DOD Privatization

12/20/2004 *O&M for All Depts with Loc 4:32PM

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000007	Ho, M	C&M	PDP	Planning	B37	Customer Services	910	Labor	111	PHE	150	64	8	8	8	8	8	8	8	8	0	0	0	0
												$2,254.72	$281.84	$281.84	$281.84	$281.84	$281.84	$281.84	$281.84	$281.84	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	C&M	PDP	Planning	B37							64	8	8	8	8	8	8	8	8	0	0	0	0
												$2,254.72	$281.84	$281.84	$281.84	$281.84	$281.84	$281.84	$281.84	$281.84	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	C&M	PDP									64	8	8	8	8	8	8	8	8	0	0	0	0
												$2,254.72	$281.84	$281.84	$281.84	$281.84	$281.84	$281.84	$281.84	$281.84	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	C&M	PDS	Supply Division	B37	Customer Services	910	Labor	111	PHE	150	107	14	13	13	14	13	14	13	13	0	0	0	0
												$3,982.96	$520.42	$484.34	$484.34	$520.42	$484.34	$520.42	$484.34	$484.34	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	C&M	PDS	Supply Division	B37							107	14	13	13	14	13	14	13	13	0	0	0	0
												$3,982.96	$520.42	$484.34	$484.34	$520.42	$484.34	$520.42	$484.34	$484.34	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	C&M	PDS									107	14	13	13	14	13	14	13	13	0	0	0	0
												$3,982.96	$520.42	$484.34	$484.34	$520.42	$484.34	$520.42	$484.34	$484.34	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	C&M										171	22	21	21	22	21	22	21	21	0	0	0	0
												$6,237.68	$802.26	$766.18	$766.18	$802.26	$766.18	$802.26	$766.18	$766.18	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	CID	PWP	Planning & Design	B37	Customer Services	910	Labor	111	PHE	150	96	12	12	12	12	12	12	12	12	0	0	0	0
												$3,345.60	$418.20	$418.20	$418.20	$418.20	$418.20	$418.20	$418.20	$418.20	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	CID	PWP	Planning & Design	B37							96	12	12	12	12	12	12	12	12	0	0	0	0
												$3,345.60	$418.20	$418.20	$418.20	$418.20	$418.20	$418.20	$418.20	$418.20	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	CID	PWP									96	12	12	12	12	12	12	12	12	0	0	0	0
												$3,345.60	$418.20	$418.20	$418.20	$418.20	$418.20	$418.20	$418.20	$418.20	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	CID	PWX	Engineering & Meter	B37	Customer Services	910	Labor	111	PHE	150	53	6	7	7	6	7	7	6	7	0	0	0	0
												$1,812.24	$205.23	$239.31	$239.31	$205.23	$239.31	$239.31	$205.23	$239.31	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	CID	PWX	Engineering & Meter	B37							53	6	7	7	6	7	7	6	7	0	0	0	0
												$1,812.24	$205.23	$239.31	$239.31	$205.23	$239.31	$239.31	$205.23	$239.31	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	CID	PWX									53	6	7	7	6	7	7	6	7	0	0	0	0
												$1,812.24	$205.23	$239.31	$239.31	$205.23	$239.31	$239.31	$205.23	$239.31	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	CID										149	18	19	19	18	19	19	18	19	0	0	0	0
												$5,157.84	$623.43	$657.51	$657.51	$623.43	$657.51	$657.51	$623.43	$657.51	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	Engineering	PBA	Admin-ED Engr	B37	Customer Services	910	Non-Labor	111	PHE	501	16,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	0	0	0	0
												$16,320.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	Engineering	PBA	Admin-ED Engr	B37							16,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	0	0	0	0
												$16,320.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	Engineering	PBA									16,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	0	0	0	0
												$16,320.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$2,040.00	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	Engineering	PBE	T&D Engineering	B37	Customer Services	910	Labor	111	PHE	150	359	45	45	44	45	45	45	45	45	0	0	0	0
												$12,031.88	$1,508.10	$1,508.10	$1,475.18	$1,508.10	$1,508.10	$1,508.10	$1,508.10	$1,508.10	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	Engineering	PBE	T&D Engineering	B37							359	45	45	44	45	45	45	45	45	0	0	0	0
												$12,031.88	$1,508.10	$1,508.10	$1,475.18	$1,508.10	$1,508.10	$1,508.10	$1,508.10	$1,508.10	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	Engineering	PBE									359	45	45	44	45	45	45	45	45	0	0	0	0
												$12,031.88	$1,508.10	$1,508.10	$1,475.18	$1,508.10	$1,508.10	$1,508.10	$1,508.10	$1,508.10	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	Engineering	PBY	Substn, Protect & Tel	B37	Customer Services	910	Labor	111	PHE	150	48	6	6	6	6	6	6	6	6	0	0	0	0
												$1,624.08	$203.01	$203.01	$203.01	$203.01	$203.01	$203.01	$203.01	$203.01	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	Engineering	PBY	Substn, Protect & Tel	B37							48	6	6	6	6	6	6	6	6	0	0	0	0
												$1,624.08	$203.01	$203.01	$203.01	$203.01	$203.01	$203.01	$203.01	$203.01	$0.00	$0.00	$0.00	$0.00

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Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
6	6	6	6	6	6	6	0	0	0	0
$203.01	$203.01	$203.01	$203.01	$203.01	$203.01	$203.01	$0.00	$0.00	$0.00	$0.00
3	2	3	3	3	3	3	0	0	0	0
$118.38	$78.92	$118.38	$118.38	$118.38	$118.38	$118.38	$0.00	$0.00	$0.00	$0.00
3	2	3	3	3	3	3	0	0	0	0
$118.38	$78.92	$118.38	$118.38	$118.38	$118.38	$118.38	$0.00	$0.00	$0.00	$0.00
3	2	3	3	3	3	3	0	0	0	0
$118.38	$78.92	$118.38	$118.38	$118.38	$118.38	$118.38	$0.00	$0.00	$0.00	$0.00
2,054	2,052	2,054	2,054	2,054	2,054	2,054	0	0	0	0
$869.49	$3,797.11	$3,869.49	$3,869.49	$3,869.49	$3,869.49	$3,869.49	$0.00	$0.00	$0.00	$0.00
40	40	40	40	40	40	40	0	0	0	0
$409.60	$1,409.60	$1,409.60	$1,409.60	$1,409.60	$1,409.60	$1,409.60	$0.00	$0.00	$0.00	$0.00
40	40	40	40	40	40	40	0	0	0	0
$409.60	$1,409.60	$1,409.60	$1,409.60	$1,409.60	$1,409.60	$1,409.60	$0.00	$0.00	$0.00	$0.00
40	40	40	40	40	40	40	0	0	0	0
$409.60	$1,409.60	$1,409.60	$1,409.60	$1,409.60	$1,409.60	$1,409.60	$0.00	$0.00	$0.00	$0.00
13	13	12	13	12	12	13	0	0	0	0
$517.53	$517.53	$477.72	$517.53	$477.72	$477.72	$517.53	$0.00	$0.00	$0.00	$0.00
13	13	12	13	12	12	13	0	0	0	0
$517.53	$517.53	$477.72	$517.53	$477.72	$477.72	$517.53	$0.00	$0.00	$0.00	$0.00
13	13	12	13	12	12	13	0	0	0	0
$517.53	$517.53	$477.72	$517.53	$477.72	$477.72	$517.53	$0.00	$0.00	$0.00	$0.00
53	53	52	53	52	52	53	0	0	0	0
$927.13	$1,927.13	$1,887.32	$1,927.13	$1,887.32	$1,887.32	$1,927.13	$0.00	$0.00	$0.00	$0.00
4	4	4	5	4	4	4	0	0	0	0
$129.56	$129.56	$129.56	$161.95	$129.56	$129.56	$129.56	$0.00	$0.00	$0.00	$0.00
4	4	4	5	4	4	4	0	0	0	0
$129.56	$129.56	$129.56	$161.95	$129.56	$129.56	$129.56	$0.00	$0.00	$0.00	$0.00
4	4	4	5	4	4	4	0	0	0	0
$129.56	$129.56	$129.56	$161.95	$129.56	$129.56	$129.56	$0.00	$0.00	$0.00	$0.00
4	4	4	5	4	4	4	0	0	0	0
$129.56	$129.56	$129.56	$161.95	$129.56	$129.56	$129.56	$0.00	$0.00	$0.00	$0.00
4	4	4	4	4	4	4	0	0	0	0
$179.40	$179.40	$179.40	$179.40	$179.40	$179.40	$179.40	$0.00	$0.00	$0.00	$0.00
4	4	4	4	4	4	4	0	0	0	0
$179.40	$179.40	$179.40	$179.40	$179.40	$179.40	$179.40	$0.00	$0.00	$0.00	$0.00
4	4	4	4	4	4	4	0	0	0	0
$179.40	$179.40	$179.40	$179.40	$179.40	$179.40	$179.40	$0.00	$0.00	$0.00	$0.00
4	4	4	4	4	4	4	0	0	0	0
$179.40	$179.40	$179.40	$179.40	$179.40	$179.40	$179.40	$0.00	$0.00	$0.00	$0.00
40	40	40	40	40	40	40	0	0	0	0
$226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$0.00	$0.00	$0.00	$0.00
40	40	40	40	40	40	40	0	0	0	0
$226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$0.00	$0.00	$0.00	$0.00

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	HARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000007	Ho, M	MAFS	PKF									320	40	40	40	40	40	40	40	40	0	0	0	0
												$9,814.40	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	MAFS										320	40	40	40	40	40	40	40	40	0	0	0	0
												$9,814.40	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$1,226.80	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	Reg Affairs	PNP	Regulatory Affairs	B37	Customer Services	910	Labor	111	PHE	150	32	4	4	4	4	4	4	4	4	0	0	0	0
												$981.44	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	Reg Affairs	PNP	Regulatory Affairs	B37							32	4	4	4	4	4	4	4	4	0	0	0	0
												$981.44	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	Reg Affairs	PNP									32	4	4	4	4	4	4	4	4	0	0	0	0
												$981.44	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$0.00	$0.00	$0.00	$0.00
P0000007	Ho, M	Reg Affairs										32	4	4	4	4	4	4	4	4	0	0	0	0
												$981.44	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$0.00	$0.00	$0.00	$0.00
P0000007												17,587	2,198	2,199	2,197	2,198	2,200	2,199	2,197	2,199	0	0	0	0
												$70,836.77	$8,840.94	$8,878.75	$8,806.37	$8,840.94	$8,911.14	$8,875.02	$8,864.86	$8,878.75	$0.00	$0.00	$0.00	$0.00

CA-IR-1

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted staffing and associated labor direct expense amounts included in the witnesses' portion of the rate case test period budget.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a), documenting all work done to determine required staffing levels and overtime hours by Department, RA, Activity and NARUC Account.

c. Describe the actual force level that existed at the date the budget was prepared or otherwise served as a base for purposes of preparing the budget level.

d. For each budgeted employee position that is added to existing actual force levels (as the date the budget was prepared), **explain** the analyses undertaken to determine that each added position was necessary and should be filled in order to meet present or anticipated work requirements. Also, please explain how the anticipated work requirements were defined and determined.

e. Describe and, to the extent possible, quantify the backlog of work, unfinished projects, deferred maintenance and other labor requirements unfulfilled at present staffing levels, that will be satisfied by adding the employee positions identified in your response to part (d).

f. Provide complete copies of all studies, analyses, workpapers, projections, notes, correspondence, assumptions and other documents associated with your responses to parts (d) and (e) above.

HECO Response:

a. Project P0000007, P1690000 – Michael Ho

b. Project P0000007 is a compilation of all of HECO's efforts to prepare proposals to respond to Requests for Proposals to privatize customer (e.g. military) owned distribution systems. Project P1690000 is a compilation of several smaller (less than $100,000) T&D Customer relocation projects. Since several smaller projects make up these larger projects, since these smaller projects within these larger projects are all similar in characteristic, and since it to difficult to estimate for each of these smaller projects individually, the forecasts for these

projects were developed based on actual expenditures that were incurred to the project and trended to account for escalation. Periodic adjustments are made when actual expenditures are reviewed and compared to forecasted amounts.

c. For other Departments, refer to appropriate Department for explanation of force level at date the budget was prepared. For Engineering Department:

1. PBE – T&D Engineering: Actual work force at time budget was prepared was 20.
2. PBY – Substn, Protect & Tel: Actual work force at time budget was prepared was 17.
3. PBZ – T&D Technical Svcs: Actual work force at time budget was prepared was

d. For other Departments, not applicable - refer to item c. above. For Engineering Department:

1. PBE – T&D Engineering: Additional employees added to bring work force level to 25 are to fill vacancies that existed at that time and not to meet present or anticipated work in this activity.
2. PBY – Substn, Protect & Tel: Additional employees added to bring work force level to 21 are to fill vacancies that existed at that time and not to meet present or anticipated work in this activity.
3. PBZ – T&D Technical Svcs: Additional employees added to bring work force level to 10 are to fill vacancies that existed at that time and not to meet present or anticipated work in this activity.

e. Not applicable.

f. Not applicable.

4:32PM

pr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
8.48	$66.48	$66.48	$66.48	$66.48	$66.48	$66.48	$66.48	$66.48
1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
8.48	$66.48	$66.48	$66.48	$66.48	$66.48	$66.48	$66.48	$66.48
1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
6.48	$66.48	$66.48	$66.48	$66.48	$66.48	$66.48	$66.48	$66.48
1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
6.48	$66.48	$66.48	$66.48	$66.48	$66.48	$66.48	$66.48	$66.48
8.12	8.12	8.12	8.12	8.12	8.77	8.77	8.77	8.77
9.04	$249.04	$249.04	$249.04	$249.04	$268.98	$268.98	$268.98	$268.98
8.12	8.12	8.12	8.12	8.12	8.77	8.77	8.77	8.77
9.04	$249.04	$249.04	$249.04	$249.04	$268.98	$268.98	$268.98	$268.98
8.12	8.12	8.12	8.12	8.12	8.77	8.77	8.77	8.77
9.04	$249.04	$249.04	$249.04	$249.04	$268.98	$268.98	$268.98	$268.98
4.00	975.00	974.00	933.00	1,018.00	978.00	1,061.00	933.00	933.00
0.60	$29,491.27	$29,460.60	,221.31	$30,729.02	$29,521.94	$32,760.47	$28,221.31	$28,221.31
3.33	1,703.33	1,703.33	,703.33	1,703.33	1,703.33	1,703.33	1,703.33	1,703.33
3.33	$1,703.33	$1,703.33	,703.33	$1,703.33	$1,703.33	$1,703.33	$1,703.33	$1,703.33
4.83	154.83	154.83	154.83	154.83	154.83	154.83	154.83	154.83
7.08	$387.08	$387.08	387.08	$387.08	$387.08	$387.08	$387.08	$387.08
0.00	0.00	0.00	220.00	0.00	0.00	4,000.00	0.00	0.00
7.60	$0.00	$0.00	214.12	$0.00	$0.00	$2,187.60	$0.00	$0.00
3.83	4,420.83	13,099.83	,420.83	4,420.83	13,099.83	4,420.83	4,420.83	13,100.83
3.83	$4,420.83	$13,099.83	,420.83	$4,420.83	$13,099.83	$4,420.83	$4,420.83	$13,100.83
3.75	638.75	638.75	638.75	638.75	638.75	638.75	638.75	638.75
3.75	$638.75	$638.75	638.75	$638.75	$638.75	$638.75	$638.75	$638.75
7.75	127.75	127.75	127.75	127.75	127.75	127.75	127.75	127.75
7.75	$127.75	$127.75	127.75	$127.75	$127.75	$127.75	$127.75	$127.75
9.49	8,020.49	18,698.49	198.49	8,061.49	18,700.49	12,126.49	7,978.49	18,658.49
9.94	$36,769.01	$45,417.34	713.18	$38,006.76	$45,478.68	$42,225.81	$35,499.05	$44,179.05
1.61	8,028.61	18,706.61	206.61	8,069.61	18,709.26	12,135.26	7,987.26	18,667.26
1.98	$37,018.05	$45,666.38	962.20	$38,255.80	$45,747.05	$42,494.78	$35,758.02	$44,446.02
1.28	8,030.28	18,708.28	208.28	8,071.28	18,710.93	12,136.93	7,989.93	18,668.93
.46	$37,064.53	$45,732.86	028.69	$38,322.28	$45,814.13	$42,561.26	$35,834.50	$44,514.50

S. Shim
GIR 1

PROJECT

Lbr/NLbr	*RA #	*Act #	Activity	*EE #	Exp Element	2005 Budget
Labor	PQC	110	Impl Mktg Pgm-Core	150	Labor Cost	$798
Labor						$798
Labor	PSN	110	Impl Mktg Pgm-Core	150	Labor Cost	$3,068
Labor	PSR	110	Impl Mktg Pgm-Core	150	Labor Cost	$353,638
Labor						$356,706
on-Labor	PSR	110	Impl Mktg Pgm-Core	205	Matl-Purchasing Card	$20,440
on-Labor	PSR	110	Impl Mktg Pgm-Core	301	Vehicles 5/10	$4,645
on-Labor	PSR	110	Impl Mktg Pgm-Core	462	IS Exp-PC Sftw Purch 5/10	$5,589
on-Labor	PSR	110	Impl Mktg Pgm-Core	501	Outside Svcs-General	$87,767
on-Labor	PSR	110	Impl Mktg Pgm-Core	520	Mainland Travel	$7,665
on-Labor	PSR	110	Impl Mktg Pgm-Core	521	Meals & Entertainment	$1,533
on-Labor						$127,639
						$485,143
Labor	PSA	102	Pl & Dev Mktg Pgm	150	Labor Cost	$5,050
Labor	PSF	102	Pl & Dev Mktg Pgm	150	Labor Cost	$3,822
Labor	PSM	102	Pl & Dev Mktg Pgm	150	Labor Cost	$3,822
Labor	PSR	102	Pl & Dev Mktg Pgm	150	Labor Cost	$1,433
Labor						$14,127
on-Labor	PSA	102	Pl & Dev Mktg Pgm	501	Outside Svcs-General	$100,000
on-Labor						$100,000
						$114,126
Labor	PSP	736	Pricing Anlys&Proposa	150	Labor Cost	$48,552
						$48,552
on-Labor	PSP	736	Pricing Anlys&Proposa	501	Outside Svcs-General	$50,000
						$50,000
						$98,552
Labor	PSR	110	Impl Mktg Pgm-Core	150	Labor Cost	$3,680
Labor						$3,680
on-Labor	PSR	110	Impl Mktg Pgm-Core	501	Outside Svcs-General	$15,000
on-Labor						$15,000
						$18,680
					TOTAL	$716,501

SSHIMMER PROJECTS

INFO - RECAP

P0000032
SUPPORT

Shimoda, Stanley QC

From: Shimoda, Stanley
Sent: Monday, August 11, 2003 9:20 AM
To: Unemori, Lynne
Cc: Fetherland, Paul
Subject: RE: Marketing publications labor forecast

Lynne,
I discussed with Paul, Corp Comm involvement with his Marketing Publications program. Currently, the Pillar files shows annual hours as follows: 20 hours - FS and 50 hours -TC for Y2004 and beyond. In discussion with Paul, he would like to keep the 20 hours for FS. This would allow for review time by you for Paul's marketing publications. However, we will delete the 50 hours of TC time since this won't be needed.

End result: we will maintain 20 hours of FS hours annually from Y2004 and beyond in our Pillar Project File:

****
Stanley Shimoda
Energy Services Dept.
CP10-SM
Phone: (808) 543-4768
FAX: (808) 543-4747
****

-----Original Message-----
From: Fetherland, Paul
Sent: Sunday, August 10, 2003 8:24 AM
To: Unemori, Lynne; Shimoda, Stanley
Subject: RE: Marketing publications labor forecast

Oh.....a complexity to my budget.....

Lynne: Our electronic Powerlines is limited to installation on HECO.com in PDF format. We are not automatically emailing the publication to customers although the account managers are free to do this is they want to. In terms of review by Corp Comm, I'll check with Tracy. It was my understanding that Corp Comm was part of the review loop but maybe my totally unreasonable schedule pressures has caused a tear in the review loop.

-----Original Message-----
From: Unemori, Lynne
Sent: Sat 8/9/2003 11:56 PM
To: Shimoda, Stanley
Cc: Fetherland, Paul
Subject: FW: Marketing publications labor forecast

ooops...your name got deleted from the "to" line before I hit the send button.

-----Original Message-----
From: Unemori, Lynne
Sent: Sat 8/9/2003 11:55 PM
To:

SN-TC

SN Division
2005 Labor Forecast Assumptions

Labor Assumptions used to allocate Productive hours for 2005.
(A/0 Féb. 11,2004. 2005 TC hours were revised for 2005 Test Year)
(2005 numbers adjusted from prior 2005 for TC to allow for additional TC in 2005)
Allocation below based on:

- Discussion with Rich Lee
- Review of Actual Hours for 2003 (for revised 2005)
- Resource Req. submitted by CIS Repl. Project(2005 via discussion with Lynn Bronaugh)
- Resource Req. submitted by M. Ho for Privatization

(NOTE: Forecast made to major activities only. No forecast made for activities with minimal charges.

Most time spent by SN Division is related to Act. 102/112.
After accounting for specific activity hours, remaining productive hours will be allocated 55% to Act. 102 and 45% to Act. 112 for all Labor Classes.

Director (R. Lee)	Y2005	
Avail Hrs.	2,080	
Holiday	96	
Vacation	120	
Privatization--Act. 111 (from M. Ho) -- NE	160	(PROJECT)
Privatization--Act. 111 (from M. Ho) -- NP	241	(PROJECT)
CIS Replacement -- O&M (from T. Hull)	0	(PROJECT)
CIS Replacement -- Deferred (from T. Hull)	0	(PROJECT)
Plan & Determine Trg./PA s (Act. 785)	70	
Remaining Prod. Hours Left to Allocate	1,393	
These Hrs. will be allocated as follows:		
55% to Act. 102		
45% to Act. 112		

Joyce (BUOC)	Y2005
Avail Hrs.	2,080
Holiday	96
Vacation	200
CIS Replacement -- O&M (from T. Hull)	0
Process Payroll (Act. 777)	90
Remaining Prod. Hours Left to Allocate	1,694
These Hrs. will be allocated as follows:	
55% to Act. 102	
45% to Act. 112	

Teacher/Coaches (10 in 2005))	Y2005	
Avail Hrs.	20,800	
Holiday	960	
Vacation	1,080	
HP Consulting (P0000032-C0000580)	100	(PROJECT)
All Electric Sub. Promo (P0000034-C0000586)	90	(PROJECT)
Training	110	
EMS Proj. Mgmt (P4150000)	96	(PROJECT)
Privatization(from M. Ho P0000007)-NE	160	(PROJECT)
CIS Replacement -- Deferred (from Lynn Bronaugh in 2005)	480	(PROJECT)
Remaining Prod. Hours Left to Allocate	17,724	
These Hrs. will be allocated as follows:		
55% to Act. 102		
45% to Act. 112		

Vacation	Y2005
David K	200
Dan S	120
Corrine C	120
Steve L	120
Jim M	120
Ruby S	120
Bill C	80
Bill L	80
New (2)	120
	1,080

RA) PSN
/ Date

)1	Activity		
AH	Location		
I	Indicator		HOURS
4150000	Project/WO		NET
50	EE #		TO BE
:T (extended to 06)			SPREAD
Dollar Amount	ST(101)*	Dollar Amount	
250.80		0.00	1632
250.80		0.00	1452
250.80		0.00	1692
250.80		0.00	1592
250.80		0.00	1587
250.80		0.00	1587
250.80		0.00	1512
250.80		0.00	1667
250.80		0.00	1587
250.80		0.00	1492
250.80		0.00	1462
250.80		0.00	1402
3,009.60	0	0.00	18664

RIVATIZATION	Activity	CIS REPLACEME	HOURS
	Location		NET
	Indicator		TO BE
	Project/WO		SPREAD
50	EE #	150	(sb be 0)
M. Ho	CIS REPLACEMENT		
E	(DEFERRED)		
Dollar Amount	ST(101)*	Dollar Amount	**
627.00		0.00	1595
627.00		0.00	1415
627.00		0.00	1655
627.00	16	501.60	1538
627.00	24	752.40	1526
627.00	32	1,003.20	1513
627.00	88	2,758.80	1376
627.00	40	1,254.00	1590
0.00	120	3,762.00	1449
0.00	64	2,006.40	1400
0.00	96	3,009.60	1328
0.00		0.00	1339
5,016.00	480	15,048.00	17724

2/19/20049:59 AM

SP-TS (PILOT)

maining Hours Allocated Based On Percentages From Allocate-TC Sheet

	Activity				Activity	140		Activity	110		Activity	110		Activity	110		HOURS
	Location	PHE			Location	PHE		Location	PHE		Location	PHE		Location	PHE		NET
otal	Indicator				Indicator	NN		Indicator	NE		Indicator	NE		Indicator	NE		TO BE
ours	Project				Project/WO	P0000631 (BTL)		Project/WO	P0000032		Project/WO	P0000032		Project/WO	P0000032		SPREAD
hainin	EE #	150			EE #	150		EE #	150		EE #	150		EE #	150		(sb be 0)
					C0000587			C0000577			C0000578			C0000580			
	(Intentionally Blank)				All Electric A/C Program (BTL Portion)			(Cool Storage Program)			(Marketing Publications) (Powerlines, Energy Answers)			(Heat Pump Support) (HP Consulting)			
be				Dollar			Dollar		Dollar			Dollar			Dollar		**
read	ST(101)*			Amount	ST(101)*		Amount	ST(101)*	Amount		ST(101)*	Amount		ST(101)*	Amount		
158	0			0.00	0		0.00	0	0.00		8	339.28		8	339.28		142
142	0			0.00	0		0.00	0	0.00		7	296.87		7	296.87		128
166	0			0.00	0		0.00	0	0.00		8	339.28		8	339.28		150
158	0			0.00	0		0.00	0	0.00		8	339.28		8	339.28		142
158	0			0.00	0		0.00	0	0.00		8	339.28		8	339.28		142
158	0			0.00	0		0.00	0	0.00		8	339.28		8	339.28		142
150	0			0.00	0		0.00	0	0.00		8	339.28		8	339.28		134
166	0			0.00	0		0.00	0	0.00		8	339.28		8	339.28		150
158	0			0.00	0		0.00	0	0.00		8	339.28		8	339.28		142
150	0			0.00	0		0.00	0	0.00		8	339.28		8	339.28		134
150	0			0.00	0		0.00	0	0.00		8	339.28		8	339.28		134
150	0			0.00	0		0.00	0	0.00		8	339.28		8	339.28		134
1864	0			0.00	0		0.00	0	0.00		95	4,028.95		95	4,028.95		1674

	Activity	110			Activity	110		Activity	110		Activity	110		Activity	110		HOURS
	Location	PHE			Location	PHE		Location	PHE		Location	PHE		Location	PHE		NET
otal	Indicator	NE			Indicator	NE		Indicator	NE		Indicator	NE		Indicator	NE		TO BE
ours	Project	P0000032			Project/WO	P0000032		Project/WO	P0000032		Project/WO	P0000032		Project/WO	P0000032		SPREAD
hainin	EE #	150			EE #	150		EE #	150		EE #	150		EE #	150		(sb be 0)
	C0000581				C0000582			C0000583			C0000584			C0000579			
	(Residential A/C-Educate)				(PQ Consulting/Support)			(Electric Vehicles)			(New Construction)			(ET Support)			
be				Dollar			Dollar		Dollar			Dollar			Dollar		**
read	ST(101)*			Amount	ST(101)*		Amount	ST(101)*	Amount		ST(101)*	Amount		ST(101)*	Amount		
142	0			0.00	24		1,017.84	0	0.00		16	678.56		13	551.33		89
128	0			0.00	21		890.61	0	0.00		14	593.74		11	466.51		82
150	0			0.00	25		1,060.25	0	0.00		17	720.97		13	551.33		95
142	0			0.00	24		1,017.84	0	0.00		16	678.56		13	551.33		89
142	0			0.00	24		1,017.84	0	0.00		16	678.56		13	551.33		89
142	0			0.00	24		1,017.84	0	0.00		16	678.56		13	551.33		89
134	0			0.00	23		975.43	0	0.00		15	636.15		12	508.92		84
150	0			0.00	25		1,060.25	0	0.00		17	720.97		13	551.33		95
142	0			0.00	24		1,017.84	0	0.00		16	678.56		13	551.33		89
134	0			0.00	23		975.43	0	0.00		15	636.15		12	508.92		84
134	0			0.00	23		975.43	0	0.00		15	636.15		12	508.92		84
134	0			0.00	23		975.43	0	0.00		15	636.15		12	508.92		84
1674	0			0.00	283		12,002.03	0	0.00		188	7,973.08		150	6,361.50		1053

CA-IR-1 & 2
DOCKET NO. 04-0113
PROJECT NO. P0000032
PAGE 8 OF 16

SR-DIRECTOR

	Activity	140			Activity	140	Activity	140	Activity	731	HOURS
	Location	OUT			Location	OUT	Location	OUT	Location	PHE	NET
	Indicator	BN			Indicator	BN	Indicator	BN	Indicator	NE	TO BE
	Project/WO	P0000160			Project/WO	P0000160	Project/WO	P0000160	Project/WO	P0000036	SPREAD
	EE #	150			EE #	150	EE #	150	EE #	150	(sb be 0)
									C0000603		
rt)	(BTL HECO -- TOTAL FOR ALL PROJECTS)				(BTL HECO FTE-Coconut Isl		(BTL HECO FTE-UH)		(Local R&D Admin)		
Dollar Amount	ST(101)*		TOTAL BTL	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	77
169.64	0		7	0.00	7	296.87	0	0.00	0	0.00	71
169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	83
169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	77
169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	77
169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	77
169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	72
169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	83
169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	77
169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	72
169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	72
169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	72
2,035.68	0		95	0.00	95	4,028.95	0	0.00	0	0.00	910

	Activity	101			Activity	789	Activity	785	Activity	131	HOURS
	Location	PHE			Location	PHE	Location	PHE	Location	PHE	NET
	Indicator	NE			Indicator	NE	Indicator	NE	Indicator	NN	TO BE
	Project/WO	NPSZZZZZ			Project/WO	NPSZZZZZ	Project/WO	NPSZZZZZ	Project/WO	P0000531	SPREAD
	EE #	150			EE #	150	EE #	150	EE #	150	(sb be 0)
									PROSPECTING -Nonproj. (BTL Contract Prospecting & Balance Hours)		
it)	(Develop Marketing Plan-Regulated)				(Employee Training)		(Perform Appraisals)				
Dollar Amount	ST(101)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
127.23	8			339.28	3	127.23	8	339.28	55	2,332.55	0
127.23	7			296.87	3	127.23	7	296.87	51	2,162.91	0
127.23	8			339.28	3	127.23	8	339.28	61	2,587.01	0
127.23	8			339.28	3	127.23	8	339.28	55	2,332.55	0
127.23	8			339.28	3	127.23	8	339.28	55	2,332.55	0
127.23	8			339.28	3	127.23	8	339.28	55	2,332.55	0
127.23	8			339.28	3	127.23	8	339.28	50	2,120.50	0
127.23	8			339.28	3	127.23	8	339.28	61	2,587.01	0
127.23	8			339.28	3	127.23	8	339.28	55	2,332.55	0
127.23	8			339.28	3	127.23	8	339.28	50	2,120.50	0
127.23	8			339.28	3	127.23	8	339.28	50	2,120.50	0
127.23	8			339.28	3	127.23	8	339.28	50	2,120.50	0
1,526.76	95			4,028.95	36	1,526.76	95	4,028.95	648	27,481.68	0

le hours = Forecast hours)
echeck work.

