change to 15 MACRS for certain transmission equipment.

b. There will be no differences. The portion dedicated to BWS and the portion retained by HECO will be depreciated using MACRS 15 year life for the generating station and MACRS 20 year life for remaining plant additions.

c. In the test year 2009 rate case, we did not include the BWS portion in our tax depreciation estimates. We will correct it at the next opportunity.

CA-IR-77

Ref: HECO's Response to CA-IR-55; Tax Depreciation on Pipeline Transferred to BWS

Please explain why the Company's Financial Analysis of the RO Water Pipeline recognizes annual tax deductions for tax depreciation at MACRS rates on the transferred water pipeline assets and provide citation into IRS regulations and other authority relied upon for such deductions.

HECO Response:

Internal Revenue Code (IRC) §263A requires capitalization of all direct and certain indirect costs allocable to the production of real or tangible personal property in a trade or business. IRC §263A(g)(1) specifies that the term "produce" includes construct, build, install, manufacture, develop, or improve. IRC Regulations §1.263A-1(e)(3) defines indirect costs requiring capitalization. It states, "indirect costs are properly allocable to property produced when the costs directly benefit or are incurred by reason of the performance of production or resale activities".

In its application for the subject proceeding, Hawaiian Electric agreed that it would "give back" some benefits to the neighboring communities to help mitigate the impact of the CIP Generating Station. One of the proposed community benefits is to construct a reverse osmosis (RO) water pipeline from the Campbell Industrial Park area to Hawaiian Electric's Kahe Power Plant to substitute reverse osmosis water (RO water) from the Board of Water Supply's Honouliuli Water Recycling Facility for potable water presently being used for industrial purposes at the Kahe Power Plant. The cost of this facility falls within the indirect costs incurred by reason of the construction of the generating plant, per Reg. §1.263A-1(e)(3).

The costs related to the RO water pipeline should be allocated among the project costs of the CIP Generating Station and Transmission Additions Project. Based on the cost estimates for

the CIP Generating Station and Transmission Additions project (excluding land costs) presented in HECO-1103, page 1, in Docket No. 05-0145, and the corrected MACRS lives for the Transmission Line from MACRS – 20 year property to MACRS – 15 year property, the project cost for the CIP Generating Station and Transmission Additions project would be allocated as follows (see page 3 of this response for calculation):

95% Generating Station & Transmission Line (MACRS – 15 year)

5% Various property (MACRS - 20 year)

The MACRS lives for the Transmission Line portion of the CIP Generating Station and Transmission Additions project is based on the provisions of the Energy Policy Act of 2005, where property used in the transmission at 69 or more kilovolts of electricity for sale that is originally placed in service after April 11, 2005, now qualifies for MACRS-15 year property, vs. MACRS-20 year property, as originally presented in HECO-1103, page 1, of Docket No. 05-0145.

In the analysis presented in response to CA-IR-55, the RO water pipeline was depreciated for tax purposes assuming MACRS-20 years. A revised revenue requirement analysis for the RO water pipeline based on the revised allocation of costs for tax depreciation purposes shown above is attached on pages 4-9. (The revised revenue requirement analysis replaces the revenue requirement analysis provided in the response to CA-IR-55, pages 3 to 8.)

CIP Generation and Transmission Addition Project
ASSUMPTIONS

Initial Capital Cost:	SOURCE: HECO-1103, Docket No. 05-0145, page 1 Cost ($'s)	MACRS Life (Yrs)	Allocation based on MACRS Life
Generating Station	115,399,225	15	95%
Transmission Line:			
OH Conductors & Devices	436,843	15	
OH Poles & Fixtures	5,770,670	15	
	6,207,513		
AES Substation	2,837,146	20	5%
CEIP Substation	686,611	20	
Fiber Communications	245,903	20	
Microwave Communications	421,880	20	
Kahe Breakers	2,269,731	20	
Kalaeloa Relays	292,251	20	
SUBTOTAL	128,360,260		
CIP Land	5,950,000		N/A
TOTAL Initial Capital	$ 134,310,260		100%

Revenue Requirement Analysis of RO Water Pipeline including O&M Savings
$'s
Assumes O&M savings escalates annually at => 0%

Year		(A) REV REQ of RO Pipeline (Rate Base treatment)	(B) O&M Savings	(C) REV REQ impact of O&M savings	(D) = (A) + (C) Total REVENUE REQUIREMENT
0		-			-
1		693,000	(444,000)	(487,000)	206,000
2		1,239,000	(444,000)	(487,000)	752,000
3		1,184,000	(444,000)	(487,000)	697,000
4		1,134,000	(444,000)	(487,000)	647,000
5		1,087,000	(444,000)	(487,000)	600,000
6		1,043,000	(444,000)	(487,000)	556,000
7		1,002,000	(444,000)	(487,000)	515,000
8		961,000	(444,000)	(487,000)	474,000
9		921,000	(444,000)	(487,000)	434,000
10		881,000	(444,000)	(487,000)	394,000
11		840,000	(444,000)	(487,000)	353,000
12		800,000	(444,000)	(487,000)	313,000
13		759,000	(444,000)	(487,000)	272,000
14		719,000	(444,000)	(487,000)	232,000
15		678,000	(444,000)	(487,000)	191,000
16		644,000	(444,000)	(487,000)	157,000
17		623,000	(444,000)	(487,000)	136,000
18		608,000	(444,000)	(487,000)	121,000
19		594,000	(444,000)	(487,000)	107,000
20		579,000	(444,000)	(487,000)	92,000
21		564,000	(444,000)	(487,000)	77,000
22		550,000	(444,000)	(487,000)	63,000
23		536,000	(444,000)	(487,000)	49,000
24		523,000	(444,000)	(487,000)	36,000
25		509,000	(444,000)	(487,000)	22,000
26		495,000	(444,000)	(487,000)	8,000
27		481,000	(444,000)	(487,000)	(6,000)
28		467,000	(444,000)	(487,000)	(20,000)
29		454,000	(444,000)	(487,000)	(33,000)
30		440,000	(444,000)	(487,000)	(47,000)
31		426,000	(444,000)	(487,000)	(61,000)
32		412,000	(444,000)	(487,000)	(75,000)
33		398,000	(444,000)	(487,000)	(89,000)
34		385,000	(444,000)	(487,000)	(102,000)
35		371,000	(444,000)	(487,000)	(116,000)
36		357,000	(444,000)	(487,000)	(130,000)
37		343,000	(444,000)	(487,000)	(144,000)
38		329,000	(444,000)	(487,000)	(158,000)
39		316,000	(444,000)	(487,000)	(171,000)
40		302,000	(444,000)	(487,000)	(185,000)
41		288,000	(444,000)	(487,000)	(199,000)
42		274,000	(444,000)	(487,000)	(213,000)
43		260,000	(444,000)	(487,000)	(227,000)
44		247,000	(444,000)	(487,000)	(240,000)
45		233,000	(444,000)	(487,000)	(254,000)
46		219,000	(444,000)	(487,000)	(268,000)
47		205,000	(444,000)	(487,000)	(282,000)
48		191,000	(444,000)	(487,000)	(296,000)
49		178,000	(444,000)	(487,000)	(309,000)
50		164,000	(444,000)	(487,000)	(323,000)
Total		27,906,000	(22,200,000)	(24,350,000)	3,556,000
NPV at	3.00%	16,839,000		(12,530,000)	4,674,000
NPV at	8.80%	8,668,000		(5,453,000)	3,656,000
NPV at	12.00%	6,656,000		(4,044,000)	3,045,000

PROJECT: **Revenue Requirement Analysis of RO Water Pipeline including O&M Savings**

Assumptions: Blue = input variables

RO Water Pipeline

Part of the Community Benefits Package in the overall plan to install the CIP Generating Station Project for HECO.

RO Water Pipeline:		Allocation for TAX Depreciation Basis (based on CIP Gen & Transm Addtn Proj) MACRS-15 yr 95%	MACRS-20yr 5%
Capital Cost - HECO to retain ownership	1,151,000	1,093,450	57,550
Capital Cost - transfer to BWS *	6,273,000	5,959,350	313,650
Total Capital Cost for Pipeline	$ 7,424,000		
Estimated Service Life (Yrs)	50		
State Investment Tax Credit	$ 296,960		
Estimated Annual O&M Savings	$444,000		

OTHER ASSUMPTIONS:

Year 1 1

Taxes:		Effective Rate
Federal Tax	35.000%	32.895%
State Tax	6.400%	6.015%
Composite Tax Rate		38.910%
PSC Tax	5.885%	
Franchise Tax	2.500%	
PUC Fee	0.500%	
Revenue taxes	8.885%	
Revenue tax gross-up	109.751%	

State Tax Credit 4.00% of Capital Investment

Long-Term Forecast Target Cost of Capital:

	Annual Rate	Weight	Weighted Average Capital Cost	Weighted After Tax Cost	Cost of Capital Gross-up for Income Taxes	Cost of Capital Gross-up for Inc & Rev Taxes
Short-term Debt	6.00%	3.00%	0.18%	0.11%	0.18%	0.20%
Long-term Debt	7.50%	36.00%	2.70%	1.65%	2.70%	2.96%
Preferred Stock	8.00%	7.00%	0.56%	0.56%	0.92%	1.01%
Common Stock	12.00%	54.00%	6.48%	6.48%	10.61%	11.64%
		100%	9.92%	8.80%	14.40%	15.81%

Portion of Asset financed w/ Tax-Exempt Debt (I.e Revenue Bond $) 0.00%

Rate Base Treatment

RO Water Pipeline **RATE BASE Treatment**
Financial Analysis
REVENUE REQUIREMENT ANALYSIS

YEAR		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
REGULATORY ASSET (portion of Pipeline transferred to BWS):																															
BOOK:																															
Amort factors for RO Water Pipeline	50		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Amortization of RO Water Pipeline			125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460
Total Amortization of Reg Asset		0	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460
TAX:																															
MACRS - 15 Yr			5.00%	9.50%	8.55%	7.70%	6.93%	6.23%	5.90%	5.90%	5.91%	5.90%	5.91%	5.90%	5.91%	5.90%	5.91%	2.95%													
MACRS - 20 Yr			3.75%	7.22%	6.68%	6.18%	5.71%	5.29%	4.89%	4.52%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%	2.23%								
RO Water Pipeline (portion transferred to BWS)		6,273,000																													
Tax Allocation to MACRS -15 yrs	95%		297,968	566,138	509,524	458,870	412,983	371,268	351,602	351,602	352,198	351,602	352,198	351,602	352,198	351,602	352,198	175,801	0	0	0	0	0	0	0	0	0	0	0	0	0
Tax Allocation to MACRS - 20 yrs	5%		11,762	22,642	20,942	19,374	17,919	16,576	15,331	14,183	13,995	13,992	13,995	13,992	13,995	13,992	13,995	13,992	13,995	13,992	13,995	13,992	6,998	0	0	0	0	0	0	0	0
Total Tax Recognition re: Reg Asset		0	309,729	588,781	530,467	478,244	430,902	387,844	366,933	365,785	366,193	365,594	366,193	365,594	366,193	365,594	366,193	189,793	13,995	13,992	13,995	13,992	6,998	0	0	0	0	0	0	0	0
Regulatory Asset Balances:																															
RO Water Pipeline			6,147,540	6,022,080	5,896,620	5,771,160	5,645,700	5,520,240	5,394,780	5,269,320	5,143,860	5,018,400	4,892,940	4,767,480	4,642,020	4,516,560	4,391,100	4,265,640	4,140,180	4,014,720	3,889,260	3,763,800	3,638,340	3,512,880	3,387,420	3,261,960	3,136,500	3,011,040	2,885,580	2,760,120	2,634,660
Total Regulatory Assets		0	6,147,540	6,022,080	5,896,620	5,771,160	5,645,700	5,520,240	5,394,780	5,269,320	5,143,860	5,018,400	4,892,940	4,767,480	4,642,020	4,516,560	4,391,100	4,265,640	4,140,180	4,014,720	3,889,260	3,763,800	3,638,340	3,512,880	3,387,420	3,261,960	3,136,500	3,011,040	2,885,580	2,760,120	2,634,660
Ave balance of Regulatory Asset			6,210,270	6,084,810	5,959,350	5,833,890	5,708,430	5,582,970	5,457,510	5,332,050	5,206,590	5,081,130	4,955,670	4,830,210	4,704,750	4,579,290	4,453,830	4,328,370	4,202,910	4,077,450	3,951,990	3,826,530	3,701,070	3,575,610	3,450,150	3,324,690	3,199,230	3,073,770	2,948,310	2,822,850	2,697,390
DEPRECIATION (portion of Pipeline to be owned by HECO):																															
BOOK Depreciation:																															
Book deprec factors for RO Water Pipeline	50		0.00%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%
Book depreciation of RO Water Pipeline			0	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490
Total BOOK Depreciation		-	-	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490
TAX Depreciation:		1,151,000																													
Tax Allocation to MACRS -15 yrs	95%		54,673	103,878	93,490	84,196	75,776	68,122	64,514	64,514	64,623	64,514	64,623	64,514	64,623	64,514	64,623	32,257	0	0	0	0	0	0	0	0	0	0	0	0	0
Tax Allocation to MACRS - 20 yrs	5%		2,158	4,155	3,843	3,555	3,288	3,042	2,813	2,602	2,568	2,567	2,568	2,567	2,568	2,567	2,568	2,567	2,568	2,567	2,568	2,567	1,284	0	0	0	0	0	0	0	0
Total TAX Depreciation		-	56,831	108,032	97,333	87,751	79,064	71,163	67,327	67,116	67,191	67,081	67,191	67,081	67,191	67,081	67,191	34,824	2,568	2,567	2,568	2,567	1,284	-	-	-	-	-	-	-	-
INVESTMENT TAX CREDIT:																															
BOOK:																															
Amort of CG Credit - RO Water Pipeline	296,960	0	0	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060
Total Amort of CG Credit		0	0	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060
TAX:																															
Recog of CG Credit - RO Water Pipeline			296,960																												
Total CG Credit		-	296,960	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DEFERRED TAXES:																															
Book amort of Reg Asset		-	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460
Tax recognition		-	309,729	588,781	530,467	478,244	430,902	387,844	366,933	365,785	366,193	365,594	366,193	365,594	366,193	365,594	366,193	189,793	13,995	13,992	13,995	13,992	6,998	-	-	-	-	-	-	-	-
Deferred tax asset (liab)		0	(71,699)	(251,976)	(409,563)	(546,831)	(665,677)	(767,770)	(861,727)	(955,237)	(1,048,905)	(1,142,341)	(1,236,009)	(1,329,445)	(1,423,113)	(1,516,549)	(1,610,217)	(1,635,249)	(1,591,878)	(1,548,506)	(1,505,135)	(1,461,763)	(1,415,670)	(1,366,854)	(1,318,037)	(1,269,221)	(1,220,405)	(1,171,589)	(1,122,773)	(1,073,956)	(1,025,140)
Book depreciation		-	-	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490
Tax depreciation		-	56,831	108,032	97,333	87,751	79,064	71,163	67,327	67,116	67,191	67,081	67,191	67,081	67,191	67,081	67,191	34,824	2,568	2,567	2,568	2,567	1,284	-	-	-	-	-	-	-	-
Deferred tax asset (liab)		0	(22,113)	(55,008)	(83,740)	(108,744)	(130,367)	(148,917)	(165,974)	(182,949)	(199,953)	(216,914)	(233,918)	(250,879)	(267,883)	(284,844)	(301,848)	(306,258)	(298,118)	(289,977)	(281,836)	(273,695)	(265,055)	(255,915)	(246,775)	(237,635)	(228,496)	(219,356)	(210,216)	(201,076)	(191,936)
Book - Capital Goods Credit		0	0	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060
Tax - Capital Goods Credit		-	296,960	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deferred tax asset (liab)		0	(181,414)	(177,711)	(174,009)	(170,307)	(166,604)	(162,902)	(159,200)	(155,497)	(151,795)	(148,093)	(144,390)	(140,688)	(136,986)	(133,283)	(129,581)	(125,879)	(122,176)	(118,474)	(114,772)	(111,070)	(107,367)	(103,665)	(99,963)	(96,260)	(92,558)	(88,856)	(85,153)	(81,451)	(77,749)
Total Deferred Tax Asset (Liab)		0	(275,225)	(484,695)	(667,312)	(825,881)	(962,649)	(1,079,589)	(1,186,900)	(1,293,683)	(1,400,653)	(1,507,347)	(1,614,317)	(1,721,012)	(1,827,982)	(1,934,676)	(2,041,646)	(2,067,386)	(2,012,172)	(1,956,957)	(1,901,743)	(1,846,528)	(1,788,092)	(1,726,434)	(1,664,775)	(1,603,117)	(1,541,459)	(1,479,800)	(1,418,142)	(1,356,484)	(1,294,825)
RATE BASE:																															
Plant		-	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000
Accumulated depreciation		-	-	23,490	46,980	70,469	93,959	117,449	140,939	164,429	187,918	211,408	234,898	258,388	281,878	305,367	328,857	352,347	375,837	399,327	422,816	446,306	469,796	493,286	516,776	540,265	563,755	587,245	610,735	634,224	657,714
Regulatory Asset		-	6,147,540	6,022,080	5,896,620	5,771,160	5,645,700	5,520,240	5,394,780	5,269,320	5,143,860	5,018,400	4,892,940	4,767,480	4,642,020	4,516,560	4,391,100	4,265,640	4,140,180	4,014,720	3,889,260	3,763,800	3,638,340	3,512,880	3,387,420	3,261,960	3,136,500	3,011,040	2,885,580	2,760,120	2,634,660
Deferred taxes		0	(275,225)	(484,695)	(667,312)	(825,881)	(962,649)	(1,079,589)	(1,186,900)	(1,293,683)	(1,400,653)	(1,507,347)	(1,614,317)	(1,721,012)	(1,827,982)	(1,934,676)	(2,041,646)	(2,067,386)	(2,012,172)	(1,956,957)	(1,901,743)	(1,846,528)	(1,788,092)	(1,726,434)	(1,664,775)	(1,603,117)	(1,541,459)	(1,479,800)	(1,418,142)	(1,356,484)	(1,294,825)
Net Rate Base		0	7,023,315	6,664,895	6,333,328	6,025,810	5,740,092	5,474,202	5,217,941	4,962,209	4,706,289	4,450,645	4,194,725	3,939,080	3,683,161	3,427,516	3,171,596	2,996,907	2,903,171	2,809,436	2,715,700	2,621,966	2,531,452	2,444,161	2,356,869	2,269,578	2,182,286	2,094,995	2,007,703	1,920,412	1,833,120
Avg Rate Base		0	3,511,658	6,844,105	6,499,112	6,179,569	5,882,951	5,607,147	5,346,071	5,090,075	4,834,249	4,578,467	4,322,685	4,066,903	3,811,120	3,555,338	3,299,556	3,084,252	2,950,039	2,856,304	2,762,568	2,668,833	2,576,709	2,487,806	2,400,515	2,313,223	2,225,932	2,138,641	2,051,349	1,964,058	1,876,766
BALANCE SHEET:																															
Plant		-	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000
Accumulated depreciation		-	-	23,490	46,980	70,469	93,959	117,449	140,939	164,429	187,918	211,408	234,898	258,388	281,878	305,367	328,857	352,347	375,837	399,327	422,816	446,306	469,796	493,286	516,776	540,265	563,755	587,245	610,735	634,224	657,714
Regulatory Asset		-	6,147,540	6,022,080	5,896,620	5,771,160	5,645,700	5,520,240	5,394,780	5,269,320	5,143,860	5,018,400	4,892,940	4,767,480	4,642,020	4,516,560	4,391,100	4,265,640	4,140,180	4,014,720	3,889,260	3,763,800	3,638,340	3,512,880	3,387,420	3,261,960	3,136,500	3,011,040	2,885,580	2,760,120	2,634,660
Total Assets		-	7,298,540	7,149,590	7,000,640	6,851,691	6,702,741	6,553,791	6,404,841	6,255,891	6,106,942	5,957,992	5,809,042	5,660,092	5,511,142	5,362,193	5,213,243	5,064,293	4,915,343	4,766,393	4,617,444	4,468,494	4,319,544	4,170,594	4,021,644	3,872,695	3,723,745	3,574,795	3,425,845	3,276,896	3,127,946
ST debt		-	210,699	199,947	190,000	180,774	172,203	164,226	156,538	148,866	141,189	133,519	125,842	118,172	110,495	102,825	95,148	89,907	87,095	84,283	81,471	78,659	75,944	73,325	70,706	68,087	65,469	62,850	60,231	57,612	54,994
LT debt		-	2,528,393	2,399,362	2,279,998	2,169,292	2,066,433	1,970,713	1,878,459	1,786,395	1,694,264	1,602,232	1,510,101	1,418,069	1,325,938	1,233,906	1,141,775	1,078,887	1,045,142	1,011,397	977,652	943,908	911,323	879,898	848,473	817,048	785,623	754,198	722,773	691,348	659,923
Deferred taxes		-	275,225	484,695	667,312	825,881	962,649	1,079,589	1,186,900	1,293,683	1,400,653	1,507,347	1,614,317	1,721,012	1,827,982	1,934,676	2,041,646	2,067,386	2,012,172	1,956,957	1,901,743	1,846,528	1,788,092	1,726,434	1,664,775	1,603,117	1,541,459	1,479,800	1,418,142	1,356,484	1,294,825
Preferred stock		-	491,632	466,543	443,333	421,807	401,806	383,194	365,256	347,355	329,440	311,545	293,631	275,736	257,821	239,926	222,012	209,783	203,222	196,661	190,099	183,538	177,202	171,091	164,981	158,870	152,760	146,650	140,539	134,429	128,318
Common equity		-	3,792,590	3,599,043	3,419,997	3,253,937	3,099,650	2,956,069	2,817,688	2,679,593	2,541,396	2,403,348	2,265,151	2,127,103	1,988,907	1,850,859	1,712,662	1,618,330	1,567,712	1,517,096	1,466,478	1,415,862	1,366,984	1,319,847	1,272,709	1,225,572	1,178,435	1,131,297	1,084,160	1,037,022	989,885
Total Liab and SE		-	7,298,540	7,149,590	7,000,640	6,851,691	6,702,741	6,553,791	6,404,841	6,255,891	6,106,942	5,957,992	5,809,042	5,660,092	5,511,142	5,362,193	5,213,243	5,064,293	4,915,343	4,766,393	4,617,444	4,468,494	4,319,544	4,170,594	4,021,644	3,872,695	3,723,745	3,574,795	3,425,845	3,276,896	3,127,946
check		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
REVENUE REQUIREMENTS:																															
Total Revenue Requirements		-	692,835	1,238,775	1,184,237	1,133,722	1,086,831	1,043,230	1,001,958	961,489	921,047	880,611	840,176	799,740	759,305	718,870	678,434	644,398	623,181	608,363	593,544	578,725	564,163	550,109	536,309	522,510	508,710	494,911	481,111	467,312	453,512
Revenue taxes		-	61,558	110,065	105,219	100,731	96,565	92,691	89,024	85,428	81,835	78,242	74,650	71,057	67,464	63,872	60,279	57,255	55,370	54,053	52,736	51,420	50,126	48,877	47,651	46,425	45,199	43,973	42,747	41,521	40,295
Amort of Reg Assets		-	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460
Depreciation		-	-	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490
Income before interest		-	505,817	979,760	930,058	884,041	841,316	801,590	763,984	727,111	690,262	653,419	616,576	579,734	542,891	506,048	469,206	438,193	418,861	405,360	391,858	378,357	365,087	352,282	339,708	327,135	314,561	301,988	289,415	276,841	264,268
ST interest		-	6,321	12,319	11,698	11,123	10,589	10,093	9,623	9,162	8,702	8,241	7,781	7,320	6,860	6,400	5,939	5,552	5,310	5,141	4,973	4,804	4,638	4,478	4,321	4,164	4,007	3,850	3,692	3,535	3,378
LT interest		-	94,815	184,791	175,476	166,848	158,840	151,393	144,344	137,432	130,525	123,619	116,712	109,806	102,900	95,994	89,088	83,275	78,651	77,120	74,589	72,058	69,571	67,171	64,814	62,457	60,100	57,743	55,386	53,030	50,673
Taxable income		-	404,681	782,650	742,893	706,069	671,887	640,104	610,018	580,517	551,035	521,559	492,083	462,607	433,131	403,655	374,178	349,367	333,900	323,098	312,296	301,494	290,878	280,633	270,573	260,514	250,455	240,395	230,336	220,276	210,217
Current		-	179,196	91,355	102,739	112,459	120,959	128,420	126,343	115,393	103,734	92,541	80,796	69,603	57,858	46,664	34,920	106,496	181,431	177,230	173,025	168,824	167,914	167,150	163,236	159,321	155,407	151,493	147,579	143,665	139,751
Deferred		-	(21,735)	215,530	188,677	164,629	142,829	123,001	113,371	112,843	113,031	112,755	113,031	112,755	113,031	112,755	113,031	31,800	(49,153)	(49,155)	(49,153)	(49,155)	(52,376)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)
Tax credits		-	-	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)
Income before dividends		-	247,221	481,825	457,537	435,042	414,160	394,743	376,363	358,341	340,331	322,324	304,317	286,310	268,303	250,296	232,289	217,131	207,683	201,084	194,485	187,886	181,400	175,142	168,996	162,851	156,706	150,560	144,415	138,270	132,124
Preferred		-	19,665	38,327	36,395	34,606	32,945	31,400	29,938	28,504	27,072	25,639	24,207	22,775	21,342	19,910	18,478	17,272	16,520	15,995	15,470	14,945	14,430	13,932	13,443	12,954	12,465	11,976	11,488	10,999	10,510
Net income for common		-	227,555	443,498	421,142	400,436	381,215	363,343	346,425	329,837	313,259	296,685	280,110	263,535	246,961	230,386	213,811	199,860	191,163	185,088	179,014	172,940	166,971	161,210	155,553	149,897	144,240	138,584	132,927	127,271	121,614
check		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Rate Base Treatment

RO Water Pipeline **RATE BASE Treatment**
Financial Analysis
REVENUE REQUIREMENT ANALYSIS

YEAR	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
TAX SUMMARY:																														
Book taxes:																														
Income before taxes	-	404,681	782,650	742,893	706,069	671,887	640,104	610,018	580,517	551,035	521,559	492,083	462,607	433,131	403,655	374,178	349,367	333,900	323,098	312,296	301,494	290,878	280,633	270,573	260,514	250,455	240,395	230,336	220,276	210,217
Add State inv credits	0	0	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060
Book taxable income	-	404,681	788,710	748,954	712,130	677,948	646,164	616,078	586,577	557,096	527,620	498,144	468,667	439,191	409,715	380,239	355,427	339,961	329,159	318,357	307,555	296,938	286,693	276,634	266,574	256,515	246,456	236,396	226,337	216,277
Book taxes	0	157,461	306,885	291,416	277,088	263,788	251,421	239,715	228,236	216,765	205,296	193,827	182,357	170,888	159,419	147,950	138,296	132,278	128,075	123,872	119,669	115,538	111,552	107,638	103,724	99,809	95,895	91,981	88,067	84,153
State investment credits	0	0	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)
Current taxes:																														
Book taxable income	-	404,681	788,710	748,954	712,130	677,948	646,164	616,078	586,577	557,096	527,620	498,144	468,667	439,191	409,715	380,239	355,427	339,961	329,159	318,357	307,555	296,938	286,693	276,634	266,574	256,515	246,456	236,396	226,337	216,277
Dep Adj	-	(56,831)	(84,542)	(73,843)	(64,261)	(55,574)	(47,674)	(43,837)	(43,626)	(43,701)	(43,591)	(43,701)	(43,591)	(43,701)	(43,591)	(43,701)	(11,334)	20,922	20,922	20,922	20,922	22,205	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490
Amort of Reg Asset Adj	-	(184,269)	(463,321)	(405,007)	(352,784)	(305,442)	(262,384)	(241,473)	(240,325)	(240,733)	(240,134)	(240,733)	(240,134)	(240,733)	(240,134)	(240,733)	(64,333)	111,465	111,468	111,465	111,468	118,462	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460
State Inv Credits Adj	-	296,960	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)
Tax taxable income	-	460,541	234,787	264,044	289,025	310,871	330,046	324,708	296,566	266,602	237,835	207,649	178,882	148,697	119,930	89,745	273,700	466,287	455,489	444,683	433,885	431,546	429,583	419,523	409,464	399,404	389,345	379,286	369,226	359,167
Current taxes	0	179,196	91,355	102,739	112,459	120,959	128,420	126,343	115,393	103,734	92,541	80,796	69,603	57,858	46,664	34,920	106,496	181,431	177,230	173,025	168,824	167,914	167,150	163,236	159,321	155,407	151,493	147,579	143,665	139,751
State investment credits	-	(296,960)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deferred taxes:																														
Temporary Diffs	-	(55,860)	553,924	484,910	423,105	367,076	316,118	291,370	290,011	290,494	289,785	290,494	289,785	290,494	289,785	290,494	81,727	(126,326)	(126,330)	(126,326)	(126,330)	(134,608)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)
Deferred taxes	-	(21,735)	215,530	188,677	164,629	142,829	123,001	113,371	112,843	113,031	112,755	113,031	112,755	113,031	112,755	113,031	31,800	(49,153)	(49,155)	(49,153)	(49,155)	(52,376)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)
Def State Inv credits	-	296,960	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)
check	-	-	(0)	(0)	(0)	0	0	0	0	0	0	(0)	0	-	-	-	0	(0)	0	0	0	-	0	-	-	(0)	-	0	-	-
INCOME STATEMENT:																														
Total Electric Revenues	-	692,835	1,238,775	1,184,237	1,133,722	1,086,831	1,043,230	1,001,958	961,489	921,047	880,611	840,176	799,740	759,305	718,870	678,434	644,398	623,181	608,363	593,544	578,726	564,163	550,109	536,309	522,510	508,710	494,911	481,111	467,312	453,512
Revenue taxes	0	61,558	110,065	105,219	100,731	96,565	92,691	89,024	85,428	81,835	78,242	74,650	71,057	67,464	63,872	60,279	57,255	55,370	54,053	52,736	51,420	50,126	48,877	47,651	46,425	45,199	43,973	42,747	41,521	40,295
Amort of Reg Assets	0	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460
Depreciation Expense	-	-	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490
Income before interest and taxes	-	505,817	979,760	930,068	884,041	841,316	801,590	763,984	727,111	690,262	653,419	616,576	579,734	542,891	506,048	469,206	438,193	418,861	405,360	391,858	378,357	365,087	352,282	339,708	327,135	314,561	301,988	289,415	276,841	264,268
ST interest	0	6,321	12,319	11,698	11,123	10,589	10,093	9,623	9,162	8,702	8,241	7,781	7,320	6,860	6,400	5,939	5,552	5,310	5,141	4,973	4,804	4,638	4,478	4,321	4,164	4,007	3,850	3,692	3,535	3,378
LT interest	0	94,815	184,791	175,476	166,848	158,840	151,393	144,344	137,432	130,525	123,619	116,712	109,806	102,900	95,994	89,088	83,275	79,651	77,120	74,589	72,058	69,571	67,171	64,814	62,457	60,100	57,743	55,386	53,030	50,673
Income before taxes	-	404,681	782,650	742,893	706,069	671,887	640,104	610,018	580,517	551,035	521,559	492,083	462,607	433,131	403,655	374,178	349,367	333,900	323,098	312,296	301,494	290,878	280,633	270,573	260,514	250,455	240,395	230,336	220,276	210,217
Current	-	179,196	91,355	102,739	112,459	120,959	128,420	126,343	115,393	103,734	92,541	80,796	69,603	57,858	46,664	34,920	106,496	181,431	177,230	173,025	168,824	167,914	167,150	163,236	159,321	155,407	151,493	147,579	143,665	139,751
Deferred	0	(21,735)	215,530	188,677	164,629	142,829	123,001	113,371	112,843	113,031	112,755	113,031	112,755	113,031	112,755	113,031	31,800	(49,153)	(49,155)	(49,153)	(49,155)	(52,376)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)
Tax credits	0	0	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)
Income before dividends	-	247,221	481,825	457,537	435,042	414,160	394,743	376,363	358,341	340,331	322,324	304,317	286,310	268,303	250,296	232,289	217,131	207,683	201,084	194,485	187,886	181,400	175,142	168,996	162,851	156,706	150,560	144,415	138,270	132,124
Preferred dividends	0	19,665	38,327	36,395	34,606	32,945	31,400	29,938	28,504	27,072	25,639	24,207	22,775	21,342	19,910	18,478	17,272	16,520	15,995	15,470	14,945	14,430	13,932	13,443	12,954	12,465	11,976	11,488	10,999	10,510
Net income for common	0	227,555	443,498	421,142	400,436	381,215	363,343	346,425	329,837	313,259	296,685	280,110	263,535	246,961	230,386	213,811	199,860	191,163	185,088	179,014	172,940	166,971	161,210	155,553	149,897	144,240	138,584	132,927	127,271	121,614
ROACE	#DIV/0!	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%

Rate Base Treatment

RO Water Pipeline
Financial Analysis
REVENUE REQUIREMENT ANALYSIS

YEAR	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
REGULATORY ASSET (portion of Pipelir																						
BOOK:																						
Amort factors for RO Water Pipeline	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	100.00%
Amortization of RO Water Pipeline	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	6,273,000
Total Amortization of Reg Asset	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	
TAX:																						
MACRS - 15 Yr																						100.00%
MACRS - 20 Yr																						100.00%
RO Water Pipeline (portion transferred to B																						
Tax Allocation to MACRS -15 yrs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,959,350
Tax Allocation to MACRS - 20 yrs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	313,650
Total Tax Recognition re: Reg Asset	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,273,000
Regulatory Asset Balances:																						
RO Water Pipeline	2,509,200	2,383,740	2,258,280	2,132,820	2,007,360	1,881,900	1,756,440	1,630,980	1,505,520	1,380,060	1,254,600	1,129,140	1,003,680	878,220	752,760	627,300	501,840	376,380	250,920	125,460	0	
Total Regulatory Assets	2,509,200	2,383,740	2,258,280	2,132,820	2,007,360	1,881,900	1,756,440	1,630,980	1,505,520	1,380,060	1,254,600	1,129,140	1,003,680	878,220	752,760	627,300	501,840	376,380	250,920	125,460	0	
Ave balance of Regulatory Asset	2,571,930	2,446,470	2,321,010	2,195,550	2,070,090	1,944,630	1,819,170	1,693,710	1,568,250	1,442,790	1,317,330	1,191,870	1,066,410	940,950	815,490	690,030	564,570	439,110	313,650	188,190	62,730	
DEPRECIATION (portion of Pipeline to b																						
BOOK Depreciation:																						
Book deprec factors for RO Water Pipeline	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	100.00%
Book depreciation of RO Water Pipeline	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	1,151,000
Total BOOK Depreciation	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	1,151,000
TAX Depreciation:																						
Tax Allocation to MACRS -15 yrs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,093,450
Tax Allocation to MACRS - 20 yrs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57,550
Total TAX Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,151,000
INVESTMENT TAX CREDIT:																						
BOOK:																						
Amort of CG Credit - RO Water Pipeline	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	296,960
Total Amort of CG Credit	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	296,960
TAX:																						
Recog of CG Credit - RO Water Pipeline																						
Total CG Credit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	296,960
DEFERRED TAXES:																						
Book amort of Reg Asset	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	6,273,000
Tax recognition	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,273,000
Deferred tax asset (liab)	(976,324)	(927,508)	(878,692)	(829,875)	(781,059)	(732,243)	(683,427)	(634,611)	(585,794)	(536,978)	(488,162)	(439,346)	(390,530)	(341,713)	(292,897)	(244,081)	(195,265)	(146,449)	(97,632)	(48,816)	(0)	
Book depreciation	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	1,151,000
Tax depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,151,000
Deferred tax asset (liab)	(182,797)	(173,657)	(164,517)	(155,377)	(146,237)	(137,097)	(127,958)	(118,818)	(109,678)	(100,538)	(91,398)	(82,258)	(73,119)	(63,979)	(54,839)	(45,699)	(36,559)	(27,419)	(18,280)	(9,140)	0	
Book - Capital Goods Credit	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	296,960
Tax - Capital Goods Credit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	296,960
Deferred tax asset (liab)	(74,046)	(70,344)	(66,642)	(62,939)	(59,237)	(55,535)	(51,832)	(48,130)	(44,428)	(40,725)	(37,023)	(33,321)	(29,619)	(25,916)	(22,214)	(18,512)	(14,809)	(11,107)	(7,405)	(3,702)	(0)	
Total Deferred Tax Asset (Liab)	(1,233,167)	(1,171,509)	(1,109,850)	(1,048,192)	(986,534)	(924,875)	(863,217)	(801,559)	(739,900)	(678,242)	(616,583)	(554,925)	(493,267)	(431,608)	(369,950)	(308,292)	(246,633)	(184,975)	(123,317)	(61,658)	(0)	
RATE BASE:																						
Plant	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	
Accumulated depreciation	681,204	704,694	728,184	751,673	775,163	798,653	822,143	845,633	869,122	892,612	916,102	939,592	963,082	986,571	1,010,061	1,033,551	1,057,041	1,080,531	1,104,020	1,127,510	1,151,000	
Regulatory Asset	2,509,200	2,383,740	2,258,280	2,132,820	2,007,360	1,881,900	1,756,440	1,630,980	1,505,520	1,380,060	1,254,600	1,129,140	1,003,680	878,220	752,760	627,300	501,840	376,380	250,920	125,460	-	
Deferred taxes	(1,233,167)	(1,171,509)	(1,109,850)	(1,048,192)	(986,534)	(924,875)	(863,217)	(801,559)	(739,900)	(678,242)	(616,583)	(554,925)	(493,267)	(431,608)	(369,950)	(308,292)	(246,633)	(184,975)	(123,317)	(61,658)	(0)	
Net Rate Base	1,745,829	1,658,538	1,571,246	1,483,955	1,396,663	1,309,372	1,222,080	1,134,789	1,047,497	960,206	872,914	785,623	698,332	611,040	523,749	436,457	349,166	261,874	174,583	87,291	(0)	
Avg Rate Base	1,789,475	1,702,183	1,614,892	1,527,600	1,440,309	1,353,017	1,265,726	1,178,435	1,091,143	1,003,852	916,560	829,269	741,977	654,686	567,394	480,103	392,812	305,520	218,229	130,937	43,646	
BALANCE SHEET:																						
Plant	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	1,151,000	
Accumulated depreciation	681,204	704,694	728,184	751,673	775,163	798,653	822,143	845,633	869,122	892,612	916,102	939,592	963,082	986,571	1,010,061	1,033,551	1,057,041	1,080,531	1,104,020	1,127,510	1,151,000	
Regulatory Asset	2,509,200	2,383,740	2,258,280	2,132,820	2,007,360	1,881,900	1,756,440	1,630,980	1,505,520	1,380,060	1,254,600	1,129,140	1,003,680	878,220	752,760	627,300	501,840	376,380	250,920	125,460	-	
Total Assets	2,978,996	2,830,046	2,681,096	2,532,147	2,383,197	2,234,247	2,085,297	1,936,347	1,787,398	1,638,448	1,489,498	1,340,548	1,191,598	1,042,649	893,699	744,749	595,799	446,849	297,900	148,950	0	
ST debt	52,375	49,756	47,137	44,519	41,900	39,281	36,662	34,044	31,425	28,806	26,187	23,569	20,950	18,331	15,712	13,094	10,475	7,856	5,237	2,619	(0)	
LT debt	628,498	597,074	565,649	534,224	502,799	471,374	439,949	408,524	377,099	345,674	314,249	282,824	251,399	219,974	188,550	157,125	125,700	94,275	62,850	31,425	(0)	
Deferred taxes	1,233,167	1,171,509	1,109,850	1,048,192	986,534	924,875	863,217	801,559	739,900	678,242	616,583	554,925	493,267	431,608	369,950	308,292	246,633	184,975	123,317	61,658	0	
Preferred stock	122,208	116,098	109,987	103,877	97,766	91,656	85,546	79,435	73,325	67,214	61,104	54,994	48,883	42,773	36,662	30,552	24,442	18,331	12,221	6,110	(0)	
Common equity	942,748	895,610	848,473	801,336	754,198	707,061	659,923	612,786	565,649	518,511	471,374	424,236	377,099	329,962	282,824	235,687	188,550	141,412	94,275	47,137	(0)	
Total Liab and SE	2,978,996	2,830,046	2,681,096	2,532,147	2,383,197	2,234,247	2,085,297	1,936,347	1,787,398	1,638,448	1,489,498	1,340,548	1,191,598	1,042,649	893,699	744,749	595,799	446,849	297,900	148,950	0	
check	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
REVENUE REQUIREMENTS:																						
Total Revenue Requirements	439,713	425,913	412,114	398,314	384,515	370,715	356,916	343,116	329,317	315,517	301,718	287,918	274,119	260,319	246,520	232,720	218,921	205,121	191,322	177,522	163,723	27,904,193
Revenue taxes	39,068	37,842	36,616	35,390	34,164	32,938	31,712	30,486	29,260	28,034	26,808	25,582	24,355	23,129	21,903	20,677	19,451	18,225	16,999	15,773	14,547	
Amort of Reg Assets	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	
Depreciation	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	
Income before interest	251,694	239,121	226,548	213,974	201,401	188,827	176,254	163,681	151,107	138,534	125,960	113,387	100,814	88,240	75,667	63,093	50,520	37,947	25,373	12,800	226	
ST interest	3,221	3,064	2,907	2,750	2,593	2,435	2,278	2,121	1,964	1,807	1,650	1,493	1,336	1,178	1,021	864	707	550	393	236	79	
LT interest	48,316	45,959	43,602	41,245	38,888	36,531	34,175	31,818	29,461	27,104	24,747	22,390	20,033	17,677	15,320	12,963	10,606	8,249	5,892	3,535	1,178	
Taxable income	200,158	190,098	180,039	169,979	159,920	149,860	139,801	129,742	119,682	109,623	99,563	89,504	79,445	69,385	59,326	49,266	39,207	29,148	19,088	9,029	(1,031)	
Current	135,837	131,923	128,009	124,095	120,181	116,266	112,352	108,438	104,524	100,610	96,696	92,782	88,868	84,954	81,040	77,125	73,211	69,297	65,383	61,469	57,555	
Deferred	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	
Tax credits	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	
Income before dividends	125,979	119,834	113,688	107,543	101,398	95,252	89,107	82,962	76,816	70,671	64,526	58,381	52,235	46,090	39,945	33,799	27,654	21,509	15,363	9,218	3,073	
Preferred	10,021	9,532	9,043	8,555	8,066	7,577	7,088	6,599	6,110	5,622	5,133	4,644	4,155	3,666	3,177	2,689	2,200	1,711	1,222	733	244	
Net income for common	115,958	110,301	104,645	98,989	93,332	87,676	82,019	76,363	70,706	65,050	59,393	53,737	48,080	42,424	36,767	31,111	25,454	19,798	14,141	8,485	2,828	
check	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(0)	-	-	

Rate Base Treatment

RO Water Pipeline
Financial Analysis
REVENUE REQUIREMENT ANALYSIS

YEAR	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
TAX SUMMARY:																						
Book taxes:																						
Income before taxes	200,158	190,098	180,039	169,979	159,920	149,860	139,801	129,742	119,682	109,623	99,563	89,504	79,445	69,385	59,326	49,266	39,207	29,148	19,088	9,029	(1,031)	
Add State inv credits	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	
Book taxable income	206,218	196,159	186,099	176,040	165,980	155,921	145,861	135,802	125,743	115,683	105,624	95,564	85,505	75,446	65,386	55,327	45,267	35,208	25,149	15,089	5,030	
Book taxes	80,239	76,325	72,411	68,497	64,583	60,668	56,754	52,840	48,926	45,012	41,098	37,184	33,270	29,356	25,442	21,528	17,613	13,699	9,785	5,871	1,957	
State investment credits	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	
Current taxes:																						
Book taxable income	206,218	196,159	186,099	176,040	165,980	155,921	145,861	135,802	125,743	115,683	105,624	95,564	85,505	75,446	65,386	55,327	45,267	35,208	25,149	15,089	5,030	
Dep Adj	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	
Amort of Reg Asset Adj	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	
State Inv Credits Adj	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	
Tax taxable income	349,107	339,048	328,989	318,929	308,870	298,810	288,751	278,691	268,632	258,573	248,513	238,454	228,394	218,335	208,276	198,216	188,157	178,097	168,038	157,979	147,919	
Current taxes	135,837	131,923	128,009	124,095	120,181	116,266	112,352	108,438	104,524	100,610	96,696	92,782	88,868	84,954	81,040	77,125	73,211	69,297	65,383	61,469	57,555	
State investment credits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Deferred taxes:																						
Temporary Diffs	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	(142,889)	
Deferred taxes	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	
Def State inv credits	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	
check	-	-	-	-	-	0	0	0	-	-	-	(0)	(0)	-	-	-	-	-	(0)	(0)	-	
INCOME STATEMENT:																						
Total Electric Revenues	439,713	425,913	412,114	398,314	384,515	370,715	356,916	343,116	329,317	315,517	301,718	287,918	274,119	260,319	246,520	232,720	218,921	205,121	191,322	177,522	163,723	27,904,193
Revenue taxes	39,068	37,842	36,616	35,390	34,164	32,938	31,712	30,486	29,260	28,034	26,808	25,582	24,355	23,129	21,903	20,677	19,451	18,225	16,999	15,773	14,547	
Amort of Reg Assets	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	125,460	
Depreciation Expense	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	23,490	
Income before interest and taxes	251,694	239,121	226,548	213,974	201,401	188,827	176,254	163,681	151,107	138,534	125,960	113,387	100,814	88,240	75,667	63,093	50,520	37,947	25,373	12,800	226	
ST interest	3,221	3,064	2,907	2,750	2,593	2,435	2,278	2,121	1,964	1,807	1,650	1,493	1,336	1,178	1,021	864	707	550	393	236	79	
LT interest	48,316	45,959	43,602	41,245	38,888	36,531	34,175	31,818	29,461	27,104	24,747	22,390	20,033	17,677	15,320	12,963	10,606	8,249	5,892	3,535	1,178	
Income before taxes	200,158	190,098	180,039	169,979	159,920	149,860	139,801	129,742	119,682	109,623	99,563	89,504	79,445	69,385	59,326	49,266	39,207	29,148	19,088	9,029	(1,031)	
Current	135,837	131,923	128,009	124,095	120,181	116,266	112,352	108,438	104,524	100,610	96,696	92,782	88,868	84,954	81,040	77,125	73,211	69,297	65,383	61,469	57,555	
Deferred	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,596)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	(55,598)	
Tax credits	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	(6,060)	
Income before dividends	125,979	119,834	113,688	107,543	101,398	95,252	89,107	82,962	76,816	70,671	64,526	58,381	52,235	46,090	39,945	33,799	27,654	21,509	15,363	9,218	3,073	
Preferred dividends	10,021	9,532	9,043	8,555	8,066	7,577	7,088	6,599	6,110	5,622	5,133	4,644	4,155	3,666	3,177	2,689	2,200	1,711	1,222	733	244	
Net Income for common	115,958	110,301	104,645	98,989	93,332	87,676	82,019	76,363	70,706	65,050	59,393	53,737	48,080	42,424	36,767	31,111	25,454	19,798	14,141	8,485	2,828	
ROACE	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	

CA-IR-243

Ref: HECO T-11, page 73 (Pension Contributions).

At line 18, HECO T-11 states that no pension contributions were made in 2007 and none are expected in 2008 or 2009. Please identify and describe any expected impacts of the Pension Protection Act on HECO's future pension contributions.

HECO Response:

Pension contributions are based on the information provided by the Company's consultant, Watson Wyatt. Effective January 1, 2008, contribution requirements are determined under the Pension Protection Act of 2006 ("PPA"). Under the PPA, the minimum required contribution to the plan is the sum of the value of benefits accruing during the year ("target liability normal cost") plus a seven-year amortization of any accrued liability ("target liability") in excess of plan assets. If plan assets exceed the target liability, then the excess may be used to offset the requirement to fund the target liability normal cost. In addition, past years' contributions in excess of minimum required amounts created a carry-over balance under the PPA that may be available to offset current year funding requirements.

At the time the information for the test year estimate was prepared, HECO was anticipating an orderly financial market. The target liability under the PPA was determined based on a 6.04% effective interest rate and was 101.548% funded (January 1, 2008 Adjusted Funding Target Attainment Percentage, "AFTAP"). The target liability normal cost was about $20 million and HECO's carry-over balance as of January 1, 2008 was about $51 million. As of January 1, 2008, the excess assets plus application of the carry-over balance exceeded the target liability normal cost; therefore, no contribution is required for the 2008 plan year. Under the PPA, and based on an orderly financial market including an 8.5% return on assets, HECO was

anticipating no required contributions for 2009 as the existing carry-over balance was expected to be sufficient to offset funding requirements. Once plan assets equal or exceed the target liability, the asset return (based on a diversified portfolio of equity and fixed income holdings) was anticipated to exceed the growth in the target liability (which is determined based on corporate bond returns) and the excess assets were anticipated to be used to offset target liability normal costs. On this basis, HECO was anticipating minimum contributions to trend to amounts less than $20 million per year (the target liability normal cost as calculated under the PPA).

In light of current market conditions, it is currently anticipated that the target liability will exceed the plan assets as of January 1, 2009, the carry-over balance will be written down due to a negative asset return, and contributions will be required for the 2009 plan year. Note that this is due to a severe drop in the market value of pension assets that is beyond the control of HECO and not directly a result of the PPA. However, as described further below, the contributions may not be required until calendar year 2010.

Although the impact on the 2009 valuation is difficult to gauge at this time, the Company has estimated the 2009 plan year minimum required contribution assuming HECO's pension assets at January 1, 2009 are valued at [redacted] (HECO's pension assets were valued at [redacted] at September 30, 2008); on this basis, the 2009 plan year minimum required contribution is estimated to be about [redacted] net of the carry-over balance. For sensitivity purposes, the Company has estimated the impact of an additional drop in assets of [redacted] (to [redacted]); on that basis the 2009 plan year minimum required contribution could increase by about [redacted] to total about [redacted]. The quarterly contribution requirements for calendar year 2009 will be based on the 2008 plan year minimum required contribution (calculated prior to application of the carry-over balance). The carry-over balance to be

determined as of January 1, 2009 may be available to partially offset 2009 contribution requirements such that the majority of the cash funding for the required 2009 plan year contributions may not be due until September of 2010. Contributions for subsequent years are expected to be higher as the carry-over balance would be depleted in 2009 to partially satisfy the 2009 plan year contribution requirements. Two required quarterly contributions anticipated for the 2010 plan year (4/15/2010 and 7/15/2010) will be due in 2010 prior to the due date of the final 2009 plan year contribution requirement (9/15/2010). Under the PPA, losses (whether asset-sourced or obligation-sourced) are amortized over seven years or until offset by subsequent gains. Therefore, minimum required contributions exceeding the target liability normal cost are anticipated until the excess target liability is funded (estimated between five to seven years).

CA-IR-243

Ref: HECO T-11, page 73 (Pension Contributions).

At line 18, HECO T-11 states that no pension contributions were made in 2007 and none are expected in 2008 or 2009. Please identify and describe any expected impacts of the Pension Protection Act on HECO's future pension contributions.

HECO Response:

Based on information received from Watson Wyatt regarding pension and OPEB contributions for the 2009 test year, HECO supplements the information provided in the initial response to CA-IR-243. Certain actuarial information provided by Watson Wyatt in February 2009 is confidential and is subject to the Protective Order approved and filed on November 21, 2008 in this proceeding. The Company objects to providing certain actuarial information on the grounds that the information contains privileged financial information that is non-public, confidential information and disclosure of such information could trigger requirements under the rules and guidelines of the Securities and Exchange Commission and/or the New York Stock Exchange that information that would be meaningful to an investor (such as earnings estimates or information that can be used to derive earnings estimates) be released to all investors, if the information is disclosed beyond a limited number of "insiders." Information regarding projections and assumptions related to contribution to the pension plan are the types of information that, if selectively but not publicly released, could violate such requirements. Without waiving its objection, the Company will provide the confidential actuarial information under protective order.

As stated in the initial response to CA-IR-243, in light of the financial market conditions in late 2008, it is anticipated that the target liability will exceed the plan assets as of January 1, 2009, the carry-over balance will be written down due to a negative asset return, and contributions will be required for the 2009 plan year. Note that this is due to a severe drop in the

market value of pension assets that is beyond the control of HECO and not directly a result of the Pension Protection Act of 2006 ("PPA"). Due to the market conditions, Congress passed the Worker, Retiree, and Employer Recovery Act of 2008 ("WRERA") in December 2008. WRERA provides funding relief for defined benefit retirement plans by stipulating that January 1, 2009 valuations fund toward 94% of target liability rather than 100%, that an expense assumption be reflected in annual cost and allows plan sponsors to elect to use asset smoothing. Guidance from the Internal Revenue Service and an analysis of the effect on the retirement plan over the next five years are needed for the Company to decide whether to elect asset smoothing. Watson Wyatt estimated that the effect of funding to 94% of target liability lowered the minimum contribution requirement by about [redacted] (from [redacted] to $25.8M) and that the maximum effect of asset smoothing may lower 2009 contribution requirements by about [redacted] (from $25.8M to [redacted]). These estimates assume the [redacted] carry-over balance is used to offset contributions requirements. As of March 2009, additional funding relief is being sought relative to the selection of the interest rate used in the determination of target liability. Guidance is expected from the Treasury Department in the near future (perhaps by the end of May 2009). If allowed, this relief would permit selection of a higher interest rate which would have the effect of lowering the target liability.

In factoring the impact of funding to 94% of target liability as stipulated under WRERA, Watson Wyatt estimated the minimum required contribution ("MRC") for the 2009 plan year at [redacted] gross or $25.8M net of the carry-over balance based on: 1) plan assets at January 1, 2009 valued at $457.5M, 2) an estimated carry-over balance of [redacted], 3) the effective interest rate at [redacted] 4) January 1, 2008 participant data projected to January 1, 2009 and 5) all other assumptions remaining the same as used for the January 1, 2008 valuation.

Cash funding is required on a quarterly basis; for the 2009 calendar year the quarterly due dates are April 15, 2009, July 15, 2009, October 15, 2009, and January 15, 2010. A final contribution is due by September 15, 2010 if the quarterly contributions are less than the MRC. The minimum quarterly contribution amount is 25% of the lesser of the 2008 MRC or 90% of the 2009 MRC. The quarterly contribution requirements for calendar year 2009 will be based on the 2008 plan year MRC of $28.4M on a plan-wide basis (calculated prior to application of any carry-over balance). Since the quarterly contributions are determined on a plan-wide basis, contributions in excess of the quarterly requirements made by other participating companies are used to satisfy the legal requirements for timing of contributions to the plan in total. The net effect for HECO is that pension contributions of $8.2M during calendar year 2009 are expected to be sufficient to satisfy the quarterly funding requirements. See the response to DOD-IR-101 (Supplement 3/20/09), Attachment 1, page 2, for the pension contribution schedule. The difference between the 2009 net MRC of $25.8M and the $8.2M in 2009 cash funding will be contributed in calendar year 2010 (prior to September 15, 2010). It is anticipated that the carry-over balance of [redacted] will be depleted to partially satisfy the 2009 MRC requirement; therefore, no carry-over balance will exist to offset contribution requirements for 2010 and beyond.

Two required quarterly contributions anticipated for the 2010 plan year (4/15/2010 and 7/15/2010) will be due in 2010 prior to the due date of the final 2009 plan year contribution requirement (9/15/2010). Under the PPA, losses (whether asset-sourced or obligation-sourced) are amortized over seven years or until offset by subsequent gains. Therefore, minimum required contributions exceeding the target liability normal cost are anticipated until the excess target liability is funded (estimated between five to seven years).

CA-IR-244

Ref: HECO-1107 (HEI Forecast).

As discussed during the on-site interview on September 12, 2008, please provide the following information, in both hard copy and spreadsheet file formats:

a. Intercompany Bill Summary for 2007 using 2008 allocation percentages.
b. Calculation detail supporting the HEI labor rate.
c. Special overhead loading schedule showing components included in the calculation of the HEI labor rates.
d. Special studies:
   1. Lease study.
   2. Depreciation study.

HECO Response:

a. The Intercompany Bill for 2007 using 2008 allocation percentages is voluminous and contains confidential employee labor rates. It will be provided as Attachment 3 of this response after a protective order is issued in this docket.

b. Please see Attachment 1 for a sample template used for calculating hourly labor rates for employees. Labor rates are based upon actual labor costs for salary, benefits and payroll taxes and loadings are added onto labor costs for normal departmental costs. These costs include those with respect to office supplies, subscriptions, meetings and seminars, pension costs, computer costs, utilities, etc. There is no profit or premium component to the labor rates. The spreadsheet file is being provided as "CA-IR-244 Att. 1 & 2.xls."

   Due to the confidential nature of employee salary and benefit information, the actual loaded labor rate calculations for HEI employees are only available for review at the HEI Controller's office. Please contact Dean Matsuura at 543-4622 to arrange to review this information.

c. Please see Attachment 2 for the following loadings that are included in the labor rate calculations. The spreadsheet file is being provided as "CA-IR-244 Att. 1 & 2.xls."

1. Other human resources costs (Benefits E): primarily represents the allocation of human resources benefits administration costs based upon salaries
2. Copier/fax/file storage costs (Copier A): represents the allocation of copier, fax and file storage costs to all employees equally
3. Mailing services (Mailing A): represents the allocation of general mailing charges to all employees equally
4. Rent buildings (Rent A): represents the allocation of rent expense based upon square footage occupied by employee
5. HEI Corp info system expense (Info Sys A): represents the allocation of Information systems expense (i.e. depreciation and amortization of computer and related equipment along with the cost of HEI technical support employees) to all employees equally
6. Insurance (Insurance A): primarily represents the allocation of general liability and property insurance based upon square footage occupied, the allocation of crime, workers compensation and business travel insurance to all employees equally and the allocation of Directors and Officers insurance based upon the total number of directors and officers covered
7. Miscellaneous expenses (Misc): primarily represents the allocation of the shredder and copier space along with other miscellaneous expenses such as water and repairs to all employees equally

8. Depreciation (Depreciation A): represents the allocation of leasehold improvements and furniture & fixtures based upon square footage occupied

d. 1. Please see response to item c. 4. above for the "lease study" which represents the allocation of rent expense to each HEI employee based upon square footage occupied.

2. Please see response to item c. 8. above for the "depreciation study" which is the allocation of leasehold improvements and furniture & fixtures based upon square footage occupied.

HEI Loaded Labor Rates
NAME OF DEPARTMENT
May 1, 2007
Page 1 of 3

		Salary, payroll taxes, and benefit costs EMPLOYEE NAME	2007 DEPT NAME Costs	Legend	Source
DATA					
Salary current annual				YER	Salary A
Payroll Taxes					
FICA	Rate 6.20% on up to $97,500			AC	YER-P
	Rate 1.45%			AC	YER-P
FUTA	Rate 0.8% on up to $7,000			AC	YER-P
SUTA	Rate 0.21% on up to $35,300			AC	YER-P
Benefits - Annual costs for:					
Medical				YER-C	Benefits A
Dental				YER-C	Benefits A
Vision				YER-C	Benefits A
Group life Insurance				YER-C	Benefits A
Dependent life insurance				YER-C	Benefits A
AD&D				YER-C	Benefits A
FLEX Adjustment				YER-C	Benefits A
Long-term disability				YER-C	Benefits A
Long-term care				YER-C	Benefits A
Qualified Pension/OPEB				AC-A	Benefits B
Excess pension				AC-A	Benefits B-2

2007 Available Hours		
Total compensated hours		0
Holidays		0
Vacation		0
2007 Available Hours	0	0

Legend

YER	Salary as of May 1, 2007 (or actual for new employees)
YER-C	Based on January 2007 annualized premiums/credits (for new positions, used employee's actual cost)
YER-P	Based upon salary as of May 1, 2007 (or actual for new employees), multiplied by the applicable tax rates.
AC	Actual cost as recorded in this department
AC-C	Actual cost but cost was recorded as corporate not departmental cost
AC-I	Actual cost as recorded by Information Technology department
AC-A	Actual cost as recorded by VP Admininstration (and VP Finance and Corporate RA as applicable)
AC-P	Actual cost as recorded by the President, Controller & VP Administration (as applicable)
NA	Not Applicable

HEI Loaded Labor Rates
NAME OF DEPARTMENT
May 1, 2007
Page 2 of 3

		Loaded Hourly Labor Rates EMPLOYEE NAME	2007 DEPT NAME Costs	Legend	Source
RATES					
Salary				YER	
FICA	Rate 6.20% on up to $97,500			YER-P	
	Rate 1.45%			YER-P	
FUTA	Rate 0.8% on up to $7,000			YER-P	
SUTA	Rate 0.21% on up to $35,300			YER-P	
	Subtotal	0.0000			
Benefits:					
Medical				YER-C	Benefits A
Dental				YER-C	Benefits A
Vision				YER-C	Benefits A
Group life Insurance				YER-C	Benefits A
Dependent life insurance				YER-C	Benefits A
AD&D				YER-C	Benefits A
FLEX Adjustment				YER-C	Benefits A
Long-term disability				YER-C	Benefits A
Long term care				YER-C	Benefits A
Qualified Pension/OPEB				AC-A	Benefits B
Executive incentive comp				AC	
Stock option expense				AC	
Bus pass				AC	
Other human resources costs				AC-A	Benefits E
Excess pension				AC-A	Benefits B-2
	Subtotal	0.0000			
Loaded rate before departmental costs		0.0000			
Departmental Loadings					
HEI Loadings					
Office Supplies				AC	
Materials & supplies - other				AC	
Periodicals/Books				AC	
Seminars - Misc				AC	
Telephone equipment				AC	
Cellular phone				AC	
Copier/fax/file storage				AC-P	Copier A
Mailing Services				AC-A	Mailing A
Rent buildings				AC-A	Rent A
HEI corp info system expense				AC-I	Info Sys A
Insurance - GL, w/c, property, etc.				AC-A	Insurance A
Miscellaneous expenses				AC-A	Misc
Depreciation-machinery & equipment				AC	
Depreciation - funiture & fixtures				AC	
Depreciation - King Street/ASB Tower				AC-A	Depreciation A
Total HEI loadings		0.0000			
Total loaded labor rate		0.0000			

HEI Loaded Labor Rates
NAME OF DEPARTMENT
May 1, 2007
Page 3 of 3

		2007 DEPT NAME Costs	Legend	Source
Other HECO Charges				
Treasury	HEI overhead		AC	
Services from assoc companies - misc	Unallocable or charge to the activity		AC	
Other HEI Charges				
Medical benefits allocation	Included in benefits.		AC	
Dental benefits allocation	Included in benefits.		AC	
Vision benefits allocation	Included in benefits.		AC	
Group life allocation	Included in benefits.		AC	
Long-term disability allocation	Included in benefits.		AC	
AD&D	Included in benefits.		AC	
Flex credits	Included in benefits.		AC	
Long-term care	Included in benefits.		AC	
Qualified benefit plan	Included in benefits.		AC	
Other post retirement benefits	Included in benefits.		AC	
HR-administration	Included in benefits.		AC	
HR-benefits	Included in benefits.		AC	
State GET/use tax	Unallocable		AC	
Payroll taxes	N/A-payroll taxes on the current year salary is used		AC	
Rating agency meeting	Unallocable		AC	
Intercompany borrowing	Unallocable		AC	
Investment income	Unallocable		AC	
Interest expense - intercompany	Unallocable		AC	
Interest expense - MTN	Unallocable		AC	
Amortization of debt	Unallocable		AC	
Interest expense - ST borrowings	Unallocable		AC	
Rounding				
Total department costs		0		
Total per general ledger				
Difference (should be 0)		0		

Benefits E

Allocation of other human resources costs

Department Name	2007 Labor*	Allocation Factor (1)	(1) X (2) 2007 Allocated Amount
Controller	702,044	14.377%	**9,024**
Benefit Plan Asset Mgmt	132,705	2.718%	**1,706**
Corp Finance & Investments	98,926	2.026%	**1,272**
Investor Relations	259,741	5.319%	**3,339**
Stock Transfer	252,394	5.169%	**3,244**
VP External Affairs	211,930	4.340%	**2,724**
Community Relations	48,783	0.999%	**627**
Taxes	588,181	12.045%	**7,560**
Enterprise Risk	106,954	2.190%	**1,375**
President	821,394	16.821%	**10,558**
VP Admin	547,475	11.211%	**7,037**
VP Finance	473,529	9.697%	**6,087**
VP General Counsel	122,308	2.505%	**1,572**
Internal Audit	83,769	1.715%	**1,077**
Information Technology	433,138	8.870%	**5,567**
	4,883,271	100.000%	62,768

	2007 Actual Costs
Human Resources - Administration	8,587
Human Resources - Benefits	48,925
HEI Emp Asst Prog	2,059
Other	3,197
Total other human resources costs for allocation purposes	62,768 (2)

* Excluding incentive compensation

Copier A

Allocation of copier, fax & file storage expenses

Total HEI employees (avg during 2007)	41.5
Annual copier/fax/file expense per person	754

Available Hours	Hourly Rate per Employee
1824	0.4134
1864	0.4045
1904	0.3960
1984	0.3800

Detail of copier/fax & file storage expense:

	2007 Actual Costs
Copier expense	23,140
Records mgt	7,674
Fax expense	384
Other	93
Total expenses to allocate	31,291

Mailing A

Allocation of mailing services

Total HEI employees (avg during 2007)	41.5
Annual mailing services per person	26.50602

Available Hours	Hourly Rate per Employee
1824	0.0145
1864	0.0142
1904	0.0139
1984	0.0134

Detail of mailing expense:

	2007 Actual Costs
Mailing (includes general mailing chgs, postage meter chgs, misc fees)	1,100
Total expenses to allocate	1,100

Rent A

Allocation of rent (lease) expense - King Street (KS)

RA	Employee Name (removed for confidentiality purposes)	King Street Sq. Ft. Occupied	Inv. Rel. & Treasury Alloc. for Common Area 421	Controller Alloc. for Common Area 754	VP Admin/ Ent. Risk Alloc. for Common Area 557	President/ VP Finance Alloc. for Common Area 1,061	General Alloc. For Common Area 1,518.00	King Street Sq. Ft. space	King St. 1/07 - 5/07 Rent & Maint. $118,027	King Street Sq. Ft. Occupied	VP Admin/ Ent. Risk Alloc. for Common Area 485	President/ VP Finance Alloc. for Common Area 991	General Alloc. For Common Area 1,198.00	King Street Sq. Ft. space	King St. 6/07 - 10/07 Rent & Maint. $72,017	King Street Sq. Ft. Occupied	VP Admin/ Ent. Risk Alloc. for Common Area 485	President/ VP Finance Alloc. for Common Area 991	General Alloc. For Common Area 1,198.00	King Street Sq. Ft. space	King St. 11/07-12/07 Rent & Maint. $28,404	Total King Street Rent Exp
4C		177		179.62			80.79	437.41	6,281													6,281
4C		128		129.90			58.42	316.32	4,542													4,542
4C		84		85.24			38.34	207.58	2,981													2,981
4C		106		107.57			48.38	261.95	3,762													3,762
4C		128		129.90			58.42	316.32	4,542													4,542
4C		72		73.07			32.86	177.93	2,555													2,555
4C		48		48.71			21.91	118.62	1,703													1,703
4C																						
4P																						0
4P																						0
4P																						0
4P																						0
4P																						0
4P																						
4P																						0
4P																						0
TI		210	131.17				77.29	418.46	6,009													6,009
TI		94	58.72				34.60	187.31	2,690													2,690
4F		104	64.96				38.28	207.24	2,976													2,976
4T		95	59.34				34.96	189.30	2,718													2,718
4T		171	106.81				62.93	340.75	4,893													4,893
4R		0					0.00	0.00	0													0
Z6																						0
Z6																						0
9C																						0
9C																						0
9Z		605				501.10	250.57	1,356.66	19,482	605		468.04	339.99	1,413.03	20,438	605		468.04	346.50	1,419.53	8,215	48,136
9Z		66				54.67	27.33	148.00	2,125	66		51.06	37.09	154.15	2,230	66		51.06	37.80	154.86	896	5,251
TT																						0
TT																						0
TT																						0
TT																						0
TI																						0
Z3		302			263.25		128.05	693.29	9,956	302	284.41		185.80	772.21	11,169	302	284.41		189.36	775.77	4,490	25,615
Z3		124			108.09		52.58	284.66	4,088													4,088
Z3		112			97.63		47.49	257.12	3,692	112	105.48		68.91	286.38	4,142	112	105.48		70.23	287.70	1,665	9,500
Z3		48			41.84		20.35	110.19	1,582	48	45.20		29.53	122.74	1,775	48	45.20		30.10	123.30	714	4,071
Z3		53			46.20		22.47	121.67	1,747	53	49.91		32.61	135.52	1,960	53	49.91		33.23	136.14	788	4,495
Z4		275				227.77	113.89	616.67	8,855	275		212.74	154.54	642.28	9,290	275		212.74	157.50	645.24	3,734	21,880
Z4		60				49.70	24.85	134.55	1,932	60		46.42	33.72	140.13	2,027	60		46.42	34.36	140.78	815	4,774
Z6																						0
Z6																						0
Z6																						0
Z7																						0
Z7																						0
Z8																						0
ZA																						0
	HECO Area																					0
Chairman of the Board		275				227.77	113.89	616.67	8,855	275		212.74	154.54	642.28	9,290	275		212.74	157.50	645.24	3,734	21,880
Other nonbillable (former IA, Data Center)																						
Other nonbillable (former CFW)																						
Other (conference/copier/basement/check signing)		174.00					39.42	213.42	3,065	171.00			54.18	225.18	3,257	100.00			32.29	132.29	766	7,087
Other NONBILLABLE (training/ASB conference/break rooms/ASB computer equipment)		397.00					89.93	486.93	6,992	338.00			107.09	445.09	6,438	338.00			109.14	447.14	2,588	16,018
	Rounding																					
		3,908	421.00	754.00	557.00	1,061.00	1,518.00	8,219.00	$118,027	2,305	485.00	991.00	1,198.00	4,979.00	$72,017	2,234	485.00	991.00	1,198.00	4,908.00	$28,404	$218,448
					Sum (across)			8,219.00			Sum (across)			4,979.00			Sum (across)			4,908.00		
				6,701.00	Per recon below:			8,219.00			3,781.00	Per recon below:		4,979.00			3,710.00	Per recon below:		4,908.00		

GENERAL NOTE: King St (KS) Employees moved in phases over to the ASB Tower. To ease calculations, we will calculate as if all KS employees moved to ASB Tower effective 5/31/07.