Allocate-Dir2005

SR-DIRECT

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	LABOR Allocation Projections-Fac Sup Category													
2	HECO 2005 Forecast For SR Division													
3														
4														
5	Top Level Summary													
6	Activity Name			Mktg Progs Core (from breakdown below)	HECO Local R&D Develop & Administar (Minimum Hrs Assigned To Teacher Coach Cateogry)	BTL Labor (BOA) - For HECO FTE's (from breakdown below)	New Prod Develop	Develop Mktg Plan (Regulated)	Employee Training	Develop Train Needs Perform Appraisals	BTL (Non-Reg) Project Prospecting	Total Manhour Percentage		
7	Activity Number			110	731	140	103	101	789	785	131			
8	Project Name													
9	Project Number													
10														
11	CTAD Director			46%	0%	5%	2%	5%	2%	5%	35%	100%		
12														
13	Totals >>			46%	0%	5%	2%	5%	2%	5%	35%	100%		
14														
15	% of SR Division			46%	0%	5%	2%	5%	2%	5%	35%	100%		
16	Man Equivalents >>			0.46	0.00	0.05	0.02	0.05	0.02	0.05	0.35	1.00		
17														
18														
19	Breakdown of Top Level Summaries To Project Level - Only Those That Require Details Are Broken Down													
20														
21	Activity Name			Mktg Progs Core										Mktg Progs Core
22	Activity Number			110										110
23	Project Name			Cool Storage	Mktg Pubs (Powerlines)	Heat Pump Consulting	Resident A/C Education	Power Quality Consulting (incl support)	Electric Vehicles	New Construct Tech Support	Apply and Support Electrotechs	Small Commercial Business Support	Inter-Company Billables (360 hrs as MECO and HELCO)	Total Manhour Percentage
24	Project Number			C0000577	C0000578	C0000580	C0000581	C0000582	C0000583	C0000584	C0000579	C0000585		
25														
26	CTAD Director			0%	5%	5%	0%	15%	0.00%	10%	8%	2.5%	0%	46%
27														
28														
29														
30														
31														
32														
33														
34														
35														
36														
37	Total			0%	5%	5%	0%	15%	0%	10%	8%	3%	0%	46%
38														
39	Man Equivalent			0	0.05	0.05	0	0.15	0	0.1	0.08	0.025	0	0.455
40														
41														
42	Activity Name			BTL BOA Projects -Gov and Non-Gov					BTL BOA Projects - Gov and Non-Gov					
43	Activity Number			140					140					
44	Project Name			USDA Fruitfly Project	DOD **	UH Partnership	All Electric A/C Program Coupon Processing, etc.	Coconut Island BTL	Total Manhour Percent For This Activity					
45	Project Number			Project Has Been Terminated	Completed	Completed								
46														
47	CTAD Director			0%	0%	0%	0%	5%	5%					
48														
49	Total			0%	0%	0%	0%	5%	5%					
50														
51	Man Equivalent			0	0	0	0	0.05	0.05					
52														
53					**Note: DOO Broken Out Only For Teacher-Coach Hours									
54														

TC Sheet. Use ROUND function on hours for preciseness of displayed values.

	Activity	110		Activity	110		Activity	110		HOURS
	Location	PHE		Location	PHE		Location	PHE		NET
	Indicator	NE		Indicator	NE		Indicator	NE		TO BE
	Project/WO	P0000032		Project/WO	P0000032		Project/WO	P0000032		SPREAD
	EE #	150		EE #	150		EE #	150		(sb be 0)
	C0000577			C0000578			C0000580			
	(HVAC & Cool Storage Program)			(Marketing Publications) (Powerlines Newsletter)			(Heat Pump Support) (HP Consulting)			
m										
r		Dollar			Dollar			Dollar		**
nt	ST(101)*	Amount		ST(101)*	Amount		ST(101)*	Amount		
0.00	92	2,884.20		36	1,128.60		119	3,730.65		827
0.00	83	2,602.05		32	1,003.20		107	3,354.45		743
0.00	97	3,040.95		38	1,191.30		125	3,918.75		869
0.00	92	2,884.20		36	1,128.60		119	3,730.65		826
0.00	92	2,884.20		36	1,128.60		119	3,730.65		827
0.00	92	2,884.20		36	1,128.60		119	3,730.65		826
0.00	87	2,727.45		34	1,065.90		113	3,542.55		784
0.00	97	3,040.95		38	1,191.30		125	3,918.75		869
0.00	92	2,884.20		36	1,128.60		119	3,730.65		827
0.00	87	2,727.45		34	1,065.90		113	3,542.55		785
0.00	87	2,727.45		34	1,065.90		113	3,542.55		784
0.00	87	2,727.45		34	1,065.90		113	3,542.55		784
0.00	1085	34,014.75		424	13,292.40		1404	44,015.40		9751
	754+			269			986+			

	Activity	110		Activity	110		Activity	110		HOURS
%/50%	Location	PHE		Location	PHE		Location	PHE		NET
2)	Indicator	NE		Indicator	NE		Indicator	NE		TO BE
82	Project/WO	P0000032		Project/WO	P0000032		Project/WO	P0000032		SPREAD
0.5	EE #	150		EE #	150		EE #	150		(sb be 0)
	C0000583			C0000584			C0000579			
	(Electric Vehicles)			(New Construction)			(ET Support)			
r		Dollar			Dollar			Dollar		**
nt	ST(101)*	Amount		ST(101)*	Amount		ST(101)*	Amount		
24.90	0	0.00		59	1,849.65		79	2,476.65		303
33.60	0	0.00		53	1,661.55		71	2,225.85		272
99.50	0	0.00		62	1,943.70		83	2,602.05		341
60.60	0	0.00		59	1,849.65		79	2,476.65		320
91.95	0	0.00		59	1,849.65		79	2,476.65		320
60.60	0	0.00		59	1,849.65		79	2,476.65		320
15.75	0	0.00		56	1,755.60		75	2,351.25		296
99.50	0	0.00		62	1,943.70		83	2,602.05		341
91.95	0	0.00		59	1,849.65		79	2,476.65		320
86.90	0	0.00		56	1,755.60		75	2,351.25		148
15.75	0	0.00		56	1,755.60		75	2,351.25		296
15.75	0	0.00		56	1,755.60		75	2,351.25		296
96.75	0	0.00		696	21,819.60		932	29,218.20		3573
				480+			645+			

2004 7:37 AM

Alloc... TC2005

F	G	H	I	J	K	L	M	N	O
DSM CICR Program Support incremental (x forecasted)	HECO Local R&D Develop & Administer (Only TC Category Has Hours)	BTL Labor (BOA) - For HECO FTE's (from BTL Breakdown below)	New Prod Develop	Develop Mktg Plan (Regulated)	Employee Training	Develop Train Needs Perform Appraisals	BTL Contract Prospecting	Total Manhour Percentage	
	731	140	103	101	789	785	131		
alues Entered Directly Into Labor Sheet Before Allocating Normal CTAD Hours Similar To How ICBs are Handled	Planning & Engineering Has Assumed This Responsibility	Adjustment Factor 1.00	(Dir/BU Only)						Engineer No.
0%	0.0%	10%	0%	2%	2%	1%	35.0%	100.0%	1
0%	0.0%	10%	0%	2%	2%	1%	31.0%	100.0%	2
0%	0%	10%	0%	2%	2%	1%	31%	100.0%	3
0%	0.0%	10%	0%	2%	2%	1%	31.0%	100.0%	4
0%	0.0%	0%	0%	0%	0%	0%	0.0%	0.0%	5
0%	0.0%	5%	0%	2%	2%	1%	31.0%	100.0%	6
0%	0.0%	5%	0%	2%	2%	1%	35.0%	100.0%	7
0%	0.0%	0%	0%	0%	0%	0%	0.0%	0.0%	8
0%	0.0%	5%	0%	2%	2%	1%	31.0%	100.0%	9
0%	0%	55%	0%	14%	14%	7%	225.0%	700.0%	
0%	0%	7.86%	0%	2%	2%	1%	32%	100.0%	
0.00	0.00	0.55	0.00	0.14	0.14	0.07	2.25	700.0%	
etails Are Broken Down								Mktg Progs Core 110	
Heat Pump Consulting	Residental A/C Education	Power Quality Consulting (incl support)	Electric Vehicles-Rapid Charger Data Collection For PUC Reporting (Completed In 2003)	New Construct Tech Support	Apply and Support Electrotechs	Small Commercial Business Support	Inter-Company Billables (Non-SWAT Stuff For MECO and HELCO)	Total Manhour Percentage	
C0000580	C0000581	C0000582	C0000583	C0000584	C0000579	C0000585			
12%	2%	0%	0%	6%	10%	2%	0%	50.0%	
3%	0%	40%	0%	3%	3%	0%	0%	54.0%	
3%	0%	40%	0%	3%	3%	0%	0%	54.0%	
15%	2%	0%	0%	10%	5%	2%	0%	54.0%	
0%	0%	0%	0%	0%	0%	0%	0%	0.0%	
3%	0%	4%	0%	3%	8%	2%	0%	59.0%	
13%	2%	0%	0%	10%	15%	2%	0%	55.0%	
0%	0%	0%	0%	0%	0%	0%	0%	0.0%	

Each Engin Total 1

Entries are all Zero in this column due to ICB Hours being picked up first in the labor sheet, then the remaining hours are spread out with the percentages developed by this sheet

	Activity	110	HOURS
	Location	PHE	NET
	Indicator	NE	TO BE
2	Project/WO	P0000032	SPREAD
	EE #	150	(sb be 0)
	C0000580		
ons)	(Heat Pump Support)		
Answers)	(Heat Pump Consulting)		
ar int	ST(101)*	Dollar Amount	**
733.76	24	550.32	75
642.04	21	481.53	69
756.69	25	573.25	80
733.76	24	550.32	75
733.76	24	550.32	75
733.76	24	550.32	75
687.90	23	527.39	71
756.69	25	573.25	80
733.76	24	550.32	75
687.90	23	527.39	71
687.90	23	527.39	71
687.90	23	527.39	71
575.82	283	6,489.19	888

	Activity	110	HOURS
	Location	PHE	NET
	Indicator	NE	TO BE
2	Project/WO	P0000032	SPREAD
	EE #	150	(sb be 0)
	C0000579		
	(ET Support)		
ar int	ST(101)*	Dollar Amount	**
183.44	8	183.44	16
160.51	7	160.51	17
183.44	8	183.44	19
183.44	8	183.44	16
183.44	8	183.44	16
183.44	8	183.44	16
183.44	8	183.44	14
183.44	8	183.44	19
183.44	8	183.44	16
183.44	8	183.44	14
183.44	8	183.44	14
183.44	8	183.44	14
178.35	95	2,178.35	191

SR-BU

ctivity	110			Activity	140			Activity	140		Activity	140		Activity	731		HOURS
ocation	PHE			Location	OUT			Location	OUT		Location	OUT		Location	PHE		NET
ndicator	NE			Indicator	BN			Indicator	BN		Indicator	BN		Indicator	NE		TO BE
roject	P0000032			Project/WO	P0000160			Project/WO	P0000033		Project/WO	P0000033		Project/WO	P0000036		SPREAD
E #	150			EE #	150			EE #	150		EE #	150		EE #	150		(sb be 0)
0000585														C0000603			
Small Commercial Support)														(Local R&D Admin)			
ST(101)*			Dollar Amount	ST(101)*		TOTAL BTL	Dollar Amount	ST(101)*		Dollar Amount	ST(101)*		Dollar Amount	ST(101)*		Dollar Amount	**
3			68.79	0		3	0.00	0		0.00	0		0.00	0		0.00	13
3			68.79	0		3	0.00	0		0.00	0		0.00	0		0.00	14
3			68.79	0		3	0.00	0		0.00	0		0.00	0		0.00	16
3			68.79	0		3	0.00	0		0.00	0		0.00	0		0.00	13
3			68.79	0		3	0.00	0		0.00	0		0.00	0		0.00	13
3			68.79	0		3	0.00	0		0.00	0		0.00	0		0.00	13
3			68.79	0		3	0.00	0		0.00	0		0.00	0		0.00	11
3			68.79	0		3	0.00	0		0.00	0		0.00	0		0.00	16
3			68.79	0		3	0.00	0		0.00	0		0.00	0		0.00	13
3			68.79	0		3	0.00	0		0.00	0		0.00	0		0.00	11
3			68.79	0		3	0.00	0		0.00	0		0.00	0		0.00	11
3			68.79	0		3	0.00	0		0.00	0		0.00	0		0.00	11
36			825.48	0		36	0.00	0		0.00	0		0.00	0		0.00	155

ctivity	102			Activity	101			Activity	789		Activity	785		Activity	131		HOURS
ocation	PHE			Location	PHE			Location	PHE		Location	PHE		Location	PHE		NET
ndicator	NE			Indicator	NE			Indicator	NE		Indicator	NE		Indicator	NN		TO BE
roject	P00000034			Project/WO	NPSZZZZZ			Project/WO	NPSZZZZZ		Project/WO	NPSZZZZZ		Project/WO	P0000531		SPREAD
E #	150			EE #	150			EE #	150		EE #	150		EE #	150		(sb be 0)
0004564														PROSPECTING-Nonproj. (BTL Contract Prospecting & Balance Hours)			
New Product Development)				(Develop Marketing Plan-Regulated)				(Employee Training)			(Perform Appraisals)						
ST(101)*			Dollar Amount	ST(101)*			Dollar Amount	ST(101)*		Dollar Amount	ST(101)*		Dollar Amount	ST(101)*		Dollar Amount	**
0			0.00	5			114.65	6		137.58	2		45.86	0		0.00	0
0			0.00	4			91.72	6		137.58	1		22.93	3		68.79	0
0			0.00	5			114.65	7		160.51	2		45.86	2		45.86	0
0			0.00	5			114.65	6		137.58	2		45.86	0		0.00	0
0			0.00	5			114.65	6		137.58	2		45.86	0		0.00	0
0			0.00	5			114.65	6		137.58	2		45.86	0		0.00	0
0			0.00	5			114.65	6		137.58	0		0.00	0		0.00	0
0			0.00	5			114.65	7		160.51	4		91.72	0		0.00	0
0			0.00	5			114.65	6		137.58	2		45.86	0		0.00	0
0			0.00	5			114.65	6		137.58	0		0.00	0		0.00	0
0			0.00	5			114.65	6		137.58	0		0.00	0		0.00	0
0			0.00	5			114.65	6		137.58	0		0.00	0		0.00	0
0			0.00	59			1,352.87	74		1,696.82	17		389.81	5		114.65	0

ata Entry Field
hould be all zeros. (Available hours = Forecast hours)
s other than zero appear, recheck work.

Allocate-BU2005

SR-BU

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	LABOR Allocation Projections-BU-OC Category													

rassumptions_20(lsSR Nonlabor Assumptions

EE#	Description	Coding	CY2005	Comments
205	Material Purchase	PSR-110-PHE-NE-P00000032	$20,440	Cost of supplies for daily operations including special plotter paper, printer supplies, ink cartridges, field materials to support customer projects, etc.
301	Pool Vehicles	PSR-110-PHE-NE-P00000032	$5,110	CY2005 Estimate Based On 25% of staff operating vehicles for 2 hrs per day. Other vehicle charges forecasted thru BOA projects.
462	ISD Expenses - NonCore Software (MSProject, Visio, etc.)	PSR-110-PHE-NE-P00000032	$5,110	Maintain old 2003 Budget Level and provide maintenance of large format plotter.
501	Outside Services - General (includes consultants, supplies, utilities, memberships, training, etc.)	PSR-110-PHE-NE-P00000032	$25,550	Y2003: Maintained 2002 Budget Level. Increase made for Y2004.
503	Outside Services - Temporary Contract Hires		$0	Contract employees who are not working on BOA or DSM projects will be treated as variances on budget. Do not anticipate any costs here.
520	Mainland Travel	PSR-110-PHE-NE-P00000032	$7,665	No mainland travel for 2003. For 2004, four trips planned.
521	Meals & Entertainment	PSR-110-PHE-NE-P00000032	$1,533	Budget based on each staff member meeting a commercial customer once per month.
522	Interisland Travel (HELCO ICB Interisland estimate)	Forecasted as Billables	$5,044	See Billable information for detail.
			$70,452	
	Residential Power Quality Support	PSR-110-PHE-NE-P0000283	$15,000	Maintain 2002 Budget Level
	HPWH Edcuational Workshops, Projects & Studies	PSR-110-PHE-NE-P0000032 (C0000580)	$20,000	Increase Funding By Reducing HVAC & Cool Storage
	HVAC & Cool Storage Promotion, Projects & Studies	PSR-110-PHE-NE-P0000032 (C0000577)	$5,000	Reduce Funding and Shift Some Funds Over To HPWH Technology
	Electrotech Promotion, Projects & Studies	PSR-110-PHE-NE-P0000032 (C0000579)	$10,000	Maintain 2002 Budget Level
	Power Quality Promotion, Projects & Studies	PSR-110-PHE-NE-P0000032 (C0000582)	$10,000	Maintain 2002 Budget Level
	Electric Vehicle Promotion	PSR-110-PHE-NE-P0000032 (C0000583)	$0	Eliminate. No expenditures for Y2005 period anticipated.
	Publications (Powerlines, Energy Answers, etc.)	PSR-110-PHE-NE-P0000032 (C0000578)	$14,717	Publication moved to ELECTRONIC at Development Cost of $3600 per issue escalated in CY2005 by 2.2%.
	New Construction Development/Support	PSR-110-PHE-NE-P0000032 (C0000584)	$2,500	Decrease in Y2004 and Y2005 from Y2002 level.
	PCEA Travel/Lodging (3 People)	PSR-102-PHE-NE-NPSZZZZZ	$2,700	No PCEA in 2004. PCEA in 2005
			$79,917	
	All Electric A/C Program (Graphic Art, Coupon Printing, Coupon Rebates - All Are BTL Expenses)	PSR-140-PHE-NN-P0000031	$0	Program Cancelled For 2004 and 2005.
			$0 = 87,767	
	BTL HPWH Incentive Program	PSR-140-PHE-NN-P0000031	$100,000	Maintain 2003 and 2004 Budget Level
CTIVITIES)	BOA (all to P0000160 for 2005)			
	Revenues (NRF)	PSR-015-OUT-BN-P0000160	($700,000)	Best estimate of contract awards
	Project Expenses (Nonlabor)	PSR-015-OUT-BN-P0000160	$590,806	Expenses Projected At 84% of Revenues
	HECO Labor/Overheads (SR and SM Combined)	PSR-015-OUT-BN-P0000160	$69,133	
	4% State GET	PSR-015-OUT-BN-P0000160	$5,160	
	Profit		($34,901)	Total Expenses Projected At 95% of Revenues
EFORTS (P0000531)		Forecasted By Rick McQuain's		Forecasted By Rick McQuain's Division

4:32PM

ar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
8	8	8	8	8	8	8	8	8	8
0.60	$420.60	$420.60	$420.60	$420.60	$420.60	$420.60	20.60	$420.60	$420.60
3.33	8,333.33	8,333.33	8,333.33	8,333.33	8,333.33	8,333.33	33.33	8,333.33	8,333.33
3.33	$8,333.33	$8,333.33	$8,333.33	$8,333.33	$8,333.33	$8,333.33	33.33	$8,333.33	$8,333.33
1.33	8,341.33	8,341.33	8,341.33	8,341.33	8,341.33	8,341.33	41.33	8,341.33	8,341.33
4.13	$8,754.13	$8,754.13	$8,754.13	$8,754.13	$8,754.13	$8,754.13	54.13	$8,754.13	$8,754.13
1.33	8,341.33	8,341.33	8,341.33	8,341.33	8,341.33	8,341.33	41.33	8,341.33	8,341.33
4.13	$8,754.13	$8,754.13	$8,754.13	$8,754.13	$8,754.13	$8,754.13	54.13	$8,754.13	$8,754.13
24	0	0	24	0	0	24	0	0	24
5.44	$0.00	$0.00	$955.44	$0.00	$0.00	$955.44	$0.00	$0.00	$955.44
24	0	0	24	0	0	24	0	0	24
5.44	$0.00	$0.00	$955.44	$0.00	$0.00	$955.44	$0.00	$0.00	$955.44
24	0	0	24	0	0	24	0	0	24
5.44	$0.00	$0.00	$955.44	$0.00	$0.00	$955.44	$0.00	$0.00	$955.44
8	8	8	8	8	8	8	8	8	8
8.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	18.48	$318.48	$318.48
8	8	8	8	8	8	8	8	8	8
8.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	18.48	$318.48	$318.48
8	8	8	8	8	8	8	8	8	8
8.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	18.48	$318.48	$318.48
3	3	3	3	3	3	3	3	3	3
9.43	$119.43	$119.43	$119.43	$119.43	$119.43	$119.43	19.43	$119.43	$119.43
3	3	3	3	3	3	3	3	3	3
9.43	$119.43	$119.43	$119.43	$119.43	$119.43	$119.43	19.43	$119.43	$119.43
3	3	3	3	3	3	3	3	3	3
9.43	$119.43	$119.43	$119.43	$119.43	$119.43	$119.43	19.43	$119.43	$119.43
5.33	8,352.33	8,352.33	8,376.33	8,352.33	8,352.33	8,376.33	52.33	8,352.33	8,376.33
7.48	$9,192.04	$9,192.04	$10,147.48	$9,192.04	$9,192.04	$10,147.48	92.04	$9,192.04	$10,147.48
5.33	8,352.33	8,352.33	8,376.33	8,352.33	8,352.33	8,376.33	52.33	8,352.33	8,376.33
7.48	$9,192.04	$9,192.04	$10,147.48	$9,192.04	$9,192.04	$10,147.48	92.04	$9,192.04	$10,147.48

*Proj #	ProjMgr	NARUC	Dept	Lbr/NLbr	*RA #	*Act #	Activity	*EE #	Exp Element	2005 Budget
P0000032	Shimoda, S	910	Corp Comm	Labor	PQC	110	Impl Mktg Pgm-Core	150	Labor Cost	$798
P0000032	Shimoda, S	910	Corp Comm	Labor						$798
P0000032	Shimoda, S	910	Engy Svcs	Labor	PSN	110	Impl Mktg Pgm-Core	150	Labor Cost	$3,068
P0000032	Shimoda, S	910	Engy Svcs	Labor	PSR	110	Impl Mktg Pgm-Core	150	Labor Cost	$353,638
P0000032	Shimoda, S	910	Engy Svcs	Labor						$356,706
P0000032	Shimoda, S	910	Engy Svcs	Non-Labor	PSR	110	Impl Mktg Pgm-Core	205	Matl-Purchasing Card	$20,440
P0000032	Shimoda, S	910	Engy Svcs	Non-Labor	PSR	110	Impl Mktg Pgm-Core	301	Vehicles 5,110	$4,645
P0000032	Shimoda, S	910	Engy Svcs	Non-Labor	PSR	110	Impl Mktg Pgm-Core	462	IS Exp-PC Sftw Purch 5,110	$5,589
P0000032	Shimoda, S	910	Engy Svcs	Non-Labor	PSR	110	Impl Mktg Pgm-Core	501	Outside Svcs-General	$87,767
P0000032	Shimoda, S	910	Engy Svcs	Non-Labor	PSR	110	Impl Mktg Pgm-Core	520	Mainland Travel	$7,665
P0000032	Shimoda, S	910	Engy Svcs	Non-Labor	PSR	110	Impl Mktg Pgm-Core	521	Meals & Entertainment	$1,533
P0000032	Shimoda, S	910	Engy Svcs	Non-Labor						$127,639
P0000032	**Shimoda, S**	**910**	**TOTAL PROJECT**							**$485,143**
P0000034	Shimoda, S	910	Engy Svcs	Labor	PSA	102	Pl & Dev Mktg Pgm	150	Labor Cost	$5,050
P0000034	Shimoda, S	910	Engy Svcs	Labor	PSF	102	Pl & Dev Mktg Pgm	150	Labor Cost	$3,822
P0000034	Shimoda, S	910	Engy Svcs	Labor	PSM	102	Pl & Dev Mktg Pgm	150	Labor Cost	$3,822
P0000034	Shimoda, S	910	Engy Svcs	Labor	PSR	102	Pl & Dev Mktg Pgm	150	Labor Cost	$1,433
P0000034	Shimoda, S	910	Engy Svcs	Labor						$14,127
P0000034	Shimoda, S	910	Engy Svcs	Non-Labor	PSA	102	Pl & Dev Mktg Pgm	501	Outside Svcs-General	$100,000
P0000034	Shimoda, S	910	Engy Svcs	Non-Labor						$100,000
P0000034	**Shimoda, S**	**910**	**TOTAL PROJECT**							**$114,126**
P0000035	Shimoda, S	920	Engy Svcs	Labor	PSP	736	Pricing Anlys&Proposa	150	Labor Cost	$48,552
P0000035	Shimoda, S	920								$48,552
P0000035	Shimoda, S	921	Engy Svcs	Non-Labor	PSP	736	Pricing Anlys&Proposa	501	Outside Svcs-General	$50,000
P0000035	Shimoda, S	921								$50,000
P0000035	**Shimoda, S**		**TOTAL PROJECT**							**$98,552**
P0000283	Shimoda, S	910	Engy Svcs	Labor	PSR	110	Impl Mktg Pgm-Core	150	Labor Cost	$3,680
P0000283	Shimoda, S	910	Engy Svcs	Labor						$3,680
P0000283	Shimoda, S	910	Engy Svcs	Non-Labor	PSR	110	Impl Mktg Pgm-Core	501	Outside Svcs-General	$15,000
P0000283	Shimoda, S	910	Engy Svcs	Non-Labor						$15,000
P0000283	**Shimoda, S**	**910**	**TOTAL PROJECT**							**$18,680**
									TOTAL	$716,501

SSHIMODA PROJECTS

INFO - RECAP

P0000034
SUPPORT

LABOR INPUT SHEET
2005

Responsibility Areas (RA) PSA
Prepared by SS/ Date

VACATION

Activity 098		Activity 102		Activity 111		HOURS NET TO BE SPREAD
Location PHE		Location PHE		Location PHE		
Indicator ND		Indicator NE		Indicator		
Project/WO NPZZZZZZ		Project/WO P0000034		Project/WO Privatization		
EE # 107		EE # 150		EE #		
140 hours		C0000590 (New Product Development)		(Privatization – Forecast by Eng.)		
				Forecast Taken out by N. Ho		
HOURS NPW(107)*	Dollar Amount	ST(101)*	Dollar Amount		Dollar Amount	
12	581.88	8	387.92		0.00	148
	0.00	8	387.92		0.00	144
22	1,066.78	8	387.92		0.00	146
	0.00	8	387.92		0.00	160
22	1,066.78	8	387.92		0.00	138
	0.00	8	387.92		0.00	160
22	1,066.78	8	387.92		0.00	130
	0.00	8	387.92		0.00	168
22	1,066.78	8	387.92		0.00	136
	0.00	8	387.92		0.00	152
22	1,066.78	8	387.92		0.00	130
18	872.82	8	387.92		0.00	134
140	6,788.60	96	4,655.04	0	0.00	1748

Activity HECO		Activity CIS Replacement		Activity 785		HOURS NET TO BE SPREAD (be 0)
Location		Location		Location PHE		
Indicator Rate		Indicator		Indicator NS		
Project/WO Case		Project/WO		Project/WO NPSZZZZZ		
EE # P0000526		EE #		EE # 150		
(Forecasted by Regulatory)		(Forecasted by T. Hull)		(Allow about 20 hours) Performance Appraisals		
ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
80	3,879.20	0	0.00	8	387.92	42
5	242.45	0	0.00		0.00	111
5	242.45	0	0.00	10	484.90	98
20	969.80	0	0.00	2	96.98	110
60	2,909.40	0	0.00		0.00	70
80	3,879.20	0	0.00		0.00	72
80	3,879.20	0	0.00		0.00	42
80	3,879.20	0	0.00		0.00	80
20	969.80	0	0.00		0.00	110
20	969.80	0	0.00		0.00	124
0	0.00	0	0.00		0.00	122
0	0.00	0	0.00		0.00	126
450	21,820.50	0	0.00	20	969.80	1107

2004 2-22 PM

SA vision
r Forecast Assumptions

SAlabassum, .is05.xls

nticipated work.)

	Y2005	
	96	(Forecasted by M. E. Grace)
nt	96	
	450	(Forecasted by Regulatory Affairs)
Lobbying	75	
tc.	20	
	0	
eg.	167	(15% of remaining prod. Time.)
-Core	165	(15% of remaining prod. Time.)
ns.	554	(50% of remaining prod. Time.)
ons	221	(20% of remaining prod. Time.)
	10	
eg.	272	(15% of remaining prod. Time.)
-Core	272	(15% of remaining prod. Time.)
ns.	909	(50% of remaining prod. Time.)
ons	361	(20% of remaining prod. Time.)

3/30/2004

710 PHE NE NPSZZZZZ 150 NBILLED Dollar Amount	HOURS NET TO BE SPREAD
174	163
174	147
174	171
174	163
174	163
174	163
174	115
174	91
174	163
174	155
174	155
174	115
2088	1764

otal HECO Dollar Amount	HOURS NET TO BE SPREAD
6612	16
5568	32
6960	24
6612	16
5568	48
4176	80
7308	0
7569	10
7656	0
5220	48
6264	32
6264	32
75777	338

Shimoda, Stanley JF

From: Shimoda, Stanley
Sent: Monday, July 28, 2003 9:27 AM
To: Hee, Alan K.; Willoughby, George
Cc: Waller, Dave
Subject: FW: New Product Development Forecast Hours Y2004-Y2005

lan, George,

In discussion with Dave, please forecast 96 hours annually of your time to the New Product Development Project for Y2004andY2005.

The codes to use are as follows:

(1) A. Hee: PSF-102-PHE-NE-P0000034
(2) G. Willoughby: PSM-102-PHE-NE-P0000034

See me if you have any questions.

****
Stanley Shimoda
Energy Services Dept.
CP10-SM
Phone: (808) 543-4768
FAX: (808) 543-4747
****

712 IRP Sales Forecast (Incremental): MECO – additional 40 hours added for completion of long-term forecast and scenarios. Also add 2 additional interisland round trips for MECO IRP adv grp meeting.

737 Fuel filings: HECO, MECO based on 2002 (not 2003) annual actuals since HECO 2003 included fuel clause survey and CHP fuel clause modification, 2003 MECO included director taking over temporarily, and less effectively. Provided slightly more time required in the first month of the quarter for the ECA reconciliations.

102 New Product Development: 96 hours per D. Waller.

818 Maintain General Ledger: 20 hours per month for RHI accounting support – financial statements, invoice processing.

SOX: None. On-going work at a nominal level for our area only, which would be part of unbilled, sales forecast, ECAF.