Reconciliation of space occupied to HECO Facilities Management Calculation - King Street:

KS square footage 1/07-5/07			
TI	210	131.17	341.17
TI	94	58.72	152.72
4T	104	64.96	168.96
4T	171	106.81	277.81
4T	95	59.34	154.34
Inv. Rel & Treasury	674	421.00	1,095.00
4C	177	179.62	356.62
4C	128	129.90	257.90
4C	84	85.24	169.24
4C	106	107.57	213.57
4C	128	129.90	257.90
4C	72	73.07	145.07
4C	48	48.71	96.71
Controller	743	754.00	1,497.00
9Z	605	501.10	1,106.10
9Z	66	54.67	120.67
Z4	275	227.77	502.77
Z4	60	49.70	109.70
BOD	275	227.77	502.77
President/VP Finance offices	1,281	1,061.00	2,342.00
Z3	53	46.20	99.20
Z3	302	263.25	565.25
Z3	124	108.09	232.09
Z3	112	97.63	209.63
Z3	48	41.84	89.84
4R	will utilize ASB tower for all of 2007		
VP Admin/Enterprise Risk offices	639	557.00	1,196.00
Shredder room	36.00	0.00	36.00
Copier room	67.00	0.00	67.00
Check signing room	71.00	0.00	71.00
	174.00	0.00	174.00
Board room	397.00	0.00	397.00
KS general common area	1,518.00	0	1,518.00
	1,518.00	0.00	1,518.00

KS square footage 6/07-10/07			
TI	0	0.00	0.00
TI	0	0.00	0.00
4T	0	0.00	0.00
4T	0	0.00	0.00
4T	0	0.00	0.00
Inv. Rel & Treasury	0	0.00	0.00
4C	0	0.00	0.00
4C	0	0.00	0.00
4C	0	0.00	0.00
4C	0	0.00	0.00
4C	0	0.00	0.00
4C	0	0.00	0.00
4C	0	0.00	0.00
Controller	0	0.00	0.00
9Z	605	468.04	1,073.04
9Z	66	51.06	117.06
Z4	275	212.74	487.74
Z4	60	46.42	106.42
BOD	275	212.74	487.74
President/VP Finance offices	1,281	991.00	2,272.00
Z3	53	49.91	102.91
Z3	302	284.41	586.41
Z3			
Z3	112	105.48	217.48
Z3	48	45.20	93.20
4R	will utilize ASB tower for all of 2007		
VP Admin/Enterprise Risk offices	515	485.00	1,000.00
Shredder room	39.00	0.00	39.00
Copier room	61.00	0.00	61.00
Check signing room	71.00	0.00	71.00
	171.00	0.00	171.00
Board room	338.00	0.00	338.00
KS general common area	1,198.00	0	1,198.00
	1,198.00	0.00	1,198.00

KS square footage 11/07-12/07			
TI	0	0.00	0.00
TI	0	0.00	0.00
4T	0	0.00	0.00
4T	0	0.00	0.00
4T	0	0.00	0.00
Inv. Rel & Treasury	0	0.00	0.00
4C	0	0.00	0.00
4C	0	0.00	0.00
4C	0	0.00	0.00
4C	0	0.00	0.00
4C	0	0.00	0.00
4C	0	0.00	0.00
4C	0	0.00	0.00
Controller	0	0.00	0.00
9Z	605	468.04	1,073.04
9Z	66	51.06	117.06
Z4	275	212.74	487.74
Z4	60	46.42	106.42
BOD	275	212.74	487.74
President/VP Finance offices	1,281	991.00	2,272.00
Z3	53	49.91	102.91
Z3	302	284.41	586.41
Z3			
Z3	112	105.48	217.48
Z3	48	45.20	93.20
4R	will utilize ASB tower for all of 2007		
VP Admin/Enterprise Risk of	515	485.00	1,000.00
Shredder room	39.00	0.00	39.00
Copier room	61.00	0.00	61.00
Check signing room	0.00	0.00	0.00
	100.00	0.00	100.00
Board room	338.00	0.00	338.00
KS general common area	1,198.00	0	1,198.00
	1,198.00	0.00	1,198.00

Rent A

Allocation of rent (lease) expense - Central Pacific

RA	Employee Name (removed for confidentiality purposes)	Central Pacific Sq. Ft. Occupied	Tax Dept Allocation for Common Area 1248	Central Pacific Total Net Space	4P Central Pacific 1/07-5/07 Rent $32,513	ZA Central Pacific 7/07-12/07 Rent $5,312	Z8 Central Pacific 8/07-12/07 Rent $4,427	Total CPB Rent Exp
4C								0
4C								0
4C								0
4C								0
4C								0
4C								0
4C								0
4C								
4P		312	166.33	478.33	4,333			4,333
4P		130	69.30	199.30	1,806			1,806
4P		54	28.79	82.79	750			750
4P		63	33.59	96.59	875			875
4P		63	33.59	96.59	875			875
4P								
4P		65	34.65	99.65	903			903
4P		65	34.65	99.65	903			903
TI								0
TI								0
4F								0
4T								0
4T								0
4R								0
Z6								0
Z6								0
9C								0
9C								0
9Z								0
9Z								0
TT								0
TT								0
TT								0
TT								0
TI								0
Z3								0
Z3								0
Z3								0
Z3								0
Z3								0
Z4								0
Z4								0
Z6								0
Z6								0
Z6								0
Z7								0
Z7								0
Z8							4,427	4,427
ZA						5,312		5,312
HECO Area		1,479	788.46	2,267.46	20,541			20,541
Chairman of the Board								0
Other nonbillable (former IA, Data Center)								
Other nonbillable (former CFW)								
Other (conference/copier/basement/check signing)		110	58.64	168.64	1,528			1,528
Other NONBILLABLE (training/ASB conference/break rooms/ASB computer equipment)								0
Rounding								
		2,341	1,248	3,589.00	32,513	5,312	4,427	$42,252
			Sum (across)	3,589.00				

Rent A

Allocation of rent (lease) expense - ASB Tower 01/07 - 05/07

RA	Employee Name (removed for confidentiality purposes)	ASB Tower Sq. Ft. Occupied	Stock Trans. Allocation for Common Area 903	Info Tech Allocation for Common Area 789	Govt. Rel & Comm Rel Allocation for Common Area 250	General Alloc. For Common Area 713	ASB Tower Total Net Space	ASB Tower 1/07 - 5/07 Rent $208,112
4C								
4C								
4C								
4C								
4C								
4C								
4C								
4C								
4P								
4P								
4P								
4P								
4P								
4P								
4P								
4P								
TI								
TI								
4F								
4T								
4T								
4R								
Z6		108		90.08		9.28	207.36	2,709
Z6		96		80.07		8.25	184.32	2,408
9C		48			20.83	3.23	72.06	941
9C		112			48.61	7.53	168.14	2,196
9Z								
9Z								
TT		96	225.75			15.07	336.82	4,400
TT		48	112.88			7.54	168.41	2,200
TT		144	338.63			22.61	505.24	6,600
TT		48	112.88			7.54	168.41	2,200
TI		48	112.88			7.54	168.41	2,200
Z3								
Z3								
Z3								
Z3								
Z3								
Z4								
Z4								
Z6		60		50.04		5.16	115.20	1,505
Z6		108		90.08		9.28	207.36	2,709
Z6		180		150.13		15.47	345.59	4,515
Z7		304			131.94	20.43	456.37	5,962
Z7		112			48.61	7.53	168.14	2,196
Z8								
ZA								
HECO Area		1,700				79.65	1,779.65	23,248
Chairman of the Board								
Other nonbillable (former IA, Data Center		3,239				151.75	3,390.75	44,295
Other nonbillable (former CFW)		394		328.61		33.86	756.47	9,882
Other (conference/copier/basement/check signing)								
Other NONBILLABLE (training/ASB conference/bre rooms/ASB computer equipment)		6,431				301.31	6,732.31	87,946
Rounding								
		13,276	903.00	789.00	250.00	713.00	15,931.00	$208,112
					Sum (across)			15,931
				15,218	Per recon below:		15,931	

Reconciliation of space occupied to HECO Facilities Management Calculation for ASB Tower 01/07 - 05/07:

TT		96	225.75	321.75
TT		48	112.88	160.88
TT		144	338.63	482.63
TT		48	112.88	160.88
TT		48	112.88	160.88
	Stock transfer	384	903.00	1,287.00
9C		48	20.83	68.83
9C		112	48.61	160.61
Z7		304	131.94	435.94
Z7		112	48.61	160.61
		576	250.00	826.00
ZA		432	398.00	830.00
	Formerly Internal Audit	432	398.00	830.00
Z6		180	150.13	330.13
Z6		60	50.04	110.04
Z6		108	90.08	198.08
Z6		108	90.08	198.08
Z6		96	80.07	176.07
Z6		394	328.61	722.61
	Information Technology	946	789.00	1,735.00

Training/conference/break rooms/ASB equip	6,431
Former 6D area	2,409
HECO office space	1,700
	10,540
ASB Tower general common area	713

Rent A

Allocation of rent (lease) expense - ASB Tower 06/07 - 12/07

RA	Employee Name (removed for confidentiality purposes)	ASB Tower Sq. Ft. Occupied	Controller's Allocation for Common Area 650	Treasury & Taxes Allocation for Common Area 1274	Stock Transfer Allocation for Common Area 865	Information Technology Allocation for Common Area 704	Govt. Rel & Comm Rel Allocation for Common Area 250	General Alloc. For Common Area 1779	ASB Tower Total Net Space	ASB Tower 6/07 - 12/07 Rent $257,313	Total ASB Tower Rent Expense
4C		281	171.99					56.94	509.93	8,236	8,236
4C		170	104.05					34.45	308.50	4,983	4,983
4C		109	66.71					22.09	197.80	3,195	3,195
4C		117	71.61					23.71	212.32	3,429	3,429
4C		120	73.45					24.32	217.76	3,517	3,517
4C		64	39.17					12.97	116.14	1,876	1,876
4C		80	48.96					16.21	145.18	2,345	2,345
4C		121	74.06					24.52	219.58	3,547	3,547
4P		287		249.58				67.45	604.03	9,756	9,756
4P		168		146.10				39.48	353.58	5,711	5,711
4P		64		55.66				15.04	134.70	2,176	2,176
4P		64		55.66				15.04	134.70	2,176	2,176
4P		64		55.66				15.04	134.70	2,176	2,176
4P											
4P		64		55.66				15.04	134.70	2,176	2,176
4P		64		55.66				15.04	134.70	2,176	2,176
TI		187		162.62				43.95	393.57	6,357	6,357
TI		111		96.53				26.09	233.62	3,773	3,773
4F		115		100.01				27.03	242.03	3,909	3,909
4T		99		86.09				23.27	208.36	3,365	3,365
4T		114		99.14				26.79	239.93	3,875	3,875
4R		213						26.78	239.78	3,873	3,873
Z6		80				82.46		20.42	182.88	2,954	5,663
Z6		80				82.46		20.42	182.88	2,954	5,362
9C		48					20.83	8.65	77.49	1,252	2,193
9C		112					48.61	20.19	180.80	2,920	5,117
9Z								0.00	0.00	0	0
9Z								0.00	0.00	0	0
TT		48			136.13			23.15	207.28	3,348	7,748
TT		48			136.13			23.15	207.28	3,348	5,548
TT		161			456.61			77.64	695.24	11,229	17,829
TT		48			136.13			23.15	207.28	3,348	5,548
TI		64		55.66				15.04	134.70	2,176	4,376
Z3								0.00	0.00	0	0
Z3								0.00	0.00	0	0
Z3								0.00	0.00	0	0
Z3								0.00	0.00	0	0
Z3								0.00	0.00	0	0
Z4								0.00	0.00	0	0
Z4								0.00	0.00	0	0
Z6		80				82.46		20.42	182.88	2,954	4,459
Z6		80				82.46		20.42	182.88	2,954	5,663
Z6		363				374.16		92.67	829.83	13,403	17,918
Z7		304					131.94	54.80	490.75	7,926	13,888
Z7		112					48.61	20.19	180.80	2,920	5,117
Z8											0
ZA											0
HECO Area											23,248
Chairman of the Board											0
Other nonbillable (former IA, Data Cente		1,007						126.59	1,133.59	18,309	62,604
Other nonbillable (former CFW)											9,882
Other (conference/copier/basement/check signing)											0
Other NONBILLABLE (training/ASB conference/bre rooms/ASB computer equipment)		5,098						640.85	5,738.85	92,692	180,639
Rounding											
		10,409	650.00	1,274.00	865.00	704.00	250.00	1,779.00	15,931.00	$257,313	$465,425
							Sum (across)		15,931		
					14,152		Per recon below:		15,931		

Reconciliation of space occupied to HECO Facilities Management Calculation for ASB Tower - 06/07 - 12/07:

4C		281	171.99	452.99
4C		170	104.05	274.05
4C		109	66.71	175.71
4C		117	71.61	188.61
4C		120	73.45	193.45
4C		64	39.17	103.17
4C		80	48.96	128.96
4C		121	74.06	195.06
	Controller	1,062	650.00	1,712.00
TI		187	162.62	349.62
TI		111	96.53	207.53
TI		64	55.66	119.66
4T		115	100.01	215.01
4T		114	99.14	213.14
4T		99	86.09	185.09
4P		287	249.58	536.58
4P		64	55.66	119.66
4P		168	146.10	314.10
4P		64	55.66	119.66
4P		64	55.66	119.66
4P		64	55.66	119.66
4P		64	55.66	119.66
	Treasury & Taxes	1,465	1,274.00	2,739.00
TT		48	136.13	184.13
TT		48	136.13	184.13
TT		161	456.61	617.61
TT		48	136.13	184.13
	Stock transfer	305	865.00	1,170.00
Z6		363	374.16	737.16
Z6		80	82.46	162.46
Z6		80	82.46	162.46
Z6		80	82.46	162.46
Z6		80	82.46	162.46
	Information Technology	683	704.00	1,387.00
Z7		304	131.94	435.94
Z8		0	0.00	0.00
Z8		112	48.61	160.61
9C		112	48.61	160.61
9C		48	20.83	68.83
		576	250.00	826.00
Z8		213		213.00
	Training/conference/break rooms/kitchen			5,098
	Data center			1,007
	ASB Tower common area			1,779
				7,884

Rent A

Allocation of rent (lease) expense - ALL

RA	Employee Name (removed for confidentiality purposes)	Total King Street Rent Expense	Total ASB Tower Rent Expense	Total CPP Rent Expense	Total Employee's Rent Expense
4C		6,281	8,236	0	14,518
4C		4,542	4,983	0	9,525
4C		2,981	3,195	0	6,176
4C		3,762	3,429	0	7,191
4C		4,542	3,517	0	8,060
4C		2,555	1,876	0	4,431
4C		1,703	2,345	0	4,048
4C		0	3,547	0	3,547
4P		0	9,756	4,333	14,089
4P		0	5,711	1,806	7,516
4P		0	2,176	750	2,926
4P		0	2,176	875	3,051
4P		0		875	875
4P			2,176		2,176
4P		0	2,176	903	3,078
4P		0	2,176	903	3,078
TI		6,009	6,357	0	12,366
TI		2,690	3,773	0	6,463
4F		2,976	3,909	0	6,885
4T		2,718	3,365	0	6,084
4T		4,893	3,875	0	8,768
4R		0	3,873	0	3,873
Z6		0	5,663	0	5,663
Z6		0	5,362	0	5,362
9C		0	2,193	0	2,193
9C		0	5,117	0	5,117
9Z		48,136	0	0	48,136
9Z		5,251	0	0	5,251
TT		0	7,748	0	7,748
TT		0	5,548	0	5,548
TT		0	17,829	0	17,829
TT		0	5,548	0	5,548
TI		0	4,376	0	4,376
Z3		25,615	0	0	25,615
Z3		4,088	0	0	4,088
Z3		9,500	0	0	9,500
Z3		4,071	0	0	4,071
Z3		4,495	0	0	4,495
Z4		21,880	0	0	21,880
Z4		4,774	0	0	4,774
Z6		0	4,459	0	4,459
Z6		0	5,663	0	5,663
Z6		0	17,918	0	17,918
Z7		0	13,888	0	13,888
Z7		0	5,117	0	5,117
Z8		0	0	4,427	4,427
ZA		0	0	5,312	5,312
HECO Area		0	23,248	20,541	43,789
Chairman of the Board		21,880	0	0	21,880
Other nonbillable (former IA, Data Center)		0	62,604	0	62,604
Other nonbillable (former CFW)		0	9,882	0	9,882
Other (conference/copier/basement/check signing)		7,087	0	1,528	8,615
Other NONBILLABLE (training/ASB conference/break rooms/ASB computer equipment)		16,018	180,639	0	196,657
	Rounding				
		$218,448	$465,425	$42,252	$726,125

Depreciation A

Allocation of depreciation expense for King St. and ASB Tower Leasehold Improvements,

(Including furniture & fixtures & other equipment)

RA	Employee Name (removed for confidentiality purposes)	1/07-5/07 King Street Sq. Ft. space	6/07-10/07 King Street Sq. Ft. space	11/07-12/07 King Street Sq. Ft. space	Avg. King Street Sq. Ft. space	(b) King Street Depreciation $ 37,802	1/07-5/07 ASB Sq. Ft. space	6/07-12/07 ASB Sq. Ft. space	Avg. ASB Sq. Ft. space	(c) ASB Tower Depreciation $ 40,232	(d) = (b) + (c) Total Depreciation
4C		437.41	0.00	0.00	182.25	$ 1,090.60	0.00	509.93	297.46	$ 751.20	$ 1,841.80
4C		316.32	0.00	0.00	131.80	$ 788.68	0.00	308.50	179.96	$ 454.46	$ 1,243.15
4C		207.58	0.00	0.00	86.49	$ 517.57	0.00	197.80	115.38	$ 291.39	$ 808.97
4C		261.95	0.00	0.00	109.15	$ 653.13	0.00	212.32	123.85	$ 312.78	$ 965.91
4C		316.32	0.00	0.00	131.80	$ 788.68	0.00	217.76	127.03	$ 320.80	$ 1,109.48
4C		177.93	0.00	0.00	74.14	$ 443.64	0.00	116.14	67.75	$ 171.09	$ 614.73
4C		118.62	0.00	0.00	49.42	$ 295.76	0.00	145.18	84.69	$ 213.87	$ 509.62
4C		0.00	0.00	0.00	0.00	$ -	0.00	219.58	128.09	$ 323.47	$ 323.47
4P		0.00	0.00	0.00	0.00	$ -	0.00	604.03	352.35	$ 889.83	$ 889.83
4P		0.00	0.00	0.00	0.00	$ -	0.00	353.58	206.26	$ 520.88	$ 520.88
4P		0.00	0.00	0.00	0.00	$ -	0.00	134.70	78.57	$ 198.43	$ 198.43
4P		0.00	0.00	0.00	0.00	$ -	0.00	134.70	78.57	$ 198.43	$ 198.43
4P		0.00	0.00	0.00	0.00	$ -	0.00		0.00	$ -	$ -
4P		0.00	0.00	0.00	0.00	$ -		134.70	78.57	$ 198.43	$ 198.43
4P		0.00	0.00	0.00	0.00	$ -	0.00	134.70	78.57	$ 198.43	$ 198.43
4P		0.00	0.00	0.00	0.00	$ -	0.00	134.70	78.57	$ 198.43	$ 198.43
TI		418.46	0.00	0.00	174.36	$ 1,043.36	0.00	393.57	229.58	$ 579.78	$ 1,623.14
TI		187.31	0.00	0.00	78.05	$ 467.03	0.00	233.62	136.28	$ 344.15	$ 811.18
4F		207.24	0.00	0.00	86.35	$ 516.71	0.00	242.03	141.19	$ 356.55	$ 873.26
4T		189.30	0.00	0.00	78.88	$ 472.00	0.00	208.36	121.54	$ 306.94	$ 778.94
4T		340.75	0.00	0.00	141.98	$ 849.59	0.00	239.93	139.96	$ 353.45	$ 1,203.04
4R		0.00	0.00	0.00	0.00	$ -	0.00	239.78	139.87	$ 353.22	$ 353.22
Z6		0.00	0.00	0.00	0.00	$ -	207.36	182.88	193.08	$ 487.60	$ 487.60
Z6		0.00	0.00	0.00	0.00	$ -	184.32	182.88	183.48	$ 463.36	$ 463.36
9C		0.00	0.00	0.00	0.00	$ -	72.06	77.49	75.22	$ 189.97	$ 189.97
9C		0.00	0.00	0.00	0.00	$ -	168.14	180.80	175.52	$ 443.27	$ 443.27
9Z		1,356.66	1,413.03	1,419.53	1,390.63	$ 8,321.52	0.00	0.00	0.00	$ -	$ 8,321.52
9Z		148.00	154.15	154.86	151.70	$ 907.80	0.00	0.00	0.00	$ -	$ 907.80
TT		0.00	0.00	0.00	0.00	$ -	336.82	207.28	261.26	$ 659.77	$ 659.77
TT		0.00	0.00	0.00	0.00	$ -	168.41	207.28	191.08	$ 482.56	$ 482.56
TT		0.00	0.00	0.00	0.00	$ -	505.24	695.24	616.07	$ 1,555.83	$ 1,555.83
TT		0.00	0.00	0.00	0.00	$ -	168.41	207.28	191.08	$ 482.56	$ 482.56
TI		0.00	0.00	0.00	0.00	$ -	168.41	134.70	148.75	$ 375.64	$ 375.64
Z3		693.29	772.21	775.77	739.92	$ 4,427.69	0.00	0.00	0.00	$ -	$ 4,427.69
Z3		284.66	0.00	0.00	118.61	$ 709.76	0.00	0.00	0.00	$ -	$ 709.76
Z3		257.12	286.38	287.70	274.41	$ 1,642.06	0.00	0.00	0.00	$ -	$ 1,642.06
Z3		110.19	122.74	123.30	117.60	$ 703.74	0.00	0.00	0.00	$ -	$ 703.74
Z3		121.67	135.52	136.14	129.85	$ 777.05	0.00	0.00	0.00	$ -	$ 777.05
Z4		616.67	642.28	645.24	632.10	$ 3,782.51	0.00	0.00	0.00	$ -	$ 3,782.51
Z4		134.55	140.13	140.78	137.91	$ 825.28	0.00	0.00	0.00	$ -	$ 825.28
Z6		0.00	0.00	0.00	0.00	$ -	115.20	182.88	154.68	$ 390.63	$ 390.63
Z6		0.00	0.00	0.00	0.00	$ -	207.36	182.88	193.08	$ 487.60	$ 487.60
Z6		0.00	0.00	0.00	0.00	$ -	345.59	829.83	628.06	$ 1,586.11	$ 1,586.11
Z7		0.00	0.00	0.00	0.00	$ -	456.37	490.75	476.42	$ 1,203.15	$ 1,203.15
Z7		0.00	0.00	0.00	0.00	$ -	168.14	180.80	175.52	$ 443.27	$ 443.27
Z8		0.00	0.00	0.00	0.00	$ -	0.00	0.00	0.00	$ -	$ -
ZA		0.00	0.00	0.00	0.00	$ -	0.00	0.00	0.00	$ -	$ -
HECO Area		0.00	0.00	0.00	0.00	$ -	1,779.65	0.00	741.52	$ 1,872.63	$ 1,872.63
Chairman of the Board		616.67	642.28	645.24	632.10	$ 3,782.51	0.00	0.00	0.00	$ -	$ 3,782.51
Other nonbillable (former IA, Data Center)		0.00	0.00	0.00	0.00	$ -	3,390.75	1,133.59	2,074.07	$ 5,237.85	$ 5,237.85
Other nonbillable (former CFW)		0.00	0.00	0.00	0.00	$ -	756.47	0.00	315.19	$ 795.99	$ 795.99
Other (conference/copier/basement/check signing)		213.42	225.18	132.29	204.80	$ 1,225.51	0.00	0.00	0.00	$ -	$ 1,225.51
Other NONBILLABLE (training/ASB conference/break rooms/ASB computer equipment)		486.93	445.09	447.14	462.87	$ 2,769.81	6,732.31	5,738.85	6,152.79	$ 15,538.20	$ 18,308.02
		8,219.00	4,979.00	4,908.00	6,317.17	$ 37,802.00	15,931.00	15,931.00	15,931.00	$ 40,232.00	$ 78,034.00

Info Sys A

Allocation of HEI Info System costs

Total HEI employees (avg during 2007)	41.5
Annual info system cost per person	10,364

Available Hours	Hourly Rate per Employee
1824	5.6819
1864	5.5600
1904	5.4432
1984	5.2237

Detail of info system expense:	2007 Actual Costs
Software, peripherals, equip repair & maint. & other	50,032
Depreciation & amortization of computers & related equip	79,310
Technical support person	135,647
Technical specialist	165,108
Total expenses to allocate	430,097

Insurance A

Allocation of Insurance Costs

Total # of employees in 2007: 41.5000

19
Coverage: 19

# of stock transfer employees: 4

RA	Employee Name	Total Space Occupied @ 1/1/07	Total Space Occupied @ 12/31/07	Avg Total Space Occupied	Allocation by Sq. Ft. $18,415	Allocation No. of Emp $2,786	Total Insurance	Total Directors & Officers $923,413	Transfer Agent*** $8,277
4C		437.41	509.93	473.67	356	67	423	48,601	
4C		316.32	308.50	312.41	235	67	302		
4C		207.58	197.80	202.69	152	67	220		
4C		261.95	212.32	237.13	178	67	245		
4C		316.32	217.76	267.04	201	67	268		
4C		177.93	116.14	147.03	111	67	178		
4C		118.62	145.18	131.90	99	67	166		
4C			219.58	109.79	83	67	150		
4P		478.33	604.03	541.18	407	67	474		
4P		199.30	353.58	276.44	208	67	275		
4P		82.79	134.70	108.74	82	67	149		
4P		96.59	134.70	115.64	87	67	154		
4P		96.59	134.70	115.64	87	67	154		
4P		99.65	134.70	117.17	88	67	155		
4P		99.65	134.70	117.17	88	67	155		
TI		418.46	393.57	406.01	305	67	372		
TI		187.31	233.62	210.46	158	67	225		
4F		207.24	242.03	224.64	169	67	236		
4T		189.30	208.36	198.83	149	67	217		
4T		340.75	239.93	290.34	218	67	285		
4R		257.12	239.78	248.45	187	67	254		
Z6		207.36	182.88	195.12	147	67	214		
Z6		184.32	182.88	183.60	138	67	205		
9C		72.06	0.00	36.03	27	67	94		
9C		168.14	0.00	84.07	63	67	130		
9Z		1,356.66	1,419.53	1,388.10	1,044	67	1,111	48,601	
9Z		148.00	154.86	151.43	114	67	181		
TT		336.82	207.28	272.05	205	67	272		2069
TT		168.41	207.28	187.85	141	67	208		2069
TT		505.24	695.24	600.24	451	67	518		2069
TT		168.41	207.28	187.85	141	67	208		2069
TI		168.41	134.70	151.55	114	67	181		
Z3		693.29	775.77	734.53	552	67	619	48,601	
Z3		284.66	0.00	142.33	107	67	174		
Z3		257.12	287.70	272.41	205	67	272		
Z3		110.19	123.30	116.75	88	67	155		
Z3		121.67	136.14	128.91	97	67	164		
Z4		616.67	645.24	630.95	474	67	542	48,601	
Z4		134.55	140.78	137.66	104	67	171		
Z6		115.20	182.88	149.04	112	67	179		
Z6		207.36	182.88	195.12	147	67	214		
Z6		345.59	829.83	587.71	442	67	509		
Z7		456.37	490.75	473.56	356	67	423	48,601	
Z7		168.14	180.80	174.47	131	67	198		
Z8			204.00	102.00	77	67	144	20,250	
ZA			204.00	102.00	77	67	144		
	HECO Area	4,047.11		2,023.56	1,521		1,521		
	Chairman of the Board	616.67	645.24	630.95	474		474		
	Other nonbillable (former IA, Data Center)	3,390.75	1,133.59	2,262.17	1,701		1,701		
	Other nonbillable (former CFW)	756.47		378.23	284		284		
	Other (conference/copier/basement/check sig	382.06	132.29	257.17	193		193		
	Other NONBILLABLE (training/ASB conferen rooms/ASB computer equipment)	7,219.24	6,186.00	6,702.62	5,039		5,039		
	Less: Misc adjustments	(257.12)	258.29	0.59	0	(302)	(302)		
	Rounding								
		27,739.00	21,247.00	24,493.00	18,415	2,786	21,201	263,254	8,277

Insurance A (continued)

		Insurance Premiums	Labor & Overhead	Total	
*	General liability	6,575	120	6,695	(a)
**	Workers compensation	898	16	914	(b)
*	Property	8,549	156	8,705	(a)
*	Boiler & Machinery	2,960	54	3,014	(a)
	Automobile	0	0	0	
**	Crime	1,293	24	1,317	(b)
**	Business Travel	333	6	339	(b)
**	Miscellaneous	212	4	216	(b)
		20,820	381	21,201	
	Directors & officers	902,105	16,511	918,616	
	Fiduciary	4,592	84	4,676	
	Fiduciary	(1)	(0)	(1)	
	Special risk	120	2	122	
	Directors & officers related coverage	906,816	16,597	923,413	
***	Transfer agent	8,128	149	8,277	
	Rounding			(1)	
	Total insurance	935,764	17,127	952,890	

	17,127
Insurance allocated by sq. footage ∑ (a)	18,415
Insurance allocated no. of employees ∑ (b)	2,786

NOTE: Allocation of HECO labor and overhead charges of $17,127 for insurance procurement purposes based upon premium dollars.

Total insurance per g/l	935,764
Svcs from HECO - Insurance	17,127
	952,891

NOTE: Due to the significant amount of movement by HEI employees in 2007, we will utilize the average of 1/1 and 12/31 square footage to allocate property related insurance expense.

* - Allocated based upon square footage.
General liability insurance covers any claims in excess of coverages already in place. Accordingly, since the majority of insurance costs relate to property we will allocate general liab ins prem based upon square footage.
** - Allocated equally to all employees.
*** - Allocated to only stock transfer employees.
(1) - Utilized L. Masutani's 1/1/07 sq. footage for K. Morimoto's average.

Tie-out of total space occupied for insurance allocation purposes to the HEI Corporate Rent Schedule

Total sq. ft:	1/1/07	12/31/07
King Street	8,219	4,908
ASB Tower	15,931	15,931
CPB	3,589	408
Gross space rented	27,739	21,247

Reconciliation of D&O expense:

Expense per person		48,600.69
Outside dir/officers	X	13
		631,809.01
Per schedule		263,253.76
		895,062.77

Misc

Allocation of Miscellaneous costs

Total Miscellaneous Expenses (all of HEI)	
Shredder space, copier space, water, repairs and other	14,938
Expense per employee	$359.9518
Avg employees in 2007	41.5

Available Hours	Misc Exp Hourly Rate Per Employee
1824	$0.1973
1864	$0.1931
1904	$0.1891
1984	$0.1814

Confidential Information Deleted
Pursuant To Protective Order, Filed on
_____.

CA-IR-244
DOCKET NO. 2008-0083
ATTACHMENT 3
PAGES 1-185 OF 185

Attachment 3 contains confidential information and will be provided after a Protective Order is issued in this proceeding.

Attachment 3 is voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the document. An electronic copy of the requested information will be provided.

CA-IR-245

Ref: HECO-WP-1604, page 2; Response to CA-IR-130 (State ITC Additions in 2008 and 2009).

Please provide a detailed calculation of the projected 2008 and 2009 projections of State ITC Additions as well as the HECO-1604 Adjustment value of $3,480,000.

HECO Response:

The State ITC base is total plant additions less land. See page 2 of this response.

See response to CA-IR-248 for the adjustment of $3,480,000.

Hawaiian Electric Company, Inc.

2008 and 2009

PLANT ADDITIONS

		Source	2008	2009
	Projects	HECO-1701	$ 62,507,321	$ 206,539,978
	Programs	HECO-1701	47,712,283	58,138,591
Total		HECO-1701	$ 110,219,605	$ 264,678,570
Land:		HECO WP-1701,		
P0001109	Wahiawa 46Kv Ln-Schofield	page 1	(230,000)	
P0001340	CIP1 Unit Addition - Easements	page 3	(6,185,183)	
P0001585	CIP1 - Land - Gen Station	page 3	(1,261,761)	
P0001282	Waiau-Steel Mill 46Kv Line	page 4		(155,000)
P0001504	Kaloi Sub Land Transf	page 5		(2,174,000)
P0000062	Ce-Terminating Trust Esmnts	page 6	(56,573)	
P1370000	Distr R/W Purch (Blanket)	page 8	(72,000)	(65,000)
P1373000	46kv R/W Purch (Blanket)	page 8	(31,000)	(36,000)
	Total Land		(7,836,517)	(2,430,000)
	Total State ITC Additions		$ 102,383,088	$ 262,248,570
			CA-IR-130, page 11	CA-IR-130, page 11

CA-IR-246

Ref: HECO T-16, pages 28 to 30 (Simplified Service Cost Method).

Please provide the Company's best current estimate of the one-time interest amount and all other economic benefits anticipated to ultimately result from resolution of the SSCM income tax issue and explain the Company's proposed ratemaking treatment for each element of such benefit(s). If any risks or costs are assumed to have been incurred by HEI shareholders in connection with this tax issue, which argue for shareholder retention of such benefit(s), please itemize and explain all such risks and costs and provide all available documentation in support of this position.

HECO Response:

The Company has evaluated the likelihood of prevailing on this issue and has concluded that the probability of success is less than 50%. Consequently, for financial statement purposes HECO is not able to record any benefits related to SSCM under the standards set by FIN 48, accounting for uncertain tax positions. The potential economic benefit from a favorable outcome would be the interest accrued/earned on the reduction in tax liability for the period from 2001 (the year the accounting method was adopted) to 2005 and 2006 (the years in which the tax reduction must be recaptured or paid back). The Company will not receive any tax refunds since the years of entitlement (to the refund from the SSCM deduction) and recapture have passed.

With regards to the ratemaking treatment, HECO asserts that the potential interest benefit relates to years prior to the test year 2009. In the test year, no benefits related to the SSCM adjustment exist, as the tax law eliminated the Company's ability to use SSCM. Consequently, any interest benefit should not be included in revenues for the 2009 test year.

In this case, HECO did not deduct the potential adjustment in its originally filed returns and the deferred income tax impact on rate base (reduction in rate base) was never recorded and never included in a rate proceeding. This is an accurate reflection of HECO's rate base since the

Company never received any real cash tax benefit. The interest that the Company might receive after the fact should not impact the test year as any inclusion would be retroactive ratemaking. This is consistent with the converse situation where HECO's tax returns are audited and certain deductions are disallowed. In such case, interest expense must be paid on the taxes due. The Commission has not allowed the Company to recover the interest paid to the IRS on the taxes due on the audit adjustments for years prior to a test year. Similarly, interest income from favorable adjustments should not be included in the test year.

Although the fee arrangement for the SSCM strategy is on a contingency basis, the agreement required the Company to prepay approximately $1.8 million. The prepayment was not included in prior rate proceedings and ratepayers did not fund this cost. Consistent with HECO's proposed treatment of the potential interest income, the Company does not propose to include the potential fees for the SSCM strategy in cost of service.

CA-IR-247

Ref: HECO T-16, pages 28 to 30 (Simplified Service Cost Method).

Please provide a descriptive itemization of all of the filings, applications, appeals and other documents filed by or for HECO in connection with the SSCM dispute, indicating for each document the Company personnel and approximate number of labor hours involved, as well as the outside service charges incurred in connection with these efforts.

HECO Response:

A descriptive itemization of the filings was included in the direct testimony of HECO T-16, pages 27-28. To reiterate and amplify, the original application for the accounting method change (Form 3115) was filed at the end of 2001. HECO received the IRS approval for the method change in February 2007 and shortly thereafter, filed amended returns for 2001 and 2002 claiming deductions for the change to the new method. HECO also filed amended returns for additional claims for 2003 and 2004 in October 2007. Finally, an alternative claim was filed in May 2008 for the net operating loss incurred in 2001 and alternatively carried back to 1996 (instead of being carried forward to 2002).

After the examination of these returns was completed, the IRS issued its report denying HECO's claims in its 30 day letter. HECO filed an appeal in July 2008, and a hearing was scheduled to address this issue in January 2009.

The claims and the appeal were completed by HECO's outside consultants, with some assistance from HEI tax personnel. Relative to the time spent by the outside consultants, the work performed by Company personnel was minimal.

The work performed by HECO's outside consultants, Deloitte & Touche, was billed on a contingency basis. HECO has prepaid a total of $1,837,951.

CA-IR-248

Ref: HECO-1604 (State Capital Goods Excise Tax).

Please provide a calculation supporting the (3,480) thousand amount in the "adjustment" columns G and I of this schedule.

HECO Response:

See attached page 2 of this response.

The restated State ITC for CIP CT-1 is calculated at CA-IR-250.

HAWAIIAN ELECTRIC CO., INC.
STATE ITC ON CIP CT-1

Book Basis	152,964,625	
Less: AFUDC	(11,683,970)	
Add: Tax Capitalized Interest	9,295,463	
Tax Basis	150,576,118	
5 yr avg OS & matl	57.7762%	CA-IR-130, page 12
State ITC rate	4%	
State ITC	3,479,886	
Rounded	3,480,000	

CA-IR-249

Ref: HECO-WP-1602 (IRC Allowed Percentages).

Please provide supporting documentation for the 14% / 35% ratio "as allowed under IRC Section 247."

HECO Response:

See IRC §247(a)(2) on page 2 of this response.

SEC. 247. DIVIDENDS PAID ON CERTAIN PREFERRED STOCK OF PUBLIC UTILITIES.

247(a) AMOUNT OF DEDUCTION. --In the case of a public utility, there shall be allowed as a deduction an amount computed as follows:

247(a)(1) First determine the amount which is the lesser of --

247(a)(1)(A) the amount of dividends paid during the taxable year on its preferred stock, or

247(a)(1)(B) the taxable income for the taxable year (computed without the deduction allowed by this section).

247(a)(2) Then multiply the amount determined under paragraph (1) by the fraction --

247(a)(2)(A) the numerator of which is 14 percent, and

247(a)(2)(B) the denominator of which is that percentage which equals the highest rate of tax specified in section 11(b).

For purposes of the deduction provided in this section, the amount of dividends paid shall not include any amount distributed in the current taxable year with respect to dividends unpaid and accumulated in any taxable year ending before October 1, 1942. Amounts distributed in the current taxable year with respect to dividends unpaid and accumulated for a prior taxable year shall for purposes of this subsection be deemed to be distributed with respect to the earliest year or years for which there are dividends unpaid and accumulated.

247(b) DEFINITIONS. --For purposes of this section and section 244 --

247(b)(1) PUBLIC UTILITY. --The term "public utility" means a corporation engaged in the furnishing of telephone service or in the sale of electrical energy, gas, or water, if the rates for such furnishing or sale, as the case may be, have been established or approved by a State or political subdivision thereof or by an agency or instrumentality of the United States or by a public utility or public service commission or other similar body of the District of Columbia or of any State or political subdivision thereof.

247(b)(2) PREFERRED STOCK. --

247(b)(2)(A) IN GENERAL. --The term "preferred stock" means stock issued before October 1, 1942, which during the whole of the taxable year (or the part of the taxable year after its issue) was stock the dividends in respect of which were cumulative, limited to the same amount, and payable in preference to the payment of dividends on other stock.

247(b)(2)(B) CERTAIN STOCK ISSUED ON OR AFTER OCTOBER 1, 1942. --Stock issued on or after October 1, 1942, shall be deemed for purposes of this paragraph to have been issued before October 1, 1942, if it was issued to refund or replace bonds or debentures issued before October 1, 1942, or to refund or replace other preferred stock (including stock which is preferred stock by reason of this subparagraph or subparagraph (D)), but only to the extent that the par or stated value of the new stock does not exceed the par, stated, or face value of the bonds or debentures issued before October 1, 1942, or the other preferred stock, which such new stock is issued to refund or replace.

247(b)(2)(C) DETERMINATION UNDER REGULATIONS. --The determination of whether stock was issued to refund or replace bonds or debentures issued before October 1, 1942, or to refund or replace other preferred stock, shall be made under regulations prescribed by the Secretary.

247(b)(2)(D) ISSUANCE OF STOCK. --For purposes of subparagraph (B), issuance of stock includes issuance either by the same or another corporation in a transaction which is a reorganization (as defined in section 368(a)) or a transaction subject to part VI of subchapter O as in effect before its repeal (relating to exchanges in SEC obedience orders), or the respectively corresponding provisions of the Internal Revenue Code of 1939.

CA-IR-250

Ref: HECO Response to CA-IR-130, page 11 (State ITC Estimates).

Please provide the following information:

a. Provide the calculations and references needed to tie the "Total Depr Plant Adds" amounts for each year into the Company's calculation of rate base.
b. Explain why/whether the historical "5Yr Ave% O/S & Matl" percentage calculated on page 12 would be applicable to the 2009 costs of constructing the new CT-1 generating unit.
c. Provide a restated calculation of 2009 estimated State ITC if this historical percentage is not applicable to the CT-1 costs.
d. Provide copies of all documents associated with your response.

HECO Response:

a. See response to CA-IR-245.

b. It would not be applicable.

c. The restated State ITC for CIP CT-1 is $5,712,133.

d. See pages 2-4 of this response for support of the amount in the answer to c above.

HAWAIIAN ELECTRIC CO., INC.
CAMPBELL INDUSTRIAL PARK (CIP) ADDITIONS

*Project #	Project	*EE #	Exp Element	FY03 07PTD-Act	FY04 07PTD-Act	FY05 07PTD-Act	FY06 07PTD-Act	FY07 07PTD-Act	YTD Mar 08 Actual $	Apr-Dec 08 Orig Budget	FY09 BUD08	FY10 BUD08	TOTAL	STATE ITC BASE
P0001050	CIP1 AES-CEIP#2 Trans. Line	150	Labor Cost	0	949	24,757	2,229	14,197	11,350	211,335	109,660	0	374,477	
P0001050	CIP1 AES-CEIP#2 Trans. Line	155	Labor True-up	0	96	1,990	138	1,334	1,500	0	0	0	5,058	
P0001050	CIP1 AES-CEIP#2 Trans. Line	201	Matl-Issues/Purchases	0	0	0	0	0	0	3,043,195	0	0	3,043,195	3,043,195
P0001050	CIP1 AES-CEIP#2 Trans. Line	400	Summarized On-Costs	0	622	29,344	3,432	23,454	0	0	0	0	56,852	
P0001050	CIP1 AES-CEIP#2 Trans. Line	401	Stores	0	0	0	0	0	0	486,911	0	0	486,911	
P0001050	CIP1 AES-CEIP#2 Trans. Line	404	Energy Delivery	0	0	0	0	0	10,668	190,343	105,409	0	306,420	
P0001050	CIP1 AES-CEIP#2 Trans. Line	405	Power Supply	0	0	0	0	0	181	432	122	0	735	
P0001050	CIP1 AES-CEIP#2 Trans. Line	406	Corp Admin Expense	0	0	0	0	0	1,260	22,175	11,049	0	34,484	
P0001050	CIP1 AES-CEIP#2 Trans. Line	421	Non-Productive Wages	0	0	0	0	0	1,651	29,178	13,915	0	44,744	
P0001050	CIP1 AES-CEIP#2 Trans. Line	422	Employee Benefits	0	0	0	0	0	4,070	70,903	30,140	0	105,113	
P0001050	CIP1 AES-CEIP#2 Trans. Line	423	Payroll Taxes	0	0	0	0	0	1,074	17,710	9,091	0	27,875	
P0001050	CIP1 AES-CEIP#2 Trans. Line	430	AFUDC-Debt	0	13	6,984	10,285	12,952	1,351	88,386	135,237	0	255,208	
P0001050	CIP1 AES-CEIP#2 Trans. Line	431	AFUDC-Equity	0	0	0	0	0	3,457	0	0	0	3,457	
P0001050	CIP1 AES-CEIP#2 Trans. Line	501	Outside Svcs-General	0	0	57,700	0	33,742	26,223	0	0	0	117,665	117,665
P0001050	CIP1 AES-CEIP#2 Trans. Line	505	Outside Svcs-Constr	0	0	0	0	0	0	99,500	49,500	0	149,000	149,000
P0001050	CIP1 AES-CEIP#2 Trans. Line	506	Outside Svcs-Engr	0	0	0	0	0	0	148,217	32,739	0	180,956	180,956
P0001050	CIP1 AES-CEIP#2 Trans. Line	900	Fin Stmt Items	0	0	0	0	0	0	1	0	0	1	
P0001051	CIP1 AES Substation Add	150	Labor Cost	0	551	11,144	1,866	31,275	26,894	243,702	83,520	0	398,952	
P0001051	CIP1 AES Substation Add	155	Labor True-up	0	51	182	-32	-1,681	291	0	0	0	-1,189	
P0001051	CIP1 AES Substation Add	201	Matl-Issues/Purchases	0	0	0	0	0	32,640	576,479	1	0	609,120	609,120
P0001051	CIP1 AES Substation Add	205	Matl-Purchasing Card	0	0	0	0	104	2,752	0	0	0	2,856	2,856
P0001051	CIP1 AES Substation Add	400	Summarized On-Costs	0	318	14,007	2,801	49,495	0	0	0	0	66,621	
P0001051	CIP1 AES Substation Add	401	Stores	0	0	0	0	0	0	92,237	0	0	92,237	
P0001051	CIP1 AES Substation Add	404	Energy Delivery	0	0	0	0	0	24,574	214,183	83,764	0	322,521	
P0001051	CIP1 AES Substation Add	406	Corp Admin Expense	0	0	0	0	0	2,757	24,799	8,742	0	36,298	
P0001051	CIP1 AES Substation Add	421	Non-Productive Wages	0	0	0	0	0	3,615	32,630	11,010	0	47,255	
P0001051	CIP1 AES Substation Add	422	Employee Benefits	0	0	0	0	0	8,909	79,291	23,848	0	112,048	
P0001051	CIP1 AES Substation Add	423	Payroll Taxes	0	0	0	0	0	2,274	20,422	6,924	0	29,620	
P0001051	CIP1 AES Substation Add	430	AFUDC-Debt	0	3	4,573	6,843	11,477	2,464	113,418	79,226	0	218,004	
P0001051	CIP1 AES Substation Add	431	AFUDC-Equity	0	0	0	0	0	6,321	0	0	0	6,321	
P0001051	CIP1 AES Substation Add	501	Outside Svcs-General	0	0	50,758	3,830	172,325	161,340	54,382	0	0	442,635	442,635
P0001051	CIP1 AES Substation Add	505	Outside Svcs-Constr	0	0	0	0	0	0	250,412	20,000	0	270,412	270,412
P0001051	CIP1 AES Substation Add	506	Outside Svcs-Engr	0	0	0	0	0	0	456,387	0	0	456,387	456,387
P0001051	CIP1 AES Substation Add	900	Fin Stmt Items	0	0	0	0	0	0	1	0	0	1	
P0001052	CIP1 CEIP Substation Mod	150	Labor Cost	0	0	1,063	36	11,958	3,998	93,657	1,526	0	112,238	
P0001052	CIP1 CEIP Substation Mod	155	Labor True-up	0	0	15	-3	-1,308	-125	0	0	0	-1,421	
P0001052	CIP1 CEIP Substation Mod	201	Matl-Issues/Purchases	0	0	0	0	0	0	232,000	0	0	232,000	232,000
P0001052	CIP1 CEIP Substation Mod	400	Summarized On-Costs	0	0	1,206	54	19,574	0	0	0	0	20,834	
P0001052	CIP1 CEIP Substation Mod	401	Stores	0	0	0	0	0	0	37,120	0	0	37,120	
P0001052	CIP1 CEIP Substation Mod	404	Energy Delivery	0	0	0	0	0	3,873	82,083	1,522	0	87,478	
P0001052	CIP1 CEIP Substation Mod	406	Corp Admin Expense	0	0	0	0	0	428	9,504	159	0	10,091	
P0001052	CIP1 CEIP Substation Mod	421	Non-Productive Wages	0	0	0	0	0	559	12,505	200	0	13,264	
P0001052	CIP1 CEIP Substation Mod	422	Employee Benefits	0	0	0	0	0	1,382	30,387	433	0	32,202	
P0001052	CIP1 CEIP Substation Mod	423	Payroll Taxes	0	0	0	0	0	323	7,848	126	0	8,297	
P0001052	CIP1 CEIP Substation Mod	430	AFUDC-Debt	0	0	114	208	1,251	225	25,061	0	0	26,859	
P0001052	CIP1 CEIP Substation Mod	431	AFUDC-Equity	0	0	0	0	0	574	0	0	0	574	
P0001052	CIP1 CEIP Substation Mod	501	Outside Svcs-General	0	0	0	0	0	0	6,001	0	0	6,001	6,001
P0001052	CIP1 CEIP Substation Mod	505	Outside Svcs-Constr	0	0	0	0	0	0	29,000	0	0	29,000	29,000
P0001052	CIP1 CEIP Substation Mod	506	Outside Svcs-Engr	0	0	0	0	0	0	10,000	0	0	10,000	10,000
P0001052	CIP1 CEIP Substation Mod	900	Fin Stmt Items	0	0	0	0	0	0	1	0	0	1	
P0001084	CIP1 Unit Addition-Land	501	Outside Svcs-General	0	0	0	0	3,071,637	0	0	0	0	3,071,637	3,071,637
P0001134	CIP1 Unit Addition-Fiber	150	Labor Cost	0	0	0	0	3,997	2,355	26,975	82,283	0	115,610	
P0001134	CIP1 Unit Addition-Fiber	155	Labor True-up	0	0	0	0	10	-285	0	0	0	-275	
P0001134	CIP1 Unit Addition-Fiber	201	Matl-Issues/Purchases	0	0	0	0	0	8,205	115,031	0	0	123,236	123,236
P0001134	CIP1 Unit Addition-Fiber	301	Vehicles	0	0	0	0	23	0	0	0	0	23	23
P0001134	CIP1 Unit Addition-Fiber	400	Summarized On-Costs	0	0	0	0	6,731	0	0	0	0	6,731	
P0001134	CIP1 Unit Addition-Fiber	401	Stores	0	0	0	0	0	0	18,405	0	0	18,405	
P0001134	CIP1 Unit Addition-Fiber	404	Energy Delivery	0	0	0	0	0	2,402	25,271	83,992	0	111,665	
P0001134	CIP1 Unit Addition-Fiber	406	Corp Admin Expense	0	0	0	0	0	268	2,926	8,766	0	11,960	
P0001134	CIP1 Unit Addition-Fiber	421	Non-Productive Wages	0	0	0	0	0	351	3,850	11,040	0	15,241	

HAWAIIAN ELECTRIC CO., INC.
CAMPBELL INDUSTRIAL PARK (CIP) ADDITIONS

*Project #	Project	*EE #	Exp Element	FY03 07PTD-Act	FY04 07PTD-Act	FY05 07PTD-Act	FY06 07PTD-Act	FY07 07PTD-Act	YTD Mar 08 Actual $	Apr-Dec 08 Orig Budget	FY09 BUD08	FY10 BUD08	TOTAL	STATE ITC BASE
P0001134	CIP1 Unit Addition-Fiber	422	Employee Benefits	0	0	0	0	0	866	9,356	23,913	0	34,135	
P0001134	CIP1 Unit Addition-Fiber	423	Payroll Taxes	0	0	0	0	0	173	2,260	6,821	0	9,254	
P0001134	CIP1 Unit Addition-Fiber	430	AFUDC-Debt	0	0	0	0	225	86	6,736	13,924	0	20,971	
P0001134	CIP1 Unit Addition-Fiber	431	AFUDC-Equity	0	0	0	0	0	219	0	0	0	219	
P0001134	CIP1 Unit Addition-Fiber	505	Outside Svcs-Constr	0	0	0	0	0	0	35,875	0	0	35,875	35,875
P0001135	CIP1 Unit Addition-Microwave	150	Labor Cost	0	0	0	0	4,616	5,259	89,102	0	0	98,977	
P0001135	CIP1 Unit Addition-Microwave	155	Labor True-up	0	0	0	0	-285	-637	0	0	0	-922	
P0001135	CIP1 Unit Addition-Microwave	201	Matl-Issues/Purchases	0	0	0	0	0	0	286,467	0	0	286,467	286,467
P0001135	CIP1 Unit Addition-Microwave	400	Summarized On-Costs	0	0	0	0	8,298	0	0	0	0	8,298	
P0001135	CIP1 Unit Addition-Microwave	401	Stores	0	0	0	0	0	0	45,835	0	0	45,835	
P0001135	CIP1 Unit Addition-Microwave	404	Energy Delivery	0	0	0	0	0	5,245	77,586	0	0	82,831	
P0001135	CIP1 Unit Addition-Microwave	406	Corp Admin Expense	0	0	0	0	0	595	8,983	0	0	9,578	
P0001135	CIP1 Unit Addition-Microwave	421	Non-Productive Wages	0	0	0	0	0	781	11,820	0	0	12,601	
P0001135	CIP1 Unit Addition-Microwave	422	Employee Benefits	0	0	0	0	0	1,922	28,723	0	0	30,645	
P0001135	CIP1 Unit Addition-Microwave	423	Payroll Taxes	0	0	0	0	0	387	7,467	0	0	7,854	
P0001135	CIP1 Unit Addition-Microwave	430	AFUDC-Debt	0	0	0	0	74	101	32,101	0	0	32,276	
P0001135	CIP1 Unit Addition-Microwave	431	AFUDC-Equity	0	0	0	0	0	257	0	0	0	257	
P0001135	CIP1 Unit Addition-Microwave	501	Outside Svcs-General	0	0	0	0	0	0	130,000	0	0	130,000	130,000
P0001135	CIP1 Unit Addition-Microwave	505	Outside Svcs-Constr	0	0	0	0	0	0	15,000	0	0	15,000	15,000
P0001135	CIP1 Unit Addition-Microwave	506	Outside Svcs-Engr	0	0	0	0	0	0	0	0	0	0	0
P0001136	CIP1 Unit Addition-Kahe Bkrs	150	Labor Cost	0	0	0	233	15,655	5,177	169,441	134,079	0	324,585	
P0001136	CIP1 Unit Addition-Kahe Bkrs	155	Labor True-up	0	0	0	0	-683	-198	0	0	0	-881	
P0001136	CIP1 Unit Addition-Kahe Bkrs	201	Matl-Issues/Purchases	0	0	0	0	0	0	615,153	35,100	0	650,253	650,253
P0001136	CIP1 Unit Addition-Kahe Bkrs	205	Matl-Purchasing Card	0	0	0	0	61	0	0	0	0	61	61
P0001136	CIP1 Unit Addition-Kahe Bkrs	301	Vehicles	0	0	0	0	22	0	0	0	0	22	22
P0001136	CIP1 Unit Addition-Kahe Bkrs	400	Summarized On-Costs	0	0	0	351	25,735	0	0	0	0	26,086	
P0001136	CIP1 Unit Addition-Kahe Bkrs	401	Stores	0	0	0	0	0	0	98,424	3,696	0	102,120	
P0001136	CIP1 Unit Addition-Kahe Bkrs	404	Energy Delivery	0	0	0	0	0	5,213	148,707	131,885	0	285,805	
P0001136	CIP1 Unit Addition-Kahe Bkrs	406	Corp Admin Expense	0	0	0	0	0	570	17,218	13,764	0	31,552	
P0001136	CIP1 Unit Addition-Kahe Bkrs	421	Non-Productive Wages	0	0	0	0	0	745	22,655	17,335	0	40,735	
P0001136	CIP1 Unit Addition-Kahe Bkrs	422	Employee Benefits	0	0	0	0	0	1,842	55,052	37,548	0	94,442	
P0001136	CIP1 Unit Addition-Kahe Bkrs	423	Payroll Taxes	0	0	0	0	0	415	14,199	11,115	0	25,729	
P0001136	CIP1 Unit Addition-Kahe Bkrs	430	AFUDC-Debt	0	0	0	2	2,525	573	56,965	50,358	0	110,423	
P0001136	CIP1 Unit Addition-Kahe Bkrs	431	AFUDC-Equity	0	0	0	0	0	1,459	0	0	0	1,459	
P0001136	CIP1 Unit Addition-Kahe Bkrs	505	Outside Svcs-Constr	0	0	0	0	0	0	100	100	0	200	200
P0001136	CIP1 Unit Addition-Kahe Bkrs	506	Outside Svcs-Engr	0	0	0	0	41,711	12,023	9,318	0	0	63,052	63,052
P0001137	CIP1 Unit Addition-Kalaeloa	150	Labor Cost	0	0	0	0	0	6,262	48,309	0	0	54,571	
P0001137	CIP1 Unit Addition-Kalaeloa	155	Labor True-up	0	0	0	0	0	-418	0	0	0	-418	
P0001137	CIP1 Unit Addition-Kalaeloa	201	Matl-Issues/Purchases	0	0	0	0	0	22,705	11,000	0	0	33,705	33,705
P0001137	CIP1 Unit Addition-Kalaeloa	401	Stores	0	0	0	0	0	0	1,760	0	0	1,760	
P0001137	CIP1 Unit Addition-Kalaeloa	404	Energy Delivery	0	0	0	0	0	5,742	42,207	0	0	47,949	
P0001137	CIP1 Unit Addition-Kalaeloa	406	Corp Admin Expense	0	0	0	0	0	652	4,887	0	0	5,539	
P0001137	CIP1 Unit Addition-Kalaeloa	421	Non-Productive Wages	0	0	0	0	0	856	6,430	0	0	7,286	
P0001137	CIP1 Unit Addition-Kalaeloa	422	Employee Benefits	0	0	0	0	0	2,106	15,625	0	0	17,731	
P0001137	CIP1 Unit Addition-Kalaeloa	423	Payroll Taxes	0	0	0	0	0	489	4,048	0	0	4,537	
P0001137	CIP1 Unit Addition-Kalaeloa	430	AFUDC-Debt	0	0	0	0	0	50	5,737	0	0	5,787	
P0001137	CIP1 Unit Addition-Kalaeloa	431	AFUDC-Equity	0	0	0	0	0	128	0	0	0	128	
P0001137	CIP1 Unit Addition-Kalaeloa	501	Outside Svcs-General	0	0	0	0	0	0	0	0	0	0	0
P0001137	CIP1 Unit Addition-Kalaeloa	505	Outside Svcs-Constr	0	0	0	0	0	0	0	0	0	0	0
P0001137	CIP1 Unit Addition-Kalaeloa	506	Outside Svcs-Engr	0	0	0	0	0	0	0	0	0	0	0
P0001340	CIP1 Unit Addition-Easements	501	Outside Svcs-General	0	0	0	0	7,200	7,983	6,170,000	0	0	6,185,183	6,185,183
P4900000	CIP1 Unit 1 Addition	150	Labor Cost	0	204,098	183,564	266,001	171,975	62,384	154,410	660,615	0	1,703,047	
P4900000	CIP1 Unit 1 Addition	155	Labor True-up	0	11,591	1,742	5,556	7,530	3,725	0	0	0	30,144	
P4900000	CIP1 Unit 1 Addition	201	Matl-Issues/Purchases	0	32	404,968	48	13,779,888	4,420,587	7,468,125	2,709,909	0	28,783,557	28,783,557
P4900000	CIP1 Unit 1 Addition	201M	Matl - Iss/Purch > $ Limit	0	0	0	0	0	0	20,951,488	4,962,291	0	25,913,779	25,913,779
P4900000	CIP1 Unit 1 Addition	205	Matl-Purchasing Card	0	192	-192	664	0	83	0	0	0	747	747
P4900000	CIP1 Unit 1 Addition	301	Vehicles	0	177	0	35	44	34	0	0	0	290	290
P4900000	CIP1 Unit 1 Addition	400	Summarized On-Costs	0	107,462	101,548	173,561	164,785	0	0	0	0	547,356	
P4900000	CIP1 Unit 1 Addition	401	Stores	0	0	0	0	0	0	1,194,900	285,353	0	1,480,253	
P4900000	CIP1 Unit 1 Addition	404	Energy Delivery	0	0	0	0	0	10,999	4,726	2,435	0	18,160	

HAWAIIAN ELECTRIC CO., INC.
CAMPBELL INDUSTRIAL PARK (CIP) ADDITIONS

*Project #	Project	*EE #	Exp Element	FY03 07PTD-Act	FY04 07PTD-Act	FY05 07PTD-Act	FY06 07PTD-Act	FY07 07PTD-Act	YTD Mar 08 Actual $	Apr-Dec 08 Orig Budget	FY09 BUD08	FY10 BUD08	TOTAL	STATE ITC BASE
P4900000	CIP1 Unit 1 Addition	405	Power Supply	0	0	0	0	0	13,525	36,936	164,772	0	215,233	
P4900000	CIP1 Unit 1 Addition	406	Corp Admin Expense	0	0	0	0	0	6,133	14,022	65,052	0	85,207	
P4900000	CIP1 Unit 1 Addition	421	Non-Productive Wages	0	0	0	0	0	8,021	18,450	81,930	0	108,401	
P4900000	CIP1 Unit 1 Addition	422	Employee Benefits	0	0	0	0	0	19,818	44,834	177,460	0	242,112	
P4900000	CIP1 Unit 1 Addition	423	Payroll Taxes	0	0	0	0	0	5,519	12,940	54,765	0	73,224	
P4900000	CIP1 Unit 1 Addition	430	AFUDC-Debt	0	27,692	126,084	249,156	545,728	126,831	3,720,139	6,093,565	0	10,889,195	
P4900000	CIP1 Unit 1 Addition	431	AFUDC-Equity	0	0	0	0	0	323,250	0	0	0	323,250	
P4900000	CIP1 Unit 1 Addition	501	Outside Svcs-General	0	321,412	446,053	334,727	769,054	889,560	1,399,500	133,000	50,000	4,343,306	4,343,306
P4900000	CIP1 Unit 1 Addition	502	Outside Svcs-Legal	0	72,975	72,285	320,342	107,066	132	18,000	50,000	0	640,800	640,800
P4900000	CIP1 Unit 1 Addition	505	Outside Svcs-Constr	0	0	0	0	0	0	43,227,998	21,622,866	0	64,850,864	64,850,864
P4900000	CIP1 Unit 1 Addition	506	Outside Svcs-Engr	0	92,521	73,239	135,555	51,019	22,862	1,552,226	0	0	1,927,422	1,927,422
P4900000	CIP1 Unit 1 Addition	508	Outside Svcs-Environ	0	194,611	0	0	1,116	0	1	0	0	195,728	195,728
P4900000	CIP1 Unit 1 Addition	520	Mainland Travel	0	3,493	10,074	7,161	9,942	-1,961	0	0	0	28,709	
P4900000	CIP1 Unit 1 Addition	521	Meals & Entertainment	0	277	187	1,437	931	-202	0	0	0	2,630	2,630
P4900000	CIP1 Unit 1 Addition	522	Interisland Travel	0	0	8	48	210	0	0	0	0	266	266
P4900000	CIP1 Unit 1 Addition	900	Fin Stmt Items	0	0	0	0	0	0	1	1	0	2	
	TOTAL COSTS			0	1,039,136	1,623,397	1,526,564	19,176,989	6,363,077	95,457,496	38,547,596	50,000	163,784,255	142,803,330
													HECO-1703	
													State ITC %	4%
													State ITC	5,712,133

CA-IR-251

Ref: HECO-WP-1605 (Projected Account 282 Activity 2008 & 2009).

Please explain the process and provide the PowerTax calculations and other supporting documentation needed to reconcile the test year book basis capital additions projected for 2008 and 2009 into the related depreciable tax basis plant additions, tax depreciation and resulting projected Account 282 Federal and State ADIT estimates for each year.

HECO Response:

See page 3 of this response for the reconciliation of book basis to tax basis for Account 282 depreciation. Generally, tax basis of plant additions is equal to book basis of plant additions less AFUDC, vehicles and CIAC. Those amounts are then input into PowerTax to calculate tax depreciation. There are certain manual adjustments (i.e. RAR adjustments, etc) to tax depreciation that have not been input into PowerTax. Total tax depreciation is the sum of PowerTax depreciation and depreciation on the manual adjustments. See attached pages of this response for the detail schedules.

HAWAIIAN ELECTRIC CO., INC.
DEFERRED TAXES - 282 DEPRECIATION

		2008	2009
	FEDERAL		
1	Book Depreciation on Tax Basis	75,530,533	76,269,888
2	State Tax Depreciation	(69,438,504)	(77,136,305)
3	Reg Asset Amort - Deficit Def on Accel Depr	110,682	110,682
4	Subtotal	6,202,711	(755,735)
5	Tax Rate	32.8947%	32.8947%
6		2,040,363	(248,597)
7	Addback State Tax Depreciation	69,438,504	77,136,305
8	Federal Tax Depreciation	(86,270,878)	(72,145,048)
9	Subtotal	(16,832,374)	4,991,257
10	Tax Rate	35.0000%	35.0000%
11		(5,891,331)	1,746,940
12	Federal Deferred Taxes	(3,850,968)	1,498,343
13	Post Year End federal deferred tax	647,881	
14	Total Federal Deferred Taxes	(3,203,087)	1,498,343
	STATE		
15	Book Depreciation	75,530,533	76,269,888
16	State Tax Depreciation	(69,438,504)	(77,136,305)
17	Reg Asset Amort - Deficit Def on Accel Depr	110,682	110,682
18	Subtotal	6,202,711	(755,735)
19	Tax Rate	6.015%	6.015%
20	State Deferred Tax	373,093	(45,457)
21	Post Year End state deferred tax	125,837	
22	Total State Deferred Taxes	498,930	(45,457)

HAWAIIAN ELECTRIC CO., INC.
TAX BASIS OF 282 PLANT ADDITIONS

		2008	2009
Total Book Additions	HECO-1701	110,219,604	264,678,568
AFUDC		(5,446,486)	(20,217,070)
CIAC		(10,129,275)	(11,024,167)
Vehicles		(3,615,809)	(3,026,687)
Tax Basis of 282 Plant Additions		91,028,034	230,410,644

Reconciliation of Power Tax schedule:

V2008 additions	48,513,432	
V2008 SA additions	21,257,301	
additional 50%	21,257,301	
V2009 additions		230,410,644
Total Additions	91,028,034	230,410,644

HAWAIIAN ELECTRIC CO., INC.
282 TAX DEPRECIATION

	2008	2009
FEDERAL		
From Power Tax	87,617,718	73,099,561
V2005, V2006 Rev Bond Adj	(1,234,504)	(1,038,950)
RAR 92-96	309,823	309,846
RAR 97-99	183,841	183,832
RAR 00-02	(104,007)	43,424
§481(a) Adj	241,038	227,376
D&T CWIP scrub	(743,031)	(680,041)
282 Tax Depreciation - Federal	86,270,878	72,145,048
STATE		
From Power Tax	70,151,968	77,504,104
V2005, V2006 Rev Bond Adj	(1,234,504)	(1,038,950)
RAR 92-96	309,823	309,846
RAR 97-99	183,841	183,832
RAR 00-02	(104,007)	43,424
§481(a) Adj	241,038	227,376
D&T CWIP scrub	(109,655)	(93,327)
282 Tax Depreciation - State	69,438,504	77,136,305

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All assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles

Grouped By: Total Tax Classes

Tax Book : Federal

Tax Year : 2008

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1903	$14,121.00	$0.00	$14,121.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$14,121.00	$0.00
V1914	$835.48	$0.00	$0.00	$835.48	$0.00	$0.00	$0.00	$0.00	$0.00	$835.48	$835.48
V1915	$553.83	$0.00	$553.83	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$553.83	$0.00
V1916	$4,444.00	$0.00	$4,444.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$4,444.00	$0.00
V1917	$107,378.00	$0.00	$107,378.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$107,378.00	$0.00
V1918	$89,648.00	$0.00	$89,648.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$89,648.00	$0.00
V1919	$24,164.48	$0.00	$23,845.00	$319.48	$0.00	$0.00	$0.00	$0.00	$0.00	$24,164.48	$319.48
V1920	$246,140.38	$0.00	$32,614.56	$213,525.82	$0.00	$0.00	$0.00	$0.00	$0.00	$246,140.38	$213,525.82
V1921	$8,582.31	$0.00	$2,013.00	$6,569.31	$0.00	$0.00	$0.00	$0.00	$0.00	$8,582.31	$6,569.31
V1922	$148,531.03	$0.00	$25,364.00	$123,167.03	$0.00	$0.00	$0.00	$0.00	$0.00	$148,531.03	$123,167.03
V1923	$22,353.04	$0.00	$0.00	$22,353.04	$0.00	$0.00	$0.00	$0.00	$0.00	$22,353.04	$22,353.04
V1924	$23,827.72	$0.00	$7.97	$23,819.75	$0.00	$0.00	$0.00	$0.00	$0.00	$23,827.72	$23,819.75
V1925	$89,212.77	$0.00	$21,830.00	$67,382.77	$0.00	$0.00	$0.00	$0.00	$0.00	$89,212.77	$67,382.77
V1926	$34,675.00	$0.00	$1,165.00	$33,510.00	$0.00	$0.00	$0.00	$0.00	$0.00	$34,675.00	$33,510.00
V1927	$112,280.15	$0.00	$59,895.94	$52,384.21	$0.00	$0.00	$0.00	$0.00	$0.00	$112,280.15	$52,384.21
V1928	$58,679.47	$0.00	$8,279.33	$50,400.14	$0.00	$0.00	$0.00	$0.00	$0.00	$58,679.47	$50,400.14
V1929	$51,784.28	$0.00	$281.00	$51,503.28	$0.00	$0.00	$0.00	$0.00	$0.00	$51,784.28	$51,503.28
V1930	$319,128.22	$0.00	$412.00	$318,716.22	$0.00	$0.00	$0.00	$0.00	$0.00	$319,128.22	$318,716.22
V1931	$94,948.53	$0.00	$2,140.00	$92,808.53	$0.00	$0.00	$0.00	$0.00	$0.00	$94,948.53	$92,808.53
V1932	$150,166.37	$0.00	$4,829.00	$145,337.37	$0.00	$0.00	$0.00	$0.00	$0.00	$150,166.37	$145,337.37
V1933	$130,796.25	$0.00	$1,409.09	$129,387.16	$0.00	$0.00	$0.00	$0.00	$0.00	$130,796.25	$129,387.16
V1934	$78,969.36	$0.00	$353.00	$78,616.36	$0.00	$0.00	$0.00	$0.00	$0.00	$78,969.36	$78,616.36
V1935	$115,670.01	$0.00	$3,277.00	$112,393.01	$0.00	$0.00	$0.00	$0.00	$0.00	$115,670.01	$112,393.01
V1936	$140,272.28	$0.00	$1,504.30	$138,767.98	$0.00	$0.00	$0.00	$0.00	$0.00	$140,272.28	$138,767.98
V1937	$293,512.03	$0.00	$16,861.71	$276,650.32	$0.00	$0.00	$0.00	$0.00	$0.00	$293,512.03	$276,650.32
V1938	$780,729.41	$0.00	$52,587.58	$728,141.83	$0.00	$0.00	$0.00	$0.00	$0.00	$780,729.41	$728,141.83
V1939	$220,063.74	$0.00	$87,102.22	$132,961.52	$0.00	$0.00	$0.00	$0.00	$0.00	$220,063.74	$132,961.52
V1940	$750,726.88	$0.00	$201,885.84	$548,841.04	$0.00	$0.00	$0.00	$0.00	$0.00	$750,726.88	$548,841.04
V1941	$795,031.54	$0.00	$29,003.00	$766,028.54	$0.00	$0.00	$0.00	$0.00	$0.00	$795,031.54	$766,028.54
V1942	$329,777.26	$0.00	$52.00	$329,725.26	$0.00	$0.00	$0.00	$0.00	$0.00	$329,777.26	$329,725.26
V1943	$318,314.71	$0.00	$3,367.38	$314,947.33	$0.00	$0.00	$0.00	$0.00	$0.00	$318,314.71	$314,947.33

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All assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles

Grouped By: Total Tax Classes

Tax Book : Federal

Tax Year : 2008

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1944	$1,640,675.73	$0.00	$116,042.09	$1,562,758.64	$0.00	$0.00	$0.00	$0.00	$0.00	$1,640,675.73	$1,562,758.64
V1945	$571,388.10	$0.00	$180,769.91	$390,618.19	$0.00	$0.00	$0.00	$0.00	$0.00	$571,388.10	$390,618.19
V1946	$804,175.43	$0.00	$4,655.99	$799,519.44	$0.00	$0.00	$0.00	$0.00	$0.00	$804,175.43	$799,519.44
V1947	$7,051,163.34	$0.00	$43,962.92	$7,007,200.42	$0.00	$0.00	$0.00	$0.00	$0.00	$7,051,163.34	$7,007,200.42
V1948	$1,161,251.15	$0.00	$53,559.89	$1,152,360.07	$0.00	$0.00	$0.00	$0.00	$0.00	$1,161,251.15	$1,152,360.07
V1949	$850,578.96	$0.00	$28,461.82	$822,117.14	$0.00	$0.00	$0.00	$0.00	$0.00	$850,578.96	$822,117.14
V1950	$4,862,347.05	$0.00	$6,291.95	$4,856,055.10	$0.00	$0.00	$0.00	$0.00	$0.00	$4,862,347.05	$4,856,055.10
V1951	$1,554,214.34	$0.00	$22,468.45	$1,531,745.89	$0.00	$0.00	$0.00	$0.00	$0.00	$1,554,214.34	$1,531,745.89
V1952	$925,644.22	$0.00	$10,034.68	$915,609.54	$0.00	$0.00	$0.00	$0.00	$0.00	$925,644.22	$915,609.54
V1953	($163,534.79)	$0.00	$56,010.58	($227,698.59)	$0.00	$0.00	$0.00	$0.00	$0.00	($163,534.79)	($227,698.59)
V1954	($26,240.00)	$0.00	$0.00	($26,240.00)	$0.00	$0.00	$0.00	$0.00	$0.00	($26,240.00)	($26,240.00)
V1954 H1	$4,050,327.18	$0.00	$0.00	$4,050,327.18	$0.00	$0.00	$0.00	$0.00	$0.00	$4,050,327.18	$4,050,327.18
V1954 H2	$6,507,380.70	$0.00	$231,751.82	$6,271,242.88	$0.00	$0.00	$0.00	$0.00	$0.00	$6,507,380.70	$6,271,242.88
V1955	$1,678,019.93	$0.00	$25,849.49	$1,556,846.31	$0.00	$0.00	$0.00	$0.00	$0.00	$1,678,019.93	$1,556,846.31
V1956	$1,412,225.70	$0.00	$27,457.01	$1,313,571.55	$0.00	$0.00	$0.00	$0.00	$0.00	$1,412,225.70	$1,313,571.55
V1957	$8,210,906.58	$0.00	$100,587.61	$8,065,847.74	$0.00	$0.00	$0.00	$0.00	$0.00	$8,210,906.58	$8,065,847.74
V1958	$2,834,301.90	$0.00	$34,322.88	$2,775,879.35	$0.00	$0.00	$0.00	$0.00	$0.00	$2,834,301.90	$2,775,879.35
V1959	$11,176,809.27	$0.00	$263,952.94	$10,695,613.20	$0.00	$0.00	$0.00	$0.00	$0.00	$11,176,809.27	$10,695,613.20
V1960	$7,351,386.31	$0.00	$2,243,508.95	$4,757,063.89	$0.00	$0.00	$0.00	$0.00	$0.00	$7,351,386.31	$4,757,063.89
V1961	$12,403,474.57	$0.00	$59,161.46	$11,903,243.12	$0.00	$0.00	$0.00	$0.00	$0.00	$12,403,474.57	$11,903,243.12
V1962	$6,867,423.16	$0.00	$484,015.86	$5,958,466.88	$0.00	$0.00	$0.00	$0.00	$0.00	$6,867,423.16	$5,958,466.88
V1963	$18,750,657.15	$0.00	$177,000.66	$18,270,345.49	$0.00	$0.00	$0.00	$0.00	$0.00	$18,750,657.15	$18,270,345.49
V1964	$13,539,240.51	$0.00	$99,319.27	$13,101,944.69	$0.00	$0.00	$0.00	$0.00	$0.00	$13,539,240.51	$13,101,944.70
V1965	$7,243,775.69	$0.00	$550,144.41	$6,373,122.83	$6,401.51	$0.00	$0.00	$0.00	$0.00	$7,243,775.69	$6,379,524.34
V1966	$21,427,013.67	$0.00	$454,630.13	$20,331,389.31	$1,609.77	$0.00	$0.00	$0.00	$0.00	$21,427,013.67	$20,332,999.08
V1967	$7,573,888.50	$0.00	$422,107.64	$6,688,868.99	$5,058.28	$0.00	$0.00	$0.00	$0.00	$7,573,888.50	$6,693,927.27
V1968	$18,268,034.99	$0.00	$144,665.93	$17,571,549.98	$1,780.87	$0.00	$0.00	$0.00	$0.00	$18,268,034.99	$17,573,330.85
V1969	$9,286,377.73	$0.00	$208,556.04	$8,536,261.78	$743.31	$0.00	$0.00	$0.00	$0.00	$9,286,377.73	$8,537,005.09
V1970	$31,873,073.95	$0.00	$1,733,158.57	$29,406,850.95	$74,384.76	$0.00	$0.00	$0.00	$0.00	$31,873,073.95	$29,481,235.71
V1971	$15,368,925.95	$0.00	$15,252,328.18	$14,920,451.44	$8,198.67	$0.00	$0.00	$0.00	$0.00	$15,368,925.95	$14,928,650.11
V1972	$33,472,101.40	$0.00	$33,461,538.40	$31,446,407.63	$2,487.24	$0.00	$0.00	$0.00	$0.00	$33,472,101.40	$31,448,894.87

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All assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles

Grouped By: Total Tax Classes

Tax Book : Federal

Tax Year : 2008

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1973	$33,473,537.74	$0.00	$31,983,732.83	$31,638,990.01	$2,003.55	$0.00	$0.00	$0.00	$0.00	$33,473,537.74	$31,640,993.56
V1974	$57,220,942.04	$0.00	$50,310,226.11	$54,736,556.59	$2,121.89	$0.00	$0.00	$0.00	$0.00	$57,220,942.04	$54,738,678.48
V1975	$22,101,505.82	$0.00	$19,260,988.53	$22,091,385.08	$881.01	$0.00	$0.00	$0.00	$0.00	$22,101,505.82	$22,092,266.09
V1976	$26,373,264.09	$0.00	$24,011,518.23	$24,276,146.17	$4,315.11	$0.00	$0.00	$0.00	$0.00	$26,373,264.09	$24,280,461.28
V1977	$11,393,983.02	$0.00	$9,860,486.96	$10,704,419.28	$1,157.33	$0.00	$0.00	$0.00	$0.00	$11,393,983.02	$10,705,576.61
V1978	$16,415,914.13	$0.00	$14,440,755.04	$15,711,328.95	$6,074.33	$0.00	$0.00	$0.00	$0.00	$16,415,914.13	$15,717,403.28
V1979	$18,751,761.23	$0.00	$14,828,638.14	$18,533,605.62	$5,697.76	$0.00	$0.00	$0.00	$0.00	$18,751,761.23	$18,539,303.38
V1980	$33,034,647.10	$0.00	$28,407,422.54	$29,659,114.39	$4,859.60	$0.00	$0.00	$0.00	$0.00	$33,034,647.10	$29,663,973.99
V1981	$64,304,317.27	$0.00	$64,304,317.27	$64,219,448.62	$3,243.51	$0.00	$0.00	$0.00	$0.00	$64,304,317.27	$64,222,692.13
V1982	$16,755,531.53	$0.00	$16,755,531.53	$16,653,738.03	$1,086.14	$0.00	$0.00	$0.00	$0.00	$16,755,531.53	$16,654,824.17
V1983	$14,423,082.68	$0.00	$14,423,082.68	$14,396,640.02	$968.14	$0.00	$0.00	$0.00	$0.00	$14,423,082.68	$14,397,608.16
V1984	$16,814,225.39	$0.00	$16,814,225.39	$16,519,529.63	$6,319.03	$0.00	$0.00	$0.00	$0.00	$16,814,225.39	$16,525,848.66
V1985	$24,887,365.88	$0.00	$24,887,365.88	$24,694,406.86	$181.81	$0.00	$0.00	$0.00	$0.00	$24,887,365.88	$24,694,588.67
V1986	$24,605,510.43	$0.00	$24,605,510.43	$24,592,026.81	$473.12	$0.00	$0.00	$0.00	$0.00	$24,605,510.43	$24,592,499.93
V1987	$27,598,589.12	$0.00	$27,598,589.12	$27,417,675.03	$15,758.66	$0.00	$0.00	$0.00	$0.00	$27,598,589.12	$27,433,433.69
V1988	$38,801,607.30	$0.00	$38,801,607.30	$36,752,150.26	$844,753.05	$0.00	$0.00	$0.00	$0.00	$38,801,607.30	$37,596,903.31
V1989	$46,874,752.41	$0.00	$46,874,752.41	$39,870,843.43	$1,892,042.02	$0.00	$0.00	$0.00	$0.00	$46,874,752.41	$41,762,885.45
V1990	$75,648,359.28	$0.00	$75,648,359.28	$47,692,645.91	$2,591,962.06	$0.00	$0.00	$0.00	$0.00	$75,648,359.28	$50,284,607.97
V1991	$38,351,170.92	$0.00	$38,351,170.92	$26,629,205.87	$1,411,371.33	$0.00	$0.00	$0.00	$0.00	$38,351,170.92	$28,040,577.20
V1992	$57,242,128.64	$0.00	$57,242,128.64	$41,625,345.83	$2,316,449.87	$0.00	$0.00	$0.00	$0.00	$57,242,128.64	$43,941,795.70
V1993	$77,639,236.95	$0.00	$77,639,236.95	$51,549,897.15	$2,947,077.01	$0.00	$0.00	$0.00	$0.00	$77,639,236.95	$54,496,974.16
V1994	$85,444,533.54	$0.00	$85,444,533.54	$47,641,750.56	$3,156,320.71	$0.00	$0.00	$0.00	$0.00	$85,444,533.54	$50,798,071.27
V1995	$95,074,700.74	$0.00	$95,074,700.74	$48,681,389.68	$3,500,125.30	$0.00	$0.00	$0.00	$0.00	$95,074,700.74	$52,181,514.98
V1996 Q1	$15,242,361.48	$0.00	$15,242,361.48	$6,086,689.09	$507,502.86	$0.00	$0.00	$0.00	$0.00	$15,242,361.48	$6,594,191.95
V1996 Q2	$11,804,801.98	$0.00	$11,804,801.98	$4,961,826.19	$409,305.24	$0.00	$0.00	$0.00	$0.00	$11,804,801.98	$5,371,131.43
V1996 Q3	$27,286,478.74	$0.00	$27,286,478.74	$9,868,526.95	$709,828.00	$0.00	$0.00	$0.00	$0.00	$27,286,478.74	$10,578,354.95
V1996 Q4	$23,963,545.73	$0.00	$23,963,545.73	$10,046,451.16	$825,995.05	$0.00	$0.00	$0.00	$0.00	$23,963,545.73	$10,872,446.21
V1997	$62,270,809.92	$0.00	$62,270,809.92	$32,177,236.34	$2,488,958.11	$0.00	$0.00	$0.00	$0.00	$62,270,809.92	$34,666,194.45
V1998	$78,079,579.10	$0.00	$78,079,579.10	$40,517,312.93	$3,338,743.83	$0.00	$0.00	$0.00	$0.00	$78,079,579.10	$43,856,056.76
V1999 Q1	$9,361,241.76	$0.00	$9,361,241.76	$4,344,342.44	$413,653.11	$0.00	$0.00	$0.00	$0.00	$9,361,241.76	$4,757,995.55
V1999 Q2	$3,687,629.80	$0.00	$3,687,629.80	$1,341,328.73	$134,898.72	$0.00	$0.00	$0.00	$0.00	$3,687,629.80	$1,476,227.45

Hawaiian E[illegible]c Company

PowerTax Deprecia[illegible] Summary Report 7

HECO 2008 - 2009 Rate Case

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All assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles

Grouped By: Total Tax Classes

Tax Book : Federal

Tax Year : 2008

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1999 Q3	$8,946,164.68	$0.00	$8,946,164.68	$3,250,459.21	$394,076.14	$0.00	$0.00	$0.00	$0.00	$8,946,164.68	$3,644,535.35
V1999 Q4	$18,169,977.48	$0.00	$18,169,977.48	$5,483,591.18	$755,224.62	$0.00	$0.00	$0.00	$0.00	$18,169,977.48	$6,238,815.80
V2000	$58,695,882.01	$0.00	$58,695,882.01	$24,244,236.95	$2,220,884.22	$0.00	$0.00	$0.00	$0.00	$58,695,882.01	$26,465,121.17
V2001	$73,501,927.45	$0.00	$73,501,927.45	$29,888,573.76	$3,127,633.97	$0.00	$0.00	$0.00	$0.00	$73,501,927.45	$33,016,207.73
V2001_JC	$541,173.12	$0.00	$541,173.12	$232,985.66	$24,452.23	$0.00	$0.00	$0.00	$0.00	$541,173.12	$257,437.89
V2002	$53,177,696.23	$0.00	$53,177,696.23	$13,578,513.43	$2,086,565.72	$0.00	$0.00	$0.00	$0.00	$53,177,696.23	$15,665,079.15
V2002_JC	$15,080,651.26	$0.00	$15,080,651.26	$6,432,049.70	$695,615.82	$0.00	$0.00	$0.00	$0.00	$15,080,651.26	$7,127,665.52
V2003	$19,114,363.12	$0.00	$19,114,363.12	$4,343,995.55	$994,508.07	$0.00	$0.00	$0.00	$0.00	$19,114,363.12	$5,338,503.62
V2003_JC	$15,491,453.36	$0.00	$15,491,453.36	$4,994,863.56	$1,262,757.16	$0.00	$0.00	$0.00	$0.00	$15,491,453.36	$6,257,620.72
V2003_JGT	$7,097,917.68	$0.00	$7,097,917.68	$2,474,107.34	$1,037,015.14	$0.00	$0.00	$0.00	$0.00	$7,097,917.68	$3,511,122.48
V2004	$64,128,266.81	$0.00	$64,128,266.81	$13,728,975.77	$3,327,147.35	$0.00	$0.00	$0.00	$0.00	$64,128,266.81	$17,056,123.12
V2004_JC	$14,362,507.45	$0.00	$14,362,507.45	$3,624,352.66	$838,868.71	$0.00	$0.00	$0.00	$0.00	$14,362,507.45	$4,463,221.37
V2004_JGT	$21,539,081.88	$0.00	$21,539,081.88	$5,877,431.66	$1,208,603.08	$0.00	$0.00	$0.00	$0.00	$21,539,081.88	$7,086,034.74
V2005	$87,786,437.98	$0.00	$87,786,437.98	$14,870,028.30	$5,111,077.30	$0.00	$0.00	$0.00	$0.00	$87,786,437.98	$19,981,105.60
V2005_JC	$3,028,835.31	$0.00	$3,028,835.31	$542,245.48	$187,091.16	$0.00	$0.00	$0.00	$0.00	$3,028,835.31	$729,336.64
V2005_JGT	$492,066.70	$0.00	$492,066.70	$104,893.22	$30,394.96	$0.00	$0.00	$0.00	$0.00	$492,066.70	$135,288.18
V2006 Q1	$49,084,663.14	$0.00	$49,084,663.14	$6,539,487.54	$3,001,574.91	$0.00	$0.00	$0.00	$0.00	$49,084,663.14	$9,541,062.45
V2006 Q2	$19,676,930.57	$0.00	$19,676,930.57	$2,422,138.60	$1,324,805.95	$0.00	$0.00	$0.00	$0.00	$19,676,930.57	$3,746,944.55
V2006 Q3	$15,536,385.24	$0.00	$15,536,385.24	$1,768,690.67	$1,147,357.10	$0.00	$0.00	$0.00	$0.00	$15,536,385.24	$2,916,047.77
V2006 Q4	$27,552,578.61	$0.00	$27,552,578.61	$3,126,694.36	$2,266,793.21	$0.00	$0.00	$0.00	$0.00	$27,552,578.61	$5,393,487.57
V2007	$78,831,293.56	$0.00	$78,831,293.56	$2,894,072.43	$5,463,761.09	$0.00	$0.00	$0.00	$0.00	$78,831,293.56	$8,357,833.52
V2008	$0.00	$48,513,432.00	$48,513,432.00	$0.00	$1,227,742.50	$0.00	$0.00	$0.00	$0.00	$48,513,432.00	$1,227,742.49
V2008_SA	$0.00	$21,257,301.00	$21,257,301.00	$0.00	$22,238,976.05	$0.00	$0.00	$0.00	$0.00	$21,257,301.00	$981,675.04
Total Tax Classes	2,070,845,695.30	$69,770,733.00	1,908,164,855.89	1,243,592,774.45	$87,617,718.13	$0.00	$0.00	$0.00	$0.00	2,140,616,428.30	1,309,953,191.57
HECO	2,070,845,695.30	$69,770,733.00	1,908,164,855.89	1,243,592,774.45	$87,617,718.13	$0.00	$0.00	$0.00	$0.00	2,140,616,428.30	1,309,953,191.57
Tax Year:	2,070,845,695.30	$69,770,733.00	1,908,164,855.89	1,243,592,774.45	$87,617,718.13	$0.00	$0.00	$0.00	$0.00	2,140,616,428.30	1,309,953,191.57

Hawaiian El[illegible] Company
PowerTax Depreciat[illegible] Summary Report 7
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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles
Grouped By: Total Tax Classes

Tax Book : Federal
Tax Year : 2009

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1903	$14,121.00	$0.00	$14,121.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$14,121.00	$0.00
V1914	$835.48	$0.00	$0.00	$835.48	$0.00	$0.00	$0.00	$0.00	$0.00	$835.48	$835.48
V1915	$553.83	$0.00	$553.83	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$553.83	$0.00
V1916	$4,444.00	$0.00	$4,444.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$4,444.00	$0.00
V1917	$107,378.00	$0.00	$107,378.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$107,378.00	$0.00
V1918	$89,648.00	$0.00	$89,648.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$89,648.00	$0.00
V1919	$24,164.48	$0.00	$23,845.00	$319.48	$0.00	$0.00	$0.00	$0.00	$0.00	$24,164.48	$319.48
V1920	$246,140.38	$0.00	$32,614.56	$213,525.82	$0.00	$0.00	$0.00	$0.00	$0.00	$246,140.38	$213,525.82
V1921	$8,582.31	$0.00	$2,013.00	$6,569.31	$0.00	$0.00	$0.00	$0.00	$0.00	$8,582.31	$6,569.31
V1922	$148,531.03	$0.00	$25,364.00	$123,167.03	$0.00	$0.00	$0.00	$0.00	$0.00	$148,531.03	$123,167.03
V1923	$22,353.04	$0.00	$0.00	$22,353.04	$0.00	$0.00	$0.00	$0.00	$0.00	$22,353.04	$22,353.04
V1924	$23,827.72	$0.00	$7.97	$23,819.75	$0.00	$0.00	$0.00	$0.00	$0.00	$23,827.72	$23,819.75
V1925	$89,212.77	$0.00	$21,830.00	$67,382.77	$0.00	$0.00	$0.00	$0.00	$0.00	$89,212.77	$67,382.77
V1926	$34,675.00	$0.00	$1,165.00	$33,510.00	$0.00	$0.00	$0.00	$0.00	$0.00	$34,675.00	$33,510.00
V1927	$112,280.15	$0.00	$59,895.94	$52,384.21	$0.00	$0.00	$0.00	$0.00	$0.00	$112,280.15	$52,384.21
V1928	$58,679.47	$0.00	$8,279.33	$50,400.14	$0.00	$0.00	$0.00	$0.00	$0.00	$58,679.47	$50,400.14
V1929	$51,784.28	$0.00	$281.00	$51,503.28	$0.00	$0.00	$0.00	$0.00	$0.00	$51,784.28	$51,503.28
V1930	$319,128.22	$0.00	$412.00	$318,716.22	$0.00	$0.00	$0.00	$0.00	$0.00	$319,128.22	$318,716.22
V1931	$94,948.53	$0.00	$2,140.00	$92,808.53	$0.00	$0.00	$0.00	$0.00	$0.00	$94,948.53	$92,808.53
V1932	$150,166.37	$0.00	$4,829.00	$145,337.37	$0.00	$0.00	$0.00	$0.00	$0.00	$150,166.37	$145,337.37
V1933	$130,796.25	$0.00	$1,409.09	$129,387.16	$0.00	$0.00	$0.00	$0.00	$0.00	$130,796.25	$129,387.16
V1934	$78,969.36	$0.00	$353.00	$78,616.36	$0.00	$0.00	$0.00	$0.00	$0.00	$78,969.36	$78,616.36
V1935	$115,670.01	$0.00	$3,277.00	$112,393.01	$0.00	$0.00	$0.00	$0.00	$0.00	$115,670.01	$112,393.01
V1936	$140,272.28	$0.00	$1,504.30	$138,767.98	$0.00	$0.00	$0.00	$0.00	$0.00	$140,272.28	$138,767.98
V1937	$293,512.03	$0.00	$16,861.71	$276,650.32	$0.00	$0.00	$0.00	$0.00	$0.00	$293,512.03	$276,650.32
V1938	$780,729.41	$0.00	$52,587.58	$728,141.83	$0.00	$0.00	$0.00	$0.00	$0.00	$780,729.41	$728,141.83
V1939	$220,063.74	$0.00	$87,102.22	$132,961.52	$0.00	$0.00	$0.00	$0.00	$0.00	$220,063.74	$132,961.52
V1940	$750,726.88	$0.00	$201,885.84	$548,841.04	$0.00	$0.00	$0.00	$0.00	$0.00	$750,726.88	$548,841.04
V1941	$795,031.54	$0.00	$29,003.00	$766,028.54	$0.00	$0.00	$0.00	$0.00	$0.00	$795,031.54	$766,028.54
V1942	$329,777.26	$0.00	$52.00	$329,725.26	$0.00	$0.00	$0.00	$0.00	$0.00	$329,777.26	$329,725.26
V1943	$318,314.71	$0.00	$3,367.38	$314,947.33	$0.00	$0.00	$0.00	$0.00	$0.00	$318,314.71	$314,947.33

Hawaiian El[illegible] Company
PowerTax Depreciat[illegible] Summary Report 7
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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles
Grouped By: Total Tax Classes

Tax Book : Federal
Tax Year : 2009

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1944	$1,640,675.73	$0.00	$116,042.09	$1,562,758.64	$0.00	$0.00	$0.00	$0.00	$0.00	$1,640,675.73	$1,562,758.64
V1945	$571,388.10	$0.00	$180,769.91	$390,618.19	$0.00	$0.00	$0.00	$0.00	$0.00	$571,388.10	$390,618.19
V1946	$804,175.43	$0.00	$4,655.99	$799,519.44	$0.00	$0.00	$0.00	$0.00	$0.00	$804,175.43	$799,519.44
V1947	$7,051,163.34	$0.00	$43,962.92	$7,007,200.42	$0.00	$0.00	$0.00	$0.00	$0.00	$7,051,163.34	$7,007,200.42
V1948	$1,161,251.15	$0.00	$53,559.89	$1,152,360.07	$0.00	$0.00	$0.00	$0.00	$0.00	$1,161,251.15	$1,152,360.07
V1949	$850,578.96	$0.00	$28,461.82	$822,117.14	$0.00	$0.00	$0.00	$0.00	$0.00	$850,578.96	$822,117.14
V1950	$4,862,347.05	$0.00	$6,291.95	$4,856,055.10	$0.00	$0.00	$0.00	$0.00	$0.00	$4,862,347.05	$4,856,055.10
V1951	$1,554,214.34	$0.00	$22,468.45	$1,531,745.89	$0.00	$0.00	$0.00	$0.00	$0.00	$1,554,214.34	$1,531,745.89
V1952	$925,644.22	$0.00	$10,034.68	$915,609.54	$0.00	$0.00	$0.00	$0.00	$0.00	$925,644.22	$915,609.54
V1953	($163,534.79)	$0.00	$56,010.58	($227,698.59)	$0.00	$0.00	$0.00	$0.00	$0.00	($163,534.79)	($227,698.59)
V1954	($26,240.00)	$0.00	$0.00	($26,240.00)	$0.00	$0.00	$0.00	$0.00	$0.00	($26,240.00)	($26,240.00)
V1954 H1	$4,050,327.18	$0.00	$0.00	$4,050,327.18	$0.00	$0.00	$0.00	$0.00	$0.00	$4,050,327.18	$4,050,327.18
V1954 H2	$6,507,380.70	$0.00	$231,751.82	$6,271,242.88	$0.00	$0.00	$0.00	$0.00	$0.00	$6,507,380.70	$6,271,242.88
V1955	$1,678,019.93	$0.00	$25,849.49	$1,556,846.31	$0.00	$0.00	$0.00	$0.00	$0.00	$1,678,019.93	$1,556,846.31
V1956	$1,412,225.70	$0.00	$27,457.01	$1,313,571.55	$0.00	$0.00	$0.00	$0.00	$0.00	$1,412,225.70	$1,313,571.55
V1957	$8,210,906.58	$0.00	$100,587.61	$8,065,847.74	$0.00	$0.00	$0.00	$0.00	$0.00	$8,210,906.58	$8,065,847.74
V1958	$2,834,301.90	$0.00	$34,322.88	$2,775,879.35	$0.00	$0.00	$0.00	$0.00	$0.00	$2,834,301.90	$2,775,879.35
V1959	$11,176,809.27	$0.00	$263,952.94	$10,695,613.20	$0.00	$0.00	$0.00	$0.00	$0.00	$11,176,809.27	$10,695,613.20
V1960	$7,351,386.31	$0.00	$2,243,508.95	$4,757,063.89	$0.00	$0.00	$0.00	$0.00	$0.00	$7,351,386.31	$4,757,063.89
V1961	$12,403,474.57	$0.00	$59,161.46	$11,903,243.12	$0.00	$0.00	$0.00	$0.00	$0.00	$12,403,474.57	$11,903,243.12
V1962	$6,867,423.16	$0.00	$484,015.86	$5,958,466.88	$0.00	$0.00	$0.00	$0.00	$0.00	$6,867,423.16	$5,958,466.88
V1963	$18,750,657.15	$0.00	$169,523.62	$18,270,345.49	$0.00	$0.00	$0.00	$0.00	$0.00	$18,750,657.15	$18,270,345.49
V1964	$13,539,240.51	$0.00	$99,319.26	$13,101,944.70	$0.00	$0.00	$0.00	$0.00	$0.00	$13,539,240.51	$13,101,944.70
V1965	$7,243,775.69	$0.00	$543,742.90	$6,379,524.34	$6,401.31	$0.00	$0.00	$0.00	$0.00	$7,243,775.69	$6,385,925.65
V1966	$21,427,013.67	$0.00	$453,020.36	$20,332,999.08	$827.87	$0.00	$0.00	$0.00	$0.00	$21,427,013.67	$20,333,826.95
V1967	$7,573,888.50	$0.00	$417,049.36	$6,693,927.27	$5,058.28	$0.00	$0.00	$0.00	$0.00	$7,573,888.50	$6,698,985.55
V1968	$18,268,034.99	$0.00	$142,885.06	$17,573,330.85	$1,112.65	$0.00	$0.00	$0.00	$0.00	$18,268,034.99	$17,574,443.51
V1969	$9,286,377.73	$0.00	$207,812.73	$8,537,005.09	$743.27	$0.00	$0.00	$0.00	$0.00	$9,286,377.73	$8,537,748.36
V1970	$31,873,073.95	$0.00	$1,658,773.81	$29,481,235.71	$74,386.24	$0.00	$0.00	$0.00	$0.00	$31,873,073.95	$29,555,621.95
V1971	$15,368,925.95	$0.00	$15,252,328.18	$14,928,650.11	$7,234.81	$0.00	$0.00	$0.00	$0.00	$15,368,925.95	$14,935,884.92
V1972	$33,472,101.40	$0.00	$33,461,538.40	$31,448,894.87	$2,487.24	$0.00	$0.00	$0.00	$0.00	$33,472,101.40	$31,451,382.11

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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles
Grouped By: Total Tax Classes

Tax Book : Federal
Tax Year : 2009

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1973	$33,473,537.74	$0.00	$31,983,732.83	$31,640,993.56	$1,877.23	$0.00	$0.00	$0.00	$0.00	$33,473,537.74	$31,642,870.79
V1974	$57,220,942.04	$0.00	$50,310,226.11	$54,738,678.48	$1,296.25	$0.00	$0.00	$0.00	$0.00	$57,220,942.04	$54,739,974.73
V1975	$22,101,505.82	$0.00	$19,260,988.53	$22,092,266.09	$840.73	$0.00	$0.00	$0.00	$0.00	$22,101,505.82	$22,093,106.82
V1976	$26,373,264.09	$0.00	$24,011,518.23	$24,280,461.28	$4,015.44	$0.00	$0.00	$0.00	$0.00	$26,373,264.09	$24,284,476.72
V1977	$11,393,983.02	$0.00	$9,860,486.96	$10,705,576.61	$1,109.59	$0.00	$0.00	$0.00	$0.00	$11,393,983.02	$10,706,686.20
V1978	$16,415,914.13	$0.00	$14,440,755.04	$15,717,403.28	$5,822.92	$0.00	$0.00	$0.00	$0.00	$16,415,914.13	$15,723,226.20
V1979	$18,751,761.23	$0.00	$14,825,407.75	$18,539,303.38	$5,598.31	$0.00	$0.00	$0.00	$0.00	$18,751,761.23	$18,544,901.69
V1980	$33,034,647.10	$0.00	$28,404,805.89	$29,663,973.99	$4,748.12	$0.00	$0.00	$0.00	$0.00	$33,034,647.10	$29,668,722.11
V1981	$64,304,317.27	$0.00	$64,304,317.27	$64,222,692.13	$3,243.51	$0.00	$0.00	$0.00	$0.00	$64,304,317.27	$64,225,935.64
V1982	$16,755,531.53	$0.00	$16,755,531.53	$16,654,824.17	$1,086.14	$0.00	$0.00	$0.00	$0.00	$16,755,531.53	$16,655,910.31
V1983	$14,423,082.68	$0.00	$14,423,082.68	$14,397,608.16	$968.14	$0.00	$0.00	$0.00	$0.00	$14,423,082.68	$14,398,576.30
V1984	$16,814,225.39	$0.00	$16,814,225.39	$16,525,848.66	$6,319.03	$0.00	$0.00	$0.00	$0.00	$16,814,225.39	$16,532,167.69
V1985	$24,887,365.88	$0.00	$24,887,365.88	$24,694,588.67	$181.81	$0.00	$0.00	$0.00	$0.00	$24,887,365.88	$24,694,770.48
V1986	$24,605,510.43	$0.00	$24,605,510.43	$24,592,499.93	$473.12	$0.00	$0.00	$0.00	$0.00	$24,605,510.43	$24,592,973.05
V1987	$27,598,589.12	$0.00	$27,598,589.12	$27,433,433.69	$15,758.66	$0.00	$0.00	$0.00	$0.00	$27,598,589.12	$27,449,192.35
V1988	$38,801,607.30	$0.00	$38,801,607.30	$37,596,903.31	$106,035.84	$0.00	$0.00	$0.00	$0.00	$38,801,607.30	$37,702,939.15
V1989	$46,874,752.41	$0.00	$46,874,752.41	$41,762,885.45	$1,163,493.55	$0.00	$0.00	$0.00	$0.00	$46,874,752.41	$42,926,379.00
V1990	$75,648,359.28	$0.00	$75,648,359.28	$50,284,607.97	$2,591,386.77	$0.00	$0.00	$0.00	$0.00	$75,648,359.28	$52,875,994.74
V1991	$38,351,170.92	$0.00	$38,351,170.92	$28,040,577.20	$1,411,697.32	$0.00	$0.00	$0.00	$0.00	$38,351,170.92	$29,452,274.52
V1992	$57,242,128.64	$0.00	$57,242,128.64	$43,941,795.70	$2,316,027.00	$0.00	$0.00	$0.00	$0.00	$57,242,128.64	$46,257,822.70
V1993	$77,639,236.95	$0.00	$77,639,236.95	$54,496,974.16	$2,946,022.24	$0.00	$0.00	$0.00	$0.00	$77,639,236.95	$57,442,996.40
V1994	$85,444,533.54	$0.00	$85,444,533.54	$50,798,071.27	$3,156,324.44	$0.00	$0.00	$0.00	$0.00	$85,444,533.54	$53,954,395.71
V1995	$95,074,700.74	$0.00	$95,074,700.74	$52,181,514.98	$3,500,489.76	$0.00	$0.00	$0.00	$0.00	$95,074,700.74	$55,682,004.74
V1996 Q1	$15,242,361.48	$0.00	$15,242,361.48	$6,594,191.95	$507,381.99	$0.00	$0.00	$0.00	$0.00	$15,242,361.48	$7,101,573.94
V1996 Q2	$11,804,801.98	$0.00	$11,804,801.98	$5,371,131.43	$409,395.11	$0.00	$0.00	$0.00	$0.00	$11,804,801.98	$5,780,526.54
V1996 Q3	$27,286,478.74	$0.00	$27,286,478.74	$10,578,354.95	$709,776.55	$0.00	$0.00	$0.00	$0.00	$27,286,478.74	$11,288,131.50
V1996 Q4	$23,963,545.73	$0.00	$23,963,545.73	$10,872,446.21	$825,809.46	$0.00	$0.00	$0.00	$0.00	$23,963,545.73	$11,698,255.65
V1997	$62,270,809.92	$0.00	$62,270,809.92	$34,666,194.45	$2,485,879.07	$0.00	$0.00	$0.00	$0.00	$62,270,809.92	$37,152,073.52
V1998	$78,079,579.10	$0.00	$78,079,579.10	$43,856,056.76	$3,338,065.86	$0.00	$0.00	$0.00	$0.00	$78,079,579.10	$47,194,122.62
V1999 Q1	$9,361,241.76	$0.00	$9,361,241.76	$4,757,995.55	$413,638.75	$0.00	$0.00	$0.00	$0.00	$9,361,241.76	$5,171,634.30
V1999 Q2	$3,687,629.80	$0.00	$3,687,629.80	$1,476,227.45	$134,896.71	$0.00	$0.00	$0.00	$0.00	$3,687,629.80	$1,611,124.16

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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles
Grouped By: Total Tax Classes

Tax Book : Federal
Tax Year : 2009

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1999 Q3	$8,946,164.68	$0.00	$8,946,164.68	$3,644,535.35	$394,110.80	$0.00	$0.00	$0.00	$0.00	$8,946,164.68	$4,038,646.15
V1999 Q4	$18,169,977.48	$0.00	$18,169,977.48	$6,238,815.80	$755,148.40	$0.00	$0.00	$0.00	$0.00	$18,169,977.48	$6,993,964.20
V2000	$58,695,882.01	$0.00	$58,695,882.01	$26,465,121.17	$2,220,773.80	$0.00	$0.00	$0.00	$0.00	$58,695,882.01	$28,685,894.97
V2001	$73,501,927.45	$0.00	$73,501,927.45	$33,016,207.73	$2,944,622.81	$0.00	$0.00	$0.00	$0.00	$73,501,927.45	$35,960,830.54
V2001_JC	$541,173.12	$0.00	$541,173.12	$257,437.89	$22,688.95	$0.00	$0.00	$0.00	$0.00	$541,173.12	$280,126.84
V2002	$53,177,696.23	$0.00	$53,177,696.23	$15,665,079.15	$1,972,608.14	$0.00	$0.00	$0.00	$0.00	$53,177,696.23	$17,637,687.29
V2002_JC	$15,080,651.26	$0.00	$15,080,651.26	$7,127,665.52	$700,184.71	$0.00	$0.00	$0.00	$0.00	$15,080,651.26	$7,827,850.23
V2003	$19,114,363.12	$0.00	$19,114,363.12	$5,338,503.62	$735,193.51	$0.00	$0.00	$0.00	$0.00	$19,114,363.12	$6,073,697.13
V2003_JC	$15,491,453.36	$0.00	$15,491,453.36	$6,257,620.72	$731,160.82	$0.00	$0.00	$0.00	$0.00	$15,491,453.36	$6,988,781.54
V2003_JGT	$7,097,917.68	$0.00	$7,097,917.68	$3,511,122.48	$296,948.75	$0.00	$0.00	$0.00	$0.00	$7,097,917.68	$3,808,071.23
V2004	$64,128,266.81	$0.00	$64,128,266.81	$17,056,123.12	$3,093,293.00	$0.00	$0.00	$0.00	$0.00	$64,128,266.81	$20,149,416.12
V2004_JC	$14,362,507.45	$0.00	$14,362,507.45	$4,463,221.37	$761,101.67	$0.00	$0.00	$0.00	$0.00	$14,362,507.45	$5,224,323.04
V2004_JGT	$21,539,081.88	$0.00	$21,539,081.88	$7,086,034.74	$956,803.28	$0.00	$0.00	$0.00	$0.00	$21,539,081.88	$8,042,838.02
V2005	$87,786,437.98	$0.00	$87,786,437.98	$19,981,105.60	$4,746,247.48	$0.00	$0.00	$0.00	$0.00	$87,786,437.98	$24,727,353.08
V2005_JC	$3,028,835.31	$0.00	$3,028,835.31	$729,336.64	$173,037.36	$0.00	$0.00	$0.00	$0.00	$3,028,835.31	$902,374.00
V2005_JGT	$492,066.70	$0.00	$492,066.70	$135,288.18	$28,111.77	$0.00	$0.00	$0.00	$0.00	$492,066.70	$163,399.95
V2006 Q1	$49,084,663.14	$0.00	$49,084,663.14	$9,541,062.45	$2,728,828.41	$0.00	$0.00	$0.00	$0.00	$49,084,663.14	$12,269,890.86
V2006 Q2	$19,676,930.57	$0.00	$19,676,930.57	$3,746,944.55	$1,202,241.11	$0.00	$0.00	$0.00	$0.00	$19,676,930.57	$4,949,185.66
V2006 Q3	$15,536,385.24	$0.00	$15,536,385.24	$2,916,047.77	$1,031,090.39	$0.00	$0.00	$0.00	$0.00	$15,536,385.24	$3,947,138.16
V2006 Q4	$27,552,578.61	$0.00	$27,552,578.61	$5,393,487.57	$1,907,695.17	$0.00	$0.00	$0.00	$0.00	$27,552,578.61	$7,301,182.74
V2007	$78,831,293.56	$0.00	$78,831,293.56	$8,357,833.52	$4,823,200.68	$0.00	$0.00	$0.00	$0.00	$78,831,293.56	$13,181,034.20
V2008	$48,513,432.00	$0.00	$48,513,432.00	$1,227,742.49	$2,367,676.07	$0.00	$0.00	$0.00	$0.00	$48,513,432.00	$3,595,418.56
V2008_SA	$21,257,301.00	$0.00	$21,257,301.00	$981,675.04	$1,827,727.50	$0.00	$0.00	$0.00	$0.00	$21,257,301.00	$2,809,402.54
V2009	$0.00	$230,410,644.00	$230,410,644.00	$0.00	$10,511,155.36	$0.00	$0.00	$0.00	$0.00	$230,410,644.00	$10,511,155.36
Total Tax Classes	2,140,616,428.30	$230,410,644.00	2,138,472,197.30	1,309,953,191.57	$73,099,561.03	$0.00	$0.00	$0.00	$0.00	2,371,027,072.30	1,383,052,752.59
HECO	2,140,616,428.30	$230,410,644.00	2,138,472,197.30	1,309,953,191.57	$73,099,561.03	$0.00	$0.00	$0.00	$0.00	2,371,027,072.30	1,383,052,752.59
Tax Year:	2,140,616,428.30	$230,410,644.00	2,138,472,197.30	1,309,953,191.57	$73,099,561.03	$0.00	$0.00	$0.00	$0.00	2,371,027,072.30	1,383,052,752.59

CA-IR-252

Ref: HECO Response to CA-IR-132 (SSCM Deduction Regulations).

Please provide a copy of (or pinpoint citation into) the relevant "regulations issued by Treasury" that are referenced at the end of this response.

HECO Response:

Reg §1.263A-1(h)(2)(i)(D) (see pages 2-3 of this response) and Reg §1.263A-2(b)(2)(i)(D) (see pages 6-7 of this response) were referenced in HECO T-15, page 23, lines 18-19 of Mr. Lon Okada's direct testimony in Docket No. 2006-0386 (HECO 2007 test year rate case).

Reg §1.263A-1(k) (see pages 4-5 of this response) describes the two year positive adjustment spread.

§1.263A-1. Uniform capitalization of costs

(h) *Simplified service cost method*

(1) *Introduction*. --This paragraph (h) provides a simplified method for determining capitalizable mixed service costs incurred during the taxable year with respect to eligible property (i.e., the aggregate portion of mixed service costs that are properly allocable to the taxpayer's production or resale activities).

(2) *Eligible property*

(i) *In general*. --Except as otherwise provided in paragraph (h)(2)(ii) of this section, the simplified service cost method, if elected for any trade or business of the taxpayer, must be used for all production and resale activities of the trade or business associated with any of the following categories of property that are subject to section 263A:

(A) *Inventory property*. --Stock in trade or other property properly includible in the inventory of the taxpayer.

(B) *Non-inventory property held for sale*. --Non-inventory property held by a taxpayer primarily for sale to customers in the ordinary course of the taxpayer's trade or business.

(C) *Certain self-constructed assets*. --Self-constructed assets substantially identical in nature to, and produced in the same manner as, inventory property produced by the taxpayer or other property produced by the taxpayer and held primarily for sale to customers in the ordinary course of the taxpayer's trade or business.

(D) *Self-constructed tangible personal property produced on a routine and repetitive basis*

(1) *In general*. --Self-constructed tangible personal property produced by the taxpayer on a routine and repetitive basis in the ordinary course of the taxpayer's trade or business. Self-constructed tangible personal property is produced by the taxpayer on a routine and repetitive basis in the ordinary course of the taxpayer's trade or business when units of tangible personal property (as defined in §1.263A-10(c)) are mass-produced, that is, numerous substantially identical assets are manufactured within a taxable year using standardized designs and assembly line techniques, and either the applicable recovery period of the property determined under section 168(c) is not longer than 3 years or the property is a material or supply that will be used and consumed within 3 years of being produced. For purposes of this paragraph (h)(2)(i)(D), the applicable recovery period of the assets will be determined at the end of the taxable year in which the assets are placed in service for purposes of §1.46-3(d). Subsequent changes to the applicable recovery period after the assets are placed in service will not affect the determination of whether the assets are produced on a routine and repetitive basis for purposes of this paragraph (h)(2)(i)(D).

(2) *Examples*. --The following examples illustrate this paragraph (h)(2)(i)(D):

Example 1. Y is a manufacturer of automobiles. During the taxable year Y produces numerous substantially identical dies and molds using standardized designs and assembly line techniques. The dies and molds have a 3-year applicable recovery period for purposes of section 168(c). Y uses the dies and molds to produce or process particular automobile components and does not hold them for sale. The dies and molds are produced on a routine and repetitive basis in the ordinary course of Y's business for purposes of this paragraph because the dies and molds are both mass-produced and have a recovery period of not longer than 3 years.

Example 2. Z is an electric utility that regularly manufactures and installs identical poles that are used in transmitting and distributing electricity. The poles have a 20-year applicable recovery period for purposes of section 168(c). The poles are not produced on a routine and repetitive basis in the ordinary course of Z's business for purposes of this paragraph because the poles have an applicable recovery period that is longer than 3 years.

(ii) *Election to exclude self-constructed assets*. --At the taxpayer's election, the simplified service cost method may be applied within a trade or business to only the categories of inventory property and non-inventory property held for sale described in paragraphs (h)(2)(i)(A) and (B) of this section. Taxpayers electing to exclude the self-constructed assets described in paragraphs (h)(2)(i)(C) and (D) of this section from application of the simplified service cost method must, however, allocate service costs to such property in accordance with paragraph (g)(4) of this section.

§1.263A-1. Uniform capitalization of costs

(k) *Change in method of accounting*

(1) *In general*. --A change in a taxpayer's treatment of mixed service costs to comply with paragraph (h)(2)(i)(D) of this section is a change in method of accounting to which the provisions of sections 446 and 481 and the regulations under those sections apply. See §1.263A-7. For a taxpayer's first taxable year ending on or after August 2, 2005, the taxpayer is granted the consent of the Commissioner to change its method of accounting to comply with paragraph (h)(2)(i)(D) of this section, provided the taxpayer follows the administrative procedures, as modified by paragraphs (k)(2) through (4) of this section, issued under §1.446-1(e)(3)(ii) for obtaining the Commissioner's automatic consent to a change in accounting method (for further guidance, for example, see Rev. Proc. 2002-9 (2002-1 CB 327), as modified and clarified by Announcement 2002-17 (2002-1 CB 561), modified and amplified by Rev. Proc. 2002-19 (2002-1 CB 696), and amplified, clarified, and modified by Rev. Proc. 2002-54 (2002-2 CB 432), and §601.601(d)(2)(ii)(b) of this chapter). For purposes of Form 3115, "Application for Change in Accounting Method," the designated number for the automatic accounting method change authorized by this paragraph (k) is "95." If Form 3115 is revised or renumbered, any reference in this section to that form is treated as a reference to the revised or renumbered form. Alternatively, notwithstanding the provisions of any administrative procedures that preclude a taxpayer from requesting the advance consent of the Commissioner to change a method of accounting that is required to be made pursuant to a published automatic change procedure, for its first taxable year ending on or after August 2, 2005, a taxpayer may request the advance consent of the Commissioner to change its method of accounting to comply with paragraph (h)(2)(i)(D) of this section, provided the taxpayer follows the administrative procedures, as modified by paragraphs (k)(2) through (5) of this section, for obtaining the advance consent of the Commissioner (for further guidance, for example, see Rev. Proc. 97-27 (1997-1 CB 680), as modified and amplified by Rev. Proc. 2002-19 (2002-1 CB 696), as amplified and clarified by Rev. Proc. 2002-54 (2002-2 CB 432), and §601.601(d)(2)(ii)(b) of this chapter). For the taxpayer's second and subsequent taxable years ending on or after August 2, 2005, requests to secure the consent of the Commissioner must be made under the administrative procedures, as modified by paragraphs (k)(3) and (4) of this section, for obtaining the Commissioner's advance consent to a change in accounting method.

(2) *Scope limitations*. --Any limitations on obtaining the automatic consent or advance consent of the Commissioner do not apply to a taxpayer seeking to change its method of accounting to comply with paragraph (h)(2)(i)(D) of this section for its first taxable year ending on or after August 2, 2005.

(3) *Audit protection*. --A taxpayer that changes its method of accounting in accordance with this paragraph (k) to comply with paragraph (h)(2)(i)(D) of this section does not receive audit protection if its method of accounting for mixed service costs is an issue under consideration at the time the application is filed with the national office.

(4) *Section 481(a) adjustment*. --A change in method of accounting to conform to paragraph (h)(2)(i)(D) of this section requires a section 481(a) adjustment. The section 481(a) adjustment period is two taxable years for a net positive adjustment for an accounting method change that is made to conform to paragraph (h)(2)(i)(D) of this section.

(5) *Time for requesting change*. --Notwithstanding the provisions of §1.446-1(e)(3)(i) and any contrary administrative procedure, a taxpayer may submit a request for advance consent to change its method of accounting to comply with paragraph (h)(2)(i)(D) of this section for its first taxable year ending on or after August 2, 2005, on or before the date that is 30 days after the end of the taxable year for which the change is requested.

§1.263A-2. Rules relating to property produced by the taxpayer

(b) *Simplified production method*

(1) *Introduction*. --This paragraph (b) provides a simplified method for determining the additional section 263A costs properly allocable to ending inventories of property produced and other eligible property on hand at the end of the taxable year.

(2) *Eligible property*

(i) *In general*. --Except as otherwise provided in paragraph (b)(2)(ii) of this section, the simplified production method, if elected for any trade or business of a producer, must be used for all production and resale activities associated with any of the following categories of property to which section 263A applies:

(A) *Inventory property*. --Stock in trade or other property properly includible in the inventory of the taxpayer.

(B) *Non-inventory property held for sale*. --Non-inventory property held by a taxpayer primarily for sale to customers in the ordinary course of the taxpayer's trade or business.

(C) *Certain self-constructed assets*. --Self-constructed assets substantially identical in nature to, and produced in the same manner as, inventory property produced by the taxpayer or other property produced by the taxpayer and held primarily for sale to customers in the ordinary course of the taxpayer's trade or business.

(D) *Self-constructed tangible personal property produced on a routine and repetitive basis*

(1) *In general*. --Self-constructed tangible personal property produced by the taxpayer on a routine and repetitive basis in the ordinary course of the taxpayer's trade or business. Self-constructed tangible personal property is produced by the taxpayer on a routine and repetitive basis in the ordinary course of the taxpayer's trade or business when units of tangible personal property (as defined in §1.263A-10(c)) are mass-produced, that is, numerous substantially identical assets are manufactured within a taxable year using standardized designs and assembly line techniques, and either the applicable recovery period of the property determined under section 168(c) is not longer than 3 years or the property is a material or supply that will be used and consumed within 3 years of being produced. For purposes of this paragraph (b)(2)(i)(D), the applicable recovery period of the assets will be determined at the end of the taxable year in which the assets are placed in service for purposes of §1.46-3(d). Subsequent changes to the applicable recovery period after the assets are placed in service will not affect the determination of whether the assets are produced on a routine and repetitive basis for purposes of this paragraph (b)(2)(i)(D).

(2) *Examples*. --The following examples illustrate this paragraph (b)(2)(i)(D):

Example 1. Y is a manufacturer of automobiles. During the taxable year Y produces numerous substantially identical dies and molds using standardized designs and assembly line techniques. The dies and molds have a 3-year applicable recovery period for purposes of section 168(c). Y uses the dies and molds to produce or process particular automobile components and does not hold them for sale. The dies and molds are produced on a routine and repetitive basis in the ordinary course of Y's business for purposes of this paragraph because the dies and molds are both mass-produced and have a recovery period of not longer than 3 years.

Example 2. Z is an electric utility that regularly manufactures and installs identical poles that are used in transmitting and distributing electricity. The poles have a 20-year applicable recovery period for purposes of section 168(c). The poles are not produced on a routine and repetitive basis in the ordinary course of Z's business for purposes of this paragraph because the poles have an applicable recovery period that is longer than 3 years.

(ii) *Election to exclude self-constructed assets*. --At the taxpayer's election, the simplified production method may be applied within a trade or business to only the categories of inventory property and non-inventory property held for sale described in paragraphs (b)(2)(i)(A) and (B) of this section. Taxpayers electing to exclude the self-constructed assets, defined in paragraphs (b)(2)(i)(C) and (D) of this section, from application of the simplified production method must, however, allocate additional section 263A costs to such property in accordance with §1.263A-1(f).

CA-IR-253

Ref: HECO T-17, pages 8 to 10, & HECO-1703 (CIP1 Plant Additions).

Please provide the following regarding the 2008 and 2009 plant additions:

a. Please confirm that the $9,005,785 shown as 2008 CIP related plant additions is included in the beginning rate base balance for 2009 rate case purposes. If this cannot be confirmed, please explain.
b. Please provide a copy of, not access to, the Project Initiation Authorization packets (or similar documentation) for each of the ten (10) CIP1 plant addition projects plus the land parcel project identified on HECO-1703.
c. For each of the identified 2008 CIP1 plant addition projects, please provide the actual date each project was completed and determined to be in-service.
d. Referring to part (c) above, for each project not yet completed and determined to be in-service, please provide the Company's best estimate of when such project(s) are expected to be completed.

<u>HECO Response:</u>

a. Yes. The $9,005,785, as shown on HECO-1703, is included in the beginning rate base balance for 2009 rate case purposes. However, as noted in HECO's response to CA-IR-254 and in the response to part d below, the in-service date for project P0001137, Kalaeloa Relays, is now estimated to be April 2009. This new in-service date will be reflected in the Rate Case Update.

b. See Attachment 1 for the Project Identification Authorization packet which covers the ten CIP1 plant addition projects and the land parcel which is included in Property Held for Future Use.

c. Of the identified 2008 projects, only Project P0001585, CIP1 Land – Gen Station, was placed in-service in May 2008. The other four projects have not yet been placed in-service.

d. P0001340, CIP1 Unit Addition – Easements; P0001052, CIP1 CEIP Substation Mod; and P0001135, CIP1 Unit Addition – Microwave are expected to be completed in December 2008. P0001137, CIP1 Unit Addition – Kalaeloa Relays, is now expected to be completed in April 2009.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: CIP Gen. Station & Trans.

Plant Addition Date: 2009-07

Project Number: Y49000
(Temporary)

Commitment Date: 2007-07

Primary Corporate Goal: BP Genrtg Unit

Stategic Plan Linkage: Major Capital Projects & Fac
(Primary)

Impact on Goal: High

Project Forecast (Thousand $)

(Attach the "PR9105-P: For PIF" report obtained from the estimators' Pillar file.)

Prior Years	2007	2008	2009	2010	2011	Future Years	Total
$4,189	$22,171	$90,359	$25,614	$0	$0	$0	$142,333

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
45	30	-50	66	-24	67

Purpose/Objectives:

HECO has plans to add a nominal 100MW simple-cycle combustion turbine to its electric generation system in 2009 in order to meet forecasted load growth.

HECO intends to build a third transmission line (from the AES substation to the CEIP substation) to export power from the generating units in the Campbell Industrial Park area to:

1. Allow for taking these lines out of service for maintenance, one at a time; and
2. Prevent a potential transmission line overload situation due to the added generation if one of the two existing lines in the Campbell Industrial Park area were to trip.

MANAGEMENT ACCOUNTING

JUL 20 2007

Scope Description:

This project is to install a nominal 100 MW Simple Cycle Combustion Turbine at HECO's Barbers Point Tank Farm. The project also involves the installation of fuel storage tanks, water treatment facilities, interconnection to and expansion of the AES Substation located adjacent to the power plant site, site preparation, and other power plant *auxiliary and control equipment. Commercial operation is scheduled for July 2009.*

In addition to the new combustion turbine, this project is to install a second 138kV transmission line from HECO's AES substation in the Campbell Industrial Park area to its CEIP substation, approximately 2 miles away. This line will be constructed using steel poles in easements yet to be obtained from Chevron and Campbell Estate. Communication will be through an OPGW shield wire and a new microwave system.

This project will include modification and addition of equipment to the existing AES and CEIP substations. The scope of the AES substation work includes addition of 138kV breakers, relays, structures and instrumentation needed for addition of the two needed bays.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

See attached Pillar reports for 5-year labor resource requirements.

Justification:

HECO's capacity planning criteria includes a guideline that states that total system capacity must be sufficient to maintain generating system reliability above 4.5 years per day. Based on the February 2004 sales and peak forecast, generation planning analyses indicate that reliability will fall below the 4.5 years per day guideline beginning in 2006 unless new capacity is added or demand is reduced. Because demand-side management programs cannot achieve the peak reduction benefits needed to increase generating system reliability above 4.5 years per day in 2006 and beyond, new generating capacity must be added in 2006.

However, the lead time for a new generating unit is approximately seven years. Long lead-time activities (such as air permitting) to install the generating unit began in late 2002. Therefore, the earliest achievable installation date for the unit is mid-2009. In order to maintain generating system reliability above 4.5 years per day from 2006 until the new generating unit is installed, mitigation measures such as additional Combined Heat & Power projects and accelerated load management impacts are being pursued.

There are currently only two 138-kV transmission lines capable of exporting the 406 MW of generating capacity in the Campbell Industrial Park area. Each line is capable of carrying approximately 498 MW of load before exceeding its ampacity rating.

The two drivers behind installation of the new transmission line are as follows:

1. Past practice has been to lower the load out of the Campbell Industrial Park area to 180 MW or less while taking one of the 138-kV transmission lines out of service for maintenance. This practice makes it possible for the spinning reserve on the system to pick up the lost load if the the remaining 138-kV line trips, thus preventing automatic load shedding. However, as load demand has increased over the years, more than 180 MW of generation is required to be exported from the Campbell Industrial Park throughout the year. Therefore, taking one line out for maintenance introduces the risk of load shedding if the remaining line trips.

2. With HECO's planned addition of a 100 MW combustion turbine at its Barbers Point Tank Farm, the total firm generating capacity in the Campbell Industrial Park area will be 506 MW, which exceeds the capacity of one transmission line. Therefore, if 100% of the generation is being used to meet demand and one of the existing transmission line trips, the second line will be overloaded and will eventually trip, prompting load shedding of over 500 MW of demand. Addition of the AES-CEIP #2 line would preclude this scenario from happening.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Three major permits/approvals are required for this project:

Covered Source (Air Permit)
PUC Approval
Public Infrastructure Map Amendment (PIMA)

An Environmental Impact Statement (EIS) is required.

Easements for the new transmission line route from Chevron and Campbell Estate are needed.

Land for expansion of the Generating Station site and the AES substation is needed from HRPT Properties Trust.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

Cost Sharing
(under HECO Policy UG Lines, October 2000)

NONE

Other type of payment (cash, non-cash) by outside party

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ● Approval Required ○ Not Required

● Approved, Date of Decision & Order: 2007-05-23 Docket Number: 05-0145

○ Awaiting PUC Approval, Application Filed 2005-06-17

Authorization for: ☑ Engineering ☑ Materials ☑ Construction

Approval Option: Authorize expenditures that exceed budget $137,871,853 GS 7-9-07

Submitted by: Robert Isler **Phone/Ext #:** 7206

Originator's Name: R. Isler

Responsible Estimator: R. Isler
(Pillar UserID)

Resp. Estimator Dept: Power Supply Engineering
(Pillar Department Folder)

Project Manager: R. Isler

Date: 06/19/2007

Required Approvals to Authorize a Project:

Brennan Munger 6/20/07
Responsible Manager **Date**

Thomas Fong 6/23/07
Responsible Sr. Vice-President Date

Thomas C. Simmons 6/21/07
Responsible Vice President **Date**
(not required for budgeted projects $1 million and less)

7/3/07
President Date

VP, Government and Community Affairs **Date**
(not required if PUC approval is obtained

Barry H Rauch 7/9/07
Controller mc 7/9/07 **Date**

If project exceeds $5 million ($1M unbudgeted), additional approvals are required. Please call Management Accounting at x7729

*Project #	Project	*In...	Cost Categ...	Curr Upd New Total $	Prior to 12/06 Act $	Update 2007 $	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P0001050	CIP1 AES-CEIP#2 Trans. Line	_	AFUDC	$170,377	0	$10,105	$160,273	$0	$0	$0	0
			MATERIAL	$337,969	0	$0	$337,783	$186	$0	$0	0
			OVERHEADS	$639,721	0	$65,804	$158,751	$415,166	$0	$0	0
				$1,148,068	0	$75,909	$656,806	$415,352	$0	$0	0
		NE	LABOR	$1,901	0	$0	$0	$1,901	$0	$0	0
				$1,901	0	$0	$0	$1,901	$0	$0	0
		NI	AFUDC	$21,945	$17,281	$4,664	0	0	0	0	0
			LABOR	$384,739	$30,159	$46,602	$95,305	$212,672	$0	$0	0
			MATERIAL	$3,326,469	0	$0	$3,324,634	$1,835	$0	$0	0
			O/S SVCS	$1,150,671	$57,700	$0	$353,735	$739,235	$0	$0	0
			OTHER	$1	0	$0	$1	$0	$0	$0	0
			OVERHEADS	$40,042	$33,398	$6,644	0	0	0	0	0
				$4,923,866	$138,538	$57,910	$3,773,675	$953,743	$0	$0	0
		NR	LABOR	$51,453	0	$0	$0	$51,453	$0	$0	0
				$51,453	0	$0	$0	$51,453	$0	$0	0
				$6,125,288	$138,538	$133,819	$4,430,481	$1,422,450	$0	$0	0
P0001051	CIP1 AES Substation Add	_	AFUDC	$203,453	0	$25,120	$178,334	$0	$0	$0	0
			MATERIAL	$67,570	0	$0	$67,570	$0	$0	$0	0
			OVERHEADS	$522,042	0	$58,326	$463,715	$0	$0	$0	0
				$793,065	0	$83,446	$709,619	$0	$0	$0	0
		NI	AFUDC	$14,977	$11,419	$3,558	0	0	0	0	0
			LABOR	$333,335	$13,763	$46,122	$273,450	$0	$0	$0	0
			MATERIAL	$665,061	0	$0	$665,061	$0	$0	$0	0
			O/S SVCS	$1,038,407	$54,588	$659,325	$324,494	$0	$0	$0	0
			OTHER	$1	0	$0	$1	$0	$0	$0	0
			OVERHEADS	$30,961	$17,126	$13,835	0	0	0	0	0
				$2,082,742	$96,895	$722,841	$1,263,006	$0	$0	$0	0
		NR	LABOR	$7,348	0	$0	$7,348	$0	$0	$0	0
				$7,348	0	$0	$7,348	$0	$0	$0	0
				$2,883,155	$96,895	$806,286	$1,979,973	$0	$0	$0	0
P0001052	CIP1 CEIP Substation Mod	_	AFUDC	$45,872	0	$5,321	$40,551	$0	$0	$0	0
			MATERIAL	$23,571	0	$0	$23,571	$0	$0	$0	0
			OVERHEADS	$179,541	0	$24,521	$155,021	$0	$0	$0	0
				$248,985	0	$29,842	$219,143	$0	$0	$0	0
		NI	AFUDC	$582	$322	$260	0	0	0	0	0
			LABOR	$109,992	$1,111	$18,508	$90,373	$0	$0	$0	0
			MATERIAL	$232,001	0	$0	$232,001	$0	$0	$0	0
			O/S SVCS	$117,017	0	$82,216	$34,801	$0	$0	$0	0
			OTHER	$1	0	$0	$1	$0	$0	$0	0

*Project #	Project	*In...	Cost Categ...	Curr Upd New Total $	Prior to 12/06 Act $	Update 2007 $	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P0001052	CIP1 CEIP Substation Mod	NI	OVERHEADS	$7,069	$1,260	$5,809	0	0	0	0	0
				$466,862	$2,692	$106,793	$357,176	$0	$0	$0	0
		NR	LABOR	$3,674	0	$0	$3,674	$0	$0	$0	0
				$3,674	0	$0	$3,674	$0	$0	$0	0
				$719,320	$2,692	$136,635	$579,993	$0	$0	$0	0
P0001084	CIP1 Unit Addition-Land	NI	O/S SVCS	$3,050,000	0	$3,050,000	$0	$0	$0	$0	0
				$3,050,000	0	$3,050,000	$0	$0	$0	$0	0
				$3,050,000	0	$3,050,000	$0	$0	$0	$0	0
P0001134	CIP1 Unit Addition-Fiber	_	AFUDC	$13,821	0	$274	$13,546	$0	$0	$0	0
			MATERIAL	$7,724	0	$0	$7,724	$0	$0	$0	0
			OVERHEADS	$72,649	0	$6,568	$66,080	$0	$0	$0	0
				$94,194	0	$6,842	$87,351	$0	$0	$0	0
		NI	AFUDC	$1	0	$1	0	0	0	0	0
			LABOR	$44,348	0	$4,190	$40,157	$0	$0	$0	0
			MATERIAL	$76,028	0	$0	$76,028	$0	$0	$0	0
			O/S SVCS	$46,292	0	$0	$46,292	$0	$0	$0	0
			OVERHEADS	$224	0	$224	0	0	0	0	0
				$166,893	0	$4,415	$162,477	$0	$0	$0	0
				$261,086	0	$11,258	$249,829	$0	$0	$0	0
P0001135	CIP1 Unit Addition-Microwave	_	AFUDC	$28,638	0	$275	$28,363	$0	$0	$0	0
			MATERIAL	$18,540	0	$0	$18,540	$0	$0	$0	0
			OVERHEADS	$100,410	0	$1,864	$98,546	$0	$0	$0	0
				$147,588	0	$2,139	$145,449	$0	$0	$0	0
		NI	AFUDC	$1	0	$1	0	0	0	0	0
			LABOR	$61,399	0	$1,705	$59,694	$0	$0	$0	0
			MATERIAL	$182,484	0	$0	$182,484	$0	$0	$0	0
			O/S SVCS	$58,575	0	$18,130	$40,445	$0	$0	$0	0
			OVERHEADS	$168	0	$168	0	0	0	0	0
				$302,626	0	$20,003	$282,623	$0	$0	$0	0
				$450,214	0	$22,142	$428,072	$0	$0	$0	0
P0001136	CIP1 Unit Addition-Kahe Bkrs	_	AFUDC	$157,638	0	$11,097	$146,541	$0	$0	$0	0
			MATERIAL	$95,579	0	$22,204	$73,376	$0	$0	$0	0
			OVERHEADS	$586,706	0	$120,240	$466,466	$0	$0	$0	0
				$839,924	0	$153,541	$686,383	$0	$0	$0	0
		NI	AFUDC	$440	$2	$438	0	0	0	0	0
			LABOR	$359,051	$233	$84,144	$274,673	$0	$0	$0	0
			MATERIAL	$898,762	0	$176,561	$722,201	$0	$0	$0	0
			O/S SVCS	$205,760	0	$145,760	$60,000	$0	$0	$0	0

*Project #	Project	*In...	Cost Categ...	Curr Upd New Total $	Prior to 12/06 Act $	Update 2007 $	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P0001136	CIP1 Unit Addition-Kahe Bkrs	NI	OVERHEADS	$13,708	$351	$13,357	0	0	0	0	0
			TRANSPORT	$22	0	$22	0	0	0	0	0
				$1,477,743	$586	$420,282	$1,056,874	$0	$0	$0	0
		NR	LABOR	$8,754	0	$1,406	$7,348	$0	$0	$0	0
				$8,754	0	$1,406	$7,348	$0	$0	$0	0
				$2,326,421	$586	$575,230	$1,750,605	$0	$0	$0	0
P0001137	CIP1 Unit Addition-Kalaeloa	_	AFUDC	$17,936	0	$2,199	$15,737	$0	$0	$0	0
			MATERIAL	$10,059	0	$0	$10,059	$0	$0	$0	0
			OVERHEADS	$96,415	0	$10,474	$85,941	$0	$0	$0	0
				$124,410	0	$12,674	$111,736	$0	$0	$0	0
		NI	LABOR	$55,390	0	$6,560	$48,830	$0	$0	$0	0
			MATERIAL	$99,001	0	$0	$99,001	$0	$0	$0	0
			O/S SVCS	$30,202	0	$30,201	$1	$0	$0	$0	0
				$184,593	0	$36,761	$147,832	$0	$0	$0	0
		NR	LABOR	$3,674	0	$0	$3,674	$0	$0	$0	0
				$3,674	0	$0	$3,674	$0	$0	$0	0
				$312,677	0	$49,434	$263,242	$0	$0	$0	0
P0001340	CIP1 Unit Addition-Easements	NI	O/S SVCS	$6,170,000	0	$0	$6,170,000	$0	$0	$0	0
				$6,170,000	0	$0	$6,170,000	$0	$0	$0	0
				$6,170,000	0	$0	$6,170,000	$0	$0	$0	0
P4900000	CIP1 Unit 1 Addition	_	AFUDC	$9,395,494	0	$549,837	$4,253,370	$4,592,287	$0	$0	0
			MATERIAL	$1,039,964	0	$74,851	$965,113	$0	$0	$0	0
			OVERHEADS	$300,958	0	$83,122	$135,279	$82,557	$0	$0	0
				$10,736,416	0	$707,810	$5,353,761	$4,674,844	$0	$0	0
		NI	AFUDC	$542,069	$402,933	$139,136	0	0	0	0	0
			LABOR	$1,118,247	$672,551	$172,880	$173,796	$99,020	$0	$0	0
			MATERIAL	$54,645,484	$405,712	$14,745,944	$36,070,385	$3,423,442	$0	$0	0
			O/S SVCS	$52,538,135	$2,063,719	$1,571,475	$32,909,144	$15,993,797	$0	$0	0
			OTHER	$23,540	$22,686	$852	$1	$1	$0	$0	0
			OVERHEADS	$430,588	$382,570	$48,018	0	0	0	0	0
			TRANSPORT	$211	$211	0	0	0	0	0	0
				$109,298,275	$3,950,382	$16,678,306	$69,153,326	$19,516,260	$0	$0	0
				$120,034,691	$3,950,382	$17,386,117	$74,507,088	$24,191,104	$0	$0	0
				$142,332,852	$4,189,094	$22,170,921	$90,359,283	$25,613,553	$0	$0	0

*Project #	Project	*RA #	*Lbr Class	YTD May 07 Actual Hrs	Jun-Dec 07 Update Hrs	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P0001050	CIP1 AES-CEIP#2 Tran...	PBE		0	0	0	0	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PBE	B_TND...	0	0	324	0	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PBE	B_TND...	28.00	599	927	180	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PBT		0	0	0	0	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PBT	B_STR...	0	0	108	0	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PBT	B_STR...	0	510	837	126	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PBT	B_SUR...	36.50	0	0	0	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PBT	B_SUR...	54.00	0	228	0	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PDF	D_PTM	0	0	60	120	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PDS	D_OHC...	0	0	0	6,213	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PRD		0	0	0	0	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PYJ		0	0	0	0	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PYJ	Y_PPP...	0	84	156	78	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PYT		0	0	0	0	0	0	0
P0001050	CIP1 AES-CEIP#2 Tran...	PYT	Y_TRN...	0	21	0	0	0	0	0
P0001050				118.50	1,214	2,640	6,717	0	0	0
P0001051	CIP1 AES Substation Add	PBA	__BUOCB	0	16	0	0	0	0	0
P0001051	CIP1 AES Substation Add	PBT	B_STR...	0	140	0	0	0	0	0
P0001051	CIP1 AES Substation Add	PBT	B_STR...	0	200	0	0	0	0	0
P0001051	CIP1 AES Substation Add	PBY		0	0	0	0	0	0	0
P0001051	CIP1 AES Substation Add	PBY	__BUOCB	0	40	0	0	0	0	0
P0001051	CIP1 AES Substation Add	PBY	__FS-B	0	20	0	0	0	0	0
P0001051	CIP1 AES Substation Add	PBY	B_PRO...	163.00	0	10	0	0	0	0
P0001051	CIP1 AES Substation Add	PBY	B_SSENG	67.00	430	0	0	0	0	0
P0001051	CIP1 AES Substation Add	PBY	B_SUB...	0	180	0	0	0	0	0
P0001051	CIP1 AES Substation Add	PBY	B_TCE...	0	20	0	0	0	0	0
P0001051	CIP1 AES Substation Add	PRC	R_COM...	0	0	40	0	0	0	0
P0001051	CIP1 AES Substation Add	PRI	R_INS...	0	0	408	0	0	0	0
P0001051	CIP1 AES Substation Add	PRI	R_INSENG	0	0	120	0	0	0	0
P0001051	CIP1 AES Substation Add	PRI	R_INSSUP	0	0	60	0	0	0	0
P0001051	CIP1 AES Substation Add	PRR	R_REL...	0	0	978	0	0	0	0
P0001051	CIP1 AES Substation Add	PRR	R_REL...	0	0	120	0	0	0	0
P0001051	CIP1 AES Substation Add	PRR	R_REL...	0	0	60	0	0	0	0
P0001051	CIP1 AES Substation Add	PRS	R_SUB...	0	0	5,246	0	0	0	0
P0001051	CIP1 AES Substation Add	PRS	R_SUB...	0	0	80	0	0	0	0
P0001051	CIP1 AES Substation Add	PRS	R_SUB...	0	0	80	0	0	0	0
P0001051	CIP1 AES Substation Add	PRS	R_SUB...	0	0	80	0	0	0	0
P0001051	CIP1 AES Substation Add	PRX	R_CON...	0	0	200	0	0	0	0
P0001051	CIP1 AES Substation Add	PYJ		0	0	0	0	0	0	0
P0001051	CIP1 AES Substation Add	PYJ	Y_PPP...	10.00	0	0	0	0	0	0
P0001051				240.00	1,046	7,482	0	0	0	0
P0001052	CIP1 CEIP Substation...	PBA	__BUOCB	0	16	0	0	0	0	0
P0001052	CIP1 CEIP Substation...	PBT	B_STR...	0	40	0	0	0	0	0
P0001052	CIP1 CEIP Substation...	PBT	B_STR...	0	80	0	0	0	0	0
P0001052	CIP1 CEIP Substation...	PBY		0	0	0	0	0	0	0
P0001052	CIP1 CEIP Substation...	PBY	__BUOCB	0	16	0	0	0	0	0
P0001052	CIP1 CEIP Substation...	PBY	__FS-B	0	8	0	0	0	0	0
P0001052	CIP1 CEIP Substation...	PBY	B_PRO...	79.00	20	0	0	0	0	0
P0001052	CIP1 CEIP Substation...	PBY	B_SSENG	20.00	180	0	0	0	0	0
P0001052	CIP1 CEIP Substation...	PBY	B_SUB...	0	40	0	0	0	0	0
P0001052	CIP1 CEIP Substation...	PBY	B_TCE...	0	40	0	0	0	0	0
P0001052	CIP1 CEIP Substation...	PRC	R_COM...	0	0	40	0	0	0	0
P0001052	CIP1 CEIP Substation...	PRI	R_INS...	0	0	150	0	0	0	0
P0001052	CIP1 CEIP Substation...	PRI	R_INSENG	0	0	24	0	0	0	0
P0001052	CIP1 CEIP Substation...	PRI	R_INSSUP	0	0	24	0	0	0	0

*Project #	Project	*RA #	*Lbr Class	YTD May 07 Actual Hrs	Jun-Dec 07 Update Hrs	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P0001052	CIP1 CEIP Substation ...	PRR	R_REL...	0	0	420	0	0	0	0
P0001052	CIP1 CEIP Substation ...	PRR	R_REL...	0	0	60	0	0	0	0
P0001052	CIP1 CEIP Substation ...	PRR	R_REL...	0	0	24	0	0	0	0
P0001052	CIP1 CEIP Substation ...	PRS	R_SUB...	0	0	1,639	0	0	0	0
P0001052	CIP1 CEIP Substation ...	PRS	R_SUB...	0	0	20	0	0	0	0
P0001052	CIP1 CEIP Substation ...	PRS	R_SUB...	0	0	30	0	0	0	0
P0001052	CIP1 CEIP Substation ...	PRS	R_SUB...	0	0	30	0	0	0	0
P0001052	CIP1 CEIP Substation ...	PRX	R_CON...	0	0	40	0	0	0	0
P0001052	CIP1 CEIP Substation ...	PYJ		0	0	0	0	0	0	0
P0001052				99.00	440	2,501	0	0	0	0
P0001134	CIP1 Unit Addition-Fiber	PBT	B_STR...	0	0	24	0	0	0	0
P0001134	CIP1 Unit Addition-Fiber	PBT	B_STR...	0	0	32	0	0	0	0
P0001134	CIP1 Unit Addition-Fiber	PBY		0	0	0	0	0	0	0
P0001134	CIP1 Unit Addition-Fiber	PBY	B_SUB...	0	0	40	0	0	0	0
P0001134	CIP1 Unit Addition-Fiber	PBY	B_TCE...	4.00	116	19	0	0	0	0
P0001134	CIP1 Unit Addition-Fiber	PBY	B_TCS...	0	0	12	0	0	0	0
P0001134	CIP1 Unit Addition-Fiber	PDJ	D_OHC...	0	0	117	0	0	0	0
P0001134	CIP1 Unit Addition-Fiber	PRC	R_COM...	0	0	822	0	0	0	0
P0001134				4.00	116	1,066	0	0	0	0
P0001135	CIP1 Unit Addition-Micr...	P3V	__TC	0	24	0	0	0	0	0
P0001135	CIP1 Unit Addition-Micr...	PBP	B_PRJ...	0	24	0	0	0	0	0
P0001135	CIP1 Unit Addition-Micr...	PBT	B_STR...	0	0	32	0	0	0	0
P0001135	CIP1 Unit Addition-Micr...	PBT	B_STR...	0	0	100	0	0	0	0
P0001135	CIP1 Unit Addition-Micr...	PBY		0	0	0	0	0	0	0
P0001135	CIP1 Unit Addition-Micr...	PBY	__BUOCB	0	0	12	0	0	0	0
P0001135	CIP1 Unit Addition-Micr...	PBY	B_SUB...	0	0	72	0	0	0	0
P0001135	CIP1 Unit Addition-Micr...	PBY	B_TCE...	3.00	0	312	0	0	0	0
P0001135	CIP1 Unit Addition-Micr...	PBY	B_TCS...	0	0	12	0	0	0	0
P0001135	CIP1 Unit Addition-Micr...	PDH	D_OHC...	0	0	240	0	0	0	0
P0001135	CIP1 Unit Addition-Micr...	PRC	R_COM...	0	0	690	0	0	0	0
P0001135	CIP1 Unit Addition-Micr...	PRX	R_CON...	0	0	120	0	0	0	0
P0001135				3.00	48	1,590	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PBA		0	0	0	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PBA	__BUOCB	12.00	0	0	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PBT	B_STR...	0	50	0	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PBT	B_STR...	0	40	0	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PBY		0	0	0	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PBY	__FS-B	0	20	0	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PBY	B_PRO...	49.00	0	10	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PBY	B_SSENG	166.00	180	0	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PBY	B_SUB...	0	50	0	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PBY	B_TCE...	0	60	0	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PRC	R_COM...	0	0	40	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PRI	R_INS...	0	68	400	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PRI	R_INSENG	0	24	24	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PRI	R_INSSUP	0	12	24	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PRR	R_REL...	0	275	1,369	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PRR	R_REL...	0	60	200	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PRR	R_REL...	0	12	40	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PRS	R_SUB...	0	1,240	5,219	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PRS	R_SUB...	0	24	60	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PRS	R_SUB...	0	24	60	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PRS	R_SUB...	0	24	60	0	0	0	0
P0001136	CIP1 Unit Addition-Kah...	PRX	R_CON...	0	0	1	0	0	0	0

*Project #	Project	*RA #	*Lbr Class	YTD May 07 Actual Hrs	Jun-Dec 07 Update Hrs	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P0001136				227.00	2,155	7,527	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PBA	__BUOCB	0	12	0	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PBT	B_STR...	0	1	0	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PBT	B_STR...	0	1	0	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PBY	__BUOCB	0	16	0	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PBY	__FS-B	0	8	0	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PBY	B_PRO...	0	0	10	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PBY	B_SSENG	0	70	0	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PBY	B_SUB...	0	40	0	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PBY	B_TCE...	0	40	0	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PRC	R_COM...	0	0	40	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PRI	R_INS...	0	0	104	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PRI	R_INSENG	0	0	24	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PRI	R_INSSUP	0	0	24	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PRR	R_REL...	0	0	312	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PRR	R_REL...	0	0	24	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PRR	R_REL...	0	0	24	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PRS	R_SUB...	0	0	724	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PRS	R_SUB...	0	0	20	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PRS	R_SUB...	0	0	20	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PRS	R_SUB...	0	0	20	0	0	0	0
P0001137	CIP1 Unit Addition-Kala...	PRX	R_CON...	0	0	40	0	0	0	0
P0001137				0	188	1,388	0	0	0	0
P4900000	CIP1 Unit 1 Addition	P1V		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	P1V	__FS	0	95	96	48	0	0	0
P4900000	CIP1 Unit 1 Addition	P1V	__TC	22.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	P3V		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	P3V	__FS	13.00	112	48	0	0	0	0
P4900000	CIP1 Unit 1 Addition	P3V	__TC	11.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	P7V		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	P7V	__EXEC	0	56	96	0	0	0	0
P4900000	CIP1 Unit 1 Addition	P9S		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	P9V		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PAA		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PAA	__EXEC2	3.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PAC		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PBT		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PBT	B_STR...	34.00	56	192	64	0	0	0
P4900000	CIP1 Unit 1 Addition	PBY		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PBY	B_PRO...	157.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PIA		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PIB		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PIB	__TC-I	1.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PIM		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PIM	__FS-I	4.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PIO		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PIP		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PIP	__FS-I	5.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PIT		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PJA		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PJA	__E	10.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PJB		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PJB	J_AIRSCI	112.00	168	120	56	0	0	0
P4900000	CIP1 Unit 1 Addition	PJC		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PJW		0	0	0	0	0	0	0

*Project #	Project	*RA #	*Lbr Class	YTD May 07 Actual Hrs	Jun-Dec 07 Update Hrs	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P4900000	CIP1 Unit 1 Addition	PJW	J_WHM...	9.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PKF		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PNC		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PNC	__F	188.00	280	192	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PNG		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PNG	__E	0.50	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PNI		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PNP		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PNP	__TC	15.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PNR		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PNR	__FS	7.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PQC		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PQC	__TC	1.00	17	96	48	0	0	0
P4900000	CIP1 Unit 1 Addition	PQE		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PSA		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PSM		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PSM	__FS	1.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PSP		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PSP	__FS	2.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PYA		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PYA	__E-Y	44.00	168	288	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PYB		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PYB	Y_GEN...	13.00	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PYE		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PYE	Y_TEC...	0	56	96	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PYF		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PYF	Y_PPE...	5.00	168	1,440	1,080	0	0	0
P4900000	CIP1 Unit 1 Addition	PYJ		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PYJ	Y_PPP...	712.00	728	960	960	0	0	0
P4900000	CIP1 Unit 1 Addition	PYM		0	0	0	0	0	0	0
P4900000	CIP1 Unit 1 Addition	PYM	Y_PPM...	52.00	728	480	240	0	0	0
P4900000	CIP1 Unit 1 Addition	PYP		0	0	0	0	0	0	0
P4900000				1,399.50	2,632	4,104	2,496	0	0	0
				2,091.00	7,841	28,296	9,213	0	0	0

PRODUCTION CHANGE REQUEST (PCR) FORM

MAY 2 [illegible] 2008

District:	P-HECO
Temporary Project Number:	RISLER_31
Project Number:	P0001585
Project Title: (28 characters)	CIP1 - Land - Gen Station
Short Project Title: (10 characters)	LandGenSta
Originator Employee's Number:	20885
Person Assigned To:	Robert Isler
Person Assigned to Employee Number:	20885
Responsibility Area:	PYJ
Activity:	925
Location:	PHE
Indicator:	NI rk 5/28/08
Apply AFUDC (yes or no):	No mk
Existing Grandparent Project Number: or **New Grandparent Project Description:**	Y49000
Pillar Temporary Projects or 5th Segment Projects to link to Grandparent Project above:	P4900000; P0001050; P0001051; P0001052; P0001084
Plant Addition Date:	-
Plant Functional Category:	Land mk
Project or Program:	Project-PUC

This project is setup to transfer the land for the generating station which will be placed in service. The other parcel will remain in PH FU. See existing PIF for Y49000.
Gail
5-29-08

For Admin use only:
Date updated MIMS Prod files: Kkanya 5/28/08
Copy given to Pillar Admin:

All-A

Date: 05/28/2008

CA-IR-254

Ref: HECO T-17, pages 8 to 10, & HECO-1703 (CIP1 Plant Additions).

Please provide the following:

a. For each of the identified 2008 CIP1 plant addition projects, please provide a detailed explanation of the basis for determining that the project was (or will be) placed in-service in 2008 when CIP1 will not be completed and in-service until 2009.
b. Regarding the identified 2008 CIP1 plant addition projects, does each project represent a completely new facility (or asset) that did not previously exist or does it represent a replacement or upgrade of a previously existing facility (or asset)? Please explain.
c. Referring to part (a) above, please provide the original cost of the retired, or to be retired, asset as a result of the completion and in-service of each 2008 CIP1 plant addition project.

HECO Response:

a. The CIP1 plant addition projects identified on HECO-1703 to be placed in-service in 2008 are:

   CEIP Substation Modifications (P0001052) - This project is required to interconnect and terminate the new AES-CEIP#2 Transmission Line and includes the installation of one new circuit breaker with its associated protection relays and instrumentation at HECO's existing CEIP Substation to complete a breaker-and-a-half bay. The installation of this equipment, which needs to be done before the new transmission line is completed, is scheduled for completion in December 2008. When completed, the new circuit breaker will be ready for use and therefore included in plant in-service in 2008.

   Microwave Communications (P0001135) - This microwave communication infrastructure is necessary to provide one of two independent communication systems for the AES-CEIP#2 Transmission Line, and will also be used for communication between the AES Substation and other HECO locations. Upon the completion of the microwave communication system in December 2008, several existing communications signals will be transferred over to this new system at that time. Therefore, the project costs are included in plant in-service in 2008.

Kalaeloa Relays (P0001137) – New relays will be installed to replace older technology relays at the Kalaeloa Substation in association with the relocation of the AES-Kalaeloa Transmission Line termination point at the AES Substation. The relocation of the AES-Kalaeloa Transmission Line termination point at the AES Substation is a prerequisite for the construction of the new AES-CEIP#2 Transmission Line. Once the AES-Kalaeloa Transmission Line termination point is moved, the AES-Kalaeloa Transmission Line will return to operation. This project was originally scheduled to be completed in 2008, in coordination with planned outages of the Independent Power Producers (IPP) in Campbell Industrial Park. However, the IPP outages were recently rescheduled, thus the estimated in-service date is now April 2009. The new in-service date will be reflected in the Rate Case Update.

AES-CEIP #2 Transmission Line – Easements (P0001340) – The easement acquisitions are projected to be completed in December 2008 in advance of the construction of the AES-CEIP #2 138 kV Transmission Line and the reconfiguration of the AES-CEIP #1 138 kV Transmission Line. Once acquired, the easement costs will be included in utility plant in-service in 2008.

CIP1 Land – Generating Station (P0001585) - The cost for the parcel needed to accommodate the new generating unit and auxiliaries were transferred from property held for future use to utility plant in-service in May 2008 which is when the construction for the CIP1 Generating Unit commenced.

b. The CEIP Substation Modifications (P0001052) project installs new equipment at HECO's existing CEIP Substation. The Microwave Communications (P0001135) project installs new communication facilities at HECO's existing AES and CEIP Substations. The Kalaeloa

Relays (P0001137) project replaces existing facilities with new facilities at HECO's existing Kalaeloa Substation.

c. No facilities are to be retired for the CEIP Substation and the Microwave Communications projects. The original cost of the retired assets for the Kalaeloa Relays is $57,786.

CA-IR-255

Ref: HECO T-17, pages 8 to 10, & HECO-1703 (CIP1 Plant Additions).

Regarding CIP1 Project P4900000, please provide a breakdown of the $142.4 million project cost estimate between the following:

a. Structures and facilities dedicated to CIP1.
b. Major common facility components (e.g., fire protection system, water facilities, office spare, warehouse, repair facilities, pumps, etc.) sized to accommodate station expansion requirements beyond CIP1.
c. AFUDC.
d. Referring to the response to part (b) above, please explain and compare the facilities sized to accommodate station expansion requirements beyond CIP1 with those only required to meet the needs of CIP1.

HECO Response:

a. Of the $142.4 million estimated for Project P4900000, $127.4 million is for structures and facilities dedicated to CIP1. This includes major common facilities that would have been sized as designed, regardless of whether or not the new generation station is expanded to accommodate new generation beyond CIP1.

b. Of the $142.4 million estimated for Project P4900000, $3.8 million is for major common facility components sized to accommodate station expansion requirements beyond CIP1.

c. Of the $142.4 million estimated for Project P4900000, $11.2 million is for AFUDC.

d. The $3.8 million identified in part (b) above is the cost to install underground electrical ductbanks with sufficient size to accommodate growth at the site for additional generating units. There are two categories of these electrical ductbanks:

- 138kV Ductbanks
- Power, Control, & Instrumentation (PC&I) Ductbanks

138kV Ductbanks - If additional generating units are added to this site in the future, they will connect to the AES Substation via underground 138kV transmission lines following the

same duct route as those installed for CIP1. Because the route runs underneath the main driveway around the site and adjacent to many newly installed underground pipes (storm drains, air supply, water, fire protection, etc.), it is much more cost-effective to install the additional conduits now than in the future, as shown in the table below:

	Total Cost Associated with P4900000	**Estimated Cost Without Future Ducts Installed in P4900000**	**Additional Cost of Future Ducts Installed with P4900000**	**Estimated Cost to Install Future Ducts After CIP1 Completion**
138kV Ductbanks	$988,700	$825,565	$163,136	$1,200,000

The estimated cost of installing expansion ducts after the completion of CIP1 is $1,200,000. Future excavation in this area would be much more costly due to the underground infrastructure being added with CIP1. This is significantly more than the incremental cost estimate ($163,136) to install a ductbank sized to accommodate future growth at the site.

PC&I Ductbanks - About 75% of the PC&I conduits are needed to operate CIP1. Approximately 25% of these conduits are being installed to accommodate the addition of a second combustion turbine at the site. The costs associated with these additional conduits are shown in the table below:

	Total Cost Associated with P4900000	**Estimated Cost Without Future Ducts Installed in P4900000**	**Additional Cost of Future Ducts Installed with P4900000**	**Estimated Cost to Install Future Ducts After CIP1 Completion**
(PC&I) Ductbanks	$2,820,500	$2,623,065	$197,435	$675,000

Installing additional PC&I conduits for a future second combustion turbine is much more cost-effective if constructed with the CIP1 PC&I conduits because it allows for the same trenches and manholes to be used. Installing additional PC&I conduits in the future will result in substantial costs for additional excavation, concrete encasement, and backfill.

CA-IR-256

Ref: HECO-1704 (2008 to 2009 Plant Additions).

Please provide a copy of, not access to, the Project Initiation Authorization packets (or similar documentation) for each of the following projects:

a. Y00044, Ko Olina Substation.
b. Y00064, CIP-Community Benefits Package.
c. P0001534, Barbers Point Fuel Oil Tank # 131.

HECO Response:

a. See Attachment 1 for the Ko Olina Substation Project Initiation Authorization packet.

b. See Attachment 2 for the Community Benefits Project Initiation Authorization packet.

c. See Attachment 3 for the Barbers Point Fuel Oil Tank Project Initiation Authorization packet.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: KoOlina SS Tsf#1 & Ckt

Project Number: Y00044
(Permanent)

Stategic Plan Linkage: Reliability
(Primary)

Plant Addition Date: 2006-06

Commitment Date: 2005-09

Primary Corporate Goal: Cust Requests

Impact on Goal: Medium

Project Forecast (Thousand $)

(Attach the "PR9105-P: For PIF" report obtained from the estimators' Pillar file.)

Prior Years	2004	2005	2006	2007	2008	Future Years	Total
$0	$41	$244	$3,275	$0	$0	$0	$3,560

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
0	0	0	66	0	66

Purpose/Objectives:

To increase distribution capacity in the KoOlina area to avoid anticipated overload conditions under emergency contingencies in 2006. With the installation of the KoOlina Substation, the load on the circuits and transformers at Kahe and CEIP substations will be reduced.

MANAGEMENT ACCOUNTING
SEP 15 2005

Scope Description:

The components of this project are as follows:
P0000946 - Installation of KoOlina SS Transformer #1
P0000947 - 46kV lines for SS
P0000948 - KoOlina #1 ckt installation

KoOlina SS transformer #1 - Prepare and develop a new site in KoOlina for a distribution substation adequate for four 46-12kV, 10/12.5 MVA transformers. Install one 46-12kV, 10/12.5 MVA transformer and two-circuit switchgear.

46kV lines for SS - Extend Kahe Standard Oil #2 46kV ckt along Farrington Hwy by installing approx. 4,100 ft of 3-phase, 46kV, 800 amp minimum overhead conductors underbuilt on the Kahe-CEIP 138kV steel poles. Extend the Kahe Standard Oil #1 and #2 46kV lines from Farrington Hwy to the substation by installing approximately 3,800 ft of two 3-phase, 46kV, 800 amp minimum underground cables in new ducts along Koio Dr and under the golf course. Extend the Kahe Standard Oil #1 46kV line by installing approximately 3,300ft of 3-phase, 46kV, 800 amp minimum overhead conductors overbuilt on the CEIP #4 12.47kV wood poles from the substation to the Kahe Standard Oil #1 line along the railroad right of way and install a group operated switch to isolate the Kahe Standard Oil #1 and #2 lines. Perform various cuts and taps.

KoOlina #1 ckt installation - Install 3-phase, 15kV, 500 amp minimum underground cable and neutral in existing ducts along the railroad right of way toward Aliinui Dr. Perform various cuts and taps.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Resource Needs:

This Grandparent Project consists of the following projects:

P0000946 - Installation of KoOlina SS Transformer #1 - $1,511,359
P0000947 - 46kV lines for SS - $1,998,284
P0000948 - KoOlina #1 ckt installation - $50,471

See attached Pillar files.

Justification:

Area reviews updated in January 2004 project circuit and transformer overloads under emergency conditions in June 2006. In 2006, the CEIP 2 transformer emergency rating is exceeded by 7% when the Kahe 1 transformer or Kahe - Barbers Pt 12kV ckt fails. The Kahe - Barbers Pt 12kV ckt emergency rating is exceeded by 6% upon failure of either the CEIP 2 transformer or the CEIP 2 - CEIP 4 12kV ckt. These overloads account for the phasing of the new Centex Development; however, it doesn't include future loads planned by the KoOlina development. Future plans are comprised of an additional 226 residential units, an aquarium with a commercial village consisting of retail shops, 250 room hotel, and 150 room condominium building; however, a schedule of these projected developments have not been provided. The aquarium may be coming in the near future due to the recent approval of a $75 million tax credit.

Since there are only two circuits serving the KoOlina area, installing a new transformer at a new substation will provide KoOlina with centralized distribution capacity. Two 46kV lines are required to serve the substation since the 46kV lines would share the same pole line as the 12kV ckts currently serving the KoOlina area. If only one 46kV line is installed, both the substation and one of the 12kV ckts would be unavailable if the shared pole goes down.

Projected loads of future customers
2004 new loads: Occupation of 206 residential units
2005 new loads: Occupation of 114 residential units, Marriott Timeshare Ph 2 (Bldg B)
2006 new loads: Occupation of 114 residential units
2007 new loads: Occupation of 58 residential units
Future loads: 226 residential units, a 250 room hotel, a 150 room condominium, Aquarium with commercial village consisting of retail shops, and future phases of the Marriott Timeshare

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

This project is consistent with the Company's IRP. Transmission and Distribution (T&D) projects generally are not explicitly considered in the IRP process. However, HECO's IRP assumes that HECO's transmission and distribution system will continue to operate reliably.

Issues, Impacts, Considerations:

Materialization of projected new loads with short lead times. The recent approval of the $75 million tax credit for construction of an aquarium in KoOlina is spurring development in the area. Kapolei, an adjacent area, has been growing at a fast pace and service requests have short lead times. New large loads do not always allow ample time for required system work to be completed.

Currently there are only two 12kV ckts serving the KoOlina area. An additional circuit from a different transformer is needed to prevent emergency overloads. KoOlina SS would provide that needed capacity in the area.

The 46kV lines as proposed also prepares for the situation when the Kahe Standard Oil #1 line needs to be relocated. This relocation can be exercised by the developer at any time at HECO's cost.

Energy Solutions is currently investigating the feasibility of installing CHP at the Ihilani Hotel and Marriott timeshare to defer the need for the substation. CHP could defer the KoOlina SS by a year based on the current load forecast. Since the CHP application has not been approved, parallel planning is being pursued.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** $840,000.00

GET Included $34,000.00

Developer's contribution for 46kV lines to be installed UG instead of OH along Koio Dr. Based on the difference between UG and OH costs.

Cash Advance NONE

Cost Sharing
(under HECO Policy UG Lines, October 2000)

NONE

Other type of payment (cash, non-cash) by outside party

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

PUC Approved: ● Approval Required ○ Not Required

● Approved, Date of Decision & Order: 2005-08-31 Docket Number: 05-0056

○ Awaiting PUC Approval, Application Filed 2005-03-04

Authorization for: ☐ Engineering ☑ Materials ☑ Construction

Approval Option: Authorize expenditures that are less than budget $3,616,291 GS 9-15-05

Submitted by: Lisa Ikeda **Phone/Ext #:** 543-7077

Originator's Name: Michelle Sakata

Responsible Estimator: RTamayo, LIkeda (Pillar UserID)

Resp. Estimator Dept: Engineering (Pillar Department Folder)

Project Manager: Lisa Ikeda

Date: 09/02/2005

REVIEWED & RECOMMENDED FOR APPROVAL:

9/7/05
Chairman, CEM Core Group Date

9/7/05
Chairman, EDP Managers Group Date

Required Approvals to Authorize a Project:

9/6/05
Responsible Manager **Date**

9/12/05
Responsible Vice President **Date**
(not required for budgeted projects $1 million and less)

VP, Government and Community Affairs **Date**
(not required if PUC approval is obtained

Controller **Date**

If project exceeds $5 million ($1M unbudgeted), additional approvals are required. Please call Management Accounting at x7729

» budget manager: PR9105-P: For PIF

Grandparent	*Project #	Project	*Ind #	Cost Category	Curr Upd New Total $ - SP	PTD 12/04 Act $	Update 2005 $	FY06 Update05
Y00044	P0000946	KoOlina SS Tsf#1 Install	*AFUDC_Duration	statistical	$0	0	$0	$0
			_	AFUDC	$37,962	0	$2,436	$35,526
				MATERIAL	$52,874	0	$551	$52,323
				OVERHEADS	$162,892	0	$37,309	$125,584
			NI	AFUDC	$923	$58	$865	0
				LABOR	$124,774	$507	$27,042	$97,225
				MATERIAL	$522,614	0	$5,080	$517,534
				O/S SVCS	$593,012	$4,431	$33,581	$555,000
				OTHER	$15,000	0	$0	$15,000
				OVERHEADS	$1,308	$594	$714	0
					$1,511,359	$5,590	$107,578	$1,398,191
	P0000947	KoOlina 46kV lines	*AFUDC_Duration	statistical	$0	0	$0	$0
			_	AFUDC	$35,821	0	$0	$35,821
				MATERIAL	$55,596	0	$0	$55,596
				OVERHEADS	$277,479	0	$34,265	$243,214
			NE	LABOR	$2,737	0	$0	$2,737
			NI	AFUDC	$0	$0	0	0
				LABOR	$266,796	$14,935	$43,049	$208,812
				MATERIAL	$549,914	0	$0	$549,914
				O/S SVCS	$763,977	$23	$21,227	$742,727
				OVERHEADS	$45,623	$19,989	$25,634	0
			NR	LABOR	$342	0	$0	$342
					$1,998,284	$34,947	$124,174	$1,839,163
	P0000948	KoOlina 12kV lines	*AFUDC_Duration	statistical	$0	0	$0	$0
			_	AFUDC	$1,757	0	$243	$1,514
				MATERIAL	$1,327	0	$348	$979
				OVERHEADS	$16,492	0	$3,344	$13,148
			NI	AFUDC	$57	0	$57	0
				LABOR	$15,348	0	$3,717	$11,631
				MATERIAL	$12,848	0	$3,166	$9,682
				O/S SVCS	$1,040	0	$0	$1,040
				OVERHEADS	$1,602	0	$1,602	0
					$50,471	0	$12,477	$37,993
					$3,560,114	$40,537	$244,229	$3,275,348
					$3,560,114	$40,537	$244,229	$3,275,348

» budget manager: PR9105-PH: For PIF (labor h...

Grandparent	*Project #	Project	*RA #	*Lbr Class	YTD Jul 05 Actual Hrs	Aug-Dec 05 Update Hrs	FY06 Update05	8/05-12/09 Curr Upd Hrs
Y00044	P0000946	KoOlina SS Tsf#1 Install	PBA		0	0	0	0
Y00044	P0000946	KoOlina SS Tsf#1 Install	PBA	__BUOCB	0	110	0	110
Y00044	P0000946	KoOlina SS Tsf#1 Install	PBT	__BUOCB	0	20	0	20
Y00044	P0000946	KoOlina SS Tsf#1 Install	PBT	B_STRDFT	0	27	0	27
Y00044	P0000946	KoOlina SS Tsf#1 Install	PBT	B_STRENG	0	100	0	100
Y00044	P0000946	KoOlina SS Tsf#1 Install	PBY		0	0	0	0
Y00044	P0000946	KoOlina SS Tsf#1 Install	PBY	__BUOCB	0	20	0	20
Y00044	P0000946	KoOlina SS Tsf#1 Install	PBY	B_PROTEC	0	13	0	13
Y00044	P0000946	KoOlina SS Tsf#1 Install	PBY	B_SSENG	16.00	270	192	462
Y00044	P0000946	KoOlina SS Tsf#1 Install	PBY	B_SUBDFT	0	82	30	112
Y00044	P0000946	KoOlina SS Tsf#1 Install	PBY	B_TCENGR	0	200	0	200
Y00044	P0000946	KoOlina SS Tsf#1 Install	PRC	R_COMTEC	0	0	78	78
Y00044	P0000946	KoOlina SS Tsf#1 Install	PRI	R_INSCRW	0	0	160	160
Y00044	P0000946	KoOlina SS Tsf#1 Install	PRI	R_INSENG	0	0	96	96
Y00044	P0000946	KoOlina SS Tsf#1 Install	PRI	R_INSSUP	0	0	32	32
Y00044	P0000946	KoOlina SS Tsf#1 Install	PRR	R_RELCRW	0	0	160	160
Y00044	P0000946	KoOlina SS Tsf#1 Install	PRR	R_RELENG	0	0	80	80
Y00044	P0000946	KoOlina SS Tsf#1 Install	PRR	R_RELSUP	0	0	80	80
Y00044	P0000946	KoOlina SS Tsf#1 Install	PRR	R_TECSPT	0	0	121	121
Y00044	P0000946	KoOlina SS Tsf#1 Install	PRS	R_SUBCRW	0	0	1,440	1,440
Y00044	P0000946	KoOlina SS Tsf#1 Install	PRS	R_SUBENG	0	0	36	36
Y00044	P0000946	KoOlina SS Tsf#1 Install	PRS	R_SUBPLN	0	0	111	111
Y00044	P0000946	KoOlina SS Tsf#1 Install	PRS	R_SUBSUP	0	0	111	111
Y00044	P0000946				16.00	842	2,727	3,569
Y00044	P0000947	KoOlina 46kV lines	PBE		0	0	0	0
Y00044	P0000947	KoOlina 46kV lines	PBE	__FS-B	1.00	0	0	0
Y00044	P0000947	KoOlina 46kV lines	PBE	B_DISPLN	0	32	16	48
Y00044	P0000947	KoOlina 46kV lines	PBE	B_TNDDFT	13.00	275	137	412
Y00044	P0000947	KoOlina 46kV lines	PBE	B_TNDENG	104.00	295	245	540
Y00044	P0000947	KoOlina 46kV lines	PBT		0	0	0	0
Y00044	P0000947	KoOlina 46kV lines	PBT	__BUOCB	1.50	0	0	0
Y00044	P0000947	KoOlina 46kV lines	PBT	__SUMMER	3.00	0	0	0
Y00044	P0000947	KoOlina 46kV lines	PBT	B_STRDFT	257.50	55	28	83
Y00044	P0000947	KoOlina 46kV lines	PBT	B_STRENG	186.50	115	105	220
Y00044	P0000947	KoOlina 46kV lines	PBT	B_SURVEY	0	0	24	24
Y00044	P0000947	KoOlina 46kV lines	PDF	D_PTM	0	0	48	48
Y00044	P0000947	KoOlina 46kV lines	PDS	D_OHCREW	0	0	1,899	1,899
Y00044	P0000947	KoOlina 46kV lines	PDS	D_UGCREW	0	0	2,733	2,733
Y00044	P0000947	KoOlina 46kV lines	PNP	__TC	16.00	0	0	0
Y00044	P0000947				582.50	772	5,235	6,007
Y00044	P0000948	KoOlina 12kV lines	PBE	B_DISPLN	0	4	2	6
Y00044	P0000948	KoOlina 12kV lines	PBE	B_TNDDFT	0	36	18	54
Y00044	P0000948	KoOlina 12kV lines	PBE	B_TNDENG	35.00	35	29	64
Y00044	P0000948	KoOlina 12kV lines	PDF	D_PTM	0	0	48	48
Y00044	P0000948	KoOlina 12kV lines	PDS	D_UGCREW	0	0	186	186
Y00044	P0000948				35.00	75	283	358
Y00044					633.50	1,690	8,245	9,934
					633.50	1,690	8,245	9,934

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: Kahe RO Water Project

Plant Addition Date: 2009-08

Project Number: P0001169
(Permanent)

Commitment Date: 2007-11

Primary Corporate Goal: BP Genrtg Unit

Stategic Plan Linkage: Reliable & Adequate Pwr Sup
(Primary)

Impact on Goal: Medium

Project Forecast (Thousand $)

(Attach the "PR9105-P: For PIF" report obtained from the estimators' Pillar file.)

Prior Years	2007	2008	2009	2010	2011	Future Years	Total
$229	$376	$2,172	$4,677	$0	$0	$0	$7,454

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
45	0	0	0	24	69

Purpose/Objectives:

Use RO water to reduce the potable water consumption at the Kahe Power Plant. The intent behind minimizing the use of potable water is to reduce the overall environmental impact of the Kahe Power Plant in a way that will benefit the community.

Scope Description:

The new Kahe RO water pipeline will be 8 inches in size (DIPS) and constructed out of PVC, or another BWS approved pipe material. The pipeline will be installed below ground and will be connected to the existing Kahe Raw Water system upstream of the Kahe demineralizer plant. In addition to the new 4 mile long Kahe RO Water Pipeline, the project would include:

1) Installation of a valve station at the point where the new Kahe RO Pipeline interconnects with the existing 14" BWS RO pipeline.
2) Installation of Activated Charcoal filter equipment at the Kahe Power Plant upstream of the demineralizer to minimize biofouling in the downstream resin beds because the RO water may contain trace biological contaminants and other contaminants.
3) Installation of new piping, valves, backflow preventors and other ancillary equipment at the Kahe Power Plant to facilitate connection of the new RO water pipeline with the Kahe demineralized water system.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Resource Needs:

See attached Pillar reports for 5-year labor resource requirements.