Rate Case: Hours from Regulatory (2/12/2004)

098 Vacation: Replacement (2 wks), Jeannine (3 wks), Cathy, Fay and Alan (4 wks). Total of 680 hours.

SF

REVIS -- 2005

LABOR INF ONCET

2005

Employee Class..... FACSUP

Description..... Director -- PSM

Responsibility Areas (RA) PSM

Prepared by SS/ Date 5/12/2006

	(A) Avail Hrs in Month	(B) No.* of Emp	Total Avail Hours	* ST Rate	Dollar Amount	HOLIDAY Activity 098, Location PHE, Indicator ND, Project/WO NPZZZZZZ, EE # 107				VACATION Activity 098, Location PHE, Indicator ND, Project/WO NPZZZZZZ, EE # 107		Activity 102, Location PHE, Indicator NE, Project/WO P0000034, EE # (NEW PRODUCT DEV.)		Activity, Location, Indicator, Project/WO, EE #		HOURS NET TO BE SPREAD
						Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	HOURS NPW(107)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	
J	168	1	168	42.41	7,124.88	0	1	0	0.00		0.00	8	339.28		0.00	160
F	160	1	160	42.41	6,785.60	8	1	8	339.28		0.00	8	339.28		0.00	144
M	184	1	184	42.41	7,803.44	8	1	8	339.28	16	678.56	8	339.28		0.00	152
A	168	1	168	42.41	7,124.88	0	1	0	0.00		0.00	8	339.28		0.00	160
M	176	1	176	42.41	7,464.16	8	1	8	339.28	40	1,696.40	8	339.28		0.00	120
J	176	1	176	42.41	7,464.16	8	1	8	339.28		0.00	8	339.28		0.00	160
J	168	1	168	42.41	7,124.88	8	1	8	339.28	40	1,696.40	8	339.28		0.00	112
A	184	1	184	42.41	7,803.44	8	1	8	339.28		0.00	8	339.28		0.00	168
S	176	1	176	42.41	7,464.16	8	1	8	339.28		0.00	8	339.28		0.00	160
O	168	1	168	42.41	7,124.88	8	1	8	339.28	12	508.92	8	339.28		0.00	140
N	176	1	176	42.41	7,464.16	16	1	16	678.56	16	678.56	8	339.28		0.00	136
D	176	1	176	42.41	7,464.16	16	1	16	678.56	16	678.56	8	339.28		0.00	136
TOT	2080		2080		88,212.80	96		96	4,071.36	140	5,937.40	96	4,071.36	0	0.00	1748

	Total Hours Remaining to be Spread	Activity 785, Location PHE, Indicator NE, Project/WO NPSZZZZZ, EE # 150 (PERFORMANCE APPRAISAL)				Activity, Location, Indicator (P0000317) (PLACEHOLODER FOR ADVERT. FORECASTED BY PQC.) 72 hours (BTL) + 12 hours (ATL)				Activity 736, Location MAU, Indicator BE, Project/WO C0005788, EE # 150 (MECO CLS) 50 hours.		Activity CIS Replacement, Location, Indicator, Project/WO, EE # 150 (Forecasted by TH) (O&M)		Activity, Location, Indicator, Project/WO, EE #		HOURS NET TO BE SPREAD (sb be 0)
		ST(101)*			Dollar Amount	ST(101)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
J	160	4			169.64	7			296.87		0.00		0.00		0.00	149
F	144				0.00	7			296.87		0.00		0.00		0.00	137
M	152				0.00	7			296.87		0.00		0.00		0.00	145
A	160	8			339.28	7			296.87		0.00		0.00		0.00	145
M	120				0.00	7			296.87		0.00		0.00		0.00	113
J	160				0.00	7			296.87		0.00		0.00		0.00	153
J	112				0.00	7			296.87		0.00		0.00		0.00	105
A	168				0.00	7			296.87		0.00		0.00		0.00	161
S	160				0.00	7			296.87	10	424.10		0.00		0.00	143
O	140				0.00	7			296.87	10	424.10		0.00		0.00	123
N	136				0.00	7			296.87	10	424.10		0.00		0.00	119
D	136				0.00	7			296.87	20	848.20		0.00		0.00	109
TOT	1748	12			508.92	84			3,562.44	50	2,120.50	0	0.00	0	0.00	1602

CA-IR-1 & 2
DOCKET NO. 04-0113
PROJECT NO. P0000034
PAGE 9 OF 15

2005 Labor Forecast Assumptions

Labor Assumptions used to allocate Productive hours for 2005.
CLS hours estimated by George Willoughby, DSM from E. Wong, Rate Case by Reg. Affairs.
New Product Development from D. Waller, Non-DSM advertising from L. Unemori.
(Based on discussion with George Willoughby, review of actual hours for 2003, G. Willoughby's "best estimate" of anticipated future work, E. Wong DSM schedule, Rate Case schedule, and correspondence with other HECO personnel.)

				Y2005	
SS	Forecasted as follows:	Act 701	Forecasts	1,376	
	(primarily Forecast)	Act. 711	HECO IRP Base	146	
		Act. 721	ABM Work	144	
	(P0000033-C0000619)	Act. 140	BTL Support	110	
	Accounting Support		HECO Rate Case (by Reg.)	68	(from Reg. Worksheet)
AT	Forecasted as follows:	Act 712	MECO IRP Bill.	250	(prox- per GW/NC discussion)
	(primarily IRP)	Act 711	HELCO IRP Bill.	250	(prox- per GW/NC discussion)
		Act 711	HECO IRP	1,324	
MF	Forecasted as follows:	Act 100	HECO Market Research Bill.	1,490	
	(primarily Mar. Research)	Act 100	HELCO Market Research Bill.	175	
		Act 100	MECO Market Research	175	
RE	Forecasted as follows:	Act. 736	HECO CLS (Pricing)	0	(C0005782)
		Act. 736	MECO CLS (Pricing)	250	(C0005788)
	Load Research	Act. 735	HECO Rate Case (by Reg.)	30	(from Reg. Worksheet)
		Act. 100	HECO Market Research	159	10% of rest
		Act 711	HECO IRP Base	1,425	90% of rest
WS	Forecasted as follows:	Act. 789	Training	40	(proxy)
		Act. 714	DSM Billable	342	(proxy - from E. Wong)
		Act. 713	DSM - DCL/RDLC	423	(proxy - from E. Wong)
		Act 711	HECO IRP Base	1,059	
GW	Forecasted as follows:	Act. 102	New Product Development	96	(C0000591)-per D. Waller
		Act.785	Plan for & Determine Needs	12	(Perf. Evaluation)
		Act. 736	HECO CLS (Pricing)	0	(C0005782)
		Act. 736	MECO CLS (Pricing)	50	(C0005788)
			BTL Advertising (forecast by QC)	72	(from L. Unemori)
			ATL Advertising (forecast by QC)	12	(from L. Unemori)
		Act. 100	HECO Market Research	480	allow 12 weeks annually
		Act 711	HECO IRP Base	1,122	rest of productive wages

NOTE: Two DSM positions falling under SM have been forecasted by E. Wong.

Shimoda, Stanley SM

From: Shimoda, Stanley
Sent: Monday, July 28, 2003 9:27 AM
To: Hee, Alan K.; Willoughby, George
Cc: Waller, Dave
Subject: FW: New Product Development Forecast Hours Y2004-Y2005

lan, George,

In discussion with Dave, please forecast 96 hours annually of your time to the New Product Development Project for Y2004andY2005.

The codes to use are as follows:

(1) A. Hee: PSF-102-PHE-NE-P0000034
(2) G. Willoughby: PSM-102-PHE-NE-P0000034

See me if you have any questions.

****
Stanley Shimoda
Energy Services Dept.
CP10-SM
Phone: (808) 543-4768
FAX: (808) 543-4747
****

| | | |

Allocate-Dir2005

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	LABOR Allocation Projections-Fac Sup Category													
2	HECO 2005 Forecast For SR Division													
3														
4														
5	Top Level Summary													
6	Activity Name			Mktg Progs Core (from breakdown below)	HECO Local R&D Develop & Administer (Minimum Hrs Assigned To Teacher Coach Cateogry)	BTL Labor (BOA) - For HECO FTE's (from breakdown below)	New Prod Develop	Develop Mktg Plan (Regulated)	Employee Training	Develop Train Needs Perform Appraisals	BTL (Non-Reg) Project Prospecting	Total Manhour Percentage		
7	Activity Number			110	731	140	183	101	780	785	171			

2004-2005 SA Division

EE #	2005	Comments	Act. 102	Act. 110	Act. 112
NON-LABOR					
MATERIALS					
(205) Mattl Purchase	2,052	Expenditures spread equally between activities 110 and 112.		1,026	1,026
(232) Stat & Supp-Iss					
(640) Post & Bulk Mail	N/A	In Year 2003-2004 period, Postage & Bulk Mail will be forecasted Company wide by another Department.			
ISD SERVICES					
(462) IS Expenses - SFTW	359	Expenditures spread equally between activities 110 and 112.		179	180
CONTRACT SERVICES					
(501) O/S Svc -Gen	13,494	Expenditures spread primarily between activities 110 and 112. Includes approx. $7,000 to hold a workshop.		6,747	6,747
(515) Company Membership					
(516) Employee Membership					
(520) Mainland Travel	3,000	Assume one mainland trip during Y2005.		1,500	1500
(521) Meals & Entertainment	2,000	Expenditures will benefit primarily Activities 110 and 112. 50% allocation made to each of these activities.		1,000	1,000
New Product Development EE 501					
Product Development	100,000	$100,000 in New Product Development O/S consultants added in for Y2005. (To P0000034)	100,000		
Others					
(522) PCEA Travel	900	To activity 102. Allowance for Manager travel. See separate memo for derivation of amount.	900		
Total SA Divsion O&M Impact	***121,805***		***100,900***	***10,452***	***10,453***

* Based on Y2002 Final Forecast Amount (after Y2002 budget recycle)

Energy Services
2005 Budget
SA Division – Project P0000034

New Product Development:
$100,000 budgeted for Outside Services Consultant (EE #501)

Currently, customers on the Island of Oahu may make voluntary contributions for the development of renewable energy resources under a Green Pricing Program. These contributions are used to install photovoltaic system at public schools on Oahu. Several mainland utilities have found that customers are interested and willing to pay a premium rate for electricity generated from renewable resources. $100,000 has been budgeted in 2005 for the development of a Green Power program (new initiative). Funds collected from customers through this new Green Power program will be invested back into the community in various research, educational, and social arenas, which will be identified as part of the program development.

$100,000 represents an allowance to initiate the Green Power program. The details of this program have not yet been determined and HECO will use the budgeted funds to hire an outside consultant to develop this program.

INNOVATIVE RATE DEV

12/20/2004

*O&M for All Depts with Loc

4:22PM

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000035	Shimoda, S	CID	PWX	Engineering & Meter	B38	A & G Operation	920	Labor	736	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000035	Shimoda, S	CID	PWX	Engineering & Meter	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000035	Shimoda, S	CID	PWX									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000035	Shimoda, S	CID										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000035	Shimoda, S	Engy Svcs	PSP	Pricing	B38	A & G Operation	920	Labor	736	PHE	150	1,544.00	91.00	75.00	132.00	128.00	152.00	136.00	126.00	154.00	164.00	137.00	135.00	114.00
												$48,551.82	$2,864.09	$2,373.37	$4,276.94	$3,998.88	$4,734.96	$4,244.24	$3,937.54	$4,796.30	$5,212.58	$4,293.19	$4,231.85	$3,587.78
P0000035	Shimoda, S	Engy Svcs	PSP	Pricing	B38	A & G Operation	921	Non-Labor	736	PHE	501	50,000.04	4,166.67	4,166.67	4,166.67	4,166.67	4,166.67	4,166.67	4,166.67	4,166.67	4,166.67	4,166.67	4,166.67	4,166.67
												$50,000.04	$4,166.67	$4,166.67	$4,166.67	$4,166.67	$4,166.67	$4,166.67	$4,166.67	$4,166.67	$4,166.67	$4,166.67	$4,166.67	$4,166.67
P0000035	Shimoda, S	Engy Svcs	PSP	Pricing	B38	A & G Operation	921	Non-Labor	736	PHE	503	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000035	Shimoda, S	Engy Svcs	PSP	Pricing	B38							51,544.04	4,257.67	4,241.67	4,298.67	4,294.67	4,318.67	4,302.67	4,292.67	4,320.67	4,330.67	4,303.67	4,301.67	4,280.67
												$98,551.86	$7,030.76	$6,540.04	$8,443.61	$8,165.55	$8,901.63	$8,410.91	$8,104.21	$8,962.97	$9,379.35	$8,459.86	$8,398.52	$7,754.45
P0000035	Shimoda, S	Engy Svcs	PSP									51,544.04	4,257.67	4,241.67	4,298.67	4,294.67	4,318.67	4,302.67	4,292.67	4,320.67	4,330.67	4,303.67	4,301.67	4,280.67
												$98,551.86	$7,030.76	$6,540.04	$8,443.61	$8,165.55	$8,901.63	$8,410.91	$8,104.21	$8,962.97	$9,379.35	$8,459.86	$8,398.52	$7,754.45
P0000035	Shimoda, S	Engy Svcs										51,544.04	4,257.67	4,241.67	4,298.67	4,294.67	4,318.67	4,302.67	4,292.67	4,320.67	4,330.67	4,303.67	4,301.67	4,280.67
												$98,551.86	$7,030.76	$6,540.04	$8,443.61	$8,165.55	$8,901.63	$8,410.91	$8,104.21	$8,962.97	$9,379.35	$8,459.86	$8,398.52	$7,754.45
P0000035												51,544.04	4,257.67	4,241.67	4,298.67	4,294.67	4,318.67	4,302.67	4,292.67	4,320.67	4,330.67	4,303.67	4,301.67	4,280.67
												$98,551.86	$7,030.76	$6,540.04	$8,443.61	$8,165.55	$8,901.63	$8,410.91	$8,104.21	$8,962.97	$9,379.35	$8,459.86	$8,398.52	$7,754.45

SSHIMODA PROJECTS

INFO – RECAP

P0000035
SUPPORT

2005 Budget - Total Pricing Division
By month, By Activity

P1 of 3

HAWAIIAN ELECTRIC COMPANY, INC **Revised:** 17-Feb-04
2005 OPERATING FORECAST - PRICING DIVISION

Responsibility Area: SP
Prepared by: Es Seese
Date: 17-Feb-04

		PSP 098 PHE ND NPSZZZZZ				HECO	2005 Billables: Tar Dev & Adm - Non-Prog, Tar Dev - Program, DSM & IRP Cost Recovery		Tariff Dev & Adm HECO - Non-Program Code Block: PSP 736 PHE NE NPSZZZZZ WO # CS000093		Tar Dev - Comp Pri HECO - Program Code Block PSP 736 PHE NE NPSZZZZZ Program # C0000595	
	Available Hrs Month	Holiday Hours	Dollar Amount	VACAT Hours	Dollar Amount	Total Hrs. ST(101)*	MECO Total Hrs. ST(101)*	HELCO Total Hrs. ST(101)*	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount
J	672	0	$0	56	$1,984	470	83	86	131	$4,670	91	$3,020
F	640	32	$1,121	31	$1,079	435	82	85	104	$3,699	75	$2,505
M	736	32	$1,121	16	$606	532	86	89	155	$5,499	132	$4,533
A	672	0	$0	32	$1,031	469	84	87	151	$5,200	128	$4,211
M	704	32	$1,121	0	$0	518	85	88	178	$6,069	152	$4,984
J	704	32	$1,121	80	$3,028	444	84	87	159	$5,458	136	$4,469
J	672	32	$1,121	80	$3,028	479	83	86	149	$5,136	126	$4,146
A	736	32	$1,121	40	$1,559	504	86	89	179	$6,102	154	$5,047
S	704	32	$1,121	16	$606	580	85	88	189	$6,571	164	$5,506
O	672	32	$1,121	16	$516	461	83	86	159	$5,457	137	$4,523
N	704	64	$2,241	48	$1,727	496	83	86	173	$6,101	135	$4,459
D	704	64	$2,241	105	$3,844	368	82	85	141	$4,946	114	$3,783
TOT	8,320	384	$13,450	520	$19,008	5,756	1006	1,042	1,868	$64,908	1,544	$51,186

\mydoc\excel\SP_BUDGET_2004-2005_Feb-04_Update.xls
Pricing\Es:2/18/2004
Labor Hrs - SP - 2005

Hours by activity, by month – Fac/Sup & T/C

P1 of 2

Year 2005

HAWAIIAN ELECTRIC COMPANY, INC
2005 OPERATING FORECAST - LABOR Breakdown Between Fac/Sup and T/C
Revised: Feb. 17, 2004

	CY 2005 Available Hrs		Holiday Hours PSP 098 PHE ND NPSZZZZZ		VACATION Hours PSP 098 PHE ND NPSZZZZZ		Available Hrs For HECO Excl Holidays & Vacation		2005 Billables: MECO Billables		2005 Billables: HELCO Billables		Tariff Dev & Adm HECO - Non-Program PSP 736 PHE NE NPSZZZZZ WO # CS000093		Tar Dev - Comp Pri HECO - Program PSP 736 PHE NE NPSZZZZZ WO # C0000595	
	Fac/Sup	T/C	Fac/Sup	T/C	Fac/Sup	T/C	Fac/Sup	T/C	Fac/Sup	T/C	Fac/Sup	T/C	Fac/Sup	T/C	Fac/Sup	T/C
J	168	504	0	0	16	40	107	340	22	61	23	63	40	91	8	83
F	160	480	8	24	7	24	100	310	22	60	23	62	31	73	8	67
M	184	552	8	24	8	8	123	390	22	64	23	66	45	110	25	107
A	168	504	0	0	0	32	123	346	22	62	23	64	30	121	8	120
M	176	528	8	24	0	0	123	376	22	63	23	65	30	148	8	144
J	176	528	8	24	40	40	83	338	22	62	23	64	30	129	8	128
J	168	504	8	24	40	40	75	316	22	61	23	63	30	119	8	118
A	184	552	8	24	24	16	107	382	22	64	23	66	30	149	8	146
S	176	528	8	24	8	8	115	368	22	63	23	65	43	146	20	144
O	168	504	8	24	0	16	115	340	22	61	23	63	30	129	10	127
N	176	528	16	48	16	32	99	324	22	61	23	63	47	126	10	125
D	176	528	16	48	41	64	74	294	22	60	23	62	36	105	10	104
TOT	2,080	6,240	96	288	200	320	1,244	4,124	264	742	276	766	422	1,446	131	1,413

Revised 1,452

*** Allocate equally to all programs.
CIEE - C0000220
CINC - C0000240
CICR - C0000266
REWH - C0000284
RNC - C0000310
[1] Based on Privatization forecast provided by M. Ho. See e-mail dated Feb. 12, 2004.

CA-IR-1 & 2
DOCKET NO. 04-0113
PROJECT NO. P0000035
PAGE 5 OF 8

Pricing/Es:8-14-03
SP_BUDGET_2004-2005_Feb-04_Update.xls
Fac-Sup & T-C 2005

Print Date: 2/17/2004

REVISED -- 200

LABOR INF SHEET

2005

Employee Class..... FACSUP

Description..... Director -- PSP

Responsibility Areas (RA) PSP

Prepared by SS/ Date

HECO

	Total Hours Remaining to be Spread	Activity PRIVATIZATION Location AIR FORCE Indicator Project/WO EE # 150 (Forecasted by M. Ho) (P0000007 -- NE)				Activity PRIVATIZATION Location OTHERS Indicator Project/WO EE # 150 (Forecasted by M. Ho) (P0000007 -- NI)				Activity 736 Location PHE Indicator NE Project/WO C0000595 EE # 150 (Pricing - Project)		Activity Location Indicator Project/WO EE #		Activity Location Indicator Project/WO EE # HECO IRP		HOURS NET TO BE SPREAD (sb be 0)
		ST(101)*			Dollar Amount	ST(101)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
J	54	12			508.92	12			508.92	8	339.28		0.00		0.00	22
F	53	13			551.33	12			508.92	8	339.28		0.00		0.00	20
M	75	13			551.33	11			466.51	25	1,060.25		0.00		0.00	26
A	76	12			508.92	11			466.51	8	339.28		0.00		0.00	45
M	52	13			551.33	5			212.05	8	339.28		0.00		0.00	26
J	47	12			508.92	5			212.05	8	339.28		0.00		0.00	22
J	-19	12			508.92	4			169.64	8	339.28		0.00		0.00	-43
A	65	13			551.33	14			593.74	8	339.28		0.00		0.00	30
S	-17	0			0.00	15			636.15	20	848.20		0.00		0.00	-52
O	63	0			0.00	14			593.74	10	424.10		0.00		0.00	39
N	-4	0			0.00	14			593.74	10	424.10		0.00		0.00	-28
D	78	0			0.00	23			975.43	10	424.10		0.00		0.00	45
TOT	523	100			4,241.00	140			5,937.40	131	5,555.71	0	0.00	0	0.00	152

FORECASTED BY M. HO

FORECASTED BY M. HO

CA-IR-1 & 2
DOCKET NO. 04-0113
PROJECT NO. P0000035
PAGE 6 OF 8

REVISED - 05

LABOR INPUT SHEET
2005

Employee Class..... TC
Description..... Rate Analysts -- 2 positions+ 1 new position

Responsibility Areas (RA) PSP
Prepared by SS/ Date

HECO

	Total Hours Remaining to be Spread	Activity PRIVATIZATION Location Indicator Project/WO EE # (Forecasted by M. Ho)				Activity 736 Location PHE Indicator NE Project/WO C0000595 EE # 150 (Pricing -- Project)				Activity Location Indicator Project/WO EE #		Activity Location Indicator Project/WO EE #		Activity Location Indicator Project/WO EE # HECO IRP		HOURS NET TO BE SPREAD (sb be 0)
		ST(101)*			Dollar Amount	ST(101)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
J	206				0.00	83			2,602.05		0.00		0.00		0.00	123
F	189				0.00	67			2,100.45		0.00		0.00		0.00	122
M	235				0.00	107			3,354.45		0.00		0.00		0.00	128
A	247				0.00	120			3,762.00		0.00		0.00		0.00	127
M	272				0.00	144			4,514.40		0.00		0.00		0.00	128
J	255				0.00	128			4,012.80		0.00		0.00		0.00	127
J	241				0.00	118			3,699.30		0.00		0.00		0.00	123
A	274				0.00	146			4,577.10		0.00		0.00		0.00	128
S	272				0.00	144			4,514.40		0.00		0.00		0.00	128
O	250				0.00	127			3,981.45		0.00		0.00		0.00	123
N	248				0.00	125			3,918.75		0.00		0.00		0.00	123
D	226				0.00	104			3,260.40		0.00		0.00		0.00	122
TOT	2915	0			0.00	1413			44,297.55	0	0.00	0	0.00	0	0.00	1502

HELCO BILLABLE NONPROJECT PROJECT (Picked up by E. Wong)

	Total Hours Remaining to be Spread	Activity 736 Location HEL Indicator BE Project/WC NPSZZZZZ EE # 150 HELCO BILLABLE -- Tar. Dev/Support				Activity 736 Location HEL Indicator BE Project/WO P0000035 EE # 150 C0000596 HELCO BILLABLE -- PRICING				Activity 711 Location HEL Indicator BE Project/WO NPSZZZZZ EE # HELCO BILLABLE -- IRP		Activity 714 Location HEL Indicator BE Project/WO EE # HELCO BILLABLE -DSM		Activity Location Indicator Project/WO EE #		HOURS NET TO BE SPREAD (sb be 0)
		ST(101)*			Dollar Amount	ST(101)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
J	123	19			595.65	20			627.00	3	94.05	21	658.35		0.00	60
F	122	19			595.65	19			595.65	3	94.05	21	658.35		0.00	60
M	128	20			627.00	20			627.00	3	94.05	22	689.70		0.00	63
A	127	19			595.65	20			627.00	3	94.05	22	689.70		0.00	63
M	128	20			627.00	20			627.00	3	94.05	22	689.70		0.00	63
J	127	19			595.65	20			627.00	3	94.05	22	689.70		0.00	63
J	123	19			595.65	20			627.00	3	94.05	21	658.35		0.00	60
A	128	20			627.00	20			627.00	3	94.05	22	689.70		0.00	63
S	128	20			627.00	20			627.00	3	94.05	22	689.70		0.00	63
O	123	19			595.65	20			627.00	3	94.05	21	658.35		0.00	60
N	123	19			595.65	20			627.00	3	94.05	21	658.35		0.00	60
D	122	19			595.65	19			595.65	3	94.05	21	658.35		0.00	60
TOT	1502	232			7,273.20	238			7,461.30	36	1,128.60	258	8,088.30	0	0.00	738

FORECASTED BY E. WONG

Revised: 2-17-04

2005 OPERATING FORECAST SUMMARY
PRICING DIVISION

	CODE BLOCK	WORK ORDER No.	2005 Hours	2005 ($)	
A. Billables to MECO & HELCO					
MECO Billable:					
Billable Labor O&M	See detailed wps		1,006	$35,762	
Billable Non-Labor O&M	"			$0	
MECO Total Billable			1,006	$35,762	
HELCO Billable:					
Billable Labor O&M			1,042	36,599	
Billable Non-Labor O&M				-	
HELCO Total Billable			1,042	36,599	
Total Billable:					
Labor O&M			2,048	$72,361	
Non-Labor O&M			-	$0	
TOTAL BILLABLE			2,048	$72,361	
HECO O&M Forecast:					
A. Labor				$236,215	
B. Non-Labor					
1. Out-of-State Training	PSP 736 PHE NE NPSZZZZZ	CS000093		$10,000	
2. In-State Training	PSP ~~789~~ PHE NE NPSZZZZZ	CS000110		$5,000	
3. Subscriptions	PSP 736 PHE NE NPSZZZZZ-205	CS000093		$250	2,250
4. Stationery & Supplies	PSP 842 PHE NE NPSZZZZZ-205	CS000114		$2,000	Forecasted by another Dept.
5. Postage & Mailing	PSP 842 PHE NE NPSZZZZZ-640	CS000114		$50	
6. Utilities	PSP 736 PHE NE NPSZZZZZ - 501	CS000093		$250	
7. PCOM Maintenance	PSP 736 PHE NE NPSZZZZZ-501	CS000093	8,750	$6,000	
8. PC SAS Maintenance	PSP 736 PHE NE NPSZZZZZ-~~462~~ 501	CS000093		$2,500	
9. PCEA	PSP 102 PHE NE NPSZZZZZ-522	CS000093		$2,700	
10. Contract Rate Analyst	PSP 736 PHE NE NPSZZZZZ-501	CS000093		-	Converted to base.
11. Consultant	PSP736PHENECO000595-501	(Project)		$50,000	
Total Non-Labor				$78,750	
Total Operating Forecast					
HECO				$314,965	
MECO Billable				$35,762	
HELCO Billable				$36,599	
TOTAL				$387,327	

Total Staff:
✓ Facilitator - 1
Teacher/Coach - 3
Teacher/Coach in DSM budget - 1 (E. Vong file)

cc: S. Shimoda 2-18-04

\mydoc\excel\SP_BUDGET_2004-2005_Feb-04_Update.xls
Pricing\Es:2/18/2004
Summary 2005

- Labor Items
Non-Labor Items.