Justification:

Part of the community benefits package for the new CIP Generating Station Project.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

HECO intends to enter into an agreement for the following:
1) Transfer of ownership of the RO pipeline, including operations and maintenance, to BWS up to HECO property line.
2) Provide an adequate supply of RO water while retaining existing potable water allocations to be used as backup to the RO water.
3) Right of Entry into Kahe PP for access to RO water meter, and communications equipment within Kahe.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

Cost Sharing
(under HECO Policy UG Lines, October 2000)

NONE

Other type of payment (cash, non-cash) by outside party

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

PUC Approved: ● Approval Required ○ Not Required

● Approved, Date of Decision & Order: 2006-06-27 Docket Number: 05-0146

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☑ Engineering ☑ Materials ☑ Construction

Approval Option: Authorize expenditures that are ~~unbudgeted~~ less than $ 7,587,967 GS 8-27-07

Submitted by: [signature] **Phone/Ext #:** x 7416

Originator's Name: K. Fong

Responsible Estimator: C. Omuro
(Pillar UserID)

Resp. Estimator Dept: Power Supply Engineering
(Pillar Department Folder)

Project Manager: C. Omuro

Date: 08/08/2007

Required Approvals to Authorize a Project:

[signature] 8/15/07
Responsible Manager **Date**

Thomas C. Simmons 8/16/07
Responsible Vice President **Date**
(not required for budgeted projects $1 million and less)

[signature] 8/22/07
Sr. V.P., Operations Date

[signature] 8/24/07
President Date

VP, Government and Community Affairs **Date**
(not required if PUC approval is obtained

[signature] 8/27/07
Controller **Date**

If project exceeds $5 million ($1M unbudgeted), additional approvals are required. Please call Management Accounting at x7729

*Project #	Project	*In...	Cost Categ...	Curr Upd New Total $	Prior to 12/06 Act $	Update 2007 $	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P0001169	CIP0 Kahe RO Water P...	_	AFUDC	$394,922	0	$16,381	$94,999	$283,542	$0	$0	0
			MATERIAL	$68,644	0	$0	$68,644	$0	$0	$0	0
			OVERHEADS	$200,151	0	$65,302	$67,575	$67,274	$0	$0	0
				$663,717	0	$81,683	$231,218	$350,816	$0	$0	0
		NI	AFUDC	$15,736	$6,115	$9,621	0	0	0	0	0
			LABOR	$262,775	$42,677	$77,633	$74,354	$68,111	$0	$0	0
			MATERIAL	$813,335	0	$14	$813,321	$0	$0	$0	0
			O/S SVCS	$5,521,251	$148,075	$192,162	$928,047	$4,252,967	$0	$0	0
			OTHER	$130,000	0	$0	$125,000	$5,000	$0	$0	0
			OVERHEADS	$47,174	$32,633	$14,541	0	0	0	0	0
				$6,790,270	$229,499	$293,971	$1,940,723	$4,326,078	$0	$0	0
				$7,453,988	$229,499	$375,654	$2,171,941	$4,676,894	$0	$0	0
				$7,453,988	$229,499	$375,654	$2,171,941	$4,676,894	$0	$0	0

*Project #	Project	*RA #	*Lbr Class	YTD Jun 07 Actual Hrs	Jul-Dec 07 Update Hrs	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P0001169	CIP0 Kahe RO Water P...	P3V		0	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	P3V	__F	0	48	48	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	P3V	__FS	4.50	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	P3V	__TC	20.00	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	P9V		0	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PAA		0	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PAC		0	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PBT		0	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PBT	__BUOCB	1.00	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PBT	B_STR...	77.00	305	200	300	0	0	0
P0001169	CIP0 Kahe RO Water P...	PBT	B_SUR...	0	20	20	20	0	0	0
P0001169	CIP0 Kahe RO Water P...	PIK	__BUTCI	0	0	0	561	0	0	0
P0001169	CIP0 Kahe RO Water P...	PKF		0	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PNC	__F	0	0	24	18	0	0	0
P0001169	CIP0 Kahe RO Water P...	PNP		0	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PNP	__TC	0	78	0	20	0	0	0
P0001169	CIP0 Kahe RO Water P...	PSP		0	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PSP	__FS	1.00	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PYC		0	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PYC	__BUOCY	1.50	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PYF	Y_PPE...	0	50	96	48	0	0	0
P0001169	CIP0 Kahe RO Water P...	PYJ		0	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PYJ	Y_PPP...	286.50	869	1,104	444	0	0	0
P0001169	CIP0 Kahe RO Water P...	PYM		0	0	0	0	0	0	0
P0001169	CIP0 Kahe RO Water P...	PYM	Y_PPM...	0	241	300	300	0	0	0
P0001169				391.50	1,611	1,792	1,711	0	0	0
				391.50	1,611	1,792	1,711	0	0	0

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: Air Quality Monitoring Stns

Plant Addition Date: 2008-07

Project Number: P0001170
(Permanent)

Commitment Date: 2007-11

Primary Corporate Goal: BP Genrtg Unit

Stategic Plan Linkage: Reliable & Adequate Pwr Sup
(Primary)

Impact on Goal: High

Project Forecast (Thousand $)

(Attach the "PR9105-P: For PIF" report obtained from the estimators' Pillar file.)

Prior Years	2007	2008	2009	2010	2011	Future Years	Total
$9	$265	$730	$190	$0	$0	$0	$1,194

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
45	0	-25	0	24	44

Purpose/Objectives:

The air quality monitoring (AQM) stations will continuously measure the ambient air quality resulting from all sources in the area of the station. These sources will include transporation, construction, and industrial sources, in the area that the stations are installed.

These AQM stations are part of the Community Giveback package associated with installation of the CIP Generating Station and Transmission Additions project.

MANAGEMENT ACCOUNTING

OCT 4 2007

Scope Description:

This project is to construct and install three AQM staions in the following areas:

1. Makai of the CIP Generation Station Project
2. Nanakuli
3. Waianae

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Resource Needs:

See attached Pillar reports for 5-year labor resource requirements.

Justification:

The air quality monitoring stations are part of the "give-back" package for siting the CIP Generating Station in the West Oahu community.

In conjunction with the CIP Generating Project, HECO conducted community meetings for the neighborhoods surrounding the proposed CIP Generating Station Project facility site to discuss the impact that the proposed project would have on these communities. These meetings resulted in a consensus that the other communities on Oahu benefiting from the new generation, as well as HECO, need to "give-back" some sort of benefit to mitigate the impact on the community in which the new facilities are to be placed.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

Cost Sharing
(under HECO Policy UG Lines, October 2000)

NONE

Other type of payment (cash, non-cash) by outside party

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

PUC Approved: ● Approval Required ○ Not Required

● Approved, Date of Decision & Order: 2007-06-27 Docket Number: 05-0146

○ Awaiting PUC Approval, Application Filed 2005-06-17

Authorization for: ☐ Engineering ☑ Materials ☑ Construction

Approval Option: Authorize expenditures that exceed budget $1,091,568 10-4-07 GS

Submitted by: Rodney Chong **Phone/Ext #:** 4515

Originator's Name: Isler, R.

Responsible Estimator: Oshiro, S.
(Pillar UserID)

Resp. Estimator Dept: Environmental
(Pillar Department Folder)

Project Manager: Oshiro, S.

Date: 09/21/2007

Required Approvals to Authorize a Project:

9/27/07
Responsible Manager for Sherri Loo **Date**

10/2/07
Responsible Vice President **Date**
(not required for budgeted projects $1 million and less)

VP, Government and Community Affairs **Date**
(not required if PUC approval is obtained

10/4/07
Controller 10/4/07 **Date**

If project exceeds $5 million ($1M unbudgeted), additional approvals are required. Please call Management Accounting at x7729

*Project #	Project	*In...	Cost Categ...	Curr Upd New Total $	Prior to 12/06 Act $	Update 2007 $	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P0001170	CIP0 AQ Monitoring Stns	_	AFUDC	$28,948	0	$2,690	$26,258	$0	$0	$0	0
			MATERIAL	$77,527	0	$28,638	$43,380	$5,508	$0	$0	0
			OVERHEADS	$109,114	0	$16,299	$49,907	$42,908	$0	$0	0
				$215,588	0	$47,627	$119,545	$48,417	$0	$0	0
Data collection, audit & support service, expense		NE	LABOR	$112,032	0	$0	$36,126	$75,906	$0	$0	0
			MATERIAL	$129,249	0	$0	$63,985	$65,264	$0	$0	0
				$241,281	0	$0	$100,111	$141,170	$0	$0	0
		NI	AFUDC	$1,094	$307	$787	0	0	0	0	0
			LABOR	$69,721	$4,931	$24,400	$40,389	$0	$0	$0	0
			MATERIAL	$631,483	0	$181,483	$450,000	$0	$0	$0	0
			O/S SVCS	$25,000	0	$5,000	$20,000	$0	$0	$0	0
			OTHER	$528	$519	$9	0	0	0	0	0
			OVERHEADS	$9,178	$3,320	$5,858	0	0	0	0	0
				$737,005	$9,078	$217,537	$510,389	$0	$0	$0	0
				$1,193,874	$9,078	$265,164	$730,045	$189,587	$0	$0	0
				$1,193,874	$9,078	$265,164	$730,045	$189,587	$0	$0	0

*Project #	Project	*RA #	*Lbr Class	YTD Aug ... 07	Sep-Dec 07 Update Hrs	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P0001170	CIP0 AQ Monitoring Stns	P3V		0	0	0	0	0	0	0
P0001170	CIP0 AQ Monitoring Stns	P3V	__FS	3.00	0	0	0	0	0	0
P0001170	CIP0 AQ Monitoring Stns	PBT	B_STR...	0	40	30	0	0	0	0
P0001170	CIP0 AQ Monitoring Stns	PBY	B_TCE...	0	40	30	0	0	0	0
P0001170	CIP0 AQ Monitoring Stns	PJA		0	0	0	0	0	0	0
P0001170	CIP0 AQ Monitoring Stns	PJA	__BUOC	0.25	0	0	0	0	0	0
P0001170	CIP0 AQ Monitoring Stns	PJB		0	0	0	0	0	0	0
P0001170	CIP0 AQ Monitoring Stns	PJB	J_AIRSCI	250.00	268	1,800	1,800	0	0	0
P0001170	CIP0 AQ Monitoring Stns	PJW		0	0	0	0	0	0	0
P0001170	CIP0 AQ Monitoring Stns	PJW	J_WHM...	2.50	0	0	0	0	0	0
P0001170	CIP0 AQ Monitoring Stns	PNL	__TC	0	40	30	0	0	0	0
P0001170	CIP0 AQ Monitoring Stns	PWP	W_CUE...	0	40	30	0	0	0	0
P0001170				255.75	428	1,920	1,800	0	0	0
				255.75	428	1,920	1,800	0	0	0

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: BPT FO Tk131 FloorRenovation

Project Number: P0001534
(Permanent)

Stategic Plan Linkage: Keep the Lights On
(Primary)

Plant Addition Date: 2008-05

Commitment Date: 2007-11

Primary Corporate Goal: Sys Rel & Effic

Impact on Goal: High

Project Forecast (Thousand $)

(Attach the "PR9105-P: For PIF" report obtained from the estimators' Pillar file.)

Prior Years	2007	2008	2009	2010	2011	Future Years	Total
$0	$817	$3,352	$0	$0	$0	$0	$4,169

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
15	0	0	0	0	15

Purpose/Objectives:

Renovate the bottom of Barbers Point Fuel Oil Tank 131 to provide at least 20 years of continued reliable operation.

MANAGEMENT ACCOUNTING

JAN 24 2008

Scope Description:

Selection of contractor for oversight and execution of renovation work is to be determined. Scope to include:

* Assessment work including cleaning out the interior of the tank and certifying it gas-free for safe inspection activities.

* Detailed inspection and evaluation of tank bottom to exactly determine the extent of required floor renovation.

* Nondestructive testing of all work, to include x-ray, diesel spray, double vacuum-box, helium, and hydrostatic testing.

* Surface preparation and coating of new steel floor surfaces, including the lower 18" of the shell interior.

* Replacement of steel floor, based on El Segundo double-bottom design, including leak detection and monitoring capability.

* Installation of new steam heating coils.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Resource Needs:

Refer to attached Pillar Labor output file.

Justification:

Barbers Point Fuel Storage Tank 131 is a 345,000-bbl fuel storage tank constructed in 1980. The steel floor, shell, roof, structural supports, and thermal insulation have served in essentially original configuration for over 27 years.

Interior inspection of BP Tank 131 in September 2007 indicated that floor corrosion in some locations is uncomfortably close to compromising the fluid-tight integrity of the tank bottom. Retrofit to an El Segundo-type double-bottom will provide maximum assurance against future bottom leakage. This approach represents an unbudgeted project cost of $4.169 M.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

The BP Tank 131 Renovation project supports HECO's IRP-2 Objective No. 5.6, which is to "Improve the quality of electrical products and services." Since a key consideration of this objective is to maintain generating system reliability, the "Renovation of BP Tank 131" supports this objective since it will help to ensure maximum reliability and availability for all the units to which LSFO is supplied.

Issues, Impacts, Considerations:

BP Tank 131 is one of three fuel tanks at Barbers Point that is used to receive fuel deliveries and provide reserve storage capacity for Oahu. One tank out of service limits storage and mixing capabilities. In the event that either of the two remaining tanks must be removed from service, for maintenance or to deal with an off-specification receipt of fuel, the source of fuel for the entire island will be limited to only one tank. In event of a curtailment of fuel oil shipments to Oahu due to labor disputes, ship disaster, a refinery casualty, or other emergency, particularly during months of peak demand, the diminished capacity of back-up fuel supply could contribute to a rapid depletion of the fuel oil supply and subsequent rolling blackouts.

HECO needs to commit to purchase of steel plates to allow for timely renovation of the tank floor. Delivery of these materials is a critical path activity.

The tank bottom is identified as property unit 342-BPT-350-20-11.
The fuel tank heating system is property unit 342-BPT-350-20-21.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

Cost Sharing
(under HECO Policy UG Lines, October 2000)

NONE

Other type of payment (cash, non-cash) by outside party

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

PUC Approved: ● Approval Required ○ Not Required

○ Approved, Date of Decision & Order: - - Docket Number: 2007-0409

● Awaiting PUC Approval, Application Filed 2007-12-11

Authorization for: ☑ Engineering ☑ Materials ☑ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: AMY EBESU **Phone/Ext #:** x 7225

Originator's Name: Floyd Shiroma

Responsible Estimator: Amy Ebesu
(Pillar UserID)

Resp. Estimator Dept: Power Supply Engineering
(Pillar Department Folder)

Project Manager: Amy Ebesu

Date: 12/26/2007

Required Approvals to Authorize a Project:

1/9/08
Responsible Manager **Date**

1/9/08
Responsible Vice President **Date**
(not required for budgeted projects $1 million and less)

1/10/08
VP, Government and Community Affairs **Date**
(not required if PUC approval is obtained

1/23/08
Controller **Date**

President & Chief Executive Officer Date

If project exceeds $5 million ($1M unbudgeted), additional approvals are required. Please call Management Accounting at x7729

*Project #	Project	*In...	Cost Categ...	Curr Upd New Total $	Prior to 12/06 Act $	Update 2007 $	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P0001534	BPT FO Tk131 FloorRe...	_	AFUDC	$90,648	0	$5,479	$85,169	$0	$0	$0	0
			OVERHEADS	$52,843	0	$12,668	$40,176	$0	$0	$0	0
				$143,491	0	$18,147	$125,344	$0	$0	$0	0
		NI	AFUDC	$7	0	$7	0	0	0	0	0
			LABOR	$50,784	0	$11,428	$39,356	$0	$0	$0	0
			O/S SVCS	$3,878,633	0	$786,267	$3,092,366	$0	$0	$0	0
			OVERHEADS	$1,334	0	$1,334	0	0	0	0	0
				$3,930,757	0	$799,036	$3,131,721	$0	$0	$0	0
		NR	O/S SVCS	$94,594	0	$0	$94,594	$0	$0	$0	0
				$94,594	0	$0	$94,594	$0	$0	$0	0
				$4,168,842	0	$817,183	$3,351,660	$0	$0	$0	0
				$4,168,842	0	$817,183	$3,351,660	$0	$0	$0	0

Line AR # 75,428

*Project #	Project	*RA #	*Lbr Class	YTD Nov ... 07	Dec 07 Update Hrs	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
P0001534	BPT FO Tk131 FloorRe...	PYF	Y_PPE...	0	4	24	0	0	0	0
P0001534	BPT FO Tk131 FloorRe...	PYG	Y_PPD...	0	0	24	0	0	0	0
P0001534	BPT FO Tk131 FloorRe...	PYM		0	0	0	0	0	0	0
P0001534	BPT FO Tk131 FloorRe...	PYM	Y_PPM...	33.00	300	1,096	0	0	0	0
P0001534				33.00	304	1,144	0	0	0	0
				33.00	304	1,144	0	0	0	0

CA-IR-257

Ref: HECO T-17, page 12, & HECO-1705 (CIP1 Second Parcel).

The referenced testimony briefly describes a second land parcel of 1.76 acres at the CIP1 Generating Unit site for the future expansion of the AES Substation. Please identify and describe the circumstances under which HECO envisions an expansion of the AES Substation would be required or necessary.

HECO Response:

The 1.76 acre parcel lies adjacent to the existing AES Substation, and is bordered by Hanua Street to the east and Komohana Street to the south. The land will be used to expand the AES Substation to accommodate the connection of any potential generating unit near this location to the HECO power grid. The land provides the space necessary to add bays to the AES Substation in the event additional generating units are installed. The power from a new generator step-up transformer would be connected to the grid via these new AES Substation bays. Any future generating unit could be located at the new CIP1 Generating Station or at one of the existing Independent Power Producer sites (i.e., HPower or AES) and accommodated through the AES Substation with this addition.

CA-IR-258

Ref: HECO T-17, page 14, HECO-1706 & HECO-WP-1706 (CIAC).

The referenced testimony briefly discusses two methods used to estimate CIAC for specific projects (determined by engineers) and programs (based on trending). However, the spreadsheet files underlying HECO-1706 and HECO-WP-1706 contain input values. Please provide additional documentation (in both spreadsheet file and hardcopy formats) supporting these values under each of the following CIAC methods:

a. Engineering project forecasts, by project.
b. Program trending calculations.

HECO Response:

a. Cash CIAC for specific projects are estimated by the engineers and communicated to the customer using either Utility Agreement sheets (e.g., for State or City projects) or proposal letters (e.g., for private developer projects). The Utility Agreement sheets and proposal letters for each of the cash CIAC projects listed on HECO-WP-1706 pages 3 are provided in Attachment 1. (Figures on HECO-WP-1706 page 3 and totals on the proposal letters will differ due to general excise tax adjustments.) Once executed, these agreements become the basis for the cash CIAC project estimates shown in HECO-WP-1706.

   Cash CIAC will be updated during the Rate Case Update.

b. See Attachment 2 for documentation supporting the cash CIAC estimates identified for Customer Installation programs on HECO-WP-1706, page 2. CIAC for 2009 programs are estimated using a five year historical average (excluding any unusually high or low anomaly percentages).

   The cash CIAC estimate for Energy Delivery programs (P1690000 on HECO-WP-1706, page 3) is an old estimate that will be revised during the Rate Case Update.

   Both cash CIAC estimates will be updated during the Rate Case Update.

Hawaiian Electric Company, Inc.
ENERGY DELIVERY PROJECTS
Contributions in Aid of Construction

CASH *($ Thousands)*

Project#	Description	2008 Estimate	2009 Estimate	GET	
P0000507	Kam Hwy Resurf, Waiahole to Crchng Lion (UA#1616)	862	0		
P0000598	Kahekili Hwy Lighting Impvts (UA#1739)	33	0		
P0000575	Nimitz Hwy Rehab (UA#1691)	71	0		
P0000672	Kakaako Makai-Kewalo 25kV (Letter)	0	456	get not incl in estim	
P0000764	H1 Widening Waimalu Reloc (UA# 1754)	-41	0		
P0001037	Puuloa Rd Widening, UG (UA#1487R)	387	0		
P0001075	Kam Hwy Kokololio Bridge (UA#1823)	231	0		
P0001347	No. Kahana Bridge Replacement (UA #1939)	0	212		
P0001357	Kapolei Pkwy Ext OH to UG (UA#SO-186)	77	0		
P0001385	Fort St Mall - Campbell Ducts (C&C Letter)	43	0	C&C - no GET	
P0001404	Kal Hwy at Makapuu 12kV UG (UA #1883)	0	18		
P0001502	North South Road Ph. UG Conv (UA #1964)	0	232		
P0001504	Kaloi Sub Land Transf (Letter)	0	2,174	no GET	
P0001525	Tesoro Electrical Upgrade (Letter)	341	0	$150+$191	net amts per ocars
P0001557	Makakilo C&D Ph. 1 46kV UG (Letter)	640	0	4.7120%	670-GET
P0001566	Mamala Tsf Paralleling (Letter)	66	0	4.7120%	69-GET
P1690000	Minor T&D Customer Programs	90	120		
	TOTALS	2,800	3,212		

FINAL

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
UTILITY PAYMENT STANDARDS COMPARISON
UTILITY AGREEMENT NO. 1616

PERMANENT NON CIVIL SUIT

Project: Kamehameha Highway Resurfacing
Waiahole Valley Rd to Crouching Lion Inn
Project No. F.A.P. No. NH-083-1(43)

Utility: Hawaiian Electric Company, Inc.
Prepared By: K. Koga
Administrator: L. Ignacio
Date: 04/01/08
Proj Engineer: I. Lee
Lead Engineer: R. Tamayo
Princ. Engineer: M. Lum

		STATE STANDARDS		FEDERAL STANDARDS (PPM 30-4))	
A.	Work/material by the Company and/or its contractor	$2,409,108.00			
B.	Work/material by the State and/or its contractor	$23,300.70			
C.	Total Cost of *Relocation/Replacements:*		*$2,432,408.70*		
D.	Less Deductions:				
	1. Depreciation	$512,000.00			
	2. Salvage Value	$30,000.00			
	3. Betterments	$109,000.00			
	4. Expired Service Life (Attach computation when applicable)	$0.00			
E.	Total Deductions:		$651,000.00		
F.	Net Cost of Relocation (C minus E)		$1,781,408.70		
G.	Less Cost Sharing Arrangements:				
	1. $10,000 (only if required by Sec. 264-33, H.R.S. e.g., privately owned facilities within highway right of way.	$10,000.00			
	2. Amount for "extraordinary" items referred to in Item 5 below	$0.00			
	3. Total of 1 and 2		$10,000.00		
	4. Net Amount (F minus G-3)		$1,771,408.70		
	5. State's share in Net Amount (50%)	$885,704.35			
	Add: State's share for special improvements which have been deleted in Item 2, above	$0.00			
H.	State's share in Total Cost of Relocation (Total of G-5)		$885,704.35		
I.	Utility's share in Total Cost of Relocation (C minus H)		$1,546,704.35		

* "Extraordinary" items are those items in which the State does not participate on the same basis percentage-wise. When applicable, attach description.

ESTIMATED REIMBURSEMENT:
1. Company to State (B Minus H) $0.00
2. State to Company (H minus B) $862,403.65

AMOUNT FOR FEDERAL PARTICIPATION (Item H)

FINAL

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
UTILITY PAYMENT STANDARDS COMPARISON
UTILITY AGREEMENT NO. 1739

PERMANENT NON-CIVIL SUIT

Project: Kahekili Highway Lighting Improvements
Haiku Road to Ahuimanu Place
Project No. 83F-02-00M

Utility: Hawaiian Electric Company, Inc.
Prepared By: K. Koga KK
Administrator: L. Ignacio
Date: 11/06/07
Proj Engineer: I. Lee
Lead Engineer: R. Tamayo
Princ. Engineer: M. Lum

		STATE STANDARDS		FEDERAL STANDARDS (PPM 30-4))	
A.	Work/material by the Company and/or its contractor	$128,686.00			
B.	Work/material by the State and/or its contractor	$25,273.00			
C.	Total Cost of Relocation/Replacements:		$153,959.00		
D.	Less Deductions:				
	1. Depreciation	$27,055.00			
	2. Salvage Value	$16.00			
	3. Betterments	$0.00			
	4. Expired Service Life (Attach computation when applicable)	$0.00			
E.	Total Deductions:		$27,071.00		
F.	Net Cost of Relocation (C minus E)		$126,888.00		
G.	Less Cost Sharing Arrangements:				
	1. $10,000 (only if required by Sec. 264-33, H.R.S. e.g., privately owned facilities within highway right of way.	$10,000.00			
	2. Amount for "extraordinary" items referred to in Item 5 below	$0.00			
	3. Total of 1 and 2		$10,000.00		
	4. Net Amount (F minus G-3)		$116,888.00		
	5. State's share in Net Amount (50%)	$58,444.00			
	Add: State's share for special improvements which have been deleted in Item 2, above	$0.00			
H.	State's share in Total Cost of Relocation (Total of G-5)		$58,444.00		
I.	Utility's share in Total Cost of Relocation (C minus H)		$95,515.00		

* "Extraordinary" items are those items in which the State does not participate on the same basis percentage-wise. When applicable, attach description.

ESTIMATED REIMBURSEMENT:
1. Company to State (B Minus H) $0.00
2. State to Company (H minus B) $33,171.00

AMOUNT FOR FEDERAL PARTICIPATION (Item H)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DOT 4-232
(HWY-RL 6/00)

UTILITY COST ESTIMATE FOR UTILITY AGREEMENT NO : 1691

Project: Nimitz Highway Rehabilitation, Sumner St. to Queen St. and Nimitz Highway Water System Imps., Part 1
Project No.: NH-092-1(25) & BWS No. 01-87A

Utility Co.: HECO
Prepared by: Li Nah Okita Date: 4/11/01
Checked by: Sean Hiraoka Date: 4/11/01

UTILITY PAYMENT STANDARDS COMPARISON

	STATE STANDARDS		FEDERAL STANDARDS (FAPG Sec. 645.117)	
A. Work/material by Utility Company and/or its Contractor	$250,150.00			
B. Work/material by State and/or its Contractor	$34,700.00			
C. Total Cost of Utility Work (A+B)		$284,850.00		$283,150.00 (C minus **)
D. Less Deductions:				
1. Depreciation	$62,503.00		$62,503.00	
2. Salvage Value	$716.00		$716.00	
3. Betterments	$0.00		$0.00	
E. Total Deductions (D1+D2+D3)		$63,219.00		$63,219.00
F. Net Cost of Relocation (C minus E)		$221,631.00		$219,931.00
G. Less Cost Sharing Arrangements:				
1. $10,000 (only if required by H.R.S. Section 264-33, e.g., privately owned facilities within the highway right-of-way)	$10,000.00		$10,000.00	
2. Amount for Extraordinary* Items referred to in Item J	$0.00		$0.00	
3. Total (G1+G2)		$10,000.00		$10,000.00
H. Net Amount (F minus G3)		$211,631.00		$209,931.00
I. State's Share in Net Amount [50%]	$105,815.50		$104,965.50	
J. State's Share for Extraordinary* Items which have been deleted from G2	$0.00		$0.00	
K. State's Share in Total Cost of Utility Work (I+J)		$105,815.50		$104,965.50 (Amount for Fed Par
L. Utility's Share in Total Cost of Utility Work (C minus K)		$179,034.50		

* Extraordinary Items are special improvements in which the State does not participate on the same basis, percentagewise. Attach a description.

** Subtract the Construction Engineering Administrative Cost and other Federal Non-Participating Items.

ESTIMATED REIMBURSEMENT		FEDERAL SHARE
Utility Company to State (B minus K)	$0.00	$83,972.00 (K x Fed Par Rate)
State to Utility Company (K minus B)	$71,115.50	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DOT 4-232
(HWY-RL 6/00)

FINAL UTILITY COST ESTIMATE FOR UTILITY AGREEMENT NO. 1754

Project: Interstate Route H-1 Widening, Waimalu Viaduct Westbound, Pearl CityOff-Ramp to Kaonohi St (DES) / Interstate Route H-3, H-3 Finish (Unit VIII) (CON)

Project No.: IM-HP-H1-1(237) (DES) / I-H3-1(75) Unit VIII (CON)

Utility Co.: Hawaiian Electric Company, Inc.

Prepared by: Lester Lau Date: 7/24/2008

Checked by: Date:

UTILITY PAYMENT STANDARDS COMPARISON

	STATE STANDARDS		FEDERAL STANDARDS (FAPG Sec. 645.117)	
A. Work/material by Utility Company and/or its Contractor	126,610.00			
B. Work/material by State and/or its Contractor	183,797.80			
C. Total Cost of Utility Work (A+B)		310,407.80		310,407.80
D. Less Deductions:				
1. Depreciation	15,151.00		15,151.00	
2. Salvage Value	115.00		115.00	
3. Betterments	0.00		0.00	
E. Total Deductions (D1+D2+D3)		15,266.00		15,266.00
F. Net Cost of Relocation (C minus E)		295,141.80		295,141.80
G. Less Cost Sharing Arrangements:				
1. $10,000 (only if required by H.R.S. Section 264-33, e.g., privately owned facilities within the highway right-of-way)	10,000.00		10,000.00	
2. Amount for Extraordinary* Items referred to in Item J	0.00		0.00	
3. Total (G1+G2)		10,000.00		10,000.00
H. Net Amount (F minus G3)		285,141.80		285,141.80
I. State Share in Net Amount [50%]	142,570.90		142,570.90	
J. State's Share for Extraordinary* Items which have been deleted from G2	0.00		0.00	
K.		142,570.90		142,570.90 (Amount for Fed Par)
L. Utility's Share in Total Cost of Utility Work (C minus K)		167,836.90		

* Extraordinary Items are special improvements in which the State does not participate on the same basis, percentagewise. Attach a description.

	ESTIMATED REIMBURSEMENT	FEDERAL SHARE
Utility Company to State (B minus K)	41,226.90	114,056.72 (K x Fed Par Rate)
State to Utility Company (K minus B)	0.00	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DOT 4-232
(HWY-RL 6/00)

UTILITY COST ESTIMATE FOR UTILITY AGREEMENT NO. 1487

Project: PUULOA ROAD IMPROVEMENTS, KAMEHAMEHA HIGHWAY TO SALT LAKE BOULEVARD
Utility Co.: HECO
Prepared by: RON HO Date: 8/9/02
Project No.: STP-7310(1)
Checked by: KEVIN ITO Date: 8/14/02

UTILITY PAYMENT STANDARDS COMPARISON

	STATE STANDARDS		FEDERAL STANDARDS (FAPG Sec. 645.117)	
A. Work/material by Utility Company and/or its Contractor	1,086,250.00			
B. Work/material by State and/or its Contractor	104,386.00			
C. Total Cost of Utility Work (A+B)		1,190,636.00		1,190,280.00 (C minus **)
D. Less Deductions:				
1. Depreciation	184,432.00		184,432.00	
2. Salvage Value	14,148.00		14,148.00	
3. Betterments	0.00		0.00	
E. Total Deductions (D1+D2+D3)		198,580.00		198,580.00
F. Net Cost of Relocation (C minus E)		992,056.00		991,700.00
G. Less Cost Sharing Arrangements:				
1. $10,000 (only if required by H.R.S. Section 264-33, e.g., privately owned facilities within the highway right-of-way)	10,000.00		10,000.00	
2. Amount for Extraordinary* Items referred to in Item J	0.00		0.00	
3. Total (G1+G2)		10,000.00		10,000.00
H. Net Amount (F minus G3)		982,056.00		981,700.00
I. State Share in Net Amount [50%]	491,028.00		490,850.00	
J. State's Share for Extraordinary* Items which have been deleted from G2	0.00		0.00	
K. State's Share in Total Cost of Utility Work (I+J)		491,028.00		490,850.00 (Amount for Fed Par)
L. Utility's Share in Total Cost of Utility Work (C minus K)		699,608.00		

* Extraordinary Items are special improvements in which the State does not participate on the same basis, percentagewise. Attach a description.

** Subtract the Construction Engineering Administrative Cost and other Federal Non-Participating Items.

ESTIMATED REIMBURSEMENT		FEDERAL SHARE
Utility Company to State (B minus K)	0.00	404,853.00 (K x Fed Par Rate (82.48
State to Utility Company (K minus B)	386,642.00	

DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

(HWY-RL 6/00)

UTILITY COST ESTIMATE FOR UTILITY AGREEMENT NO.1823 Based on Contractor's Unit Price

Project: Kokololio Bridge Replacement
Utility Co.: HECO
Prepared by: James Fu
Date: 5/19/04
Project No.: BR-083-1(50)
Checked by:
Date:

UTILITY PAYMENT STANDARDS COMPARISON

		STATE STANDARDS		FEDERAL STANDARDS (FAPG Sec. 645 117)	
A.	Work/material by Utility Company and/or its Contractor	$501,981.00			
B.	Work/material by State and/or its Contractor	$4,510.66			
C.	Total Cost of Utility Work (A+B)		$506,491.66		506,491.66
D.	Less Deductions:				
	1. Depreciation	24,317.00		24,317.00	
	2. Salvage Value	1,608.00		1,608.00	
	3. Betterments	0.00		0.00	
E.	Total Deductions (D1+D2+D3)		25,925.00		25,925.00
F.	Net Cost of Relocation (C minus E)		$480,566.66		480,566.66
G.	Less Cost Sharing Arrangements:				
	1. $10,000 (only if required by H.R.S. Section 264-33, e.g., privately owned facilities within the highway right-of-way)	10,000.00		10,000.00	
	2. Amount for Extraordinary* Items referred to in Item J	0.00		0.00	
	3. Total (G1+G2)		10,000.00		10,000.00
H.	Net Amount (F minus G3)		$470,566.66		470,566.66
I.	State Share in Net Amount [50%]	235,283.33		235,283.33	
J.	State's Share for Extraordinary* Items which have been deleted from G2	0.00		0.00	
K.	State's Share in Total Cost of Utility Work (I+J)		235,283.33		235,283.33 (Amount for Fed Par)
L.	Utility's Share in Total Cost of Utility Work (C minus K)		$271,208.33	**Subtract Federal Non-Participating Items.	

* Extraordinary Items are special improvements in which the State does not participate on the same basis, percentagewise. Attach a description.

ESTIMATED REIMBURSEMENT		FEDERAL SHARE
Utility Company to State (B minus K)	$0.00	188,226.67 (K x Fed Par Rate)
State to Utility Company (K minus B)	230,772.67	

JS 5/19
DKS 05/19
BS BJ

CITY AND COUNTY OF HONOLULU
DEPARTMENT OF DESIGN AND CONSTRUCTION PERMANENT NON-CIVIL SUIT
CIVIL DIVISION
UTILITY PAYMENT STANDARDS COMPARISON
UTILITY COST ESTIMATE No. SO-186

Project: Extension of Kapolei Parkway - Phase 8B (North-South Road to Renton Road)
Utility: Hawaiian Electric Co.
Prepared By: R Ho & Asso Proj. Engr.: R. Tokunaga
Administrator: Lead Engr.: C Chang
Proj. No.: FAP No. STP-8920(1) Date: 26-Jun-06 Principal Engr.: P. Nakagawa
Description: OH to UG Cost Breakdown

		CITY STANDARDS		FEDERAL STANDARDS (PPM 30-4)	
A.	Work/material by the Company and/or its contractor	$98,074.00			
B.	Work/material by the City and/or its contractor Includes Contingency and Developer's CM Team amounts of $2,280.00 and $7,182.00	$55,062.00			
C.	Total Cost of Installation and Relocation/Replacements:		$153,136.00		$0.00
D.	Less Deductions:				
1.	Depreciation	$0.00		$0.00	
2.	Salvage Value	$0.00		$0.00	
3.	Betterments	$0.00		$0.00	
4.	Expired Service Life (Attach computation when applicable)	$0.00		$0.00	
5.	Utility's share of Equivalent OH to OH	$21,296.50			
E.	Total Deductions:		$21,296.50		$0.00
F.	Net Cost of Relocation (C minus E)		$131,839.50		$0.00
G.	Less Cost Sharing Arrangements:				
1.	$10,000 (similar to Sec. 264-33, H.R.S. e.g., privately owned facilities within highway right of way.	N/A		N/A	
2.	Amount for "extraordinary" items referred to in Item 5 below	$131,839.50		$0.00	
3.	Total of 1 and 2		$131,839.50		$0.00
4.	Net Amount (F minus G-3)		$0.00		$0.00
5.	City's share in Net Amount (50%)	$0.00		$0.00	
	Add: City's share for special improvements which have been deleted in Item 2, above	$131,839.50 *		$0.00	
H.	City's share in Total Cost of Relocation (Total of G-5)		$131,839.50		$0.00
I.	Utility's share in Total Cost of Relocation (C minus H)		$0.00		

* "Extraordinary" Items are those items in which the City does not participate on the same basis percentage-wise. When applicable, attach description.

ESTIMATED REIMBURSEMENT:
1. Company to Citry (B Minus H) $0.00
2. City to Company (H minus B) $76,777.50

AMOUNT FOR FEDERAL PARTICIPATION (Item H) $0.00

6/26/2006
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CITY AND COUNTY OF HONOLULU
DEPARTMENT OF DESIGN AND CONSTRUCTION PERMANENT NON-CIVIL SUIT
CIVIL DIVISION
UTILITY PAYMENT STANDARDS COMPARISON
UTILITY COST ESTIMATE No. SO-186

Project:	Extension of Kapolei Parkway - Phase 8B (North-South Road to Renton Road)	Utility:	Hawaiian Electric Co.
		Prepared By:	R Ho & Asso Proj. Engr.: R. Tokunaga
		Administrator:	Lead Engr.: C Chang
Proj. No.:	FAP No. STP-8920(1)	Date:	26-Jun-06 'rincipal Engr.: P. Nakagawa
Description:	Equivalent OH to OH Cost Breakdown		

		CITY STANDARDS		FEDERAL STANDARDS (PPM 30-4)	
A.	Work/material by the Company and/or its contractor	$21,659.00			
B.	Work/material by the City and/or its contractor	$0.00			
C.	Total Cost of Installation and Relocation/Replacements:		$21,659.00		$21,659.00
D.	Less Deductions:				
1.	Depreciation	$10,804.00		$10,804.00	
2.	Salvage Value	$130.00		$130.00	
3.	Betterments	$0.00		$0.00	
4.	Expired Service Life (Attach computation when applicable)	$0.00		$0.00	
E.	Total Deductions:		$10,934.00		$10,934.00
F.	Net Cost of Relocation (C minus E)		$10,725.00		$10,725.00
G.	Less Cost Sharing Arrangements:				
1.	$10,000 (similar to Sec. 264-33, H.R.S. e.g., privately owned facilities within highway right of way.	$10,000.00		$10,000.00	
2.	Amount for "extraordinary" items referred to in Item 5 below	$0.00		$0.00	
3.	Total of 1 and 2		$10,000.00		$10,000.00
4.	Net Amount (F minus G-3)		$725.00		$725.00
5.	City's share in Net Amount (50%)	$362.50		$362.50	
	Add: City's share for special improvements which have been deleted in Item 2, above	$0.00 *		$0.00	
H.	City's share in Total Cost of Relocation (Total of G-5)		$362.50		$362.50
I.	Utility's share in Total Cost of Relocation (C minus H)		$21,296.50		

* "Extraordinary" items are those items in which the City does not participate on the same basis percentage-wise. When applicable, attach description.

ESTIMATED REIMBURSEMENT:		AMOUNT FOR FEDERAL PARTICIPATION (Item H)	$362.50
1. Company to Citry (B Minus H)	$0.00		
2. City to Company (H minus B)	$362.50		

6/26/2006
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CITY AND COUNTY OF HONOLULU
DEPARTMENT OF DESIGN AND CONSTRUCTION PERMANENT NON-CIVIL SUIT
CIVIL DIVISION
UTILITY PAYMENT STANDARDS COMPARISON
UTILITY COST ESTIMATE No. SO-186

Project: Extension of Kapolei Parkway - Phase 8B (North-South Road to Renton Road)
Proj. No.: FAP No. STP-8920(1)
Description: New Work

Utility: Hawaiian Electric Co.
Prepared By: R Ho & Asso Proj. Engr.: E. Kusunoki EK
Administrator: Sr. Supervisor G. Fukumoto
Date: 26-Jun-06 Director of CID: E. Che EC

		CITY STANDARDS		FEDERAL STANDARDS (PPM 30-4)	
A.	Work/material by the Company and/or its contractor	$0.00			
B.	Work/material by the City and/or its contractor	$350,175.00			
	Includes Developer's CM Team and Administrative Non-Par amounts of $14,500.00 and $45,675.00				
C.	Total Cost of Installation and Relocation/Replacements:		$350,175.00		$0.00
D.	Less Deductions:				
	1. Depreciation	$0.00		$0.00	
	2. Salvage Value	$0.00		$0.00	
	3. Betterments	$0.00		$0.00	
	4. Expired Service Life (Attach computation when applicable)	$0.00		$0.00	
E.	Total Deductions:		$0.00		$0.00
F.	Net Cost of Relocation (C minus E)		$350,175.00		$0.00
G.	Less Cost Sharing Arrangements:				
	1. $10,000 (similar to Sec. 264-33, H.R.S. e.g., privately owned facilities within highway right of way.	N/A		N/A	
	2. Amount for "extraordinary" items referred to in Item 5 below	$350,175.00		$0.00	
	3. Total of 1 and 2		$350,175.00		$0.00
	4. Net Amount (F minus G-3)		$0.00		$0.00
	5. City's share in Net Amount (50%)	$0.00		$0.00	
	Add: City's share for special improvements which have been deleted in Item 2, above	$350,175.00 *		$0.00	
H.	City's share in Total Cost of Relocation (Total of G-5)		$350,175.00		$0.00
I.	Utility's share in Total Cost of Relocation (C minus H)		$0.00		

* "Extraordinary" items are those items in which the City does not participate on the same basis percentage-wise. When applicable, attach description.

ESTIMATED REIMBURSEMENT:
1. Company to Citry (B Minus H) $0.00
2. City to Company (H minus B) $0.00

AMOUNT FOR FEDERAL PARTICIPATION (Item H) $0.00

6/26/2006
2:46 PM

CONSTPR P0001385
BA/G

December 3, 2007

Ken T. Morikami
Manager
Engineering Department

Mr. Eugene C. Lee, P.E.
Director
City & County of Honolulu
Department of Design and Construction
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Attention: Mr. Carleton Yap

Dear Mr. Lee:

Subject: Fort Street Mall & Hotel St. Sewer Replacement/Rehabilitation
Underground Ductline Relocation
Final Project Cost

Enclosed for your review and concurrence are HECO's final project costs and supporting documentation for the subject project.

HECO's total actual cost for the relocation of the underground ductline was $172,810.48. As agreed in the approved Proposal Letter dated February 20, 2007, the City shall contribute 25% of the actual costs incurred by HECO, which amounts to $43,202.62.

The following items are enclosed to substantiate HECO's total actual costs:

- Project Summary Report and Project/Work Order Detail Report
- HECO's Construction Services Contract with WASA Electrical Services
- WASA Electrical Services Invoices (total 3)
- WASA Electrical Services Electrical Guarantee dated August 6, 2007

Please notify us of your concurrence, and we will submit an invoice for the amount due.

If there are any questions regarding this, please contact Daven Lee at 543-7925.

Sincerely,

kk
Encls.
bcc: Daven Lee

February 20, 2007

Mr. Eldon Franklin
City & County of Honolulu
Department of Design & Construction
Wastewater Division
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Dear Mr. Franklin:

Re: Fort St Mall & Hotel St Sewer Replacement/Rehabilitation - Underground Ductline Relocation
HECO Project No: P0001385

This letter is in follow up to your telephone conversation with Hawaiian Electric Company's, Inc. (HECO's) Mr. Ken Morikami on February 14, 2007, and follows our earlier letter addressed to the City's Mr. Carleton Yap dated January 4, 2007 (copy enclosed) regarding the subject project. The City requested HECO relocate its existing electrical underground ductline due to conditions which brought the City's existing 10" sewer line located in Fort Street Mall, between King and Hotel streets, into conflict with our facilities.

HECO proposes to relocate its existing 12kV ductline between manhole #25B and the Campbell Vault #164. As the scope of its work, HECO will design, provide, install, and maintain the new underground ducts and cables; and remove the existing underground ducts and cables. HECO's work will be done at night.

HECO's current estimated project cost for this work, which includes our recent contractor bid, now ranges between $203,000 (estimated Best Case scenario) to $302,000 (estimated Worst Case scenario). The scope of work for the Best Case and Worst Case scenarios remains the same as previously described to Mr. Yap; please refer to our January 4, 2007 letter for more information on what we are characterizing as the Best Case and Worst Case scenarios for purposes of this cost discussion.

In our January 4, 2007 letter, we proposed that HECO pay 75% and the City pay 25% for the ductline relocation in recognition of two factors: a) that the problem with the sewer line elevation arose for unknown reasons; and b) that HECO did not provide a timely review of the City's project plans. We again note for the record that the sewer line elevation issue would have existed even if HECO's review had been timely.

We thank you for your consideration and cooperation in agreeing, during your telephone call with Mr. Morikami, that the City will contribute 25% of the cost, with HECO responsible for the remaining 75%. The cost sharing for this project should not be construed as an acknowledgment of fault by either party, nor shall it establish a precedent for future agreements between HECO and the City. The City's contribution of 25% of the final total project cost for HECO's work to relocate HECO's existing electrical duct line is non-refundable. Please note that this proposal does not include any costs associated with work and/or material by the City, its Consultant(s), and/or its Contractor(s); this proposal only includes costs within HECO's scope of work and responsibility.

The City acknowledges that HECO is not responsible for any delay or damage (including costs associated with re-scheduling their work) which may occur as a result of any contingencies that may arise. We require this proposal letter to be signed and returned to us prior to HECO starting work on this project. We will require full payment of the City's total non-refundable contribution amount promptly after the completion of this project. Please note that the proposed work is subject to prioritization and scheduling with other HECO work, including any emergency needs that may arise.

The above costs are based on HECO starting work and providing services not later then April 12, 2007. This proposal letter shall be null and void, and a new, revised proposal letter with a signature of approval will be required, if there is no response to this letter by March 12, 2007. HECO shall not be responsible for any delay or damage that may arise as a result of not being given sufficient notice to relocate its facilities.

Please note that the City shall be responsible for all approvals required for the relocation work. The City, its Consultant(s), and its Contractor(s) shall also be responsible for all coordination and shall provide necessary support for HECO's work, which may include, but not be limited to, a temporary bypass sewer line.

Please signify acceptance of the above scope of work and terms and conditions by having a duly authorized representative or representatives, delegated with proper signature/approval authority, sign in the space provided below. To expedite processing, we are including one extra copy of this proposal and request that the signed original be returned to us in the enclosed self addressed envelope.

Thank you again for your consideration and cooperation on this matter. In responding to this letter, please refer to the HECO project number shown above. If there are any questions, please contact Daven Lee who is the Design Engineer assigned to this project at 543-7925.

Sincerely,

KTM Harold K. Kageura
Vice President
Energy Delivery

Thomas L. Joaquin
Senior Vice President
Operations

Enclosures

Cc: Mr. Carleton Yap,
CDDC (no enclosures)

Approved: _____
Signature in Ink

Name of Signer: Eldon Franklin
Type or Print

Title: Division Chief Date: 2-27-07

Name of Company: City & County of Honolulu Phone: 768 8746

January 23, 2008

Mr. David Barge
Tesoro Petroleum Companies, Inc.
300 Concord Plaza Drive
San Antonio, TX 78216-6903

Dear Mr. Barge:

Re: Tesoro Hawaii Electrical Upgrade Project

This letter is Hawaiian Electric Company, Inc's. ("HECO") proposal in response to Tesoro Hawaii Corporation's ("Tesoro") November 16, 2005 email request and subsequent meetings thereafter relating to scope, schedule, and cost information for three (3) alternatives (Case 4A: constructing two 138kV feeds from Kalaeloa Substation, one from Bus A and one from Bus B; Case 5: splitting the Kalaeloa-Ewa Nui 138kV line and providing two 138kV feeds to two breaker and a half bays; and Alternative 2x305: splitting the existing 138kV breaker 305 feed from the Kalaeloa "B" bus to serve two 138kV circuit breakers.) for upgrading reliability to Tesoro's Kapolei facility. Since that time, the project scope has been determined to keep the feeds to Tesoro the same as prior to this project. Currently, Tesoro receives one 138kV feed from HECO's Kalaeloa substation from Bus B and one 46kV feed for HECO's CEIP substation from the CEIP 42 46kV line.

HECO proposes to complete the following work (including engineering, design, and project management where appropriate) based on the current understanding of Tesoro's Electrical Upgrade project:

<u>Tesoro's Kapolei and HECO's Kalaeloa substations</u>

- Tesoro to purchase and deliver to HECO's Ward Avenue complex, and HECO to install and test a new RTU at Tesoro's Kapolei substation within the meter shack.
- Tesoro to unwire and remove HECO's existing SCADA RTU cabinet and delivery to HECO's Ward Avenue complex.
- HECO shall provide testing support including hot phase testing and functional witness testing of Tesoro's new breakers and associated equipment. Review of 46kV equipment test reports.
- HECO shall participate in a collaborative effort with Tesoro the continuity checks and verification of functional tests of the interconnection wiring between the HECO and Tesoro owned facilities at Kalaeloa.
- HECO shall perform the required panel wiring at HECO's Kalaeloa substation.
- Provide the necessary testing technician as required during the energization of the Tesoro 52-B breaker and relay schemes at Kalaeloa.
- Provide the necessary testing technician as required to verify differential circuits when enough load is imposed on the system.
- Update HECO's Kalaeloa CAD drawings based upon red-line mark ups received from Tesoro

Telecommunication

- Tesoro to install HECO fiber optic line between Tesoro's Kapolei substation and HECO's Kalaeloa substation perimeter.
- HECO shall continue the installation of the fiber cable from a handhole within the HECO's Kalaeloa substation (along the perimeter) into the control house.
- Install telecommunication equipment at the following locations
  - HECO's Kalaeloa substation
  - Tesoro's Kapolei substation
  - HECO's Ward Avenue facility
  - HECO's CEIP substation
- HECO shall terminate and test HECO's new fiber optic cable (installed by Tesoro) at HECO's Kalaeloa substation and Tesoro's Kapolei substation.
- HECO shall setup and terminate an RTU circuit starting at Tesoro's Kapolei substation, going through HECO's Kalaeloa substation and ending at HECO's Ward Avenue facility.
- HECO shall install an off premise extension (OPX) starting at HECO's Ward Avenue facility, going through HECO's Kalaeloa substation, and ending at Tesoro's Kapolei substation.
- HECO shall install fiber optic jumpers at HECO's Kalaeloa substation and HECO's CEIP substation.

CEIP 42 46kV Line

- HECO shall reroute 46kV overhead line (CEIP 42) taps. Work includes the removal of the existing 3/0 conductors between joint pole JP15 on Komohana Street and the Tesoro's existing substation and installing new 3/0 conductors from JP15 to Tesoro's steel structure #4. New post insulators will also be installed on the west side of steel pole P.10 in order to complete the tap.

CEIP Substation

- Work at HECO's CEIP substation assumes the installation of two (2) Schweitzer Engineering Laboratories ("SEL") 311L relays (primary and backup) and purchase of one (1) spare relay (scope of work to be confirmed by the Interconnection Requirements Study will need to confirm the scope of work). This work also includes the removal of existing relays at HECO's CEIP substation.
- Current project scope does not include major work that may be required to provide additional relay upgrades and communications on the CEIP 42 46kV line, which may require additional work at HECO's CEIP and Tesoro's substation, or other affected parties.
- Current project scope does not include major panel rework, if required, at HECO's CEIP substation.

Metering Equipment at Kapolei Substation

- HECO shall purchase and install four (4) 3-phase, 4W, Q1000 meters, Form 9S and four (4) 10-pole test switches.

HECO has made the following assumptions:

- The Interconnection Requirements Study is not complete. Result may require changes to the proposed scope of work.

- Public Utilities Commission's approval is not required prior to the start of HECO's construction.
- The meter shack will have CDAX JungleMUX.
- The existing steel poles can accommodate the All-Dielectric Self Supporting ("ADSS") fiber optic cable overhead lines.
- Tesoro will create physical layout drawing of the meter shack.
- Tesoro will install all straps, clamps, and ADSS on steel poles as required.
- Tesoro will install ruggedized fiber optic line from meter shack to Tesoro's PDC building.
- Tesoro will provide ruggedized fiber optic preconnectorized jumper between PDC and Meter Shack (if required).
- CDAX JungleMUX can work with Floating 48V DC.
- Tesoro will provide 125V DC battery power including two DC/DC converters to 48VDC.
- HECO's CEIP substation panel area is large enough to support the required relays, test switches and associated equipment.

The total project cost estimate for HECO to perform the work herein including applicable taxes is **$525,000**. Tesoro will pay the following deposits based on this estimate:

1) Due along with the signed proposal letter - $200,000
2) Due 18-Feb-2008 - $150,000
3) Due 1-May-2008 or prior to HECO starting work on the CEIP 42 line- $175,000

HECO is currently continuing its engineering and detailed design. The final cost paid to HECO by Tesoro, including associated taxes, will be based on actual costs (HECO's time and materials costs). HECO will invoice Tesoro if the actual costs are greater than the deposits already paid by Tesoro or HECO will refund Tesoro the difference if the actual costs are less than the deposits already paid by Tesoro. If at any time the total project cost estimate changes, HECO will immediately inform Tesoro of the change, provide supporting detail, and revise the deposit amounts due to either equally increase remaining deposit payments from Tesoro if estimates increase or reduce deposit payments from Tesoro or refund excess deposits to Tesoro if expected costs decrease. HECO will provide cost reports to Tesoro monthly.

The above costs are based on HECO starting work and providing services immediately. Work is scheduled to be complete in two phases. The first phase is considered to be the work required to connect the Tesoro's Kapolei substation to HECO's Kalaeloa substation. The second phase is considered to be the work required to connect the Tesoro's Kapolei substation to HECO's CEIP substation. The first phase is scheduled to be completed in March 2008 and the second phase is scheduled to be completed in July 2008. This proposal letter shall be null and void and a new revised proposal letter will require a signature of approval if there is no response to this letter by ~~January 18,~~ February 8 2008. HECO shall not be responsible for any delay or damage that may arise as a result of not being given sufficient notice to install its equipment; moreover, all scheduling is subject to change due to prioritization, coordination with other HECO work, system conditions, and weather. fax

Please note that these costs and timeframes assume that Tesoro will plan, design, procure the necessary materials and equipment, and construct their electrical and civil/structural infrastructure per HECO's requirements and agreed upon review. **As a result, these costs and schedules are not included in the above estimate.** Tesoro shall be responsible for all permits and approvals for the project. In addition, Tesoro and/or its contractor(s) shall provide necessary support for HECO's work, which may include, but not be limited to, construction of the meter shack at Tesoro's Kapolei Substation, installation of fiber optic cables between HECO's Kalaeloa Substation and Tesoro's Kapolei Substation, purchase and delivery of HECO's RTU, purchase and installation of meter

cabinets, potential and current transformers, RTU termination cabinet, and DC power source, and verification of data required to complete the Interconnection Requirements Study.

In the event that Tesoro deems this upgrade project to be unnecessary, Tesoro shall provide prompt notice to HECO of its cancellation. If for any reason the project is canceled prior to its full completion, HECO shall be entitled to compensation (i.e. retention of advance payments set forth below) for all costs and expenses incurred by HECO (including but not limited to planning, engineering, and other labor costs; costs to purchase equipment and materials; any cancellation or interest charges incurred; and reasonable demobilization and administrative costs to close out the project) up to the time that HECO is notified in writing that the project is canceled.

Tesoro and/or its contractor shall exercise due care and precaution to avoid damage to HECO's facilities and shall work cautiously at all time to prevent accidents. Tesoro and/or its subcontractor shall be responsible for any damage to HECO's facilities as a result of its operations. In addition, Tesoro shall, to the extent of its negligence or willful misconduct, indemnify, defend and hold harmless HECO from and against all losses, damages, claims, and actions, including but not limited to reasonable attorney's fees and costs based upon or arising out of damage to property or injuries to persons, or other tortuous acts caused or contributed to by Tesoro or anyone acting under its direction or control or on its behalf; provided Tesoro's indemnity shall not be applicable to the extent of any liability based upon the negligence of HECO.

Please signify your acceptance of the proposed terms and conditions by having a duly authorized representative (or representatives), delegated with proper signature/approval authority, sign in the space provided below. Please also include your deposit of two hundred thousand dollars ($200,000.00) payable to the Hawaiian Electric Company, Inc. To expedite the processing, we are including one extra copy of this letter and request that a signed original be returned to HECO in the enclosed self-addressed envelope. Upon HECO receipt of the letter, HECO will continue with the agreed-upon work.

Craig Naito is the project manager assigned to this project. If you have any questions, please contact him at (808) 543-7533.

Sincerely,

Harold K. Kageura
Vice President, Energy Delivery

Thomas C. Simmons
Vice President, Power Supply

CSN:kk

Enclosures

Approved: Frank Clous
Signature in Ink

Name of Signer: Frank Clous
Type or Print

Title: V.P. Refining Date: 1/29/2008

Name of Company: Tesoro Phone: 808-479-0508

Customer Estimated Contribution: **$200,000** (HECO's work)

GL Code 27100000

January 18, 2008

Mr. Robert Bruhl
D.R. Horton, Schuler Division
828 Fort Street Mall, 4th Floor
Honolulu, HI 96813

Dear Mr. Bruhl,

Re: Makakilo C&D – Phase 1: 46/12kV Underground
HECO Preliminary Work Order Number: EE012443

Hawaiian Electric Company, Inc. ("HECO") is pleased to submit this letter agreement to D.R. Horton, Schuler Division ("DRH") in response to your request to convert existing HECO overhead 46kV sub-transmission and 12kV distribution lines (approximately 950 circuit feet) to underground within the project area of DRH's proposed Makakilo C & D – Phase 1 development (the "Project").

The subject 46/12kV lines are located between existing poles P8 (located along Makakilo Drive, at the existing driveway for the Easter Seals property and church) and P32 (located within the Makakilo Nursery property). As you are aware, this section of the existing overhead lines is currently covered by easement R/W 62-49. This easement is perpetual with a one-time relocation clause at HECO's expense.

For this work, HECO will provide, install, and maintain two (2) 50' wood poles; one (1) 65' wood pole; two (2) 75' wood poles; seven (7) 1" x 8' anchors; two (2) 46kV risers and terminations; two (2) 12kV risers and terminations; approximately 167 circuit feet of 3 phase 46kV conductors; approximately 150 circuit feet of 3 phase 12kV and neutral conductors; and approximately 950 circuit feet of 3-phase 46kV and 12kV underground cables and associated splices. Once the relocated lines are in place, HECO will remove seven (7) existing wood poles, associated anchors and guy wires, and approximately 981 circuit feet of 3 phase 46kV, 3 phase 12kV and neutral conductors.

This relocation work shall be subject to the following conditions:

1. DRH and/or its consultant(s)/contractor(s) shall obtain and comply with all necessary permits and approvals for the Project.

2. DRH and/or its consultant(s)/contractor(s) shall provide the necessary support for HECO's relocation work, which may include, but not be limited to, providing existing and finish grades at pole and anchor locations; grading the area to finish grade prior to HECO setting its relocated poles and anchors; surveying and staking out property lines and HECO's proposed pole and anchor locations; providing a staging area for construction; and providing

necessary vehicular access to the area as needed for the installation and maintenance of HECO's electrical facilities.

3. DRH shall provide to HECO, upon initiation of the Project, a mutually agreeable written project schedule taking into account the time needed to complete the overall Project.

4. DRH will be responsible to plan, design and procure the necessary materials and equipment, construct and install per HECO requirements all Infrastructure for the HECO-owned electrical facilities (e.g., trench excavation; dewatering; backfill and repavement/restoration; ductlines; manholes) and comply with applicable HECO standard plans, specifications, requirements and guidelines for the construction of all electrical Infrastructure. HECO's obligation to complete the project work is contingent upon DRH's work being fully completed to the standards and reasonable satisfaction of HECO, and obtaining the required Public Utilities Commission (PUC) approval. Once construction of the Infrastructure is completed and accepted by HECO, HECO's electrical facilities are installed and energized by HECO, and the appropriate PUC approvals are acquired, ownership and control of the Infrastructure will be turned over to HECO. Until such time, DRH shall maintain ownership of the Infrastructure.

5. DRH and/or its contractor(s) shall submit for review and concurrence by HECO, DRH's design and construction plans for all Infrastructures for the HECO-owned electrical facilities.

6. Since DRH will be responsible for designing and construction of the Infrastructure, this proposal does not include any costs associated with work and/or material by DRH and/or its contractor(s). However, we request that the following be transmitted to HECO immediately after determination: 1) the itemized estimated cost for the Infrastructure after such scope has been determined; and 2) the itemized bid price for the Infrastructure after the Project construction contract has been awarded.

7. DRH and/or its consultant(s)/contractor(s) shall schedule and allow for HECO field inspection of all Infrastructure facilities during construction.

8. DRH shall provide to HECO within three (3) months of completed construction, two (2) sets of detailed and accurate as-built drawings of the Infrastructure, including stationing, offsets, and vertical elevation of the ductline, and the itemized actual cost for the Infrastructure.

9. Attached are copies of HECO's latest construction notes for guidance when working near HECO's electrical facilities. DRH and/or its consultant(s) shall include these notes in their construction plans and DRH's contractor(s) shall comply with applicable notes.

10. Changes to the Project scope of work proposed by either party and which affect the scope of work and responsibilities of the other party shall be mutually agreed upon.

11. In the event that DRH deems this relocation to be unnecessary, DRH shall provide prompt notice to HECO of cancellation of this Project. If for any reason the Project is canceled prior to its full completion, HECO shall be entitled to compensation (i.e. retention of advance payments set forth below) for all costs and expenses incurred by HECO (including but not limited to planning, engineering, and other labor costs; costs to purchase equipment and materials; any cancellation or interest charges incurred; and reasonable demobilization and

administrative costs to close out the Project) related to the Project up to the time that HECO is notified in writing that the Project is canceled. The Project shall be deemed canceled if delayed for six (6) or more months due to action or inaction by DRH, its consultants or contractors.

12. If for any reason not caused by HECO, the Project is delayed, DRH may be subject to, among other costs or expenses incurred by HECO in the performance of its obligations related to this Project, such reasonable carrying or inventory costs used to hold and reserve materials purchased for the Project, the cost of funds for expenses incurred (i.e., Allowance for Funds Used During Construction), and costs to re-engineer or re-mobilize construction crews due to the delay.

13. This project will require PUC approval of a waiver of HECO's Tariff Rule 13 in order for HECO to give DRH the overhead reproduction credit for the "one time relocation at HECO's cost" provision in the easement document covering this part of the line. In addition, this project may require (1) a PUC public hearing for the overhead construction of a 46 kV or higher line through a residential area, pursuant to Hawaii Revised Statutes (HRS) § 269-27.5, and (2) a PUC determination that the relocated 46 kV line be constructed below the surface of the ground, pursuant to HRS § 269-27.6(a). **HECO will not order materials, start construction or provide construction inspection services until the requisite PUC approvals are received. The PUC public hearing and approval process is estimated to take between 6 and 9 months, but could take longer depending on the timing and the workloads of the various regulatory groups.** HECO will initiate engineering design and the PUC approval process upon receipt of this accepted proposal.

14. **DRH agrees that the overhead reproduction credit for the "one time relocation at HECO's cost" provision in the easement document covering this part of the line shall be provided by HECO only after HECO obtains PUC approval of a waiver of HECO's Tariff Rule 13. Should the PUC require alteration or modification of the design of the relocated lines, or determine otherwise, DRH shall be responsible for the entire cost for the undergrounding, will not receive any refund or relocation credits, and will bear full responsibility for all costs incurred by HECO, including but not limited to any redesign or additional material costs.**

15. If DRH is willing to waive the overhead reproduction credit of $235,600, then HECO would not need to obtain PUC approval of a waiver of HECO's Tariff Rule 13, as stated in Item 13 above. As a result, HECO estimates that its schedule would be shortened by approximately 5 months.

16. DRH will be required to provide substitute easements, in HECO's favor, for the relocated alignment. The relocation of the overhead lines to these substitute easements will satisfy the "one time relocation at HECO's cost" provision in the easement document. The substitute easements shall be perpetual, with no right of relocation at HECO expense, and in a form satisfactory to HECO. HECO is able to assist DRH in documenting and processing the easements. Prior to the installation of HECO's electrical facilities, HECO will require either (1) agreement on the form of the grant of easement and execution of a Construction Right of Entry agreement by DRH; or (2) execution of the formal grant of easement document. Please note that HECO's execution of the Construction Right of Entry is

contingent on HECO obtaining certain approvals/assurances from the various landowners affected.

17. **Environmental Review** The Department of Transportation - Highways Division (DOT-Hwys) recently instituted a new policy (the "DOT Policy") regarding environmental review of proposed work in the state right of way (ROW). The DOT Policy applies to work done in the ROW to support a new or expanded project outside the ROW. The DOT Policy does not appear to apply to this proposal. However, please note that the DOT Policy will apply to the separate project to install the second 12kV circuit to service the development because the work HECO proposes to do in the ROW will support the Project outside the ROW. Under the DOT Policy, DOT-Hwys will not issue HECO a permit for the work in the ROW unless there is a certification that the project outside the ROW complies with Hawaii Revised Statutes (HRS) Chapter 343, Hawaii's environmental review law. Attached is a copy of the DOT-Hwys letter to the City and County of Honolulu Department of Planning and Permitting that sets forth the DOT Policy.

In order for HECO to obtain a permit from DOT-Hwys to do the work in support of the Project, DRH shall provide HECO the certification described in the DOT Policy so that HECO can submit it to DOT-Hwys with the application for a permit.

The cost for HECO's work to do the undergrounding as stated above is **$670,000**, which includes State General Excise Tax (GET) of 4.712%. HECO will require an initial payment of $134,000 (20% of the total non-refundable contribution) to begin engineering, detailed design and to provide construction inspection services. A payment of $268,000 will be due when the materials required for this project need to be ordered. The remaining balance of $268,000 will be required at least six (6) weeks before HECO begins its construction for this project. Should the PUC grant HECO a waiver of Rule 13 of HECO's tariff, the overhead reproduction credit of $235,600 for the "one time relocation at HECO's cost" provision in the easement document covering this part of the line will be promptly refunded to DRH; otherwise, if the PUC does not grant a waiver (or a waiver is not requested per Item #15), DRH shall bear all costs as stated above.

This proposal letter shall be null and void and a new revised proposal letter will require a signature of approval if there is no response to this letter by February 29, 2008, or if our Company is unable to proceed with construction by December 1, 2008.

This project would require an estimated lead time of twelve (12) months in order to complete the design and construction of the relocation work and will be subject to prioritization, scheduling with other HECO work, system conditions and weather. This time estimate is predicated on DRH's prompt compliance with Chapter 343 and any applicable agency policy on environmental review. Any delay in Chapter 343 compliance may result in a corresponding delay in the estimated time required to complete the proposed work.

The following is a breakdown of the estimated time to complete the various stages of the project:

1.	HECO Design (follows written commitment from DRH)	6 months
2.	PUC submittal (first 6 months concurrent with HECO design)	9 months

3.	Ordering of Materials	6 months
4.	Construction of HECO's electrical facilities (Does not include Infrastructure to be constructed by DRH and turned over to HECO)	2 months
Total Estimated Time Required		17 months

The following is a breakdown of the estimated time to complete the various stages of the project if PUC approvals are not required:

1.	HECO Design (follows written commitment from DRH)	6 months
2.	Ordering of Materials (concurrent with last 4 mos. of HECO design)	6 months
3.	Construction of HECO's electrical facilities (Does not include Infrastructure to be constructed by DRH and turned over to HECO)	2 months
Total Estimated Time Required		12 months

Permanent power for the development is expected from the Makakilo and Kamokila substations. Should the second 12kV feed from Kamokila substation not be ready in time for permanent service to the development, a second temporary 12kV riser may be required. Please note that we have not reviewed drawings with respect to the location of the service and metering equipment, etc. Any installation or removal work related to electrical service (as distinguished from this transmission and delivery undergrounding project) will be handled by our Customer Installations Department. DRH is responsible for submitting separate service requests for the delivery of electrical service directly to HECO's Customer Installations Department and coordinating directly with the respective Customer Designer(s) for the service-related work.

Please signify your acceptance of the above scope of work and terms and conditions by having a duly authorized representative or representatives, delegated with proper signature/approval authority, sign in the space provided and indicate if you wish to waive the overhead reproduction credit of $235,600 for this project. To expedite the processing, we are including one extra copy of this letter and request that the signed original along with your check for $134,000, be returned to us in the enclosed self-addressed envelope. This proposal, upon acceptance by DRH, constitutes the entire understanding between the parties for this project. DRH and HECO agree to indemnify and defend the other against all claims, suits, actions, loss, damage, expense and liability (including but not limited to reasonable attorneys' fees and costs) for injury or harm to persons (including death) or third party tangible property to the extent resulting from or arising out of the negligence or willful misconduct of the indemnifying party and anyone acting under its respective direction or control its employees, agents, or subcontractors for purposes of this project. HECO's commitments under this agreement are contingent upon any and all required PUC approvals, if necessary, and upon receipt of acceptable regulatory approval, shall be fully binding upon the parties hereto and their representatives, successors and assigns.

Dustin Nakamoto is the Engineering Department Designer assigned to this project. If you have any questions, please contact him at 543-7763.

Sincerely,

Harold K. Kageura
Vice President
Energy Delivery

Thomas L. Joaquin
Senior Vice President
Operations

Enclosures

cc: Francis Hirakami (MK Engineers)
Ryan Hashiro (Bennett Engineers)

Approved: _____
Signature in Ink

Name of Signer: Michael T. Jones
Type or Print

Title: Division President Date: 01/23/2008

Name of Company: D.R. Horton - Schuler Division Phone: 521-5661

20% of Customer Contribution: $134,000
Total Customer Contribution: **$670,000**

_____(initial) DRH acknowledges that any refunds or credits to DRH are subject to PUC approvals; otherwise, DRH shall be responsible for the entire cost for the undergrounding and all costs incurred by HECO.

_____(initial) DRH agrees to waive the overhead reproduction credit of $235,600 for this project. As a result, HECO will not request PUC approval of a waiver of Tariff Rule 13.

GL Code 27100000
Easement required
Trans

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE: J

PAGE 1 OF PAGES 3

2. AMENDMENT/MODIFICATION NO.: P00397

3. EFFECTIVE DATE: 11-Mar-2008

4. REQUISITION/PURCHASE REQ. NO.:

5. PROJECT NO. (If applicable):

6. ISSUED BY CODE N62742
NAVFAC PACIFIC
SPECIAL PROJECT CONTRACTS BR (AC/022)
258 MAKALAPA DR STE 100
PEARL HARBOR HI 96860-3134

7. ADMINISTERED BY (If other than item 6) CODE
See Item 6

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)
HAWAIIAN ELECTRIC COMPANY INC
ERIC SHIMONO
PO BOX 2750
HONOLULU HI 96840

CODE 6F939 FACILITY CODE

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

X 10A. MOD. OF CONTRACT/ORDER NO. N62742-68-C-0001

X 10B. DATED (SEE ITEM 13) 01-Jul-1948

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer ☐ is extended, ☐ is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
FAR 43.103(a)(3), Mutual Agreement of the Contracting Parties

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, [X] is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: tanakale081209
CONTRACT NO. N62742-68-C-0001, UTILITY SERVICE CONTRACT FOR ELECTRIC SERVICE TO ALL ACTIVITIES OF THE NAVY, ARMY, AND THE AIR FORCE, OAHU, HAWAII

(See page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)
Harold K. Kageura
Vice President, Energy Delivery

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
TEL: (808) 471-4178 EMAIL: annette.chun@navy.mil

15B. CONTRACTOR/OFFEROR
(Signature of person authorized to sign)

15C. DATE SIGNED 3/10/08

16B. UNITED STATES OF AMERICA
BY
(Signature of Contracting Officer)

16C. DATE SIGNED 11-Mar-2008

N62742-68-C-0001

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:

1. The Contractor (Hawaiian Electric Company (HECO)) shall provide and connect circuit breaker control cabling between Mamala Substation and the Air Force Switching Station, and design and install a transformer paralleling scheme for the Mamala Substation transformers, Hickam Air Force Base, Hawaii. The Contractor shall perform the work in accordance with the attached Revised Scope of Work dated 12 December 2007.

2. The Government has fully relied upon the statements, information, and attachments set forth in HECO's proposal dated 10 January 2008 and Amendment 1 to HECO's proposal dated 24 January 2008 in determining the price fair and reasonable. HECO's proposal along with Amendment 1 is hereby incorporated into this modification, unless stated otherwise within this modification.

3. HECO agrees to submit invoices to the Navy upon verification of completion of specified requirements by the Government. The following progress payment schedule is hereby incorporated into this modification:

Requirement	Amount
Completion of Control Cable Installation	$7,183
Completion of Paralleling Scheme	$64,410
Total:	$71,593

4. The attached List of Clauses is hereby made a part of this modification for this particular contracting effort.

5. The total amount of this modification is $71,593. This amount is the Contribution-In-Aid of Construction (CIAC) required by the Government for this work. The CIAC is for additional costs incurred for the installation of special facilities that are in addition to the standard facilities normally provided by HECO.

6. Please submit invoices to the address listed in Block 6 of the SF 30 for the non-recurring charge on Modification P00396. The Paying Office Address for the non-recurring charge is as follows:

DFAS Cleveland
Norfolk Accounts Payable
P. O. Box 998022
Cleveland, OH 44199

7. Acceptance of this modification by the Contractor constitutes an accord and satisfaction and represents payment in full for both time and money for any and all cost, impact effect, and for delays and disruptions arising out of, or incidental to, the work as herein revised.

8. All other terms and conditions remain unchanged.

ACCOUNTING AND APPROPRIATION DATA:

E7 57 06103300 25FB 094626 21 WX3JR9 73466094	$40,000.00
E8 57 06103300 0000 25FB 4LG50 H 094626 21 WX3JR9 80562970	$31,593.00
	$71,593.00

LIST OF CLAUSES

FAR 52.236-2 Differing Site Conditions (Apr 1984)

FAR 52.243-4 Changes (Aug 1987)

FAR 52.233-1 Disputes (Jul 2002)

Supplement to FAR 52.233-1, Disputes (Jul 2002):

"Retail Rates, Rate Schedules, and Items Directly Related to Rates and Rate Schedules"

"In regard to the interpretation of HECO's tariff, retail rates, rate schedules, and items directly related to rates and rate schedules arising under the tariff, the Contracting Officer will accept as authoritative any applicable rulings, interpretations or authorizations of any statewide public utility regulatory authority with jurisdiction over the contractor; provided however, that nothing herein waives the Air Force's right to assert sovereign immunity."

Date: 12 Dec 2007

Attached and Made Part of
Contract N62742-68-C-0001

REVISED SCOPE OF WORK
PROVIDE AND CONNECT BREAKER CONTROL CABLING BETWEEN MAMALA SUBSTATION AND AIR FORCE SWITCH STATION,
HICKAM AIR FORCE BASE, HAWAII

1. Install and connect various control cables between HECO Mamala Substation and 12 kV circuit breakers in Air Force Switching Station. Also develop and implement a transformer paralleling scheme for Mamala Substation.

2. Control cabling installations includes but is not limited to:

a. One 4/C #10 cable from HECO substation interface point to Air Force MA switchgear cubicle #3. Terminate at CT terminal blocks designed for HECO Bus Differential relaying, circuit breaker (CB) #3DB.

b. One 4/C #10 cable from HECO substation interface point to Air Force MB switchgear cubicle #7. Terminate at CT terminal blocks designed for HECO Bus Differential relaying, CB #7DB.

c. A control cable with an 86B trip contact from HECO substation interface point to Air Force MA switchgear cubicle #3. Terminate to trip Air Force CB #3DB.

d. A control cable with an 86B trip contact from HECO substation interface point to Air Force MB switchgear cubicle #7. Terminate to trip Air Force CB #7DB.

e. A control cable with an 86B trip status connection from HECO substation interface point to Air Force MA switchgear cubicle #3.

f. A control cable with an 86B trip status connection from HECO substation interface point to Air Force MB switchgear cubicle #7.

g. A control cable with an 86B blocking contact connection from HECO substation interface point to Air Force MA switchgear cubicle #3.

h. A control cable with an 86B blocking contact connection from HECO substation interface point to Air Force MB switchgear cubicle #7.

i. A control cable with a 52A contact from HECO substation interface point to Air Force MA switchgear cubicle #3. Connect to indicate status of Air Force CB #3DB.

j. A control cable with a 52A contact from HECO substation interface point to Air Force MB switchgear cubicle #7. Connect to indicate status of Air Force CB #7DB.

Date: 12 Dec 2007

Attached and Made Part of
Contract N62742-68-C-0001

REVISED SCOPE OF WORK
PROVIDE AND CONNECT BREAKER CONTROL CABLING BETWEEN MAMALA SUBSTATION AND AIR FORCE SWITCH STATION,
HICKAM AIR FORCE BASE, HAWAII

3. Transformer paralleling scheme includes but is not limited to:

a. Design, provide, install, own and maintain the transformer paralleling equipment on transformers #1 and #2 in Mamala Substation.

b. Provide, install, and terminate control cabling between Mamala Substation transformers (#1 and #2), yard interface cabinet, and the Air Force's Back Station switchgear that are required to implement the transformer paralleling scheme. Note: HECO to contract termination of control cabling in the Air Force's switchgear with an Air Force approved contractor.

4. Update drawings to reflect relay and status connections. Provide as-built drawings for the work to be done on the Air Force's switchgear to accommodate the transformer paralleling scheme.

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

June 6, 2005

Mr. Jeffrey Dinsmore
Victoria Ward, Ltd.
1240 Ala Moana Blvd, Suite 601
Honolulu, Hawaii 96814

Dear Mr. Dinsmore,

Subject: Overhead to Underground Conversion of HECO's Existing 12kV and Secondary Lines Along Ala Moana Boulevard Between Kamakee Street and Ward Avenue

This Letter Agreement is in follow-up to our Informational Letter sent on June 3, 2004, and signed by you on June 11, 2004, signifying your commitment to this project (see attached). In the June 2004 letter, HECO provided a rough cost estimate for the underground conversion of $740,000. This was a rough estimate and was not based on detailed engineering or actual material and equipment costs for the project.

Subsequent to the June 2004 letter, HECO proceeded with the detailed design, development of the construction plans and preparation of a detailed cost estimate.

I. Cost Estimate

HECO's estimated cost for the underground conversion based on detailed engineering design is $954,000 of which General Growth Inc. (Victoria Ward, Ltd.) cost sharing contribution **estimate** is $456,000.

The 12kV Underground Conversion cost estimate assumes the installation of:

1) 104 feet of 4-4" underground ducts
2) 5 feet of 3-4" underground ducts
3) 1,273 feet of 2-4" ducts
4) 30 feet of 1-4" duct
5) 37 feet of 2-2" and 1-3" ducts
6) Three 3' X 5' handholes
7) One 2' X 4' handhole
8) 4,705 circuit feet of 3-1/C 1/0 PEICN 25kV cables
9) 115 circuit feet of 3-1/C #2 PEICN 15kV cables
10) 420 circuit feet of 1-1/C 1/0 PEICN 25kV cable
11) 120 circuit feet of 3-1/C 500 kcm secondary cable
12) 300 circuit feet of 2-1/C 350 kcm triplex secondary cable
13) One 3-phase padmounted transformer
14) Four 1-phase padmounted transformers

WINNER OF THE EDISON AWARD
FOR DISTINGUISHED INDUSTRY LEADERSHIP

The estimated cost breakdown for 12kV Underground Conversion is shown below:

AFUDC:	$28,000
Labor:	$232,000
Material:	$128,000
Outside Services:	$566,000
TOTAL:	$954,000

Infrastructure Construction Costs:

QTY	ITEM	COST
104 LF	Ductline, 4-4" Concrete Encased (see note 1)	$18,000
5 LF	Ductline, 3-4" Concrete Encased	$1,000
1,273 LF	Ductline, 2-4" Concrete Encased	$181,000
30 LF	Ductline, 1-4" Concrete Encased	$4,000
37 LF	Ductline, 2-2" & 1-3" Concrete Encased	$5,000
3	Handhole, 3' X 5'	$24,000
1	Handhole, 2' X 4'	$3,000
1	3-Phase Transformer Pad	$2,000
4	1-Phase Transformer Pad	$4,000
	Miscellaneous (see note 2)	$172,000
	Contingency (see note 3)	$42,000
	TOTAL	**$456,000**
	20% Payment	$91,200
	Less Initial Payment	$74,000
	Payment Due	**$17,200**

Notes:

1) For joint ductbanks, General Growth Inc. (Victoria Ward, Ltd.) cost is the percentage of the ductbank that has been added solely for the underground conversion. This percentage ranges from 28 to 37%. For the laterals that are solely required for the underground conversion, General Growth Inc. (Victoria Ward, Ltd.) will be responsible for 100% of the costs of the entire ductbank.

2) Miscellaneous costs includes 34% of the total cost associated with mobilization, demobilization, site restoration, traffic control, clean up and testing, replacing traffic sensor loops, re-striping and pavement markers and temporary sediment control filters. 34% represents the approximate percentage of the total infrastructure cost that is attributed to the underground conversion.

3) A 10% contingency to account for unknown subsurface conditions.

II. Actual Bid Costs

The cost shown above is an estimate. Per our meeting on February 16, 2005, General Growth Inc. (Victoria Ward, Ltd.) will be billed for the **actual** infrastructure costs based on the percentages described above in Notes #1 and #2. Note that the actual costs could be higher or lower than the amount estimated above. Once PUC approval is obtained, HECO will inform General Growth Inc. (Victoria Ward, Ltd.) and will request that General Growth Inc. (Victoria Ward, Ltd.) make a payment for the balance. This balance will be due at least four weeks prior to the start of infrastructure construction.

At the completion of construction, HECO shall submit a final cost report. Four weeks after submitting this report, final payment shall be made by General Growth Inc. (Victoria Ward, Ltd.) if necessary. The final cost report will include any contractor change orders processed during the construction period. General Growth Inc. (Victoria Ward, Ltd.) will be assessed its share of these costs. In the event the final costs are lower than expected, HECO shall refund General Growth Inc. (Victoria Ward, Ltd.) the difference.

Under HECO's cost sharing program, HECO will be paying for the electrical facilities for the underground conversion. HECO's share is estimated to be $498,000.

III. Easement Acquisition

The Informational Letter sent on June 3, 2004 requires that General Growth Inc. (Victoria Ward, Ltd.) has the responsibility of obtaining all easements in a form satisfactory to HECO. Per our meeting on February 16, 2005, HECO will work with the necessary parties to obtain all easements. However, HECO requests that General Growth Inc. (Victoria Ward, Ltd.) provide assistance as necessary to obtain these easements.

IV. Next Steps

Please signify your understanding of this commitment by having a duly authorized representative(s) of General Growth Inc. (Victoria Ward, Ltd.), delegated with signature/approval authority based on the estimated cost of the Underground Conversion, sign in the spaces provided below. We include an extra copy of this Letter Agreement for your records and request that the signed original *and your payment of $17,200* be returned to us in the enclosed self-addresses envelope. The proposal contained in this Letter Agreement shall be null and void if your signed commitment is not received by HECO by July 15, 2005.

This Letter Agreement for the proposed Underground Conversion shall be contingent upon receiving any and all required PUC approvals, and only upon receipt of such PUC approvals shall it be binding on HECO and General Growth Inc. (Victoria Ward, Ltd.). HECO is diligently pursuing such necessary PUC approvals by filing its application with the PUC in the near future. Construction is currently expected to begin in January 2006 with completion scheduled for June 2006.

If you have any questions, please call Earlynne Oshiro at 543-7825.

Attachment

Sincerely,

KM
KN

Harold K. Kageura
Vice President, Energy Delivery

Thomas L. Joaquin
Senior Vice President, Operations

Approved: _____ 4/15/05
Signature in ink Date

Print Name: Jeffrey C. Dinsmore

Title: VP-Development, Hawaii Region

Organization: General Growth Properties, Inc.

Approved: _____ _____
Signature in ink Date

Print Name: _____

Title: _____

Organization: _____

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
UTILITY PAYMENT STANDARDS COMPARISON
UTILITY COST ESTIMATE No. 1939

PERMANENT NON-CIVIL SUIT

Project: North Kahana Stream Bridge Replacement
Proj. No.: ~~FAP No.~~ 83D-01-01 ;
FAP No. BR-083-1(53)

Utility: Hawaiian Electric Company, Inc.
Prepared By: _____ Proj. Engr.: I. Lee
Administrator: _____ Lead Engr.: C. Chang
Date: 23-Aug-06 Principal Engr.: P. Nakagawa

		STATE STANDARDS		FEDERAL STANDARDS (PPM 30-4)	
A.	Work/material by the Company and/or its contractor	$461,060.00			
B.	Work/material by the State and/or its contractor	$0.00			
C.	Total Cost of Relocation/Replacements:		$461,060.00		
D.	Less Deductions:				
	1. Depreciation	$25,971.00			
	2. Salvage Value	$1,728.00			
	3. Betterments	$0.00			
	4. Expired Service Life (Attach computation when applicable)	$0.00			
E.	Total Deductions:		$27,699.00		
F.	Net Cost of Relocation (C minus E)		$433,361.00		
G.	Less Cost Sharing Arrangements:				
	1. $10,000 (only if required by Sec. 264-33, H.R.S. e.g., privately owned facilities within highway right of way.	$10,000.00			
	2. Amount for "extraordinary" items referred to in Item 5 below	$0.00			
	3. Total of 1 and 2		$10,000.00		
	4. Net Amount (F minus G-3)		$423,361.00		
	5. State's share in Net Amount (50%)	$211,680.50			
	Add: State's share for special improvements which have been deleted in Item 2, above	$0.00			
H.	State's share in Total Cost of Relocation (Total of G-5)		$211,680.50		
I.	Utility's share in Total Cost of Relocation (C minus H)		$249,379.50		

Extraordinary items are those items in which the State does not participate on the same basis percentage-wise. When applicable, attach description.

ESTIMATED REIMBURSEMENT:
1. Company to State (B Minus H) $0.00
2. State to Company (H minus B) $211,680.50

AMOUNT FOR FEDERAL PARTICIPATION (Item H) _____

8/23/2006
9:14 AM

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DOT 4-232
(HWY-RL 6/00)

UTILITY COST ESTIMATE FOR UTILITY AGREEMENT 1883

Project: ___ Kalanianaole Highway Improvements
___ Retaining Wall at Makapuu
Project No.: NH-072-1(51)

Utility Co.: _____ Hawaiian Electric Company, Inc.
Prepared by: _____ Date: _____
Checked by: _____ Date: _____

UTILITY PAYMENT STANDARDS COMPARISON

	STATE STANDARDS		FEDERAL STANDARDS (FAPG Sec. 645.117)	
A. Work/material by Utility Company and/or its Contractor	$294,323.00			
B. Work/material by State and/or its Contractor	$313,157.00			
C. Total Cost of Utility Work (A+B)		$607,480.00		$569,223.00
D. Less Deductions:				
1. Depreciation	$0.00		$0.00	
2. Salvage Value	$572.00		$0.00	
3. Betterments	$34,007.82		$0.00	
E. Total Deductions (D1+D2+D3)		$34,579.82		$0.00
F. Net Cost of Relocation (C minus E)		$572,900.18		$569,223.00
G. Less Cost Sharing Arrangements:				
1. $10,000 (only if required by H.R.S. Section 264-33, e.g., privately owned facilities within the highway right-of-way)	$10,000.00		$10,000.00	
2. Amount for Extraordinary* Items referred to in Item J	$83,792.00		$0.00	
3. Total (G1+G2)		$93,792.00		$10,000.00
H. Net Amount (F minus G3)		$479,108.18		$559,223.00
I. State Share in Net Amount [50%]	$239,554.09		$279,611.50	
J. State's Share for Extraordinary* Items which have been deleted from G2	$83,792.00		$0.00	
K. State's Share in Total Cost of Utility Work (I+J)		$323,346.09		$279,611.50 (Amount for Fed Par)
L. Utility's Share in Total Cost of Utility Work (C minus K)		$284,133.91		

* Extraordinary Items are special improvements in which the State does not participate on the same basis, percentagewise. Attach a description.

ESTIMATED REIMBURSEMENT		FEDERAL SHARE
Utility Company to State (B minus K)	$0.00	$230,623.57 (K x Fed Par Rate)
State to Utility Company (K minus B)	$10,189.09	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
UTILITY PAYMENT STANDARDS COMPARISON
UTILITY COST ESTIMATE No. 1964

PERMANENT NON-CIVIL SUIT

Project: North South Road Phase 1B
Proj. No.: FAP No. STP-8930(3)

Utility: Hawaiian Electric Company, Inc.
Prepared By:
Administrator:
Date: 03-May-07

Proj. Engr.: D. Nakamoto
Lead Engr.: R. Tamayo
Principal Engr.: P. Nakagawa

		OVERHEAD		UNDERGROUND	
A.	Work/material by the Company and/or its contractor	$32,104.00		$328,033.00	
B.	Work/material by the State and/or its contractor	$0.00		$212,550.00	
C.	Total Cost of Relocation/Replacements:		$32,104.00		$540,583.00
D.	Less Deductions:				
	1. Depreciation	$27,276.00		$0.00	
	2. Salvage Value	$85.00		$0.00	
	3. Betterments	$0.00		$0.00	
	4. Expired Service Life (Attach computation when applicable)	$0.00		$0.00	
E.	Total Deductions:		$27,361.00		$0.00
F.	Net Cost of Relocation (C minus E)		$4,743.00		$540,583.00
G.	Less Cost Sharing Arrangements:				
	1. $10,000 (only if required by Sec. 264-33, H.R.S. e.g., privately owned facilities within highway right of way.	$4,743.00		$0.00	
	2. Amount for "extraordinary" items referred to in Item 5 below	$0.00		$63,900.00	
	3. Overhead Estimate	$0.00		$32,104.00	
	4 Federal Non-Participating Items	$0.00		$0.00	
	5 Total of (G1+G2+G3+G4)		$4,743.00		$96,004.00
	6 Net Amount (F minus G5)		$0.00		$444,579.00
	7 State and Federal share in Net Amount	$0.00		$444,579.00	
	Add: State's share for special improvements which have been deleted in Item 2, above	$0.00 *		$0.00 *	
H.	State share in Net Amount		$0.00		$88,915.80
I.	Federal share in Net Amount ** ***		$0.00		$355,663.20
J.	Utility share in Net Amount		$0.00		$96,004.00

K.	State Share in Total Cost of Utility Work (H's)	$ 88,915.80	
L.	Federal Share in Total Cost of Utility Work (I's)	$ 355,663.20	
M.	State and Federal Share in Total Cost of Utility Work (K+L)		$444,579.00
N.	Utility Share in Total Cost (J's+G1)	$ 96,004.00	
O.	Net Cost of Relocation (K+L+N)		$540,583.00

* Extraordinary items are special improvements in which the State does not participate in the same basis percentage-wise. When applicable, attach description.
** Subtract the Construction Engineering Administrative Cost and other Federal Non-Participating Items.
*** Federal Standards per FAPO section 645-117

ESTIMATED REIMBURSEMENT:

1.	Company to State (B minus M)	$0.00
2.	State to Company (M minus B)	$232,029.00

Attachment B

THE HALLSTROM GROUP INC.

July 31, 2007

J. Douglas Ing, Esq.
Wayne K.T. Mau, Esq.
Watanabe Ing & Komeiji, LLP
First Hawaiian Center, Suite 2300
999 Bishop Street
Honolulu, Hawaii 96813

Appraisal of the University of Hawaii
West Oahu Substation Site
Kapolei, Oahu, Hawaii

Dear Messrs. Ing and Mau:

Enclosed is a complete market value appraisal of the University of Hawaii West Oahu substation site located on the makai side of Farrington Highway west of its intersection with Palehua Road and the proposed North-South Road in East Kapolei, Oahu, Hawaii. Containing approximately one acre, the substation site is a portion of a 399.501-acre parcel identified on Hawaii Tax Maps as First Division Tax Map Key 9-1-16, Parcel 129 zoned AG-1 Restricted Agricultural District which currently has a height limit of 25 feet.

The client-defined scope of work has been to value the proposed UH West Oahu substation site as a discreet parcel separate and apart from Tax Map Key 9-1-16, Parcel 129, assuming it is zoned BMX-3 Community Business Mixed Use District generally consistent with the Ewa Development Plan and the UH West Oahu LRDP designating the immediate area for mixed use development. This is a hypothetical condition of this study inasmuch as the subject currently exists as a portion of Parcel 129 and is zoned AG-1 Restricted Agricultural District.

The purpose of our valuation assignment is to provide an independent opinion of value to assist in arriving at a sales price with Hawaiian Electric Company.

In preparing this assignment, a sales comparison approach has been employed to estimate fee simple land value.

Our analysis and the data disclosed by our research and investigation are set forth in the accompanying summary appraisal report. It is our opinion, on July 20, 2007, subject to the limiting conditions and assumptions contained herein, that the unencumbered fee simple market value of the subject site, under the hypothetical condition that the property is a discreet one acre site zoned BMX-3 Community Business Mixed Use District, was:

TWO MILLION ONE HUNDRED
SEVENTY-FOUR THOUSAND DOLLARS
($2,174,000)

The reasonable exposure time for this property interest is approximately six to 12 months.

We appreciate the opportunity to have worked with you on this interesting assignment. Should clarification or further discussion of the study contained herein be necessary, please contact us.

Respectfully submitted,

THE HALLSTROM GROUP, INC.

James E. Hallstrom, Jr., MAI, CRE

Brian S. Goto, MAI, SRA

/as

CASH CONTRIBUTIONS-IN-AID-OF-CONSTRUCTION
CASH CIAC FORECAST
2008 & 2009

PROJ #	DESCRIPTION	2008 FCST	2009 FCST	2008-2009 Net of GET Tax		
				Rate	2008	2009
CID BLNKTS						
P1510	Minor OH	$ 5,800	$ 47,000	1.04712	$ 5,539	$ 44,885
P1580	Misc OH Addn	$ 83,300	$ 87,200	1.04712	$ 79,552	$ 83,276
P1700	Minor UG	$ 3,353,300	$ 3,491,300	1.04712	$ 3,202,403	$ 3,334,193
P1820	Misc UG Addn	$ 165,800	$ 82,900	1.04712	$ 158,339	$ 79,170
	TTL CASH CIAC	$ 3,608,200	$ 3,708,400		n/a	n/a
	Less: GET	$ 162,368	$ 166,877		n/a	n/a
	CASH CIAC Net of GET	$ 3,445,832	$ 3,541,523		$ 3,445,832	$ 3,541,523

CASH CONTRIBUTIONS-IN-AID-OF-CONSTRUCTION
CASH CIAC CALCULATION
2008 & 2009

PROJ #	DESCRIPTION	2003 Actual	2004 Actual	2005 Actual	2006 Actual	2007 Actual	2008 Update		2009 FCST
CID BLANKETS									
P1510	Minor OH	3%	3%	0%	12%	2%	0%	4%	4%
		58,829	53,968	3,216	184,800	35,675	5,836		47,033
P1580	Misc OH Addns	25%	11%	7%	7%	8%	7%	12%	8%
		173,366	120,631	101,994	95,330	107,317	83,252	8%	87,189
P1700	Minor UG	60%	36%	39%	42%	55%	41%	47%	47%
		5,685,301	3,117,257	3,643,604	3,747,318	5,357,032	3,353,336		3,491,275
P1820	Misc UG Addn	8%	17%	13%	16%	19%	15%	15%	15%
		76,783	213,907	180,834	209,373	193,639	165,812		82,936
OTHER		5,400	4,200	-	600	-	-		-
	TOTAL	5,999,679	3,509,963	3,929,648	4,237,421	5,693,663	3,608,236		3,708,433

CASH CONTRIBUTIONS-IN-AID-OF-CONSTRUCTION
CAPITAL EXPENDITURES ACTUAL & FORECAST
YEARS 2003 TO 2009

PROJ #	DESCRIPTION	2003 Actual	2004 Actual	2005 Actual	2006 Actual	2007 Actual	2008 FCST		2009 FCST
CID BLNKTS									
P1510	Minor OH	1,776,186	1,668,909	1,565,474	1,602,356	1,507,359	1,308,598		1,175,837
P1700[1]	Minor UG	9,442,156	8,692,484	9,258,746	8,981,220	9,665,780	8,100,331		7,428,245
P1820	Misc UG Addn	1,010,567	1,288,923	1,381,056	1,292,392	1,003,928	1,136,297		552,906
OTHER									
P1580	Minor OH Dist Addn	682,659	1,070,005	1,559,445	1,386,162	1,351,494	1,262,411		1,089,860
P1680	TSF & Equip	4,683,831	4,227,092	5,296,461	4,812,233	7,324,016	4,305,343		5,736,431
	TOTAL	17,595,399	16,947,413	19,061,182	18,074,363	20,852,577	16,112,980		15,983,279

[1] P1700 cost Exclude CIAC-In-Kind

For P1700:							
Total Capital	*14,202,556*	*12,076,900*	*11,943,560*	*13,216,815*	*13,634,901*	*11,644,831*	*10,544,966*
Less CIAC In Kind	*(4,760,400)*	*(3,384,416)*	*(4,482,814)*	*(4,235,595)*	*(3,969,121)*	*(3,408,500)*	*(3,116,721)*
Normalization Adj	*0*	*0*	*1,798,000*	*0*	*0*	*(136,000)*	*0*
	9,442,156	*8,692,484*	*9,258,746*	*8,981,220*	*9,665,780*	*8,100,331*	*7,428,245*

CA-IR-259

Ref: HECO T-17, page 15 (CIAC).

At line 5, HECO T-17 states that half as many projects with CIAC were forecast in 2009 as compared with 2008. Please provide the following:

a. Please provide the actual number of projects with CIAC in each year 2006, 2007 and 2008 to-date.
b. Please provide the estimated number of projects with CIAC in 2008 and 2009.
c. Please explain why half as many projects with CIAC were forecast for 2009 in relation to 2008.

HECO Response:

a. The actual number of projects with cash CIAC in each of the following years are:

2006: 14

2007: 13

2008 thru August: 8

b. The estimated number of projects with cash CIAC in 2008 and 2009 are:

2008: 11

2009: 5

c. Projects included in the cash CIAC forecast are based on customer requests received, supported by an executed agreement. HECO received six less customer requests meeting this criteria for 2009 than for 2008. Cash CIAC will be updated during the Rate Case Update.

CA-IR-260

Ref: HECO T-17, page 15, & HECO-WP-1707, page 2 (Customer Advances).

The referenced work paper provides recorded receipts and refunds of customer advances by year for the period 2003 though 2007. Please provide the recorded year-end balance of customer deposits during calendar years 2002 through 2007.

HECO Response:

Year-end balance of customer advances (deposits) during calendar years 2002 through 2007 are as follows:

2002: $1,550,217.64

2003: $1,436,251.72

2004: $1,518,988.84

2005: $1,495,464.22

2006: $1,000,940.38

2007: $ 920,687.31

CA-IR-261

Ref: HECO T-17, pages 18 and 19 (Forecast Adjustments).

The referenced testimony describes and provides examples of budget adjustments, issue simplification adjustments and normalization adjustments. Please provide the following:

a. Has the Company compiled a listing of each of these types of adjustments, beyond the examples set forth in testimony?
b. If the response to part (a) above is affirmative, please provide such lists.
c. If the response to part (a) above is negative, please explain why the Company has not maintained any tracking or listing of these various adjustments that are integral to the rate case forecasting process.

HECO Response:

a. Attachment 1 provides a listing of adjustments and normalizations by block of account or account, as applicable. HECO's direct testimonies and exhibits for each of the O&M areas further identify and discuss all of the adjustments and normalizations included in the test year.

b. See Attachment 1.

c. See the response to a. The Company has developed Attachment 1 to respond to this information request. Because the individual witnesses have identified the adjustments for their respective areas in their testimonies, there has not been a need to separately maintain a list of adjustments.

HAWAIIAN ELECTRIC COMPANY, INC.
TEST YEAR 2009 ($1000S)

D. Giovanni
PRODUCTION O & M EXPENSE

	BUDGET	BUD ADJ	NORM	DIRECT
PRODUCTION OPER				
LABOR	15,373	29		15,402
NON-LABOR	17,011	(10)	(3)	16,998
TOTAL	32,384	19	(3)	32,400
PRODUCTION MAINT				
LABOR	17,610			17,610
NON-LABOR	30,393	(12)		30,381
TOTAL	48,003	(12)	0	47,991
PRODUCTION - TOTAL				
LABOR	32,983	29	0	33,012
NON-LABOR	47,404	(22)	(3)	47,379
TOTAL	80,387	7	(3)	80,391

HAWAIIAN ELECTRIC COMPANY, INC.
TEST YEAR 2009 ($1000S)

	BUDGET	BUD ADJ	NORM	DIRECT
R. Young				
TRANSMISSION O & M EXPENSE				
TRANSMISSION OPER				
LABOR	2,902			2,902
NON-LABOR	4,114	(65)		4,049
TOTAL	7,016	(65)	0	6,951
TRANSMISSION MAINT				
LABOR	2,083			2,083
NON-LABOR	4,926	7		4,933
TOTAL	7,009	7	0	7,016
TRANSMISSION - TOTAL				
LABOR	4,985	0	0	4,985
NON-LABOR	9,040	(58)	0	8,982
TOTAL	14,025	(58)	0	13,967

HAWAIIAN ELECTRIC COMPANY, INC.
TEST YEAR 2009 ($1000S)

	BUDGET	BUD ADJ	NORM	DIRECT
R. Young				
DISTRIBUTION O & M EXPENSE				
DISTRIBUTION OPER				
LABOR	6,712			6,712
NON-LABOR	6,945	(44)		6,901
TOTAL	13,657	(44)	0	13,613
DISTRIBUTION MAINT				
LABOR	5,760			5,760
NON-LABOR	11,094	25		11,119
TOTAL	16,854	25	0	16,879
DISTRIBUTION - TOTAL				
LABOR	12,472	0	0	12,472
NON-LABOR	18,039	(19)	0	18,020
TOTAL	30,511	(19)	0	30,492

HAWAIIAN ELECTRIC COMPANY, INC.
TEST YEAR 2009 ($1000S)

D. Yamamoto
CUSTOMER ACCTS EXPENSE

	BUDGET	BUD ADJ	NORM	DIRECT
901 SUPERVISION				
LABOR	177			177
NON-LABOR	1,481			1,481
TOTAL 901	1,658	0	0	1,658
902 METER READING EXPENSES				
LABOR	3,016			3,016
NON-LABOR	529			529
TOTAL 902	3,545	0	0	3,545
903 CUSTOMER RECORDS & COLLECT EXP				
LABOR	4,909			4,909
NON-LABOR	5,877	(35)		5,842
TOTAL 903	10,786	(35)	0	10,751
SUBTOTAL	15,989	(35)	0	15,954
904 UNCOLLECTIBLE ACCOUNTS				
NON-LABOR	1,093	190		1,283
TOTAL 904	1,093	190	0	1,283
905 MISC CUSTOMER ACCOUNTS EXP				
NON-LABOR	0			0
TOTAL 905	0	0	0	0
TOTAL	17,082	155	0	17,237
CUSTOMER ACCOUNTS - TOTAL				
LABOR	8,102			8,102
NON-LABOR	8,980	155		9,135
TOTAL	17,082	155	0	17,237

HAWAIIAN ELECTRIC COMPANY, INC.
TEST YEAR 2009 ($1000S)

A. Hee
CUSTOMER SVC EXPENSE

	BUDGET	BUD ADJ	NORM	DIRECT
909 SUPERVISION				
LABOR	393			393
NON-LABOR	39	(5)		34
TOTAL 909	432	(5)	0	427
910 CUSTOMER ASSISTANCE EXP				
LABOR	3,407	(434)		2,973
NON-LABOR	22,809	(20,244)	(127)	2,438
TOTAL 910	26,216	(20,678)	(127)	5,411
911 INFORMATIONAL ADVERTISING EXP				
LABOR	32			32
NON-LABOR	1,116			1,116
TOTAL 911	1,148	0	0	1,148
912 MISC CUSTOMER SERVICE EXPENSES				
LABOR	0			0
NON-LABOR	21			21
TOTAL 911	21	0	0	21
CUSTOMER SERVICE - TOTAL				
LABOR	3,832	(434)	0	3,398
NON-LABOR	23,985	(20,249)	(127)	3,609
TOTAL	27,817	(20,683)	(127)	7,007

HAWAIIAN ELECTRIC COMPANY, INC.
TEST YEAR 2009 ($1000S)

	BUDGET	BUD ADJ	NORM	DIRECT
P. Nanbu				
ADMIN & GENL O & M EXPENSE				
ADMINISTRATIVE				
920 ADMIN & GENL EXP - LABR				
LABOR	19,410	7		19,417
NON-LABOR	2,988	(2,988)		0
TOTAL 920	22,398	(2,981)	0	19,417
921 ADMIN & GENL EXP - NLABR				
NON-LABOR	16,780	(1,578)		15,202
TOTAL 921	16,780	(1,578)	0	15,202
922 ADMIN EXPENSES TRANSFERRED				
NON-LABOR	(3,487)	290		(3,197)
TOTAL 922	(3,487)	290	0	(3,197)
TOTAL ADMINISTRATIVE	35,691	(4,269)	0	31,422
OUTSIDE SERVICES				
923010 OUTSIDE SERVICES - LEGAL				
NON-LABOR	131			131
TOTAL 923020	131	0	0	131
923020 OUTSIDE SERVICES - OTHER				
NON-LABOR	2,535			2,535
TOTAL 923020	2,535	0	0	2,535
923030 OUTSIDE SERVICES - ASSOC CO				
NON-LABOR	0			0
TOTAL 923030	0	0	0	0
TOTAL OS SVCS	2,666	0	0	2,666
TOTAL 920-923 EXPENSE	38,357	(4,269)	0	34,088

HAWAIIAN ELECTRIC COMPANY, INC.
TEST YEAR 2009 ($1000S)

	BUDGET	BUD ADJ	NORM	DIRECT
R. Harris				
INSURANCE EXPENSE				
INSURANCE				
924 PROPERTY INSURANCE				
LABOR	216			216
NON-LABOR	2,926	(80)		2,846
TOTAL 924	3,142	(80)	0	3,062
925 INJURIES & DAMAGES				
LABOR	1,450			1,450
NON-LABOR	6,025	(283)		5,742
TOTAL 925	7,475	(283)	0	7,192
TOTAL INSURANCE	10,617	(363)	0	10,254

HAWAIIAN ELECTRIC COMPANY, INC.
TEST YEAR 2009 ($1000S)

J. Price
EMPLOYEE BENEFITS EXPENSE

	BUDGET	BUD ADJ	NORM	DIRECT
EMPLOYEE BENEFITS				
926000 EMPL PENSIONS AND BENEFITS				
LABOR	841			841
NON-LABOR	23,210	(2,854)		20,356
TOTAL 926000	24,051	(2,854)	0	21,197
926010 EMPL BENEFITS - FLEX CREDITS				
LABOR	211			211
NON-LABOR	10,999	(37)		10,962
TOTAL 926010	11,210	(37)	0	11,173
926020 EMPL BENEFITS TRANSFER				
NON-LABOR	(9,655)	692		(8,963)
TOTAL 926020	(9,655)	692	0	(8,963)
TOTAL EMP BEN	25,606	(2,199)	0	23,407

HAWAIIAN ELECTRIC COMPANY, INC.
TEST YEAR 2009 ($1000S)

B. Tamashiro
OTHER ADMINISTRATIVE & GENERAL EXPENSE

	BUDGET	BUD ADJ	NORM	DIRECT
OTHER ADMIN & GENL				
928 REGULATORY COMMISSION EXPENSES				
NON-LABOR	759		(320)	439
TOTAL 928	759	0	(320)	439
9301 INSTITUTN/GOODWILL ADVERT EXP				
LABOR	14			14
NON-LABOR	22			22
TOTAL 9301	36	0	0	36
9302 MISCELLANEOUS GENERAL EXPENSES				
LABOR	316	(101)		215
NON-LABOR	3,888	(246)		3,642
TOTAL 9302	4,204	(347)	0	3,857
931 RENTS EXPENSE				
NON-LABOR	3,026	36		3,062
TOTAL 932	3,026	36	0	3,062
932 ADMIN AND GENL MAINTENANCE				
LABOR	195	52		247
NON-LABOR	398	1,108	(188)	1,318
TOTAL 932	593	1,160	(188)	1,565
TOTAL OTHER A&G	8,618	849	(508)	8,959
TOTAL A&G	83,198	(5,982)	(508)	76,708
ADMIN & GENL - TOTAL				
LABOR	22,653	(42)	0	22,611
NON-LABOR	60,545	(5,940)	(508)	54,097
TOTAL	83,198	(5,982)	(508)	76,708

HAWAIIAN ELECTRIC COMPANY, INC.
TEST YEAR 2009 ($1000S)

	BUDGET	BUD ADJ	NORM	DIRECT
OTHER O&M - TOTAL				
LABOR	85,027	(447)	0	84,580
NON-LABOR	167,993	(26,133)	(638)	141,222
TOTAL	253,020	(26,580)	(638)	225,802

CA-IR-262

Ref: HECO T-17, pages 20 and 21 (Earnings Protection).

The referenced testimony describes a target reduction of $8 million in 2008 short run spending and refers to HECO T-7 and HECO T-8. Please provide the following:

a. Please provide the allocation of this target reduction to process areas/departments, as referenced at page 20, line 22.
b. Did each process area/department actually reflect the allocated target reduction in the 2008 budget that served as the basis for the 2009 rate case forecast? Please explain and identify any variances.
c. In preparing the 2009 rate case forecast, please identify each process area/department that reversed or eliminated the target reduction embedded in the 2008 budget.
d. Referring to part (c) above, please explain why each identified target reduction was eliminated for purposes of preparing the 2009 rate case forecast.

HECO Response:

a. Attachment 1 of HECO's response to CA-IR-26 (which will be submitted upon issuance of a protective order) provides the allocation of target adjustments by process area (identified on the Target Adjustment line within each process area where applicable).

b. The initial estimates for the 2009 O&M expense budget were submitted by the various organizations for inclusion in the budget in July 2007 (see Attachment 1, page 3, of HECO's response to CA-IR-35). During that July 2007 timeframe, the need for a target reduction for the 2008 O&M expense budget was not yet determined and the 2009 O&M expense budget was initially prepared without considering a target adjustment for the 2008 O&M expense budget. During the course of the budget review process in the August through December 2007 timeframe, an unspecified target reduction to the 2008 budget was needed to reflect an assumed reduction in spending in the short run. (See HECO's response to CA-IR-47). What resulted was that the allocated target reduction was reflected in the overall 2008 budget, but not included in the basis for the 2009 rate case

forecast. The target reduction for 2008 was not accounted for in the 2009 rate case forecast, as the reduction in spending for 2008 is assumed to be necessary only in the short run and only if safe and reliable electric service is not compromised. (See HECO's response to CA-IR-47.) In addition, as previously discussed, the target reduction for 2008 was not accounted for in the 2009 rate case forecast due to the timing of when the target reduction was being developed.

c. See HECO's response to b. above.

d. See HECO's response to b. above.

CA-IR-263

Witness T-22 Mr. P. Young.

Ref: HECO-2201 through HECO-2206, (Cost of Service Model Files).

Please provide electronic Excel files associated with the cost of service scenarios presented by Mr. Young that were not documented within HECO-WP-2203 and WP-2205.

HECO Response:

See HECO's responses to DOD-IR-63, DOD-IR-64, DOD-IR-65, DOD-IR-66, DOD-IR-67, and DOD-IR-68.

CA-IR-264

Ref: HECO T-22, page 33, lines 13 to 21 (Schedule P Consolidation).

Please explain the methods used and provide copies of the customer impact studies that were prepared by HECO to determine that the Company's proposed Schedule P rate consolidation at proposed prices will not unreasonably impact any individual customers.

HECO Response:

A bill impact study for Schedule PS and Schedule PP customers was prepared using historical monthly billing data from January 2007 to December 2007 that compared the total of 12 months of bills at current effective rates (final rates from the HECO 2005 rate case plus the interim rate increase from the HECO 2007 rate case) versus the total of 12 months of bills at proposed rates. Pages 2 to 8 summarize these individual customers' 12-month bill impacts.

With the exception of the last customer (out of 341 total customers) whose bill impact is an increase of only 0.02%, the remaining 340 customers' bill impacts are very tightly bounded between the range of 4.93% to 9.95%. This compares very closely to the percentage increases as shown on HECO-2216, pages 7 to 8, Bill Comparisons Under Current Effective Rates and Proposed Rates, Schedule P, Large Power Secondary Voltage Service and Schedule P, Large Power Primary Voltage Service.

BILL IMPACT FOR SCHEDULE P CUSTOMERS

	Rate Schedule	Current ER [1]	Proposed Rates [2]	Variance (PR-CER)	% Increase
		A	B	C=(B-A)	D=(C/A)
1	PS	$2,008,539.66	$2,208,436.31	$199,896.65	9.95%
2	PP	$608,553.89	$664,530.08	$55,976.19	9.20%
3	PP	$29,671.56	$32,313.18	$2,641.62	8.90%
4	PS	$487,428.46	$530,294.59	$42,866.13	8.79%
5	PS	$4,828,948.44	$5,243,850.95	$414,902.51	8.59%
6	PS	$48,491.16	$52,572.54	$4,081.38	8.42%
7	PP	$729,464.63	$789,603.15	$60,138.52	8.24%
8	PS	$4,575,105.11	$4,939,530.66	$364,425.55	7.97%
9	PS	$1,099,126.07	$1,185,987.12	$86,861.05	7.90%
10	PS	$2,692,058.89	$2,903,872.63	$211,813.74	7.87%
11	PP	$2,529,310.32	$2,726,260.92	$196,950.60	7.79%
12	PS	$1,084,673.67	$1,168,888.76	$84,215.09	7.76%
13	PS	$3,282,977.22	$3,536,810.47	$253,833.25	7.73%
14	PP	$2,129,004.00	$2,293,197.12	$164,193.12	7.71%
15	PS	$1,114,184.65	$1,198,681.21	$84,496.56	7.58%
16	PS	$1,318,424.97	$1,418,204.39	$99,779.42	7.57%
17	PS	$1,078,109.02	$1,159,582.94	$81,473.92	7.56%
18	PS	$141,994.81	$152,704.52	$10,709.71	7.54%
19	PS	$1,934,122.57	$2,079,965.78	$145,843.21	7.54%
20	PP	$278,844.02	$299,757.26	$20,913.24	7.50%
21	PS	$2,641,799.33	$2,839,110.32	$197,310.99	7.47%
22	PS	$1,077,248.79	$1,157,704.63	$80,455.84	7.47%
23	PP	$759,088.45	$815,162.93	$56,074.48	7.39%
24	PS	$2,500,751.84	$2,684,155.18	$183,403.34	7.33%
25	PS	$609,513.16	$654,016.07	$44,502.91	7.30%
26	PP	$3,580,795.51	$3,841,357.68	$260,562.17	7.28%
27	PS	$233,791.60	$250,802.32	$17,010.72	7.28%
28	PS	$333,982.54	$358,255.04	$24,272.50	7.27%
29	PS	$1,468,447.87	$1,574,878.25	$106,430.38	7.25%
30	PS	$1,349,406.72	$1,447,008.34	$97,601.62	7.23%
31	PS	$1,235,699.36	$1,325,043.86	$89,344.50	7.23%
32	PS	$559,990.97	$600,347.44	$40,356.47	7.21%
33	PS	$3,118,666.29	$3,343,384.63	$224,718.34	7.21%
34	PS	$1,587,677.60	$1,701,557.38	$113,879.78	7.17%
35	PS	$693,747.27	$743,223.79	$49,476.52	7.13%
36	PS	$1,311,268.02	$1,404,558.34	$93,290.32	7.11%
37	PS	$468,295.30	$501,515.85	$33,220.55	7.09%
38	PS	$817,582.12	$875,528.58	$57,946.46	7.09%
39	PS	$924,708.47	$989,933.73	$65,225.26	7.05%
40	PS	$3,584,435.99	$3,835,991.48	$251,555.49	7.02%
41	PS	$2,727,919.59	$2,918,726.97	$190,807.38	6.99%
42	PS	$649,838.11	$695,200.81	$45,362.70	6.98%
43	PS	$1,106,056.13	$1,183,239.88	$77,183.75	6.98%
44	PS	$618,471.42	$661,490.20	$43,018.78	6.96%
45	PP	$1,326,238.01	$1,418,451.01	$92,213.00	6.95%
46	PS	$3,136,310.84	$3,354,330.89	$218,020.05	6.95%
47	PS	$559,812.49	$598,466.10	$38,653.61	6.90%
48	PP	$849,635.27	$908,094.21	$58,458.94	6.88%
49	PS	$920,976.47	$983,970.79	$62,994.32	6.84%
50	PS	$1,249,581.65	$1,335,009.10	$85,427.45	6.84%
51	PS	$556,556.07	$594,537.14	$37,981.07	6.82%

BILL IMPACT FOR SCHEDULE P CUSTOMERS

	Rate Schedule	Current ER [1]	Proposed Rates [2]	Variance (PR-CER)	% Increase
		A	B	C=(B-A)	D=(C/A)
53	PS	$633,376.11	$676,392.72	$43,016.61	6.79%
54	PS	$636,299.35	$679,488.17	$43,188.82	6.79%
55	PS	$1,902,400.93	$2,031,165.25	$128,764.32	6.77%
56	PS	$181,039.16	$193,288.84	$12,249.68	6.77%
57	PP	$3,200,936.15	$3,417,232.02	$216,295.87	6.76%
58	PS	$1,512,999.42	$1,615,187.94	$102,188.52	6.75%
59	PS	$2,164,360.91	$2,310,188.26	$145,827.35	6.74%
60	PS	$1,164,084.25	$1,242,409.96	$78,325.71	6.73%
61	PS	$416,476.64	$444,429.02	$27,952.38	6.71%
62	PS	$866,241.95	$924,370.49	$58,128.54	6.71%
63	PP	$1,489,769.94	$1,589,580.48	$99,810.54	6.70%
64	PS	$839,045.59	$895,252.57	$56,206.98	6.70%
65	PP	$4,345,608.67	$4,635,396.03	$289,787.36	6.67%
66	PS	$762,395.40	$813,179.63	$50,784.23	6.66%
67	PS	$3,187,445.86	$3,399,671.17	$212,225.31	6.66%
68	PS	$931,032.47	$992,886.58	$61,854.11	6.64%
69	PS	$725,124.92	$773,271.84	$48,146.92	6.64%
70	PS	$813,362.62	$867,353.87	$53,991.25	6.64%
71	PS	$1,451,887.36	$1,547,960.36	$96,073.00	6.62%
72	PP	$8,849,451.24	$9,434,159.45	$584,708.21	6.61%
73	PS	$1,667,139.37	$1,777,184.22	$110,044.85	6.60%
74	PS	$1,063,455.31	$1,133,616.89	$70,161.58	6.60%
75	PS	$521,948.57	$556,362.57	$34,414.00	6.59%
76	PP	$628,227.56	$669,606.55	$41,378.99	6.59%
77	PS	$1,442,119.92	$1,536,995.93	$94,876.01	6.58%
78	PP	$12,701,474.36	$13,536,659.77	$835,185.41	6.58%
79	PP	$3,035,908.71	$3,235,369.01	$199,460.30	6.57%
80	PS	$892,965.27	$951,591.75	$58,626.48	6.57%
81	PS	$936,256.24	$997,672.74	$61,416.50	6.56%
82	PS	$206,490.38	$220,028.15	$13,537.77	6.56%
83	PS	$1,526,981.60	$1,626,948.47	$99,966.87	6.55%
84	PS	$558,846.11	$595,426.05	$36,579.94	6.55%
85	PS	$1,307,337.53	$1,392,728.21	$85,390.68	6.53%
86	PS	$807,286.10	$859,932.48	$52,646.38	6.52%
87	PS	$1,293,898.42	$1,378,121.62	$84,223.20	6.51%
88	PP	$2,645,252.27	$2,816,893.43	$171,641.16	6.49%
89	PS	$1,070,586.73	$1,139,956.21	$69,369.48	6.48%
90	PS	$812,831.53	$865,358.81	$52,527.28	6.46%
91	PS	$525,689.55	$559,644.49	$33,954.94	6.46%
92	PS	$467,858.77	$498,059.72	$30,200.95	6.46%
93	PS	$560,493.07	$596,629.76	$36,136.69	6.45%
94	PS	$2,070,962.31	$2,204,453.97	$133,491.66	6.45%
95	PS	$917,141.88	$976,236.05	$59,094.17	6.44%
96	PS	$653,172.98	$695,197.16	$42,024.18	6.43%
97	PP	$2,941,606.46	$3,130,611.28	$189,004.82	6.43%
98	PS	$1,199,778.01	$1,276,823.82	$77,045.81	6.42%
99	PP	$955,183.17	$1,016,513.25	$61,330.08	6.42%
100	PS	$575,386.63	$612,310.32	$36,923.69	6.42%
101	PS	$1,066,874.57	$1,135,259.54	$68,384.97	6.41%
102	PS	$1,156,204.49	$1,230,305.83	$74,101.34	6.41%

BILL IMPACT FOR SCHEDULE P CUSTOMERS

	Rate Schedule	Current ER [1]	Proposed Rates [2]	Variance (PR-CER)	% Increase
		A	B	C=(B-A)	D=(C/A)
104	PS	$1,051,854.16	$1,119,102.46	$67,248.30	6.39%
105	PP	$4,815,767.59	$5,123,650.82	$307,883.23	6.39%
106	PS	$719,490.75	$765,444.26	$45,953.51	6.39%
107	PS	$4,284,507.82	$4,557,297.91	$272,790.09	6.37%
108	PP	$3,616,156.07	$3,846,386.07	$230,230.00	6.37%
109	PP	$1,276,138.44	$1,357,374.13	$81,235.69	6.37%
110	PS	$683,016.40	$726,451.47	$43,435.07	6.36%
111	PP	$527,880.85	$561,412.94	$33,532.09	6.35%
112	PS	$661,834.24	$703,818.14	$41,983.90	6.34%
113	PS	$3,694,665.72	$3,928,988.65	$234,322.93	6.34%
114	PS	$581,707.41	$618,366.02	$36,658.61	6.30%
115	PS	$558,495.97	$593,646.64	$35,150.67	6.29%
116	PS	$1,169,285.58	$1,242,857.01	$73,571.43	6.29%
117	PS	$379,863.73	$403,737.78	$23,874.05	6.28%
118	PS	$1,184,551.93	$1,258,880.66	$74,328.73	6.27%
119	PS	$1,243,181.01	$1,321,120.51	$77,939.50	6.27%
120	PP	$3,931,531.36	$4,177,746.35	$246,214.99	6.26%
121	PP	$2,769,728.32	$2,943,145.97	$173,417.65	6.26%
122	PS	$557,627.79	$592,533.86	$34,906.07	6.26%
123	PP	$281,187.76	$298,784.97	$17,597.21	6.26%
124	PP	$6,104,638.62	$6,486,626.73	$381,988.11	6.26%
125	PS	$1,544,698.01	$1,641,327.61	$96,629.60	6.26%
126	PS	$502,957.19	$534,412.43	$31,455.24	6.25%
127	PP	$2,375,782.38	$2,524,168.73	$148,386.35	6.25%
128	PS	$591,662.91	$628,602.00	$36,939.09	6.24%
129	PS	$436,700.78	$463,940.04	$27,239.26	6.24%
130	PS	$424,723.98	$451,126.53	$26,402.55	6.22%
131	PP	$1,828,059.20	$1,941,694.31	$113,635.11	6.22%
132	PS	$817,413.43	$868,205.22	$50,791.79	6.21%
133	PS	$624,155.61	$662,935.77	$38,780.16	6.21%
134	PS	$1,994,215.01	$2,118,100.75	$123,885.74	6.21%
135	PP	$953,373.56	$1,012,590.71	$59,217.15	6.21%
136	PS	$1,166,136.31	$1,238,494.64	$72,358.33	6.20%
137	PS	$1,312,812.02	$1,394,153.91	$81,341.89	6.20%
138	PS	$1,329,247.02	$1,411,563.21	$82,316.19	6.19%
139	PP	$1,481,913.15	$1,573,668.22	$91,755.07	6.19%
140	PS	$997,197.01	$1,058,895.98	$61,698.97	6.19%
141	PS	$790,330.26	$839,124.58	$48,794.32	6.17%
142	PS	$590,143.85	$626,577.36	$36,433.51	6.17%
143	PS	$352,602.06	$374,334.48	$21,732.42	6.16%
144	PS	$661,326.06	$702,080.08	$40,754.02	6.16%
145	PS	$832,261.06	$883,467.51	$51,206.45	6.15%
146	PP	$576,555.85	$612,028.18	$35,472.33	6.15%
147	PS	$485,382.51	$515,240.95	$29,858.44	6.15%
148	PS	$593,895.85	$630,418.85	$36,523.00	6.15%
149	PS	$1,904,990.61	$2,022,106.22	$117,115.61	6.15%
150	PS	$1,240,182.53	$1,316,419.28	$76,236.75	6.15%
151	PP	$970,714.74	$1,030,339.37	$59,624.63	6.14%
152	PS	$498,442.94	$528,994.67	$30,551.73	6.13%
153	PS	$449,830.34	$477,393.34	$27,563.00	6.13%

BILL IMPACT FOR SCHEDULE P CUSTOMERS

	Rate Schedule	Current ER [1]	Proposed Rates [2]	Variance (PR-CER)	% Increase
		A	B	C=(B-A)	D=(C/A)
155	PP	$696,641.60	$739,279.93	$42,638.33	6.12%
156	PS	$949,353.63	$1,007,390.16	$58,036.53	6.11%
157	PS	$780,800.67	$828,491.51	$47,690.84	6.11%
158	PP	$1,135,676.38	$1,204,919.26	$69,242.88	6.10%
159	PS	$654,645.10	$694,436.72	$39,791.62	6.08%
160	PS	$794,220.62	$842,478.35	$48,257.73	6.08%
161	PS	$389,883.76	$413,571.14	$23,687.38	6.08%
162	PS	$421,277.99	$446,853.53	$25,575.54	6.07%
163	PS	$532,736.62	$565,068.74	$32,332.12	6.07%
164	PP	$3,576,013.40	$3,792,792.19	$216,778.79	6.06%
165	PS	$814,527.48	$863,873.30	$49,345.82	6.06%
166	PS	$672,453.44	$713,178.67	$40,725.23	6.06%
167	PP	$486,978.63	$516,468.90	$29,490.27	6.06%
168	PS	$1,099,046.94	$1,165,566.73	$66,519.79	6.05%
169	PS	$690,450.84	$732,188.18	$41,737.34	6.04%
170	PS	$457,729.20	$485,392.32	$27,663.12	6.04%
171	PS	$569,828.16	$604,258.15	$34,429.99	6.04%
172	PS	$871,588.55	$924,212.69	$52,624.14	6.04%
173	PS	$1,011,828.12	$1,072,855.51	$61,027.39	6.03%
174	PS	$715,424.14	$758,541.95	$43,117.81	6.03%
175	PS	$548,461.99	$581,481.93	$33,019.94	6.02%
176	PP	$1,865,490.00	$1,977,743.57	$112,253.57	6.02%
177	PS	$531,751.62	$563,728.28	$31,976.66	6.01%
178	PP	$169,728.38	$179,932.50	$10,204.12	6.01%
179	PS	$565,129.58	$599,087.12	$33,957.54	6.01%
180	PP	$3,527,347.96	$3,739,177.79	$211,829.83	6.01%
181	PS	$2,877,825.72	$3,050,638.96	$172,813.24	6.00%
182	PP	$1,581,589.22	$1,676,468.79	$94,879.57	6.00%
183	PS	$730,409.25	$774,224.71	$43,815.46	6.00%
184	PP	$347,106.21	$367,927.15	$20,820.94	6.00%
185	PS	$480,998.73	$509,848.81	$28,850.08	6.00%
186	PS	$940,276.90	$996,628.14	$56,351.24	5.99%
187	PP	$4,766,457.88	$5,052,042.17	$285,584.29	5.99%
188	PP	$3,086,682.50	$3,271,248.51	$184,566.01	5.98%
189	PS	$782,302.23	$829,070.41	$46,768.18	5.98%
190	PP	$1,405,854.45	$1,489,845.70	$83,991.25	5.97%
191	PP	$3,617,331.51	$3,833,416.51	$216,085.00	5.97%
192	PS	$773,294.10	$819,433.34	$46,139.24	5.97%
193	PP	$854,749.16	$905,737.97	$50,988.81	5.97%
194	PS	$891,283.88	$944,445.28	$53,161.40	5.96%
195	PS	$909,441.11	$963,668.53	$54,227.42	5.96%
196	PS	$461,140.83	$488,632.97	$27,492.14	5.96%
197	PP	$1,293,667.74	$1,370,790.70	$77,122.96	5.96%
198	PS	$1,314,902.19	$1,393,279.40	$78,377.21	5.96%
199	PS	$522,466.19	$553,564.98	$31,098.79	5.95%
200	PS	$411,283.58	$435,744.29	$24,460.71	5.95%
201	PS	$984,838.13	$1,043,374.30	$58,536.17	5.94%
202	PS	$427,428.00	$452,816.77	$25,388.77	5.94%
203	PS	$549,128.34	$581,744.70	$32,616.36	5.94%
204	PS	$944,481.79	$1,000,475.21	$55,993.42	5.93%

BILL IMPACT FOR SCHEDULE P CUSTOMERS

	Rate Schedule	Current ER [1]	Proposed Rates [2]	Variance (PR-CER)	% Increase
		A	B	C=(B-A)	D=(C/A)
206	PP	$429,067.92	$454,502.84	$25,434.92	5.93%
207	PS	$572,294.74	$606,215.73	$33,920.99	5.93%
208	PP	$1,690,219.00	$1,790,218.96	$99,999.96	5.92%
209	PP	$1,129,251.58	$1,196,023.08	$66,771.50	5.91%
210	PP	$1,425,050.61	$1,509,227.97	$84,177.36	5.91%
211	PS	$767,210.57	$812,493.20	$45,282.63	5.90%
212	PS	$960,306.54	$1,016,936.79	$56,630.25	5.90%
213	PP	$328,124.53	$347,470.56	$19,346.03	5.90%
214	PS	$642,997.61	$680,901.94	$37,904.33	5.89%
215	PS	$827,867.21	$876,646.62	$48,779.41	5.89%
216	PS	$842,604.33	$892,242.97	$49,638.64	5.89%
217	PP	$706,194.66	$747,796.96	$41,602.30	5.89%
218	PP	$958,955.93	$1,015,446.64	$56,490.71	5.89%
219	PS	$726,736.65	$769,515.07	$42,778.42	5.89%
220	PP	$2,411,495.48	$2,553,403.54	$141,908.06	5.88%
221	PS	$630,839.68	$667,906.37	$37,066.69	5.88%
222	PP	$946,388.18	$1,001,989.94	$55,601.76	5.88%
223	PP	$2,807,457.59	$2,972,340.11	$164,882.52	5.87%
224	PP	$1,056,228.65	$1,118,196.88	$61,968.23	5.87%
225	PS	$1,013,268.66	$1,072,425.79	$59,157.13	5.84%
226	PP	$312,911.49	$331,156.92	$18,245.43	5.83%
227	PS	$552,041.22	$584,223.93	$32,182.71	5.83%
228	PP	$2,605,460.32	$2,757,287.82	$151,827.50	5.83%
229	PP	$2,701,091.42	$2,858,460.52	$157,369.10	5.83%
230	PS	$567,573.21	$600,609.00	$33,035.79	5.82%
231	PP	$1,049,037.46	$1,110,062.85	$61,025.39	5.82%
232	PS	$1,278,385.32	$1,352,721.74	$74,336.42	5.81%
233	PS	$510,921.07	$540,615.57	$29,694.50	5.81%
234	PS	$460,296.89	$487,046.45	$26,749.56	5.81%
235	PS	$509,843.85	$539,471.52	$29,627.67	5.81%
236	PS	$976,297.77	$1,032,977.18	$56,679.41	5.81%
237	PS	$927,526.04	$981,345.86	$53,819.82	5.80%
238	PP	$524,147.26	$554,559.61	$30,412.35	5.80%
239	PP	$1,490,558.32	$1,576,916.14	$86,357.82	5.79%
240	PS	$558,818.43	$591,192.20	$32,373.77	5.79%
241	PP	$1,918,698.21	$2,029,826.85	$111,128.64	5.79%
242	PS	$83,304.86	$88,122.46	$4,817.60	5.78%
243	PP	$1,706,430.62	$1,805,009.07	$98,578.45	5.78%
244	PS	$760,614.06	$804,510.77	$43,896.71	5.77%
245	PS	$464,217.89	$490,992.44	$26,774.55	5.77%
246	PS	$671,196.29	$709,902.88	$38,706.59	5.77%
247	PP	$929,732.00	$983,316.60	$53,584.60	5.76%
248	PS	$654,897.22	$692,616.60	$37,719.38	5.76%
249	PS	$1,088,621.45	$1,151,211.60	$62,590.15	5.75%
250	PP	$1,443,744.18	$1,526,751.52	$83,007.34	5.75%
251	PP	$1,128,708.08	$1,193,567.44	$64,859.36	5.75%
252	PP	$883,621.02	$934,393.49	$50,772.47	5.75%
253	PP	$351,659.02	$371,851.26	$20,192.24	5.74%
254	PS	$532,030.43	$562,575.51	$30,545.08	5.74%
255	PP	$1,270,454.22	$1,343,369.09	$72,914.87	5.74%

BILL IMPACT FOR SCHEDULE P CUSTOMERS

	Rate Schedule	Current ER [1]	Proposed Rates [2]	Variance (PR-CER)	% Increase
		A	B	C=(B-A)	D=(C/A)
257	PS	$684,670.69	$723,946.52	$39,275.83	5.74%
258	PS	$706,208.09	$746,666.03	$40,457.94	5.73%
259	PP	$711,940.42	$752,722.35	$40,781.93	5.73%
260	PP	$1,309,881.73	$1,384,891.57	$75,009.84	5.73%
261	PS	$577,200.31	$610,242.26	$33,041.95	5.72%
262	PS	$524,499.44	$554,509.40	$30,009.96	5.72%
263	PP	$2,343,958.77	$2,477,924.15	$133,965.38	5.72%
264	PP	$480,735.41	$508,193.00	$27,457.59	5.71%
265	PP	$866,357.20	$915,776.36	$49,419.16	5.70%
266	PP	$548,243.15	$579,489.79	$31,246.64	5.70%
267	PP	$235,023.91	$248,415.67	$13,391.76	5.70%
268	PS	$648,436.30	$685,353.88	$36,917.58	5.69%
269	PP	$744,953.07	$787,361.91	$42,408.84	5.69%
270	PP	$596,827.17	$630,800.14	$33,972.97	5.69%
271	PS	$1,121,767.05	$1,185,609.86	$63,842.81	5.69%
272	PP	$2,449,020.62	$2,588,251.70	$139,231.08	5.69%
273	PS	$516,624.72	$545,991.51	$29,366.79	5.68%
274	PP	$1,239,710.52	$1,310,137.34	$70,426.82	5.68%
275	PS	$562,793.88	$594,764.53	$31,970.65	5.68%
276	PP	$827,806.35	$874,729.45	$46,923.10	5.67%
277	PP	$898,743.57	$949,643.63	$50,900.06	5.66%
278	PP	$1,021,535.36	$1,079,312.76	$57,777.40	5.66%
279	PS	$492,296.42	$520,134.25	$27,837.83	5.65%
280	PP	$1,812,116.22	$1,914,384.84	$102,268.62	5.64%
281	PP	$1,243,170.76	$1,313,126.26	$69,955.50	5.63%
282	PS	$963,067.49	$1,017,225.42	$54,157.93	5.62%
283	PP	$596,803.08	$630,352.87	$33,549.79	5.62%
284	PP	$1,320,042.23	$1,394,100.83	$74,058.60	5.61%
285	PS	$440,767.76	$465,487.18	$24,719.42	5.61%
286	PP	$2,603,185.72	$2,749,044.82	$145,859.10	5.60%
287	PP	$797,918.98	$842,528.60	$44,609.62	5.59%
288	PS	$1,141,369.52	$1,205,165.36	$63,795.84	5.59%
289	PP	$212,482.64	$224,347.04	$11,864.40	5.58%
290	PS	$867,915.29	$916,353.92	$48,438.63	5.58%
291	PS	$569,619.67	$601,392.49	$31,772.82	5.58%
292	PP	$1,694,829.27	$1,789,316.27	$94,487.00	5.58%
293	PP	$1,267,613.54	$1,338,227.83	$70,614.29	5.57%
294	PS	$718,071.32	$758,050.96	$39,979.64	5.57%
295	PP	$1,269,784.56	$1,340,333.59	$70,549.03	5.56%
296	PS	$594,373.38	$627,383.60	$33,010.22	5.55%
297	PP	$612,159.42	$646,015.09	$33,855.67	5.53%
298	PP	$2,855,948.92	$3,013,821.63	$157,872.71	5.53%
299	PS	$499,770.23	$527,393.93	$27,623.70	5.53%
300	PP	$2,148,356.33	$2,267,094.21	$118,737.88	5.53%
301	PS	$573,023.65	$604,689.73	$31,666.08	5.53%
302	PP	$680,081.61	$717,645.29	$37,563.68	5.52%
303	PS	$516,688.48	$545,224.49	$28,536.01	5.52%
304	PP	$2,116,837.40	$2,233,374.21	$116,536.81	5.51%
305	PS	$705,705.43	$744,544.15	$38,838.72	5.50%
306	PP	$496,330.33	$523,589.22	$27,258.89	5.49%

BILL IMPACT FOR SCHEDULE P CUSTOMERS

	Rate Schedule	Current ER [1]	Proposed Rates [2]	Variance (PR-CER)	% Increase
		A	B	C=(B-A)	D=(C/A)
308	PS	$511,917.66	$539,881.00	$27,963.34	5.46%
309	PP	$1,282,896.57	$1,352,920.47	$70,023.90	5.46%
310	PP	$1,030,512.27	$1,086,747.56	$56,235.29	5.46%
311	PP	$956,866.74	$1,009,079.20	$52,212.46	5.46%
312	PP	$593,945.64	$626,087.57	$32,141.93	5.41%
313	PP	$1,298,566.99	$1,368,814.85	$70,247.86	5.41%
314	PP	$496,574.14	$523,321.93	$26,747.79	5.39%
315	PP	$858,463.55	$904,629.48	$46,165.93	5.38%
316	PP	$1,023,164.79	$1,078,155.78	$54,990.99	5.37%
317	PP	$102,589.08	$108,102.14	$5,513.06	5.37%
318	PP	$817,038.38	$860,927.92	$43,889.54	5.37%
319	PP	$921,177.99	$970,611.13	$49,433.14	5.37%
320	PP	$1,778,797.33	$1,873,849.62	$95,052.29	5.34%
321	PP	$1,002,643.17	$1,055,888.87	$53,245.70	5.31%
322	PP	$896,507.21	$944,055.89	$47,548.68	5.30%
323	PP	$512,661.28	$539,846.94	$27,185.66	5.30%
324	PP	$704,450.45	$741,771.48	$37,321.03	5.30%
325	PP	$807,350.46	$849,842.27	$42,491.81	5.26%
326	PP	$523,260.57	$550,794.10	$27,533.53	5.26%
327	PP	$606,300.08	$638,195.52	$31,895.44	5.26%
328	PP	$527,889.92	$555,568.38	$27,678.46	5.24%
329	PP	$698,697.33	$735,329.16	$36,631.83	5.24%
330	PP	$905,609.72	$952,813.00	$47,203.28	5.21%
331	PP	$515,621.61	$542,413.21	$26,791.60	5.20%
332	PP	$443,318.23	$466,308.93	$22,990.70	5.19%
333	PP	$465,399.69	$489,492.34	$24,092.65	5.18%
334	PP	$548,608.27	$576,786.26	$28,177.99	5.14%
335	PP	$513,713.78	$540,024.53	$26,310.75	5.12%
336	PP	$576,331.47	$605,839.42	$29,507.95	5.12%
337	PP	$458,885.86	$482,290.40	$23,404.54	5.10%
338	PP	$471,986.58	$495,836.32	$23,849.74	5.05%
339	PP	$483,538.05	$507,496.85	$23,958.80	4.95%
340	PP	$1,039,762.62	$1,091,043.32	$51,280.70	4.93%
341	PP	$1,235,054.21	$1,235,361.64	$307.43	0.02%

1 Includes 2005 Rates for Customer Charge, Demand Charge, Energy Charge, and Power Factor; 7.221 ¢/kWh ECAF and respective 2007 Interim

2 Includes proposed rates for Customer Charge, Demand Charge, Energy Charge, and Power Factor

CA-IR-265

Ref: HECO Application to PUC – Advanced Metering Infrastructure Program (AMI Application).

Please provide a complete copy of the Company's AMI Application and related supporting Attachments and confidential documentation, as discussed with regard to the HECO T-8 Rate Case Update.

HECO Response:

The requested information is provided as Attachment 1 of this response. Confidential sections of the attachment are provided subject to the Protective Order filed on November 21, 2008 in this proceeding.

Attachment 1 is voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the document. An electronic copy of the requested information is being provided.

CA-IR-266

Ref: HECO Application to PUC – Dynamic Pricing Program (DPP Application).

Please provide a complete copy of the Company's DPP Application and related supporting Attachments and confidential documentation.

HECO Response:

The requested information is provided as Attachment 1 of this response.

Attachment 1 is voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the document. An electronic copy of the requested information is being provided.

CA-IR-267

Please describe all decisions made and actions taken by HECO management to date in response to the current financial and economic crisis, including:

a. Changes in financial management,
b. Revised staffing or workforce management strategies,
c. Supply contract renegotiation efforts,
d. Other cost reduction/austerity measures that have been implemented,
e. Changed commercial or credit/collection policies.
f. Provide complete copies of documents associated with or supportive of your response to parts (a) through (e) of this information request.
g. Provide calculations of each revision to the Company test year revenue requirement to account for each of the changes identified in your response to parts (a) through (e) of this information request.

HECO Response:

a. Actions taken by HECO to manage its liquidity included HECO providing its commercial paper ("CP") dealer increased authority in setting the maturity dates of HECO's CP – an action taken to increase the attractiveness of HECO's CP to investors and to aid in securing more favorable pricing. HECO also had frequent conversations with its CP dealer to keep abreast of the condition of the credit market. These conversations between the CP dealer and HECO, though informal and without any formal correspondence, provided a means for HECO to reassure itself on the condition of its CP market. For example, the dealer shared how much of HECO's CP was being sold or inventoried, as well as provided insight on institutional investors' activities, actions by the U.S. Treasury and how other corporate CP was performing. In addition, HECO reviewed the procedures to draw on its Syndicated Credit Facility ("SCF"), in preparation, should it have become necessary to exercise such options. HECO did not draw on its SCF.

b. The Company does not foresee any significant changes in the work needed to be performed as a result of the current financial and economic crisis. As it explained in its direct

testimonies and its rate case updates, there is a need for the Company to maintain a sufficient workforce necessary to ensure the provision of reliable service to its customers and to achieve the commitments specified in the HCEI Agreement which would enable Hawaii to significantly reduce its dependence on imported fossil fuels and move towards indigenously produced renewable energy and an ethic of energy efficiency. (See also the response to question d below.) As such, the Company has not made any decision to revise its staffing or workforce management strategies to specifically respond to the current financial and economic situation. However, to facilitate the processing of this proceeding, HECO has proposed on its own initiative to decrease its test year labor expenses and associated employee benefits and payroll taxes by $1.7 million (Rate Case Update, HECO T-1, pages 22-24).

c. HECO Purchasing establishes existing pricing contracts with various suppliers, and as these contracts expire, HECO has the option to extend, renegotiate, or re-bid the contracts. Pricing agreements typically have 2-3 year terms. HECO Purchasing Division closely tracks market conditions and since December 2008, the group has opted to bid-out pricing agreements that are about to expire to take advantage of the favorable market conditions, to the extent possible and where it makes good business sense. HECO also has alliance agreements with key suppliers (e.g., transformers, cable, poles, and other critical goods and equipment), which include price tracking mechanisms using market commodity indices. These mechanisms allow for annual, quarterly, and sometimes monthly adjustments to pricing to ensure fair treatment to both parties during changing market conditions for the duration of the contract.

d. As explained in the HECO T-2 update, the Company has reduced its sales forecast for 2009 by 173.1 gigawatt-hours (2.3% lower than the estimated sales in HECO's direct testimonies) due to lower residential use seen in 2008, record high oil prices in 2008, a deterioration in U.S. financial markets and a slowdown in the global economy. The electric sales reduction would reduce fuel and purchased power expenses and fuel inventory but these cost reductions would be more than offset by a reduction in electric sales revenue – $50,490,000 at current effective rates in the 2009 test year. The overall impact would be to increase HECO's revenue deficiency by $11,462,000 in the test year. As explained in the HECO T-1 update, rather than recover the revenue shortfall through the interim (or final) increase in the 2009 test year rate case, the Company proposes to recover any difference between its revenue requirement approved in this rate case and actual sales revenue through a decoupling revenue balancing account.

Given the prominence of the current energy agenda at both the state and federal levels, the Company does not foresee any decrease in energy initiatives. The HCEI Agreement committed HECO to facilitate the integration of substantial amounts of clean, renewable energy into its grid and to enable electricity consumers to manage their electricity use more effectively. The Company's rate case updates included certain actions and resource commitments that the Company will be implementing in 2009 to carry out the provisions of the HCEI Agreement. These include conducting studies (costing $2.2 million in 2009) necessary to integrate up to 400 MW of wind power into Oahu's grid that is produced by wind farms located on Lanai and/or Molokai and transmitted to Oahu via undersea cable systems. Although the Company proposes to recover the cost of these studies through the REIP Surcharge, if rejected, the Company would have to recover these costs in this rate

case. Achieving the commitments in the HCEI Agreement would also require additional labor and non-labor resources to timely manage the increasing number of renewable energy purchased power negotiations and the increasing work load associated with integrating new renewable energy resources onto the grid and to develop, support and implement new programs and initiatives specified in the agreement.

Further, in its direct testimonies, the Company has explained the need to expend additional dollars to operate and maintain its aging infrastructure in order to sustain reliable service and to keep up with escalating costs for labor, materials and services. For example, HECO T-7 explains that the average age of HECO's steam electric units is 45.7 years but these units are operating at very demanding duty levels and require comprehensive maintenance to sustain reliable performance. Comprehensive maintenance, replacement and upgrade of equipment and process improvements on these aging units benefit the ratepayer by avoiding the need to replace existing generating capacity and remain the least cost option to providing reliable service. The Company's transmission and distribution infrastructure is also aging and requires more emphasis on inspection and maintenance to identify and correct potential failures before they happen. In order to continue to provide quality service to meet the needs of its residential and business customers and to pursue long term state objectives to integrate clean energy onto the Company's grid, no cost cutting or austerity measures have been implemented at this time, specifically as a result of the current financial and economic crisis.

e. Please refer to CA-IR-116 (b) for a description of pro-active credit and collection policies and initiatives implemented to manage uncollectible revenue and improve processes. In

addition to these initiatives and specifically in response to the poor economic situation, HECO has also implemented the following initiatives to manage uncollectible revenue:

a. Shift in work focus from off-cycle meter read activities to field collections as described in CA-IR-315 (b) (2).

b. The addition of two meter readers to supplement field personnel by performing off-cycle reads and allow field service staff to focus on the increased higher level field work resulting from the poor economy as noted in CA-IR-315 (b) (2).

c. Newly formed process action team of inter-department Supervisors representing Credit, Field Services, and the Call Center to identify areas in our credit and collection procedures to further improve and manage our uncollectible revenue during this current financial and economic crisis.

f. The response corresponding to items (a)-(e) is as follows:

a. See Attachment 1 of this response for a sample of the communication vehicle used to convey the issuance request.

b. Not applicable.

c. Attachment 2 of this response shows the bid results for HECO stock pricing agreements recently bid-out in November and December 2008 as discussed in (c). The attachment also shows the recent price adjustments to the ABB distribution transformer alliance and Pyrsmian cable alliance.

d. Not applicable.

e. For supporting documentation for (e)(1) and (e)(2), please refer to Table 2 of CA-IR-315 (b) (2), page 3 for documentation supporting the shift in work focus to field collections in 2008; and Table 3 of CA-IR-315 (b) (2), page 3 for

documentation supporting the increase in the field collection work load in 2008. With respect to (e)(3), the newly formed process action team created to address the current financial and economic crisis held their initial meeting in January of 2009 to formulate their group. No data is available at this time.

g. The response corresponding to items (a)-(e) is as follows:

a. Not applicable.

b. Not applicable.

c. Price reductions realized in rebidding the stock pricing agreements reflect current competitive market conditions. However, the nominal spend amount for these contracts result in only marginal cost savings. While the alliance price changes, prompted by reductions in raw material commodities used to manufacture the goods, were more significant, the gains may be temporary. Future increases in commodity prices would erase cost savings realized in 1Q09. It is difficult to say with certainty that these cost savings will remain intact because future market conditions cannot be predicted. Accordingly, test year revenue requirements should not be adjusted until market fluctuations stabilize.

d. Not applicable.

Two additional temp meter readers were added to the Customer Accounts Expense in the Rate Case Update for $117,800 to offset the shift of two meter readers to supplement field personnel. In the last few months of 2008 as noted in CA-IR-319, Attachment 1, large bankruptcy write-offs were incurred and may not ease-up in the near future, impacting our current test year uncollectible accounts expense.

CONFIDENTIAL EMPLOYEE INFORMATION DELETED

[redacted]

From: [redacted]
Sent: Wednesday, October 22, 2008 3:59 PM
To: [redacted]
Cc: [redacted]
Subject: HECO CP Issuance - 10/23/08

For value on Thursday, October 23, 2008:

For **Hawaiian Electric Company, Inc.,** please issue $33,000,000:

$3,000,000 to mature on or before Thursday, October 30, 2008
$4,000,000 to mature on or before Friday, November 7, 2008
$7,000,000 to mature on or before Wednesday, November 12, 2008
$4,000,000 to mature on or before Thursday, November 13, 2008
$3,000,000 to mature on or before Friday, November 14, 2008
$9,000,000 to mature on or before Tuesday, November 18, 2008
$3,000,000 to mature on or before Wednesday, November 19, 2008

If necessary, however, you are authorized to go out 30 days or less; preferably issuing in 4 or more pieces and avoiding October 27 and 29 as we already have substantial maturities/payments on those dates.

Note: November 4, 11 and 27 are holidays for our Company; do not issue any paper to mature on those dates.

Also as a heads up, our forecast calls for the rollover of approximately $13 million for Friday, October 24, 2008.

Thanks,
[redacted]
Cash Management
[redacted]

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

Attachment 2 contains confidential information and is provided subject to

the Protective Order filed on November 21, 2008 in this proceeding.

CA-IR-268

Please provide complete copies of the Company's most recently prepared long run business plan and financial forecast, indicating the most current available view of operating revenues, expenses, capital investment, cash flow and return on investment for as many future years as are projected in the normal course of business.

HECO Response:

HECO is providing, as Attachment 1, its most recently prepared Sources and Applications of Funds report, which includes forecast capital expenditures, internal sources and financing information, and generally reflects cash flow. As HECO has not yet publicly released this latest consolidated Sources and Applications of Funds report, it is providing this report subject to the terms of Amended Protective Order No. 23378 to mitigate the concerns of not publicly disclosing financial information elaborated below.

HECO is also providing, as Attachment 2, a copy of the *Energy Agreement among the State of Hawaii, Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs and the Hawaiian Electric Companies* ("HCEI Agreement"), executed on October 20, 2008. The HCEI Agreement, signed by the Governor of the State of Hawaii, the Department of Business, Economic Development and Tourism, the Consumer Advocate, and the HECO Companies, documents a course of action to make Hawaii energy independent, and recognizes the need to maintain HECO's financial health in order to achieve that objective. While not formally a long range business plan for HECO, the HCEI Agreement includes numerous programs, projects and initiatives that HECO has committed to implement. In addition to the HCEI Agreement, please refer to the response to CA-IR-28 which includes as Attachment 1 a copy of the Hawaiian Electric Companies' *Corporate Strategies & Goals* for 2008 through 2012, which the Company has provided subject to the terms of Amended Protective Order No. 23378.

As HECO stated in its response to CA-IR-454 in Docket No. 04-0113 (HECO's 2005 test year rate case), in general, HECO has provided the forecast information that the Commission's rules require. In accordance with the Commission's rules, HECO provides the Commission and the Consumer Advocate with five-year capital expenditures estimates each year (see HECO 2009 Capital Expenditures Budget report filed with the Commission on March 4, 2009, a copy of which is provided in Attachment 3). While the Company has prepared projected financial information for 2009 and beyond, such as operating revenues, operating expenses and income, the Company objects to providing such information on the grounds that the information contains privileged commercial and financial information that is non-public, confidential information and disclosure of such information could trigger requirements under the rules and guidelines of the Securities and Exchange Commission and/or the New York Stock Exchange that information that would be meaningful to an investor (such as earnings estimates) be released to all investors, if the information is disclosed beyond a limited number of "insiders". Forecasts of earnings and returns are the types of information that, if selectively but not publicly released, could violate such requirements.

In addition, HECO objects to providing such financial information for 2009 and future years, as provision of such information without explanations of how the financial parameters were derived (including the assumptions that were made to derive such information as well as the basis for such assumptions) would be meaningless and confusing, and preparation of such explanation for post-test year estimates would be unduly burdensome. If HECO is required to produce such internally generated documents at the time of rate cases, then the information will have to be generated in a fashion suitable for external publication, rather than in its present form

used for internal management purposes. This would be unduly burdensome as well as counterproductive.

Furthermore, HECO objects to providing the most current available view of operating revenues, even under the amended protective order, as they reflect the Company's assumptions regarding the timing and amount of rate relief for this rate case and the decoupling proceeding (Docket No. 2008-0274). Disclosure of this information even under protective order could negatively impact the Company's efforts to obtain its requested rate relief. However, the revenue forecast uses the same updated sales forecast that the Company provided in the HECO T-2 Rate Case Update and confirmed in the response to CA-IR-283 as the basis for the Company's 2009 operating budget.

Without waiving any of the objections stated above, operating expense information taken from HECO's 2009 operating budget and preliminary operating expense projections for 2010 are also being provided in Attachment 4, but provided subject to the terms of Amended Protective Order No. 23378 to mitigate the concerns of not publicly disclosing financial information elaborated above.

HECO does not prepare a forecast of return on investment (return on rate base).

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

Hawaiian Electric Company, Inc.
Sources and Applications of Funds
($ IN THOUSANDS)

	2008 Actual	FORECAST 2009	2010	2011	2012	2013
APPLICATIONS:						
CAPITAL EXPENDITURES	169,923					
LESS AFUDC	-9,269					
LESS CONTRIBUTIONS IN AID OF CONSTRUCTION	-11,340					
NET CAPITAL EXPENDITURES	149,314					
OTHER REQUIREMENTS	100					
TOTAL APPLICATIONS	149,414					
SOURCES:						
INTERNAL SOURCES:						
DEPRECIATION & AMORTIZATION	87,263					
DEFERRED TAXES AND ITC	4,012					
RETAINED EARNINGS & OTHER, EXCLUDING AFUDC	46,373					
TOTAL INTERNAL SOURCES	137,648					
EXTERNAL FINANCING:						
SHORT-TERM BORROWINGS	0					
LONG-TERM DEBT ISSUANCE	14,407					
PREFERRED STOCK ISSUANCE	0					
PREFERRED STOCK ISSUANCE COSTS	0					
COMMON STOCK ISSUANCE	0					
TEMPORARY INVESTMENTS	-2,641					
TOTAL EXTERNAL FINANCING	11,766					
TOTAL SOURCES	149,414					

Attachments 2-3 are voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the documents. Electronic copies of the requested information are being provided.

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

Attachment 4 contains confidential information and is provided subject to

the Protective Order filed on November 21, 2008 in this proceeding.

CA-IR-268

Please provide complete copies of the Company's most recently prepared long run business plan and financial forecast, indicating the most current available view of operating revenues, expenses, capital investment, cash flow and return on investment for as many future years as are projected in the normal course of business.

HECO Response:

SUPPLEMENTAL RESPONSE:

This supplemental response is in addition to the response to CA-IR-268 that HECO initially filed on March 17, 2009. Without waiving any of the objections stated in the initial response, HECO provides Attachment 5 which includes proforma income statements for years 2009-2013 ("Five-Year Proforma"). The Company prepares the 2010-2013 proforma income statements primarily for general planning purposes, including to support the development of its financing and rate relief plans, but does not generally provide this information in its entirety to other departments, HECO management or to external parties. The proforma income statement for 2009 reflected on the Five-Year Proforma was provided to the Company's Board of Directors in January 2009.

Because the Company utilized a packaged software, the UIPlanner application, to derive the information on page 1 of Attachment 5, there are few formulas in the spreadsheet as the model algorithms generated certain output amounts

The 2009 and 2010 Other Operations and Maintenance (O&M) expense estimates included as part of the Five-Year Proforma were developed by the Company's individual departments in HECO's budgeting process and do not reflect ratemaking adjustments or normalizations. The Company estimated the 2011-2013 O&M expense estimate by escalating

the O&M expenses, including pension and OPEB expenses, from the prior year by [redacted]. Page 2 of Attachment 5 provides the O&M expense estimates by block of account upon which the O&M expenses for the 2011-2013 Five-Year Proforma was based. The 2010 O&M expenses in the Five-Year Proforma included incremental DSM expenses but the O&M expenses in years 2011-2013 excluded incremental DSM expenses. The spreadsheet on page 2 of Attachment 5 shows that the expenses for years 2011 through 2013 were derived by escalating the prior year's expense by [redacted]. To calculate the 2011 O&M expense, the Company excluded DSM expenses from the 2010 O&M expense estimate (as shown in the Five-Year Proforma) before escalating it by 3%. By escalating the resulting 2011 O&M expense by [redacted] and then the resulting 2012 O&M expense by [redacted], DSM expenses were effectively excluded from the O&M expense estimates for years 2011-2013.

Other assumptions underlying the amounts in the Five-Year Proforma are as follows:

- Revenues, fuel and purchase power were based on the 5 year sales and peak forecast submitted in the HECO T-2 Rate Case Update (but not reflected in Results of Operations) and a production simulation that considers factors such as unit overhauls and fuel prices. DSM revenues were eliminated in years 2011-2013. For years 2010-2013 revenues were set to achieve a book return on equity of [redacted].
- O&M expenses, as discussed above, were developed from the "bottom up" for 2009 and 2010 and 2011-2013 were escalated using 2010 as the base year. Since incremental DSM expense and related revenue taxes were assumed to offset incremental DSM revenues, these amounts were excluded in the 2011-2013 O&M expense estimates, but were estimated for the 2009 & 2010 O&M expense estimates. In addition, the O&M expense

estimates for 2009-2013 assumed that the new Customer Information System is to be placed in service in 2009 and included pension and OPEB expenses consistent with the HECO 2007 test year rate case interim D&O (for January 2009-May 2009) and HECO's 2009 pension and OPEB test year estimates (for June 2009-December 2010).

- Depreciation expense estimates were initially calculated in mid-2008 based on five year plant information, CIAC, and regulatory asset estimates. The 2009-2013 depreciation expense estimates were subsequently updated for certain project changes.
- Taxes other than income taxes consist of revenue taxes which are a function of revenues, and payroll taxes which are a function of payroll except the payroll taxes in 2011-2013 reflected a fixed (non-escalated) amount.
- Income taxes were based on taxable income and amortization of ITC and were generated through the UIPlanner model.
- AFUDC was based on HECO's 5 year capital budget filed with the Commission on March 4, 2009
- Interest expense was based on interest rates ranging from [redacted] for commercial paper and [redacted] for new revenue bond financing, and was generated through the UIPlanner model.
- Preferred stock dividends are based on assumed preferred stock financing and a dividend rate of [redacted] for new preferred stock issued.

The information in Attachment 2 contains privileged financial information that is non-public, confidential information and disclosure of such information could trigger requirements under the rules and guidelines of the Securities and Exchange Commission and/or the New York

Stock Exchange that information that would be meaningful to an investor (such as earnings estimates) be released to all investors, if the information is disclosed beyond a limited number of "insiders". Forecasts of earnings and returns are the types of information that, if selectively but not publicly released, could violate such requirements. As a result, the Company is providing this information under the terms of Amended Protective Order No. 23378.

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

Attachment 5 (Supplement 3/30/09) contains confidential information and is provided subject to the Protective Order filed on November 21, 2008 in this proceeding.

CA-IR-269

Ref: HECO Response to CA-IR-39, Attachment 1 (WP-101 Non Labor Alternate Sort Spreadsheet).

Please provide an update of this Attachment, substituting 2008 Recorded data in place of the Budget 2008 data previously provided.

HECO Response:

The information, submitted as Attachment 1, is being submitted under protective order as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

Attachment 1 is also voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the document. An electronic copy of the requested information is being provided.

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

CA-IR-269
DOCKET NO. 2008-0083
ATTACHMENT 1
PAGES 1-339 OF 339

Attachment 1 contains confidential information and is provided subject to the Protective Order filed on November 21, 2008 in this proceeding. Attachment 1 is also voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the document. An electronic copy of the requested information is being provided.

CA-IR-269

Ref: HECO Response to CA-IR-39, Attachment 1 (WP-101 Non Labor Alternate Sort Spreadsheet).

Please provide an update of this Attachment, substituting 2008 Recorded data in place of the Budget 2008 data previously provided.

HECO Response:

The 2008 actual year end data as of December 31, 2008 is not available at this time. The preliminary information for December 2008 will be made available in early February 2009. The preliminary information will be submitted under protective order as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

CA-IR-270

Ref: HECO Response to CA-IR-40, Attachment 1 (WP-101 Labor Expense Alternate Sort Spreadsheet).

Please provide an update of this Attachment, substituting 2008 Recorded data in place of the Budget 2008 data previously provided.

HECO Response:

The information, submitted as Attachment 1, is being submitted under protective order as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

Attachment 1 is also voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the document. An electronic copy of the requested information is being provided.

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

CA-IR-270
DOCKET NO. 2008-0083
ATTACHMENT 1
PAGES 1-646 OF 646

Attachment 1 contains confidential information and is provided subject to the Protective Order filed on November 21, 2008 in this proceeding. Attachment 1 is also voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the document. An electronic copy of the requested information is being provided.

CA-IR-270

Ref: HECO Response to CA-IR-40, Attachment 1 (WP-101 Labor Expense Alternate Sort Spreadsheet).

Please provide an update of this Attachment, substituting 2008 Recorded data in place of the Budget 2008 data previously provided.

HECO Response:

The 2008 actual year end data as of December 31, 2008 is not available at this time. The preliminary information for December 2008 will be made available in early February 2009. The preliminary information will be submitted under protective order as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

CA-IR-271

Please provide a detailed trial balance report for all active income statement and balance sheet HECO sub-accounts at close of business as of December 31, 2008.

HECO Response:

See Attachment 1 for the trial balance report as of December 31, 2008.