3 & Dev

*O&M for All Depts with Loc

4:32PM

Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
134	Distribution Oper	588	Labor	787	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
134	Distribution Oper	588	Labor	788	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
134							0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
							0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
134	Distribution Oper	588	Labor	787	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
134	Distribution Oper	588	Labor	788	PDO	150	24	0	0	0	24	0	0	0	0	0	0	0	0
							$718.08	$0.00	$0.00	$0.00	$718.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
134							24	0	0	0	24	0	0	0	0	0	0	0	0
							$718.08	$0.00	$0.00	$0.00	$718.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
							24	0	0	0	24	0	0	0	0	0	0	0	0
							$718.08	$0.00	$0.00	$0.00	$718.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
134	Distribution Oper	588	Labor	787	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
134	Distribution Oper	588	Labor	788	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
134							0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
							0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
134	Distribution Oper	588	Labor	787	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
134	Distribution Oper	588	Labor	788	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
134							0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
							0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
134	Distribution Oper	588	Labor	788	PDO	150	48	0	0	0	0	24	0	0	0	24	0	0	0
							$1,691.04	$0.00	$0.00	$0.00	$0.00	$756.96	$0.00	$0.00	$0.00	$934.08	$0.00	$0.00	$0.00
134							48	0	0	0	0	24	0	0	0	24	0	0	0
							$1,691.04	$0.00	$0.00	$0.00	$0.00	$756.96	$0.00	$0.00	$0.00	$934.08	$0.00	$0.00	$0.00
							48	0	0	0	0	24	0	0	0	24	0	0	0
							$1,691.04	$0.00	$0.00	$0.00	$0.00	$756.96	$0.00	$0.00	$0.00	$934.08	$0.00	$0.00	$0.00
							72	0	0	0	24	24	0	0	0	24	0	0	0
							$2,409.12	$0.00	$0.00	$0.00	$718.08	$756.96	$0.00	$0.00	$0.00	$934.08	$0.00	$0.00	$0.00
134	Distribution Oper	588	Labor	787	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
							$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
134	Distribution Oper	588	Labor	788	PDO	150	72	0	0	0	24	24	0	24	0	0	0	0	0
							$1,906.24	$0.00	$0.00	$0.00	$538.32	$684.96	$0.00	$684.96	$0.00	$0.00	$0.00	$0.00	$0.00
134							72	0	0	0	24	24	0	24	0	0	0	0	0
							$1,906.24	$0.00	$0.00	$0.00	$538.32	$684.96	$0.00	$684.96	$0.00	$0.00	$0.00	$0.00	$0.00

- Labor Items
[redacted] - Non-Labor Items

Exhibit

12/20/2004 *O&M for All Depts with Loc 4:32PM

	_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
	P0000128	Masutani, L	CID	PWA									72	0	0	0	24	24	0	24	0	0	0	0	0
													$1,908.24	$0.00	$0.00	$0.00	$538.32	$684.96	$0.00	$684.96	$0.00	$0.00	$0.00	$0.00	$0.00
	P0000128	Masutani, L	CID										72	0	0	0	24	24	0	24	0	0	0	0	0
													$1,908.24	$0.00	$0.00	$0.00	$538.32	$684.96	$0.00	$684.96	$0.00	$0.00	$0.00	$0.00	$0.00
1,2	P0000128	Masutani, L	Comp & Ben	PFB	Employee Benefits	B36	A & G Operation	926	Labor	788	PHE	150	48	0	0	0	0	0	0	24	24	0	0	0	0
													$1,446.24	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$723.12	$723.12	$0.00	$0.00	$0.00	$0.00
	P0000128	Masutani, L	Comp & Ben	PFB	Employee Benefits	B38							48	0	0	0	0	0	0	24	24	0	0	0	0
													$1,446.24	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$723.12	$723.12	$0.00	$0.00	$0.00	$0.00
	P0000128	Masutani, L	Comp & Ben	PFB									48	0	0	0	0	0	0	24	24	0	0	0	0
													$1,446.24	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$723.12	$723.12	$0.00	$0.00	$0.00	$0.00
	P0000128	Masutani, L	Comp & Ben										48	0	0	0	0	0	0	24	24	0	0	0	0
													$1,446.24	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$723.12	$723.12	$0.00	$0.00	$0.00	$0.00
	P0000128	Masutani, L	Cust Svc	PCA	Admin-Cust Svc	B36	Customer Accounts	903	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
	P0000128	Masutani, L	Cust Svc	PCA	Admin-Cust Svc	B36	Customer Accounts	903	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
	P0000128	Masutani, L	Cust Svc	PCA	Admin-Cust Svc	B36							0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
	P0000128	Masutani, L	Cust Svc	PCA									0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
1,2	P0000128	Masutani, L	Cust Svc	PCF	Customer Field Services	B34	Distribution Oper	588	Labor	788	PDO	150	48	0	0	0	24	0	0	0	0	12	12	0	0
													$1,691.52	$0.00	$0.00	$0.00	$736.08	$0.00	$0.00	$0.00	$0.00	$477.72	$477.72	$0.00	$0.00
	P0000128	Masutani, L	Cust Svc	PCF	Customer Field Services	B34							48	0	0	0	24	0	0	0	0	12	12	0	0
													$1,691.52	$0.00	$0.00	$0.00	$736.08	$0.00	$0.00	$0.00	$0.00	$477.72	$477.72	$0.00	$0.00
	P0000128	Masutani, L	Cust Svc	PCF									48	0	0	0	24	0	0	0	0	12	12	0	0
													$1,691.52	$0.00	$0.00	$0.00	$736.08	$0.00	$0.00	$0.00	$0.00	$477.72	$477.72	$0.00	$0.00
	P0000128	Masutani, L	Cust Svc										48	0	0	0	24	0	0	0	0	12	12	0	0
													$1,691.52	$0.00	$0.00	$0.00	$736.08	$0.00	$0.00	$0.00	$0.00	$477.72	$477.72	$0.00	$0.00
	P0000128	Masutani, L	Ed & Cons Aff	PQE	Educ & Cons Affairs	B36	Customer Accounts	903	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
	P0000128	Masutani, L	Ed & Cons Aff	PQE	Educ & Cons Affairs	B36							0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
	P0000128	Masutani, L	Ed & Cons Aff	PQE	Educ & Cons Affairs	B37	Customer Services	910	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
	P0000128	Masutani, L	Ed & Cons Aff	PQE	Educ & Cons Affairs	B37							0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
	P0000128	Masutani, L	Ed & Cons Aff	PQE									0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
	P0000128	Masutani, L	Ed & Cons Aff										0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
	P0000128	Masutani, L	Engineering	PBA	Admin-ED Engr	B34	Distribution Oper	588	Labor	787	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
	P0000128	Masutani, L	Engineering	PBA	Admin-ED Engr	B34	Distribution Oper	588	Labor	788	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
	P0000128	Masutani, L	Engineering	PBA	Admin-ED Engr	B34							0	0	0	0	0	0	0	0	0	0	0	0	0
													$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

CA-IR-1 & 2
DOCKET NO. 04-0113
PROJECT NO. P0000128
PAGE 2 OF 9

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000128	Masutani, L	Engineering	PBA									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Engineering	PBY	Substn, Protect & Tel	B34	Distribution Oper	588	Labor	787	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Engineering	PBY	Substn, Protect & Tel	B34	Distribution Oper	588	Labor	788	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Engineering	PBY	Substn, Protect & Tel	B34							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Engineering	PBY									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Engineering										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Engy Svcs	PSA	Admin-Engy Svcs	B37	Customer Services	910	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Engy Svcs	PSA	Admin-Engy Svcs	B37	Customer Services	910	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Engy Svcs	PSA	Admin-Engy Svcs	B37							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Engy Svcs	PSA									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Engy Svcs										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Environ	PJA	Admin-Environ	B38	A & G Operation	920	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Environ	PJA	Admin-Environ	B38	A & G Operation	920	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Environ	PJA	Admin-Environ	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Environ	PJA									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Environ										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Financial VP	P4V	Financial VP	B36	A & G Operation	920	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Financial VP	P4V	Financial VP	B36	A & G Operation	920	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Financial VP	P4V	Financial VP	B36							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Financial VP	P4V									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Financial VP										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Gen Acctg	PAD	Cost Accounting	B38	A & G Operation	920	Labor	765	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Gen Acctg	PAD	Cost Accounting	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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

Proj	ProjMgrOrEngr	Dept	RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	Act	Loc	EE	FY06	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000128	Masutani, L	Gen Acctg	PAD									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Gen Acctg										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Ind Rel	PPA	Admin-Ind Rel	B38	A & G Operation	920	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Ind Rel	PPA	Admin-Ind Rel	B38	A & G Operation	920	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Ind Rel	PPA	Admin-Ind Rel	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Ind Rel	PPA									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Ind Rel										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	InfoTech	PEA	Admin-Info Tech&Svcs	B38	A & G Operation	920	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	InfoTech	PEA	Admin-Info Tech&Svcs	B38	A & G Operation	920	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	InfoTech	PEA	Admin-Info Tech&Svcs	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	InfoTech	PEA									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	InfoTech	PEC	Customer Care	B38	A & G Operation	920	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	InfoTech	PEC	Customer Care	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	InfoTech	PEC									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	InfoTech										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	MAFS	PKB	Admin-MgtAcc FinSvc	B38	A & G Operation	920	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	MAFS	PKB	Admin-MgtAcc FinSvc	B38	A & G Operation	920	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	MAFS	PKB	Admin-MgtAcc FinSvc	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	MAFS	PKB									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	MAFS	PKF	Financial Analysis	B38	A & G Operation	920	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	MAFS	PKF	Financial Analysis	B38	A & G Operation	920	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	MAFS	PKF	Financial Analysis	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	MAFS	PKF									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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

- Labor Items
[redacted] - Non-Labor Items

*O&M for All Depts with Loc

4:32PM

Tee	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
								0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
ing & Engr	B38	A & G Operation	920	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
ing & Engr	B38	A & G Operation	920	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
ing & Engr	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
								0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
								0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
S Services	B30	Prod Oper	506	Labor	788	PPO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
S Services	B30							0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
								0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
S O&M	B30	Prod Oper	506	Labor	787	PPO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
S O&M	B30	Prod Oper	506	Labor	788	PPO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
S O&M	B30							0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
								0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
ources	B30	Prod Oper	506	Labor	787	PPO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
ources	B30	Prod Oper	506	Labor	788	PPO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
ources	B30							0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
								0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
	B30	Prod Oper	506	Labor	787	PPO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
	B30	Prod Oper	506	Labor	788	PPO	150	24	0	0	0	0	0	0	0	12	12	0	0	0
								$867.36	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$433.68	$433.68	$0.00	$0.00	$0.00
	B30							24	0	0	0	0	0	0	0	12	12	0	0	0
								$867.36	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$433.68	$433.68	$0.00	$0.00	$0.00
								24	0	0	0	0	0	0	0	12	12	0	0	0
								$867.36	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$433.68	$433.68	$0.00	$0.00	$0.00
n Oper	B30	Prod Oper	506	Labor	787	PPO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
								$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
n Oper	B30	Prod Oper	506	Labor	788	PPO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
								$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

- Labor Items
[redacted] - Non-Labor Items

12/20/2004 *O&M for All Depts with Loc 4:32PM

Exhibit

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000128	Masutani, L	Production	PIW	Waiau Stn Oper	B30							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Production	PIW									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Production										24	0	0	0	0	0	0	0	12	12	0	0	0
												$867.36	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$433.68	$433.68	$0.00	$0.00	$0.00
P0000128	Masutani, L	Reg Affairs	PNP	Regulatory Affairs	B38	A & G Operation	920	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Reg Affairs	PNP	Regulatory Affairs	B38	A & G Operation	920	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Reg Affairs	PNP	Regulatory Affairs	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Reg Affairs	PNP									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Reg Affairs										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	SSF	PFS	Corporate Safety	B38	A & G Operation	925	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	SSF	PFS	Corporate Safety	B38	A & G Operation	925	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	SSF	PFS	Corporate Safety	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	SSF	PFS									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	SSF										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Supp Svcs	PVM	Materials Management	B38	A & G Operation	920	Labor	787	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Supp Svcs	PVM	Materials Management	B38	A & G Operation	920	Labor	788	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Supp Svcs	PVM	Materials Management	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Supp Svcs	PVM									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Supp Svcs										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000128	Masutani, L	Sys Op	PRA	Admin-Sys Op	B34	Distribution Oper	588	Labor	787	PDO	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
1,2 P0000128	Masutani, L	Sys Op	PRA	Admin-Sys Op	B34	Distribution Oper	588	Labor	788	PDO	150	24	0	0	0	24	0	0	0	0	0	0	0	0
												$700.32	$0.00	$0.00	$0.00	$700.32	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000128	Masutani, L	Sys Op	PRA	Admin-Sys Op	B34							24	0	0	0	24	0	0	0	0	0	0	0	0
												$700.32	$0.00	$0.00	$0.00	$700.32	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000128	Masutani, L	Sys Op	PRA									24	0	0	0	24	0	0	0	0	0	0	0	0
												$700.32	$0.00	$0.00	$0.00	$700.32	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000128	Masutani, L	Sys Op										24	0	0	0	24	0	0	0	0	0	0	0	0
												$700.32	$0.00	$0.00	$0.00	$700.32	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

CA-IR-1 & 2
DOCKET NO. 04-0113
PROJECT NO. P0000128
PAGE 6 OF 9

or All Depts with Loc

4:32PM

05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0
00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
2	60	12	8	8	8	8	8	8	8	0	0
4	$2,980.56	$340.24	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$0.00	$0.00
2	60	12	8	8	8	8	8	8	8	0	0
4	$2,980.56	$340.24	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$0.00	$0.00
2	60	12	8	8	8	8	8	8	8	0	0
4	$2,980.56	$340.24	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0	0	0
00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
18	50	101	72	94	60	42	55	0	0	-9
7	$552.06	$1,533.50	$3,097.67	$2,208.24	$2,882.98	$1,840.20	$1,288.14	$1,686.85	$0.00	$0.00	-$276.03
0	0	0	0	0	0	0	0	0	0	0	0
0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0	0	0
7	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0	0	0
0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
18	50	101	72	94	60	42	55	0	0	-9
$552.06	$1,533.50	$3,097.67	$2,208.24	$2,882.98	$1,840.20	$1,288.14	$1,686.85	$0.00	$0.00	-$276.03
18	50	101	72	94	60	42	55	0	0	-9
$552.06	$1,533.50	$3,097.67	$2,208.24	$2,882.98	$1,840.20	$1,288.14	$1,686.85	$0.00	$0.00	-$276.03
19	36	66	62	70	54	38	49	24	18	12
$614.53	$1,291.30	$2,292.52	$2,328.36	$2,644.84	$2,212.90	$1,177.84	$1,015.76	$749.22	$574.72	$368.04
40	78	25	15	15	25	15	15	15	15	30
$948.80	$1,660.40	$593.00	$355.80	$355.80	$593.00	$355.80	$355.80	$355.80	$355.80	$711.60
0	0	0	0	0	0	0	0	0	0	0
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	450	0	0	0	0	0	450
$0.00	$0.00	$0.00	$0.00	$450.00	$0.00	$0.00	$0.00	$0.00	$0.00	$450.00

- Labor Item
- Non-Labor Item

12/20/2004 *D&M for All Depts with Loc 4:32PM

Exhibit	Proj	ProjMgrOrEngr	Dept	RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	Act	Loc	EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
11	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	921	Non-Labor	722	PHE	205	4,800	Training Reserve + Supply 0	0	750	300	100	1,450	1,000	200	0	800	200	0
													$4,800.00	$0.00	$0.00	$750.00	$300.00	$100.00	$1,450.00	$1,000.00	$200.00	$0.00	$800.00	$200.00	$0.00
11	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	921	Non-Labor	722	PHE	501	5,000	Lead. Dev. 0	0	0	0	5,000	0	0	0	0	0	0	0
													$5,000.00	$0.00	$0.00	$0.00	$0.00	$5,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
11	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	921	Non-Labor	722	PHE	316	1,530	Cost-masters 0	0	370	60	60	60	0	60	370	490	60	0
													$1,530.00	$0.00	$0.00	$370.00	$60.00	$60.00	$60.00	$0.00	$60.00	$370.00	$490.00	$60.00	$0.00
	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	921	Non-Labor	722	PHE	522	0	0	0	0	0	0	0	300	0	-300	0	0	0
													$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$300.00	$0.00	-$300.00	$0.00	$0.00	$0.00
	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	921	Non-Labor	765	PHE	201	0	0	0	0	0	0	0	0	0	0	0	0	0
													$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
11	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	921	Non-Labor	765	PHE	402	3,535	1268 0	0	1,268	0	0	0	1,268	0	0	0	0	0
													$1,386.94	Software $0.00	$0.00	$693.47	$0.00	$0.00	$0.00	$693.47	$0.00	$0.00	$0.00	$0.00	$0.00
11,18,19,20	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	921	Non-Labor	765	PHE	501	30,400	Exec Trng 0	0	0	0	20,400	0	0	10,000	0	0	0	0
													$30,400.00	$0.00	$0.00	$0.00	$0.00	$20,400.00	$0.00	$0.00	$10,000.00	$0.00	$0.00	$0.00	$0.00
11	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	921	Non-Labor	807	PHE	201	2,000	Accounting 0	0	500	0	0	500	0	0	500	0	0	500
													$2,000.00	mtgs $0.00	$0.00	$500.00	$0.00	$0.00	$500.00	$0.00	$0.00	$500.00	$0.00	$0.00	$500.00
8,9,10	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	926	Labor	780	PHE	150	172	22	6	16	26	4	23	22	10	11	12	4	16
													$4,459.43	$570.11	$181.45	$395.61	$639.76	$110.97	$600.78	$537.93	$260.24	$309.19	$307.68	$110.97	$434.74
8,9	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	926	Labor	787	PHE	150	113	20	10	31	12	16	0	0	8	8	6	0	0
													$2,767.33	$613.46	$306.70	$1,142.71	$404.60	$563.84	$0.00	$0.00	$245.36	$245.36	$245.36	$0.00	$0.00
6,8,9,10	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	926	Labor	788	PHE	150	498	0	16	104	96	88	34	0	48	48	48	16	0
													$15,273.79	$0.00	$499.72	$3,332.88	$3,014.40	$2,842.16	$1,353.54	$0.00	$1,249.76	$1,249.76	$1,249.76	$499.72	$0.00
11,21	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	921	Non-Labor	765	PHE	501	122,000	LSA 21,000	11,000	6,000	6,000	6,000	21,000	21,000	6,000	6,000	3,800	3,800	11,000
													$122,000.00	$21,000.00	$11,000.00	$6,000.00	$6,000.00	$6,000.00	$21,000.00	$21,000.00	$6,000.00	$6,000.00	$3,800.00	$3,800.00	$11,000.00
1,12,13,14,15,16	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	921	Non-Labor	765	PHE	501	90,092	Trng. Materials 0	0	0	0	10,200	0	1,100	0	0	78,792	0	0
													$90,092.00	$0.00	$0.00	$0.00	$0.00	$10,200.00	$0.00	$1,100.00	$0.00	$0.00	$78,792.00	$0.00	$0.00
17,11	P0000128	Masutani, L	WFSD	PFI	Org Development	B38	A & G Operation	921	Non-Labor	765	PHE	201	19,000	Grade Primer 0	0	0	9,500	0	0	0	0	9,500	0	0	0
													$19,000.00	$0.00	$0.00	$0.00	$9,500.00	$0.00	$0.00	$0.00	$0.00	$9,500.00	$0.00	$0.00	$0.00
	P0000128	Masutani, L	WFSD	PFI	Org Development	B38							280,449	21,112	11,091	9,145	16,085	41,945	23,602	24,779	16,379	16,201	83,989	4,113	12,008
													$325,543.27	$24,007.76	$13,542.20	$16,136.37	$22,804.28	$47,959.13	$28,414.96	$27,437.30	$19,549.00	$19,845.86	$86,789.82	$5,592.21	$13,464.38
	P0000128	Masutani, L	WFSD	PFI									280,449	21,112	11,091	9,145	16,085	41,945	23,602	24,779	16,379	16,201	83,989	4,113	12,008
													$325,543.27	$24,007.76	$13,542.20	$16,136.37	$22,804.28	$47,959.13	$28,414.96	$27,437.30	$19,549.00	$19,845.86	$86,789.82	$5,592.21	$13,464.38
	P0000128	Masutani, L	WFSD										281,051	21,103	11,169	9,207	16,194	42,025	23,704	24,847	16,429	16,264	83,997	4,113	11,999
													$345,091.37	$23,703.93	$17,074.82	$18,010.11	$26,147.31	$50,412.73	$31,543.30	$29,522.86	$21,082.50	$21,778.07	$87,035.18	$5,592.21	$13,188.35
	P0000128												281,339	21,103	11,169	9,207	16,290	42,073	23,704	24,895	16,465	16,312	84,009	4,113	11,999
													$354,114.17	$23,703.93	$17,074.82	$18,010.11	$28,840.11	$51,854.65	$31,543.30	$30,930.94	$22,239.30	$23,623.55	$87,512.90	$5,592.21	$13,188.35

HECO RATE CASE - REQUEST FOR INFORMATION

Prepared by Lisa Masutani, Workforce Staffing & Development
Submitted to Regulatory Affairs January 4, 2005

PROJECT #0000128 - CRITICAL SKILLS PLANNING & DEVELOPMENT

Organizational Development's (project #0000128) Critical Skills Planning & Development Project's 2005 training forecast represents HECO's core (non-technical) training and development programs. Examples of these program categories include customer relations, leadership/supervisory and interpersonal skills, and executive development. There are also programs to address compliance issues and to develop and reinforce our corporate values.

Our 2005 training forecast reflects updated costs for participant materials and facilitator guides, an additional enrollment to the Utilities Executive Course (a key component of our executive development program), and a 3% increase to our 2004 Voluntary Educational Assistance (VEA) program budget.

Activity #s Impacted:
722 - Design, Deploy & Assess Org'l Development Strategies
765 - Develop, Manage & Administer Employee Policies, Practices & Procedures
780 - Administer Benefit Plans, Polices & Procedures Other Than FlexPlan & Retirement Prgms
785 - Plan & Determine Employee Trng & Development Needs
787 - Develop Employee Training
788 - Conduct Employee Training
807 - Manage & Provide Companywide Employee Communications

Listing of Exhibits Supporting 2005 Forecast

Exhibit #	Description	# pages	Activity Exhibit Supports
1	Non-WSD Co-Facilitators Training Hours Worksheet	1	788 (Labor)
2	Non-WSD Co-Facilitators Training Hours Pillar Input Sheet	2	788 (Labor)
3	Nina Agbayani Training Hours Worksheet/Pillar Input Sheet	1	788 (Labor)
4	Faye Chiogioji Training Hours Worksheet/Pillar Input Sheet	1	788 (Labor)
5	Dawna Ota Training Hours Worksheet/Pillar Input Sheet	1	788 (Labor)
6	WSD Consultant & HR Assistant Training Hours Worksheet	1	788 (Labor)
7	WSD Consultant Training Hours Pillar Input Sheet	1	788 (Labor)
8	Kevin Imai Project Hours Worksheet/Pillar Input Sheet	1	722,780,787,788 (Labor)
9	Lisa Masutani Project Hours Worksheet	1	722,780,787,788 (Labor)
10	WSD HR Assistant Project Hours Worksheet	1	722,780,785,788 (Labor)
11	FI (Organizational Development) Non-Labor Project Forecast	3	722,765,780,788,789,807 (Non-Labor)
12	Training Materials Cost Worksheet	2	788 (Non-Labor)
13	Email - AchieveGlobal Cost Estimates (for Creating Stellar Cust Svc course)	2	788 (Non-Labor)
14	Email - AchieveGlobal Cost Estimates (for Workskills course)	1	788 (Non-Labor)
15	Email - AchieveGlobal Cost Estimates (for Genuine Leadership course)	2	788 (Non-Labor)
16	Email - ELI Cost Estimates (for Civil Treatment Courses - CTM & CTE)	2	788 (Non-Labor)
17	Outside Training Instructor Cost Information	1	788 (Non-Labor)
18	2003 Univ of Hawaii-Hawaii Management Prgm Brochure	4	789 (Non-Labor)
19	2004 INNOVA Group Developmental Leadership Prgm Brochure	4	789 (Non-Labor)
20	2004 Utiity Executive Course Brochure	4	789 (Non-Labor)
	Other Exhibits:		
21	Univ of Hawaii Curricula, Tuition, Finances, & Faculty & Staff 2001-2003 Statisti	1	Tuition Increase Statistics
22	Consumer Price Index (Honolulu) 1980-2003	1	CPI Increase Statistics

#0000128 Exhibit - 2
(1 of 2)

Prepared by Dana Martins
Date 7/17/2002

tab card						
ul	Aug	Sep	Oct	Nov	Dec	Total
ount in "Units tab card")						
1	1	1	1	1	1	12
n "Units tab card")						
0	0	0	0	0	0	50
0	0	0	0	0	0	-50
0	0	0	0	0	0	0
0	0	0	0	0	0	60
						-26
0	0	0	0	0	0	34
0	0	24	0	0	0	24
0	0	24	0	0	0	24
0	0	20	0	0	0	70
		-20				-70
0	0	0	0	0	0	0
0	0	0	0	0	0	24
0	0	0	0	0	0	24
0	12	12	0	0	0	24
0	0	12	0	0	0	24
0	0	12	12	0	0	24
0	0	12	0	0	0	24
0	0	0	0	0	0	24
0	0	0	0	0	0	24
0	0	0	0	0	0	24
24	0	0	0	0	0	48
24	0	0	0	0	0	48
0	0	0	0	0	0	24
0	0	0	0	0	0	24
0	20	0	0	0	0	80
	-20					-80
0	0	0	0	0	0	0
20	0	0	0	0	0	40
20						-40

12/28/2004

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20	28	12	-12	288
0		0		0
0		0		0

12/28/2004

Labor Input Shee\ ·ct
2005

Nina Agbayani

Project #0000128 Exhibit -3

Resp Area (RA) FA N.Agbayani)
Labor Class I-Implementor

Prepared by Nina Agbayani
Date 5/15/2003

Line Item	RA	Act	Loc	Ind	Proj	EE	Labor Class	Rates Link	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	Dimension tab card						Rates tab ca		Units tab card												
Labor Supply:																					
									(enter employee count in "Units tab card")												
Labor Supply	FA	*Supply	*Supply	*Supply	*Supply	*Supply	I-Implement	Available	1	1	1	1	1	1	1	1	1	1	1	1	12
Labor Demand:																					
									(enter hours in "Units tab card")												
TRNG: FA-I labor (NA)-cndct AG TTT (input 5/20/03)	FA	788	PHE	NE	NPFZZZZZ	180	I-Implement	I-Implement	4	0	4	0	0	0	0	0	0	0	0	0	8
Total - Assist Faye in Conducting AG TTT Training									4	0	4	0	0	0	0	0	0	0	0	0	8
								Total Proj/Pgm Demand	4	0	4	0	0	0	0	0	0	0	0	0	8
								Total Supply	184	160	168	176	176	168	184	168	176	184	160	184	2,088
2004 Holidays - 1/1, 2/17, 4/18, 5/26, 6/11, 7/4, 8/15, 9/1, 10/13, 11/11, 11/27, 12/24 (1/2), 12/25, 12/31 (1/2)									8	8	0	8	8	8	8	8	8	8	16	16	104
Available hours per employee									184	160	168	176	176	168	184	168	176	184	160	184	2088

P0000128/02a

8 hrs.

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Fumhina 12/28/04

Labor Input . Project
20.
2005

Faye Chiogioji Project #0000128 Exhibit - 4

FA (F.Chiogioji)
E-Enabler

Prepared by Nina Agbayani
Date 5/15/2003

Dimension tab card								Rates tab card	Units tab card												
	RA	Act	Loc	Ind	Proj	Bill	Labor Class	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
									(enter employee count in "Units tab card")												
	FA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	E-Enabler	[illegible]	1	1	1	1	1	1	1	1	1	1	1	1	12
									(enter hours in "Units tab card")												
adj 02-04/05)	FA	788	PHE	NE	NPFZZZZZ	[illegible]	E-Enabler	E-Enabler	0	4	0	0	0	0	0	0	0	0	0	0	4
	FA	788	PHE	NE	NPFZZZZZ	[illegible]	E-Enabler	E-Enabler	0	48	0	0	0	0	0	0	0	0	0	0	48
0/03)	FA	788	PHE	NE	NPFZZZZZ	150	E-Enabler	E-Enabler	0	0	0	0	0	0	0	0	0	0	0	0	0
									0	52	0	0	0	0	0	0	0	0	0	0	52
							Total NonProj/Pgm Demand		0	52	0	0	0	0	0	0	0	0	0	0	52
							Total Supply		0	0	0	0	0	0	0	0	0	0	160	184	344
/11, 7/4, 8/15, 9/1, 10/13, 11/11, 11/27, 12/24 (1/2), 12/25, 12/31 (1/2)									8	8	0	8	8	8	8	8	8	8	16	16	104
									184	160	168	176	176	168	184	168	176	184	160	184	2088

P0000128/02a

52 hrs

- conduct 4 sessions X 8hrs/session = 32hrs.
- prep for sessions = 20hrs

inputted 5/20/03

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From Nina 12/28/04

Labor Inpu.. .t - Project
2005

Dalka Ota Project #0000128 Exhibit - 5

(D.Ota)
Teacher/Coach

Prepared by Nina Agbayani
Date 5/20/2003

...nsion tab card							Rates tab card	Units tab card											
...A	Act	Loc	Ind	Proj	Bill	Labor Class	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
								(enter employee count in "Units tab card")											
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	1	1	1	1	1	1	1	1	1	1	1	1
...aining				P0000128/JA				(enter hours in "Units tab card")											
[redacted]	789	PHE	NE	MF22222	[redacted]	[redacted]	[redacted]	0	18	18	30	0	0	0	0	12	0	0	0
[redacted]								[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
								8	8	8	8	8	8	8	8	8	8	8	0
							Total NonProj/Pgm Demand	0	0	0	0	0	0	0	0	0	0	0	0
							Total Supply	0	0	0	0	0	0	0	0	0	0	0	0
...11, 11/27, 12/24 (1/2), 12/25, 12/31 (1/2)								8	8	0	8	8	8	8	8	8	8	16	16
								184	160	168	176	176	168	184	168	176	184	160	184

(80) hrs

From Nina 12/28/04

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Exhibit - 6

Ag	S	O	N	D

8 Hrs each. This
[illegible] 2 HRPs
[illegible] hours. (2/18/04)

nally submitted July 2002
4 May 2003 (no changes)

Labor Input Sheet - Project
2005

Project #0000128 Exhibit - 7

Resp Area (RA) FD
Labor Class TC (Consultants)

Prepared by Sandy Olson
Date 2/17/2004

Dimension tab card								Rates tab card	Units tab card												
Line Item	RA	Act	Loc	Ind	Proj	EE	Labor Class	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Labor Supply :									*(enter employee count in "Units tab card")*												
Labor Supply	FD	*Supply	*Supply	*Supply	*Supply	*Supply	TC	Available Hours	6	6	6	6	6	6	6	6	6	6	6	6	72
02/17/04 Update	FD	*Supply	*Supply	*Supply	*Supply	*Supply	TC	Available Hours	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-12
																					60
Labor Demand :									*(enter hours in "Units tab card")*												
TRAINING:																					
Conduct Ee Training (2001)	FD	788	PHE	NE	NPFZZZZZ	[illegible]	TC	TC	0	18	78	122	72	82	89	63	108	0	0	12	824
Conduct EE Training (Update 5/19/03)	FD	788	PHE	NE	NPFZZZZZ	[illegible]			-21			-21				-21				-21	-84
02/17/04 Update											-28			+12	-8		-63				-84
[illegible]																					
Attend Training (5/19/03)	FD	789	PHE	NE	NPFZZZZZ	[illegible]								12							12
02/17/04 Update														-12							-12
[illegible]																					
								Total NonProj/Pgm Demand	-21	18	50	101	72	92	80	42	55	0	0	-9	480
								Total Supply	1,008	960	1,104	1,008	1,056	1,056	1,008	1,104	1,056	1,008	1,056	1,056	12,480
Holidays - 1/1, 2/19, 4/13, 5/28, 6/11, 7/4, 8/17, 9/3, 10/8, 11/5, 11/12, 11/22, 12/24 (1/2), 12/25, 12/31 (1/2)									0	8	8	0	8	8	8	8	8	8	16	16	96
Available hours per employee									168	160	184	168	176	176	168	184	176	168	176	176	2080

Adjust (-78hrs) for one less consultant.

462 78

-12

NOTE: Total NonProject/NonProgram Demand hours may *NOT* equal Total Supply hours due to Project/Program Demand hours (which are budgeted in the Project model)
S:\HumanResources\HRWSD\Budget\CSCForecast\Submitted\n2002

Submitted May 2003

2/17/2004 5:29 PM

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na Martins

v	Dec	Total
1	1	12
12	12	144
12	12	12
0	0	156
1	1	22
0	0	18
1	1	40
1	1	22
0	0	18
1	1	40
0	1	6
	1	6
24	16	392
16	-8	-286
-8	-8	6
16	16	0
16	16	112
		32
8	0	208
-8	0	2
		-98
8	0	0
8	0	112
16	19	466
76	184	2,096
24	24	120
76	184	2096
		1,976
2		48

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Project #0000128 Exhibit – 9

OF 1	Act 2003	Proposed 2005	Proposed 2005 Hrs	Refined 2005 Hrs	2005 Base Hours:
135	7.71%	3.0%	62	62	
24.5	1.40%	5.0%	104	103	
20	1.14%	5.5%	114	100	
		1.0%	21	5	
		1.0%	21	5	
01.5	74.37%	55.0%	1144	1031	
87	4.97%	3.0%	62		
88	5.03%	11.0%	229	259	Increase leadership development & succession plng efforts
		1.0%	21	20	
		1.0%	21	20	
17	0.97%	1.0%	21	21	
3	0.17%				
1	0.06%	1.5%	31	16	
2	0.11%	2.0%	42	43	
2	0.11%				
2	0.11%				
10	0.57%				
33.5	1.91%				
6.5	0.37%	1.0%	21	21	Develop/enhance prgm
6	0.34%	3.0%	62	63	
1	0.06%				
10	0.57%				
		3.0%	62	62	
		2.0%	42	33	Plan/dev training. Trng was suspended in 2003
50	100.0%	100.0%	2080		
			154	148	Conduct training. 12 classes X 12 hrs/class to conduct (4h) & prep (8h)
			2234		
				459	
				499	

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Project #0000128 Exhibit – 10

HR Assistant (HRA)
Implementor - 2005 Project Labor Forecast (Updated 8/7/03)

Move 2 CSC HRAs to FI for a total of 3 HRAs. Merged CSC HRA hours (as forecasted for CSC) with existing OD HRA forecasted hours. Amount of forecasted hours for each project would not change. OD & CSC work would be divided amongst 3 HRAs.

Activity - Justification	8/7/03 Update
Project Labor Forecasts	
PFD788 - Conduct Training (87 *2 = 174 CSC) + 36 OD	210
PFD789 - Attend Training (S. Lee attend AGTTT)	40
PFI722 - Leadership Dev. Suc Plng (Martins original forecast)	63
PFI780 - VEA (Martins original forecast)	109
Total - Project Hours - 3 HRAs	**250**

HR Assistant (HRA)
Implementor - 2005 Project Labor Forecast (2/18/04 Update)
supersedes 8/7/03 Forecast

Feb 2004 - Add 1 additional HRA. Unless otherwise specified, used existing HRA hours (as of 8/7/03 update) and divided by 3 to forecast hours for 1 additional HRA.