FINAL

R/N: SUB960A
R/D: 12/08

HAWAIIAN ELECTRIC COMPANY, INC
TRIAL BALANCE REPORT

RUN DATE: 02/09/09
RUN TIME: 15.10.32

ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
101	UTILITY PLANT IN SERVICE	2,582,246,073.56	15,653,859.00		2,597,899,932.56
105	PROPERTY HELD FOR FUTURE USE	2,330,757.73	.00		2,330,757.73
107	CONSTRUCTION WORK IN PROGRESS	153,662,113.06	35,091,650.87		188,753,763.93
TOTAL OTHER UTILITY PLANT		155,992,870.79	35,091,650.87		191,084,521.66
TOTAL UTILITY PLANT		2,738,238,944.35	50,745,509.87		2,788,984,454.22
(108)	ACCUMULATED DEPRECIATION	1,017,449,669.87 CR	4,532,336.38	6,366,397.03	1,019,283,730.52 CR
NET UTILITY PLANT		1,720,789,274.48	55,277,846.25	6,366,397.03	1,769,700,723.70
(111)	ACCUM AMORT-UTILITY PROP	9,211,465.35 CR	.00	5,547.50	9,217,012.85 CR
TOTAL ACCUMULATED DEPRECIATION		1,026,661,135.22 CR	4,532,336.38	6,371,944.53	1,028,500,743.37 CR
(121)	NON-UTILITY PROPERTY	6,300,115.76	.00	2,663.00	6,297,452.76
122	ACCM PROV DEPR NON-UTIL	1,107,191.72 CR		3,982.76	1,111,174.48 CR
TOTAL OTHER PROPERTY, NET		5,192,924.04	.00	6,645.76	5,186,278.28
TOTAL PROPERTY, PLANT AND EQUIPMENT, NET		1,716,770,733.17	55,277,846.25	6,378,590.29	1,765,669,989.13
123010	INVEST IN ASSOC CO - MECO	216,443,085.33		1,061,706.42	215,381,378.91
123020	INVEST IN ASSOC CO - HELCO	222,388,062.37		983,022.73	221,405,039.64
123030	Invest in Uluwehiokama Biofuel	142,587.73		1,118.06	141,469.67
123040	INVEST IN ASSOC CO - HECO CAP	.00	.00		.00
123050	INVEST IN TRUST II	.00	.00		.00
123060	Investment in Renewable Hawaii	114,422.27		9,333.82	105,088.45
123070	Invest in Trust III	1,546,400.00	.00		1,546,400.00
TOTAL INVESTMENTS IN SUBSIDIARIES		440,634,557.70	.00	2,055,181.03	438,579,376.67
124	OTHER INVESTMENTS	.00	.00		.00
128	SPECIAL FUNDS	.00	.00		.00
131	CASH	12,880,894.22		10,624,572.61	2,256,321.61
135	WORKING FUNDS	7,770.37	.00		7,770.37
TOTAL CASH		12,888,664.59	.00	10,624,572.61	2,264,091.98
136	TEMPORARY CASH INVESTMENTS	.00	.00		.00
141	NOTES RECEIVABLE	.00	.00		.00
145020	NOTES REC FROM ASSOC CO-HELCO	59,850,000.00	2,150,000.00		62,000,000.00
145030	NOTES REC FROM ASSOC CO-MECO	.00	.00		.00
145040	NOTES REC FROM ASSOC CO-HECO	.00	.00		.00

R/N: SUB960A
R/D: 12/08

HAWAIIAN ELECTRIC COMPANY, INC
TRIAL BALANCE REPORT

RUN DATE: 02/09/09
RUN TIME: 15.10.32

ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
TOTAL TEMPORARY INVESTMENTS		59,850,000.00	2,150,000.00		62,000,000.00
142010	CUSTOMER ACCOUNTS RECEIVABLE	143,802,210.32		33,248,950.44	110,553,259.88
144010	ALLOW BAD DEBT- BILLED ACCOUNT	1,808,845.35 CR	978,703.58		830,141.77 CR
CUSTOMER ACCOUNTS RECEIVABLE, NET		141,993,364.97	978,703.58	33,248,950.44	109,723,118.11
173	ACCRUED UUTILITY (UNBILL) REVE	84,628,459.48		9,835,700.56	74,792,758.92
144020	ALLOW BAD DEBT- UNBILLED ACCOU	83,782.17 CR		51,592.72	135,374.89 CR
ACCRUED UNBILLED REVENUES, NET		84,544,677.31		9,887,293.28	74,657,384.03
142020	OTHER CUSTOMER ACCOUNTS RECEIV	1,355,311.58	1,148,567.21		2,503,878.79
144030	ALLOW BAD DEBT- OCARS ACCOUNTS	618,809.82 CR	371,109.82		247,700.00 CR
CUSTOMER ACCOUNTS RECEIVABLE- OTHER, NET		736,501.76	1,519,677.03		2,256,178.79
143	OTHER ACCOUNTS RECEIVABLE	735,139.86	1,447,081.03		2,182,220.89
146100	ACCTS RECV FROM ASSOC CO-HECO	.00	.00		.00
146200	ACCTS RECV FROM ASSOC CO-HELCO	349,108.50 CR		201,349.85	550,458.35 CR
146300	ACCTS RECV FROM ASSOC CO-MECO	1,014,124.67		1,255,556.35	241,431.68 CR
146350	ACCTS REC FR ASSOC CO-LVI	.00	.00		.00
146390	A/R FROM HEICF	2.77 CR	.00		2.77 CR
146400	ACCTS RECV FROM ASSOC CO-HEI	37,100.00	68,900.00		106,000.00
146410	ACCTS RECV FROM ASSOC CO-HEIII	100.00	.00		100.00
146420	ACCTS RECV FROM ASSOC CO-MPC	.00	.00		.00
146430	ACCTS RECEIVABLE - TOOTS(HTB)	124.11	11.66		135.77
146440	ACCTS RECV FROM ASSOC CO-YBL	.00	.00		.00
146450	ACCTS RECV FROM ASSOC CO-ASB	13,470.02		9,070.02	4,400.00
146460	ACCTS RECV FROM ASSOC CO-PECS	1,500.00	.00		1,500.00
146470	ACCTS RECV FROM ASSOC CO-HPC	.00	.00		.00
146480	ACCTS RECV FROM ASSOC CO-HEIDI	100.00	.00		100.00
146490	ACCTS REC FR ASSOC CO-HERS	.00	.00		.00
146491	AR FR HEIDC,INC	.00	.00		.00
146492	ACCTS REC FROM PROVISTECH	.00	.00		.00
146493	ACCTS REC FROM HEI LEASING	.00	.00		.00
146494	ACCTS REC FROM HEI PROPERTIES	100.00	.00		100.00
146495	AR HECO Credit Union	800.00	801.72		1,601.72
146496	Accts Rec from Renewable Hawai	4,997.94	1,850.55		6,848.49
146497	Acct Rec-Uluwehiokama Biofuels	4,065.42	794.05		4,859.47
ACCOUNTS RECEIVABLE FROM ASSOC CO.		727,370.89	72,357.98	1,465,976.22	666,247.35 CR
146500	INT REC FROM HEI	.00	.00		.00
146510	INT REC FROM HELCO	243,224.00		32,498.32	210,725.68
146520	INT REC FROM MECO	2,237.76		2,237.76	.00

ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
146530	INT REC FROM HECO	.00	.00		.00
146540	INT REC FROM RHI	.00	.00		.00
INT REC FROM ASSOC CO.		245,461.76	.00	34,736.08	210,725.68
TOTAL ACCOUNTS & INTEREST RECEIVABLE		228,982,516.55	4,017,819.62	44,636,956.02	188,363,380.15
151010	FUEL STOCK-LSFO	83,488,307.72		32,792,069.84	50,696,237.88
151020	FUEL STOCK- DIESEL	3,451,430.82		776,653.70	2,674,777.12
151030	FUEL STOCK- OTHER	.00	.00		.00
152010	THRUPUT/TRUCKING CHGS-HONOLULU	158,627.69	12,270.47		170,898.16
152020	PIPELINE THRUPUT CHGS-WAIAU	.00	.00		.00
152030	PIPELINE THRUPUT CHGS-KAHE	.00	.00		.00
152040	Trucking Chgs - DG	3,679.15	553.54		4,232.69
TOTAL FUEL STOCK		87,102,045.38	12,824.01	33,568,723.54	53,546,145.85
(154)	TOTAL MATERIALS AND SUPPLIES	16,801,732.29	.00	443,854.45	16,357,877.84
163	STORES EXPENSE	708,720.43		482,944.70	225,775.73
TOTAL MATERIALS AND SUPPLIES		17,510,452.72	.00	926,799.15	16,583,653.57
(166)	PREPAYMENTS	4,051,099.55	263,967.38	457,127.41	3,857,939.52
171	INTEREST & DIVIDENDS RECEIVABL	210,200.48		120,554.98	89,645.50
172	RENTS RECEIVABLE	.00	.00		.00
174	MISC CURRENT & ACCRUED ASSETS	1,875,811.55	1,093,880.43		2,969,691.98
TOTAL OTHER CURRENT ASSETS		6,137,111.58	1,357,847.81	577,682.39	6,917,277.00
TOTAL CURRENTS ASSETS		412,470,790.82	7,538,491.44	90,334,733.71	329,674,548.55
(1811)	UNAMORTIZED DEBT EXPENSE	9,864,817.59	5,300.80	67,800.61	9,802,317.78
(1812)	UNAMORTIZED DEBT DISCOUNT	999,745.75	.00	5,666.65	994,079.10
182	EXTRAORDINARY PROPERTY LOSS	.00	.00		.00
183	PRELIM SURVEY & INVESTIGATION	.00	.00		.00
184010	CLEARINGS-PAYROLL TAXES	175,963.72 CR	175,963.72		.00
184030	CLEARINGS-NON PRODUCTIVE WAGES	24,705.51		24,705.51	.00
184050	CLR-POWER SUPPLY	93,268.72	566,805.83		660,074.55
184060	CLR-ENERGY DELIVERY	1,419,774.43	261,515.51		1,681,289.94
184080	CLEARINGS-CUSTOMER INSTALLATIO	334,297.97	17,396.53		351,694.50
184110	CLEARINGS-VEHICLES	118.82 CR	118.82		.00
184111	Clr-Vehicle Inventory	241,098.17		4,947.05	236,151.12

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ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
184120	CLEARINGS-ITS DEPT.	12,973.37 CR	20,319.52		7,346.15
184130					
185	TEMPORARY FACILITIES	156,630.50 CR	21,890.34		134,740.16 CR
186000	OTHER DEFERRED DEBITS - MISC	9,555,428.13	1,109,849.58		10,665,277.71
186010	OTHER CWIP-NONUTILITY	.00	.00		.00
186020	PROPERTY DAMAGE CLAIM BILLABLE	.00	.00		.00
186030	PROJECT APPRISE COSTS	.00	.00		.00
186040	Proj ELLIPSE def cost	.00	.00		.00
186050	CIS Project Deferred Costs	11,108,687.28	484,517.81		11,593,205.09
186060	HR Suite Proj Phase 1	1,213,681.62	283,228.86		1,496,910.48
186061	HR Suite Proj Phase 2	.00	.00		.00
186070	OMS Project Deferred Costs	4,597,365.88	86,768.54		4,684,134.42
186071	TMS Project Deferred Costs	.00	.00		.00
186072					
186073					
186074					
186075					
186076					
186200	CHARGES BILL TO ASSOC COS-HELC	2,372.44	142,477.71		144,850.15
186250	CHARGES BILL TO ASSOC COS-HECO	.00	.00		.00
186300	CHARGES BILL TO ASSOC COS-MECO	.00	48,460.05		48,460.05
186380	CHARGES BILL TO ASSOC COS-LVI	.00	.00		.00
186390	CHARGES BILL TO ASSOC COS-HEIC	.00	.00		.00
186400	CHARGES BILL TO ASSOC COS-HEI	4,316.96	329.19		4,646.15
186410	CHARGES BILL TO ASSOC COS-HEII	88.99 CR	45.40		43.59 CR
186420	CHARGES BILL TO ASSOC COS-MPC	.00	.00		.00
186430	CHARGES BILL TO ASSOC COS- TOO	188.34 CR		.41	188.75 CR
186440	CHARGES BILL TO ASSOC COS-YBL	.00	.00		.00
186450	CHARGES BILL TO ASSOC COS-ASB	7,384.56		5,875.16	1,509.40
186460	CHARGES BILL TO ASSOC COS-PECS	3,051.01		3,955.07	904.06 CR
186470	CHARGES BILL TO ASSOC COS-HEIP	.00	.00		.00
186480	CHARGES BILL TO ASSOC COS-HEID	37.57 CR		58.43	96.00 CR
186481	CHGS BILL HEIDC INC	.00	.00		.00
186482	CHARGES BILL TO PROVISTECH	.00	.00		.00
186483	CHARGES BILL TO HEI LEASING IN	.00	.00		.00
186484	CHARGES BILL TO HEI PROPERTIES	88.34 CR	11.58		76.76 CR
186485	Chg bill HECO CrUnion	1.72	14.72		16.44
186486	Charges Billable-Renewable Haw	.00	.00		.00
186487	Charges Billable-Uluwehi Biofu	.00	.00		.00
186490	OTH DEF DEBITS- INV INC REC RB	.00	.00		.00
186701	REG ASSET-OTHER	12,634,092.55	2,125,532.61		14,759,625.16
186710	REG ASSET- DEBT EXPENSES	8,444,638.47		60,596.97	8,384,041.50
186720	REG ASSET- RATE CASE COSTS	942,096.45	58,837.48		1,000,933.93
186730	REG ASSET- SFAS 109	57,431,192.09	322,022.07		57,753,214.16
186740	REG ASSET-P/S EXP	1,106,308.45		4,590.44	1,101,718.01
186750	REG ASSET-INV INC DIFF	1,176,740.04		9,620.88	1,167,119.16
186760	REGA-PENSION TRACKING	108,447,482.00	158,933,706.00		267,381,188.00
186770	REG A-OPEB TRACKING	11,020,829.00	25,485,555.00		36,506,384.00

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ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
186780	REG ASSET-HCEI	.00	.00		.00
186910	REG ASSET-IRP COSTS	.00	.00		.00
186990	PAYROLL HOME COST DEFAULT	67,416.38 CR		5,399.77	72,816.15 CR
186999	BATCH INBALANCE SUSPENSE (DEFA	.00	.00		.00
187	RESEARCH & DEVELOPMENT EXPEND	.00	.00		.00
TOTAL OTHER DEFERRED DEBITS		240,259,870.76	190,150,667.67	193,216.95	430,217,321.48
TOTAL ASSETS		2,810,135,952.45	252,967,005.36	98,961,721.98	2,964,141,235.83
201	COMMON STOCK ISSUED	85,387,140.19 CR	.00		85,387,140.19 CR
207	PREMIUM ON CAPITAL STOCK	303,135,445.86 CR	.00		303,135,445.86 CR
211	MISC PAID IN CAPITAL	1,365,717.11 CR		285,261.00	1,650,978.11 CR
2141	CAPITAL STOCK EXPENSE-COMMON	3,526,923.20	.00		3,526,923.20
2142	QUIPS ISSUE COSTS	.00	.00		.00
2143	PREFERRED STOCK EXPENSE	394,692.78	.00		394,692.78
PREMIUM AND EXPENSE ON CAPITAL STOCK		300,579,546.99 CR	.00	285,261.00	300,864,807.99 CR
NET INCOME FOR COMMON		97,248,427.62 CR	164,522,646.47	159,249,306.06	91,975,087.21 CR
215	APPROPRIATED RETAINED EARNINGS	.00	.00		.00
216	UNAPPRORIATED RETAINED EARNING	724,704,454.97 CR	.00		724,704,454.97 CR
435	BAL TRANSF TO RETAINED EARNING	.00	.00		.00
438	DIV DECLARED - COMMON STOCK	14,089,000.00	.00		14,089,000.00
439	ADJ TO RETAINED EARNINGS	.00	.00		.00
TOTAL RETAINED EARNINGS		807,863,882.59 CR	164,522,646.47	159,249,306.06	802,590,542.18 CR
TOTAL COMMON STOCK EQUITY		1,193,830,569.77 CR	164,522,646.47	159,534,567.06	1,188,842,490.36 CR
204	PREFERRED STOCK ISSUED	.00	.00		.00
2041	PREFERRED STOCK NON MANDATORY	22,293,140.00 CR	.00		22,293,140.00 CR
2042	PREFERRED STOCK MANDATORY	.00	.00		.00
TOTAL PREFERRED STOCK		22,293,140.00 CR	.00		22,293,140.00 CR
221	BONDS	.00	.00		.00
2241	OTHER LONG-TERM DEBT	.00	.00		.00
224200	REVENUE BONDS	551,580,000.00 CR	.00		551,580,000.00 CR
224201	REVENUE BONDS CONTRA	.00	.00		.00
TOTAL LONG-TERM DEBT		551,580,000.00 CR	.00		551,580,000.00 CR
223	LONG TERM ADVANCE FROM ASSOC C	31,546,400.00 CR	.00		31,546,400.00 CR
TOTAL CAPITALIZATION		1,799,250,109.77 CR	164,522,646.47	159,534,567.06	1,794,262,030.36 CR

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ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
239	CURRENT PORTION - LT DEBT	.00	.00		.00
231000	N/P-BNK LOANS	.00	.00		.00
231010	COMMERCIAL PAPER	63,634,447.52 CR	63,634,447.52		.00
233000	NOTES PAY-HECO	.00	.00		.00
233010	NOTES PAY-HELCO	.00	.00		.00
233020	NOTES PAY-MECO	15,000,000.00 CR	3,000,000.00		12,000,000.00 CR
233100	NOTES PAY-HEI	.00		41,550,000.00	41,550,000.00 CR
TOTAL NOTES PAYABLE		78,634,447.52 CR	66,634,447.52	41,550,000.00	53,550,000.00 CR
232000	ACCOUNTS PAYABLE - OTHER	6,190.96 CR	.00		6,190.96 CR
232100	ACCOUNTS PAYABLE-SYSTEM	12,179,447.74 CR		27,198,314.81	39,377,762.55 CR
232110	ACCOUNTS PAYABLE - RETENTION	1,897,429.61 CR		986,587.85	2,884,017.46 CR
232200	ACCOUNTS PAYABLE - FUEL OIL	51,290,268.57 CR	38,774,900.90		12,515,367.67 CR
232310	ACCOUNTS PAYABLE SYSTEM DEFAUL	.00	.00		.00
232530	ACCOUNTS PAYABLE-PURCHASE POWE	34,190,716.54 CR	4,735,775.47		29,454,941.07 CR
TOTAL ACCOUNTS PAYABLE		99,564,053.42 CR	43,510,676.37	28,184,902.66	84,238,279.71 CR
(2360) FEDERAL INCOME TAXES ACCRUED		2,516,141.10 CR	2,248,835.63		267,305.47 CR
(2361) STATE INCOME TAXES ACCRUED		296,250.02 CR	161,273.05		134,976.97 CR
236200	FEDERAL UNEMPLYMT TAX ACCRUED	1,419.55 CR		641.83	2,061.38 CR
236210	STATE UNEMPLYMT TAX ACCRUED	.00	.00		.00
236220	FICA EMPLOYER ACCRUED	54,487.18 CR		300,596.03	355,083.21 CR
236300	FRANCHISE TAX ACCRUED	43,552,414.89 CR		4,612,702.09	48,165,116.98 CR
236310	PSC TAX ACCRUED	85,045,911.54 CR		1,521,372.80	86,567,284.34 CR
236320	STATE PUC FEES ACCRUED	11,408,361.40 CR	2,717,016.30		8,691,345.10 CR
236400	STATE GEN EXCISE & USE TAX ACC	136,286.67 CR		46,816.34	183,103.01 CR
236410	FEDERAL EXCISE TX ACCRUED	.00	.00		.00
TOTAL TAXES ACCRUED		143,011,272.35 CR	5,127,124.98	6,482,129.09	144,366,276.46 CR
237000	INTEREST PAYABLE- OTHERS	1,162,724.02 CR		98,054.66	1,260,778.68 CR
237010	INT PAYABLE- FMB	.00	.00		.00
237020	INT PAYABLE- MTN	.00	.00		.00
237030	INT PAYABLE- 5.15% MTN DUE 199	.00	.00		.00
237100	INT PAYABLE- 1982 REV BOND	.00	.00		.00
237110	INT PAYABLE- 1984 REV BOND	.00	.00		.00
237120	INT PAYABLE- 1987 REV BOND	.00	.00		.00
237130	INT PAYABLE- 1988 REV BOND	.00	.00		.00
237140	INT PAYABLE- 1990A REV BOND	.00	.00		.00
237150	INT PAYABLE- 1990B REV BOND	.00	.00		.00
237160	INT PAYABLE- 1990C REV BOND	.00	.00		.00
237170	INT PAYABLE- 1992 REV BOND	.00	.00		.00
237180	INT PAYABLE- 1993A REV BOND	227,074.51 CR		227,082.53	454,157.04 CR

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ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
237190	INT PAYABLE- 1995A REV BOND	.00	.00		.00
237200	INT PAYABLE- 1996A REV BOND	.00	.00		.00
237210	INT PAYABLE- 1996B REV BOND	.00	.00		.00
237220	INT PAYABLE- 1997A REV BOND	470,832.56 CR		235,416.67	706,249.23 CR
237230	INT ACCR-98A RB	351,285.00 CR		175,642.50	526,927.50 CR
237260	Int Accr-Ref 99B	862,500.00 CR	718,750.00		143,750.00 CR
237261	INT PAYABLE-99C RB	180,819.23 CR		180,832.05	361,651.28 CR
237262	INT PAYABLE-REF 99D RB	410,000.00 CR		82,000.00	492,000.00 CR
237263	INT PAYABLE-REF 2000 RB	1,092,500.00 CR		218,500.00	1,311,000.00 CR
237264	INT PAYABLE-2002A RB	510,000.00 CR		170,000.00	680,000.00 CR
237265	INT PAYABLE-REF 2003A RB	.00	.00		.00
237266	INT PAYABLE-REF 2003B RB	999,999.04 CR	833,333.42		166,665.62 CR
237267	INT PAYABLE-REF 2005A RB	800,000.00 CR		160,000.00	960,000.00 CR
237268	INT PAYABLE-2007A RB	1,185,856.18 CR		364,143.82	1,550,000.00 CR
237269	INT PAYABLE-REF 2007B RB	237,666.14 CR		237,666.62	475,332.76 CR
237300	INT ON NOTES PAY TO HECO	.00	.00		.00
237310	INT ON NOTES PAY TO HELCO	.00	.00		.00
237320	INT ON NOTES PAY TO MECO	614.38 CR	563.01		51.37 CR
237400	INT ON NOTES PAY TO HEI	216.43 CR		19,175.78	19,392.21 CR
237500	INT ACCR ON CUST DEPOSITS	886,048.53 CR		11,670.92	897,719.45 CR
237510	INT PAYABLE - KEYMAN INSURANCE	660,336.38 CR	660,336.38		.00
237600	INT PAYABLE - QUIDS TRUST	.00	.00		.00
237610	INTEREST PAYABLE-QUIDS TRUST I	.00	.00		.00
237620	INT PAY-TRUST III	347,448.52 CR	341,752.63		5,695.89 CR
238000	PREFERRED DIVIDENDS PAYABLE	141,083.74 CR		89,992.14	231,075.88 CR
238010	COMMON DIVIDENDS PAYABLE	.00	.00		.00
TOTAL INTEREST AND DIVIDENDS ACCRUED		10,527,004.66 CR	2,554,735.44	2,270,177.69	10,242,446.91 CR
234100	ACCTS PAYABLE - HECO	.00	.00		.00
234200	ACCTS PAYABLE - HELCO	.00	.00		.00
234300	ACCTS PAYABLE - MECO	1,111,822.15 CR	1,111,822.15		.00
234400	ACCTS PAYABLE - HEI	685,419.31 CR	81,417.30		604,002.01 CR
234410	ACCTS PAYABLE - HEIII	.00	.00		.00
234420	ACCTS PAYABLE - MPC	.00	.00		.00
234430	ACCTS PAYABLE - TOOTS (HTB)	.00	.00		.00
234440	ACCTS PAYABLE - YBL	.00	.00		.00
234460	ACCTS PAYABLE - PECS	.00	.00		.00
234470	ACCTS PAY - HERS	.00	.00		.00
234480	ACCTS PAY - LVI	.00	.00		.00
235	CUSTOMER DEPOSITS	8,561,745.71 CR		566,459.74	9,128,205.45 CR
241010	TAX PAY - FIT W/H	.00		2,500.00	2,500.00 CR
241020	TAX PAY - SIT W/H	280,132.79 CR	279,408.97		723.82 CR
241030	TAX PAY - FICA W/H	.00		742.71	742.71 CR
242000	MISC CURR/ACCRD LIAB	2,076,204.41 CR		10,281,490.68	12,357,695.09 CR
242010	ACCRUED PAYROLL	2,954,496.27 CR		1,438,222.02	4,392,718.29 CR
242030	ACCRUED VACATION LIAB	5,090,770.11 CR	233,337.77		4,857,432.34 CR
242060	RETIRE PLAN LIAB	75,444,130.37 CR		160,087,447.59	235,531,577.96 CR

ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
242100	FLEX- HEALTH CARE SPEND ACCT	.00	.00		.00
242110	FLEX- DEPENDENT CARE SPEND ACC	.00	.00		.00
242140	FLEX-DEPEND LIFE INS	.00	.00		.00
242150	FLEX-AD&D INS	.00	.00		.00
242200	INCENTIVE COMP PROGRM	712,250.00 CR		64,750.00	777,000.00 CR
242210	EXECUTIVE INCENTIVE PLAN	922,758.50 CR		55,594.50	978,353.00 CR
242900	PREF STOCK SINK FUND REQ	.00	.00		.00
TOTAL OTHER PAYABLES AND ACCRUALS		97,839,729.62 CR	1,705,986.19	172,497,207.24	268,630,950.67 CR
TOTAL CURRENT LIABILITIES		429,576,507.57 CR	119,532,970.50	250,984,416.68	561,027,953.75 CR
251	UNAMORT PREM ON DEBT	.00	.00		.00
252	CUSTOMER ADVANCES	982,070.87 CR	35,223.26		946,847.61 CR
UNAMORT PREM / CUSTOMER ADV		982,070.87 CR	35,223.26		946,847.61 CR
(253)	OTHER DEF CREDITS-MISC	13,528,802.39 CR	604,310.69	30,950.00	12,955,441.70 CR
(2531)	OTHER DEF CREDIT-INV INC DIFF	2,334,914.28	.00	9,018.96	2,325,895.32
(2532)	OPEB LIABILITY	26,139,485.24 CR	381,378.33	23,896,353.00	49,654,459.91 CR
TOTAL OTHER DEFERRED CREDITS		37,333,373.35 CR	985,689.02	23,936,321.96	60,284,006.29 CR
(254)	REGULATORY LIABILITIES	197,381,900.38 CR	54,511.28	4,675,971.42	202,003,360.52 CR
255010	ACCUM DEF ITC - 1962 REV ACT	.00	.00		.00
255020	ACCUM DEF ITC - 1971 REV ACT	2,457,648.05 CR	59,922.50		2,397,725.55 CR
255100	ITC CARRYBACK & CARRYFORWARD	.00	.00		.00
255200	ACCUM DEF STATE ITC	30,299,784.34 CR	196,601.63		30,103,182.71 CR
TOTAL UNAMORTIZED ITC		32,757,432.39 CR	256,524.13		32,500,908.26 CR
282100	ACCUM DEF FIT - LIB DEPR - UTI	59,252,926.66 CR	724,939.03		58,527,987.63 CR
282200	ACCUM DEF SIT - LIB DEPR - UTI	6,085,270.42 CR	61,633.21		6,023,637.21 CR
283000	ACCUM DEF INC TAX - OTH UTIL	70,099,684.77 CR	397,309.40		69,702,375.37 CR
TOTAL DEF INC TAXES - UTILITY		135,437,881.85 CR	1,183,881.64		134,254,000.21 CR
282103	ACCUM DEF FIT - LIB DEPR - NON	92,457.33 CR	1,310.14		91,147.19 CR
282203	ACCUM DEF SIT - LIB DEPR - NON	21,401.75 CR	239.57		21,162.18 CR
283003	ACCUM DEF INC TAX - OTH NON-UT	8,820.86		1,386.68	7,434.18
TOTAL DEF INC TAXES - NON-UTILITY		105,038.22 CR	1,549.71	1,386.68	104,875.19 CR
TOTAL DEFERRED INCOME TAXES		135,542,920.07 CR	1,185,431.35	1,386.68	134,358,875.40 CR

ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
271	CONTRIB IN AID OF CONSTRUCTION	177,311,638.05 CR		1,445,615.59	178,757,253.64 CR
TOTAL LIABILITIES AND CAPITALIZATION		2,810,135,952.45 CR	286,572,996.01	440,578,279.39	2,964,141,235.83 CR
403000	DEPR EXP-MONTHLY ACCR	75,743,805.50	6,885,800.50		82,629,606.00
403010	DEPR EXP-AMORT CIAC	8,258,659.75 CR		750,787.25	9,009,447.00 CR
403020	DEPR EXP-BILLED TO OTHERS-CR	.00	.00		.00
403030	DEPR EXP- AMORT INV INC DIFF	202,079.86	18,467.69		220,547.55
403040	Depr - Amort Vintage	6,405,969.13	582,360.87		6,988,330.00
403140	DEPR EXP CLEARED	.00	.00		.00
403300	DEPR EXP- AMORT REG ASSETS	1,203,388.60	109,448.50		1,312,837.10
404	AMORT OF LIMITED TERM ELEC PLA	61,022.50	5,547.50		66,570.00
TOTAL DEPRECIATION AND AMORTIZATION		75,357,605.84	7,601,625.06	750,787.25	82,208,443.65
408010	TAX OTH THN INC-FRANCHISE	43,551,010.72	4,612,702.09		48,163,712.81
408020	TAX OTH THN INC-PSC TAX	106,495,662.00	8,234,370.80		114,730,032.80
408030	TAX OTH THN INC-PUC FEES	9,048,059.63	699,606.70		9,747,666.33
408040	TAX OTH THN INC-PAYROLL TAX	68,352.67	4,953.32		73,305.99
408050	OVERHEADS TRSF TO TAX OTH THAN	6,063,272.94	639,997.04		6,703,269.98
408060	TAX OTH THN INC CLEARED	.00	.00		.00
408070	TX OTH INC OTHERS	.00	.00		.00
TOTAL TAX OTH THAN INCOME		165,226,357.96	14,191,629.95		179,417,987.91
409000	FED INC TAXES, UTIL OPER INCOM	25,384,673.45	332,714.71		25,717,388.16
409100	STATE INC TAXES, UTIL OPER INC	3,732,037.15		151,846.21	3,580,190.94
TOTAL CURRENT INC TAX - UTILITY		29,116,710.60	332,714.71	151,846.21	29,297,579.10
410100	PROV FOR DEFER FIT- UTILITY	2,920,607.96		1,370,490.12	1,550,117.84
410120	PROV FOR DEFER SIT- UTILITY	508,477.49 CR		34,916.52	543,394.01 CR
411100	FIT DEFER PRIOR YEAR- UTILITY	2,092,366.26	.00		2,092,366.26
411120	SIT DEFER PRIOR YEAR- UTILITY	378,436.67	.00		378,436.67
TOTAL DEFERRED INCOME TAX-UTIL		4,882,933.40	.00	1,405,406.64	3,477,526.76
4121	ITC DEFERRED TO FUTURE PERIOD	2,014,755.00		81,333.00	1,933,422.00
4122	ITC RESTORED TO OPERATING INC	1,262,816.37 CR		115,268.63	1,378,085.00 CR
TOTAL INVESTMENT TAX CREDITS		751,938.63		196,601.63	555,337.00
4082	TAX OTH THN INC-OTH INC & DED	4,017.62	437.98		4,455.60
4124	ITC-NON REG OPS	.00	.00		.00
409210	FED INC TAXES, NON-REG INCOME	380,877.60 CR		51,550.34	432,427.94 CR
409220	STATE INC TAXES, NON-REG INCOM	69,644.96 CR		9,426.84	79,071.80 CR
TOTAL CURRENT INCOME TAX-NONUTIL		450,522.56 CR		60,977.18	511,499.74 CR

ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
410210	PROV FOR DEFER FIT- NON REG	13,950.90 CR		137.67	14,088.57 CR
410220	PROV FOR DEFER SIT TAX- NON RE	2,550.91 CR		25.36	2,576.27 CR
411210	FIT DEF PRIOR YEAR- NON REG	3,278.96 CR	.00		3,278.96 CR
411220	SIT DEF PRIOR YEAR- NON REG	599.59 CR	.00		599.59 CR
TOTAL DEFERRED INCOME TAX-NONUTIL		20,380.36 CR	.00	163.03	20,543.39 CR
(419)	INTEREST & DIVIDEND INCOME	1,659,660.37 CR	102,798.10	338,335.68	1,895,197.95 CR
421000	MISC NONOPER INC	.00		91,555.00	91,555.00 CR
TOTAL INVESTMENT INCOME		1,659,660.37 CR	102,798.10	429,890.68	1,986,752.95 CR
421020	UNDISTR SUB EARN-HELCO	20,550,645.54 CR	909,424.73		19,641,220.81 CR
421030	UNDISTR SUB EARN-MECO	18,864,120.88 CR	1,072,740.42		17,791,380.46 CR
421040	UNDIST SUB EARN-CAP TRUST	.00	.00		.00
421050	UNDIS EARN-TRUST II	.00	.00		.00
421060	Undistr Earnings-Renewable Haw	67,193.29	9,333.82		76,527.11
421070	Undis Earn-Trust III	92,139.63 CR		8,376.37	100,516.00 CR
421080	Undis Earn-Uluwehiokama Biofue	345,684.92	1,118.06		346,802.98
415	REVENUES FROM CONTRACT SERVICE	2,167.00 CR		695.00	2,862.00 CR
416	COSTS & EXP OF CONTRACT SERVIC	.00	.00		.00
417100	REVENUES FROM NONUTILITY OPERA	14,340.13 CR		2,436.58	16,776.71 CR
417200	EXPENSES FROM NONUTILITY OPERA	53,836.67	8,615.67		62,452.34
418	NON-OPER RENTAL INCOME	10,695.89 CR	.00		10,695.89 CR
420100	TAX EFFECT ON AFUDC	4,022,930.08 CR		491,393.07	4,514,323.15 CR
422	GAINS/(LOSSES) DISPOSE OTHER P	74,776.44 CR	.00		74,776.44 CR
TOTAL OTHER INCOME AND GAIN		43,165,100.71 CR	2,001,232.70	502,901.02	41,666,769.03 CR
(425)	MISC AMORTIZATION	50,495.06	4,590.44		55,085.50
(426)	MISC INC DEDUCTIONS	841,534.90	140,784.58		982,319.48
TOTAL OTHER INCOME DEDUCTIONS		892,029.96	145,375.02		1,037,404.98
428	AMORT OF DEBT DISC AND EXP	1,471,253.12	134,236.38		1,605,489.50
429	AMORT OF PREM ON DEBT(CREDIT)	.00	.00		.00
TOTAL AMORT OF NET BOND PREM AND EXP		1,471,253.12	134,236.38		1,605,489.50
427	INTEREST ON LONG-TERM DEBT	25,999,584.95	2,361,700.77		28,361,285.72
430	INTEREST ON DEBT PAY TO ASSOC	1,896,158.99	190,319.95		2,086,478.94
431	OTHER INTEREST EXPENSE	4,076,985.83	270,409.15		4,347,394.98
TOTAL INTEREST EXPENSE		33,443,982.89	2,956,666.25		36,400,649.14
420010	AFUDC EQUITY	6,316,194.58 CR		771,510.85	7,087,705.43 CR

R/N: SUB960A
R/D: 12/08

HAWAIIAN ELECTRIC COMPANY, INC
TRIAL BALANCE REPORT

RUN DATE: 02/09/09
RUN TIME: 15.10.32

ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
420030	AFUDC DEBT	2,444,451.70 CR		329,690.23	2,774,141.93 CR
437	DIV DECLARED - PREFERRED STOCK	989,914.86	89,992.14		1,079,907.00
440010	RESIDENTIAL SALES - BILL	542,626,226.45 CR		46,690,123.31	589,316,349.76 CR
440020	RESIDENTIAL SALES EMPLOYEES- B	2,557,983.46 CR		218,165.22	2,776,148.68 CR
440030	RESIDENTIAL SALES RETIREES- BI	1,412,990.55 CR		122,110.72	1,535,101.27 CR
440040	Sch R-TOU Billed Rev	.00	.00		.00
440050	Sch E-TOU Billed Rev	.00	.00		.00
440060	Sch E-TOU RET Billed Rev	.00	.00		.00
440110	RESIDENTIAL SALES - UNBILL	108,447.29	1,579,613.12		1,688,060.41
440120	EES SALES-UNBILL	478.92	22,300.54		22,779.46
440140	Sch R-TOU Unbill Rev	.00	.00		.00
440150	Sch E-TOU Unbill Rev	.00	.00		.00
440160	Sch E-TOU RET Unbilled Rev	.00	.00		.00
442010	GENERAL SERVICE SCH G	100,708,619.19 CR		8,142,979.60	108,851,598.79 CR
442020	GENERAL SERVICE SCH J	485,719,900.92 CR		39,991,183.88	525,711,084.80 CR
442030	GENERAL SERVICE SCH U	661,564.09 CR		48,545.73	710,109.82 CR
442040	GENERAL SERVICE SCH H	8,967,197.41 CR		702,506.48	9,669,703.89 CR
442050	GENERAL SERVICE SCH K	.00	.00		.00
442060	LARGE POWER SCH P	650,712,729.71 CR		55,607,966.69	706,320,696.40 CR
442070	SERVICE NO CHARGE	.00	.00		.00
442080	Sch P-TOU Billed Rev	.00	.00		.00
442110	GENERAL SERVICE SCH G UNBILL	40,125.39	456,340.99		496,466.38
442120	GENERAL SERVICE SCH J UNBILL	1,215,553.20 CR	2,685,636.68		1,470,083.48
442130	GENERAL SERVICE SCH U UNBILL	250.01	5,301.94		5,551.95
442140	GENERAL SERVICE SCH H UNBILL	29,907.85	35,934.46		65,842.31
442150	GENERAL SERVICE SCH K UNBILL	.00	.00		.00
442160	LARGE POWER SCH P UNBILL	942,618.21 CR	4,971,332.03		4,028,713.82
442180	Sch P-TOU Unbill Rev	.00	.00		.00
443010	Sch G-TOU Billed Non-Demand	.00	.00		.00
443110	Sch G-TOU Unbill Non-Demand	.00	.00		.00
443020	Sch J-TOU Billed Demand	.00	.00		.00
443120	Sch J-TOU UnBill Demand	.00	.00		.00
444010	PARKS BILL	1,158,952.37 CR		91,503.92	1,250,456.29 CR
444020	PUBLIC HIGHWAY BILL- SCH F	9,145,862.14 CR		775,675.41	9,921,537.55 CR
444030	GENERAL SERVICE TRAFFIC LIGHTS	34,440.55	11,565.91		46,006.46
444110	PARKS UNBILL	.00	.00		.00
444120	PUBLIC HIGHWAY UNBILL- SCH F	83,027.99 CR	79,218.22		3,809.77 CR
TOTAL ELECTRIC SALES REVENUE		1,805,699,575.68 CR	9,847,243.89	152,390,760.96	1,948,243,092.75 CR
414	GAINS(LOSSES) DISPOSE UTIL PRO	532,644.27 CR		54,511.28	587,155.55 CR
450	PENALTY CHG - NON-PAY ELEC SVC	2,133,456.96 CR		242,339.36	2,375,796.32 CR
451000	REVENUES- MISC SERVICES	947,150.20 CR		78,326.79	1,025,476.99 CR
451100	EXPENSES- MISC SERVICES	.00	.00		.00
454000	RENTAL OF ELEC PROP-REVENUES	1,055,421.42 CR		82,752.91	1,138,174.33 CR
454100	RENTAL OF ELEC PROP-EXPENSES	62,435.61	7,114.34		69,549.95

ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
456000	OTHER ELEC REV - GROSS REV	1,421,116.47 CR		53,165.75	1,474,282.22 CR
456100	OTHER ELEC REV - EXPENSES	2,360.69	.00		2,360.69
TOTAL OTHER OPERATING REVENUES		6,024,993.02 CR	7,114.34	511,096.09	6,528,974.77 CR
TOTAL OPERATING REVENUES		1,811,724,568.70 CR	9,854,358.23	152,901,857.05	1,954,772,067.52 CR
501010	FUEL-HONOLULU	29,979,389.44	3,768,093.50		33,747,482.94
501020	FUEL-WAIAU	209,443,221.04	21,941,892.02		231,385,113.06
501030	FUEL-KAHE	555,502,666.00	34,904,768.68		590,407,434.68
501090	FUEL-CAMPBELL	2,272,299.89	451,343.68		2,723,643.57
501095	FUEL OVHD CONTRA	.00	.00		.00
547	FUEL - DIESEL	7,650,632.43	912,300.52		8,562,932.95
5471					
FUEL		804,848,208.80	61,978,398.40		866,826,607.20
(555)	PURCHASED POWER	443,611,218.42	31,594,264.83		475,205,483.25
TOTAL FUEL AND PURCHASED POWER		1,248,459,427.22	93,572,663.23		1,342,032,090.45
500010	OPER SUPV & ENG-HONOLULU	160,693.06	60,440.83		221,133.89
500020	OPER SUPV & ENG-WAIAU	906,730.63	89,186.93		995,917.56
500030	OPER SUPV & ENG-KAHE	534,880.59	58,111.37		592,991.96
500095	PROD OPS OVHD CONTRA	.00	.00		.00
502010	STEAM EXP-HONOLULU	1,160,412.27	133,836.06		1,294,248.33
502020	STEAM EXP-WAIAU	3,397,752.44	605,768.57		4,003,521.01
502030	STEAM EXP-KAHE	3,895,204.10	512,036.85		4,407,240.95
505010	ELECTRIC EXPENSES-HONOLULU	919,147.17	104,209.94		1,023,357.11
505020	ELECTRIC EXPENSES-WAIAU	2,516,654.71	277,914.06		2,794,568.77
505030	ELECTRIC EXPENSES-KAHE	2,412,171.08	272,560.27		2,684,731.35
506010	MISC STEAM POWER EXP-HONOLULU	746,632.12	131,681.50		878,313.62
506020	MISC STEAM POWER EXP-WAIAU	2,796,132.54	333,364.99		3,129,497.53
506030	MISC STEAM POWER EXP-KAHE	2,329,344.29	358,072.11		2,687,416.40
507010	RENTS EXPENSE-HONOLULU	.00	.00		.00
507020	RENTS EXPENSE-WAIAU	.00	.00		.00
507030	RENTS EXPENSE-KAHE	77,663.43	24,315.77		101,979.20
546	OPER SUPV & ENG- OTH PRD	687,368.19	181,708.74		869,076.93
548	GENERATION EXP- OTH PROD	2,570,979.29	399,261.20		2,970,240.49
5481	GENERATION EXP- OTH PROD CP1	.00	.00		.00
549	MISC EXPENSES- OTH PROD	289,359.61	133,135.91		422,495.52
5491	Misc Oth Prod Exp-CP1	.00	.00		.00
550	RENTS- OTH PROD	.00	.00		.00
556					
557	OTHER POWER SUPPLY EXPENSES	1,367,286.58	333,394.04		1,700,680.62
TOTAL PRODUCTION OPERATIONS		26,768,412.10	4,008,999.14		30,777,411.24

ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
510010	MAINT SUPV & ENG-HONOLULU	415.98	.00		415.98
510020	MAINT SUPV & ENG-WAIAU	5,509.97	337.83		5,847.80
510030	MAINT SUPV & ENG-KAHE	9,651.40	337.83		9,989.23
510095	PROD MTC OVHD CONTRA	.00	.00		.00
511010	MAINT OF STRUCTURES-HONOLULU	113,048.60	173,750.30		286,798.90
511020	MAINT OF STRUCTURES-WAIAU	583,855.27	313,535.35		897,390.62
511030	MAINT OF STRUCTURES-KAHE	1,408,846.79	762,451.48		2,171,298.27
512010	MAINT BOILER & FO PLANT-HONOLU	4,223,017.82	670,848.38		4,893,866.20
512020	MAINT BOILER & FO PLANT-WAIAU	10,095,762.74	1,165,453.93		11,261,216.67
512030	MAINT BOILER & FO PLANT-KAHE	5,955,597.09	3,969,041.67		9,924,638.76
512090	MAINT BOILER & FO PLANT-CAMPBE	.00	.00		.00
513010	MAINT ELECTRIC PLANT-HONOLULU	2,637,273.35	37,581.18		2,674,854.53
513020	MAINT ELECTRIC PLANT-WAIAU	5,025,047.16	203,201.81		5,228,248.97
513030	MAINT ELECTRIC PLANT-KAHE	2,964,499.10	1,497,998.84		4,462,497.94
514010	MAINT MISC STEAM PLANT-HONOLUL	304,648.51	29,495.96		334,144.47
514020	MAINT MISC STEAM PLANT-WAIAU	1,493,104.98	285,102.23		1,778,207.21
514030	MAINT MISC STEAM PLANT-KAHE	2,148,220.96	271,306.65		2,419,527.61
551	MAINT SUPV & ENG- OTH PRD	20,060.75	1,310.12		21,370.87
552	MAINT STRUCTURES- OTH PRD	8,577.64	.00		8,577.64
5521	MAINT STRUCTURES- OTH PRD CP1	.00	.00		.00
553	MAINT ELEC PLANT- OTH PROD	189,976.75	20,390.43		210,367.18
5531	MAINT ELEC PLANT- OTH PROD CP1	.00	.00		.00
554	MAINT MISC PLANT- OTH PROD	.00	.00		.00
5541	MAINT MISC PLANT- OTH PROD CP1	.00	1,063.90		1,063.90
TOTAL PRODUCTION MAINTENANCE		37,187,114.86	9,403,207.89		46,590,322.75
560	OPER SUPV & ENG - TRANS OPER	470,496.91	32,516.17		503,013.08
561	LOAD DISPATCHING - TRANS OPER	2,468,730.66	368,623.93		2,837,354.59
562	STATION EXPENSES - TRANS OPER	607,934.45	68,580.52		676,514.97
563	OVERHEAD LINE EXP- TRANS OPER	386,153.38	156,222.22		542,375.60
564	UNDERGRND LINE EXP - TRANS OPE	77,531.80	1,434.35		78,966.15
566	MISC TRANS OPER EXPENSES	421,699.23	146,152.86		567,852.09
567	RENTS - TRANS OPER	24,385.00	828.00		25,213.00
TOTAL TRANSMISSION OPERATIONS		4,456,931.43	774,358.05		5,231,289.48
568	MAINT SUPV & ENG - TRANS	.00	.00		.00
569	MAINT OF SUBSTN STRUCTURES - T	26,752.28	1,274.85		28,027.13
570	MAINT OF STATION EQUIP - TRANS	2,243,557.77	233,118.29		2,476,676.06
571	MAINT OF OVERHEAD LINES-TRANS	2,456,202.55	433,217.27		2,889,419.82
572	MAINT OF UNDERGRND LINES-TRANS	243,948.35	17,539.89		261,488.24
573	MAINT OF MISC TRANSM PLANT	50,564.62	6,828.29		57,392.91
TOTAL TRANSMISSION MAINTENANCE		5,021,025.57	691,978.59		5,713,004.16
580	OPER SUPV & ENG - DIST OPER	412,164.07	30,741.26		442,905.33
581	LOAD DISPATCHING - DIST OPER	1,635,786.93	271,794.79		1,907,581.72

ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
582	STATION EXPENSES - DIST OPER	975,431.03	85,859.61		1,061,290.64
583	OVERHEAD LINE EXP - DIST OPER	540,961.50	82,015.77		622,977.27
584	UNDERGRND LINE EXP - DIST OPER	720,742.82	85,175.95		805,918.77
585	STREET LIGHTING AND SIGNAL SYS	.00	.00		.00
586	METER EXPENSES - DIST OPER	1,075,447.95	143,750.32		1,219,198.27
587	CUSTOMER INSTALLATION EXPENSES	575,897.57	67,281.28		643,178.85
588	MISC DISTRIBUTION OPER EXPENSE	3,709,536.56	705,039.06		4,414,575.62
589	RENTS - DIST OPER	4,999.27	3,143.00		8,142.27
TOTAL DISTRIBUTION OPERATIONS		9,650,967.70	1,474,801.04		11,125,768.74
590	MAINT SUPV & ENG - DIST	.00	.00		.00
591	MAINT OF STRUCT - DIST	152,992.82	3,513.13		156,505.95
592	MAINT OF SUBSTN EQUIP - DIST	2,897,089.68	125,647.64		3,022,737.32
593	MAINT OF OVERHEAD LINES-DIST	5,148,778.51	1,246,011.56		6,394,790.07
594	MAINT OF UNDERGRND LINES-DIST	2,351,763.60	523,869.45		2,875,633.05
595	MAINT OF LINE TRANSFORMER-DIST	693,558.22	119,022.51		812,580.73
596	MAINT OF STREET LIGHTING & SIG	5,967.96	7,385.48		13,353.44
597	MAINT OF METERS - DIST	11,240.67	790.42		12,031.09
598	MAINT OF MISC DIST PLT	1,257,619.45	187,299.09		1,444,918.54
TOTAL DISTRIBUTION MAINTENANCE		12,519,010.91	2,213,539.28		14,732,550.19
901	SUPERVISION- CUSTOMER ACCOUNTS	1,154,077.31	179,180.02		1,333,257.33
902	METER READING EXPENSES	2,451,307.95	255,987.30		2,707,295.25
903	CUSTOMER RECORDS & COLLECT EXP	7,077,180.12	1,074,597.44		8,151,777.56
904	UNCOLLECTIBLE ACCOUNTS	3,397,615.90	280,690.44		3,678,306.34
905	MISC CUSTOMER ACCOUNTS	.00	.00		.00
TOTAL CUSTOMER ACCOUNTS		14,080,181.28	1,790,455.20		15,870,636.48
909	SUPERVISION- CUST SERVICE EXP	429,100.65	50,694.59		479,795.24
910	CUSTOMER ASSISTANCE EXPENSES	28,582,896.04	2,905,372.72		31,488,268.76
911	INFORMATIONAL ADVERTISING EXP	154,879.89	63,025.13		217,905.02
912	MISC CUSTOMER SERVICE EXPENSES	3,828.80	2,600.00		6,428.80
TOTAL CUSTOMER SERVICE		29,170,705.38	3,021,692.44		32,192,397.82
920	ADMIN & GENL EXP - LABR	17,839,840.11	1,490,909.83		19,330,749.94
921	ADMIN & GENL EXP - NLABR	12,992,962.67	3,080,100.57		16,073,063.24
922	ADMIN EXPENSES TRANSFERRED	2,511,673.99 CR		416,635.36	2,928,309.35 CR
923010	OUTSIDE SERVICES- LEGAL	167,212.05	5,932.28		173,144.33
923020	OUTSIDE SERVICES- OTHER	1,092,589.47	399,282.41		1,491,871.88
923030	OUTSIDE SERVICES - ASSOC CO	.00	.00		.00
924	PROPERTY INSURANCE	2,400,664.82	205,024.26		2,605,689.08
925	INJURIES & DAMAGES	6,207,041.07	206,075.09		6,413,116.16
926000	EMPLOYEE PENSIONS AND BENEFITS	24,186,167.23	2,449,631.48		26,635,798.71
926010	EMPL BENEFITS - FLEX CREDITS	8,843,796.43	854,067.29		9,697,863.72

R/N: SUB960A
R/D: 12/08

HAWAIIAN ELECTRIC COMPANY, INC
TRIAL BALANCE REPORT

RUN DATE: 02/09/09
RUN TIME: 15.10.32

ACCT	DESCRIPTION	BEGINNING BALANCE	NET DEBIT	NET CREDIT	ENDING BALANCE
926020	EMPLOYEE BENEFITS TRANSFER	8,254,510.23 CR		1,331,038.93	9,585,549.16 CR
928	REGULATORY COMMISSION EXPENSES	265,170.84	24,427.25		289,598.09
9301	INSTITUTN/GOODWILL ADVERT EXP	11,353.85	11,878.69		23,232.54
9302	MISCELLANEOUS GENERAL EXPENSES	3,596,595.49	667,865.89		4,264,461.38
931	RENTS EXPENSE - A&G	2,591,531.16	389,547.95		2,981,079.11
TOTAL ADMIN AND GENERAL OPERATIONS		69,428,740.97	9,784,742.99	1,747,674.29	77,465,809.67
932	ADMIN AND GENL MAINTENANCE	1,124,442.18	509,378.48		1,633,820.66
TOTAL OPERATING REVENUES		1,811,724,568.70 CR	9,854,358.23	152,901,857.05	1,954,772,067.52 CR
TOTAL FUEL AND PURCHASED POWER		1,248,459,427.22	93,572,663.23		1,342,032,090.45
TOTAL OPERATIONS		153,555,938.86	20,855,048.86	1,747,674.29	172,663,313.43
TOTAL MAINTENANCE		55,851,593.52	12,818,104.24		68,669,697.76
DEPRECIATION		75,357,605.84	7,601,625.06	750,787.25	82,208,443.65
TAXES OTHER THAN INCOME		165,226,357.96	14,191,629.95		179,417,987.91
INCOME TAXES		34,751,582.63	332,714.71	1,753,854.48	33,330,442.86
OPERATING EXPENSES TOTAL		1,733,202,506.03	149,371,786.05	4,252,316.02	1,878,321,976.06
OPERATING INCOME		78,522,062.67 CR	159,226,144.28	157,154,173.07	76,450,091.46 CR
OTHER INCOME/DEDUCTIONS, NET		44,399,616.42 CR	2,249,843.80	993,931.91	43,143,704.53 CR
AFUDC FOR EQUITY FUNDS		6,316,194.58 CR		771,510.85	7,087,705.43 CR
INCOME BEFORE INTEREST CHARGES		129,237,873.67 CR	161,475,988.08	158,919,615.83	126,681,501.42 CR
INTEREST CHARGES		33,443,982.89	2,956,666.25		36,400,649.14
AFUDC FOR BORROWED FUNDS		2,444,451.70 CR		329,690.23	2,774,141.93 CR
NET INCOME		98,238,342.48 CR	164,432,654.33	159,249,306.06	93,054,994.21 CR
PREFERRED DIVIDENDS		989,914.86	89,992.14		1,079,907.00
NET INCOME FOR COMMON		97,248,427.62 CR	164,522,646.47	159,249,306.06	91,975,087.21 CR

00SUS

CA-IR-271

Please provide a detailed trial balance report for all active income statement and balance sheet HECO sub-accounts at close of business as of December 31, 2008.

HECO Response:

To supplement the trial balance provided on March 3, 2009, see Attachment 1 for the details for the Account No. 101 (Utility Plant in Service) and Account No. 108 (Accumulated Depreciation) and Account No. 111 (Accumulated Amortization) as of December 31, 2008.

Hawaiian Electric Company, Inc.
Utility Plant and Reserve Balances
as of December 31, 2008

Account	Plant Balance Account 101 12/31/2008	Reserve Balance Account 108 12/31/2008	Reserve Balance Account 111 12/31/2008
311 Structures and Improvements	78,556,255	47,716,218	
312 Boiler Plant Equipment	279,212,798	142,169,140	
314 Turbogenerator Units	132,354,984	83,669,179	
315 Accessory Electric Equipment	45,238,853	18,568,874	
316 Misc Power Plant Equipment	22,024,260	11,791,128	
Steam Production Plant	**557,387,150**	**303,914,540**	**0**
341 Structures and Improvements	955,216	776,224	
342 Fuel Holders, Products & Accessories	4,803,651	1,143,498	
343 Prime Movers	11,399,153	6,465,178	
344 Generators	6,806,478	4,849,413	
345 Accessory Electric Equipment	4,024,080	1,927,495	
346 Misc Power Plant Equipment	1,075,913	125,586	
Other Production Plant	**29,064,491**	**15,287,394**	**0**
Total- Production Plant	**586,451,641**	**319,201,934**	**0**
350 Rights of Way	9,596,127	2,586,214	
352 Structures and Improvements	33,480,185	12,709,429	
353 Station Equipment	209,124,633	83,720,172	
354 Towers and Fixtures	17,385,661	12,119,081	
355 Poles and Fixtures	153,273,121	64,907,607	
356 Overhead Conductors and Devices	77,229,991	58,759,849	
357 Uunderground Conduit	46,166,720	10,579,999	
358 Underground Conductors and Devices	46,004,616	14,966,846	
359 Roads and Trails	2,404,252	1,115,759	
Transmission Plant	**594,665,307**	**261,464,956**	**0**
360 Rights of Way	336,749	184,086	
361 Structures and Improvements	21,322,964	9,078,774	
362 Station Equipment	137,604,309	50,348,441	
364 Poles, Towers and Fixtures	110,654,481	64,606,356	
365 Overhead Conductors and Devices	89,661,742	68,288,880	
366 Underground Conduit	210,554,081	67,008,787	
367 Underground Conductors and Devices	247,086,192	142,496,224	
368 Line Transformers	144,353,566	28,284,868	
369 Overhead and Underground Services	187,955,219	111,056,198	
370 Meters	28,432,819	11,519,684	
Distribution Plant	**1,177,962,122**	**552,872,297**	**0**
Total Transmission and Distribution Plant	**1,772,627,429**	**814,337,253**	**0**

Hawaiian Electric Company, Inc.
Utility Plant and Reserve Balances
as of December 31, 2008

Account	Plant Balance Account 101 12/31/2008	Reserve Balance Account 108 12/31/2008	Reserve Balance Account 111 12/31/2008
390 Structures and Improvements	53,658,423	11,728,365	9,217,013
391 Office Furniture and Equipment	22,137,618	7,669,949	
392 Transportation Equipment	28,430,584	9,007,414	
393 Stores Equipment	1,187,489	442,971	
394 Tools, Shop & Garage Equipment	12,806,721	4,221,334	
395 Laboratory Equipment	1,190,085	576,780	
396 Power Operated Equipment	293,105	200,202	
397 Communication Equipment	84,021,316	52,693,917	
398 Miscellaneous Equipment	3,696,498	1,394,196	
Total - General Plant	**207,421,839**	**87,935,127**	**9,217,013**
Total Depreciable Plant	**2,566,500,908**	**1,221,474,314**	**9,217,013**
310 Land and Land Rights	11,019,714		
340 Land and Land Rights	6,157,792		
350 Land and Land Rights	6,555,608		
360 Land and Land Rights	7,466,816		
389 Land and Land Rights	199,095		
Total Non-Depreciable Plant	**31,399,025**	**0**	**0**
Total Utility Plant	**2,597,899,933**	**1,221,474,314**	**9,217,013**
Cost of Removal Regulatory Liability *		(195,203,367)	
Removal Work in Progress *		(6,987,217)	
Total Utility Plant Accumulated Depreciation		**1,019,283,730**	**9,217,013**

* Not allocated to plant accounts

CA-IR-271

Please provide a detailed trial balance report for all active income statement and balance sheet HECO sub-accounts at close of business as of December 31, 2008.

HECO Response:

The trial balance report as of December 31, 2008 is not available at this time. The trial balance report will not be available until after the Company's external auditors have completed their review of our financial statements and the financial statements are submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. HECO will provide the trial balance report after HECO's financial statements are submitted to the SEC.

CA-IR-272

On December 3, 2008, the Honolulu Advertiser announced an agreement between HECO and Better Place to establish an electric vehicle charging network. Please provide a copy of this agreement and explain and quantify the anticipated revenues, expenses, investment and operational impacts in each of the years 2009, 2010 and 2011 that HECO expects to experience in connection with this agreement.

HECO Response:

Attachment 1 of this response (to be provided under protective order) is a copy of the Memorandum of Understanding ("MOU") between Hawaiian Electric Company, Inc. ("HECO"), Better Place GmbH ("BP"), and Better Place Hawaii ("BPH"), which was signed on December 2, 2008. The MOU does not constitute a legally binding obligation or commitment by HECO, BP or BPH. It does confirm the intent of the parties to cooperate in the establishment and operation of an electric grid recharge infrastructure in Hawaii (islands of Oahu, Hawaii, Maui, Molokai, and Lanai), wholly owned by BPH. The parties will endeavor to negotiate and execute a collaboration agreement by February 27, 2009.

Currently, HECO and BPH have just begun discussions related to the "Key Elements of HECO/BPH/BP relationship" contained in the MOU. As a result, at this point in time, HECO is not able to explain and quantify anticipated revenues, expenses, investment and operational impacts from 2009 to 2011 that it expects to experience in connection with this agreement.

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

Attachment 1 contains confidential information and is provided subject to

the Protective Order filed on November 21, 2008 in this proceeding.

CA-IR-273

In Docket No. 2007-0416, HECO proposed certain types of projects, activities and programs to be considered part of the Renewable Energy Infrastructure Program ("REIP") and eligible for surcharge recovery through a REIP surcharge, after application, consideration and approval by the Commission. Please state, with specificity, each REIP project, activity and program HECO has identified to date and provide the following information for each such item:

a. A detailed description of the project, activity or program, indicating why the activity/investment is needed and how it is qualified for REIP consideration.
b. The most detailed available estimate of quarterly anticipated expenditures by NARUC account.
c. Reference to where HECO's evidence in support of REIP consideration and surcharge recovery has been (i.e., in rate case updates), or will be (identify each existing or anticipated Docket), submitted for consideration by the Commission.
d. Estimated REIP surcharge amounts to be recovered from customers by quarter, for each applicable future period.

HECO Response:

a. As of the date of this response, there are three projects that HECO has identified as eligible for recovery through the REIP or Clean Energy Infrastructure ("CEI") Surcharge:

1. Hawaii Clean Energy Initiative ("HCEI") Implementation Studies – The HECO T-7 Rate Case Update (pp. 2-21) filed on December 12, 2008 and HECO's response to CA-IR-84 (pp. 5-9) provide the requested information. As stated on page 6 of the HECO T-7 Rate Case Update, the parties to the HCEI Agreement (i.e., the Governor of the State of Hawaii, the Department of Business Economic Development and Tourism, the Consumer Advocate and HECO) agreed that HECO will recover the cost of the HCEI Implementation Studies through the REIP/CEI Surcharge.[1] Further, in an October 22, 2008 letter to the Commission, the parties to Docket No. 2007-0416 (i.e., the HECO Companies, the Consumer Advocate, Life of the Land, the Hawaii Renewable Energy

[1] The "HCEI Agreement" is the *Energy Agreement among the State of Hawaii, Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs, and the Hawaiian Electric Companies*, executed on October 20, 2008.

Association and Kauai Island Utility Cooperative) agreed that with respect to renewable energy implementation study projects, "these project costs would be recovered through the REIP Surcharge after the study project is approved by the Commission." (See Attachment 1 of this response.) HECO has not yet filed an application to recover the costs of this project through the REIP/CEI surcharge.

2. Advanced Metering Infrastructure ("AMI") – HECO's application filed on December 1, 2008 in Docket No. 2008-0303 provides a detailed description of the project, why it is needed and how it qualifies for REIP consideration. The expenses and deferred costs that HECO will recover through the surcharge will not be incurred until 2010 and beyond. Similarly, the capital costs that HECO will incur for the project will not go into service until 2010 and beyond. Therefore, the costs that HECO will recover through the surcharge are outside of the 2009 test year.

3. Oahu 46kV wind farm interconnection facilities – Page 1 of Exhibit C of the HECO Companies' Reply Position Statement in Docket No. 2007-0416 provides the requested information. (See Attachment 2 of this response.) Since the in-service date would be in 2012, the costs for this project are outside of the 2009 test year. HECO has not yet filed an application to recover the costs of this project through the REIP/CEI surcharge.

b. As explained in the response to a. above, the HCEI Implementation Studies are the only one of the three projects identified in a. for which HECO will incur costs in the 2009 test year. Attachment 3 of this response provides the quarterly anticipated expenditures by NARUC account for this project in the 2009 test year.

c. See the response to a. above.

d. HECO has not yet prepared an application to recover the HCEI Implementation Studies costs through the REIP/CEI Surcharge. (Similarly, it has not yet prepared an application to recover the Oahu 46kV wind farm interconnection facilities costs through the surcharge.) It will present calculations and an estimated surcharge amount for this project in its application. Exhibit 21 of the HECO Companies' application in Docket No. 2008-0303 provides estimated surcharge amounts for the AMI project. (See Attachment 4 of this response.)

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

October 22, 2008

Darcy L. Endo-Omoto
Vice President
Government & Community Affairs

FILED
2008 OCT 22 P 3:52
PUBLIC UTILITIES COMMISSION

The Honorable Chairman and Members of
the Hawaii Public Utilities Commission
465 South King Street
Kekuanaoa Building, 1st Floor
Honolulu, Hawaii 96813

Dear Commissioners:

Subject: Docket No. 2007-0416
Renewable Energy Infrastructure Program Examination

By letter dated October 13, 2008, the Commission directed the parties[1] to this proceeding to notify the Commission within one week of the date of the letter whether all of the parties have reached an agreement on all of the issues[2] in this docket; and if so, whether they waive an evidentiary hearing. Alternatively, if the parties have not reached an agreement on all of the issues, the Commission directed the parties to identify those issues that are still disputed, and state whether the parties seek to go to hearing on those issues.[3]

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[1] The parties to this proceeding are Hawaiian Electric Company, Inc. ("HECO"), Hawaii Electric Light Company, Inc. ("HELCO"), Maui Electric Company, Limited ("MECO") (collectively, the "HECO Companies"), the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs ("Consumer Advocate"), Hawaii Renewable Energy Alliance ("HREA"), and Life of the Land ("LOL"). Kauai Island Utility Cooperative ("KIUC"), although initially named as a party, has taken a limited role in this proceeding and will, therefore, be hereinafter separately referred to as "limited role party" for purposes of this letter. In particular and consistent with Order No. 24056, filed on February 26, 2008, KIUC has opted not to participate in any of the procedural steps set forth in the Stipulated Regulatory Schedule approved by said Order because the sole subject of this investigatory proceeding (i.e., HECO Companies' Proposed Renewable Infrastructure Program and related matters) does not appear to directly impact KIUC and the island of Kauai. As such, KIUC, as a limited role party in this proceeding, states that it has no position and/or does not object to any of the parties' agreements contained in this letter.

[2] Pursuant to Order No. 24056, filed February 26, 2008, the issues in this proceeding are "Whether the HECO Companies' Proposed Renewable Energy Infrastructure Program (included as Exhibit B to the Stipulation and Joint RPS Framework, filed on October 12, 2008 in Docket No. 2007-0008), including a permanent REI Surcharge and the Consolidation Incentive, is just and reasonable and should be approved and included in the RPS Framework."

[3] The Commission sent its October 13, 2008 letter to the parties via U. S. mail. Section 6-61-21(e) of the Hawaii Administrative Rules (Rules of Practice and Procedure before the Public Utilities Commission) states: "Whenever a party has the right to do some act or take some proceedings within a prescribed period after the service of a notice or other document upon the party and the notice or document is served upon the party by mail, two days shall be added to the prescribed period." One week from October 13, 2008 is October 20. Two days from October 20 is October 22, 2008. Therefore, this letter is timely filed.

This informs the Commission that the parties 1) have reached an agreement on all of the issues in this docket, 2) agree that it is appropriate that the Commission approve the HECO Companies' proposed Renewable Energy Infrastructure Program ("REI Program") and related REIP Surcharge, as provided in Exhibit B to the HECO Companies' Reply Position Statement, filed September 17, 2008,[4] 3) agree that with respect to the Consolidation Incentive, the Commission should generally approve the mechanism in this proceeding and reserve for itself and the parties the opportunity to more fully review the cost sharing for a proposed project when such application is filed,[5] 4) agree that with respect to renewable energy implementation study projects, included under Section III.B.1.a.ii of the REI Program, these project costs would be recovered through the REIP Surcharge after the study project is approved by the Commission, 5) agree that the record in this proceeding is complete and ready for Commission decision-making, and 6) waive an evidentiary hearing.

Sincerely,

DARCY L. ENDO-OMOTO
Vice President
Hawaiian Electric Company, Inc.
Hawaii Electric Light Company, Inc.
Maui Electric Company, Limited

for CATHERINE P. AWAKUNI
Executive Director
Division of Consumer Advocacy
Department of Commerce and Consumer Affairs

HENRY Q CURTIS
Vice President for Consumer Issues
Life of the Land

WARREN S. BOLLMEIER II
President
Hawaii Renewable Energy Association

KENT D. MORIHARA, ESQ.
KRIS N. NAKAGAWA, ESQ.
Attorneys for Kauai Island Utility Cooperative

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[4] The HECO Companies provided their proposed REIP Surcharge provision in their response to CA-SIR-1, filed July 11, 2008, and in Exhibit E to their Reply Position Statement.

[5] LOL proposed that with respect to the Consolidation Incentive, that it may be commented on in the HECO IRP-4 docket, including comments on issues such as the availability of renewable energy resources and the pricing of these resources on each of the HECO Companies' systems. The HECO Companies, Consumer Advocate and HREA are in agreement with this proposal.

Exhibit "C"

HECO COMPANIES' DESCRIPTION OF THEIR NEAR-TERM RENEWABLE ENERGY INFRASTRUCTURE PROJECTS UNDER THE TEMPORARY RENEWABLE ENERGY INFRASTRUCTURE SURCHARGE

1. Maui 69kV wind farm interconnection facilities: The size and cost of the interconnection facility paid for by MECO would depend on the size and location of the next wind project resulting from the structured negotiations currently on-going, and the pricing, terms and conditions of the negotiated PPA. This project consists of an interconnecting transmission tie line between a wind farm and the closest suitable grid connection point. The project is estimated to take approximately 3 years to complete with an in service date of 2011. The project cost estimated to be paid by MECO is approximately $15 million, including permitting, engineering, materials and construction, and is based on the use of overhead 69kV transmission lines on steel poles. The wind farm interconnection would be placed into service prior to the commercial operation of the wind farm in order to facilitate startup activities for the wind farm project.

2. Oahu 46kV wind farm interconnection facilities: The project is scoped to provide 46kV interconnections for up to 60-100MW of wind generation in the North Shore area of Oahu, either as one single wind farm project electrically separated into two segments or two different wind farm projects at two different sites totaling 60-100MW. One of the 46kV tie lines would interconnect to the subtransmission system at the Kuilima 46kV substation (grid connection point). The second 46kV tie line would interconnect to the Kahuku 46kV substation (grid connection point). The two 46kV tie lines together are assumed to be approximately 4 miles in length for the purposes of the project estimate built as new overhead lines on new steel poles. The project includes expansion and modifications at both interconnecting substations, to add necessary breakers, relays, and new communications for relaying and SCADA. The project includes upgrades and modifications to relaying and communications at feeding 138kV transmission substations to integrate and operation of the wind farm with the transmission grid. The project is estimated to take approximately 4 years to complete with an in-service date of 2012. The total project cost for the two interconnections is estimated to total $31 million, including permitting, engineering materials, and construction. The wind farm interconnections would be placed into service prior to the commercial operation of the wind farm(s) in order to facilitate startup activities for the wind farm project(s).

3. Big Island 69kV Tradewinds interconnection facilities: The project consists of a 69kV interconnection for the Tradewinds biomass project with the HELCO transmission grid. The project scope includes a new 69kV substation (grid connection point), one 13.8kV tie lines between the new 69kV substation and the Tradewinds biomass project, and related breakers, transformers, relaying, communications and SCADA equipment. The project is estimated to take approximately 3 years to complete with an in service date of 2011. The total project cost is estimated to total $5-10 million, including permitting, engineering, materials and construction, and is based on the use of overhead 13.8kV transmission lines. The Tradewinds interconnection would be placed into service prior to the

Hawaiian Electric Company, Inc.
2009 Test Year
Cost Estimates for Outside Services to Support Implementation Studies (in dollars)

	Outside Services Scope	Cost Class	Division Budget	2009 Qtr1	2009 Qtr2	2009 Qtr3	2009 Qtr4	2009 Total
System Planning Dept.	Analyze system stability implications as affected by changes in commitment of existing reheat baseload generation. Assess system under frequency load shed requirements to maintain system stability for various operating and disturbance response scenarios and increasing levels of intermittent renewable penetration assumptions. Among other matters, the scope will include a review of the coordination between the AGC and LFC, and review the droop response assumptions for the system.	NE- O&M / Acct 546, Oth Pwr Oper	Transmission Planning Division (PYT)	$ 37,500	$ 37,500	$ 37,500	$ 37,500	$ 150,000
	Assess the ability of storage technologies to provide ancillary services for the HECO grid.	NE- O&M / Acct 546, Oth Pwr Oper	Transmission Planning Division (PYT)	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 50,000
	Conduct scenario analysis employing a validated GE PSLF/MAPS model of the Oahu system that can simulate the second-to-second and minute-to-minute system frequency and voltage as affected by system response to renewable energy resources such as large-scale variable wind generation and mitigation technologies and strategies.	NE- O&M / Acct 546, Oth Pwr Oper	Transmission Planning Division (PYT)	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 500,000
	Analyze the potential grid assets needed to integrate large-scale variable wind generation and other renewable resources contemplated for the HECO system.	NE- O&M / Acct 546, Oth Pwr Oper	Transmission Planning Division (PYT)	$ 37,500	$ 37,500	$ 37,500	$ 37,500	$ 150,000
	Analyze various scenarios of wind penetration to assess impacts on the generation system. For example, the impact of increased spinning reserve and unit commitment and dispatch changes on, for example among other things, system heat rate, variable O&M cost, and number of starts on generating units.	NE- O&M / Acct 546, Oth Pwr Oper	Generation Planning Division (PYB)	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 50,000
	Subtotal System Planning Dept.			$ 225,000	$ 225,000	$ 225,000	$ 225,000	$ 900,000
Power Supply Engineering Dept.	Boiler - Determine the unit-specific feasibility and cost of converting one or more of HECO's reheat, baseload units to cycling duty, and its impact on maintenance scope/schedules.	NE- O&M / Acct 546, Oth Pwr Oper	Power Plant Engineering Division (PYM)	$ 37,500	$ 37,500	$ 37,500	$ 37,500	$ 150,000
	Turbine - Determine the unit-specific feasibility and cost of converting one or more of HECO's reheat, baseload units to cycling duty and its impact on maintenance scope/schedules.	NE- O&M / Acct 546, Oth Pwr Oper	Power Plant Engineering Division (PYM)	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 50,000
	Generator - Determine the unit-specific feasibility and cost of converting one or more of HECO's reheat, baseload units to cycling duty and its impact on AVR settings and generator maintenance scope/schedules.	NE- O&M / Acct 546, Oth Pwr Oper	Power Plant Engineering Division (PYM)	$ 12,500	$ 12,500	$ 12,500	$ 12,500	$ 50,000
	Balance of Plant - Determine the feasibility and cost of converting one or more of HECO's reheat, baseload units to cycling duty and its impact on maintenance scope/schedules.	NE- O&M / Acct 546, Oth Pwr Oper	Power Plant Engineering Division (PYM)	$ 37,500	$ 37,500	$ 37,500	$ 37,500	$ 150,000
	Subtotal Power Supply Engineering Dept.			$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 400,000
System Operation Dept.	Determine the operational impact of such as large-scale variable wind generation on dispatch and disturbance scenarios, degree of SCADA application on Oahu (Reference Outage Report), Dispatcher training/staffing requirements, and scope of what needs to be changed including operating policies and procedures.	NE- O&M / Acct 546, Oth Pwr Oper	Operating Division (PRD)	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 200,000
	Subtotal System Operation Dept.			$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 200,000
Power Supply Services Dept.	Determine timing and impact on overall fuel procurement based on large-scale variable wind generation resources serving Oahu.	NE-FUEL / Acct 501, Fuel	Fuels Resources Division (PIF)	$ -	$ -	$ -	$ -	$ -
	Subtotal Power Supply Services Dept.			$ -	$ -	$ -	$ -	$ -
Environmental Dept.	Based on the impacts of large-scale variable wind generation resources, determine any environmental impacts such as modification of covered source permits to reflect changes in reheat unit design, operation and maintenance.	NE- O&M / Acct 546, Oth Pwr Maint	Air Quality / Noise Division (PJB)	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 20,000
	Subtotal Environmental Dept.			$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 20,000
Energy Solutions	R&D Oahu Wind Study (GE Study) - Develop a GE PSLF/MAPS validated model of the HECO system.	NE-R&D / 9302, (A&G) Misc Gen	VP Energy Solutions (P9S)	$ 163,752	$ 174,748	$ 163,753	$ 174,747	$ 677,000
	Subtotal Energy Solutions Dept			$ 163,752	$ 174,748	$ 163,753	$ 174,747	$ 677,000
PSOM	Consulting and outside service expenses to characterize and improve the dynamic response of generating units.	NE-O&M / Acct 546, Oth Pwr Maint	PSO&M (PIB)	$ 250,000	$ 250,000	$ 100,000	$ 100,000	$ 700,000
	Subtotal PSO&M Dept			$ 250,000	$ 250,000	$ 100,000	$ 100,000	$ 700,000
	Total			**$ 793,752**	**$ 804,748**	**$ 643,753**	**$ 654,747**	**$ 2,897,000**

EXHIBIT 21 - Rate Impact of AMI

Hawaiian Electric Company, Inc.

	2010	2011	2012	2013	2014	2015
Rev Requirement ($000)	6,198	11,125	12,299	7,906	5,988	5,141
Sales Forecast (GWH)	7,464.5	7,505.8	7,608.4	7,727.1	7,850.0	7,974.9
AMI Surcharge (¢/kWh):	**0.0830**	**0.1482**	**0.1617**	**0.1023**	**0.0763**	**0.0645**

Sales Forecast:
Yrs 2010 - 2013: Forecast Division based on September 2008 Forecast.
Yrs 2014 - 2015: Forecast Division based on escalated growth rate from August 2007 LT Forecast.

Hawaii Electric Light Company, Inc.

	2010	2011	2012	2013	2014	2015
Rev Requirement ($000)	2,471	2,750	2,641	2,468	2,300	4,476
Sales Forecast (GWH)	1,161.4	1,184.4	1,210.8	1,240.8	1,264.6	1,282.7
AMI Rate Impact (¢/kWh):	**0.2128**	**0.2322**	**0.2181**	**0.1989**	**0.1819**	**0.3490**

Sales Forecast:
Yrs 2010 - 2013: Forecast Division based on September 2008 Forecast.
Yrs 2014 - 2015: Generation Planning extrapolated forecast.

Maui Electric Company, Ltd. (Maui Division)

	2010	2011	2012	2013	2014	2015
Rev Requirement ($000)	1,842	2,033	1,994	1,882	3,422	1,199
Sales Forecast (GWH)	1,200.5	1,236.2	1,276.8	1,297.4	1,323.4	1,352.0
AMI Rate Impact (¢/kWh):	**0.1534**	**0.1645**	**0.1562**	**0.1451**	**0.2586**	**0.0887**

Sales Forecast:
Yrs 2010 - 2015: Forecast Division based on September 2008 Forecast.

Source:
Revenue Requirement: Finanical Analysis Division
Total project revenue requirement less imputed debt and rebalancing costs and internal labor.

CA-IR-274

Ref: HECO T-1 Update, pages 3 and 15 to 23 (REIP/CEI Surcharge).

According to Mr. Alm at page 3, certain costs now included in the Company's test year updates are proposed to be recovered through the new REIP/CEI surcharge, instead of through base rates. At pages 15 to 23, Mr. Alm describes certain "Labor costs for HCEI" for which, "HECO would be willing to discuss surcharge recovery of these items should the Consumer Advocate take the position that such recovery is appropriate." Please state with specificity exactly which types and categories of expenses and new investments in the rate case test year are proposed by HECO to be recoverable under the REIP/CEI surcharge mechanism, indicating each definition, accounting classification and other criteria that should be applied to isolate such costs for ratemaking and accounting purposes.

HECO Response:

As explained on pages 14 and 15 of the HECO T-1 Rate Case Update and on page 2 of the HECO T-7 Rate Case Update, HECO is proposing to recover $2,220,000 of non-labor outside services costs for the HCEI Implementation Studies through the REIP/CEI Surcharge. The Company also stated that it is willing to discuss with the other parties REIP/CEI Surcharge recovery of other labor and non-labor costs required to fulfill the requirements of the HCEI Agreement (Rate Case Update, HECO T-1, p.15; Rate Case Update, HECO T-7, p. 3), although it did not specifically propose to recover such costs through the surcharge.

The criteria that would be applied to isolate such costs for ratemaking and accounting purposes include the *HECO Companies' Proposed Renewable Energy Infrastructure Program Framework* ("REIP Framework")[1] (Exhibit B in the HECO Companies' Reply Position Statement filed on September 17, 2008 in Docket No. 2007-0416) and Section 29 of the HCEI Agreement. Attachments 1 and 2 to this response provide these documents. Further, on October 22, 2008, the parties to Docket No. 2007-0416 (i.e., the HECO Companies, the

[1] In particular, see Sections III.B.1 and III.B.3 of the REIP Framework.

Consumer Advocate, Life of the Land, the Hawaii Renewable Energy Association and Kauai Island Utility Corporation) filed a letter informing the Commission that, among other things, the parties agree that it is appropriate that the Commission approve the HECO Companies' proposed REIP and related REIP Surcharge, as provided in Exhibit B to the Companies' Reply Position Statement, and that with respect to renewable energy implementation study projects, included under Section III.B.1.a.ii of the REI Program, these project costs would be recovered through the REIP Surcharge after the study project is approved by the Commission. Attachment 1 of the response to CA-IR-273 provides this letter.

An argument could be made to recover certain labor costs for HCEI described in the rate case updates through the REIP/CEI Surcharge since they will "facilitate new clean energy investments by the utility or by IPPs" and are "costs that would normally be expensed in the year incurred."

Exhibit "B"

HECO COMPANIES' PROPOSED
RENEWABLE ENERGY INFRASTRUCTURE PROGRAM FRAMEWORK

I. DEFINITIONS

As used in this Framework, unless the context clearly requires otherwise:

"AFUDC" means allowance for funds used during construction.

"AMI" means Advanced Metering Infrastructure.

"CIAC" means contributions in aid of construction.

"Capital Costs" means a project's return on investment and return of investment (i.e., depreciation).

"Commission" means the Public Utilities Commission of the State of Hawaii.

"Companies" means KIUC, HECO, MECO and HELCO, collectively.

"Competitive bid" or "competitive bidding" means the mechanism established by the Competitive Bidding Framework (or, to the extent a utility is exempt from said Framework, the competitive procurement mechanism that may be established by that utility) for acquiring a future energy generation resource or a block of generation resources by an electric utility.

"Competitive Bidding Framework" means the Commission's Framework for Competitive Bidding adopted by Decision and Order No. 23121, issued December 8, 2006 in Docket No. 03-0372.

"Cost-effective" means the ability to produce or purchase electrical energy or firm capacity, or both, from renewable energy resources at or below avoided costs consistent with the methodology set by the Commission in accordance with HRS § 269-27.2.

"Electric utility" or "utility" means a provider of electric utility service that is regulated by and subject to the Commission's jurisdiction pursuant to Chapter 269, HRS.

"Framework" means this REIP Framework.

"Generating Facility" means an electrical energy generation resource that is interconnected to a utility electrical grid.

"Grid Connection Point" means the point at which Interconnection Facilities connect to the Utility System.

"HECO" means Hawaiian Electric Company, Inc.

"HECO Companies" means HECO, MECO and HELCO, collectively.

"HELCO" means Hawaii Electric Light Company, Inc.

"HRS" means the Hawaii Revised Statutes.

"Interconnection Facilities" means the equipment and devices required to permit a Generating Facility to operate in parallel with and deliver electric energy to a Utility System and provide reliable and safe operation of, and power quality on, the Utility System (in accordance with applicable provisions of the Commission's General Order No. 7, the utility's tariffs, operational practices and planning criteria), such as, but not limited to, transmission and distribution lines, transformers, switches, and circuit breakers. Facilities from the Generating Facility to the Grid Connection Point are considered Interconnection Facilities.

"IPP" means an independent power producer that is not subject to the Commission's regulation or jurisdiction as a public utility.

"KIUC" means Kauai Island Utility Cooperative.

"MECO" means Maui Electric Company, Limited.

"Program" means the Renewable Energy Infrastructure Program.

"Project" means a Renewable Energy Infrastructure Project.

"REIP" means the Renewable Energy Infrastructure Program described herein.

"REIP Surcharge" means the Renewable Energy Infrastructure Program Surcharge mechanism described in this REIP Framework.

"RFP" means a written request for proposal issued by the electric utility to solicit bids from interested third-parties, and where applicable from the utility or its affiliate, to supply a future generation resource or a block of generation resources to the utility pursuant to the competitive bidding process.

"RPS" or "Renewable Portfolio Standard" means the required percentage of electrical energy sales that is represented by renewable electrical energy, as set forth in HRS § 269-92.

"RPS Framework" means the Commission's Framework for Renewable Portfolio Standards approved by Decision and Order No. 23912, issued December 20, 2007 in Docket No. 2007-0008.