Activity - Justification	2/18/04 Update
Project Labor Forecasts	

Project #0000128 Exhibit – 11 (1of3)

05/16/03 Figure reflects adjusted budget (available $) after expenses/adjustment

Y	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
	450						450	900
	10	0	0	0	0	0	10	20
	-10						-10	-20
0	450	0	0	0	0	0	450	900
00	450	1,000	200			200		3,000
2	10	22	4	0	0	4	0	66
-2	-10	-22	-4			-4		-66
00	450	1,000	200	0	0	200	0	3,000
	1,000				800			1,800
0	1,000	0	0	0	800	0	0	1,800
								5,000
00								0
10	0	0	0	0	0	0	0	110
10								-110
00	0	0	0	0	0	0	0	5,000
0	60		60	370	490	60		1,530
1	1		1	8	11	1		32
-1	-1		-1	-8	-11	-1		-32
0	60	0	60	370	490	60	0	1,530
		620						1,240
		-620						-1,240
0		0						0
		634						1,268
0	0	634	0	0	0	0	0	1,268
0	20,750	20,750	5,750	5,750	3,250	3,250	10,750	119,000
7	457	457	127	127	72	72	237	2,624
3	-207	-207	123	123	478	478	13	976
0	20,000	21,000	6,000	6,000	3,800	3,800	11,000	122,600
								930
					930			0
0	0	0	0	0	20	0	0	20
					50			50
0	0	0	0	0	1,000	0	0	1,000
								3,580
					3,580			0
0	0	0	0	0	79	0	0	79
					2,241			2,241
0	0	0	0	0	6,900	0	0	6,900

2/21/04

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Project #0000128 Exhibit – 11 (2 of 3)

FI - 2005 Non-Labor Project Forecast

Budget Figures Reflected in Pillar as of 05/18/03

Figure reflects adjusted budget (available $) after expenses/adjustment

RA	Acct	EE	Line Item	Comments	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
PFI	788	201	CTM (Civit Treatment for Managers Course)			2,800											2,800
			5/19/2003	Move Feb to Oct		-2,800								2,800			0
			8/20/2003	Escalation 2.2%	0	0	0	0	0	0	0	0	0	62	0	0	62
			2/18/04 Update	Price increase (new version; 30 bks)										1,430			1,430
			Total	Based on updated materials costs (see cost sheet)	0	0	0	0	0	0	0	0	0	4,292	0	0	4,292
PFI	788	201	Leadership for Results (AG course) (name change to Genuine Leadership)			18,850											18,850
			5/19/2003	Move Feb to Oct		-18,850								18,850			0
			5/19/2003	Add $, increase in mts										8,000			8,000
			8/20/2003	Escalation 2.2%	0	0	0	0	0	0	0	0	0	595	0	0	595
			2/18/04 Update	Price increase (new version; 30 mods)										15,155			15,155
			Total	Based on updated materials costs (see cost sheet)	0	0	0	0	0	0	0	0	0	42,600	0	0	42,600
PFI	788	201	Coaching for Stellar Svc (AG course)														
			8/20/2003	Escalation 2.2%										10,200			10,200
			2/18/04 Update	Increase up to 3%	0	0	0	0	0	0	0	0	0	224	0	0	224
			Total	Based on updated materials costs (see cost sheet)										76			76
					0	0	0	0	0	0	0	0	0	10,300	0	0	10,300
PFI	788	201	Tools for Performance Leaders (AG course)														
			5/20/03Upd	cost incr for mats					4,200								4,200
			Total	Based on updated materials costs (see cost sheet)					6,000								6,000
							0		10,200								10,200
PFI	788	201	Strategic Thinking														
			5/19/2003	Move Apr to July				1,100									1,100
			8/20/2003	Escalation 2.2%				-1,100			1,100						0
			2/18/04 Update	Reverse 2.2% increase							24						24
			Total	Same as 2004 budget (for participant materials, etc)							-24						-24
					0	0	0	0	0	0	1,100	0	0	0	0	0	1,100
PFI	788	201	Creating Stellar Cust. Svc (AG course)														
			8/20/2003	Escalation 2.2%										12,180			12,180
			2/18/04 Update	(New version - 12 participants)										268			268
			Total	Based on updated materials costs (see cost sheet)										-4,448			-4,448
					0	0	0	0	0	0	0	0	0	8,000	0	0	8,000
PFI	788	201	WorkSkills (AG course)														
			8/20/2003	Escalation 2.2%										13,000			13,000
			2/18/04 Update	(New version - 18 participants)										286			286
			Total	Based on updated materials costs (see cost sheet)										-6,786			-6,786
					0	0	0	0	0	0	0	0	0	6,500	0	0	6,500
PFI	788	501	Training - Outside Instructor	New line item													
								9,500					9,500				19,000
			Total	Facilitator for 24 AG class @ $400/class (for Civil Treatment certification) @ $400/class + $1,000 maintenance fee = $10,000	0	0	0	9,500	0	0	0	0	9,500	0	0	0	19,000

hrwsd/od/budget/04Forecast/Non-Labor Prjt128 Forecast.xls 2005NPNP

2/21/04

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FI - 2005 Non-Labor Project Forecast

Budget Figures Reflected in Pillar as of 05/16/03

Figure reflects adjusted budget (available $) after expenses/adjustment

RA	Acct	EE	Line Item	Comments	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
PFI	789	501	UH-HMP (Univ of Hawaii-Hawaii Mgmt Prgm Course)														
			8/20/2003	Escalation 2.2%								6,350					6,350
			2/18/04 Update	Adjust (1 participant)								140					140
			Total:	Based on 2003 fee of $2,500p (sending 1 person)								-1,490					-1,490
					0	0	0	0	0	0	0	5,000	0	0	0	0	5,000
PFI	789	501	INNOVA (leadership course)														
			5/19/2003	Move May to Aug					2,240			4,475					6,715
			8/20/2003	Escalation 2.2%					-2,240			2,240					0
			2/18/04 Update	Adjust (1 participant)								148					148
			Total:	Based on 2004 fee of $2,750p (sending 1 person)								-1,863					-1,863
					0	0	0	0	0	0	0	5,000	0	0	0	0	5,000
PFI	789	501	UEC (Utility Executive Course)														
			8/20/2003	Escalation 2.2%					9,875								9,875
			2/18/04 Update	Increase to 2 participants					217								217
			Total:	Based on 2004 fee of $6,900p (sending 2 pp)					10,308								10,308
					0	0	0	0	20,400	0	0	0	0	0	0	0	20,400
PFI	807	201	TMM MTG (CEO meetings)														
			8/20/2003	Escalation 2.2%			500			500			500			500	2,000
			2/18/04 Update	Reverse 2.2% increase	0	0	11	0	0	11	0	0	11	0	0	11	44
			Total:	Same as 2004 budget (for meeting materials, etc.)			-11			-11			-11			-11	-44
					0	0	500	0	0	500	0	0	500	0	0	500	2,000

Note: Per Lisa & Mgmt Acctg: going forward all line items are to be increased by the base + escalation cost; unless otherwise noted. Base = previous years total.

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Project #0000128 Exhibit – 12 (1 of 2)

(Achieve Global)

Total	Participants	Courses	Shipping	Total	Comments
8 $46.88					Original cost is $50/module, however when purchasing all 4 modules as a kit = $45/module. Estimated shipping costs
8 $46.88					
8 $46.88					
8 $46.88					
0 $187.50	12	2	$100.00	$4,600.01	
7 $1,666.67	2	1		$3,333.34	
05 Forecast – 8,000					

Total	Participants	Courses	Shipping	Total	Comments
4 $13.54					
4 $13.54					
4 $13.54					
4 $13.54					
4 $13.54					
4 $13.54					
$81.25	18	2	$600.00	$3,525.01	
$234.38	6	2		$2,812.51	
05 Forecast – 6,500					

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Project #0000128 Exhibit - 12 (2 of 2)

Genuine Leadership (Achieve Global)

Program/modules	Cost	Tax	Total	Participants	Courses	Shipping	Total	Comments
18 modules X $50 =	$900.00	$37.50	$937.50					Includes supervisory modules (TPL). Plan to buy 2 facilitator sets this year (04) = 5,625. Facilitator is based on 2 GL sessions and Supervisory session. 12 GL modules x 2, 6 sup. Modules = 30
Total	$900.00	$37.50	$937.50	18	2	$600.00	$34,350.11	
Facilitator Kits	$450.00	$18.75	$468.75	18 (1)	1 (18)*		$8,437.53	
Extl. Faciliator	$150.00	$6.25	$156.25	4	30		$18,750.06	
Total Annual Budget	$61,537.70	Leadership for Results – 42,600; Coaching for Stellar Svc – 10,500; Tools for Performance Ldrs – 10,200						2005 Forecast $8

* based on LFR (12 modules) + TPL (6 modules)

CTE Civil Treatment for Employees (ELI Inc.)

Program/modules	Cost	Tax	Total	Participants	Courses	Shipping	Total	Comments
CTE	$35.00	$1.46	$36.46					No facilitator kits needed. Lia Shigemura gave a fac kit for every 30 books ordered.
Total	$35.00	$1.46	$36.46	120	1	$400.00	$4,775.01	
Facilitator Kits	$250.00	$10.42	$260.42	4	1		$1,041.67	
Total Annual Budget	$5,816.68	2005 Forecast – 5,900						

CTM Civil Treatment for Managers (ELI Inc.)

Program/modules	Cost	Tax	Total	Participants	Courses	Shipping	Total	Comments
CTM	$75.00	$3.13	$78.13					No facilitator kits needed. Lia Shigemura gave a fac kit for every 30 books ordered.
Total	$75.00	$3.13	$78.13	36	1	$400.00	$3,212.51	
Facilitator Kits	$250.00	$10.42	$260.42	4	1		$1,041.67	
Total Annual Budget	$4,254.18	2005 Forecast – 4,300						

Total Annual Trng Mat. $85,879.43 Avail. $$ $68,610.00 Avail. Includes CTE, CTM, Workskills, GL, CSCR, CSR

od/budget/2004/Training Forecast Worksheet.xls

2/13/2004

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Masutani, Lisa

Project #0000128 Exhibit - 13 (1 of 2)

From: Imai, Kevin
Sent: Wednesday, December 29, 2004 2:02 PM

Hi Greg... what is the cost to purchase the combined facilitator guide for the four modules. I think the item number is A0580. This is the guide that makes the transitions from and to all four modules.

We're planning our budget for 2005 and wanted to make sure we have the $$.

thanks...

Kevin Imai
Hawaiian Electric Company, Inc.
(808-543-4644)

Project #0000128 Exhibit – 14

Achieve Global - Workskills Course (price list)

Out of Print Working Module	WorkSkills Replacement Module
Being a Team Player	Helping Your Team Work
Dealing with Changes	Positive Responses to Change
Getting Your Point Across	Speaking With Confidence
Introduction and the Basic Principles	What it Takes to Succeed: the Basic Principles
Giving Feedback to Help Others	Helping Your Team Work
Keeping Your Boss Informed	No Direct Replacement
Listening to Understand Clearly	Getting the Information You Need
Participating in Meeting	No Direct Replacement
Positive Responses to Negative Situations	Positive Responses to Change
Requesting Help	Getting the Information You Need & Helping Your Team Work
Resolving Issues with Others	Defusing Emotionally Charged Situations
Taking on a New Assignment	Getting the Information You Need
Working for Managers	No Direct Replacement
Working Smarter	No Direct Replacement

Benefits of transitioning to WorkSkills:

- Includes current adult learning techniques for maximum learning (e.g., Less reading and more interactive activities, faster pace in design).
- Skill steps summarized into short acronyms (like TALK) yields higher retention and on the job use.
- Thorough product research resulting in more effective training.

WorkSkills Materials Pricing:

FACILITATOR KIT:	225.00	Facilitator Guide, Videos, Wallcharts, Participant Workbook and Binder. Training Support Materials: Introductory Video, Skill Practice Video, and/or Wallchart to Aid in Delivery Preparation
FACILITATOR GUIDE:	50.00	Facilitator Guide Only
PARTICIPANT WORKBOOK	13.00/ea.	Participant Workbook Only
TRAINING REVIEW AND REINFORCEMENT WORKBOOK	50.00 / per module	One reinforcement workbook needed for each module, 20-30 minute sessions to be delivered by supervisor, manager, or certified facilitator.

Project #0000128 Exhibit - 15 (1of2) AchieveGlobal

Masutani, Lisa

From: Imai, Kevin
Sent: Wednesday, December 29, 2004 12:38 PM
To: Masutani, Lisa
Subject: FW: Leadership for Results / Genuine Leadership information

Genuine Leadership Course

Attachments: MKTM0260 GL DELIVER.pdf; Ps & Qs.doc; 17LFRUS's.doc

MKTM0260 GL DELIVER.pdf (503 K.. | Ps & Qs.doc (43 KB) | 17LFRUS's.doc (72 KB)

Kevin Imai
Hawaiian Electric Company
(808-543-4644)

-----Original Message-----
From: Greg.Watson@achieveglobal.com [mailto:Greg.Watson@achieveglobal.com]
Sent: Wednesday, January 28, 2004 11:08 AM
To: Imai, Kevin; Cheffy, Mike
Subject: Leadership for Results / Genuine Leadership information

Hello Again Mike and Kevin -
So, following is some more detailed information pertaining to the modules available though our Leadership for Results (LFR) System as well as the new version of the Basic Principles (The Principles & Qualities of Genuine Leadership) that resides in our new Achieving Results Through Genuine Leadership System.

Here is how the Working modules would correlate:
Listening to Understand Clearly = Proactive Listening (LFR)
Resolving Issues with Others = Moving from Conflict to Collaboration (LFR)
Basic Principles = The Principles & Qualities of Genuine Leadership (individual contributor version) from the Genuine Leadership System
Being a Team Player = no direct replacement....however please review modules under TeamEffectivness in the first attachment

Leadership for Results materials are priced at:
$300 per module for facilitator kit
$40 per workbook, per module

Genuine Leadership materials are priced at:
$150 per facilitator kit (this is special introductory pricing - after March 31 it will be $450 per kit) $50 per workbook, per module

The Genuine Leadership materials for the Principles & Qualities of Genuine Leadership will have the exact same look and feel as the Leadership for Results materials.

thanks,
Greg
(See attached file: MKTM0260 GL DELIVER.pdf)(See attached file: Ps & Qs.doc)(See attached file: 17LFRUS's.doc) **Please note NEW phone/fax number**

P: 303.440.7837
Toll-Free: 888.802.4357 ext. 8983

Project #0000128 Exhibit – 15 (2of2)

Achieve Global.
Genuine
Leadership
Course

F: 303.440.7847
Toll Free Customer Service / Materials Ordering:
800-866-2421

Please visit our web site at http://www.achieveglobal.com

Project #0000128 Exhibit – 16 (1of2) ELI Inc.

Masutani, Lisa

From: Imai, Kevin
Sent: Wednesday, December 29, 2004 12:42 PM
To: Masutani, Lisa
Subject: FW: ELI Information

Civil Treatment Course

Kevin Imai
Hawaiian Electric Company
(808-543-4644)

-----Original Message-----
From: Lia Shigemura [mailto:LShigemura@eliinc.com]
Sent: Friday, January 30, 2004 7:10 AM

To: Imai, Kevin
Subject: ELI Information

Hi Kevin,

Good talking with you yesterday. Here are a couple of options for Hawaiian Electric to obtain facilitator kits for the enhanced CTM and CTE programs, as well as obtain participant materials:

CTM and CTE facilitator kits (video, DVD, participant manual and facilitator guide) can be purchased from ELI for $250 each (through end of June). [The usual charge for a facilitator kit is $350.] Alternatively, I can arrange to send one facilitator kit (at no extra charge) for every 30 sets of participant materials purchased. For example, if Hawaiian Electric were to purchase 120 CTM manuals and 150 CTE manuals, then at no extra charge, ELI would send 4 CTM facilitator kits and 5 CTE facilitator kits. Purchased directly from ELI, participant materials for CTM is $75/per person; Civil Treatment For Employee participant materials are $35/per person (plus shipping) and include participant resource manuals, posters and rule cards.

The License To Duplicate (LTD) option still exists - however the structure has changed slightly (and now allows for a bit more program flexibility).
Instead of requiring a minimum number of participants in a single course, LTDs are now drafted based on the organization's aggregate investment commitment in materials (regardless which ELI learning solutions are utilized). If Hawaiian Electric is able to make an investment commitment in materials in excess of $20,000 (which is the minimum), then we can offer a 25% cost reduction (discounts increase with further investments).

If Hawaiian Electric is committed to training, for example, 150 supervisors in CTM, and 250 employees in CTE, then with an LTD, the total financial investment would be $15,000 (150 x $75 = $11,250; 250 x $35 = $8,750; $20,000 less 25% = $15,000). In order to qualify for the LTD discount, the aggregate total for materials needs to be $20,000 or more (at the "regular" cost).

Additionally, if the LTD did reflect the hypothetical target numbers stated above, then we could also send 5 CTM facilitator kits and up to 8 CTE facilitator kits at no charge.

On a totally separate subject, I also wanted to invite you to participate in a webcast pilot that ELI is holding on February 17th of Civil Treatment For Managers, and a refresher course to CTM. The pilot webcasts will be interesting, interactive and engaging - and I would love to have your participation in the pilot session (as well as any of your colleagues at Hawaiian Electric). If you are interested in participating in the pilot

Both pilot webcasts will be held on Feb. 17th. Unfortunately, the CTM-Refresher pilot will be held at 11am - 1pm EST (which is 6am - 8am in Hawaii!). The CTM webcast, however, will be from 9am - 11:30am Hawaii time (2pm - 4:30pm EST). And if you or others are interested but can't attend on the 17th, we'll be rolling out a public webcast of both programs on March 3 and 4. I've attached a description of the webcast format below.

Kevin - if any of the information above is confusing, please call! I'll connect with you next week to see if you've decided how you'd like to procure materials and facilitator kits. In the meantime, please feel free to invite your colleagues to the (free) pilot webcasts on 2/17/04 - and take good care!

Aloha,
Lia

****

ELI Interactive Learning Webcasts:
Experience the Impact of the Classroom Live at Your Desktop

* Interactive - live instructors and a virtual community of participants
* In your office, at the desktop
* Easy technical implementation
* Highly topical to address up-to-the minute workplace issues
* ELI's proven, award-winning content and methodology

A New Delivery Method...The Same Award-Winning Methodology and Content

Today, as more and more organizations are looking for ways to avoid the logistical challenges associated with classroom training or technically complex e-learning implementations, ELI brings our cutting edge solutions to a new delivery channel: interactive learning webcasts.

A True Alternative to the Classroom

We know that adapting classroom instruction to a technology-based format doesn't automatically create learning that makes a difference. By combining our award-winning learning methodology and the knowledge and skills of our professional instructors with the full features of interactive webcasting technology, ELI has developed a learning environment that is a true alternative to the classroom.

Just like our classroom programs, ELI webcasts are interactive, engaging, skills-based learning solutions that help organizations build legal, productive, and ethical workplaces by making a difference in the way people behave at work. Instead of lecture-based, static slideshows, our webcasts engage participants by allowing them to:

* Serve on juries
* Provide input and responses via polling exercises
* Role-play real-life workplace scenarios
* Interact with instructors and fellow participants from across the country

Upcoming Classes
March Webcast Calendar

Civil Treatment(R) for Managers
March 3, 2004
11:00-1:30 PM EST
Instructor: Stephen M. Paskoff, Esq., ELI Founder and President

Civil Treatment(R) for Managers Refresher
March 4, 2004
11:00-12:30 PM EST
Instructor: Stephen M. Paskoff, Esq., ELI Founder and President

Project #0000128 Exhibit -17

Outside Training Instructor Cost

(data as of January 2004)

1) Facilitator for AchieveGlobal Courses
(Facilitator must be AG certified to conduct AG course)

Option 1: Univ of Hawaii pays their AG facilitators $250/class

Option 2: Alison Zecha charges $345 per class (her broad knowledge of HECO (business, processes & employees) helps to enrich the course content and paying $95 over UH facilitators would be a reasonable premium to pay for the return) — use for 2005 Forecast

2) Civil Treatment Certification

Option 1: On-site cost=$3,500 per participant + travel & expenses for ELI facilitator (approx $2,000).

Option 2: Attend class in Phoenix, AZ. Cost=$4,000 per participant + travel & expenses (approx $1,000) — use for 2005 Forecast.

Project #0000128 Exhibit – 18 (1 of 4)

University of Hawai'i at Mānoa

HMP

Program Objectives, Curriculum & Faculty

The 2003 Hawai'i Management Program is specifically designed for mid-level executives and managers who want to maintain a competitive edge, enhance their career potential and invest in their company's future.

Presentations, discussion groups, case studies, role playing and small group tasks are woven together to create an interactive, exciting and relevant educational experience.

The 2003 Hawai'i Management Program will equip you with the skills and knowledge you need to deal effectively with future opportunities and challenges in Hawaii's business world.

Objectives

1. **Develop a general management perspective**
   Learn to examine problem areas from a corporate viewpoint and use cutting-edge management techniques.

2. **Acquire essential executive skills**
   Leadership and team building, effective negotiations, and interpersonal communications.

3. **Increase your competence in key areas of management**
   Strategic management, finance and accounting, marketing, cross cultural issues, negotiations, and legal issues of management.

4. **Expand your knowledge and understanding of business in Hawai'i**
   Grow your network of local business executives.

Curriculum

Strategic Management
- The strategic planning process
- Four types of strategy
- Dangers of a price war and how to avoid one
- Elements of customer loyalty
- Role of belief systems in strategy (mission, vision, values)
- Monitoring the external environment
- Levels of uncertainty with appropriate strategic responses
- Industry, competitive and internal analysis
- Positioning
- Strategic intent generation and selection
- The role of information technology in your company's strategy

Finance and Accounting
- Product and service costing
- Capital budgeting
- Static and flexible budgets
- Life cycle cost management
- Quality costing: measurement and control
- Activity-based accounting
- Productivity measurement and control
- The balanced scorecard and strategic cost management

Strategic Marketing
- Understand marketing management
- Customer, competitor and environmental analysis
- Market research and the role of information technology
- Developing marketing strategies
- Developing marketing programs: Products and distribution Marketing communications and pricing
- Managing the marketing effort and marketing relationships
- Using information technology in the marketing process

Leadership and Team Building
- Theories of leadership
- The empowered worker
- Learn your leadership style
- Interpersonal and organizational communication
- Non-verbal communication
- Build and work in better, more effective teams

Cross Cultural Issues
- Culture's impact on the workplace
- Working with people from other cultures
- Managing in a diverse workplace
- Understanding power

Negotiations
- Negotiations and alternative dispute resolution
- Using ADR to resolve conflict situations
- Communicating in conflict situations
- Psychological types in dispute resolution

Implications of Legal Issues on Management Practices
- Increasing diversity in the work force
- Human resource planning
- Training and reeducation
- Employee benefits and related costs
- Corporate social responsibility
- What and how of performance appraisal
- Management by objectives and performance appraisal

Entrepreneurship and Creativity
- Recognizing and evaluating opportunities
- Developing the concept
- Creating value
- Understanding the need for creativity
- Dynamics of creative thinking

Faculty

Faculty members are selected from the College of Business at the University of Hawai'i at Mānoa, supplemented by professionals from Hawaii's business community.

All of the faculty combine academic knowledge with real-world consulting expertise and practical experience.

PREREQUISITES

Interest, ability, experience, and responsibility level are the only course prerequisites.

LOCATION OF CLASSES

Classes will be held in an Executive Classroom at the College of Business, University of Hawai'i at Mānoa, 2404 Maile Way, Honolulu, Hawai'i.

PROGRAM FEES

Program fee is $3,500 and is payable in advance. The fee includes the cost of instruction, all instructional materials, a light meal Tuesday evening, a catered luncheon on Wednesdays, all refreshment breaks, and parking on the University of Hawai'i at Mānoa campus.

A 10% reduction is offered for 3 or more participants from the same company. *(Under current regulations, certain education expenses may be deductible. Please consult the appropriate income tax agency for detailed information.)*

REGISTRATION

Enrollment is limited to 30. The Hawai'i Management Program typically fills before the deadline, so register early to guarantee your place. The Registration Deadline is July 18, 2003.

Ten percent of the fee must accompany registration in order to confirm a place in the class. Please make checks payable to Research Corporation of the University of Hawai'i. Space limitations and planning requirements dictate that we complete registration and receive full payment by the registration deadline. Late registration and payment will be considered on a space available basis.

Register by returning the registration form with your deposit. You may register by fax, 956-3766 or by telephone, 956-8135. For further information, please contact Kim Fujiuchi at 956-8135. For disability accommodations call 956-8135 by July 18, 2003.

CERTIFICATION

The College of Business at the University of Hawai'i at Mānoa will award Certificates of Participation to program attendees who complete the program. This program qualifies for continuing education credit through the Board of Public Accountancy.

CLASS SCHEDULE & DATES

Classes are held Tuesday evening and all day Wednesday.
Here is a typical schedule:

TUESDAY EVENING

Class Session	4:30-6:30 p.m.
Break	6:30-7:00 p.m.
Class Session	7:00-9:00 p.m.

WEDNESDAY

Class Session	7:45-9:45 a.m.
Break	9:45-10:00 a.m.
Class Session	10:00 a.m.-Noon
Lunch	Noon-1:00 p.m.
Class Session	1:00-3:00 p.m.
Break	3:00-3:15 p.m.
Class Session	3:15-4:45 p.m.

SESSION SCHEDULE:
Classes meet on Tuesdays and Wednesdays on the following dates:

August 19-20
August 26-27
September 9-10
September 16-17
September 30-October 1
October 7-8
October 21-22
October 28-29

PROGRAM ALUMNI

Previous participants have ranged from individual entrepreneurs to executives in Hawaii's largest firms, such as:

Air Force Audit Agency
Aloha Petroleum
Alexander & Baldwin, Inc.
American Savings Bank
Ameron HC&D
AMFAC/JMB Hawaii, Inc.
AT&T
Bank of Hawaii
Bernice Pauahi Bishop Museum
Castle & Cooke, Inc.
Chock's TV & Appliance, Ltd.
Crazy Shirts, Inc.
Daiei Holiday Mart
Del Monte Fresh Produce (Hawaii)
Dole Food Company, Hawaii
DFS Hawaii
Earle M. Jorgenson Company
The Estate of James Campbell
First Federal Savings & Loan Assn.
First Insurance Co. of Hawaii, Ltd.
Foodland SuperMarket, Ltd.
Frito-Lay of Hawaii, Inc.
GW Murphy Construction Co., Inc.
Grace Pacific Corporation
Grand Pacific Life Insurance, Ltd.
GTE Hawaiian Telephone
Hawaii Medical Service Association
Hawaii Modular Space, Inc.
Hawaiian Cement
Hawaiian Commercial & Sugar Co.
Hawaiian Dredging & Construction
Hawaiian Electric Co., Inc.
Hawaiian Electric Light Co., Inc.
Island Movers, Inc.
KFC Hawaii
Kamehameha Schools/Bishop Estate
Laird Christianson Harris Advertising
M&E Pacific
Matson Navigation Company
Milici Valenti Ng Pak Advertising
Molokai Ranch, Ltd.
Motorola Inc.
Naval Facilities Engineering Command
Navy Public Works Center
Nordic Construction, Ltd.
Oahu Gas Service, Inc.
Oceanic Cable
Outrigger Hotels & Resorts
Pacific Marine & Supply Co., Ltd.
Pacific Resources, Inc. (Tesoro)
Pacific Guardian Life
Pearl Harbor Naval Shipyard
The Queen's Medical Center
SmithKline Beecham Clinical Labs
State of Hawaii
Straub Clinic & Hospital, Inc.
Stryker-Weiner Associates, Inc.
Subway Sandwiches, Inc.
Sun Industries Inc.
Theo Davies & Co., Ltd.
dba Pacific Machinery
dba Pizza Hut, Inc.
dba Taco Bell Hawaii
US Postal Service
YMCA of Honolulu

THE UNIVERSITY OF HAWAI'I AT MĀNOA IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION INSTITUTION.

Project #0000128 Exhibit – 18
(4 of 4)

Take a seat in our 2003 Hawai'i Management Program. 16 days with us could teach you what others learn in 16 years on the job.

- Move beyond narrow specialization
- Accelerate your development as a manager
- Build your leadership effectiveness
- Strengthen your day-to-day performance with up-to-date tools and techniques
- Network with other successful managers
- Recognize Hawaii's special business needs and practices
- Multiply your chances for future success and achieve your personal business goals

University of Hawai'i at Mānoa
Office of Executive Education
2404 Maile Way, A-303
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INNOVA Group, Inc. presents the

In this program you will learn how

Developmental Leaders:

Provide the ethical foundation for guiding the organization and developing an environment for leading and managing change.