"Renewable electrical energy" means: (1) electrical energy generated using renewable energy as the source; (2) electrical energy savings brought about by the use of renewable displacement or off-set technologies, including solar water heating, seawater air-conditioning district cooling systems, solar air-conditioning, and customer-sited, grid-connected renewable energy systems; or (3) electrical energy savings brought about by the use of energy efficiency technologies, including heat pump water heating, ice storage, ratepayer-funded energy efficiency programs, and use of rejected heat from co-generation and combined heat and power systems, excluding fossil-fueled QFs that sell electricity to electric utility companies and central station power projects.

"Renewable energy" means energy generated or produced utilizing the following sources: (1) wind; (2) the sun; (3) falling water; (4) biogas, including landfill and sewage-based digester gas; (5) geothermal; (6) ocean water, currents and waves; (7) biomass, including biomass crops, agricultural and animal residues and wastes, and municipal solid waste; (8) biofuels; and (9) hydrogen produced from renewable energy sources.

"Utility System" means the electric system owned and operated by a utility (including any non-utility owned facilities that are interconnected to the system) consisting of power plants, transmission and distribution lines, and related equipment for the production and delivery of electric power to the public.

II. RPS RATEMAKING STRUCTURE AND INCENTIVES FRAMEWORK

A. COST RECOVERY

1. Recovery of compliance costs. Except as otherwise provided in the RPS Framework or this REIP Framework, an electric utility that procures or generates renewable electrical energy shall, at a minimum, be able to recover through the ratemaking process the reasonable costs of complying with the RPS.

B. SCOPE OF INCENTIVES

1. Renewable Energy Infrastructure Program. To encourage electric utilities to use cost-effective renewable energy resources found in Hawaii to meet the RPS, electric utilities may recover the Capital Costs, deferred costs relating to software development and licenses, and/or other relevant costs approved by the Commission of a

Renewable Energy Infrastructure Project by means of the REIP Surcharge established in Section III of this Framework.

2. Renewable Energy Interconnection Facilities. Electric utilities may recover the costs of System Upgrades and Interconnection Facilities paid for by the utilities to encourage the development of Renewable Energy Facilities by means of the REIP Surcharge established in Section III of this Framework.

3. Consolidation incentive. The Commission adopts a consolidation incentive mechanism that generally operates so as to credit customers of electric utility affiliates within a consolidated electric utility whose service territories exceed their RPS percentage on a stand-alone basis, to be paid for through a compensation payment or surcharge on customers of the affiliated electric utilities, if any, whose service territories fall short of their RPS percentage on a stand-alone basis:

   a. *The purpose of a consolidation incentive shall be to:*

      (i) encourage the generation of renewable electrical energy on islands with greater potential to generate such energy; and

      (ii) compensate the customers of affiliate utilities that procure greater amounts of renewable electrical energy for all or part of the cost of acquiring the surplus amount of renewable electrical energy in excess of their RPS percentage on a stand-alone basis.

   b. The credits and payments approved by the Commission will be passed through to customers and recovered by the utility, by means of the REIP Surcharge established in Section III of this Framework.

4. Future Incentives. The Commission may provide additional incentives to encourage electric utility companies to exceed the RPS or to meet the RPS ahead of time, or both.

III. RENEWABLE ENERGY INFRASTRUCTURE PROGRAM

A. DESCRIPTION OF PROGRAM

1. The purposes of the Renewable Energy Infrastructure Program once implemented by an electric utility are (a) to encourage development of and investment in renewable energy infrastructure projects in order to facilitate third-party development of renewable energy resources and maintain current renewable energy resources, and (b) to enhance energy choices for customers by providing a means for the Companies to recover their investment in Renewable Energy Infrastructure Projects in a timely fashion.

2. The Renewable Energy Infrastructure Program consists of two components:

   a. "Renewable Energy Infrastructure Projects" that facilitate third-party development of renewable energy resources, maintain existing renewable energy resources and/or enhance energy choices for customers. The Renewable Energy Infrastructure Project component of the Companies' Program includes: (1) utility capital improvements projects and/or deferred costs relating to software development and licenses that are necessary to maintain current renewable energy resources and/or connect new renewable energy projects to any of the utilities' respective systems; (2) projects that encourage development of renewable energy resources by making it possible to integrate more renewable energy on a utility's electric system; and/or (3) projects that facilitate renewable energy choices and/or otherwise enhance renewable energy choices for customers; and

   b. The creation and implementation of an "REIP Surcharge" that will encourage the funding of the Renewable Energy Infrastructure Projects. The Renewable Energy Infrastructure Surcharge component of the Companies' Program implements a charge to recover the Capital Costs, deferred costs relating to software development and licenses, and/or other relevant costs approved by the Commission of a Renewable Energy Infrastructure Project.

B. RPS INCENTIVES UNDER THE RENEWABLE ENERGY INFRASTRUCTURE PROGRAM

1. Types of Renewable Energy Infrastructure projects eligible for inclusion in the Renewable Energy Infrastructure Program.

   a. As set forth in Section III.A.2, above, infrastructure projects whose costs may be included in the Renewable

Energy Infrastructure Program, and that are eligible for inclusion in the REIP Surcharge, subject to the Commission's approval, include:

(i) Infrastructure that is necessary to connect renewable energy projects. Infrastructure projects such as transmission lines, interconnection equipment and substations, are necessary to bring renewable energy to the system. For example, many renewable IPP projects, such as wind farms, biomass plants and hydroelectric plants, are not located in proximity to the electric grid, and must overcome the additional economic barrier of constructing transmission lines, a switching station and other interconnection equipment. Building infrastructure to these projects will encourage additional renewable generation on the grid;

(ii) Projects that make it possible to accept more renewable energy. Infrastructure projects can assist in the integration of more as-available and other non-dispatchable renewable projects onto the electrical grid than could otherwise be added without such projects. For example, many renewable projects, by their very nature, provide power on a variable basis, thus requiring offsetting firm generation as backup. Hawaii's island electric systems have difficulty accepting renewable generation during minimum load periods. Systems such as battery storage and pumped hydroelectric storage facilities allow a utility to accept and accommodate more as-available renewable energy; and

(iii) Projects that encourage renewable choices and/or customer control to shift or conserve their energy use. Infrastructure projects and other projects can encourage renewable choices, facilitate conservation and efficient energy use, and/or otherwise allow customers to control their own energy use. For example, there are a variety of projects that could encourage renewable energy choices which include customer selection of renewable resources as well as allowing a customer to use less nonrenewable resources. Systems such as smart meters would allow customers to monitor

their own consumption and use of electricity and allow for future time-based pricing programs. Systems such as automated appliance switching would provide an incentive to customers to allow a utility to mitigate sudden declines in power production inherent in as-available energy.

b. The electric utilities shall not seek to recover the costs of central station generation-related assets (such as a wind farm) or similar utility renewable energy generation assets through the REIP Surcharge.

2. Prior Commission approval shall be received in order for the costs of a Renewable Energy Infrastructure Project to be included for cost recovery through the REIP Surcharge.

3. Description of the REIP Surcharge mechanism.

a. Electric utilities may recover the costs of an approved Renewable Energy Infrastructure Project (e.g., capital and/or deferred costs relating to software development and licenses) through the REIP Surcharge.

b. Costs eligible for the REIP Surcharge include:

(i) allowed rate of return or other form of return mechanism (set in the last rate case of the utility where the Project is located) on the investment from the in-service date of the Project;

(ii) depreciation (at a rate and methodology to be set forth in the Project's application) to begin the month after the in-service date of the Project;

(iii) AFUDC, applicable taxes, and other capital and deferred expense related charges; and

(iv) other relevant costs as approved by the Commission in an request for approval to include the costs of the Project in the REIP Surcharge.

c. If AMI capital costs (e.g., return on and return of capital) are allowed to be recovered through the REIP Surcharge, such capital costs would be offset by the net benefits of implementing AMI (e.g., cost savings and revenue

enhancements offset by O&M expenses), as those net benefits are obtained by the electric utility.

d. Project details, including the period of recovery of the Project's cost, appropriate depreciation amounts and other Project details will be outlined in the request for approval to include the costs of the Project in the REIP Surcharge.

e. Prior Commission approval shall be received in order for the costs of a Renewable Energy Infrastructure Project to be included for cost recovery through the REIP Surcharge. Authorization to include the costs for any specific project in the REIP Surcharge would be granted or denied at the time the Commission issued a decision and order with respect to the proposed commitment of expenditures for the project. The costs of all Projects to be included in the proposed surcharge will be approved in advance by the Commission, subject to the utility providing an explanation of actual costs incurred in excess of 10% of the approved cost amount, similar to what is currently done for projects over $2.5 million (e.g., Rule 2.3.g.2. projects (net of CIAC)).

4. Implementation of REIP Surcharges.

a. The Companies are each authorized to file their REIP Surcharge provisions, but such authorization does not include (i) approval for the commitment of funds for any specific project, (ii) approval to include the costs for any specific project in the surcharge, or (iii) approval to begin cost recovery (i.e., depreciation) or accelerate cost recovery (i.e., used accelerated depreciation) for any specific project using the surcharge. Each of these determinations shall be made if and when the Commission approves the commitment of expenditures for a specific project. Each utility will have its own REIP Surcharge, which, once approved and established, shall be shown as a line item on the customer's bill unless otherwise directed by the Commission.

b. The REIP Surcharge may be adjusted on either a monthly, quarterly, or annual basis, or other time period as may be deemed appropriate by the utility, to include costs of Projects placed in-service during a prior period. The REIP Surcharge shall be applied on a cents per kWh basis.

c. Once the REIP Surcharge is established for an electric utility, that utility shall use a "true-up" mechanism filed on or about May 31 of the following calendar year to reconcile costs recovered through the REIP Surcharge during that calendar year. The "true-up" mechanism shall reconcile actual revenue recovered through the surcharge with actual project costs incurred during the subject calendar year, and the balance shall be a cents per kWh adjustment applied to the surcharge.

d. The accrual of cost recovery for a Project under the REIP Surcharge shall terminate when and to the extent that the costs (or costs offset by net benefits in the case of AMI) are incorporated in rates in a utility's rate case.

e. Any over-recoveries or under-recoveries under the REIP Surcharge shall be refunded or collected, with interest, as may be required by the Commission with respect to Renewable Energy Infrastructure Projects.

5. Cost-sharing of Renewable Energy Infrastructure Projects.

a. Because the goal of the RPS docket is a consolidated utility-wide goal, and Oahu is the major beneficiary of such a consolidated utility-wide calculation, the costs of Renewable Energy Infrastructure Projects from the neighbor islands may be shared with Oahu's utility customers.

b. The Commission may approve cost sharing of the Renewable Energy Infrastructure Projects from HELCO on Hawaii and MECO on Maui, with HECO's customers on Oahu.

(i) Cost-sharing shall be in such amounts and in accordance with the approved methodology as determined by the Commission in approving each Project's application. In no event shall the aggregate of shared costs exceed the cost of the Renewable Energy Infrastructure Project.

(ii) Cost-sharing shall remain in the REIP Surcharge and be shown as a line item on the customer's bill (unless otherwise directed by the Commission).

(iii) The accrual of cost recovery for costs of Renewable Energy Infrastructure Projects that are not shared and are recovered initially through the REIP Surcharge shall be terminated when and to the extent such costs (or costs offset by net benefits in the case of AMI) are incorporated in the rates of the utility that owns the Project in the utility's rate case.

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29 Clean Energy Infrastructure Surcharge (CEIS)

The Clean Energy Infrastructure Surcharge is designed to expedite cost recovery for infrastructure that supports greater use of renewable energy or grid efficiency within the utility systems. The parties agree to support the following:

1. The establishment of a CEIS to recover the reasonable costs of new transmission and other infrastructure investment needed to facilitate new clean energy investments by the utility or by IPPs. Subject to Commission approval, the CEIS may also be used to recover costs that would normally be expensed in the year incurred and may be used to accelerate cost recovery.

2. Capital costs eligible for recovery through the CEIS include the allowed return on investment based on the rate of return from the last rate case, AFUDC as appropriate, depreciation, applicable taxes, other costs as approved by the Commission.

3. The reasonable costs of infrastructure investments will be eligible for cost recovery through the CEIS if it can be demonstrated that the investments facilitate greater grid efficiency as determined and approved by the Commission, such as advanced meters and grid automation.

4. The reasonable costs of infrastructure investments that may be recovered through the CEIS, as determined by the Commission, include transmission lines built, in significant part, to facilitate renewable energy development, inter-connection equipment, advanced metering infrastructure, battery storage, and other equipment to facilitate increased use of renewable energy whether utility or third-party owned.

5. The CEIS may also be used to recover costs stranded by clean energy initiatives when approved by the Commission.

6. The CEIS is a mechanism to timely recover: (a) costs that would be expensed in the year incurred; and (b) a return on and of the costs of specific capital projects deemed necessary for the achievement of the HCEI objectives. The CEIS is not a financing vehicle for the Hawaiian Electric Companies.

7. If the utility is conducting a very costly capital investment project and receives Commission pre-approval for Construction Work in Progress (CWIP) rate base treatment, the utility can use the CEIS to recover the return on the CWIP asset. If the CWIP investment is given rate base treatment, it shall not earn AFUDC.

8. The CEIS will be implemented as a separate surcharge.

9. Cost recovery under the CEIS will terminate when and to the extent that the costs are incorporated in the utility's base rates.

10. The CEIS surcharge will be reset on an annual basis to recover: (1) the capital and other related costs (as noted in paragraph 2 above) incurred by the utilities relating to the

adoption and integration of the renewable energy resources commitments identified in Exhibit A; (2) the change in the return on investment resulting from the change in the unrecovered cost of the projects completed in years prior to the immediately preceding year; and (3) the true up resulting from the reconciliation of the estimated and actual collections for the immediately preceding year. The new CEIS will take effect on March 1 of each year to allow for consideration of the Commission approved: (1) final costs of capital projects completed ; (2) changes in the return on the net book value of the capital asset at the end of the immediately preceding year; (3) the results of the reconciliation to be performed by January 31 of each year of the estimated and actual costs to be recovered in the CEIS for the preceding year; and (4) any costs that should be expensed in the prior year, but are approved for recovery in the CEIS. The Hawaiian Electric utilities, the State, and the Consumer Advocate shall work in collaborative fashion in developing the implementation procedure of the CEIS recovery mechanism, for submission for PUC approval by November 30, 2008.

11. It is probable that it will be easier to achieve higher levels of renewable energy generation on islands other than Oahu. Subject to Commission approval, the CEIS may be used as a mechanism to have Oahu's ratepayers pay for some of the cost burden of new renewable energy developments on the MECO and HELCO systems.

The utility has a Renewable Energy Infrastructure Program (REIP) pending at the Commission. The parties have no objection to the use of this docket after approval of the REIP to change the REIP to incorporate the CEIS mechanism changes, provided public notice is given to the ratepayers of the Hawaiian Electric Companies of the substitution changes and public hearings are held regarding the change, consistent with the requirements of HRS § 269-12.

30 Energy Cost Adjustment Clause (ECAC)

The parties agree that the goal of utility resource purchases is to maximize the purchase of renewable energy (and particularly locally-produced renewable energy), to de-link the renewable energy contracts from oil prices, and to stabilize, to the extent possible, ongoing fuel prices, in that order. To that end, the parties agree to the following:

- The Hawaiian Electric Companies may engage in limited hedging and forward contracting for both energy and fuel using guidelines and practices to manage both cost and risk, as approved by the Commission;
- The Commission will periodically review and approve the prudence and effectiveness of the Hawaiian Electric Companies' utility's fuel and energy procurement practices to ensure that the requirements of the energy cost adjustment clause are met. The Commission will examine whether there is renewable energy which the utility did not purchase or whether alternate purchase strategies were appropriately used or not used; and

CA-IR-275

Ref: HECO T-1 Update, page 5 (Sales and Net Revenue Update).

Mr. Alm refers in his update to "a net increase of $11,462,000" that would result from recognition of the reduced 2009 sales forecast that is sponsored by HECO T-2 (Mr. Willoughby). Please provide complete copies of the electronic files supporting the calculation of this amount (or reference to update supporting files already provided) and state/explain all revised methodologies or changed assumptions employed in such calculations (if any).

HECO Response:

The discussion of the net increase of $11,462,000 on page 5 of the HECO T-1 Rate Case Update references Attachment 1 of the HECO T-23 update. As shown on Attachment 1 of the HECO T-23 update, the $11,462,000 amount is the difference between the revenue increase of Attachment 8 ($102,128,000) and the revenue increase of Attachment 7 ($90,666,000). Attachment 8 is a base case revenue requirement run that includes the impact of the sales forecast reduction. Attachment 7 is a base case revenue requirement run that does not include the impact of the sales forecast reduction. The base case revenue requirement runs include the 2009 CIP CT-1 plant additions (net of deferred income taxes) in the end of test year rate case balance but not in the beginning of test year rate base balance. As explained on pages 4 and 5 of the HECO T-1 update, the reduction in electric sales would reduce electric sales revenues, offset to some extent by a decrease in fuel expense, purchased power expenses and fuel inventory. These impacts would also drive changes to working cash, taxes and uncollectibles.

HECO e-mailed the excel files for Attachments 1, 7 and 8 to Utilitech on December 22, 2008. The file names are "T-23 09 Update Att. 1 - Rev. Req. Summary.xls" for Attachment 1, "PBase-Upd-direct sales-curr eff rates.xls" for Attachment 7, and "PBase-Upd-lower sales-curr eff rates.xls" for Attachment 8.

CA-IR-276

Ref: HECO T-1 Update, Attachment 1, page 3 (RBA Interest).

According to Mr. Alm at page 3 of Attachment 1, "The proposed RBA will also reflect the accrual of interest at the rate of the then approved rate of return applied to the simple average of the beginning and ending balance in the balancing account each month." Please respond to the following:

a. Explain the basis for this proposed interest provision, indicating where in the HCEI Agreement authority for such an interest provision is believed to exist.
b. Explain why the balance upon which interest would be calculated has not been reduced for the deferred taxes that would arise from the recording of RBA revenues that are not currently taxable.
c. Describe how the proposed RBA interest rate compares to the interest that HECO is allowed to accrue on IRP/DSM costs while awaiting recovery from ratepayers.

<u>HECO Response:</u>

a. In Section 28 of the HCEI Agreement, "Decoupling from Sales", the agreement states: "the parties agree in principle that it is appropriate to adopt a decoupling mechanism that closely tracks the mechanisms in place for several California electric utilities . . ." The large California electric utilities calculate interest each month on the balance in the revenue balancing account as noted in their tariffs (see Southern California Edison's Preliminary Statement "YY," Pacific Gas and Electric's Preliminary Statement "CE," and San Diego Gas & Electric's Preliminary Statement "II. Balancing Accounts.")

b. The revenue balancing account ("RBA") is designed to account for the differences between recorded electric revenues and the target revenues previously approved by the Commission (with adjustments for fuel and purchased power). At any point in time, the RBA balance represents the net shortfall or over collection of revenues to which HECO is entitled or is liable.

In general, deferred income taxes are a reduction in rate base because they represent tax expense that has been charged to and paid by ratepayers but for which the Company has not actually paid to the tax authorities. This occurs when, for example, revenue is collected and recognized for book purposes but due to a difference in the tax law, the income is recognized for tax purposes in a later period and the associated taxes are paid in that later period. Rate base is reduced by this deferred tax because the Company has the use of the funds representing these deferred income taxes, interest free.

For income tax purposes, RBA revenues are not taxable until actually collected from the customer. Consequently, a deferred income tax will be provided on the revenues recognized since the associated tax expense will be paid in a subsequent period when the RBA revenues are collected.

However, although the RBA balance represents revenues recognized for book purposes, these revenues will not have been collected from customers, in the case where target revenues are greater than recorded revenues (RBA shortfall). Thus, as of any determination date, the Company will not have collected the revenues recognized in the RBA balance and the associated income taxes on the revenues will not have been paid to the tax authorities. This is in contrast to the typical deferred tax situation where book revenues represent revenues actually collected and where the Company has collected the associated taxes from the ratepayer.

In a subsequent period, rates are adjusted to account for the RBA shortfall, and the balance is collected from customers. In this same period, income taxes will become due on the RBA revenue collected from the customer because tax recognition will be essentially on an "as collected" basis.

As a consequence, the balance upon which interest would be calculated need not be reduced for the deferred taxes that would arise from the recording of RBA revenues because ratepayers will be paying for the RBA balance in the very same period in which the income taxes become due.

c. The proposed RBA interest rate, the approved rate of return, is the same rate that is applied for interest in the HECO Companies' IRP and DSM cost recovery filings.

CA-IR-277

Ref: HECO T-1 Update, Attachment 1, page 3 (RBA Procedures).

In part 5 of his Update Attachment 1, Mr. Alm describes a "process" through which HECO proposes to "notify the Commission" "On November 30" of certain RBA and RAM revenue changes to be incorporated into new rates that, "… would be effective on January 1, 2010." Please provide the following information:

a. Identify and explain how the proposed timing of this filing/notification would provide adequate review time to the Commission, the Consumer Advocate and any concerned parties for review of the proposed rate changes prior to the effective date of new rates.
b. Provide specimen copies of all schedules, calculations, workpapers, supporting documentation and other information that HECO proposes to include in support of its annual RBA filing/notification.
c. Explain the procedures HECO would propose in the event the Commission or any party objects to the Company's calculations or proposed rates, including any provisions for discovery and hearings.

<u>HECO Response:</u>

a. HECO's response to this request is based on HECO's decoupling proposal filed with the Commission on January 30, 2009. HECO continues to consider alternate timings for the Revenue Balancing Account ("RBA") and the revenue adjustment mechanism ("RAM") revenue changes, including the Consumer Advocate's proposal filed January 30, 2009. HECO expects that the method of implementing the decoupling adjustments through the operation of the RBA will be determined and approved by the Commission in this docket and the method of calculating the RAM will be determined and approved in the decoupling docket, Docket No. 2008-0274. If HECO's proposed schedule of implementing the automatic decoupling rate adjustments is adopted, what HECO will file on or by November 30 to implement decoupling rate adjustments for the following January 1 are the workpapers providing the specific detail/data of the calculations, based on the methods already approved by the Commission.

The period between November 30 and January 1 should be sufficient time to review such calculations under an approved method. This proposed review period is much longer than the ECAC automatic rate adjustment notice period which is only one business day.

b. See Attachment 1 of this response for the proposed RBA tariff. A numerical illustration of the items to be included in the November filing is provided as Attachment 2 of this response. Also the workpaper supporting the proposed new monthly allocations of targeted revenues based on the most recent forecast will be provided.

c. As in all tariff filings, any party may object to the Company's calculations of the proposed decoupling rate adjustment or proposed rates, pursuant to Section 6-61-61 of the Hawaii Administrative Rules[1]. While the objection is being considered by the Commission, HECO proposes that the filed decoupling rate adjustments go into effect and remain in effect. Should the Commission ultimately rule that an adjustment to the decoupling rate adjustment is appropriate, HECO will modify the decoupling rate adjustments and adjust the RBA balance, including appropriate interest adjustments, to conform to any Commission ruling.

[1] In "Subchapter 4 Intervention, Participation, Protest and Consumer Advocate" of Chapter 6-61 of the Hawaii Administrative Rules, any person may protest or oppose any tariff change by notifying the Commission in writing and serving the protest on the utility not less than 15 days before the effective date of the proposed tariff change. The public utility may file its reply to the protest not less than 5 days before the effective date of the proposed tariff change.

SHEET NO.
Effective

REVENUE BALANCING ACCOUNT AND
COST RECOVERY PROVISION

Supplement To

Schedule R - Residential Service
Schedule E - Electric Service For Employees
Schedule G - General Service Non-Demand
Schedule J - General Service Demand
Schedule H - Commercial Cooking, Heating, Air Conditioning, and Refrigeration Service
Schedule PS - Large Power Secondary Voltage Service
Schedule PP - Large Power Primary Voltage Service
Schedule PT - Large Power Transmission Voltage Service
Schedule F - Public Street Lighting, Highway Lighting and Park and Playground Floodlighting
Schedule U - Time of Use Service
Schedule TOU-R - Residential Time-of-Use Service
Schedule TOU-C - Commercial Time-of-Use Service
Schedule SS - Standby Service

All terms and provisions of Schedules R, E, G, J, H, PS, PP, PT, F, U, TOU-R, TOU-C, and SS are applicable except that the total base rate charges for each billing period shall be adjusted by the Revenue Balancing Account Rate Adjustments shown below:

A: PURPOSE:

The purpose of the Revenue Balancing Account (RBA) is to record: 1) the difference between the Hawaiian Electric Company's (HECO's) target revenue and recorded adjusted revenue, and 2) monthly interest applied to the simple average of the beginning and ending month balances in the RBA. In addition, the recovery provision of this tariff provides for collection or return of the estimated calendar year-end balance in the RBA over the subsequent calendar year. The RBA and associated recovery are established in accordance with Interim Decision and Order filed [date], in Docket No. 2008-0083, HECO's 2009 test year rate case.

B: TARGET REVENUE:

For the purpose of the RBA, the target revenue is the more recent of either a revenue requirement approved by the Public Utilities Commission (PUC) in an interim or final decision and order in a rate case, or other revenue amount authorized by the PUC, in either case exclusive of the revenue for fuel and purchased power expenses that are recovered either in base rates or in a purchased power adjustment clause, and adjusted to remove amounts for applicable revenue taxes. The target revenue is allocated to separate RBA sub-accounts, one for residential customers and one for all commercial and industrial customers collectively, based on the approved rate design that implements an approved revenue requirement from a rate case.

SHEET NO.
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REVENUE BALANCING ACCOUNT AND
COST RECOVERY PROVISION

(continued)

Monthly Allocation Factors for the Target Revenue are as follows:

	Residential	Commercial & Industrial
January 2009	8.40%	7.83%
February 2009	7.27%	7.31%
March 2009	8.00%	8.05%
April 2009	7.88%	7.86%
May 2009	8.17%	8.41%
June 2009	8.37%	8.36%
July 2009	8.68%	8.70%
August 2009	9.08%	9.03%
September 2009	8.72%	8.83%
October 2009	8.75%	8.95%
November 2009	8.26%	8.36%
December 2009	8.42%	8.31%
Total	100.00%	100.00%

These factors are based on the 2009 sales forecast. Revisions to monthly allocation factors will be made each calendar year and may also be made upon PUC approval of an interim or final revenue requirement in a rate case.

C: BALANCING ACCOUNT ENTRIES:

Entries to the RBA residential sub-account and commercial and industrial sub-account will be recorded monthly. A debit entry to the RBA will be made equal to the target revenue as defined in Section B. above, times the appropriate monthly allocation factor in the table above. A credit entry to the RBA will be made equal to the recorded adjusted revenue. The recorded adjusted revenue is defined as the electric sales revenue from authorized base rates, plus revenue from any authorized interim rate increase, plus revenue from any RBA rate adjustment, but excluding revenue for fuel and purchased power expenses, and adjusted to remove amounts for applicable revenue taxes.

Interest will be recorded monthly to the RBA sub-accounts by applying the Interest Rate times the simple average of the beginning and ending month balance in the RBA sub-account. The Interest Rate shall be the most current rate of return on rate base approved by the PUC in an interim or final decision in a rate case, converted to an effective monthly rate.

SHEET NO.
Effective

REVENUE BALANCING ACCOUNT AND
COST RECOVERY PROVISION

(continued)

D: RECOVERY OF BALANCING ACCOUNT AMOUNTS:

The estimated calendar year-end balances in the RBA residential sub-account and commercial and industrial sub-account will be prospectively cleared to customers through an RBA rate adjustment over the 12 months of the succeeding calendar year. In November of each year, the Company will notify the PUC of the estimated RBA year-end balances, based on the October month-end balances and the forecast debits and credits to the RBA sub-accounts, including estimated interest for November and December of that year. Separate per kWh RBA rate adjustments, one for the residential RBA sub-account and one for the commercial and industrial RBA sub-account, which apply to residential and commercial/industrial customers, respectively, over the next calendar year, are established that will collect/refund the estimated RBA sub-account current year-end balances over the next calendar year's forecast kWh sales. The Company will implement the proposed RBA rate adjustments effective January 1 to December 31 of the next calendar year.

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENTS:

The RBA rate adjustments are comprised of the calculated values from Section D above, adjusted to include amounts for applicable revenue taxes.

Effective 20XX to 20XX

Rate Schedules R, E, TOU-R.....0.0000 ¢/kWh

Rate Schedules G,J,H,PS,PP,PT,F,U,TOU-C,SS.....0.0000 ¢/kWh

Illustration of RBA Calculations at November 2009

	Debits	Credits	
Ending October 2009 Ending RBA Balance			20.00 Debit Balance
Estimated November 2009 Target Revenue	96.00		
Estimated November 2009 Recorded Adj Revenue		92.00	
Estimated November 2009 Balance Before Interest			24.00 Debit Balance
Estimated November 2009 Interest	0.15		
Estimated November 2009 Ending RBA Balance			24.15 Debit Balance
Estimated December 2009 Target Revenue	97.00		
Estimated December 2009 Recorded Adj Revenue		94.00	
Estimated December 2009 Balance Before Interest			27.15 Debit Balance
Estimated December 2009 Interest	0.18		
Estimated December 2009 Ending RBA Balance			27.33 Debit Balance

Rate Design RBA Adjustment per month, 2010 2.28
Filed with the Commission on November 30, 2009, effective January 1, 2010

Estimated January 2010 Target Revenue	94.00		
Estimated January 2010 Recorded Adj Revenue		95.00	
Estimated January 2010 Recorded RBA Adj Revenue **(Surcharge revenues from Rate Design RBA Adjustment)**		2.30	
Estimated January 2010 Balance Before Interest			24.03 Debit Balance
Estimated January 2010 Interest	0.18		
Estimated January 2010 Ending RBA Balance			24.21 Debit Balance

Note 1: Ending October 2009 Ending RBA Balance, Target Revenue, Recorded Adj Revenue, and Recorded RBA Adj Revenue all assumed for illustration purposes

Note 2: Interest at effective monthly rate for annualized 8.62% which is rate of return in interim decision HECO TY 2007 rate case

CA-IR-278

Ref: HECO T-1 Update, pages 15 to 21 (HCEI Staffing Changes).

In part D of his Rate Case Update, Mr. Alm describes a number of newly created positions that are proposed in the 2009 test year to be "either dedicated or substantially involved in HCEI activity." Please provide the following information regarding these new positions:

a. An update of HECO-1503 replacing columns E through G with 2008 actual data and adding columns for the projected newly created positions and resulting revised proposed "2009 Test Year Average" positions in each department.
b. In the event HECO is unable to recruit and hire new employees for each of the proposed new positions, describe how the Company plans to timely satisfy its HCEI commitments in each area where new staffing is proposed.
c. Provide copies of all studies, analyses, workpapers, projections and other documents supporting HECO's decision to create each of the proposed new positions.
d. Confirm that all required management approvals have been secured for each of the newly created positions, such that posting and recruiting of each position has been initiated – or explain each instance where approvals are pending and posting/recruiting has not commenced.
e. Provide a monthly schedule of the assumed hiring dates for each of the newly created positions within HECO's test year updates, annotated to indicate which positions have been filled without creating backfill vacancies, which have been filled with a backfill vacancy, which have an offer pending and each position where a candidate has been identified for which an offer is anticipated to be made.

<u>HECO Response:</u>

a. Please refer to Attachment 1 (revised 2/17/09) of this response. Using HECO-1503 of the HECO T-15 Update, Column J has been added to reflect the newly created positions discussed in Mr. Alm's HECO T-1 Update. In addition, HECO-1503 has been revised to reflect the current organizational structure and reporting relationships.

The 2008 YTD employee count (column E) was revised in Attachment 1, from 1,552 in the initial response to 1,551 in this response for an overall reduction of one employee. HECO excluded one too many DSM employees from the Energy Services Department count. In addition, personnel transactions were processed after the date

HECO pulled reports to complete CA-IR-278 last month. Therefore, HECO is submitting a revised Attachment 1 to CA-IR-278 and the 12/31/08 employee counts match 12/31/08 counts provided in subsequent information requests. The changes are summarized below.

Department	Original Count	Revised Count	Net Change	Comment
ITS	94	93	-1	Employee termination
SVP, Energy Solutions	4	2	-2	Two positions transferred to Corporate Planning
Energy Services	10	11	+1	One DSM employee was removed from prior count
Power Supply Services	16	15	-1	Employee termination
Corporate Planning	7	9	+2	Two positions from SVP, Energy Solutions
Total Net Change	--	--	-1	Results in corrected total actual staffing count of 1,551 (one less than the initial submission of 1,552)

b. When work cannot be deferred, departments will increase the use of supplemental labor (hiring of consultants, contract employees or agency temps) and/or schedule its qualified personnel to work greater amounts of overtime. Often, HECO's exempt merit employees take on additional work to ensure that key duties and tasks are performed, ensuring that reliability and service to customers are not compromised without additional compensation. Thus, overtime is, at best, a temporary measure that cannot continue for an indefinite period of time.

c. Please refer to Attachment 2, Column C. Also refer to the Hawaii Clean Energy Initiative ("HCEI") Agreement which outlines HECO's various projects and commitments that support HECO's decision to create these new positions.

d. Please refer to Attachment 2, Column D.

e. Please refer to Attachment 2, Columns D, E and F.

Hawaiian Electric Company, Inc.
CA-IR-278

	A	B	C	D	E	F	G	H	I	J
	2006 Recorded EOY	2006 Year Average	2007 Recorded EOY	2007 Year Average	2008 YTD Recorded 12/31/08	Updated 2008 Projected EOY	2008 EOY Budget	Updated 2009 EOY Test Year	Updated 2009 Test Year Average	HCEI Positions
President's Office										
Corporate Audit & Compliance (Formerly Internal Audit)	10	11	9	10	12	12	11	13	13	
President's Office	2	3	3	3	1	1	3	3	3	
Subtotal	12	14	12	13	13	13	14	16	16	0
Sr. Exec VP					0	0	0	0	0	0
VP-Corporate Excellence										
Compensation & Benefits	13	13	10	12	11	11	11	11	11	
Industrial Relations	9	9	9	8	10	10	9	10	10	
Safety, Security & Facilities	42	45	47	44	50	51	51	52	52	
Workforce Staffing & Development	16	16	17	17	18	17	18	25	23	
VP-Corporate Excellence's Office	2	2	4	3	5	5	5	4	4	
Subtotal	82	85	87	84	94	94	94	102	100	0
SVP-Finance & Administration										
General Accounting	26	26	26	25	27	27	26	28	28	1
Information Technology & Services	95	93	89	92	93	95	94	97	97	
Management Accounting & Fin Svcs	22	22	20	21	21	21	22	23	23	1
Risk Management	9	9	9	9	9	9	9	9	9	
Sr. VP Finance & Administration's Office	4	3	3	4	3	3	3	3	3	
Subtotal	156	153	147	151	153	155	154	160	160	2
VP-General Counsel										
Legal/Land and Rights of Way	16	16	15	16	17	17	18	17	17	
VP-Gen Counsel's Office	2	2	2	2	2	2	2	2	2	
Subtotal	18	18	17	18	19	19	20	19	19	0
Sr. VP-Energy Solutions										
Customer Installations (move to VP Energy Delivery)	44	47	50	46	Move to VP Energy Delivery					
Energy Projects (move to EVP Public Affairs)	8	8	9	9	Move to EVP Public Affairs					
Technology (move to EVP Public Affairs)	3	3	3	3	Move to EVP Public Affairs					
Sr. VP-Energy Solutions' Office	4	4	4	4	2	4	4	4	4	
Subtotal	59	62	66	62	2	4	4	4	4	0
VP-Customer Solutions*										
Customer Service (receive from SVP Operations)					150	142	147	148	148	
Customer Technology Applications	8	8	9	9	9	9	9	9	9	
Energy Services*	17	16	12	11	11	12	13	16	16	1
Forecasts & Research	9	10	10	10	10	10	10	10	10	
Integrated Resource Planning	6	5	Move to EVP Public Affairs as of 3/15/07							
Marketing Services	11	11	11	12	11	11	12	12	12	
VP-Customer Solutions' Office	2	2	2	2	3	3	2	3	3	1
Subtotal	53	52	44	44	194	187	193	198	198	2
Sr. VP-Operations										
Customer Service (move to VP Customer Solutions)	126	127	136	132	Move to VP Customer Solutions					
Sr. VP-Operations' Office	3	3	2	2	2	2	2	2	2	
Subtotal	129	130	138	134	2	2	2	2	2	0
VP-Energy Delivery										
Asset Management					2					
Construction & Maintenance	220	212	215	216	220	220	220	222	222	
Customer Installations (receive from SVP Energy Solutions)					50	50	53	55	55	
Engineering	84	85	83	86	82	83	88	85	85	
Support Services	80	80	84	82	83	83	85	85	85	
System Operation	105	108	114	110	113	115	118	123	122	
VP-Energy Delivery's Office	2	2	2	2	2	2	2	2	2	
Subtotal	491	487	498	496	552	553	566	572	571	0
VP-Power Supply										
Environmental	22	22	24	22	25	25	24	25	25	
Power Supply Engineering (formerly Planning & Engineering)	40	38	46	44	50	48	47	53	53	1
Power Supply Operations & Maintenance	316	307	333	326	343	344	354	375	375	
Power Supply Services	28	29	13	12	15	14	15	17	17	2
System Planning	0	0	19	19	19	19	22	26	25	4
VP-Power Supply 's Office	2	2	2	2	3	3	2	3	3	
Subtotal	408	398	437	425	455	453	464	499	498	7
VP-Special Projects	3	3	Special Projects Department dissolved in January of 2007							
Exec. VP-Public Affairs										
Corporate Planning (Est. 8/11/08)					9	7	6	8	8	
Energy Projects (receive from SVP Energy Solutions)					9	9	9	11	10	2
Government Relations (move to VP Gov't & Community Affairs)	2	3	3	3	Move to VP Government & Community Affairs					
Integrated Resource Planning			5	5	Move to Corporate Planning					
Technology (receive from SVP Energy Solutions)					3	3	3	3	3	
EVP-Public Affairs' Office	3	2	3	3	2	2	3	2	2	
Subtotal	5	5	11	11	23	21	21	24	23	2
VP-Corporate Relations										
Corporate Communications	8	12	9	8	9	9	10	9	9	
VP-Corporate Relations' Office	3	2	3	3	3	3	3	3	3	
Subtotal	11	14	12	11	12	12	13	12	12	0
VP-Government & Community Affairs										
Education & Consumer Affairs	8	8	8	7	8	8	8	8	8	
Governmental Relations (receive from EVP Public Affairs)					3	3	3	3	3	
Regulatory Affairs	7	7	9	9	14	14	15	15	15	
VP-Gov't & Comm Affairs' Office	7	7	7	7	7	7	7	7	7	
Subtotal	22	22	24	23	32	32	33	33	33	0
Company Total	**1449**	**1443**	**1493**	**1472**	**1551**	**1545**	**1578**	**1641**	**1636**	**13**

*Employee counts include interns and temporary employees on HECO payroll, but exclude employees covered under the DSM surcharge adjustment docket from all years.

Summary Status of Hawaii Clean Energy Initiative Agreement Positions

A	B	C	D	E	F
Department	Position Title	Documentation	Status	Hire date / Projected fill date	Results in need to backfill?
Energy Services	Senior Rate Analyst	Refer to HECO T-10 Rate Case Update	Approved to fill; interviews in progress.	Projected fill: 2/09	Unknown at this time. Internal and external applicants in pool; top candidate not yet selected.
Customer Solutions	Director, Special Projects	Refer to HECO T-10 Rate Case Update	Filled 11/24/08	Filled: 11/24/08	Yes, former position already backfilled with internal candidate; next vacancy has also been backfilled with an internal candidate; next vacancy has received approval to fill and was posted in December.
Energy Projects	Sr. Technical Services Engineer (two vacancies)	Refer to discussion in HECO T-15 Rate Case Update	Approvals not yet sought. Recruitment will begin in April/May since position is not planned to be filled until July 2009.	Projected fill: 7/09	Unknown at this time
General Accounting	Lead Corporate Accountant	See Attachment 3. Also, refer to HECO T-11 Rate Case Update	Approved to fill; two candidates have been sent pre-interview packets	Projected fill: 3/09	No, external candidates
Mgmt Acctg & Financial Svcs	Senior Financial Analyst	See Attachment 4. Also, refer to HECO T-15 Rate Case Update, Attachment 4	Approved to fill; two top candidates have withdrawn; reinitiating recruitment	Projected fill: 5/09	Unknown at this time; most likely external hire

Power Supply Services	Director, Renewable Energy Purchase Power	See Attachment 5. Also, refer to HECO T-7 Rate Case Update	Approved to fill; conducting second round of interviews	Projected fill: 2/09	Yes, selection will likely come from within Power Supply
Power Supply Services	Negotiator	See Attachment 5. Also, refer to HECO T-7 Rate Case Update	Approved to fill; to be posted internally and externally week of January 26.	Projected fill: 4/09	Unknown at this time; most likely external hire
Power Supply Engineering	Project Manager	Refer to HECO T-7 Rate Case Update	Filled 10/27/08	Filled: 10/27/08	Yes, former position to be filled by external hire in 2/09
System Planning	Director, Renewable Energy Planning	See Attachment 6. Also, refer to HECO T-7 Rate Case Update	Job offer accepted by mainland candidate; start date 3/25/09	Starts on 3/25/09	No, external hire
System Planning	Sr. Renewable Energy Engineer	See Attachment 6. Also, refer to HECO T-7 Rate Case Update	Approved to fill; to be posted internally and externally 1/27/09	Projected fill: 4/09	Unknown at this time; most likely external hire
System Planning	Renewable Energy Engineer	See Attachment 6. Also, refer to HECO T-7 Rate Case Update	Job offer accepted 1/20/09; start date 2/2/09	Starts on 2/2/09	Yes, former position will be backfilled by external candidate on 2/9/09
System Planning	Renewable Energy Engineer	See Attachment 6. Also, refer to HECO T-7 Rate Case Update	Job offer accepted 1/20/09; start date 2/2/09	Starts on 2/2/09	Yes, internal hire; former position will be backfilled by internal candidate on 2/16/09; affected department plans to backfill the upcoming vacancy

INTEROFFICE CORRESPONDENCE

Hawaiian Electric Co., Inc.

November 10, 2008

To: Tayne Sekimura

From: Patsy Nanbu

Subject: **Request for New Lead Corporate Accountant Position**

I would like to request approval for a new full-time Lead Corporate Accountant position within the Corporate Accounting Division. The addition of a new Lead Corporate Accountant will provide the additional support to our existing staff by 1) alleviating some of the added responsibilities and requirements imposed on the existing Corporate Accounting staff, 2) assuming some of the additional responsibilities assigned to the Corporate Accounting Division, 3) assisting with the additional accounting analyses required by the Corporate Accounting Division, and 4) spearheading special projects assigned the Division.

The primary function of the Corporate Accounting Division is to record and maintain the financial records of the Company, including preparing and providing internal and external financial statements and reports. Since HECO is a registrant on the SEC and a regulated Company in the State of Hawaii, HECO must provide a significant amount of timely and accurate monthly, quarterly and annual financial information to management, investors, regulators and to the general public. Ultimately, it is the Corporate Accounting Division that bears much of this responsibility to process and prepare the financial information. In this post-Enron era, the number of accounting pronouncements and interpretations that are being issued have increased significantly. As a result there has been an increase in the amount of analyses required in preparing the financial information in accordance with generally accepted accounting principles for the company. As the Company embarks in new initiatives, it's imperative that the accounting considerations for such new initiatives be analyzed and reviewed. The new initiatives are complex, and significant research is involved in addressing the accounting issues. In addition, the threshold regarding materiality has been significantly reduced as a result of new accounting pronouncements.

Further, the SEC recently voted to move US companies toward International Financial Accounting Standards (IFRS), which will have significant financial reporting implications for registrants of the SEC, such as HECO. Discussions have indicated that IFRS will be required *for companies such as HECO/HEI by 2014, which means information from 2012 will need to be* gathered under IFRS. HECO will need to begin reviewing all of its processes to begin identifying key accounting and reporting differences between US GAAP and IFRS that impacts the Company.

Currently, the Corporate Accounting Division within the General Accounting Department is comprised of five Corporate Accountants and one Lead Corporate Accountant. The Corporate

Accountants report to the Director of Corporate and Property Accounting, who reports to the Controller. The fifth Corporate Accountant was hired in October 2008, to address the additional workload that had been building prior to the identification of the new initiatives the Company is embarking and the analyses required for these new initiatives, and the SEC's vote to move toward IFRS in the very near future.

The new Lead Corporate Accountant would primarily be assisting in reviewing and evaluating the accounting for new initiatives, analyzing the requirements based on new accounting pronouncements for existing operations, updating and maintaining the required documentation for the accounting conculsions reached, reviewing processes to begin identifying key accounting and reporting differences between US GAAP and IFRS that would impact the company, and to assist the Corporate Accounting Division to meet its required deadlines.

The increase in the addtional staffing will not require additional facilities immediately, as there is an existing cubicle in the General Accounting Department area for a new position. The position is being included in the 2009 budget recycle, and included in the 2009 test year rate case updated.

Senior Financial Analyst

Management approved a request to hire a Senior Financial Analyst in Management Accounting & Financial Services. In support of the request to hire a Senior Financial Analyst, the following information was provided to management.

The position is required based on the projected increase in regulatory, legal, financial and compliance workload which will include the following:

- Rate Cases – Financial Analysis Division will support multiple rate cases which are expected to include changes in ratemaking for new surcharge mechanisms (including revenue adjustment mechanisms for changes in costs and capital expenditures, purchase power cost recover, and Hawaii Clean Energy Infrastructure), and possible rate rebalancing between Companies.

- Purchased Power Contracts – The Companies expect to negotiate numerous purchased power agreements over the next few years. There are over 15 proposals in various stages of negotiation and implementation. In addition, amendments to increase at least three existing contracts are currently being negotiated.

- Competitive Bidding – Financial Analysis Division will support the evaluation of the bids to the HECO Renewable Energy RFP and the MECO RFP.

- New Projects – Financial Analysis Division will provide support for various new projects which may include: Advanced Meter Infrastructure, PV Host, Interisland Cabling, Biofuel Refinery, Federal Loan Guarantee, Asset Management, REC valuation and trading, feed-in tariff rates and hedging.

This work is in addition to supporting PUC project applications and economic evaluations of other business decisions.

Financial analysis support in rate cases and project activities require technical foundation and analytical ability. Significant training, background, and development are usually required to perform the required financial analysis work. There are few individuals in house that have sufficient financial and regulatory background to do this work. Those qualified individuals are consumed by other equal or more critical work.

This position is mission critical especially given the many rate cases and other competing new projects, including the HCEI agreement initiatives. A specialized, in-depth knowledge about HECO's accounting, financing, legislative, and regulatory policies, procedures, agreements, and requirements are necessary to complete the work assigned to this Senior Financial Analyst position most efficiently and effectively.

Renewable Energy Purchase Power Division

Director, Renewable Energy Power Purchase

Renewable Energy Power Purchase Negotiator

Management approved a request to restructure and establish a Renewable Energy Purchase Power Division in the Power Supply Services Department and fill two new positions: Director, Renewable Energy Power Purchase and a Renewable Energy Power Purchase Negotiator. The Director hiring process is already in progress. The following information was provided in support of the request.

This is a necessary organizational realignment and addition of resources in order to manage the workload and meet the corporate goals established through the Hawaii Clean Energy Initiative process. At the same time, the realignment and additional resources will strengthen the core business administration of the Firm Capacity contracts and aligns resources for upcoming renegotiation and amendment of those contracts (KPLP and AES Capacity amendment).

Power Purchase has seen a dramatic increase in the number of Independent Power Producers proposing renewable energy (RE) projects for all three islands. Currently there are 17 active RE power purchase negotiations in progress, two PPA applications (Lanai Solar & Sopogy) before the Commission, and three existing PPA amendment negotiations (Tesoro, Chevron, AES). Additionally, HECO is challenging IPP's with existing contracts, based on the avoided cost of oil, to renegotiate those contracts. HC&S has expressed interest in an amended firm contract. Early in 2009 there will be another step increase in work due to the Oahu RE competitive bid process as negotiations begin with successful bidders. Finally, the analysis work necessary to support the "Big Wind" development efforts (Castle & Cooke on Lanai and First Wind on Molokai) will require substantial Power Purchase division participation.

Renewable Energy Planning Division

Director, Renewable Energy Planning

Senior Renewable Energy Engineer

Renewable Energy Engineers (2)

Management approved a request to establish a Renewable Energy Planning Division in the System Planning Department and fill four new positions: Director, Renewable Energy Planning; Senior Renewable Energy Engineer; and two Renewable Energy Engineers. The following information was provided in support of the request.

1.0 Request for Approval

1.1 Renewable Energy Planning Division

This new division will provide dedicated resources to guide necessary technical analyses and support initiatives related to the integration of renewable energy generation resources on the HECO, MECO and HELCO systems, consistent with the vision and commitments of the Hawaii Clean Energy Initiative (HCEI).

The addition of the new Renewable Energy Planning Division results in an increase of four positions in the System Planning Department as follows: one Director, Renewable Energy Planning; one Senior Renewable Energy Engineer; and two Renewable Energy Engineers. The staff count for the department would increase to a total of 26 positions. The business case for the new division and increased staffing has been incorporated into the HECO TY2009 Rate Case proceeding.

1.2 Authorization to Fill Vacancies

A search for candidates to fill these positions placed the department in a position to immediately make job offers for three of the four new positions. A candidate for the remaining new Senior Renewable Energy Engineer position must still be identified. The issue of compensation has been discussed and a proposed job offer package has been assembled for each of these candidates with the assistance and concurrence of HECO's Compensation Division.

2.0 Justification for the Renewable Energy Planning Division

The System Planning Department will create a new division, Renewable Energy Planning, to secure the necessary resources and align those resources to effectively manage the sharply increased work load associated with the transformation of our electrical system and integration of new renewable energy generation resources. This work load increase directly arises from state policy and corporate objectives to mitigate the impact of the recent years increase in the cost of electric energy generated by fossil fuels and ultimately achieve a more sustainable, clean, flexible, and economically vibrant and independent energy future for Hawaii and the Hawaiian Electric utility companies.

Among its many functions, the System Planning Department has primary responsibility to conduct the necessary planning and technical analyses to integrate new renewable resources in a manner that preserves the stability and operability of the respective HECO, HELCO, and MECO systems, and cost effectively maintain service reliability for our customers. The department also serves the critical role of evaluating the cost and cost effectiveness of new

renewable energy IPP project proposals, including the determination of utility avoided cost. In executing these responsibilities, the System Planning Department will continue to work closely with the Power Supply Services Department in their essential and complimentary roles to secure new renewable energy power purchase agreements with IPPs for the benefit of HECO, HELCO and MECO customers.

While the heavy work load of IPP project proposals managed by the System Planning Department has been building for several years now, the HCEI agreement has formally set accelerated deadlines and project milestones for many new renewable energy projects. Among the most significant is the HCEI "Big Wind" commitment to integrate up to 400 MW of neighbor island wind energy into the Oahu grid, which has dramatically increased work demands on the department. Effective management of these Implementation Studies alone will require significant internal resources to direct a wide range of in-house technical staff and manage the applied resources as needed of industry experts, technology advisors and consultants.

However, state policy and corporate initiatives require not only those additional resources to support the Implementation Studies, but a larger complement of resources to achieve all of the commitments embodied in the HCEI agreement. Among these commitments include the integration of three Oahu projects "grandfathered" from competitive bidding, the integration of multiple renewable energy projects that result from the Oahu Renewable Energy RFP (RE RFP), and the integration of numerous other new renewable energy projects located across Maui County and the Big Island (such as, among others, two new major wind plant projects on Maui, and the expansion of geothermal power production on the Big Island). Thus, the

HCEI agreement and our corporate goals make the expansion of resources in the System Planning Department imperative. Establishing the Renewable Energy Planning Division will support the overall level of work demand in the department and help ensure the broader HCEI vision is realized.

The primary responsibilities of the new Renewable Energy Planning Division will be to lead the development of appropriate strategies, methods, plans, and policies to achieve successful integration of renewable energy projects for HECO, HELCO and MECO. Their work will include, among other activities:

- assessing the effect of new renewable energy projects on the utility grid and ensuring the safe and reliable operation of the system;
- developing project performance standards and interconnection requirements;
- developing new and/or modifying existing system operating procedures;
- identifying appropriate grid-side mitigation measures;
- assessing the operational curtailment potential for new resources;
- participating in power purchase contract negotiations with IPPs and advising senior management and the utility negotiating team on power purchase contract terms and strategy;
- providing utility overview of the IPP project design and construction to assist in ensuring project compliance with interconnection requirements and power purchase contract terms;
- monitoring renewable energy project start-up, testing and performance; and

- serving as a technical resource to support utility administration of power purchase contracts.

2.1 In-House Personnel Are Not Able to Do the Work Without Impacting Other Equally Critical Work

As was explained in HECO's response to CA-IR-84 (pages 3-5) in the HECO TY2009 Rate Case proceeding, other important projects and studies that require the attention of the Transmission Planning Division have been deferred to accommodate the growing and high priority work demands in support of integrating new renewable energy resources. Thus, the primary responsibility for this renewable energy planning work will be transitioned to the Renewable Energy Planning Division so that, in time, the Transmission Planning Division will be able to refocus on important core transmission planning activities that have been negatively impacted in recent years.

It is expected, however, to take some time to first staff the new division, and then for the new staff to gain experience and familiarity with the unique planning and operational issues of the HECO, HELCO and MECO islanded systems. Thus, the Renewable Energy Planning Division will closely coordinate its work with the existing Transmission Planning Division, and will continue to rely heavily on the experience and capabilities of that group over the course of 2009, and then less so over time, to ensure a seamless and effective transition of responsibilities.

Ultimately, the new division will allow for dedicated technical capabilities and focused leadership to direct wide ranging in-house resources and leverage specialized external

resources as needed to analyze the impact of new renewable energy projects on the utility systems and achieve their timely and cost-effective integration.

2.2 Establishing the Division and Filling the Positions are Critical

For the reasons stated above, establishing the Renewable Energy Planning Division and moving immediately to fill the four vacancies is mission critical. While keeping these positions vacant will not cause the "lights to go out," the adverse impact on our business of having inadequate resources in the System Planning Department is significant and must be addressed now.

The need to not only expand, but dedicate capable internal resources that are focused on our renewable energy initiatives is critical to the success of the Company. Performing this important renewable energy planning work requires highly specialized knowledge and skills.

CA-IR-278

Ref: HECO T-1 Update, pages 15 to 21 (HCEI Staffing Changes).

In part D of his Rate Case Update, Mr. Alm describes a number of newly created positions that are proposed in the 2009 test year to be "either dedicated or substantially involved in HCEI activity." Please provide the following information regarding these new positions:

a. An update of HECO-1503 replacing columns E through G with 2008 actual data and adding columns for the projected newly created positions and resulting revised proposed "2009 Test Year Average" positions in each department.
b. In the event HECO is unable to recruit and hire new employees for each of the proposed new positions, describe how the Company plans to timely satisfy its HCEI commitments in each area where new staffing is proposed.
c. Provide copies of all studies, analyses, workpapers, projections and other documents supporting HECO's decision to create each of the proposed new positions.
d. Confirm that all required management approvals have been secured for each of the newly created positions, such that posting and recruiting of each position has been initiated – or explain each instance where approvals are pending and posting/recruiting has not commenced.
e. Provide a monthly schedule of the assumed hiring dates for each of the newly created positions within HECO's test year updates, annotated to indicate which positions have been filled without creating backfill vacancies, which have been filled with a backfill vacancy, which have an offer pending and each position where a candidate has been identified for which an offer is anticipated to be made.

<u>HECO Response:</u>

a. Please refer to Attachment 1 of this response. Using HECO-1503 of the HECO T-15 Update, Column J has been added to reflect the newly created positions discussed in Mr. Alm's HECO T-1 Update. In addition, HECO-1503 has been revised to reflect the current organizational structure and reporting relationships.

b. When work cannot be deferred, departments will increase the use of supplemental labor (hiring of consultants, contract employees or agency temps) and/or schedule its qualified personnel to work greater amounts of overtime. Often, HECO's exempt merit employees take on additional work to ensure that key duties and tasks are performed, ensuring that reliability and service to customers are not compromised without additional compensation.

Thus, overtime is, at best, a temporary measure that cannot continue for an indefinite period of time.

c. Please refer to Attachment 2, Column C. Also refer to the Hawaii Clean Energy Initiative ("HCEI") Agreement which outlines HECO's various projects and commitments that support HECO's decision to create these new positions.

d. Please refer to Attachment 2, Column D.

e. Please refer to Attachment 2, Columns D, E and F.

Hawaiian Electric Company, Inc.
Updated HECO-1503

	A	B	C	D	E	F	G	H	I	J
	2006 Recorded EOY	2006 Year Average	2007 Recorded EOY	2007 Year Average	2008 YTD Recorded 12/31/08	Updated 2008 Projected EOY	2008 EOY Budget	Updated 2009 EOY Test Year	Updated 2009 Test Year Average	HCEI Positions
President's Office										
Corporate Audit & Compliance (Formerly Internal Audit)	10	11	9	10	12	12	11	13	13	
President's Office	2	3	3	3	1	1	3	3	3	
Subtotal	12	14	12	13	13	13	14	16	16	0
Sr. Exec VP					0	0	0	0	0	0
VP-Corporate Excellence										
Compensation & Benefits	13	13	10	12	11	11	11	11	11	
Industrial Relations	9	9	9	8	10	10	9	10	10	
Safety, Security & Facilities	42	45	47	44	50	51	51	52	52	
Workforce Staffing & Development	16	16	17	17	18	21	18	25	23	
VP-Corporate Excellence's Office	2	2	4	3	5	5	5	4	4	
Subtotal	82	85	87	84	94	94	94	102	100	0
SVP-Finance & Administration										
General Accounting	26	26	26	25	27	27	26	28	28	1
Information Technology & Services	95	93	89	92	94	95	94	97	97	
Management Accounting & Fin Svcs	22	22	20	21	21	21	22	23	23	1
Risk Management	9	9	9	9	9	9	9	9	9	
Sr. VP Finance & Administration's Office	4	3	3	4	3	3	3	3	3	
Subtotal	156	153	147	151	154	155	154	160	160	2
VP-General Counsel										
Legal/Land and Rights of Way	16	16	15	16	17	17	18	17	17	
VP-Gen Counsel's Office	2	2	2	2	2	2	2	2	2	
Subtotal	18	18	17	18	19	19	20	19	19	0
Sr. VP-Energy Solutions										
Customer Installations (move to VP Energy Delivery)	44	47	50	46	Move to VP Energy Delivery					
Energy Projects (move to EVP Public Affairs)	8	8	9	9	Move to EVP Public Affairs					
Technology (move to EVP Public Affairs)	3	3		3	Move to EVP Public Affairs					
Sr. VP-Energy Solutions' Office	4	4	4	4	4	4	4	4	4	
Subtotal	59	62	66	62	4	4	4	4	4	0
VP-Customer Solutions*										
Customer Service (receive from SVP Operations)					150	142	147	148	148	
Customer Technology Applications	8	8	9	9	9	9	9	9	9	
Energy Services*	17	17	12	11	10	12	13	16	16	1
Forecasts & Research	9	10	10	10	10	10	10	10	10	
Integrated Resource Planning	6	5	Move to EVP Public Affairs as of 3/15/07							
Marketing Services	11	11	11	12	11	11	12	12	12	
VP-Customer Solutions' Office	2	2	2	2	3	3	2	3	3	1
Subtotal	53	52	44	44	193	187	193	198	198	2
Sr. VP-Operations										
Customer Service (move to VP Customer Solutions)	126	127	136	132	Move to VP Customer Solutions					
Sr. VP-Operations' Office	3	3	2	2	2	2	2	2	2	
Subtotal	129	130	138	134	2	2	2	2	2	0
VP-Energy Delivery										
Asset Management					2					
Construction & Maintenance	220	212	215	216	220	220	220	222	222	
Customer Installations (receive from SVP Energy Solutions)					50	50	53	55	55	
Engineering	84	85	83	86	82	83	88	85	85	
Support Services	80	80	84	82	83	83	85	85	85	
System Operation	105	108	114	110	113	115	118	123	122	
VP-Energy Delivery's Office	2	2	2	2	2	2	2	2	2	
Subtotal	491	487	498	496	552	553	566	572	571	0
VP-Power Supply										
Environmental	22	22	24	22	25	25	24	25	25	
Power Supply Engineering (formerly Planning & Engineering)	40	38	46	44	50	48	47	53	53	1
Power Supply Operations & Maintenance	316	307	333	326	343	344	354	375	375	
Power Supply Services	28	29	13	12	16	14	15	17	17	2
System Planning	0	0	19	19	19	19	22	26	25	4
VP-Power Supply 's Office	2	2	2	2	3	3	2	3	3	
Subtotal	408	398	437	425	456	453	464	499	498	7
VP-Special Projects	3	3	Special Projects Department dissolved in January of 2007							
Exec. VP-Public Affairs										
Corporate Planning (Est. 8/11/08)					7	7	6	8	8	
Energy Projects (receive from SVP Energy Solutions)					9	9	9	11	10	2
Government Relations (move to VP Gov't & Community Affairs)	2	3	3	3	Move to VP Government & Community Affairs					
Integrated Resource Planning			5	5	Move to Corporate Planning					
Technology (receive from SVP Energy Solutions)					3	3	3	3	3	
EVP-Public Affairs' Office	3	2	3	3	2	2	3	2	2	
Subtotal	5	5	11	11	21	21	21	24	23	2
VP-Corporate Relations										
Corporate Communications	8	12	9	8	9	9	10	9	9	
VP-Corporate Relations' Office	3	2	3	3	3	3	3	3	3	
Subtotal	11	14	12	11	12	12	13	12	12	0
VP-Government & Community Affairs										
Education & Consumer Affairs	8	8	8	7	8	8	8	8	8	
Governmental Relations (receive from EVP Public Affairs)					3	3	3	3	3	
Regulatory Affairs	7	7	9	9	14	14	15	15	15	
VP-Gov't & Comm Affairs' Office	7	7	7	7	7	7	7	7	7	
Subtotal	22	22	24	23	32	32	33	33	33	0
Company Total	**1449**	**1443**	**1493**	**1472**	**1552**	**1545**	**1578**	**1641**	**1636**	**13**

*Employee counts include interns and temporary employees on HECO payroll, but exclude employees covered under the DSM surcharge adjustment docket from all years.

CA-IR-279

Ref: HECO T-1 Update, Attachment 2 (Summary of O&M Changes).

Please provide an Excel format copy of this summary of O&M adjustments and explain how the various presented scenarios of adjusted O&M expense correlate to the numerous revenue requirement calculations presented as Attachments to HECO's T-23 update.

HECO Response:

HECO e-mailed the Excel file of Attachment 2 (T-1 09 Update Att. 2 p. 1-4 (Final).xls) to the Consumer Advocate and Utilitech on December 22, 2008.

The purpose of Attachment 2 of the HECO T-1 Rate Case Update was to show the individual O&M adjustments (not including fuel or purchased power expenses) that rolled up into the full cost revenue requirement run at current effective rates (Attachment 2 of the HECO T-23 Rate Case Update) and to separate the adjustments into broad classifications of adjustments (e.g., HCEI related labor, HCEI related non-labor, employee benefits adjusted to actuals, other O&M adjustments). In other words, it explains the difference in O&M expenses between Attachment 2 of the HECO T-23 Rate Case Update and HECO-2301 (i.e., $1,523,073,000 - $1,520,816,000 = $2,257,000).[1] Attachment 2 of the HECO T-23 Rate Case Update includes the full cost of the CIP CT-1 unit but does not include the HCEI Implementation Studies or the impact of the sales forecast reduction. The Company entered the results of the spreadsheet (columns e, g, h, i, j and k) into the table on page 6 of the HECO T-1 Rate Case Update to provide a high level summary of the types of adjustments that the Company included in its updates.

[1] The $2,257,000 difference in O&M expenses do not include the payroll tax adjustment of ($102,000) associated with and included in the labor expense and on-cost adjustment of ($1,729,000). (Ref. HECO T-1 Update, Attachment 2, page 4).

Attachment 2 of the HECO T-1 Rate Case Update also explains the difference in O&M expenses between Attachment 5 of the HECO T-23 Rate Case Update (full cost of the CIP CT-1 unit at present rates, not including the HCEI Implementation Studies or the impact of the sales forecast reduction) and HECO-2304 (full cost of the CIP CT-1 unit at present rates in direct testimony) (i.e., $1,523,017,000 - $1,520,760,000 = $2,257,000).

HECO did not intend for Attachment 2 of the HECO T-1 Rate Case Update to itemize the adjustments for all of the revenue requirement run attachments in the HECO T-23 Rate Case Update. As a result, the various adjustments shown in Attachment 2 of the HECO T-1 Rate Case Update are not organized in a fashion that enables one to precisely correlate the adjustment columns in the spreadsheet to the other revenue requirement attachments in HECO T-23. However, the updates covering the different block of accounts provide the details of the respective adjustments and how they roll up to the revenue requirement runs in the HECO T-23 Rate Case Update (e.g., Attachment 14 of the HECO T-7 Rate Case Update).

Attachment 9 of the HECO T-23 Rate Case Update shows the adjustment amounts by block of account for Attachment 4 of the HECO T-23 Rate Case Update (base case without the HCEI Implementation Studies or the impact of the sales forecast reduction).

Attachment 1 of this response shows the adjustment amounts by block of account for both Attachments 2 and 3 of the HECO T-23 Rate Case Update. Attachment 1, Column (E) of this response correlates to Attachment 3 of the HECO T-23 Rate Case Update. Attachment 1, Column (G) of this response correlates to Attachment 2 of the HECO T-23 Rate Case Update.

Hawaiian Electric Company, Inc.
Total Operating Expenses
At Current Effective Rates
(in Thous $)

	(A) Rate Case Update Base Case (w/o Wind Studies) before Labor Adjustment	(B) Labor Adjustment	(C) = (A) + (B) Rate Case Update Base Case (w/o Wind Studies & Sales Reduction) with Labor Adjustment	(D) = (E) - (C) Increase / (Decrease)	(E) Rate Case Update Interim (w/o Wind Studies, CIP CT1, & Sales Reduction) with Labor Adjustment	(F) = (G) - (E) Increase / (Decrease)	(G) Rate Case Update Full Cost of CIP CT1 (w/o Wind Studies & Sales Reduction) with Labor Adjustment
Operation and Maintenance Expense							
Fuel	816,654	0	816,654	0	816,654	0	816,654
Purchased Power	477,055	0	477,055	0	477,055	0	477,055
Production	81,347	0	81,347	(1,474)	79,873	2,550	82,423
Transmission	14,050	(120)	13,930	0	13,930	0	13,930
Distribution	30,817	(302)	30,515	0	30,515	0	30,515
Customer Accounts	16,489	(192)	16,297	0	16,297	0	16,297
Allowance for Uncoll. Accounts	1,339	0	1,339	0	1,339	0	1,339
Customer Service	7,079	(82)	6,997	0	6,997	0	6,997
Administration & General	78,650	(931)	77,719	(127)	77,592	271	77,863
Total Operation and Maintenance	1,523,480	(1,627)	1,521,853	(1,601)	1,520,252	2,821	1,523,073
Depreciation & Amortization	82,966		82,966	0	82,966	0	82,966
Amortization of State ITC	(1,453)		(1,453)	0	(1,453)	0	(1,453)
Taxes Other Than Income	172,969	(102)	172,867	(41)	172,826	87	172,913
Interest on Customer Deposits	479		479	0	479	0	479
Income Taxes	21,601		21,601	1,419	23,020	(2,769)	20,251
Total Operating Expenses	1,800,042	(1,729)	1,798,313	(223)	1,798,090	139	1,798,229

Col. A - B: Refer to Rate Case Update, HECO T-23, Attachment 9.
Col. C: Refer to Rate Case Update, HECO T-23, Attachment 9 and Attachment 4.
Col. D: ($1,474) - Refer to Rate Case Update, HECO T-7, Attachment 14, page 3;
($127) - Refer to Rate Case Update, HECO T-13, Attachment 1, page 1.
Col. E: Refer to Rate Case Update, HECO T-23, Attachment 3, page 1, column "Current Effective Rates".
Col. F: $2,550 - Refer to Rate Case Update, HECO T-7, Attachment 14, page 3;
$271 - Refer to Rate Case Update, HECO T-13, Attachment 1, page 1.
Col. G: Refer to Rate Case Update, HECO T-23, Attachment 2, page 1, column "Current Effective Rates".

CA-IR-280

Ref: HECO T-1 Update, Attachment 4 (Revised Rate Schedules).

Please provide an electronic redline/strikeout file indicating the changes made to proposed tariffs in Attachment 4, relative to the Company's proposed tariffs in its initial filing.

HECO Response:

The following electronic file is being provided:

CA-IR-280 HECO T-1 Update Attach 4 Proposed Rate Sheets redline.doc.

CA-IR-281

Ref: HECO T-2 Update, page 14 (August 2008 Electricity Price).

According to the Forecast Assumptions, an August 2008 electricity price was used, and then escalated for "Growth rates for 2009 – on applied to 2008." Please provide the following information:

a. The source documents and calculations supporting the 32.24 and 28.14 nominal price input values for Residential and Commercial, respectively.

b. Explain what these values would be if electricity prices at September, October, November or December had been used in place of the August values.

c. Provide source documents and calculations supporting your response to part (b) of this information request.

d. Describe and explain whether HECO believes that August 2008 electricity prices are any more indicative of ongoing conditions that prices in subsequent months.

e. Provide an estimate of the revised Residential use per customer that would be predicted for 2009 if the most recent available month's electricity price in 2008 had been used in place of the August values (how would the 2,028.6 GWH and 7,746 Use Per values on Update page 15 be impacted).

f. Provide an estimate of the revised Commercial use per customer that would be predicted for 2009 if the most recent available month's electricity price in 2008 had been used in place of the August values (how would the 5,418.6 GWH value on Update page 16 be impacted).

<u>HECO Response:</u>

a. See attached page 4 of this response for the derivation of the August 2008 nominal prices.

An error was discovered in the derivation of the nominal August 2008 commercial price. Total commercial revenues used to derive the price included $953,000 in Schedule F adjusted revenues that should have been excluded. The corresponding 3.2 GWh of Schedule F sales were not included in the denominator of the price equation. As shown on page 4, the nominal 2009 commercial price used as input for the TY 2009 forecast was overstated by approximately 0.2 cents per kWh. This price difference understates the TY 2009 sales estimate by about 0.6 GWh.

b. The September, October, November and December 2008 electricity prices are provided on page 5 of this response. The information for the fourth quarter of 2008 is preliminary and is submitted under protective order as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

c. See response to (b) above, derivation of the September – December 2008 prices is shown on page 5 of this response. The information is considered preliminary and subject to revision, the confidential information is submitted under protective order.

d. HECO believes that in response to higher prices, the Company's customers have made changes to their electric end uses (e.g., appliances, light bulbs, equipment of various types), and have adopted strategies and changed behaviors to reduce consumption in order to reduce the amount of their electric bills. While these actions were undertaken initially in response to the experience of the higher price, it is unlikely that customers will revert to older, less efficient equipment or end uses. Nor will customers immediately or fully abandon their new behavior if prices decrease in the test year. In addition, the economic outlook has deteriorated substantially since the test year estimates were derived. The worsening economic outlook would also encourage customers to change their behavior and reduce consumption in ways that are not related to electricity price alone. Consequently, HECO believes that using the August 2008 price in forecasting sales for 2009 is reasonable.

e. Using the average December 2008 electricity price for the residential sector and the same calculation of 2009 price from the 2008 base as in the HECO T-2 Rate Case Update, the estimated average residential use in 2009 would be approximately 7,808 kWh per customer per year. This is 62 kWh per year (5 kWh per month) higher than the test year estimate for residential use of 7,746 kWh per year. The lower residential price assumption results in residential sales of 2,045.0 GWh, 0.8% or 16.4 GWh higher than the rate case update estimate of 2,028.6 GWh.

Residential sales of 2,045.0 GWh in 2009 would be [redacted] GWh or [redacted]% [redacted] the 2008 preliminary recorded residential sales of [redacted] GWh. This is compared to the [redacted] GWh or [redacted]% [redacted] in residential sales experienced in 2008 [redacted] 2007. With the worsening economic climate, it is likely residential customers will continue to find ways to reduce electricity consumption.

f. Using the average December 2008 electricity price for the commercial sector and the same calculation of 2009 price from the 2008 base as in the HECO T-2 Rate Case Update, the estimated commercial sales in 2009 would be approximately 5,440.9 GWh. The lower commercial price assumption results in commercial sales that are 0.4% or 22.3 GWh higher than the rate case update estimate of 5,418.6 GWh.

Commercial sales of 5,440.9 GWh in 2009 would be [redacted]% [redacted] the 2008 preliminary recorded commercial sales of [redacted] GWh. Commercial sales experienced a [redacted] in 2008 of [redacted]% [redacted] 2007 as compared to the [redacted]% [redacted] in residential sales. Commercial customers have less flexibility to rapidly change operations, but with the worsening economic climate it is likely that commercial customers will further attempt to reduce electricity consumption.

Hawaiian Electric Co., Inc.
DERIVATION OF PRICE ESTIMATES

	Residential	Commercial
Total Recorded Revenues - August 2008 [1]	$ 58,046,382.18	$ 135,856,402.55
Less out of period adjustments [2]	$ (98,530.28)	$ (56,060.71)
Adjusted total revenues	$ 57,947,851.90	$ 135,800,341.84
Total Recorded Sales (kWh) [1]	179,744,729	486,204,462
Nominal Price - August 2008	$ 0.32239	$ 0.27931
2008 Price in Rate Case Update [3]	$ 0.32239	$ 0.28140
2009 Price in Rate Case Update		$ 0.29986
2009 Nominal Price - Revised [4]		$ 0.29763
Difference		$ (0.00223)
% Difference		-0.7%

[1] "Monthly Reports - July and August 2008 (Re-filed), September 2008" transmitted in a letter dated 11/6/08 from Tayne S.Y. Sekimura to the PUC.

[2] Out of period adjustments include large accounting accruals and reversals of accruals made in prior periods. Prices are adjusted for forecast purposes to better reflect the price customers might actually see in the month.

[3] Rate case update price derivation by mistake included Schedule F revenues in commercial revenues (Schedule F kWh were not included in commercial kWh for the derivation of the commercial price).

[4] Revised 2008 price x 2009 over 2008 price change from 3/08 Update shown on Rate Case Update, HECO T-2, page 36 = 0.27931 x (22.142 / 20.779)

Page 5 contains confidential information and is provided subject to

the Protective Order filed on November 21, 2008 in this proceeding.

CA-IR-281

Ref: HECO T-2 Update, page 14 (August 2008 Electricity Price).

According to the Forecast Assumptions, an August 2008 electricity price was used, and then escalated for "Growth rates for 2009 – on applied to 2008." Please provide the following information:

a. The source documents and calculations supporting the 32.24 and 28.24 nominal price input values for Residential and Commercial, respectively.

b. Explain what these values would be if electricity prices at September, October, November or December had been used in place of the August values.

c. Provide source documents and calculations supporting your response to part (b) of this information request.

d. Describe and explain whether HECO believes that August 2008 electricity prices are any more indicative of ongoing conditions that prices in subsequent months.

e. Provide an estimate of the revised Residential use per customer that would be predicted for 2009 if the most recent available month's electricity price in 2008 had been used in place of the August values (how would the 2,028.6 GWH and 7,746 Use Per values on Update page 15 be impacted).

f. Provide an estimate of the revised Commercial use per customer that would be predicted for 2009 if the most recent available month's electricity price in 2008 had been used in place of the August values (how would the 5,418.6 GWH value on Update page 16 be impacted).

<u>HECO Response:</u>

a. See attached page 4 of this response for the derivation of the August 2008 nominal prices.

An error was discovered in the derivation of the nominal August 2008 commercial price. Total commercial revenues used to derive the price included $953,000 in Schedule F adjusted revenues that should have been excluded. The corresponding 3.2 GWh of Schedule F sales were not included in the denominator of the price equation. As shown on page 4, the nominal 2009 commercial price used as input for the TY 2009 forecast was overstated by approximately 0.2 cents per kWh. This price difference understates the TY 2009 sales estimate by about 0.6 GWh.

b. See the derivation of the September 2008 electricity prices on page 5 of this response. The 2008 actual data for the quarter ending December 31, 2008 is not available at this time. The preliminary information for the fourth quarter of 2008 will be made available in early February 2009. The preliminary information will be submitted under protective order as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

c. See response to (b) above.

d. HECO believes that in response to higher prices, the Company's customers have made changes to their electric end uses (e.g., appliances, light bulbs, equipment of various types), and have adopted strategies and changed behaviors to reduce consumption in order to reduce the amount of their electric bills. While these actions were undertaken initially in response to the experience of the higher price, it is unlikely that customers will revert to older, less efficient equipment or end uses. Nor will customers immediately or fully abandon their new behavior if prices decrease in the test year. In addition, the economic outlook has deteriorated substantially since the test year estimates were derived. The worsening economic outlook would also encourage customers to change their behavior and reduce consumption in ways that are not related to electricity price alone. Consequently, HECO believes that using the August 2008 price in forecasting sales for 2009 is reasonable.

e. See response to (b) above. The estimated change in residential use due to the use of the

preliminary December 2008 electricity price will be provided as soon as practicable.

f. See response to (b) above. The estimated change in commercial sales due to the use of the preliminary December 2008 electricity price will be provided as soon as practicable.

Hawaiian Electric Co., Inc.
DERIVATION OF SEPTEMBER 2008 PRICES
(Adjusted for Accounting Accruals)

RESIDENTIAL

	Total Recorded Revenues [1]	Revenue Adjustments [2]	Recorded kWh Sales [1]	Price (¢/kWh)
Sep-08	$ 57,825,842.64	$ 332,406.35	172,164,965	33.781

COMMERCIAL EXCLUDING SCHEDULE F

	Total Recorded Revenues [1]	Revenue Adjustments [2]	Recorded kWh Sales [1]	Price (¢/kWh)
Sep-08	$ 135,158,083.94	$ 1,795,912.49	471,551,427	29.043

[1] "Monthly Reports - July and August 2008 (Re-filed), September 2008" transmitted in a letter dated 11/6/08 from Tayne S.Y. Sekimura to the PUC.

[2] Out of period adjustments include select large accounting accruals and reversals of accruals made in prior periods. Prices are adjusted for forecast purposes to better reflect the price customers might actually see in the month.

CA-IR-282

Ref: HECO T-2 Update, pages 9 & 10 (Actual GWH Sales).

Please provide updated comparisons of recorded calendar 2008 sales by rate class to actual 2007 and to the Mar 08 Update, respectively.

HECO Response:

The comparisons of recorded calendar 2008 sales by rate class to 2007 and the March 2008 Update are shown on page 2 of this response. The preliminary information for calendar year 2008 will be submitted under protective order as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

Page 2 contains confidential information and is provided subject to

the Protective Order filed on November 21, 2008 in this proceeding.

CA-IR-282

Ref: HECO T-2 Update, pages 9 & 10 (Actual GWH Sales).

Please provide updated comparisons of recorded calendar 2008 sales by rate class to actual 2007 and to the Mar 08 Update, respectively.

HECO Response:

The 2008 actual year end data as of December 31, 2008 is not available at this time. The preliminary information for December 2008 will be made available in early February 2009. The preliminary information will be submitted under protective order as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

CA-IR-283

Ref: HECO T-2 Update, page 6 (Revised Forecast GWH Sales).

Please confirm that HECO's internally developed and management-approved 2009 sales forecast for the Company's official operating budget for 2009 is the same as presented in the Company's rate case update at page 6, or provide the official budget sales data by rate schedule and explain each reason why the amounts are different.

HECO Response:

The Company's operating budget for 2009 is based on the same sales forecast presented at page 6 of the HECO T-2 Rate Case Update.

CA-IR-284

Ref: HECO T-3 Update, page 1 (Interim Rates Correction).

In the company's September 30, 2008 notification letter to the PUC, errors were noted in connection with other operating revenues approved in D&O 24171. Please provide supporting documentation and calculations associated with each correction and the resulting $401,000 overall change in the interim increase.

HECO Response:

The error in other operating revenues result because the increase in the returned payment charge from $7.50 to $16.00, the increase in the service establishment charge from $15.00 to $20.00, and the increase in the same day service establishment charge from $25.00 to $45.00 that were approved by the Commission in the HECO 2005 Test Year rate case were not properly reflected in the calculation of other operating revenues at current effective rates for the revised HECO 2007 Test Year rate case interim rate increase. Please see the calculation below based on the transaction counts shown in HECO-WP-806, page 2 in Docket No. 2006-0386, and note that the difference is due to rounding:

Service	Rate Increase	x	Transactions	=	Increase in Other Operating Revenue
Returned Payment	$8.50		5,134		$43,639
Service Establmnt	$5.00		39,253		$196,265
Same Day Srv Establmnt	$20.00		8,086		$161,720
Total Increase					$401,624

CA-IR-285

Ref: HECO T-3 Update, page 1 (Schedule PP Direct Customer).

Please explain how HECO became aware of the changed customer classification and provide supporting documentation for the DS billing demand volumes added to the DS classification for Schedule PP because of this revision.

HECO Response:

In the HECO T-3 Update, HECO changed the customer classification of one Schedule PP customer to Schedule PP Directly Served based on an initial review by Customer Installations Department ("CID") of the substations from which the Directly Served customers were served. This review was completed subsequent to the submission of direct testimony. The adjustment that was included in the December 2009 update was additional kW of 32,474.4.

Recently upon customer request, CID researched the service arrangements for two accounts, one on Schedule J and one on Schedule PS, and found that both should have been included on the list of Schedule PP customers Directly Served. Consequently CID undertook a review of all Schedule PP customers Directly Served to re-confirm their service arrangements. Two customers were found that are Schedule PP customers, but are not Directly Served.

The following adjustments should be made from the HECO T-3 update:

1) Move from Schedule PP Directly Served to Schedule PP Not Directly Served: 38,410.4 kW and 17,596.8 mWh;
2) Move from Schedule PS to Schedule PP Directly Served: 11,401.8 kW and 3,814.8 mWh; and
3) Move from Schedule J to Schedule PP Directly Served: 5,975.2 kW and 1,732.8 mWh.

CA-IR-286

Ref: HECO-740, Response to CA-IR-214 (316B Expenses).