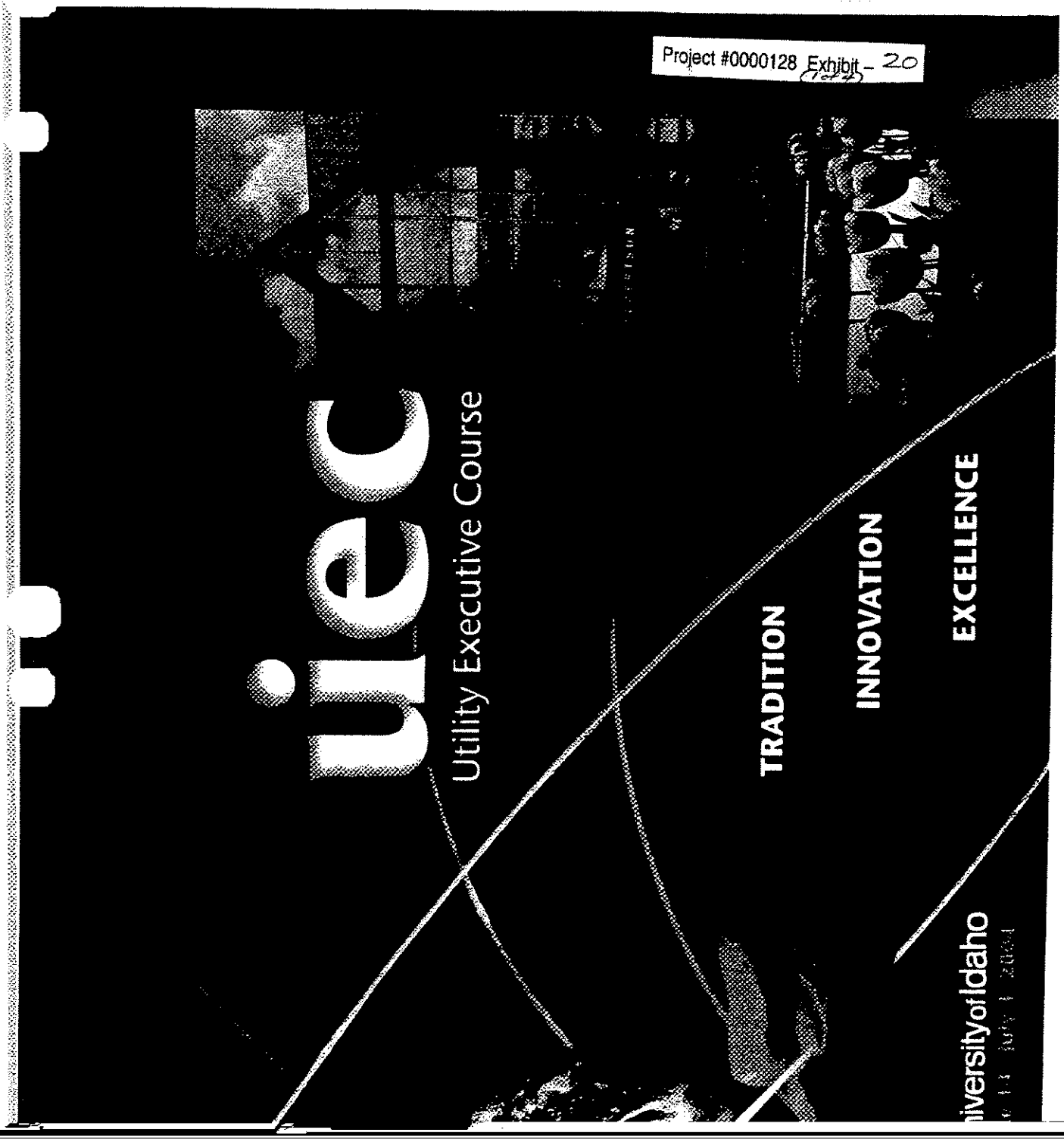
Project #0000128 Exhibit – 19 (3 of 4)

Testimonials

"The INNOVA Developmental

Registration

Project #0000128 Exhibit - 20



Project #0000128 Exhibit 20
(2 of 4)

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Communications

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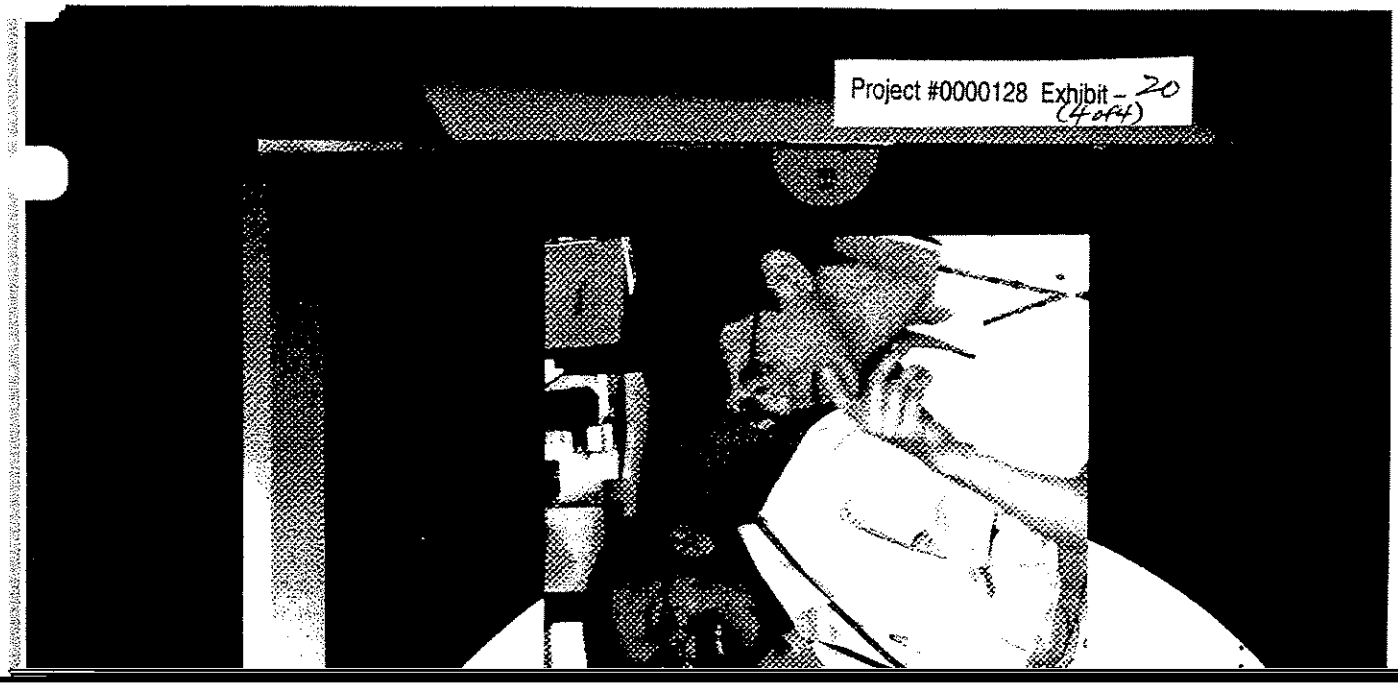
Project #0000128 Exhibit 20


Project #0000128 Exhibit - 20
(4 of 4)

Project #0000128 Exhibit - 21

Table 3.18-- UNIVERSITY OF HAWAII CURRICULA, TUITION, FINANCES, AND FACULTY AND STAFF: 2001 TO 2003

Subject		2001	2002	2003
Curricula offered at Manoa Campus,		291	279	288
Bachelor's degree programs		90	87	87
Master's degree programs		89	86	87
Doctoral programs		57	53	53
Other programs 1/		55	53	61
			3.1%+	3.0%+
Tuition per semester (full-time undergraduate, regular session) (dollars): 2/				
Manoa Campus:	Resident	1,560	1,608	1,656
	Nonresident	4,800	4,848	4,896
Hilo: 3/	Resident	1,152	1,164	1,188
	Nonresident	3,936	3,948	3,972
West Oahu:	Resident	984	1,020	1,056
	Nonresident	3,552	3,588	3,624
Community colleges:	Resident 4/	516	516	540
	Nonresident 4/	2,904	2,904	2,904
Finances, fiscal year ending June 30:				
Current fund revenues ($1,000)		788,998	856,091	939,270
Current fund expenditures ($1,000)		766,156	765,517	881,898
Faculty and staff, October 5/		8,353	8,646	8,928
Board of Regents appointees		6,616	6,933	7,187
Full-time		4,355	6/ 4,498	4,655
Part-time		2,261	6/ 2,435	2,352
Civil Service personnel		1,737	1,713	1,741
Full-time		1,689	6/ 1,674	1,692
Part-time		48	6/ 39	49

1/ Includes undergraduate, and graduate certificate programs, first professional degree programs (JD, MD, ArchD), post-baccalaureate in education and other programs.

2/ Per-semester tuition data are reported by academic years (e.g. 2002 = AY 2002-2003). Data reported are tuition only and do not include required student fees.

3/ Effective AY 2003-2004, UH Hilo eliminated its lower division rate. Amounts shown for AY 2001-2002 and AY 2002-2003 are upper division rates.

4/ Effective AY 2001-2002, Community Colleges tuition is charged on a per-credit basis for all enrolled credits. The amount shown here is based on 12 enrolled credits, and shown for comparative purposes only.

5/ Includes persons on leave without pay. 2003 data are preliminary.

6/ Data have been revised from previous *Data Book*.

Source: University of Hawaii, Institutional Research Office, records.

Project #0000128 Exhibit - 22

Table 14.02--[redacted] FOR ALL URBAN CONSUMERS (CPI-U), ALL ITEMS, FOR HONOLULU AND UNITED STATES: 1940 TO 2003 -- Con.

Year	[redacted]		United States	
	Annual average	Percent change from year previous	Annual average	Percent change from year previous
1980	83.0	11.7	82.4	13.5
1981	91.7	10.5	90.9	10.3
1982	97.2	6.0	96.5	6.2
1983	99.3	2.2	99.6	3.2
1984	103.5	4.2	103.9	4.3
1985	106.8	3.2	107.6	3.6
1986	109.4	2.4	109.6	1.9
1987	114.9	5.0	113.6	3.6
1988	121.7	5.9	118.3	4.1
1989	128.7	5.8	124.0	4.8
1990	138.1	7.3	130.7	5.4
1991	148.0	7.2	136.2	4.2
1992	155.1	4.8	140.3	3.0
1993	160.1	3.2	144.5	3.0
1994	164.5	2.7	148.2	2.6
1995	168.1	2.2	152.4	2.8
1996	170.7	1.5	156.9	3.0
1997	171.9	0.7	160.5	2.3
1998	171.5	-0.2	163.0	1.6
1999	173.3	1.0	166.6	2.2
2000	176.3	1.7	172.2	3.4
2001	178.4	1.2	177.1	2.8
2002	180.3	1.1	179.9	1.6
[redacted]	184.5	[redacted]	184.0	2.3

X Not applicable.

Source: For Honolulu: 1940-1963 from surveys by Eugene Danaher and Hawaii State Department of Labor and Industrial Relations, cited in Hawaii State Department of Planning and Economic Development, *The Honolulu Consumer Price Index, 1940-1986* (Statistical Report 187, May 30, 1986), as shifted to 1982-1984 base. 1987-2003: U.S. Bureau of Labor Statistics, Consumer Price Index-All Urban Consumers [CPI-U] Honolulu <http://www.bls.gov/cpi/home.htm> and for Honolulu <http://stats.bls.gov/ro9news.htm> accessed February 20, 2004.

4:32PM

Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$1,347.17	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$1,347.17	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$1,347.17	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7	0	0	0	0	0	0	0	0
$263.27	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7	0	0	0	0	0	0	0	0
$263.27	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7	0	0	0	0	0	0	0	0
$263.27	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
44.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$1,610.44	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
44.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$1,610.44	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

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Kuahua 46kV Ln Reconnect

12/20/2004 *O&M for All Depts wNh Loc 4:32PM

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY06	Jan 06	Feb 06	Mar 06	Apr 06	May 06	Jun 06	Jul 06	Aug 06	Sep 06	Oct 06	Nov 06	Dec 06
P0000282	Wong, K	C&M	PDS	Supply Division	B33	Transmission Maint	571	Labor	315	OAH	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$288.64	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$288.64	$0.00	$0.00	$0.00
P0000282	Wong, K	C&M	PDS	Supply Division	B33							0	0	0	0	0	0	0	0	0	0	0	0	0
												$288.64	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$288.64	$0.00	$0.00	$0.00
P0000282	Wong, K	C&M	PDS									0	0	0	0	0	0	0	0	0	0	0	0	0
												$288.64	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$288.64	$0.00	$0.00	$0.00
P0000282	Wong, K	C&M										0	0	0	0	0	0	0	0	0	0	0	0	0
												$288.64	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$288.64	$0.00	$0.00	$0.00
P0000282												0	0	0	0	0	0	0	0	0	0	0	0	0
												$288.64	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$288.64	$0.00	$0.00	$0.00

Project Manager is Rodney Chong

Labor hours are for the Primary Troubleman's time to go out in the field and perform switching on the 46kV lines to allow installation of new facilities.

CA-IR-1
DOCKET NO. 04-0113
PROJECT NO. P0000282
PAGE 1 OF 2

P0000282

*Project #	*RA #	*Act #	*Loc #	*Ind #	*EE #	Line Item	Total 5 Year Lbr Hour	FY00
MLum07_	_	_	_	_	401	Stores OH	65,062.80	65,062.80
MLum07_	_	_	_	_	404	En Del OH	1,012	1,012
MLum07_	_	_	_	_	406	Corp Adm OH	1,012	1,012
MLum07_	_	_	_	_	421	NPW OH	1,012	1,012
MLum07_	_	_	_	_	422	Empl Benefits OH	1,012	1,012
MLum07_	_	_	_	_	423	Payroll Tax OH	30,203.48	30,203.48
MLum07_	_	_	_	_	430	AFUDC nonblkt by Component Project	3	3
MLum07_	PBE	*AF...	*AF...	*AF...	*AF...	ml-AFUDC Duration	3	3
MLum07_	PBE	302	OAH	NI	150	ml-Electrical - UG Trans - Field Follow (incl a...	8	8
MLum07_	PBE	302	OAH	NI	150	ml-Electrical - UG Trans Design	100	100
MLum07_	PBE	302	OAH	NI	150	ml-Electrical - UG Trans Drafting (incl as-builts)	40	40
~~MLum07_~~	~~PBE~~	~~302~~	~~OAH~~	~~NI~~	~~301~~	~~ml-Electrical - UG Trans Design - Vehicle - S...~~	~~20~~	~~20~~
MLum07_	PBE	307	OAH	NI	150	ml-Principal/Director - Supervise	8	8
MLum07_	PBT	302	OAH	NI	150	ml-Survey - Stake out Poles - Sr. Land Surve...	4	4
MLum07_	PBT	302	OAH	NI	150	ml-Survey - Stake out Poles - Technician/Ro...	4	4
~~MLum07_~~	~~PBT~~	~~302~~	~~OAH~~	~~NI~~	~~301~~	~~ml-Survey - Stake out Poles - Vehicle - Sedan~~	~~4~~	~~4~~
MLum07_	PBT	303	OAH	NI	150	ml-CSA- UG Trans Design	~~40~~ 20	20
MLum07_	PBT	303	OAH	NI	150	ml-CSA- UG Trans Drafting (incl as-builts)	~~40~~ 20	20
MLum07_	PDF	315	OAH	NI	150	ml-UG Transm Line - Construction - Electrica...	8	8
MLum07_	PDH	320	OAH	NI	150	ml-UG Transm Line - Inspection	40	40
~~MLum07_~~	~~PDH~~	~~320~~	~~OAH~~	~~NI~~	~~301~~	~~ml-UG Transm Line - Inspector - Light Truck~~	~~40~~	~~40~~
MLum07_	PDJ	315	OAH	NI	201	ml-Electrical - OH Trans Stock Materials Cost	$ ~~14,000~~ ~~8,600~~	8,600
~~MLum07_~~	~~PDJ~~	~~315~~	~~OAH~~	~~NI~~	~~301~~	~~ml-OH Transm Line Crew Vehicle Use - Hea...~~	~~54~~	~~54~~
~~MLum07_~~	~~PDJ~~	~~320~~	~~OAH~~	~~NI~~	~~301~~	~~ml-OH Transm Line - Supervisor - OH Crew ...~~	~~4~~	~~4~~
MLum07_	PDP	315	OAH	NE	150	ml-OH Transm Line - Changeovers	8	8
MLum07_	PDP	315	OAH	NI	150	ml-OH Transm Line - Construction - Electrica...	150 ~~80~~	80
MLum07_	PDP	315	OAH	NI	505	ml-OH Transm Line-Outside Elec Constr-dig	$ 213,000 ~~154,000~~	154,000
MLum07_	PDP	320	OAH	NI	150	ml-OH Transm Line - Supervisor - OH Crew	3 ~~4~~	4
MLum07_	PDU	316	OAH	NI	150	ml-UG Transm Line - Construction - Electrica...	641	641
MLum07_	PDU	316	OAH	NI	201	ml-Electrical - Underground Stock Material C...	$ ~~70,000~~ ~~55,000~~	55,000
~~MLum07_~~	~~PDU~~	~~316~~	~~OAH~~	~~NI~~	~~301~~	~~ml-UG Transm Line Crew Vehicle Use - Hea...~~	~~428~~	~~428~~
MLum07_	PDU	320	OAH	NI	150	ml-UG Transm Line - Supervisor - OH Crew	27	27
~~MLum07_~~	~~PDU~~	~~320~~	~~OAH~~	~~NI~~	~~301~~	~~ml-UG Transm Line - Supervisor - OH Crew ...~~	~~27~~	~~27~~
MLum07_							318,509.28	318,509.28
							318,509.28	318,509.28

PTM time for 46kV switching

ADP → PDP 315 OAH NR 150 OH TRANS LINE - REMOVE 30 Man hours

CA-IR-1
DOCKET NO. 04-0113
PROJECT NO. P0000282
PAGE 2 OF 2

4:32PM

05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
0	0	0	0	0	0	0	0	0	0
.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
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.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
10	10	10	10	10	10	10	10	10	10
70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70
50	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
00	$1,250.00	$1,250.00	$1,250.00	$1,250.00	$1,250.00	$1,250.00	$1,250.00	$1,250.00	$1,250.00
50	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260
70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70
50	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260
70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70
50	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260
70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70
50	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260
70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70	$1,556.70

	*EE #	Exp Element	2005 Budget
	150	Labor Cost	$798
			$798
	150	Labor Cost	$3,068
	150	Labor Cost	$353,638
			$356,706
	205	Matl-Purchasing Card	$20,440
	301	Vehicles 5,110	$4,645
	462	IS Exp-PC Sftw Purch 5,110	$5,589
	501	Outside Svcs-General	$87,767
	520	Mainland Travel	$7,665
	521	Meals & Entertainment	$1,533
			$127,639
			$485,143
	150	Labor Cost	$5,050
	150	Labor Cost	$3,822
	150	Labor Cost	$3,822
	150	Labor Cost	$1,433
			$14,127
	501	Outside Svcs-General	$100,000
			$100,000
			$114,126
a	150	Labor Cost	$48,552
			$48,552
a	501	Outside Svcs-General	$50,000
			$50,000
			$98,552
	150	Labor Cost	$3,680
			$3,680
	501	Outside Svcs-General	$15,000
			$15,000
			$18,680
		TOTAL	**$716,501**

12/24/2004

SHIMMON PROJECT

INFO - RECAP

CA-IR-1 & 2
DOCKET NO. 04-0113
PROJECT NO. P0000283
PAGE 2 OF 6

P0000283
SUPPORT

SR (P0000283)

Note: Remaining Hours (Below) Allocated Based On Percentages From Allocate-TC Sheet. Use ROUND function on hours for preciseness of displayed values.

		Activity	140			Activity	140			Activity	110	Activity	110	Activity	110			HOURS
		Location	OUT			Location	PHE			Location	PHE	Location	PHE	Location	PHE			NET
	Total	Indicator	BN			Indicator	NN			Indicator	NE	Indicator	NE	Indicator	NE			TO BE
	Hours	Project	P0000160			Project/WO	P0000631			Project/WO	P0000032	Project/WO	P0000032	Project/WO	P0000032			SPREAD
	Remainin	EE #	150			EE #	150			EE #	150	EE #	150	EE #	150			(sb be 0)
						C0000587				C0000577		C0000578		C0000580				
		BTL				BTL Portion - All Electric AC Program				(HVAC & Cool Storage Program)		(Marketing Publications)		(Heat Pump Support)				
	to be				Dollar				Dollar		Dollar	(Powerlines Newsletter)	Dollar	(HP Consulting)	Dollar			
	Spread	ST(101)*			Amount	ST(101)*			Amount	ST(101)*	Amount	ST(101)*	Amount	ST(101)*	Amount			**
J	1090	16			501.60	0			0.00	92	2,884.20	36	1,128.60	119	3,730.65			827
F	979	14			438.90	0			0.00	83	2,602.05	32	1,003.20	107	3,354.45			743
M	1145	16			501.60	0			0.00	97	3,040.95	38	1,191.30	125	3,918.75			869
A	1089	16			501.60	0			0.00	92	2,884.20	36	1,128.60	119	3,730.65			826
M	1090	16			501.60	0			0.00	92	2,884.20	36	1,128.60	119	3,730.65			827
J	1089	16			501.60	0			0.00	92	2,884.20	36	1,128.60	119	3,730.65			826
J	1033	15			470.25	0			0.00	87	2,727.45	34	1,065.90	113	3,542.55			784
A	1145	16			501.60	0			0.00	97	3,040.95	38	1,191.30	125	3,918.75			869
S	1090	16			501.60	0			0.00	92	2,884.20	36	1,128.60	119	3,730.65			827
O	1034	15			470.25	0			0.00	87	2,727.45	34	1,065.90	113	3,542.55			785
N	1033	15	BTL hours	186	470.25	0			0.00	87	2,727.45	34	1,065.90	113	3,542.55			784
D	1033	15		1011	470.25	0			0.00	87	2,727.45	34	1,065.90	113	3,542.55			784
TOT	12850	186		1197	5,831.10	0			0.00	1085	34,014.75	424	13,292.40	1404	44,015.40			9751
		0		607+						754+		26		986+				

		Activity	110			Activity	110			Activity	110	Activity	110	Activity	110			HOURS
		Location	PHE			Location	PHE	(Note: per PF,split 50%/50%		Location	PHE	Location	PHE	Location	PHE			NET
	Total	Indicator	NE			Indicator	NE	between P32 and C582)		Indicator	NE	Indicator	NE	Indicator	NE			TO BE
	Hours	Project	P0000032			Project/WO		P0000032	C0000582	Project/WO	P0000032	Project/WO	P0000032	Project/WO	P0000032			SPREAD
	Remainin	EE #	150			EE #	150	0.5	0.5	EE #	150	EE #	150	EE #	150			(sb be 0)
		C0000581				C0000582				C0000583		C0000584		C0000579				
		(Residential A/C-Educate)				(PQ Consulting/Support Boosted)				(Electric Vehicles)		(New Construction)		(ET Support)				
	to be				Dollar				Dollar		Dollar		Dollar		Dollar			
	Spread	ST(101)*			Amount	ST(101)*	P32	C582	Amount	ST(101)*	Amount	ST(101)*	Amount	ST(101)*	Amount			**
J	827	12			376.20	374	187	187	11,724.90	0	0.00	59	1,849.65	79	2,476.65			303
F	743	11			344.85	336	168	168	10,533.60	0	0.00	53	1,661.55	71	2,225.85			272
M	869	13			407.55	370	185	185	11,599.50	0	0.00	62	1,943.70	83	2,602.05			341
A	826	12			376.20	356	178	178	11,160.60	0	0.00	59	1,849.65	79	2,476.65			320
M	827	12			376.20	357	179	178	11,191.95	0	0.00	59	1,849.65	79	2,476.65			320
J	826	12			376.20	356	178	178	11,160.60	0	0.00	59	1,849.65	79	2,476.65			320
J	784	12			376.20	345	172	173	10,815.75	0	0.00	56	1,755.60	75	2,351.25			296
A	869	13			407.55	370	185	185	11,599.50	0	0.00	62	1,943.70	83	2,602.05			341
S	827	12			376.20	357	179	179	11,191.95	0	0.00	59	1,849.65	79	2,476.65			320
O	785	12			376.20	494	247	246	15,486.90	0	0.00	56	1,755.60	75	2,351.25			148
N	784	12			376.20	345	172	173	10,815.75	0	0.00	56	1,755.60	75	2,351.25			296
D	784	12			376.20	345	173	172	10,815.75	0	0.00	56	1,755.60	75	2,351.25			296
TOT	9751	145			4,545.75	4405	2203	2202	138,098.75	0	0.00	696	21,819.60	932	29,218.20			3573
		109+										480+		615+				

PQ 2,082
PQ bkp SR 120
2,202 (P0000283)

L	M	N	O
Develop Train Needs Perform Appraisals	BTL Contract Prospecting	Total Manhour Percentage	
785	131		
			Engineer No.
1%	35.0%	100.0%	1
1%	31.0%	100.0%	2
1%	31%	100.0%	3
1%	31.0%	100.0%	4
0%	0.0%	0.0%	5
1%	31.0%	100.0%	6
1%	35.0%	100.0%	7
0%	0.0%	0.0%	8
1%	31.0%	100.0%	9
7%	225.0%	700.0%	
1%	32%	100.0%	
0.07	2.25	700.0%	
		Mktg Progs Core 110	
Small Commercial Business Support	Inter-Company Billables (Non-SWAT Stuff For MECO and HELCO)	Total Manhour Percentage	
C0000585			
2%	0%	50.0%	
0%	0%	54.0%	
0%	0%	54.0%	
2%	0%	54.0%	
0%	0%	0.0%	
2%	0%	59.0%	
2%	0%	55.0%	
0%	0%	0.0%	

Each Engin
Total 10

this column
g picked up
then the
pread out
developed

Comments

perations including special plotter paper,
ges, field materials to support customer

n 25% of staff operating vehicles for 2 hrs
rges forecasted thru BOA projects
Level and provide maintenance of large

udget Level. Increase made for Y2004.

re not working on BOA or DSM projects will
budget. Do not anticipate any costs here
3. For 2004, four trips planned.

ff member meeting a commercial customer
detail.

el

cing HVAC & Cool Storage

Some Funds Over To HPWH Technology

el

el

s for Y2005 period anticipated.

CTRONIC at Development Cost of $3600 per
by 2.2%.
005 from Y2002 level.

2005.

04 and 2005.

Budget Level

awards
4% of Revenues

d At 95% of Revenues

tuain's Division

12/20/2004 FINANCE BENCHMARK STUDY

*O&M for All Depts with Loc

4:32PM

Proj	ProjMgrOrEngr	Dept	RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	Act	Loc	EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000339	Shiraki, E	Gen Acctg	PAA	Admin-Gen Acctg	B38	A & G Operation	920	Labor	721	PHE	150	80	0	0	0	0	0	0	0	0	40	0	0	40
												$4,851.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2,425.60	$0.00	$0.00	$2,425.60
P0000339	Shiraki, E	Gen Acctg	PAA	Admin-Gen Acctg	B38	A & G Operation	921	Non-Labor	721	PHE	501	14,500	0	0	14,500	0	0	0	0	0	0	0	0	0
												$14,500.00	$0.00	$0.00	$14,500.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000339	Shiraki, E	Gen Acctg	PAA	Admin-Gen Acctg	B38	A & G Operation	921	Non-Labor	721	PHE	520	3,400	0	0	0	0	0	0	0	0	1,700	0	0	1,700
												$3,400.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,700.00	$0.00	$0.00	$1,700.00
P0000339	Shiraki, E	Gen Acctg	PAA	Admin-Gen Acctg	B38	A & G Operation	921	Non-Labor	721	PHE	521	600	0	0	0	0	0	0	0	0	300	0	0	300
												$600.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$300.00	$0.00	$0.00	$300.00
P0000339	Shiraki, E	Gen Acctg	PAA	Admin-Gen Acctg	B38							18,580	0	0	14,500	0	0	0	0	0	2,040	0	0	2,040
												$23,351.20	$0.00	$0.00	$14,500.00	$0.00	$0.00	$0.00	$0.00	$0.00	$4,425.60	$0.00	$0.00	$4,425.60
P0000339	Shiraki, E	Gen Acctg	PAA									18,580	0	0	14,500	0	0	0	0	0	2,040	0	0	2,040
												$23,351.20	$0.00	$0.00	$14,500.00	$0.00	$0.00	$0.00	$0.00	$0.00	$4,425.60	$0.00	$0.00	$4,425.60
P0000339	Shiraki, E	Gen Acctg	PAC	Corp Accounting	B38	A & G Operation	920	Labor	721	PHE	150	160	0	0	0	0	0	0	80	0	40	0	0	40
												$4,907.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2,453.60	$0.00	$1,226.80	$0.00	$0.00	$1,226.80
P0000339	Shiraki, E	Gen Acctg	PAC	Corp Accounting	B38	A & G Operation	921	Non-Labor	721	PHE	520	3,400	0	0	0	0	0	0	0	0	1,700	0	0	1,700
												$3,400.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,700.00	$0.00	$0.00	$1,700.00
P0000339	Shiraki, E	Gen Acctg	PAC	Corp Accounting	B38	A & G Operation	921	Non-Labor	721	PHE	521	600	0	0	0	0	0	0	0	0	300	0	0	300
												$600.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$300.00	$0.00	$0.00	$300.00
P0000339	Shiraki, E	Gen Acctg	PAC	Corp Accounting	B38							4,160	0	0	0	0	0	0	80	0	2,040	0	0	2,040
												$8,907.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2,453.60	$0.00	$3,226.80	$0.00	$0.00	$3,226.80
P0000339	Shiraki, E	Gen Acctg	PAC									4,160	0	0	0	0	0	0	80	0	2,040	0	0	2,040
												$8,907.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2,453.60	$0.00	$3,226.80	$0.00	$0.00	$3,226.80
P0000339	Shiraki, E	Gen Acctg										22,740	0	0	14,500	0	0	0	80	0	4,080	0	0	4,080
												$32,258.40	$0.00	$0.00	$14,500.00	$0.00	$0.00	$0.00	$2,453.60	$0.00	$7,652.40	$0.00	$0.00	$7,652.40
P0000339												22,740	0	0	14,500	0	0	0	80	0	4,080	0	0	4,080
												$32,258.40	$0.00	$0.00	$14,500.00	$0.00	$0.00	$0.00	$2,453.60	$0.00	$7,652.40	$0.00	$0.00	$7,652.40

Janie Lee

2004-2005 Labor Calculation

Labor Class	Hours	2004 Rate	Amount	Hours	2005 Rate	Amount
TC		$31.01	$0.00	160	$32.19	$5,150.40
EXEC2		$52.73		80	$54.74	$4,379.20
Totals	0		$0.00	240		$9,529.60
On-Costs						
Payroll Taxes		8.35%	0		8.35%	796
Employee Benefits		$8.77	0		$8.77	2,105
Non-Productive Wages		$4.37	0		$4.37	1,049
Corporate Administration		$2.93	0		$2.93	703
			$0.00			**$14,182.12**

Note: Customer Engineering, Energy Delivery and Power Supply on-costs are not included in this calculation.

Annual Registration fee			**$14,500.00**
	No of Trips	**$/Trip**	
Mainland travel	4	2000	**$8,000.00**
			$36,682.12

PA Consulting Group

Administrative & General

Corporate & Shared Services

Join the top performers with PA Benchmarking™

Throughout the recent challenges facing the utility industry, much attention has been paid to T&D, production, and customer service issues. PA Consulting, however, recognizes that the issues confronting utilities not only put pressure on the operational side of the business, but also on Administrative & General (A&G) functions. As every utility must now realize, A&G costs have risen over the last few years, and now represent upwards of 20% of a utility's O&M costs. This indicates that Corporate Centers must respond with more strategic value, more efficient technologies and processes, and less cost—or become a target for outsourcing, reengineering, downsizing or better performance reporting. Fortunately, if armed with the right kind of information, there is no reason that Administrative & General services cannot face the challenge successfully.

*onsorship has enabled
develop working relationships with other participants, share practices, conduct site visits, and learn from other's performance improvement experiences."*

- 2002 Survey Sponsor

PA Consulting is pleased to invite you to join its 2003 PA Benchmarking program, with the launch of this year's A&G Survey. This is an opportunity to join utilities across North America in comparing practices and performance levels for a wide range of central services activities. PA Benchmarking provides comprehensive benchmarks for use in process improvement activities, performance tracking, and management planning, all of which are critical to Corporate Centers right now.

What Makes the PA A&G Benchmarking Survey Right for You?

What Do You Get With PA Benchmarking?

There are many benefits to benchmarking in general, and specifically with the PA Benchmarking Program—the most comprehensive benchmarking program available today. As a ***participant*** in the benchmarking program, you will receive information about industry performance levels and emerging best practices used by the best performers in the industry. As a program ***sponsor***, you will be able to shape the research and select the focus areas of the survey, further benefiting all participants with the analysis of timely issues and constraints. In addition, you be able to have unlimited group meeting attendance as well as tailored, on-site analysis. Regardless of a company's industry standing or level of survey participation, benchmarking information provides a strong foundation for performance improvement.

PA Benchmarking's A&G program allows corporate centers to identify areas within their operations that, if modified, can maximize their internal and external resources to deliver lower cost, high quality services.

Levels of Participation		
Participant	Sponsor	Customized Services
Features		
• Statistical and summary reports • Comprehensive data validation	*Everything participants get, plus:* • Input to the questionnaire design (tailored to your needs) • Additional analysis on request	*Everything sponsors get, plus:* • Assistance in data collection/summary • Comparison to specifically

Scope of Subject Areas

PA Benchmarking is built around a process model of a utility corporate center business, and focuses attention on the key elements of the most important processes. Results of the survey are analyzed in a variety of different ways for presentation to the participants and are expressly designed to elicit clear, useable data that relate performance levels to the underlying practices that drive them. For 2003, we have enhanced last year's A&G survey by including a review of service quality measures, staffing levels, and practices. The following outline shows some of the subject areas to be covered in this year's edition.

Through its customized consulting services, PA will [illegible] utility Corporate [illegible]ters leverage benchmarking results to:

Functional Areas	Typical Activities Compared	Types of Comparisons
• Finance/Treasury • Accounting • Strategic Planning • Human Resources • Corporate Communications • Information Systems • Supply Chain and Materials Management	• Accounts Payable, Payroll, General Accounting, Financial Reporting, Strategic Planning, Budgeting, Internal Audit, Investor Relations • Compensation, Benefits, Staffing, Organizational Development, Training, Safety • Community Relations, Governmental Affairs, Regulatory Affairs, Legal Affairs, Employee Communications, Office Services, Advertising • Application Development, Site Support, IT Telecom, Hardware, CRM, CIS	• Cost drivers • Cost versus service levels • Outsourcing effectiveness • Staffing comparisons • Use of technology • Best practices

Program Schedule

The program schedule has been refined over a period of years to allow participants enough time to gather, submit, and evaluate all the information used for the benchmarking activities. The exhibit below highlights the events for this year. *We look forward to your participation!*

Phase	Result	Date

King St.

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iM for All Depts with Loc

Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	ug 05	Sep 05	Oct 05	Nov 05	Dec 05
10	10	10	10	10	10	10	10	10	10	10	10
06.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	06.70	$306.70	$306.70	$306.70	$306.70
92.00	2,592.00	2,592.00	2,592.00	2,592.00	2,592.00	2,592.00	92.00	2,592.00	2,592.00	2,592.00	2,592.00
92.00	$2,592.00	$2,592.00	$2,592.00	$2,592.00	$2,592.00	$2,592.00	92.00	$2,592.00	$2,592.00	$2,592.00	$2,592.00
02.00	2,602.00	2,602.00	2,602.00	2,602.00	2,602.00	2,602.00	02.00	2,602.00	2,602.00	2,602.00	2,602.00
98.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70	98.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70
02.00	2,602.00	2,602.00	2,602.00	2,602.00	2,602.00	2,602.00	02.00	2,602.00	2,602.00	2,602.00	2,602.00
98.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70	98.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70
02.00	2,602.00	2,602.00	2,602.00	2,602.00	2,602.00	2,602.00	02.00	2,602.00	2,602.00	2,602.00	2,602.00
98.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70	98.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70
02.00	2,602.00	2,602.00	2,602.00	2,602.00	2,602.00	2,602.00	02.00	2,602.00	2,602.00	2,602.00	2,602.00
98.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70	98.70	$2,898.70	$2,898.70	$2,898.70	$2,898.70

CA-IR-1 & 2
DOCKET NO. 04-0113
PROJECT NO. P0000343
PAGE 1 OF 4

*Project #	RA	ACT	LOC	IND	EE	LBR	Line Item	5-Jan	5-Feb	5-Mar	5-Apr	5-May	5-Jun	5-Jul	5-Aug	5-Sep	5-Oct	5-Nov	5-Dec	FY05	a	b	c	d	e	f	g
							IAQ - Labor Hours	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	120 Hrs							
P0000343	PHF	931	KNG	NE	150	TC	IAQ - Maintenance King	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	3,680.40	Cheryl Fujiwara, Director Gail Smith FP Clerk Fred Nakama Proj Mgr	Projected staffing remains the same 1-TC (Project Mgr) for this work	Division staffing remains consistant 2-BUOC 2-TC 1-FS	No additions	NA	NA	NA
P0000343	PHF	931	KNG	NE	501	TC	IAQ - Maintenance King - Outside Svcs	2,592.00	2,592.00	2,592.00	2,592.00	2,592.00	2,592.00	2,592.00	2,592.00	2,592.00	2,592.00	2,592.00	2,592.00	31,104.00	Cheryl Fujiwara, Director Gail Smith FP Clerk Fred Nakama Proj Mgr	See attached	Bid process to qualified IAQ suppliers on an as needed basis		NA	NA	NA
P0000343								2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	34,784.40							
								2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	2,898.70	34,784.40							
LABOR	10 hours per month budgeted for Project Manager to inspect the needs for IAQ evacuation and to work with the various qualified IAQ vendors on the maintenance and upkeep of the King Street building facility																										

CA-IR-1 & 2
DOCKET NO. 04-0113
PROJECT NO. P0000343
PAGE 2 OF 4

IAQ (Indoor Air Quality) Program – KING
P0000343

These costs are based on historical data and indicators on the company obligation to provide safe, clean air distribution to employee work areas and to comply with current and new indoor air quality regulations.

For further information and historical data, please review work order:

FA343001

P0000343

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: Indoor Air Quality Maintenance KNG

Plant Addition Date: 2005-12

Project Number: P0000343
(Permanent)

Commitment Date: 2001-01

Primary Corporate Goal: APPRISE (O&M)

Stategic Plan Linkage: 1D - Continuous Improvement
(Primary)

Impact on Goal: Medium

Project Forecast (Thousand $)

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

Prior Years	2001	2002	2003	2004	2005	Future Years	Total
$0	$41	$36	$37	$37	$32	$0	$183

Assessment Factors

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

Purpose/Objectives:

To provide safe, clean air distribution to employee work area. To comply with current and new indoor air quality regulations.

Scope Description:

Annual inspection of all air conditioning duct and equipment for contaminants. Cleaning and disinfecting of all ~~compelnents~~ as required for employee safety

components

ord Ave.

*O&M for All Depts with Loc

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p Class	Act	Loc	EE	FY05	Jan 05	Feb 05	Mar 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
or	931	WRD	150	120	10	10	10	10	10	10	10	10	10	10	10
				$3,680.40	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70
n-Labor	931	WRD	501	26,112.0	2,176.0	2,176.0	2,176.0	2,176.0	2,176.0	2,176.0	2,176.0	2,176.0	2,176.0	2,176.0	2,176.0
				$26,112.00	$2,176.00	$2,176.00	$2,176.00	$2,176.00	$2,176.00	$2,176.00	$2,176.00	$2,176.00	$2,176.00	$2,176.00	$2,176.00
				26,232.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0
				$29,792.40	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70
				26,232.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0
				$29,792.40	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70
				26,232.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0
				$29,792.40	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70
				26,232.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0	2,186.0
				$29,792.40	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70	$2,482.70

PROJECT	RA	ACT	LOC	IND	EE	LBR	Line Item	5-Jan	5-Feb	5-Mar	5-Apr	5-May	5-Jun	5-Jul	5-Aug	5-Sep	5-Oct	5-Nov	5-Dec	FY05	a	b	c	d	e	f	g
								10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	120 Hrs							
P0000344	PHF	931	WRD	NE	150	__TC	IAQ - Maintenance Ward	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	3,680.40	Cheryl Fujiwara, Director Gail Smith FP Clerk Fred Nakama Project Mgr	Project staffing remains the same 1-TC Project Mgr for this work	Division staffing remains consistant 2-BUOC 2-TC 1-FS	No additions	NA	NA	NA
P0000344	PHF	931	WRD	NE	501	__TC	IAQ - Maintenance Ward/Outside Svcs	2,176.00	2,176.00	2,176.00	2,176.00	2,176.00	2,176.00	2,176.00	2,176.00	2,176.00	2,176.00	2,176.00	2,176.00	26,112.00	Cheryl Fujiwara, Director Gail Smith FP Clerk Fred Nakama Project Mgr	See attached	Bid process to qualified IAQ suppliers - as needed	NA	NA	NA	NA
P0000344								2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	29,792.40							
								2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	2,482.70	29,792.40							

LABOR 10 hours per month budgeted for Project Manager to inspect the needs for IAQ evacuation and to work with the various qualified IAQ vendors on the maintenance and upkeep of the Ward Avenue Facility

IAQ (Indoor Air Quality) Program – WARD
P0000344

These costs are based on historical data and indicators on the company obligation to provide safe, clean air distribution to employee work areas and to comply with current and new indoor air quality regulations.

For further information and historical data, please review work order:

FA344001

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: Indoor Air Quality Maintenance WRD

Plant Addition Date: 2005-12

Project Number: P0000344
(Permanent)

Commitment Date: 2001-01

Primary Corporate Goal: APPRISE (O&M)

Stategic Plan Linkage: 1D - Continuous Improvement
(Primary)

Impact on Goal: Medium

Project Forecast (Thousand $)

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

Prior Years	2001	2002	2003	2004	2005	Future Years	Total
$30	$36	$31	$32	$32	$26	$0	$187

Assessment Factors

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

Purpose/Objectives:

To provide safe, clean air distribution to employee work area. To comply with current and new indoor air quality regulations.

Scope Description:

Annual inspection or all air conditioning duct and equipment for contaminants. Cleaning and disinfecting of all components as required for employee safety.

Air Conditioning Maintenance

12/20/2004

*O&M for All Depts with Loc

4:32PM

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000345	Ishii, A	SSF	PHF	Facilities Planning	B38	A & G Operation	920	Labor	931	PHE	150	120	10	10	10	10	10	10	10	10	10	10	10	10
												$3,660.40	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70
P0000345	Ishii, A	SSF	PHF	Facilities Planning	B38	A & G Operation	921	Non-Labor	931	PHE	501	131,100.0	10,925.0	10,925.0	10,925.0	10,925.0	10,925.0	10,925.0	10,925.0	10,925.0	10,925.0	10,925.0	10,925.0	10,925.0
												$131,100.00	$10,925.00	$10,925.00	$10,925.00	$10,925.00	$10,925.00	$10,925.00	$10,925.00	$10,925.00	$10,925.00	$10,925.00	$10,925.00	$10,925.00
P0000345	Ishii, A	SSF	PHF	Facilities Planning	B38							131,220.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0
												$134,780.40	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70
P0000345	Ishii, A	SSF	PHF									131,220.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0
												$134,780.40	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70
P0000345	Ishii, A	SSF										131,220.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0
												$134,780.40	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70
P0000345												131,220.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0	10,935.0
												$134,780.40	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70	$11,231.70

*Project #	*RA #	*Act #	*Loc #	*Ind #	*EE #	LBR	Line item	5-Jan	5-Feb	5-Mar	5-Apr	5-May	5-Jun	5-Jul	5-Aug	5-Sep	5-Oct	5-Nov	5-Dec	FY05	a	b	c	d	e	f
								10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	120 Hrs						
P0000345	PHF	931	PHE	NE	150	__TC	Air Conditioning - Maintenance	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	3,680.40	Cheryl Fujiwara, Director Gail Smith FP Clerk Fred Nakama Project Mgr	Projected Staffing remains the same 1-TC Project Mgr for this work	Division staffing remains consistant 2-BUOC 2-TC 1-FS	No additions	NA	NA	N
P0000345	PHF	931	PHE	NE	501	__TC	Air Conditioning - Maint - Outside Svc	10,925.00	10,925.00	10,925.00	10,925.00	10,925.00	10,925.00	10,925.00	10,925.00	10,925.00	10,925.00	10,925.00	10,925.00	131,100.00	Cheryl Fujiwara, Director Gail Smith FP Clerk Fred Nakama Project Mgr	See attached	Bid process - Heidi & Cook Air Conditing Contract MSTR PHF-04-026	NA	NA	NA	N
P0000345								11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	134,780.40						
								11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	11,231.70	134,780.40						
LABOR	10 Hours per month budgeted for Project Manager to work with Heidi & Cook on the maintenance of HECO's air conditioning equipments																									

CA-IR-1 & 2
DOCKET NO. 04-0113
PROJECT NO. P0000345
PAGE 2 OF 11

SERVICE ORDER NO. _____
CONTRACT NO. MSTR PHF-04-026

GENERAL SERVICES MASTER AGREEMENT

THIS GENERAL SERVICES MASTER AGREEMENT (the "Master Agreement") is made on July 1, 2004, by and between HAWAIIAN ELECTRIC COMPANY, INC. (hereinafter "Company"), a Hawaii corporation, whose principal place of business and address is 900 Richards Street, Honolulu, Hawaii 96813 and whose mailing address is P. O. Box 2750, Honolulu, Hawaii 96840-0001 and Heide and Cook (hereinafter "Contractor"), whose principal place of business is 1714 Kanakanui Street, Honolulu, Hawaii 96819 and whose mailing address is same, doing business in Hawaii.

W I T N E S S E T H :

WHEREAS, Company is in the business of generation, transmission, and distribution of electrical power on the Island of Oahu, State of Hawaii; and

WHEREAS, Company requires certain work to be accomplished from time to time in order to maintain reliable electrical power for its customers; and

WHEREAS, Contractor is in the business of performing work such as that needed by Company; and

WHEREAS, Contractor represents that it is equipped and has the expertise necessary to perform the particular work required under this Agreement,

NOW, THEREFORE, in consideration of these premises and of the mutual promises herein contained, Company and Contractor hereby agree that Contractor will perform contracting work for Company under the following terms and conditions:

I. APPLICATION OF THE MASTER AGREEMENT

The purpose of this Master Agreement is to set forth the terms, conditions and administrative procedures applicable to the services or work provided by Contractor for or on behalf of the Company under specific Work Authorizations provided for hereunder.

HAWAIIAN ELECTRIC CO and Subsidiaries
PRODUCTION CHANGE REQUEST (PCR)
CONTROLLED PROJECTS

Bolded items are to be filled out by the user (some items are optional). Ignore the non-bolded items

Requestor: ***R. Keller*** ***Dept:*** Facilities Planning ***Today's Date :*** 3/23/2000
District: ***HECO*** ***Phone:*** x7375 ***Date Needed by:***

mso920, level = 05-project
~~***Fifth segment project*** *- optional*~~
(8 chars, indicate legacy 4-digit number if applicable, otherwise leave blank) P0000345 ***Pillar temporary project number*** RKELLER003

Short Desc *(10 chars)*
Long Desc (30 chars) *same as project description below*
Afudc (y or n)

mso660, project control setup

Project description *(30 chars)* Air Conditioning Maintenance
Originator *(employee #)* 20603
Assigned to *(employee #)* R. Keller

Cost center *(Note for ACG: do not use the default cost center from the equipment number) :*

Responsibility area PHF
Activity 931
Location PHE
Indicator NE
Project *same as fifth segment project number*

Equipment number *(optional)*

Project codes (optional) :
Project type *(optional)*
Responsible area *(optional)*
Revenue Bond Funded Project *(optional)*

mso950
Grandparent Project *(for finance r up)*-fill in only 1 of the following:
Existing Grandparent project number *(i.e. legacy 3-digit #)*

HEIDI & COOK
AIR CONDITIONING CONTRACT

	King	Ward	Other	Waiau	Budget
AC Maintenance $'s	FA345001 $40k	FA345002 $75k	FA345003 $8k	FA345004 $7k	$130/YR
AC Repairs $'s	FA346001 $70k	FA346002 [illegible]	FA346003 [illegible]	FA346004 [illegible]	

HAWAIIAN ELECTRIC COMPANY, INC.
AIR CONDITIONING, VENTILATION AND REFRIGERATION MAINTENANCE SERVICE COST DATA SHEET

HEIDE & COOK, LTD.

WARD AVENUE

SYSTEMS DESCRIPTION	QUANTITY/DESCRIPTION	LOCATION	ID #	PRICE
EXHAUST FAN	1ea Centri Master Utility	Ward 1 UPS room	1	$ 42.50
ROOM AIR CONDITIONERS	1 ea Window a/c	Ward 1 UPS room	2	$ 150.00
ROOM AIR CONDITIONERS	1 ea Window a/c	Ward 1 UPS room	3	$ 187.50
SPLIT SYSTEM	1 ea condensing unit (Carrier)	Generator enclosure Ward 1 Mauka/DH	4	$ 300.00
SPLIT SYSTEM	1 ea AHU (Carrier)	EMS office	5	$ 255.02
PRECISION PACKAGE A/C	1 ea Package precision a/c (Trane)	EMS Computor room	6	$ 654.73
PRECISION PACKAGE A/C	1 ea Package precision a/c (Trane)	EMS Computer room	7	$ 654.73
PRECISION PACKAGE CONDENSER	1 ea air cooled condenser (Trane)	outside generator enclosure	8	$ 187.50
PRECISION PACKAGE CONDENSER	1 ea air cooled condenser (Trane)	outside generator enclosure	9	$ 187.50
SPLIT SYSTEM	1 ea air cooled condenser (Mitsubishi/outdoor)	Load dispatch outside	10	$ 187.50
SPLIT SYSTEM	1 ea air cooled condenser (Mitsubishi/outdoor)	Load dispatch outside	11	$ 187.50
SPLIT SYSTEM	1 ea indoor unit (Mitsubishi)	Load dispatch inside	12	$ 187.50
SPLIT SYSTEM	1 ea indoor unit (Mitsubishi)	Load dispatch inside	13	$ 187.50
WATER COOLED DX SYSTEM	1 ea water cooled Westinghouse compressor	Ward 1 Basement Mauka	14	$ 187.50
WATER COOLED DX SYSTEM	1 ea Water cooled Westinghouse compressor	Ward 1 Basement Mauka	15	$ 187.50
WATER COOLED DX SYSTEM	1 ea Cooling Tower	Ground level Mauka	16	$ 1,312.50
WATER COOLED DX SYSTEM	1 ea Condenser water pump	Basement Mauka	17	$ 42.50
WATER COOLED DX SYSTEM	1 ea dx air handler	Ward 1 basement Mauka	18	$ 296.95
WATER COOLED DX SYSTEM	1 ea dx air handler	Ward 1 basement Mauka	19	$ 219.33
WATER COOLED DX SYSTEM	1 ea dx air handler	Ward 1 basement Makai	20	$ 260.72
EXHAUST FAN	1 ea ILG in-line fan	Ward 1 basement Makai	21	$ 42.50
ROOM AIR CONDITIONERS	1 ea at relay dept	Ward 1 basement Makai	22	$ 187.50
Displaced Ward 1 A/C System		Old Ward A/C Displaced	23	$ -
Displaced Ward 1 A/C System		Old Ward A/C Displaced	24	$ -
Displaced Ward 1 A/C System		Old Ward A/C Displaced	25	$ -
Displaced Ward 1 A/C System		Old Ward A/C Displaced	26	$ -
Displaced Ward 1 A/C System		Old Ward A/C Displaced	27	$ -
Displaced Ward 1 A/C System		Old Ward A/C Displaced	28	$ -
Displaced Ward 1 A/C System		Old Ward A/C Displaced	29	$ -
Displaced Ward 1 A/C System		Old Ward A/C Displaced	30	$ -
SPLIT SYSTEM	1 ea Carrier Condenser	Reception outside	31	$ -
SPLIT SYSTEM	1 ea Carrier AHU	Reception inside	32	$ 187.50
SPLIT SYSTEM	1 ea Westinghouse compressor	Purchasing	33	$ 339.78
SPLIT SYSTEM	1 ea Westinghouse compressor	Purchasing	34	$ 365.08
SPLIT SYSTEM	1 ea Westinghouse compressor	Purchasing	35	$ 365.08
SPLIT SYSTEM	1 ea Carrier air cooled condenser	Purchasing	36	$ 365.08
SPLIT SYSTEM	1 ea Carrier air cooled condenser	Purchasing	37	$ 187.50
PACKAGE SYSTEM	1 ea Carrier air cooled condenser	Purchasing	38	$ 187.50
SPLIT SYSTEM	1 ea York package	Garage	39	$ 187.50
SPLIT SYSTEM	1 ea York Condensing unit	on top of garage office	40	$ 189.79
PACKAGE SYSTEM	1 ea York AHU	on top of garage office	41	$ 187.50
PACKAGE SYSTEM	1 ea Wall unit	Trailer- G Facilities	42	$ 189.79
PACKAGE SYSTEM	1 ea Wall unit	Trailer -F Maintenance	43	$ 187.50
PACKAGE SYSTEM	2 ea Wall units	Trailer-A Field Service & Collection	44	$ 187.50
PACKAGE SYSTEM	2 ea Wall units	Trailer - B (Classrooms A&B)	45	$ 187.50
PACKAGE SYSTEM	2 ea Wall units	Trailer- C (Meter Readers)	46	$ 187.50
Displaced Chilled Water System	1 ea Wall unit	Trailer- D (Construction Supervisor)	47	$ 187.50
Displaced Chilled Water System	Displaced Chilled Water System	Room 402 Ward Extension	48	$ 187.50
Displaced Chilled Water System	Displaced Chilled Water System	Room 402 Ward Extension	49	$ -
Displaced Chilled Water System	Displaced Chilled Water System	Room 402 Ward Extension	50	$ -
Displaced Chilled Water System	Displaced Chilled Water System	Room 402 Ward Extension	51	$ -
Displaced Chilled Water System	Displaced Chilled Water System	Room 402 Ward Extension	52	$ -
Displaced Chilled Water System	Displaced Chilled Water System	Room 402 Ward Extension	53	$ -
			54	$ -

WARD AVENUE

SYSTEMS DESCRIPTION	QUANTITY/DESCRIPTION	LOCATION	ID #	PRICE
EXHAUST FAN	1 ea American Standard in-line fan	Ward Ext. Room 402	55	$ 42.50
CHILL-WATER AIR HANDLER	1 ea AHU	Room 303 Annex AHU-7	56	$ 114.79
CHILL-WATER AIR HANDLER	1 ea AHU	Room 350 Annex AHU-6	57	$ 287.45
CHILL-WATER AIR HANDLER	1 ea AHU	Room 350 Annex AHU-5	58	$ 205.87
CHILL-WATER AIR HANDLER	1 ea AHU	Room 102 Plaza level annex AHU-4	59	$ 205.87
CHILL-WATER AIR HANDLER	1 ea AHU	Room 102 Plaza level annex AHU-3	60	$ 204.81
SUMP PUMP	1 ea sump pump/ Little Giant	Room 14 ground level annex AHU-2w/sump pump...Safety	61	$ 249.03
SPLIT SYSTEM	1 ea ductless split Mitsubishi-outdoor	Room 14 ground level annex w/ AHU-2... Safety	62	$ 42.50
SPLIT SYSTEM	1 ea ductless split Mitsubishi-indoor	ITS level 2 parking	63	$ 187.50
CHILL-WATER FAN COIL	1 ea FCU	ITS level 2 parking	64	$ 187.50
SPLIT SYSTEM	1 ea Condenser (back-up)Trane	Room 22 Data Communication room	65	$ 336.94
SPLIT SYSTEM	1 ea AHU (back-up) Trane	Room 22 Data Communication room	66	$ 187.50
PACKAGE SYTEM	1 ea Carrier dx unit Room-top	Room 22 Data Communication room	67	$ 338.59
CHILL-WATER AIR HANDLER	1 ea Climatrol air handler AHU-1	Safety annex ceiling	68	$ 352.80
CHILL-WATER FANCOIL	1 ea Chillwater fan coil	Room 201 (C&M)	69	$ 220.39
CHILL-WATER FANCOIL	1 ea Chillwater fan coil	Tools Office Rm.2 at ground level	70	$ 300.00
PACKAGE SYSTEM	1 ea York package unit	Warehouse office Rm. 3 at ground level	71	$ 300.00
ICE MACHINE	1 ea Hoshizaki	Rooms 201/202 C&M	72	$ 302.29
ICE MACHINE	1 ea Manitowoc	Café Kitchen	73	$ 300.00
ICE MACHINE	1 ea Manitowoc	3rd floor parking	74	$ 300.00
ICE MACHINE	1 ea Hoshizaki	3rd floor parking	75	$ 300.00
ICE MACHINE	1 ea Hoshizaki	Pre-fab (Stair # 4) ground level	75A	$ 300.00
ICE MACHINE	1 ea Hoshizaki	Pre-fab (Stair # 4) ground level	74C	$ 300.00
ICE MACHINE	1 ea Hoshizaki	Toolroom (Stair #3) ground level	75E	$ 300.00
ICE MACHINE	1 ea Manitowoc	Toolroom (Stair #3) ground level	75F	$ 300.00
ICE MACHINE	1 ea Hoshizaki	Toolroom (Stair #3) ground level	75D	$ 300.00
ICE MACHINE	1 ea Manitowoc	Underground (Stair #2)	76A	$ 300.00
SPLIT SYSTEM	1 ea Manitowoc	Underground (Stair #2)	76	$ 300.00
DX AIR HANDLER	1 ea Carrier split 10 TONS	Underground (Stair #2)	77	$ 300.00
CHILLWATER FAN COIL	1 ea Air Handler Unit (AHU-8)	Ward Ext. ITS 3rd fl.parking	78	$ 302.29
Displaced split unit	1 ea chillwater fan coil (FCU-3)	Ward Extension 3rd fl. ITS Business Consultants	79	$ 361.69
Displaced split unit	Displaced split unit	Ward Ext. ITS 3rd fl.ITS Tape room	80	$ 361.69
PRECISION PACKAGE A/C SYSTEM	Displaced split unit	Displaced split unit	81	$ -
PRECISION PACKAGE CONDENSER	1 ea package precision a/c unit plus (Liebert)	ITS 3rd floor Ward extension Computer room	82	$ -
Abandoned split system	1 ea air cooled condensers (Liebert)	4th floor parking deck	83	$ 357.55
Abandoned split system	Abandoned split system	Abandoned split system	84	$ 357.55
CHILLER PLANT ARCHER SYSTEM 1	Abandoned split system	Abandoned split system	85	$ -
CHILLER PLANT ARCHER SYSTEM 2	1 ea centrifugal chiller (CH-1) York	Archer Sub	86	$ -
CHILLER PLANT ARCHER SYSTEM 1	1 ea centrifugal chiller (CH-2) York	Archer Sub	144	$ 4,700.52
CHILLER PLANT ARCHER SYSTEM 2	Solid state starter C-1 York	Archer Sub	145	$ 4,700.52
CHILLER PLANT ARCHER SYSTEM 1	Solid state starter C-2 York	Archer Sub	146	$ 31.25
CHILLER PLANT ARCHER SYSTEM 2	1 ea chill-water pump (CHWP-1) Aurora	Archer Sub	147	$ 31.25
CHILLER PLANT ARCHER SYSTEM 1	1 ea chill-water pump (CHWP-2) Aurora	Archer Sub	148	$ 42.50
CHILLER PLANT ARCHER SYSTEM 2	1 ea condenser water pump (CWP-1) Aurora	Archer Sub	149	$ 42.50
CHILLER PLANT ARCHER SYSTEM 1	1 ea condenser water pump (CWP-2) Aurora	Archer Sub	150	$ 42.50
CHILLER PLANT ARCHER SYSTEM 2	1 ea cooling tower (CT-1) BAC	Archer Sub	151	$ 42.50
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 1	1 ea cooling tower (CT-2) BAC	Archer Sub	152	$ 2,541.15
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 1	1 ea air handler unit (AHU 1-1) York... serving Vault 1	Archer Sub	153	$ 2,541.15
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 1	1 ea air handler unit (AHU 1-2) York...serving Vault 2	Archer Sub	154	$ 312.44
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 1	1 ea air handler unit (AHU-1-B) York ...serving Vault B	Archer Sub	155	$ 501.27
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 2	1 ea air handler unit (AHU-1-A) York ...serving Vault A	Archer Sub	156	$ 880.83
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 2	1 ea air handler unit (AHU-2-1) York... serving Vault 1	Archer Sub	157	$ 880.83
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 2	1 ea air handler unit (AHU-2-2) York... serving Vault 1	Archer Sub	158	$ 207.90
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 2	1 ea air handler unit (AHU-2-B) York... serving Vault B	Archer Sub	159	$ 501.27
VENTILATION FAN ARCHER	1 ea air handler unit (AHU-2-A) York... serving Vault A	Archer Sub	160	$ 567.20
VENTILATION FAN ARCHER	1 ea ventilating fan (VF-3 Diamond Head) Breezeway	Archer Sub	161	$ 880.83
VENTILATION FAN ARCHER	1 ea ventilating fan (VF-4 Diamond Head) Breezeway	Archer Sub	162	$ 438.50
VENTILATION FAN ARCHER	1 ea ventilating fan (VF-1 Ewa) Breezeway	Archer Sub	163	$ 438.50
	1 ea ventilating fan (VF-2 Ewa) Breezeway	Archer Sub	164	$ 438.50

ID #	PRICE
166	$ 42.50
167	$ 42.50
168	$ 42.50
169	$ 1,891.67
170	$ 1,891.67
171	$ 42.50
172	$ 42.50
173	$ 42.50
174	$ 42.50
175	$ 2,541.15
176	$ 2,541.15
177	$ 626.01
178	$ 626.01
236	$ 150.00
237	$ 150.00
238	$ 150.00
239	$ 150.00
240	$ 150.00
241	$ 150.00
242	$ 150.00
243	$ 150.00
244	$ 150.00
245	$ 150.00
246	$ 150.00
247	$ 150.00
248	$ 150.00
1001	$ 2,191.67
1002	$ 2,191.67
1003	$ 112.50
1004	$ 2,130.41
1005	$ 2,483.33
1006	$ 2,483.33
1007	$ 75.00
1008	$ 75.00
1009	$ 75.00
1010	$ 187.50
1011	$ 187.50
1012	$ 1,090.31
1013	$ 75.00
1014	$ 187.50
1015	$ 187.50
1016	$ 327.50
	$ 66,718.99