Please provide the following additional information regarding projected and adjusted test year Clean Water Act 316(B) expenses confirm that this Excel file is the most current available long term generation maintenance plan and provide the following information:

a. Copies of all Tenera Environmental invoices received by HECO since April 1, 2008.
b. Explain why the Attachment 2 Tenera Proposal at page 5 contemplates "A proposed Schedule for completing the Scope of Work" indicates, "…completion of the study in April 2009" and the timeline shows a Final Report completed in July 2009 while the Company's test year projections (in Attachment 10) indicate Tenera work and costs anticipated to continue well past these April and July dates.
c. Provide an updated Attachment 9 for all available months of actual 316(B) non-labor expenses, with further explanations and redistributions of the "Manual Journal Transaction" entries, showing those amounts in the appropriate month for each affected vendor.
d. At page 2 of the narrative response to CA-IR-214 is the statement, "The remainder of sampling/monitoring-related activities for May-December 2009 was extrapolated by the HECO environmental staff based on the cost estimates in the Tenera Environmental proposal. The cost estimated for 2009 assumes that the monitoring schedule (i.e., monthly impingement and entrainment monitoring from October to January, and month impingement and biweekly entrainment sampling from February to September to account for any seasonal impacts) will remain the same and carry over for the next few years." Please provide all available support and documentation for this extrapolation and assumption, indicating each reason why this work is assumed to be ongoing after Tenera has completed its "…a final report [to] be submitted following the third year of data collection" (see Attachment 2, page 1).
e. Explain each instance when a PEWON work order has been used for 316(B) related costs (see Attachment 9 footnotes) and describe when PEWON accumulations of costs would be appropriate in connection with 316(B) work.
f. Explain each reason why the projected monthly charges for each vendor in 2009 (per Attachment 10) are much higher than actual cost levels actually incurred by vendor in 2008 (Attachment 9, as updated in part (c) of this information request).

HECO Response:

a. A table summarizing the Tenera Environmental (aka "Tenera") invoices received by HECO for 2008, and copies of each invoice, are provided at Attachment 1 to this response.

b. The language "… completion of the study in April 2009…" on page 5 of the Tenera proposal (CA-IR-214, Attachment 2) refers to the completion of the third year of monitoring, and the

"Final Report" is actually a 3-year summary report that HECO will be providing to the State Department of Health as a project update. The monitoring program will continue beyond the third year of the Tenera study to improve the database for all affected facilities in preparation for EPA's ultimate issuance of new rules. Based on consultations with EPRI, impingement and entrainment monitoring will continue for the foreseeable future. Continued monitoring will likely be required by the forthcoming EPA rule.

c. Attachment 9 to the response to CA-IR-214 has been updated and is provided as Attachment 2 to this response.

d. As mentioned in response to subpart b, above, HECO intends to continue impingement and entrainment monitoring for the foreseeable future to improve the database in preparation for EPA's forthcoming rulemaking, and subsequent to rulemaking as a compliance requirement. In an effort to reduce long term monitoring costs wherever possible, Tenera evaluated the first two years of monitoring data and determined that impingement monitoring could possibly be extended from bi-weekly to a monthly frequency. A review of entrainment data, however, indicated potential seasonal trends and a recommendation was made to continue bi-weekly entrainment sampling during the months of concern (i.e., February through September), and to reduce the entrainment monitoring frequency to monthly during the other months. Thus, monthly impingement and bi-weekly entrainment monitoring is conducted during February through September, and monthly impingement and entrainment monitoring is conducted during the other months of the year (i.e., October to January). Monthly monitoring costs during February through September were calculated to be approximately $41,700 per month, and for the other months to be approximately $26,800. (Please refer to CA-IR-214, Attachment 10, for the month-by-month tabulation of this monitoring cost which totals $440,800 for the 2009 TY.) A worksheet showing how these monthly cost estimates

were derived is provided as Attachment 3 to this response. This worksheet was based on Tenera's scope of work agreement which was provided as CA-IR-214, Attachment 2, page 7.

e. Due to the uncertainty of the 316(b) Phase II regulations and the need to research alternative compliance options that included major capital projects (e.g., fine mesh screens at the intakes, closed loop cooling systems with cooling towers), HECO elected to use PEWON work order(s) at the inception of the project (January 2005). At the time it appeared more likely than not that significant capital expenditures would be required to achieve compliance. In early 2007, HECO concluded that the 316(b) costs accumulated to date should be expensed (May 2007) because it became evident that they related to general planning activities. All costs that had accumulated under the PEWON work order(s) during the period from January 2005 – April 2007 were immediately transferred to the Power Supply clearing account. All future 316(b) costs were captured under expense work order(s) (May 2007 - present).

f. Only the first two lines of CA-IR-214, Attachment 10, related to Tenera's monitoring work, are continuing tasks from 2008 that are relevant for discussion under this request. The remaining tasks in CA-IR-214, Attachment 10, are new and yet to be implemented; therefore no comparison to CA-IR-214, Attachment 9 charges can be made. Note that entries in the updated CA-IR-214, Attachment 9, provided as Attachment 2 to this response, for Tenera per subpart c above, add up to $541,722 for 2008. As such, the projected monthly monitoring costs for Tenera in 2009 (totaling $440,800) are in fact about $101,000 less than (and not higher than) the total amount recorded for monitoring-related work conducted during 2008. The decrease in anticipated monitoring costs for 2009 is based on a modification of the impingement and entrainment monitoring frequencies as explained in subpart d above.

TABLE 1

TENERA 316(b) INVOICES
2008

Invoice Date	Period Covered	Amount	Invoice Number
3/14/2008	January 2008	$ 55,813.74	E16937
4/7/2008	February 2008	$ 63,870.91	E16954
4/22/2008	March 2008	$ 50,888.41	E16977
6/12/2008	April 2008	$ 41,547.76	E17013
7/9/2008	May 2008	$ 53,043.01	E17042
8/6/2008	June 2008	$ 26,957.03	E17055
9/9/2008	July 2008	$ 37,382.91	E17079
10/9/2008	August 2008	$ 45,777.74	E17093
10/21/2008	September 2008	$ 37,359.93	E17098
11/24/2008	October 2008	$ 38,330.56	E17129
12/2/2008	November 2008	$ 37,447.31	E17135
1/13/2009	December 2008	$ 30,517.17	E17165
	YTD	**$ 518,936.48**	

TENERA Environmental

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Invoice No. E16937
March 14, 2008
Page 1 of 2

Mr. Kirk Tomita Hawaii Electric Co. P.O. Box 2750 Honolulu HI 96840	Hawaiian Electric Co. Attn: Accounts Payable PO # PJA-06-002-01-01 P.O. Box 2750 Honolulu HI 96840-0001

Tenera Project	061806-01
Title	316(b) Sampling at Honolulu, Kahe, and Waiau Generating Stations
Project Manager	John Steinbeck
Ref.	Purchase Order PJA-06-002-01-01
Billing Period	January 1, 2008 through January 31, 2008
Invoice Total	**55,813.74**

Task 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Director	Steinbeck, J	25.00	170.00	4,250.00
Project Manager	Ehrler, C	34.50	105.00	3,622.50
Senior Scientist	Dugan, B	10.50	90.00	945.00
Scientist	Peters, S	24.00	73.00	1,752.00
Senior Data Analyst	Helberg, S	41.75	73.00	3,047.75
Senior Research Asst	Sawyer, T	45.50	55.00	2,502.50
Senior Research Asst	Vick, J	66.50	55.00	3,657.50
Research Asst II	Lawson, C	113.25	44.00	4,983.00
Research Asst II	Oncea, C	3.00	44.00	132.00
Research Asst II	Trevino, S	49.00	44.00	2,156.00
Research Asst II	Tsui, J	33.00	44.00	1,452.00
Measuring				
Research Asst II	Sanchez, K	64.75	44.00	2,849.00
Task 2 Professional Labor Subtotal		510.75 hrs		**31,349.25**

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DTF
Environmental Dept.
Date 3/31/08

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Invoice No. E16937
March 14, 2008

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Task 2 continued

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	21,616.22	1.10	23,777.84
Postage & Delivery	154.33	1.10	169.76
Supplies & Materials	102.00	1.10	112.20
	Task 2 Reimbursable Expense Subtotal		**24,059.80**

Tenera Equipment Lease	*Hours*	*Rate*	*Amount*
Measuring System	64.75	6.25/hr	404.69
	Task 2 Tenera Equipment Lease Subtotal		**404.69**
		Invoice Total	**55,813.74**

Please send remittance to:

Tenera Environmental
971 Dewing Ave Ste 101
Lafayette CA 94549

TENERA Environmental

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Invoice No. E16954
April 7, 2008
Page 1 of 2

Mr. Kirk Tomita Hawaii Electric Co. P.O. Box 2750 Honolulu HI 96840	Hawaiian Electric Co. Attn: Accounts Payable PO # PJA-06-002-01-01 P.O. Box 2750 Honolulu HI 96840-0001

Tenera Project	061806-01
Title	316(b) Sampling at Honolulu, Kahe, and Waiau Generating Stations
Project Manager	John Steinbeck
Ref.	Purchase Order PJA-06-002-01-01-01
Billing Period	February 1, 2008 through February 29, 2008
Invoice Total	**63,870.91**

Task 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Director	Steinbeck, J	2.00	170.00	340.00
Project Manager/Scientist	Ehrler, C	9.75	105.00	1,023.75
Senior Scientist	Dugan, B	12.00	90.00	1,080.00
Senior Scientist	Velez, J	6.50	90.00	585.00
Scientist	Peters, S	1.00	73.00	73.00
Senior Data Analyst	Helberg, S	31.75	73.00	2,317.75
Senior Research Asst	Vick, J	66.50	55.00	3,657.50
Research Asst II	Lawson, C	13.25	44.00	583.00
Research Asst II	Oncea, C	3.00	44.00	132.00
Research Asst II	Sanchez, K	5.50	44.00	242.00
Research Asst II	Trevino, S	52.00	44.00	2,288.00
Measuring				
Research Asst II	Sanchez, K	34.50	44.00	1,518.00

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Environmental Dept.
Date 4/17/09

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TENERA Environmental

Invoice No. E16954
April 7, 2008

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Report—January 2008 (previously unbilled)				
Director	Steinbeck, J	10.00	170.00	1,700.00
Senior Scientist	Carroll, J	36.00	90.00	3,240.00
Research Asst II	Holmes, M	45.00	44.00	1,980.00
Report—February 2008				
Director	Steinbeck, J	34.00	170.00	5,780.00
Project Manager/Scientist	Ehrler, C	57.00	105.00	5,985.00
Senior Scientist	Carroll, J	67.00	90.00	6,030.00
Senior Data Analyst	Helberg, S	7.75	73.00	565.75
Senior Research Asst	Vick, J	0.75	55.00	41.25
Research Asst II	Holmes, M	42.25	44.00	1,859.00
Task 2 Professional Labor Subtotal		537.50 hrs		**41,021.00**

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	20,274.15	1.10	22,301.57
Postage & Delivery	302.47	1.10	332.72
	Task 2 Reimbursable Expense Subtotal		**22,634.28**

Tenera Equipment Lease	*Hours*	*Rate*	*Amount*
Measuring System	34.50	6.25/hr	215.63
	Task 2 Tenera Equipment Lease Subtotal		**215.63**

Invoice Total **63,870.91**

Please send remittance to:

Tenera Environmental
971 Dewing Ave Ste 101
Lafayette CA 94549

TENERA Environmental

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Invoice No. E16977
April 22, 2008
Page 1 of 2

Mr. Kirk Tomita Hawaii Electric Co. P.O. Box 2750 Honolulu HI 96840	Hawaiian Electric Co. Attn: Accounts Payable PO # PJA-06-002-01-01 P.O. Box 2750 Honolulu HI 96840-0001

Tenera Project	061806-01
Title	316(b) Sampling at Honolulu, Kahe, and Waiau Generating Stations
Project Manager	John Steinbeck
Ref.	Purchase Order PJA-06-002-01-01
Billing Period	March 1, 2008 through March 31, 2008
Invoice Total	**50,888.41**

Task 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Director	Steinbeck, J	2.00	170.00	340.00
Project Manager	Ehrler, C	30.00	105.00	3,150.00
Senior Scientist	Dugan, B	21.00	90.00	1,890.00
Scientist	Peters, S	5.00	73.00	365.00
Senior Data Analyst	Helberg, S	43.00	73.00	3,139.00
Senior Research Asst	Carter, J	2.00	55.00	110.00
Senior Research Asst	Vick, J	40.75	55.00	2,241.25
Research Asst II	Hernandez, R	34.00	44.00	1,496.00
Research Asst II	Oncea, C	6.00	44.00	264.00
Research Asst II	Sanchez, K	3.00	44.00	132.00
Research Asst II	Trevino, S	41.50	44.00	1,826.00

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Environmental Dept.
Date 5/16/08

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Invoice No. E16977
April 22, 2008
Page 2 of 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Measuring				
Senior Research Asst	Carter, J	1.50	55.00	82.50
Research Asst II	Sanchez, K	32.75	44.00	1,441.00
Report				
Director	Steinbeck, J	21.00	170.00	3,570.00
Project Manager	Ehrler, C	36.75	105.00	3,858.75
Senior Scientist	Carroll, J	30.00	90.00	2,700.00
Senior Data Analyst	Helberg, S	2.50	73.00	182.50
Research Asst II	Holmes, M	45.00	44.00	1,980.00
Task 2 Professional Labor Subtotal		397.75 hrs		**28,768.00**

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	19,794.76	1.10	21,774.24
Postage & Delivery	115.40	1.10	126.94
Supplies & Materials	4.70	1.10	5.17
	Task 2 Reimbursable Expense Subtotal		**21,906.35**

Tenera Equipment Lease	*Hours*	*Rate*	*Amount*
Measuring System	34.25	6.25/hr	214.06
	Task 2 Tenera Equipment Lease Subtotal		**214.06**
		Invoice Total	**50,888.41**

Please send remittance to:

Tenera Environmental
971 Dewing Ave Ste 101
Lafayette CA 94549

TENERA Environmental

Invoice No. E17013
June 12, 2008
Page 1 of 2

Mr. Kirk Tomita Hawaii Electric Co. P.O. Box 2750 Honolulu HI 96840	Hawaiian Electric Co. Attn: Accounts Payable PO # PJA-06-002-01-01 P.O. Box 2750 Honolulu HI 96840-0001

Tenera Project	*061806-01*
Title	316(b) Sampling at Honolulu, Kahe, and Waiau Generating Stations
Project Manager	John Steinbeck
Ref.	Purchase Order PJA-06-002-01-01
Billing Period	April 1, 2008 through April 30, 2008
Invoice Total	**41,547.76**

Task 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Director	Steinbeck, J	4.00	170.00	680.00
Project Manager	Ehrler, C	12.75	105.00	1,338.75
Senior Scientist	Dugan, B	26.25	90.00	2,362.50
Scientist	Peters, S	35.00	73.00	2,555.00
Senior Data Analyst	Helberg, S	20.75	73.00	1,514.75
Senior Research Asst	Carter, J	13.50	55.00	742.50
Senior Research Asst	Vick, J	25.00	55.00	1,375.00
Research Asst II	Lawson, C	129.25	44.00	5,687.00
Research Asst II	Oncea, C	14.50	44.00	638.00
Research Asst II	Sanchez, K	32.75	44.00	1,441.00
Research Asst II	Trevino, S	63.75	44.00	2,805.00
Measuring				
Senior Research Asst	Carter, J	38.00	55.00	2,090.00
Research Asst II	Sanchez, K	50.50	44.00	2,222.00
Report				
Director	Steinbeck, J	1.00	170.00	170.00
Project Manager	Ehrler, C	16.00	105.00	1,680.00
	Task 2 Professional Labor Subtotal	483.00 hrs		27,301.50

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By
Environmental Dept.
Date 6/26/08

continued on next page

TENERA Environmental

Invoice No. E17013
June 12, 2008

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	7,344.04	1.10	8,078.44
Postage & Delivery	247.01	1.10	271.71
Supplies & Materials	291.12	1.10	320.23
	Task 2 Reimbursable Expense Subtotal		**8,670.38**

Tenera Equipment Lease	*Hours*	*Rate*	*Amount*
Measuring System	88.50	6.25/hr	553.13
	Task 2 Tenera Equipment Lease Subtotal		**553.13**
		Task 2 Subtotal	**36,525.01**

Task 3

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	4,566.14	1.10	5,022.75
		Task 3 Subtotal	**5,022.75**
		Invoice Total	**41,547.76**

Please send remittance to:

Tenera Environmental
971 Dewing Ave Ste 101
Lafayette CA 94549

TENERA Environmental

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Invoice No. E17042
July 9, 2008
Page 1 of 2

Mr. Kirk Tomita Hawaii Electric Co. P.O. Box 2750 Honolulu HI 96840	Hawaiian Electric Co. Attn: Accounts Payable PO # PJA-06-002-01-01 P.O. Box 2750 Honolulu HI 96840-0001

Tenera Project	061806-01
Title	316(b) Sampling at Honolulu, Kahe, and Waiau Generating Stations
Project Manager	John Steinbeck
Ref.	Purchase Order PJA-06-002-01-01
Billing Period	May 1, 2008 through May 31, 2008
Invoice Total	**53,043.01**

Task 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Project Manager	Ehrler, C	6.00	105.00	630.00
Senior Scientist	Dugan, B	12.00	90.00	1,080.00
Senior Scientist	Velez, J	1.75	90.00	157.50
Scientist	Peters, S	26.00	73.00	1,898.00
Senior Data Analyst	Helberg, S	12.75	73.00	930.75
Senior Research Asst	Carter, J	10.50	55.00	577.50
Senior Research Asst	Vick, J	47.00	55.00	2,585.00
Research Asst II	Lawson, C	101.75	44.00	4,477.00
Research Asst II	Oncea, C	9.00	44.00	396.00
Research Asst II	Sanchez, K	23.75	44.00	1,045.00
Research Asst II	Trevino, S	66.50	44.00	2,926.00
Measuring				
Research Asst II	Sanchez, K	5.50	44.00	242.00
Report				
Director	Steinbeck, J	15.00	170.00	2,550.00
Project Manager	Ehrler, C	44.25	105.00	4,646.25
Senior Data Analyst	Helberg, S	4.75	73.00	346.75
Task 2 Professional Labor Subtotal		386.50 hrs		**24,487.75**

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Environmental Dept.
Date 7/21/08

continued on next page

TENERA Environmental

Invoice No. E17042
July 9, 2008
Page 2 of 2

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	2,640.00	1.10	2,904.00
Postage & Delivery	69.24	1.10	76.16
Supplies & Materials	230.82	1.10	253.90
	Task 2 Reimbursable Expense Subtotal		**3,234.06**

Sample Maintenance, Storage and Disposal	*Amount*
Maintenance, Storage, and Disposal of Year One and Year Two samples	**15,165.00**

Tenera Equipment Lease	*Hours*	*Rate*	*Amount*
Measuring System	5.50	6.25/hr	**34.38**
		Task 2 Subtotal	**42,921.19**

Task 3

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Project Manager	Ehrler, C	1.00	105.00	105.00
Task 3 Professional Labor Subtotal		1.00 hrs		**105.00**

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	9,106.20	1.10	10,016.82
	Task 3 Reimbursable Expenses Subtotal		**10,016.82**
		Task 3 Subtotal	**10,121.82**
		Invoice Total	**53,043.01**

Please send remittance to:

Tenera Environmental
971 Dewing Ave Ste 101
Lafayette CA 94549

TENERA Environmental

Invoice No. E17055
August 6, 2008
Page 1 of 2

Mr. Kirk Tomita Hawaii Electric Co. P.O. Box 2750 Honolulu HI 96840 COPY	Hawaiian Electric Co. Attn: Accounts Payable PO # PJA-06-002-01-01 P.O. Box 2750 Honolulu HI 96840-0001

Tenera Project	061806-01
Title	316(b) Sampling at Honolulu, Kahe, and Waiau Generating Stations
Project Manager	John Steinbeck
Ref.	Purchase Order PJA-06-002-01-01
Billing Period	June 1, 2008 through June 30, 2008
Invoice Total	**26,957.03**

Task 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Project Manager	Ehrler, C	1.50	105.00	157.50
Senior Scientist	Dugan, B	22.00	90.00	1,980.00
Senior Scientist	Velez, J	0.25	90.00	22.50
Scientist	Peters, S	34.50	73.00	2,518.50
Senior Data Analyst	Helberg, S	6.75	73.00	492.75
Senior Research Asst	Vick, J	21.00	55.00	1,155.00
Research Asst II	Lawson, C	9.00	44.00	396.00
Research Asst II	Sanchez, K	4.00	44.00	176.00
Research Asst II	Trevino, S	12.75	44.00	561.00
Report				
Director	Steinbeck, J	16.00	170.00	2,720.00
Project Manager	Carroll, J	12.00	105.00	1,260.00
Project Manager	Ehrler, C	25.50	105.00	2,677.50
Senior Data Analyst	Helberg, S	2.50	73.00	182.50
Task 2 Professional Labor Subtotal		167.75 hrs		**14,299.25**

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Environmental Dept.
Date 8/19/08

TENERA Environmental

Invoice No. E17055
August 6, 2008

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	250.52	1.10	275.57
Postage & Delivery	148.77	1.10	163.65
Supplies & Materials	71.29	1.10	78.42
	Task 2 Reimbursable Expense Subtotal		**517.64**
		Task 2 Subtotal	**14,816.89**

Task 3

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Director	Steinbeck, J	2.00	170.00	340.00
Project Manager	Ehrler, C	1.25	105.00	131.25
Senior Scientist	Dugan, B	2.00	90.00	180.00
Senior Data Analyst	Helberg, S	14.00	73.00	1,022.00
Senior Research Asst	Vick, J	18.75	55.00	1,031.25
Research Asst II	Oncea, C	5.50	44.00	242.00
Research Asst II	Sanchez, K	1.75	44.00	77.00
Task 3 Professional Labor Subtotal		**45.25 hrs**		**3,023.50**

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	8,287.85	1.10	9,116.64
	Task 3 Reimbursable Expenses Subtotal		**9,116.64**
		Task 3 Subtotal	**12,140.14**
		Invoice Total	**26,957.03**

Please send remittance to:

Tenera Environmental
971 Dewing Ave Ste 101
Lafayette CA 94549

TENERA Environmental

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Invoice No. E17079
September 9, 2008
Page 1 of 2

Mr. Kirk Tomita Hawaii Electric Co. P.O. Box 2750 Honolulu HI 96840	Hawaiian Electric Co. Attn: Accounts Payable PO # PJA-06-002-01-01 P.O. Box 2750 Honolulu HI 96840-0001

Tenera Project	061806-01
Title	316(b) Sampling at Honolulu, Kahe, and Waiau Generating Stations
Project Manager	John Steinbeck
Ref.	Purchase Order PJA-06-002-01-01
Billing Period	July 1, 2008 through July 31, 2008
Invoice Total	**37,382.91**

Task 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Project Manager	Ehrler, C	7.50	105.00	787.50
Senior Scientist	Dugan, B	15.75	90.00	1,417.50
Scientist	Peters, S	106.50	73.00	7,774.50
Senior Data Analyst	Helberg, S	19.50	73.00	1,423.50
Senior Research Asst	Vick, J	4.00	55.00	220.00
Research Asst II	Trevino, S	4.25	44.00	187.00
Measuring				
Research Asst II	Sanchez, K	6.00	44.00	264.00
Report				
Director	Steinbeck, J	5.00	170.00	850.00
Senior Data Analyst	Helberg, S	4.00	73.00	292.00
Task 2 Professional Labor Subtotal		172.50 hrs		**13,216.00**

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	1,890.00	1.10	2,079.00
Postage & Delivery	120.79	1.10	132.87
Supplies & Materials	176.99	1.10	194.69
Task 2 Reimbursable Expense Subtotal			**2,406.56**

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Environmental Dept.
Date 9/23/08

continued on next page

TENERA Environmental

Invoice No. E17079
September 9, 2008

Task 2 continued

Tenera Equipment	*Hours*	*Rate/Hr*	*Amount*
Measuring System	6.00	6.25/hr	37.50
	Task 2 Tenera Equipment Subtotal		**37.50**
		Task 2 Subtotal	**15,660.06**

Task 3

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Director	Steinbeck, J	2.00	170.00	340.00
Project Manager	Ehrler, C	6.50	105.00	682.50
Senior Scientist	Dugan, B	12.75	90.00	1,147.50
Scientist	Peters, S	4.75	73.00	346.75
Senior Data Analyst	Helberg, S	19.00	73.00	1,387.00
Senior Research Asst	Vick, J	15.75	55.00	866.25
Research Asst II	Hernandez, R	38.50	44.00	1,694.00
Research Asst II	Lawson, C	40.25	44.00	1,771.00
Research Asst II	Oncea, C	10.50	44.00	462.00
Research Asst II	Sanchez, K	18.00	44.00	792.00
Research Asst II	Trevino, S	34.00	44.00	1,496.00
Research Asst I	Watkins, R	43.75	34.00	1,487.50
Task 3 Professional Labor Subtotal		**245.75 hrs**		**12,472.50**

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	8,409.41	1.10	9,250.35
	Task 3 Reimbursable Expenses Subtotal		**9,250.35**
		Task 3 Subtotal	**21,722.85**
		Invoice Total	**37,382.91**

Please send remittance to:

Tenera Environmental
971 Dewing Ave Ste 101
Lafayette CA 94549

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Invoice No. E17093
October 9, 2008
Page 1 of 3

Mr. Kirk Tomita Hawaii Electric Co. P.O. Box 2750 Honolulu HI 96840	Hawaiian Electric Co. Attn: Accounts Payable PO # PJA-06-002-01-01 P.O. Box 2750 Honolulu HI 96840-0001

Tenera Project	061806-01
Title	316(b) Sampling at Honolulu, Kahe, and Waiau Generating Stations
Project Manager	John Steinbeck
Ref.	Purchase Order PJA-06-002-01-01
Billing Period	August 1, 2008 through August 31, 2008
Invoice Total	**45,777.74**

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Task 1

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Report				
Senior Data Analyst	Helberg, S	9.75	73.00	711.75
	Task 1 Labor Subtotal	9.75 hrs		**711.75**
	Task 1 Subtotal			**711.75**

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Date 10/28/08

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Invoice No. E17093
October 9, 2008

Task 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Project Manager	Ehrler, C	23.50	105.00	2,467.50
Senior Scientist	Dugan, B	15.25	90.00	1,372.50
Scientist	Holmes, M	32.00	73.00	2,336.00
Scientist	Peters, S	23.50	73.00	1,715.50
Senior Data Analyst	Helberg, S	17.50	73.00	1,277.50
Senior Research Asst	Vick, J	2.00	55.00	110.00
Research Asst II	Sanchez, K	0.50	44.00	22.00
Measuring				
Research Asst II	Sanchez, K	65.25	44.00	2,871.00
Report				
Director	Steinbeck, J	24.00	170.00	4,080.00
Project Manager	Carroll, J	17.00	105.00	1,785.00
Project Manager	Ehrler, C	5.50	105.00	577.50
Senior Data Analyst	Helberg, S	7.75	73.00	565.75
Task 2 Professional Labor Subtotal		233.75 hrs		**19,180.25**

Tenera Equipment	*Hours*	*Rate*	*Amount*
Measuring System	65.25	6.25/hr	407.81
	Task 2 Tenera Equipment Subtotal		**407.81**

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	720.00	1.10	792.00
Postage & Delivery	192.64	1.10	211.90
	Task 2 Reimbursable Expense Subtotal		**1,003.90**

Task 2 Subtotal **20,591.96**

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Invoice No. E17093
October 9, 2008
Page 3 of 3

Task 3

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Director	Steinbeck, J	3.00	170.00	510.00
Project Manager	Ehrler, C	0.50	105.00	52.50
Senior Scientist	Dugan, B	7.00	90.00	630.00
Scientist	Peters, S	28.75	73.00	2,098.75
Senior Data Analyst	Helberg, S	15.00	73.00	1,095.00
Senior Research Asst	Vick, J	9.00	55.00	495.00
Research Asst I	Watkins, R	66.75	34.00	2,269.50
Research Asst II	Hernandez, R	56.00	44.00	2,464.00
Research Asst II	Lawson, C	110.50	44.00	4,862.00
Research Asst II	Oncea, C	9.50	44.00	418.00
Research Asst II	Sanchez, K	13.75	44.00	605.00
Task 3 Professional Labor Subtotal		**319.75**		**15,499.75**

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	8,158.44	1.10	8,974.28
		Task 3 Reimbursable Expenses Subtotal	**8,974.28**
		Task 3 Subtotal	**24,474.03**
		Invoice Total	**45,777.74**

Please send remittance to:

Tenera Environmental
971 Dewing Ave Ste 101
Lafayette CA 94549

TENERA Environmental

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Invoice No. E17098
October 21, 2008
Page 1 of 2

Mr. Kirk Tomita Hawaii Electric Co. P.O. Box 2750 Honolulu HI 96840	Hawaiian Electric Co. Attn: Accounts Payable PO # PJA-06-002-01-01 P.O. Box 2750 Honolulu HI 96840-0001

Tenera Project	061806-01
Title	316(b) Sampling at Honolulu, Kahe, and Waiau Generating Stations
Project Manager	John Steinbeck
Ref.	Purchase Order PJA-06-002-01-01
Billing Period	September 1, 2008 through September 30, 2008
Invoice Total	**37,359.93**

Task 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Director	Steinbeck, J	0.50	170.00	85.00
Project Manager	Ehrler, C	63.50	105.00	6,667.50
Senior Scientist	Dugan, B	11.75	90.00	1,057.50
Senior Data Analyst	Helberg, S	7.25	73.00	529.25
Measuring				
Research Asst II	Sanchez, K	11.50	44.00	506.00
Report				
Project Manager	Ehrler, C	2.00	105.00	210.00
Scientist	Holmes, M	9.00	73.00	657.00
Task 2 Professional Labor Subtotal		105.50 hrs		**9,712.25**

Tenera Equipment	*Hours*	*Rate*	*Amount*
Measuring System	11.50	6.25/hr	71.88
	Task 2 Tenera Equipment Subtotal		**71.88**

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Postage & Delivery	18.02	1.10	19.82
	Task 2 Reimbursable Expense Subtotal		**19.82**

Task 2 Subtotal **9,803.95**

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Environmental Dept.
Date 10/31/08

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Invoice No. E17098
October 21, 2008

Task 3

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Director	Steinbeck, J	3.00	170.00	510.00
Project Manager	Ehrler, C	3.75	105.00	393.75
Senior Scientist	Dugan, B	13.00	90.00	1,170.00
Scientist	Peters, S	92.75	73.00	6,770.75
Senior Data Analyst	Helberg, S	11.50	73.00	839.50
Senior Research Asst	Vick, J	43.50	55.00	2,392.50
Research Asst II	Lawson, C	22.50	44.00	990.00
Research Asst II	Oncea, C	13.00	44.00	572.00
Research Asst II	Sanchez, K	5.75	44.00	253.00
Research Asst I	Watkins, R	43.00	34.00	1,462.00
Task 3 Professional Labor Subtotal		**251.75 hrs**		**15,353.50**

Reimbursable Expenses	***Item***	***Mult***	***Amount***
Outside Services	7,638.62	1.10	8,402.48
	Task 3 Reimbursable Expenses Subtotal		**8,402.48**

Sample Fee	***# of Samples***	***Rate/Sample***	***Amount***
Preserving, storage, and disposal—April through September 2008	152	25.00	**3,800.00**

Task 3 Subtotal **27,555.98**

Invoice Total **37,359.93**

Please send remittance to:

Tenera Environmental
971 Dewing Ave Ste 101
Lafayette CA 94549

TENERA Environmental

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Invoice No. E17129
November 24, 2008
Page 1 of 2

Mr. Kirk Tomita Hawaii Electric Co. P.O. Box 2750 Honolulu HI 96840	Hawaiian Electric Co. Attn: Accounts Payable PO # PJA-06-002-01-01 P.O. Box 2750 Honolulu HI 96840-0001

Tenera Project	061806-01
Title	316(b) Sampling at Honolulu, Kahe, and Waiau Generating Stations
Project Manager	John Steinbeck
Ref.	Purchase Order PJA-06-002-01-01
Billing Period	October 1, 2008 through October 31, 2008
Invoice Total	**38,330.56**

Task 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Project Manager	Ehrler, C	6.00	105.00	630.00
Senior Scientist	Dugan, B	9.75	90.00	877.50
Senior Data Analyst	Helberg, S	17.00	73.00	1,241.00
Report				
Director	Steinbeck, J	18.00	170.00	3,060.00
Project Manager	Ehrler, C	64.25	105.00	6,746.25
Senior Data Analyst	Helberg, S	18.75	73.00	1,368.75
Task 2 Professional Labor Subtotal		133.75 hrs		**13,923.50**
			Task 2 Subtotal	**13,923.50**

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Environmental Dept.
Date 12/01/08

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Invoice No. E17129
November 24, 2008

Task 3

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Project Manager	Ehrler, C	8.25	105.00	866.25
Project Manager	Hedgepeth, J	9.00	105.00	945.00
Senior Scientist	Dugan, B	16.25	90.00	1,462.50
Scientist	Witters, S	30.25	73.00	2,208.25
Senior Data Analyst	Helberg, S	14.25	73.00	1,040.25
Senior Research Asst	Vick, J	40.00	55.00	2,200.00
Research Asst II	Green, Z	76.00	44.00	3,344.00
Research Asst II	Lawson, C	47.50	44.00	2,090.00
Research Asst II	Oncea, C	11.50	44.00	506.00
Research Asst II	Sanchez, K	6.00	44.00	264.00
Research Asst I	Watkins, R	96.75	34.00	3,289.50
Measuring				
Research Asst II	Sanchez, K	1.00	44.00	44.00
Task 3 Professional Labor Subtotal		**356.75**		**18,259.75**

Tenera Equipment	*Hours*	*Rate*	*Amount*
Measuring System	1.00	6.25/hr	6.25
	Task 2 Tenera Equipment Subtotal		**6.25**

Reimbursable Expenses	*Item*	*Mult*	*Amount*
Outside Services	5,519.36	1.10	6,071.30
Supplies	63.42	1.10	69.76
	Task 3 Reimbursable Expenses Subtotal		**6,141.06**
		Task 3 Subtotal	**24,407.06**
		Invoice Total	**38,330.56**

Please send remittance to:

Tenera Environmental
971 Dewing Ave Ste 101
Lafayette CA 94549

TENERA Environmental

Invoice No.	E17135
Invoice Total	37,447.31
Invoice Date	12/2/2008

Mr. Kirk Tomita
Hawaii Electric Co.
P.O. Box 2750
Honolulu HI 96840

cc: Hawaiian Electric Co.
Attn: Accounts Payable PO # PJA-06-002-01-01
P.O. Box 2750
Honolulu HI 96840-0001

Tenera Project	061806-01
Title	316(b) Sampling at Honolulu, Kahe, and Waiau Generating Stations
Project Manager	John Steinbeck
Reference	Purchase Order PJA-06-002-01-01
Billing Period	November 1, 2008 through November 30, 2008

Task 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Senior Scientist	Dugan, B	12.25	90.00	1,102.50
Task 2 Report				
Director	Steinbeck, J	21.00	170.00	3,570.00
Project Manager	Carroll, J	5.00	105.00	525.00
Project Manager	Ehrler, C	41.00	105.00	4,305.00
Senior Data Analyst	Helberg, S	13.25	73.00	967.25
		92.50		
			Task 2 Total	**10,469.75**

Task 3

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Director	Steinbeck, J	2.00	170.00	340.00
Project Manager	Ehrler, C	44.00	105.00	4,620.00
Senior Scientist	Dugan, B	14.00	90.00	1,260.00
Senior Scientist	Velez, J	24.00	90.00	2,160.00
Scientist	Witters, S	43.75	73.00	3,193.75
Senior Data Analyst	Helberg, S	6.25	73.00	456.25
Senior Research Asst	Vick, J	11.25	55.00	618.75
Research Asst II	Green, Z	89.50	44.00	3,938.00
Research Asst II	Lawson, C	4.00	44.00	176.00
Research Asst II	Oncea, C	3.00	44.00	132.00
Research Asst II	Trevino, S	4.50	44.00	198.00
Research Asst I	Watkins, R	103.50	34.00	3,519.00
		349.75 hrs		
			Task 3 Labor Subtotal	20,611.75

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Date 12/03/08

continued on next page

TENERA Environmental

Invoice No.	E17135
Invoice Total	37,447.31
Invoice Date	12/2/2008

Reimbursable Expense	*Item*	*Mult*	*Amount*
Outside Services	5,787.10	1.1	6,365.81
	Task 3 Reimbursable Expense Subtotal		6,365.81

Task 3 Total	**26,977.56**
Invoice Total	**37,447.31**

Please send remittance to:

Tenera Environmental
971 Dewing Ave Ste 101
Lafayette CA 94549

TENERA Environmental

Invoice No.	E17165
Invoice Total	30,517.17
Invoice Date	1/13/2009

Mr. Kirk Tomita
Hawaii Electric Co.
P.O. Box 2750
Honolulu HI 96840

cc: Hawaiian Electric Co.
Attn: Accounts Payable PO # PJA-06-002-01-01
P.O. Box 2750
Honolulu HI 96840-0001

Tenera Project	061806-01
Title	316(b) Sampling at Honolulu, Kahe, and Waiau Generating Stations
Project Manager	John Steinbeck
Reference	Purchase Order PJA-06-002-01-01
Billing Period	December 1, 2008 through December 31, 2008

Task 2

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Senior Scientist	Dugan, B	2.75	90.00	247.50
Scientist	Witters, S	26.75	73.00	1,952.75
Senior Data Analyst	Helberg, S	0.50	73.00	36.50
Task 2 Report				
Project Manager	Ehrler, C	11.75	105.00	1,233.75
Senior Data Analyst	Helberg, S	16.00	73.00	1,168.00
Task 2 Measuring				
Research Asst II	Sanchez, K	8.50	44.00	374.00
		66.25 hrs		
			Task 3 Labor Subtotal	5,012.50

Tenera Equipment Lease	*Hours*	*Rate*	*Amount*
Measuring System	8.50	6.25	53.13
		Task 2 Equipment Lease Subtotal	53.13

Reimbursable Expense	*Item*	*Mult*	*Amount*
Supplies	19.75	1.10	21.73
		Task 2 Reimbursable Expense Subtotal	21.73

Task 2 Total **5,087.36**

continued on next page

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Environmental Dept.
Date 1/16/09

Tenera Environmental, 971 Dewing Ave Ste 101, Lafayette CA 94549
Tel 925-962-9769, Fax 925-962-9758

TENERA Environmental

Invoice No.	E17165
Invoice Total	30,517.17
Invoice Date	1/13/2009

Task 3

Professional Category	*Name*	*Hours*	*Rate*	*Amount*
Director	Steinbeck, J	9.00	170.00	1,530.00
Project Manager	Ehrler, C	32.75	105.00	3,438.75
Senior Scientist	Dugan, B	10.75	90.00	967.50
Scientist	Witters, S	26.00	73.00	1,898.00
Senior Data Analyst	Helberg, S	15.75	73.00	1,149.75
Senior Research Asst	Vick, J	4.50	55.00	247.50
Research Asst II	Green, Z	30.75	44.00	1,353.00
Research Asst II	Hernandez, R	9.50	44.00	418.00
Research Asst II	Lawson, C	1.50	44.00	66.00
Research Asst II	Oncea, C	11.00	44.00	484.00
Research Asst II	Sanchez, K	2.50	44.00	110.00
Research Asst II	Trevino, S	12.00	44.00	528.00
Research Asst I	Watkins, R	22.50	34.00	765.00
Task 3 Measuring				
Research Asst II	Sanchez, K	81.50	44.00	3,586.00
		270.00 hrs		
			Task 3 Labor Subtotal	16,541.50

Reimbursable Expense	*Item*	*Mult*	*Amount*
Outside Services	5,610.82	1.10	6,171.90
Supplies	47.59	1.10	52.35
Travel Expense	1,894.98	1.10	2,084.48
		Task 3 Reimbursable Expense Subtotal	8,308.73

Tenera Equipment Lease	*Hours*	*Rate*	*Amount*
Measuring System	81.50	6.25	509.38
		Task 3 Equipment Lease Subtotal	509.38

Tenera Copies	*Pages*	*Cost per Page*	*Amount*
Black and white datasheets	104	0.10	10.40
Waterproof datasheets	92	0.65	59.80
		Copies Subtotal	70.20

Task 3 Total	**25,429.81**
Invoice Total	**30,517.17**

continued on next page

TENERA Environmental

Invoice No.	E17165
Invoice Total	30,517.17
Invoice Date	1/13/2009

Please send remittance to:

Tenera Environmental
971 Dewing Ave Ste 101
Lafayette CA 94549

Hawaiian Electric Company, Inc.
2009 Test Year
316(b) Non-Labor Expenses
Monthly Summary of Work Orders (Work Order Numbers HP002592, HP002593, and HP002594)
(amounts in dollars) (Amounts in boldface are the values that have been updated/corrected since the CA-IR-214, Attachment 9 version of this spreadsheet.)

Activity	Supplier_Name	200701	200702	200703	200704	200705	200706	200707	200708	200709	200710	200711	200712	2007 Total
Closed Cycle Cool Eval	EPRI													-
Closed Cycle Cool Eval	EPRI Solutions, Inc.													-
Best Prof Judge Eval	EPRI Solutions, Inc.										92,169			92,169
Continue IM&E Eval	Background Information Svcs												116	116
Continue IM&E Eval	Ikaika Masonry & Utilities													-
Continue IM&E Eval	National Concrete Sawing													-
Continue IM&E Eval	Tenera Environmental, Inc.					58,216	**70,641**	**3,061**	140,129	62,310	1,161	109,113	**121,867**	**566,499**
General 316(b) Compliance	Employee Reimbursement													-
General 316(b) Compliance	High Point Travel													-
General 316(b) Compliance	Employee Reimbursement										221			221
Manual Journal Transaction	Note (1)						**58,216**	**(58,216)**					**61,767**	**61,767**
	Total	Note (2)	Note (2)	Note (2)	Note (2)	58,216	**128,857**	(55,155)	140,129	62,310	93,552	109,113	183,750	**720,772**
							Note (3)							Note (3)

Activity	Supplier_Name	200801	200802	200803	200804	200805	200806	200807	200808	200809	200810	200811	200812	2008 Total
Closed Cycle Cool Eval	EPRI			9,103	**410**	**52,250**								**61,763**
Closed Cycle Cool Eval	EPRI Solutions, Inc.					**6,183**								**6,183**
Best Prof Judge Eval	EPRI Solutions, Inc.													-
Continue IM&E Eval	Background Information Svcs		166		83									**249**
Continue IM&E Eval	Ikaika Masonry & Utilities													-
Continue IM&E Eval	National Concrete Sawing													-
Continue IM&E Eval	Tenera Environmental, Inc.		29,975	**1,349**	125,070	**53,178**		98,847	28,170	**39,065**		**86,879**	**79,188**	**541,722**
General 316(b) Compliance	Employee Reimbursement													-
General 316(b) Compliance	High Point Travel													-
General 316(b) Compliance	Employee Reimbursement													-
Manual Journal Transaction	Note (1)	(61,767)		**79**	**(79)**									**(61,767)**
	Total	(61,767)	30,141	10,531	125,484	**111,612**	-	98,847	28,170	**39,065**	-	**86,879**	**79,188**	**548,151**
						Note (4)								

Activity	Supplier_Name	200901	200902	200903	200904	200905	200906	200907	200908	200909	200910	200911	200912	2009 Total
Continue IM&E Eval	Tenera Environmental, Inc.	**31,890**												**31,890**
	Total	**31,890**	-	-	-	-	-	-	-	-	-	-	-	**31,890**

Note (1): The "Manual Journal Transaction" represents the quarterly accrual of charges that are reversed in the following month and net to $0.

Note (2): As described in Docket No. 2006-0386, CA-IR-423, page 4 to 6, charges for 316(b) expenses were initially captured in a Preliminary Engineering Work Order Number (PEWON). This included non-labor outside service charges totalling $301,706 for January 2007 through April 2007. Beginning May 2007, charges were then captured in (3) O&M work order numbers, one for each powerplant. The amounts above reflect the charges to the (3) work order numbers beginning May 2007.

Note (3): The amount of $128,857 differs from the amount of $132,282 reported in CA-IR-214, Attachment 9, by $3,425. Consequently, the 2007 total of $720,772 differs from the amount of $724,197 reported in CA-IR-214, Attachment 9 (but equals the amount of $720,772 originally reported in HECO-740, page 5.) The amount of $3,425 was added to 2007 costs in June 2007 as a PEWON account transfer via a manual journal entry, but was subsequently removed in May 2008 via another manual journal entry.

Note (4): Charges in May 2008 have been corrected to properly represent non-labor charges and remove the reference to the PEWON account corrections and manual journal transactions. An additional vendor charge of $6,183 for EPRI Solutions, Inc., Closed Cycle Cool Eval, was added to correct an omission in CA-IR-214, Attachment 9. The proper charges for May 2008 are $111,612. However, HECO is not able to correctly identify and redistribute $72,438 (the difference between $111,612 and $39,174 reported in CA-IR-214, Attachment 9) which was removed from the O&M workorders in May 2008 and charged to clearing via the manual journal transaction.

Worksheet for Monthly Expenditures Projected for 2009

EXHIBIT A

SCOPE OF WORK AGREEMENT

Professional Services Agreement dated April 1, 2008 between

TENERA Environmental Inc. and Hawaiian Electric Co. (HECO)

Scope of Services: Impingement mortality and entrainment studies at the Honolulu, Waiau, and Kahe Generating Stations including the following tasks:

- Monthly IM&E sampling at HGS, WGS, and KGS;
- Laboratory processing of monthly entrainment samples;
- Biweekly entrainment sampling at WGS and KGS - February through September;
- Laboratory processing of biweekly entrainment samples;
- Report on second year of data collection; and
- Final assessment report that incorporates all three years of data.

Task Value:

Task	Labor ($)	Travel ($)	Outside Services ($)	Supplies, Materials & Services ($)	SubTotal ($)	Number	Total ($)
Monthly Sampling	4,370	0	5,775	132	10,277	12	123,324
Monthly Processing	14,128	0	0	400	14,528	12	174,331
Additional Entrainment Sampling	648	0	3,465	127	4,240	8	33,916
Additional Entrainment Processing	10,345	0	0	300	10,645	8	85,162
QA/QC	6,160	2,893	0	0	9,053	1	9,053
Annual Report 2008 for 2nd yr data	80,448	0	8,250	220	88,918	1	88,918
Final Report Combined 3-yr assessment	121,912	2,970	31,350	440	156,672	1	156,672
Sample Handling and Storage Costs ('06 and '07)	0	0	0	15,165	15,165	1	15,165
					Project Total		686,541

Due in 2009

440,951

Note: Annual report prep 2009 est $70K

Terms and Conditions: As set forth in the Professional Services Agreement.

Equivalent to annual IM&E monitoring cost based on reduced sampling frequency.

Client:		TENERA Environmental
By:		[signature]
Title:		Vice President
Date:		4/1/2008

	Feb - Sept	Oct - Jan
Monthly	24,805	24,805
Biweekly	14,885	—
QA + Handling $\left(\frac{9,053 + 15,165}{12}\right)$	2,018	2,018
	41,708	26,823

IM&E Sampling & Processing Per Month Costs

TENERA

CA-IR-287

Ref: HECO T-7 Update, Attachment 2, pages 2 & 3 (HCEI Studies).

For each of the line items describing "Outside Services Scope" on pages 2 and 3 of Attachment 2, please provide the following information:

a. Describe the efforts to date of HECO to define work requirements and secure internal and contractor expertise to fulfill the Company's HCEI obligations.
b. Provide copies of all requests for proposals or other solicitation documents prepared by or for HECO to describe the planned work and request information from potential vendors.
c. Provide copies of all proposals and other documents from potential vendors that is responsive to the information in your response to part (a) of this information request.
d. Provide copies of all contracts for services from vendors.
e. Provide a monthly breakdown of actual incurred costs by vendor that is comparable to Attachment 2, pages 2 and 3.
f. Provide a monthly breakdown of projected 2009 costs by vendor that is comparable to Attachment 2, pages 2 and 3.

HECO Response:

a. Existing Contracts for Outside Services

HECO's T-7 Update was filed with the Commission on December 12, 2008 and described HECO's progress in mapping the overall Implementation Studies and interrelationship of each study component. At the time of the HECO T-7 Update, two contracts for studies supporting the implementation of the HCEI Agreement were already underway. In November 2008, HECO's System Planning Department signed a work authorization for Electric Power Systems, Inc. ("EPS") to perform a Large Wind Integration System Stability and Interconnection Study for $75,860. Please refer to HECO T-7 Update, Attachment 4 for a copy of this work authorization. (As explained below, the scope of this work authorization currently is being expanded; the anticipated revised cost of the expanded study is $177,100.) The HECO T-14 Update filed with the Commission on December 2, 2008, described the Consultant Services Agreement under which GE Global Research

("GE") is conducting the Oahu Wind Integration Study, Phase 1. HECO's budgeted cost in 2009 for this study is $677,000. Please refer to HECO T-14, Attachment 5 (Confidential) for a copy of that Agreement. This study is being jointly managed by HECO's System Planning Department and HECO's Director of Technology.

New Contracts for Outside Services

Since the preparation of HECO's Rate Case Updates in December 2008, additional agreements have been concluded with contractors for Implementation Studies. On December 22, 2008, HECO's Power Supply Engineering Department issued a work authorization to Stanley Consultants, Inc. ("Stanley") for a Reheat Cycling Study costing $240,900. The anticipated completion date of the work is no later than June 2009. Please refer to Attachment 1 to this response for a copy of that work authorization.

The Power Supply Operations and Maintenance ("PSO&M) Department has issued a purchase order to EPS for a Generating Unit Dynamic Response Study costing $50,000. Please refer to Attachment 2 to this response for a copy of that purchase order. The PSO&M Department has also issued a purchase order to Control Systems Consulting Services (CS Squared) for engineering services related to the evaluation of generating unit droop response and ramping capability costing $245,700. Please refer to Attachment 3 to this response for a copy of that purchase order.

On-going Efforts to Define Scope and Requirements for Additional Studies

HECO is continuing to make progress in defining the scope of additional studies, and, in some cases, revising the scope of current studies. The System Planning Department is revising the scope of work authorization to EPS for the Large Wind Integration System Stability and Interconnection Study. Because of the revised scope, the cost will increase

from $75,860 to $177,100. Two new tasks were added to the study to: 1) evaluate the Underfrequency Load Shedding scheme, and 2) evaluate the available short circuit current on the system with a large penetration of wind power on the system. The estimated cost to complete these new tasks is $22,400. Several of the study tasks were revisited and adjusted to include additional issues that needed consideration and to provide a more realistic cost given the experience and knowledge gained about the HECO system and its complex modeling issues and data development needs. The increase in cost due to these revised tasks is a total of $92,240. There were also several tasks that were eliminated from the study scope that were not essential to achieve the main objectives of this study. The tasks eliminated include the development of single line diagrams, ride-through requirements, data requirements, required arrester and breaker ratings, and the integration of cost estimates for HECO facilities into the report. The reduction in cost associated with these eliminated tasks totals $13,400.

The System Planning Department is also working with GE on a draft Statement of Work for Phase 2 of the Oahu Wind Integration Study. In Phase 2, work is focused on the analysis leading towards a critical understanding of the feasibility of large wind plants on the islands of Molokai and Lanai, while taking into account the potential wind plants in service on Oahu in that timeframe, interconnected to the HECO grid, including the character and magnitude of operating constraints, wind farm performance requirements and remediation At a high level, contemplated tasks include a baseline system assessment for scenario analysis, evaluation of the integration of wind plants with both system and wind plant equipment and operational modifications, assessment of broader technical risks that may require further analysis, and reporting of study results. As stated in HECO T-7 Update,

page 17, the estimated cost to HECO of the GE Phase 2 study is $500,000. As the scope of the GE Phase 2 study is defined, it may incorporate some of the items associated with other potential studies described in the System Planning Department's summary of studies on pages 16 and 17 of HECO T-7 Update (and HECO T-7 Update, Attachment 2, page 2), namely studies relating to storage technologies (Transmission Planning estimated cost of $50,000), analysis of grid assets (Transmission Planning estimated cost of $150,000) and analysis of wind penetration scenarios (Generation Planning estimated cost of $50,000), and the cost estimate for the GE Phase 2 study may increase accordingly.

The Power Supply Engineering Department is reviewing whether the Stanley study should include additional work which would increase the cost of the study by an estimated $60,000.

The System Operation Department issued a Request for Proposal ("RFP") on January 29, 2009 for an evaluation of HECO's Energy Management System ("EMS") and High Penetration of Variable (Intermittent) Generating Resources, Distributed Resources, Load Management Resources, and Energy Storage. The RFP was issued to a consultant familiar with the HECO EMS. See Attachment 4 for a copy of the RFP. The elements of the study are described in the HECO T-7 Update, pages 17-19 and in HECO T-7 Update, Attachment 2, page 3.

The PSO&M Department currently is working on developing a scope of work for ABB, Inc. ("ABB"), a consultant mentioned in the HECO T-7 Update, page 21. The ABB scope of work would be similar to and complement the CS Squared study mentioned above. The preliminary estimated cost for the ABB work is $250,000. Both the CS Squared and ABB scopes of work include empirical testing and tuning of the generating units at

Honolulu, Waiau, and Kahe Power Plants. ABB would be performing the work at Kahe, and CS Squared is performing the work at Honolulu and Waiau. It is necessary for ABB and CS Squared to work in parallel to accomplish the necessary work in accordance with the overall schedule for the Implementation Studies. For example, the results from this work will be utilized by EPS and GE in the development of their respective dynamic models.

HECO has also made significant progress with the addition of internal resources and expertise to fulfill the Company's HCEI commitments and corporate goals and objectives. As explained in the HECO T-7 Update, the System Planning Department is creating a new Division, Renewable Energy Planning, to secure the necessary resources and align those resources to effectively manage the sharply increased work load associated with the transformation of our electrical system and integration of new renewable energy generation resources.

On January 27, 2009, a candidate for the key position of Renewable Energy Planning Director accepted HECO's job offer. The new Director, who will be starting work on March 26, 2009, is a unique and exceptional candidate for the position in terms of her education and significant utility industry and renewable energy experience. In particular, the new Director holds BS, MS and Ph.D. degrees in Aeronautical and Mechanical Engineering, with more than 12 years of experience in wind and renewable energy research, development and policy. For example, she has managed and led statewide scenario-based renewable integration and intermittency impact (e.g. ramps, VAR, reserves) studies to address the challenges of meeting policy mandates on renewable integration and carbon reduction targets in the mainland. These are just some of the highlights of the new

Director's distinguished academic accomplishments and professional carrier. The role of Renewable Energy Planning Director requires a seasoned and knowledgeable technical expert with solid management skills to effectively carry out the job responsibilities. The addition of the new Director to the HECO team in that capacity will provide a significant boost to the Company in both experience and ability in the area of renewable energy integration.

Further, the two new Renewable Planning Engineer positions that will ultimately report to the above referenced Director will be filled effective February 2, 2009. Therefore, the only vacancy of the four new positions within the Renewable Energy Planning Division that remains to be filled is the position of Senior Renewable Energy Engineer. It is anticipated that this position will be filled by April 2009. The vacancy has been posted and an extensive candidate search is underway.

In addition to these on-going efforts, HECO has established the Technical Review Committee ("TRC") that is a key part of the Oahu Wind Integration and Transmission Study. The primary focus of the TRC is to review and provide guidance for the grid modeling and transmission expansion studies including methods, assumptions, and preliminary results. The TRC is comprised of a highly accomplished and diverse group of technically-oriented people that will work together to guide the studies and provide a coordinated framework for project development and implementation. Both the Public Utilities Commission and the Office of the Consumer Advocate have representatives on the TRC. TRC meetings will be scheduled based on study progress and major milestones and deliverables. Presently, it is anticipated that there will be four face-to-face meetings of the

TRC over the course of the study effort. The first TRC meeting was held on January 7th and 8th, 2009 in Honolulu.

b. See Attachment 4 for a copy of the RFP issued on January 29, 2009.

c. At present, there are no pending proposals from potential vendors for Implementation Studies. However, as described above, the System Planning Department is working with GE to define the scope of Phase 2 of the Oahu Wind Integration Study, and with EPS to revise the scope of the Large Wind Integration System Stability and Interconnection Study.

d. Please refer to Attachments 1, 2 and 3 to this response.

e. As noted in response to subpart a. above, HECO's System Planning Department signed a work authorization in November, 2008, for EPS to perform a Large Wind Integration System Stability and Interconnection Study for $75,860. The monthly breakdown of actual incurred costs for this vendor under this work authorization is $18,693 (November) and $44,607 (December), for a total of $63,300 as of year-end 2008. As explained above, the scope of this work authorization is currently being expanded; the anticipated revised cost of the expanded study is $177,100.

In addition, the monthly breakdown of actual incurred costs for the Consultant Services Agreement under which GE is conducting the Oahu Wind Integration Study, Phase 1, is $47,841 (December). Finally, for the purchase order to EPS issued by the PSO&M Department for a Generating Unit Dynamic Response Study, PSO&M has incurred $10,426 (December) as of year-end 2008.

f. A monthly breakdown of projected 2009 costs by vendor for contracts presently in place follows.

- System Planning Department work authorization to EPS (total projected contract amount: $177,100 based on revised work scope under development):
    - $40,000 (January);
    - $40,000 (February); and
    - $33,800 (March).
- Work authorization for GE Oahu Wind Integration Study, Phase 1 (total amount of HECO's cost under the contract: $749,157):
    - $68,926 (January; Task 2 -- Data evaluation, completion and analysis);
    - $262,514 (March; Task 3 -- System model development);
    - $272,208 (June; Task 4 -- Baseline model validation); and
    - $97,668 (June; Task 5--Preparation of Phase 2 proposal).
- Work authorization to Stanley for a Reheat Cycling Study (total contract amount: $240,900):
    - $40,000 (each month from January to May); and
    - $40,900 (June).
- PSO&M Department purchase order to EPS (total contract amount: $50,000):
    - $10,000 (each month from January to March); and
    - $9,574 (April).
- PSO&M Department purchase order to CS Squared (total contract amount: $245,700):
    - $20,000 (January);
    - $35,000 (each month from February to June); and
    - $50,700 (July).

WORK AUTHORIZATION NO. PYA-08-055-01-01-01
Contract No. MSTR-PYA-06-016

I. Request for Quote

Under the terms and conditions of the Consultant Services Master Agreement, dated September 13, 2006, by and between Stanley Consultants, Inc. ("Consultant") and Hawaiian Electric Company, Inc. ("Company"), Company hereby requests a proposal from Consultant to perform the following Work:

Background: In the near future it is anticipated that large blocks of power generation from non-utility sources would be integrated in the HECO system. In order to accommodate this additional power, it is anticipated that it would be necessary to daily cycle (on and off) one or more of the reheat units on the HECO system. The reheat units being considered for cycling are Kahe units 1, 2, 3, 4 and Waiau units 7 and 8.

Study Objective: Identify HECO's reheat units' (Kahe 1, 2, 3, 4 and Waiau 7 and 8) existing system and equipment that would be impacted by cycling operation. Determine system or equipment modifications recommended to allow or improve the units' cycling capability. Develop conceptual work scopes, cost estimates and schedules for implementation. Recommendations should include modifications needed to ensure the continued longevity and reliability of HECO's generating assets.

Familiarization with the HECO system:
The consultant shall visit the units to perform surveys to determine the installed designs and configurations in order to identify the areas requiring cycling considerations.

- Facility locations and manning/staffing.
- Equipment types, manufacturers, ratings.
- Technical documentation.
- Controls hardware, governors, firing systems.
- Controls programming.
- Nameplate data and actual capability.
- Outage/Overhaul Planning.
- Critical equipment and condition.

Review of previous studies:

- Cycling studies were previously conducted for Kahe units 5 and 6 by Stone & Webster in 1986 and are available for review.
- EPRI literature.
- Other utilities?

Identification of limitations, and proposed modifications:
HECO will schedule unit cycling tests for the consultant to determine the unit's capability to cycle. The consultant shall develop the field performance test protocol and HECO would perform the testing and record the needed parameters for the consultant's review.

Items of concern to include but are not limited to:

- Variations in turbine first stage steam temperature--turbine life.
- Transient differences between SH and RH temperatures--turbine life.
- Attemperator spray performance evaluation--response, stresses.
- Effects on maximum allowed rate of load change--response/ performance.
- Stresses on boiler components--boiler life.
- Effects of feedwater heaters out of service--turbine life.
- Drum level control response to shrink/swell--response, boiler and turbine safety.
- Water induction protection--turbine safety.
- Make-up boiler water – storage and production capacities

Cost impacts:

- Capital cost estimates for system and equipment modifications.
- Conceptual implementation schedule.
- Estimated impact on future O&M efforts.
- Estimated change to reliability (more frequent unplanned outages, even after implementing the equipment modifications?)

Schedule: The desired start for this study is December 2008 with a completion by June 2009.

The minimum insurance limits specified in the Consultant Services Master Agreement shall be modified for this Work Authorization only (blanks indicate that no change is intended for this Work):

Commercial General Liability
Section 8.2 - $_____ per occurrence
$_____ general aggregate

Automobile Liability
Section 8.3 - $_____ per accident

Professional Errors and Omissions
Section 8.4 - $_____ per each claim
$_____ per aggregate

Pollution Liability and/or Asbestos Abatement Liability and/or Lead Abatement Liability
Section 8.5 - $_____ per occurrence

Marine
Section 8.6 - $_____ per occurrence

Dated: 11/3/08 GP my JKH2 _____ Company

II. Consultant's Proposal

Consultant hereby proposes to perform the Work described above in Section I, under said terms and conditions, for the following amount: Two hundred forty thousand nine hundred dollars

Total not-to-exceed cost is $240,900.00. Total not-to-exceed manhours required is 1550.

Work will begin no later than December 2008 and be completed on or before June 2009.

Mark Payne will act as Consultant's Designated Representative during the performance of this Work.

Dated: 11/21/08 _____ for Kevin Cavanaugh
Consultant

III. Work Authorization

Consultant's foregoing Proposal is accepted. Consultant is authorized to perform the Work as proposed. Company's Designated Representative for this Work Authorization shall be Tim Lum.

Dated: 12/22/08 Thomas C. Simmons JKH2 GP my for RBM
Company

Dated: _____ _____
Company

HAWAIIAN ELECTRIC COMPANY, INC.
P.O. BOX 2750
HONOLULU HI 96840-0001

WP3 -VP
Page : 1

Purchase Order Number: V27437
Change Order:
Change Order Date:

Supplier:
ATTN: DAVID BURLINGAME
ELECTRIC POWER SYSTEMS
3305 ARCTIC BLVD., SUITE 201
ANCHORAGE AK 99503

Supplier Code: 023135

Ship To: HAWAIIAN ELECTRIC COMPANY, INC.
475 KAMEHAMEHA HWY.
PEARL CITY, HI 96782
ATTN: WAIAU POWER PLANT RECVG

Send Invoice: HAWAIIAN ELECTRIC COMPANY, INC.
ATTN: Accounts Payable
P.O. BOX 2750
HONOLULU HI 96840-0001

Buyer: CASTELLANO,DAWNLYN N
Phone No.: 543-4368
Fax No.: 203-1799
E-Mail:
DAWN.CASTELLANO@HECO.COM

Freight Terms: NOT APPLICABLE
Payment Terms: Net 30
Original Purchase Order Date: 12/11/08

P O Line No.	Description	Delivery Date	Quantity Ordered	Unit of Purchase	Unit Price Without Tax	Extended Price Including Tax
001	Study of the Dynamic Response HECO generating units per scope of work dated 12/9/08	12/31/10	0.00	NA	50000.0000	50000.0000

Clauses: SACK ; INVA ; VET

CA-IR-287
DOCKET NO. 2008-0083
ATTACHMENT 2
PAGE 1 OF 4

HAWAIIAN ELECTRIC COMPANY, INC.
P.O. BOX 2750

HONOLULU HI 96840-0001

WP3 -VP
Page : 2

Purchase Order Number: V27437
Change Order:
Change Order Date:

Supplier:
ATTN: DAVID BURLINGAME
ELECTRIC POWER SYSTEMS
3305 ARCTIC BLVD., SUITE 201

ANCHORAGE AK 99503

Supplier Code: 023135

Ship To: HAWAIIAN ELECTRIC COMPANY, INC.
475 KAMEHAMEHA HWY.
PEARL CITY, HI 96782

ATTN: WAIAU POWER PLANT RECVG

Send Invoice: HAWAIIAN ELECTRIC COMPANY, INC.
ATTN: Accounts Payable
P.O. BOX 2750
HONOLULU HI 96840-0001

Buyer: CASTELLANO,DAWNLYN N
Phone No.: 543-4368
Fax No.: 203-1799
E-Mail:
DAWN.CASTELLANO@HECO.COM

Freight Terms: NOT APPLICABLE
Payment Terms: Net 30
Original Purchase Order Date: 12/11/08

P O Line No.	Description	Delivery Date	Quantity Ordered	Unit of Purchase	Unit Price Without Tax	Extended Price Including Tax

THIS PURCHASE ORDER ISSUED IN SUPPORT OF GSMA NUMBER MSTR PYA-07-05, WHICH GOVERNS THE WORK TO BE PERFORMED HEREUNDER. THIS PURCHASE ORDER IS FOR RECORD & BILLING PURPOSES ONLY AND IN NO WAY AFFECTS THE TERMS & CONDITIONS OF THE ABOVE-REFERENCED CONTRACT.

The following clauses will apply to the respective line items:

SACK SUPPLIER:
PLEASE ACKNOWLEDGE THIS ORDER BY SIGNING AND DATING THIS ORIGINAL PURCHASE ORDER AND RETURNING TO THE ATTENTION OF THE BUYER LISTED ON THE ORDER.
MAILING ADDRESS: P.O. BOX 2750
HONOLULU, HI 96840-0001

FAILURE TO RETURN THE ACKNOWLEDGEMENT COPY MAY CAUSE A DELAY IN YOUR PAYMENT.

PLEASE MAKE A COPY OF THIS PURCHASE ORDER FOR YOUR RECORDS AS NO DUPLICATE SHALL BE SENT.

HAWAIIAN ELECTRIC COMPANY, INC.
P.O. BOX 2750

HONOLULU HI 96840-0001

WP3 -VP
Page : 3

Purchase Order Number: V27437
Change Order:
Change Order Date:

Supplier:
ATTN: DAVID BURLINGAME
ELECTRIC POWER SYSTEMS
3305 ARCTIC BLVD., SUITE 201

ANCHORAGE AK 99503

Supplier Code: 023135

Ship To: HAWAIIAN ELECTRIC COMPANY, INC.
475 KAMEHAMEHA HWY.
PEARL CITY, HI 96782

ATTN: WAIAU POWER PLANT RECVG

Send Invoice: HAWAIIAN ELECTRIC COMPANY, INC.
ATTN: Accounts Payable
P.O. BOX 2750
HONOLULU HI 96840-0001

Buyer: CASTELLANO,DAWNLYN N
Phone No.: 543-4368
Fax No.: 203-1799
E-Mail:
DAWN.CASTELLANO@HECO.COM

Freight Terms: NOT APPLICABLE
Payment Terms: Net 30
Original Purchase Order Date: 12/11/08

P O Line No.	Description	Delivery Date	Quantity Ordered	Unit of Purchase	Unit Price Without Tax	Extended Price Including Tax

ACKNOWLEDGED BY: _____
DATE: _____

INVA
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*****************************************************
*  SUPPLIER:                                        *
*    PLEASE DISTRIBUTE THE BILLING INFORMATION      *
*    REQUIRED FOR THIS ORDER AS FOLLOWS:            *
*      1)  ORIGINAL invoice, without attachments,   *
*          must be sent directly to the Accounts    *
*          Payable address listed above.            *
*      2)  ALL REQUIRED SUPPORTING DOCUMENTS must   *
*          be sent SEPARATELY to the Company's      *
*          Designated Representative.               *
*                                                   *
*  FAILURE TO PROPERLY DISTRIBUTE THE REQUIRED      *
*  DOCUMENTATION MAY CAUSE A DELAY IN PAYMENT.      *
*                                                   *
*  THANK YOU.                                       *
*****************************************************
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VET The following shall apply in lieu of Section 12 on the reverse side of this form:

HAWAIIAN ELECTRIC COMPANY, INC.
P.O. BOX 2750

HONOLULU HI 96840-0001

WP3 -VP
Page : 4

Purchase Order Number: V27437
Change Order:
Change Order Date:

Supplier:
ATTN: DAVID BURLINGAME
ELECTRIC POWER SYSTEMS
3305 ARCTIC BLVD., SUITE 201

ANCHORAGE AK 99503

Supplier Code: 023135

Ship To: HAWAIIAN ELECTRIC COMPANY, INC.
475 KAMEHAMEHA HWY.
PEARL CITY, HI 96782

ATTN: WAIAU POWER PLANT RECVG

Send Invoice: HAWAIIAN ELECTRIC COMPANY, INC.
ATTN: Accounts Payable
P.O. BOX 2750
HONOLULU HI 96840-0001

Buyer: CASTELLANO,DAWNLYN N
Phone No.: 543-4368
Fax No.: 203-1799
E-Mail:
DAWN.CASTELLANO@HECO.COM

Freight Terms: NOT APPLICABLE
Payment Terms: Net 30
Original Purchase Order Date: 12/11/08

P O Line No.	Description	Delivery Date	Quantity Ordered	Unit of Purchase	Unit Price Without Tax	Extended Price Including Tax
	Section 12 Equal Opportunity for Disabled Veterans, Recently Separated Veterans, Other Protected Veterans, and Armed Forces Service Medal Veterans. (Applicable to (a) each contract of $25,000 or more entered into before December 31, 2003 (41 CFR 60-250.4) or (b) each federal government contract of $100,000 or more, entered into or modified on or after December 31, 2003 (41 CFR 60-300.4) for the purchase, sale or use of personal property or nonpersonal services (including construction).) If applicable, Seller agrees that it is, and shall remain, in compliance with the rules and regulations promulgated under The Vietnam Era Veterans Readjustment Assistance Act of 1974, as amended by the Jobs for Veterans Act of 2002, including the requirements of 41 CFR 60-250.5(a) (for orders/contracts entered into before December 31, 2003) and 41 CFR 60-300.5(a) (for orders/contracts entered into or modified on or after December 31, 2003) which are incorporated into this order/contract by reference.					

TOTAL Purchase Order: 50000.00
Page: 4 of 4

CA-IR-287
DOCKET NO. 2008-0083
ATTACHMENT 2
PAGE 4 OF 4

HAWAIIAN ELECTRIC COMPANY, INC.
P.O. BOX 2750
HONOLULU HI 96840-0001

WP3 -VP
Page : 1

Purchase Order Number: V29171
Change Order:
Change Order Date:

Supplier:
ATTN: THEO HETHERINGTON
C.S. SQUARED
MARION HETHERINGTON
531 PONCE AVENUE
PLACENTIA CA 92870

Supplier Code: 019573

Ship To: HAWAIIAN ELECTRIC COMPANY, INC.
475 KAMEHAMEHA HWY.
PEARL CITY, HI 96782

ATTN: WAIAU POWER PLANT RECVG

Send Invoice: HAWAIIAN ELECTRIC COMPANY, INC.
ATTN: Accounts Payable
P.O. BOX 2750
HONOLULU HI 96840-0001

Buyer: CASTELLANO,DAWNLYN N
Phone No.: 543-4368
Fax No.: 203-1799
E-Mail:
DAWN.CASTELLANO@HECO.COM

Freight Terms: NOT APPLICABLE
Payment Terms: Net 30
Original Purchase Order Date: 01/12/09

P O Line No.	Description	Delivery Date	Quantity Ordered	Unit of Purchase	Unit Price Without Tax	Extended Price Including Tax
001	Engineering services for CS Squared.	07/31/09	0.00	NA	245700.0000	245700.0000
	Clauses: SACK ; INVA ; VET					

CA-IR-287
DOCKET NO. 2008-0083
ATTACHMENT 3
PAGE 1 OF 4

HAWAIIAN ELECTRIC COMPANY, INC.
P.O. BOX 2750
HONOLULU HI 96840-0001

WP3 -VP
Page : 2

Purchase Order Number: V29171
Change Order:
Change Order Date:

Supplier:
ATTN: THEO HETHERINGTON
C.S. SQUARED
MARION HETHERINGTON
531 PONCE AVENUE
PLACENTIA CA 92870

Supplier Code: 019573

Ship To: HAWAIIAN ELECTRIC COMPANY, INC.
475 KAMEHAMEHA HWY.
PEARL CITY, HI 96782

ATTN: WAIAU POWER PLANT RECVG

Send Invoice: HAWAIIAN ELECTRIC COMPANY, INC.
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P.O. BOX 2750
HONOLULU HI 96840-0001

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Fax No.: 203-1799
E-Mail:
DAWN.CASTELLANO@HECO.COM

Freight Terms: NOT APPLICABLE
Payment Terms: Net 30
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THIS PURCHASE ORDER ISSUED IN SUPPORT OF GSMA NUMBER MSTR-PYA-08-012, WHICH GOVERNS THE WORK TO BE PERFORMED HEREUNDER. THIS PURCHASE ORDER IS FOR RECORD & BILLING PURPOSES ONLY AND IN NO WAY AFFECTS THE TERMS & CONDITIONS OF THE ABOVE-REFERENCED CONTRACT.

The following clauses will apply to the respective line items:

SACK SUPPLIER:
PLEASE ACKNOWLEDGE THIS ORDER BY SIGNING AND DATING THIS ORIGINAL PURCHASE ORDER AND RETURNING TO THE ATTENTION OF THE BUYER LISTED ON THE ORDER.
MAILING ADDRESS: P.O. BOX 2750
HONOLULU, HI 96840-0001

FAILURE TO RETURN THE ACKNOWLEDGEMENT COPY MAY CAUSE A DELAY IN YOUR PAYMENT.

PLEASE MAKE A COPY OF THIS PURCHASE ORDER FOR YOUR RECORDS AS NO DUPLICATE SHALL BE SENT.

HAWAIIAN ELECTRIC COMPANY, INC.
P.O. BOX 2750
HONOLULU HI 96840-0001

WP3 -VP
Page : 3

Purchase Order Number: V29171
Change Order:
Change Order Date:

Supplier:
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C.S. SQUARED
MARION HETHERINGTON
531 PONCE AVENUE
PLACENTIA CA 92870

Supplier Code: 019573

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Send Invoice: HAWAIIAN ELECTRIC COMPANY, INC.
ATTN: Accounts Payable
P.O. BOX 2750
HONOLULU HI 96840-0001

Buyer: CASTELLANO,DAWNLYN N
Phone No.: 543-4368
Fax No.: 203-1799
E-Mail:
DAWN.CASTELLANO@HECO.COM

Freight Terms: NOT APPLICABLE
Payment Terms: Net 30
Original Purchase Order Date: 01/12/09

P O Line No.	Description	Delivery Date	Quantity Ordered	Unit of Purchase	Unit Price Without Tax	Extended Price Including Tax

ACKNOWLEDGED BY: _____
DATE: _____

INVA
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*****************************************************
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*                                                   *
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P.O. BOX 2750

HONOLULU HI 96840-0001

WP3 -VP
Page : 4

Purchase Order Number: V29171
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Send Invoice: HAWAIIAN ELECTRIC COMPANY, INC.
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Phone No.: 543-4368
Fax No.: 203-1799
E-Mail:
DAWN.CASTELLANO@HECO.COM

Freight Terms: NOT APPLICABLE
Payment Terms: Net 30
Original Purchase Order Date: 01/12/09

P O Line No.	Description	Delivery Date	Quantity Ordered	Unit of Purchase	Unit Price Without Tax	Extended Price Including Tax
	Section 12 Equal Opportunity for Disabled Veterans, Recently Separated Veterans, Other Protected Veterans, and Armed Forces Service Medal Veterans. (Applicable to (a) each contract of $25,000 or more entered into before December 31, 2003 (41 CFR 60-250.4) or (b) each federal government contract of $100,000 or more, entered into or modified on or after December 31, 2003 (41 CFR 60-300.4) for the purchase, sale or use of personal property or nonpersonal services (including construction).) If applicable, Seller agrees that it is, and shall remain, in compliance with the rules and regulations promulgated under The Vietnam Era Veterans Readjustment Assistance Act of 1974, as amended by the Jobs for Veterans Act of 2002, including the requirements of 41 CFR 60-250.5(a) (for orders/contracts entered into before December 31, 2003) and 41 CFR 60-300.5(a) (for orders/contracts entered into or modified on or after December 31, 2003) which are incorporated into this order/contract by reference.					

TOTAL Purchase Order: 245700.00
Page: 4 of 4

CA-IR-287
DOCKET NO. 2008-0083
ATTACHMENT 3
PAGE 4 OF 4

Request for Proposal

Hawaiian Electric Company Energy Management System Evaluation for High Penetration of Variable (Intermittent) Generating Resources, Distributed Resources, Load Management Resources, and Energy Storage

System Operation Department
Hawaiian Electric Company, Inc.

January 2009

Section 1 Background

The State of Hawaii's current Renewable Portfolio Standard ("RPS") includes 20% renewable energy by the year 2020. In addition to the State RPS, a new initiative, the Hawaii Clean Energy Initiative ("HCEI"),was introduced in 2008. This initiative calls for generating 40% of Hawaii's energy needs from renewable resources by 2030. In order to meet these objectives, Hawaiian Electric Company ("HECO") is moving forward with several projects: a 100 MW Renewable Energy Request For Proposal ("RFP"), grandfathered renewable power purchase agreements [e.g. 30 MW wind farm in Kahuku, OTEC facility on the West Side of Oahu, and a small Municipal Solid Waste ("MSW") plant also on the West Side of Oahu], Net Energy Metering ("NEM"), renewable distributed generation, and the incorporation of one to several large off-shore wind farms.

HECO is moving from central station traditional fossil-fueled generators that are dispatchable and almost no variable renewable generating resources towards incorporating renewable variable generating resources like wind and solar technologies. The electrical system is changing from several central station locations towards a system with more dispersed generation that are a combination of central station variable generation, central station bio-fueled dispatchable generation and distributed renewable generation (both variable and dispatchable sources). In addition to generating resources, other demand side management technologies on customer loads, and additional spinning reserve and battery storage technologies may be introduced.

HECO's Energy Management System ("EMS") is a Siemens Power-TG system, installed and made operational on March 31, 2006. With the change in direction in generation resources, HECO is requesting a scope of work proposal and cost estimate from KEMA Consulting Services to evaluate the requirements, the current ability, and the potential ability of HECO's EMS to handle a resource scenario involving the introduction of variable generation that may ultimately be 70% of the installed HECO generating capacity.

Section 2 Scope Of Work

The following describe the scope of work. Due to dependencies in other HECO studies, HECO would like KEMA to complete the Section 2.3 task first.

Section 2.1 Assess the amount and type of information, calculations, and scripts required to dispatch, monitor, and control generation resources with high penetrations of variable/intermittent generation, distributed resources, load management resources, and energy storage.

With HECO's input, KEMA will develop scenarios to study, evaluate, and recommend the amount and type of information required by the EMS to operate the HECO system. Scenarios should consider various levels of the following:

1) Net energy Metering Projects
2) Distributed Generation on the Subtransmission (46kV) and Distribution (12kV) systems - both dispatchable and variable distributed generation
3) Load Control Programs/Systems
4) Central Station Generation on the Transmission (138kV) system - both dispatchable and variable generating resources
5) Centralized and de-centralized storage systems

For each scenario, KEMA will provide an estimated number of required status, analog, accumulator and calculated points including the number of status and analog points requiring supervisory control.

The review should determine whether the current capabilities of the EMS can meet the scenario requirements. If not, then KEMA should identify what expansion and upgrades, including hardware, can be implemented in order for the EMS to meet the scenario requirements.

The assessment should include impacts on EMS performance and also impacts to peripheral systems such as the Dispatch Training Simulator ("DTS"), the Program Development System ("PDS"), the Back-up Control System ("BCS"), the Historian ("HIS"), the EMS PI system, the EMS Webconsoles, and the Outage Management System ("OMS").

The study should also include estimated costs and resource requirements necessary to implement and test the identified EMS changes.

Section 2.2 Automatic Generation Control ("AGC") Strategy Evaluation

HECO's current AGC strategy uses a 10 second control cycle with a 2 second data acquisition scan. Control to each generator is by pulse control with a single ramp rate and a static pulse definition. Evaluate the adequacy of the current control strategy in light of the envisioned generation resource mix. The evaluation should include the following:

1) Should the 10 second control cycle be increased or decreased?
2) Should variable pulse widths be utilized?
3) Should MW setpoint control be used in place of MW pulse control?
4) Can the generating unit configurations/definitions in AGC be tuned to improve frequency regulation?
5) What types of deadbands will be needed/can be programmed into the EMS for different levels of variable generating resources?
6) What "ACE Level" definitions should be used for different levels of variable generating resources?

The evaluation should also address requirements regarding the implementation of HECO's spinning reserves ("SR") and quick load pick up ("QLPU") rules.

Identify improvements that can be made to the AGC control strategy and what AGC/EMS expansion, if any, are required to implement these improvements. Determine if new or changes to existing scripts and reserve calculations are required. Identify associated required changes for the controls at the generating units. Include estimated costs and resource requirements needed to implement these AGC and generating unit changes.

For this task KEMA will also utilize experts from Siemens, and conduct workshops with HECO System Operation staff and HECO Power Supply O&M staff (who have knowledge of generator controls), to assess EMS capabilities including capabilities that exist but HECO is not currently utilizing.

Section 2.3 HECO Local Frequency Control Unit ("FCU") Strategy Evaluation

HECO's current frequency control strategy uses AGC to control frequency within a narrow band near 60 Hz. Outside of this band, HECO's generators disconnect from AGC and switch into an emergency mode that utilizes a local FCU controller to ramp the generator (faster than AGC does under the current AGC strategy) to drive frequency towards 60 Hz. Evaluate the adequacy of the current FCU strategy in light of the envisioned generation resource mix.

Determine whether the AGC can and should provide this emergency ramping in place of the local FCU controllers. Include estimated costs and resource requirements needed to implement this change.

Section 2.4 EMS Staff and Dispatch Staff Assessment

KEMA was utilized by HECO to integrate the EMS and the OMS. KEMA also reviewed HECO's current dispatch training program, observed HECO's operations, and provided

a roadmap for changing HECO's dispatcher training manuals and its formal training program. Therefore, given its in-depth knowledge of HECO's operations, in this task KEMA is asked to evaluate staffing requirements of the EMS staff, the dispatching staff, and the dispatch support staff that will be required to successfully operate the HECO system in an environment with the envisioned generation resource mix. KEMA will provide the following details for the staffing plan:

1) A future-state organization chart for System Operation as it pertains to the Operating Engineering Division (EMS / OMS Support) and the Operating Division (including the Supervising Load Dispatcher, Load Dispatcher and Trouble Dispatcher positions).
2) The amount of staff and any new positions required in the transition periods between the current state and the future state and the time frames for each of these transition states.
3) Brief job descriptions for each existing and new position on the organization chart, including the hours that each position will work (24/7, or 5 days per week, shift times), and if the positions (based on KEMA's brief job descriptions) should be a bargaining union position or a merit position.

Section 3 Cost Estimate and Schedule

In Section 3, KEMA will provide a Cost Estimate and Schedule for each task in Section 2. Where KEMA requires Siemens' assistance in this study, such as in Section 2.2, KEMA will contact Siemens and will include a cost estimate for Siemens' participation. The cost estimate for Siemens' work should be listed separately from KEMA's cost estimate.