KING STREET PROPERTY

SYSTEMS DESCRIPTION	QUANTITY/DESCRIPTION	LOCATION	ID #	PRICE
CHILLWATER PLANT KING STREET	1 ea Compressors (Trane)	Basement	87	$ 187.50
CHILLWATER PLANT KING STREET	1 ea Compressors (Trane)	Basement	88	$ 187.50
CHILLWATER PLANT KING STREET	1 ea Compressors (Trane)	Basement	89	$ 187.50
CHILLWATER PLANT KING STREET	1 ea Oil Separators	Basement	90	$ 15.63
CHILLWATER PLANT KING STREET	1 ea Oil Separators	Basement	91	$ 15.63
CHILLWATER PLANT KING STREET	1 ea Chiller barrel (Standard)	Mezzanine(ewa)	92	$ 2,325.00
CHILLWATER PLANT KING STREET	1 ea chilled water pump (Aurora)	Mezzanine(ewa)	93	$ 62.50
CHILLWATER PLANT KING STREET	1 ea chilled water pump (Aorora)	Mezzanine(ewa)	94	$ 62.50
CHILLWATER PLANT KING STREET	1 ea evaporative condensers (BAC)	Attic	95	$ 2,569.79
CHILLWATER PLANT KING STREET	1 ea evaporative condensers (BAC)	Attic	96	$ 2,569.79
CHILLWATER PLANT KING STREET	1 ea refrigerant receivers	Attic	97	$ 31.25
CHILLWATER PLANT KING STREET	1 ea refrigerant receivers	Attic	98	$ 31.25
AIR COMPRESSOR	1 ea Air Compressor	Basement	99	$ 37.50
AIR COMPRESSOR	1 ea Air Compressor	Basement	100	$ 37.50
SUMP PUMP	1 ea pump/Little Giant	Basement	101	$ 62.50
DUCT HEATER/RE-HEAT	1 ea duct heater (Williams)	Basement	102	$ 31.25
DUCT HEATER/RE-HEAT	1 ea duct heater (Williams)	Basement	103	$ 31.25
DUCT HEATER/RE-HEAT (3 STEP)	1 ea duct heater (williams)	Basement/Print shop	104	$ 31.25
DUCT HEATER/RE-HEAT (2 STEP)	1 ea duct heater (Williams)	Basement/Print shop	105	$ 31.25
DUCT HEATER/RE-HEAT (2 STEP)	1 ea duct heater (Williams)	Basement/Print shop	106	$ 31.25
DUCT HEATER/RE-HEAT (3 STEP)	1 ea duct heater (Williams)	Basement/Print shop	107	$ 31.25
DUCT HEATER/RE-HEAT (3 STEP)	1 ea duct heater (Williams)	Basement/Records storage	108	$ 31.25
CHILL-WATER FAN COIL	1 ea Fancoil unit(FCU) Williams	Basement/vault	109	$ 318.81
CHILL-WATER FAN COIL	1 ea Fancoil unit(FCU) Williams	Basement/mail inserter rm.	110	$ 318.81
SPLIT SYSTEM	1ea condenser (Carrier)	Basement-Lightwell	111	$ 187.50
SPLIT SYSTEM	1ea condenser (Carrier)	Basement-Lightwell	112	$ 187.50
SPLIT SYSTEM	1 ea AHU (Carrier)	Basement-Data comm. Rm.	113	$ 275.39
SPLIT SYSTEM	1 ea AHU (Carrier)	Basement-Data comm. Rm.	114	$ 275.39
SUMP PUMP	1 ea little giant pump	Basement-Data comm. Rm.	115	$ 62.50
CHILL-WATER AIR HANDLER/UV LIGHT	1 ea AHU-1	Basement-Print shop/Makai-corner	116	$ 746.04
CHILL-WATER FAN COIL	1 ea Fancoil (FCU)	Basement inside tele. Comm. Rm.	117	$ 300.00
SPLIT SYSTEM	1 ea AHU-2 (Carrier)	Basement- inside tele. Comm. Rm.	118	$ 300.00
SPLIT SYSTEM	1 ea condensing unit (Carrier)	Basement next to tele. Comm. Rm.	119	$ 187.50
SUMP PUMP	1 ea Little Giant pump	Basement next to tele. Comm. Rm.	120	$ 62.25
DX FAN COIL	1 ea Fan coil unit (Carrier)	Basement-Word processing room	121	$ 300.00
SUMP PUMP	1 ea March pump	Basement -Word processing room	122	$ 62.50
EXHAUST FAN	1 ea Greenheck exhaust fan	Basement- Light well	123	$ 42.50
CHILL-WATER AIR HANDLER/UV LIGHT	1 ea AHU (Westinghouse)	Mezzanine-Ewa side above trash room (AHU-2B)	124	$ 890.07
CHILL-WATER FAN COIL	1 ea chill-water FCU (Carrier)	Ground level-Arcade check processing room	125	$ 300.00
CHILL-WATER AIR HANDLER/UV LIGHT	1 ea chill-water AHU (Westinghouse)	Mezzanine-DH side enter thru 2nd floor (AHU-1A)	126	$ 1,016.11
CHILL-WATER AIR HANDLER/UV LIGHT	1 ea chill-water AHU (Westinghouse)	Mezzanine-DH side enter thru 2nd floor (AHU-1B)	127	$ 1,203.46
CHILL-WATER AIR HANDLER/UV LIGHT	1 ea chillwater AHU (Westinghouse)	2nd floor -Corp.communication (AHU-2A)	128	$ 1,016.11
CHILL-WATER AIR HANDLER	1 ea air handler unit (Trane)	2nd floor Auditorium	129	$ 174.54
CHILL-WATER AIR HANDLER	1 ea air handler unit (International Environmental)	2nd floor Studio	130	$ 300.00
SPLIT SYSTEM	1 ea fan coil unit (Westinghouse)	3rd floor Accounting	131	$ 300.00
SPLIT SYSTEM	1 ea fan coil unit (Westinghouse)	3rd floor Accounting	132	$ 300.00
SPLIT SYSTEM	1 ea fan coil unit (Westinghouse)	3rd floor Accounting	133	$ 300.00
SPLIT SYSTEM	1 ea condensing unit (Carrier)	roof deck	134	$ 187.50
SPLIT SYSTEM	1 ea condensing unit (Carrier)	roof deck	135	$ 187.50
SPLIT SYSTEM	1 ea condensing unit (Carrier)	roof deck	136	$ 187.50
CHILL-WATER AIR HANDLER	1 ea air handler unit (Trane)	attic	137	$ 538.91
CHILL-WATER AIR HANDLER	1 ea air handler unit (Trane)	attic	138	$ 715.37
CHILL-WATER AIR HANDLER	1 ea air handler unit (Trane)	attic	139	$ 955.13
CHILL-WATER AIR HANDLER	1 ea air handler unit (Trane)	attic	140	$ 970.44
CHILL-WATER AIR HANDLER	1 ea air handler unit (Trane)	attic	141	$ 970.44
CHILL-WATER AIR HANDLER	1 ea air handler unit (Trane)	attic	142	$ 512.94
EXHAUST FAN	1 ea exhaust fan (American blower)	attic	143	$ 42.50
		TOTAL		**$ 23,297.28**

WAIAU

SYSTEMS DESCRIPTION	QUANTITY/DESCRIPTION	LOCATION	ID #	PRICE
WALL A/C SYSTEM	1 ea Wall a/c unit (Bard)	Waiau (Live Trailer...Against the warehouse	224	$ 375.00
WALL A/C SYSTEM	1 ea Wall a/c unit (Bard)	Waiau (next to the hwy)	225	$ 375.00
SPLIT A/C	1 ea condensing unit (Sanyo outdoor unit)	Waiau (roof of the distribution office	226	$ 375.00
SPLIT A/C	2 ea Cassettes (1 & 2) Sanyo	Waiau Visitors Center	227	$ 375.00
PAXCKAGE SYSTEM	1 ea Package unit (York)	Waiau Visitors Center	228	$ 355.70
PACKAGED A/C	1 ea Package (Carrier)	Environmental Lab at Waiau Power Plant	229	$ 362.04
PACKAGED A/C	1 ea Package (Trane)	Environmental Lab at Waiau Power Plant	230	$ 335.97
SPLIT A/C	1 ea condensing unit (Carrier)	Environmental Lab at Waiau Power Plant	230A	$ 187.50
SPLIT A/C	1 ea indoor unit (Carrier)	Environmental Lab at Waiau Power Plant	230B	$ 187.50
PACKAGED A/C	1 ea Package	Environmental Lab at Waiau Power Plant	230C	$ 334.37
ICE MACHINE	1 ea ice machine (Koldraft)	In side Environmental lab at Waiau Power Plant	231	$ 300.00
ICE MACHINE	1 ea ice machine (Hoshizaki)	Ware house at Waiau/C&M	232	$ 300.00
ICE MACHINE	1 ea ice machine (Hoshizaki)	Ware house at Waiau/C&M	233	$ 300.00
ICE MACHINE	1 ea ice machine (Manitowoc)	Ware house at Waiau/C&M	234	$ 300.00
ICE MACHINE	1 ea ice machine (Manitowoc)	Ware house at Waiau/C&M	235	$ 300.00
		TOTAL		**$ 4,763.08**

LOCATION	ID #	PRICE
Iwilei 125	179	$ 345.01
Iwilei 125	180	$ 42.50
Iwilei 125	181	$ 42.50
Iwilei 125	182	$ 42.50
Iwilei 125	183	$ 42.50
Iwilei 125	184	$ 328.33
Iwilei 125	185	$ 328.33
Iwilei 138	186	$ 187.50
School Street	187	$ 326.40
School Street	188	$ 187.50
School Street	189	$ 187.50
School Street	190	$ 187.50
Makalapa	191	$ 187.50
Makalapa	192	$ 322.51
Halawa	193	$ 187.50
Halawa	194	$ 322.51
Irport -Golf course	195	$ 187.50
Irport -Post Office	196	$ 367.52
Aiau Control-house	197	$ 367.52
Aiau Control-house	198	$ 187.50
Aiau Control-house	199	$ 187.50
aiau Control-house	200	$ 331.02
va Nui	201	$ 331.02
va Nui	202	$ 337.50
mpbell Industrial Park CIEP	203	$ 337.50
mpbell Industrial Park CIEP	204	$ 225.00
laeloa	205	$ 331.42
S H_Power	206	$ 225.00
S H_Power	207	$ 225.00
aeloa	208	$ 352.27
ie 1-4	209	$ 352.27
ie 1-4	210	$ -
e 5-6	211	$ -
a 5-6	212	$ -
lau	213	$ -
lau	214	$ 187.50
au	215	$ 187.50
au	216	$ 322.51
au Baseyard (Outside building)	217	$ 331.42
au Baseyard (Outside building)	218	$ 187.50
au Baseyard (top of office)	219	$ 187.50
au Baseyard (top of office)	220	$ 334.78
lo	221	$ 331.42
lo	221A	$ 318.74
al Pacific Plaza 13fl Mauka	221B	$ 365.08
Training trailer	222	$ 300.00
u Baseyard	223	$ 1,200.00
u Baseyard	235A	$ 300.00
-4	235B	$ 300.00
-6	1017	$ 1,196.74
u 138KV Substation	1018	$ 1,196.74
u 138KV Substation	1019	$ 325.21
u 138KV Substation	1020	$ 300.00
u 138KV Substation	1021	$ 380.21
u 138KV Substation	1022	$ 380.21
u 138KV Substation	1023	$ 380.21
u 138KV Substation	1024	$ 150.00
u 138KV Substation	1025	$ 150.00
u 138KV Substation	1026	$ [illegible]

OTHER (SUBSTATIONS)

SYSTEMS DESCRIPTION	QUANTITY/DESCRIPTION	LOCATION	ID #	PRICE
VENTILATION	1 ea Propeller Exhaust Fan (FX-6)	Kamoku 138KV Substation	1028	$ 380.21
VENTILATION	1 ea Propeller Exhaust Fan (FX-7)	Kamoku 138KV Substation	1029	$ 380.21
VENTILATION	1 ea Propeller Exhaust Fan (FX-8)	Kamoku 138KV Substation	1030	$ 380.21
VENTILATION	1 ea Cabinet Exhasut Fan (FX-9)	Kamoku 138KV Substation	1031	$ 150.00
VENTILATION	1 ea Cabinet Exhasut Fan (FX-11)	Kamoku 138KV Substation	1032	$ 150.00
	1 ea Cabinet Exhasut Fan (FX-13)	Kamoku 138KV Substation	1033	$ 150.00
		TOTAL		**$ 19,047.72**

Air Conditioning

12/20/2004 *O&M for All Depts with Loc 4:32PM

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000346	Ishii, A	SSF	PHF	Facilities Planning	B39	A & G Maint	932	Labor	932	PHE	150	120	10	10	10	10	10	10	10	10	10	10	10	10
												$3,680.40	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70
P0000346	Ishii, A	SSF	PHF	Facilities Planning	B39	A & G Maint	932	Non-Labor	932	PHE	501	286,080.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00
												$286,080.00	$23,840.00	$23,840.00	$23,840.00	$23,840.00	$23,840.00	$23,840.00	$23,840.00	$23,840.00	$23,840.00	$23,840.00	$23,840.00	$23,840.00
P0000346	Ishii, A	SSF	PHF	Facilities Planning	B39							286,200.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00
												$289,760.40	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70
P0000346	Ishii, A	SSF	PHF									286,200.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00
												$289,760.40	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70
P0000346	Ishii, A	SSF										286,200.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00
												$289,760.40	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70
P0000346												286,200.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00	23,850.00
												$289,760.40	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70	$24,146.70

CA-IR-1 & 2
DOCKET NO. 04-0113
PROJECT NO. P0000346
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Project	RA	ACT	LOC	IND	EE	LBR	Line Item	5-Jan	5-Feb	5-Mar	5-Apr	5-May	5-Jun	5-Jul	5-Aug	5-Sep	5-Oct	5-Nov	5-Dec	FY 05	a	b	c	d	e	f	g
								10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	10 Hrs	120 Hrs							
P0000346	PHF	932	PHE	NE	150	__TC	Air Conditioning - Repair	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	306.70	3,680.40	Cheryl Fujiwara, Director Gail Smith FP Clerk Fred Nakama PM	Projected staffing remains the same 1-TC Project Manager for this work. See note below	Division Staffing level remains consistant 2-BUOC 2 - TC 1 - FS	No additions	NA	NA	NA
P0000346	PHF	932	PHE	NE	600	__TC	Air Conditioning - Repair Outside Svcs	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	23,840.00	286,080.00	Cheryl Fujiwara, Director Gail Smith FP Clerk Fred Nakama PM	See attached	Costs are based on historical data. See attached information	NA	NA	NA	NA
P0000346								24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	289,760.40							
								24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	24,146.70	289,760.40							

LABOR: Approximately 10 hours per month is budgeted for the Project Manager to work with the various vendors in handling of refrigeration or ventilation repairs

Repair Cost Explanations:

These costs are based on historical data and indicators on the Company wide operation of HECO's various air conditioning equipments. Attached is a list of 254 pieces of equipment that are maintained and **repaired** by Facilities Operations & Planning Division.

For further information and historical data, please review work orders:

FA346001 – King Street
FA346002 - Ward Avenue
FA346003 – Other
FA346004 - Waiau

HECO - Company Wide
Air Conditioning, Ventilation Refrigeration Listing

Heidi Cook, Ltd.

WARD AVENUE			
SYSTEMS DESCRIPTION	QUANTITY/DESCRIPTION	LOCATION	ID #
EXHAUST FAN	1ea Centri Master Utility	Ward 1 UPS room	1
ROOM AIR CONDITIONERS	1 ea Window a/c	Ward 1 UPS room	2
ROOM AIR CONDITIONERS	1 ea Window a/c	Ward 1 UPS room	3
SPLIT SYSTEM	1 ea condensing unit (Carrier)	Generator enclosure Ward 1 Mauka/DH	4
SPLIT SYSTEM	1 ea AHU (Carrier)	EMS office	5
PRECISION PACKAGE A/C	1 ea Package precision a/c (Trane)	EMS Computor room	6
PRECISION PACKAGE A/C	1 ea Package precision a/c (Trane)	EMS Computer room	7
PRECISION PACKAGE CONDENSER	1 ea air cooled condenser (Trane)	outside generator enclosure	8
PRECISION PACKAGE CONDENSER	1 ea air cooled condenser (Trane)	outside generator enclosure	9
SPLIT SYSTEM	1 ea air cooled condenser (Mitsubishi/outdoor)	[illegible]	

HECO - Company Wide
Air Conditioning, Ventilation Refrigeration Listing

Heidi Cook, Ltd.

SYSTEMS DESCRIPTION	QUANTITY/DESCRIPTION	LOCATION	ID #
Displaced split unit	Displaced split unit	Displaced split unit	82
PRECISION PACKAGE A/C SYSTEM	1 ea package precision a/c unit plus (Liebert)	ITS 3rd floor Ward extension Computer room	83
PRECISION PACKAGE CONDENSER	1 ea air cooled condensers (Liebert)	4th floor parking deck	84
Abandoned split system	Abandoned split system	Abandoned split system	85
Abandoned split system	Abandoned split system	Abandoned split system	86
CHILLER PLANT ARCHER SYSTEM 1	1 ea centrifugal chiller (CH-1) York	Archer Sub	144
CHILLER PLANT ARCHER SYSTEM 2	1 ea centrifugal chiller (CH-2) York	Archer Sub	145
CHILLER PLANT ARCHER SYSTEM 1	Solid state starter C-1 York	Archer Sub	146
CHILLER PLANT ARCHER SYSTEM 2	Solid state starter C-2 York	Archer Sub	147
CHILLER PLANT ARCHER SYSTEM 1	1 ea chill-water pump (CHWP-1) Aurora	Archer Sub	148
CHILLER PLANT ARCHER SYSTEM 2	1 ea chill-water pump (CHWP-2) Aurora	Archer Sub	149
CHILLER PLANT ARCHER SYSTEM 1	1 ea condenser water pump (CWP-1) Aurora	Archer Sub	150
CHILLER PLANT ARCHER SYSTEM 2	1 ea condenser water pump (CWP-2) Aurora	Archer Sub	151
CHILLER PLANT ARCHER SYSTEM 1	1 ea cooling tower (CT-1) BAC	Archer Sub	152
CHILLER PLANT ARCHER SYSTEM 2	1 ea cooling tower (CT-2) BAC	Archer Sub	153
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 1	1 ea air handler unit (AHU 1-1) York... serving Vault 1	Archer Sub	154
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 1	1 ea air handler unit (AHU 1-2) York... serving Vault 2	Archer Sub	155
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 1	1 ea air handler unit (AHU-1-B) York ...serving Vault B	Archer Sub	156
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 1	1 ea air handler unit (AHU-1-A) York ...serving Vault A	Archer Sub	157
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 2	1 ea air handler unit (AHU-2-1) York... serving Vault 1	Archer Sub	158
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 2	1 ea air handler unit (AHU-2-2) York... serving Vault 1	Archer Sub	159
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 2	1 ea air handler unit (AHU-2-B) York... serving Vault B	Archer Sub	160
CHILL-WATER AIR HANDLER/ARCHER SYSTEM 2	1 ea air handler unit (AHU-2-A) York... serving Vault A	Archer Sub	161
VENTILATION FAN ARCHER	1 ea ventilating fan (VF-3 Diamond Head) Breezeway	Archer Sub	162
VENTILATION FAN ARCHER	1 ea ventilating fan (VF-4 Diamond Head) Breezeway	Archer Sub	163
VENTILATION FAN ARCHER	1 ea ventilating fan (VF-1 Ewa) Breezeway	Archer Sub	164
VENTILATION FAN ARCHER	1 ea ventilating fan (VF-2 Ewa) Breezeway	Archer Sub	165
EXHAUST FAN ARCHER	1 ea exhaust fan (VF-5 Diamond Head) Centrax	Archer Sub	166
EXHAUST FAN ARCHER	1 ea exhaust fan (VF-6 Diamond Head) Centrax	Archer Sub	167
EXHAUST FAN ARCHER	1 ea exhaust fan (EXH-1) domex/Penn	Archer Sub	168
CHILL-WATER PLANT ARCHER SYSTEM 3	1 ea centrifugal chiller (CH-3) Mcquay	Archer	169
CHILL-WATER PLANT ARCHER SYSTEM 4	1 ea centrifugal chiller (CH-4) Mcquay	Archer	170
CHILL-WATER PLANT ARCHER SYSTEM 3	1 ea chill-water pump (CHWP-3) Aurora	Archer	171
CHILL-WATER PLANT ARCHER SYSTEM 4	1 ea chill-water pump (CHWP-4) Aurora	Archer	172
CHILL-WATER PLANT ARCHER SYSTEM 3	1 ea condenser water pump (CWP-3) Aurora	Archer	173
CHILL-WATER PLANT ARCHER SYSTEM 4	1 ea condenser water pump (CWP-4) Aurora	Archer	174
CHILL-WATER PLANT ARCHER SYSTEM 3	1 ea Cooling tower (CT-3) BAC	Archer	175
CHILL-WATER PLANT ARCHER SYSTEM 4	1 ea Cooling tower (CT-4) BAC	Archer	176
CHILL-WATER AIR HANDLER /ARCHER SYSTEM 3	1 ea air handler unit (AHU-3-C) York serving Vault C	Archer	177
CHILL-WATER AIR HANDLER /ARCHER SYSTEM 4	1 ea air handler unit (AHU-4-C) York serving Vault C	Archer	178
REFRIGERATION/CAFÉ	1 ea 8-half door reach-in chill box	Ward -café	236
REFRIGERATION/CAFÉ	1 ea 2 half-door reach-in chill box	Ward -café	237
REFRIGERATION/CAFÉ	1 ea Cold plate freezer	Ward -café	238
REFRIGERATION/CAFÉ	1 ea Under counter chill box (drawer)	Ward -café	239
REFRIGERATION/CAFÉ	1 ea Walk-in chill box	Ward -café	240
REFRIGERATION/CAFÉ	1 ea Walk-in freezer	Ward -café	241
REFRIGERATION/CAFÉ	1 ea reach-in ice cream freezer	Ward -café	242
REFRIGERATION/CAFÉ	1 ea Condensing unit ...cold plate	Ward room 402 (top deck parking)	243
REFRIGERATION/CAFÉ	1 ea Condensing unit ...Walk-in freezer	Ward room 402 (top deck parking)	244
REFRIGERATION/CAFÉ	1 ea Condensing unit... under-counter	Ward room 402 (top deck parking)	245
REFRIGERATION/CAFÉ	1 ea condensing unit ...	Ward room 402 (top deck parking)	246
REFRIGERATION/CAFÉ	1 ea condensing unit	Ward room 402 (top deck parking)	247
REFRIGERATION/CAFÉ	1 ea single soda case	Ward-café	248
CHILLER PLANT WARD 1	1 ea VaCom Air Cooled Chiller	Chiller # 1	1001
CHILLER PLANT WARD 1	1 ea VaCom Air Cooled Chiller	Chiller #2	1002
CHILLER PLANT WARD 1	1 ea Flo-pac primary/secondary pumping system	Ward 1 attic Package pumping system	1003
CHILL-WATER AIR HANDLER /UV LIGHTS	1 ea AHU 2-1	Ward 1 Attic	1004
CHILL-WATER AIR HANDLER /UV LIGHTS	1 ea AHU 3-1	Ward 1 Attic	1005
CHILL-WATER AIR HANDLER /UV LIGHTS	1 ea AHU 4-1	Ward 1 Attic	1006
ADJUSTABLE FREQUENCY DRIVE	1 ea AFD	Ward 1 Attic	1007
ADJUSTABLE FREQUENCY DRIVE	1 ea AFD	Ward 1 Attic	1008
ADJUSTABLE FREQUENCY DRIVE	1 ea AFD	Ward 1 Attic	1009
SPLIT SYSTEM	1 ea Mitsubishi Outdoor Unit	Ward Extension 3rd floor parking	1010
SPLIT SYSTEM	1 ea Mitsubishi Indoor Unit	Ward Extension 3rd floor/consultants	1011
CHILL-WATER AIR HANDLER /UV LIGHTS	1 ea AHU-1 Call center	Ward Extension 3rd fl. ITS/Call Center	1012
ADJUSTABLE FREQUECNY DRIVE	1 ea AFD	Ward Extension 3rd floor	1013
SPLIT SYSTEM	1 ea. indoor unit (Carrier Ductless)	Ward Purchasing Building/Security Command Center	1014
SPLIT SYSTEM	1 ea outdoor unit (Carrier)	Ward Purchasing Building/Security Command Center	1015
DX FAN COIL	1 ea CAC / BDP Indoor Fan Coil	Ward Purchasing Building/Security Command Center	1016
KING STREET PROPERTY			
CHILLWATER PLANT KING STREET	1 ea Compressors (Trane)	Basement	87
CHILLWATER PLANT KING STREET	1 ea Compressors (Trane)	Basement	88
CHILLWATER PLANT KING STREET	1 ea Compressors (Trane)	Basement	89
CHILLWATER PLANT KING STREET	1 ea Oil Separators	Basement	90
CHILLWATER PLANT KING STREET	1 ea Oil Separators	Basement	91
CHILLWATER PLANT KING STREET	1 ea Chiller barrel (Standard)	Mezzanine(ewa)	92
CHILLWATER PLANT KING STREET	1 ea chilled water pump (Aurora)	Mezzanine(ewa)	93
CHILLWATER PLANT KING STREET	1 ea chilled water pump (Aorora)	Mezzanine(ewa)	94
CHILLWATER PLANT KING STREET	1 ea evaporative condensers (BAC)	Attic	95
CHILLWATER PLANT KING STREET	1 ea evaporative condensers (BAC)	Attic	96
CHILLWATER PLANT KING STREET	1 ea refrigerant receivers	Attic	97

HECO - Company Wide
Air Conditioning, Ventilation Refrigeration Listing

Heidi Cook, Ltd.

SYSTEMS DESCRIPTION	QUANTITY/DESCRIPTION	[illegible]

HECO - Company Wide
Air Conditioning, Ventilation Refrigeration Listing

Heidi Cook, Ltd.

SYSTEMS DESCRIPTION	QUANTITY/DESCRIPTION	LOCATION	ID #
SPLIT A/C	1 ea AHU (Carrier)	Campbell Industrial Park CIEP	205
SPLIT A/C	1 ea condensing unit (Trane)	Kalaeloa	206
SPLIT A/C	1 ea condensing unit (Trane)	AES H_Power	207
SPLIT A/C	1 ea AHU (Trane)	AES H_Power	208
SPLIT A/C	1 ea AHU (Trane)	Kalaeloa	209
SPLIT A/C	1 ea condensing unit (Carrier)	Kahe 1-4	210
SPLIT A/C	1 ea AHU (Carrier)	Kahe 1-4	211
SPLIT A/C	1 ea condensing unit (Carrier)	Kahe 5-6	212
SPLIT A/C	1 ea AHU (Carrier)	Kaha 5-6	213
SPLIT A/C	1 ea condensing unit (Trane)	Koolau	214
SPLIT A/C	1 ea condensing unit (Trane)	Koolau	215
SPLIT A/C	1 ea AHU (Trane)	Koolau	216
SPLIT A/C	1 ea AHU (Trane)	Koolau	217
SPLIT A/C	1 ea condensing unit (York)	Koolau Baseyard (Outside building)	218
SPLIT A/C	1 ea condensing unit (York)	Koolau Baseyard (Outside building)	219
SPLIT A/C	1 ea AHU (York)	Koolau Baseyard (top of office)	220
SPLIT A/C	1 ea AHU (York)	Koolau Baseyard (top of office)	221
SPLIT A/C	1 ea AHU (Carrier)	Kewalo	221A
SPLIT A/C	1 ea condensing unit (Carrier)	Kewalo	221B
FAN COIL SYSTEM	0	Central Pacific Plaza 13fl Mauka	222
WALL A/C SYSTEM	1 ea Wall a/c unit (Marvair)	Kahe Training trailer	223
ICE MACHINE	1 ea ice machine (Hoshizaki)	Koolau Baseyard	235A
ICE MACHINE	1 ea ice machine (Hoshizaki)	Koolau Baseyard	235B
WALL A/C SYSTEM	1 ea Wall a/c unit (Bard)	Kahe1-4	1017
WALL A/C SYSTEM	1 ea Wall a/c unit (Bard)	Kahe5-6	1018
SPLIT A/C	1 ea AHU (Trane)	Kamoku 138KV Substation	1019
SPLIT A/C	1 ea condensing unit (Trane)	Kamoku 138KV Substation	1020
VENTILATION	1 ea Vane Axial Supply Fan (FS-1)	Kamoku 138KV Substation	1021
VENTILATION	1 ea Vane Axial Supply Fan (FS-2)	Kamoku 138KV Substation	1022
VENTILATION	1 ea Vane Axial Supply Fan (FS-4)	Kamoku 138KV Substation	1023
VENTILATION	1 ea Vane Axial Exhaust Fan (FX-1)	Kamoku 138KV Substation	1024
VENTILATION	1 ea Vane Axial Exhaust Fan (FX-2)	Kamoku 138KV Substation	1025
VENTILATION	1 ea Vane Axial Exhaust Fan (FX-3)	Kamoku 138KV Substation	1026
VENTILATION	1 ea Propeller Exhaust Fan (FX-5)	Kamoku 138KV Substation	1027
VENTILATION	1 ea Propeller Exhaust Fan (FX-6)	Kamoku 138KV Substation	1028
VENTILATION	1 ea Propeller Exhaust Fan (FX-7)	Kamoku 138KV Substation	1029
VENTILATION	1 ea Propeller Exhaust Fan (FX-8)	Kamoku 138KV Substation	1030
VENTILATION	1 ea Cabinet Exhasut Fan (FX-9)	Kamoku 138KV Substation	1031
VENTILATION	1 ea Cabinet Exhasut Fan (FX-11)	Kamoku 138KV Substation	1032
VENTILATION	1 ea Cabinet Exhasut Fan (FX-13)	Kamoku 138KV Substation	1033
			TOTALS

HAWAIIAN ELECTRIC CO and Subsidiaries
PRODUCTION CHANGE REQUEST (PCR)
CONTROLLED PROJECTS

Bolded items are to be filled out by the user (some items are optional). Ignore the non-bolded items

Requestor:	***R. Keller***	***Dept:***	Facilities Planning	***Today's Date :***	3/23/2000
District:	***HECO***	***Phone:***	x7375	***Date Needed by:***	

mso920, level = 05-project
~~*Fifth segment project - optional*~~

GE Type U Bushing Replacement Project

12/20/2004

*O&M for All Depts with Loc

4:32PM

Proj	ProjMgrOrEngr	Dept	RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	Act	Loc	EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000433	Anbe, K	Sys Op	PRS	Substation	B35	Distribution Maint	592	Labor	485	OAH	150	224	0	28	28	28	28	28	28	28	28	0	0	0
												$7,542.08	$0.00	$942.76	$942.76	$942.76	$942.76	$942.76	$942.76	$942.76	$942.76	$0.00	$0.00	$0.00
P0000433	Anbe, K	Sys Op	PRS	Substation	B35	Distribution Maint	592	Non-Labor	485	OAH	201	40,800	40,800	0	0	0	0	0	0	0	0	0	0	0
												$40,800.00	$40,800.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000433	Anbe, K	Sys Op	PRS	Substation	B35	Distribution Maint	592	Non-Labor	485	OAH	506	11,100	0	0	0	3,700	0	0	3,700	0	0	3,700	0	0
												$11,100.00	$0.00	$0.00	$0.00	$3,700.00	$0.00	$0.00	$3,700.00	$0.00	$0.00	$3,700.00	$0.00	$0.00
P0000433	Anbe, K	Sys Op	PRS	Substation	B35							52,124	40,800	28	28	3,728	28	28	3,728	28	28	3,700	0	0
												$59,442.08	$40,800.00	$942.76	$942.76	$4,642.76	$942.76	$942.76	$4,642.76	$942.76	$942.76	$3,700.00	$0.00	$0.00
P0000433	Anbe, K	Sys Op	PRS									52,124	40,800	28	28	3,728	28	28	3,728	28	28	3,700	0	0
												$59,442.08	$40,800.00	$942.76	$942.76	$4,642.76	$942.76	$942.76	$4,642.76	$942.76	$942.76	$3,700.00	$0.00	$0.00
P0000433	Anbe, K	Sys Op										52,124	40,800	28	28	3,728	28	28	3,728	28	28	3,700	0	0
												$59,442.08	$40,800.00	$942.76	$942.76	$4,642.76	$942.76	$942.76	$4,642.76	$942.76	$942.76	$3,700.00	$0.00	$0.00
P0000433												52,124	40,800	28	28	3,728	28	28	3,728	28	28	3,700	0	0
												$59,442.08	$40,800.00	$942.76	$942.76	$4,642.76	$942.76	$942.76	$4,642.76	$942.76	$942.76	$3,700.00	$0.00	$0.00

CA-IR-1 & 2
DOCKET NO. 04-0113
PROJECT NO. P0000433
PAGE 1 OF 4

Project P0000433 Workpaper
GE Type U Bushing Replacement
Project Manager: Anbe K.

Description	Total CY 2005	Jan	Feb	Mar
Purchase 24 bushings @ $1700 ea	40,800	40800	0	0
	$ 40,800.00	**$ 40,800.00**	**$ -**	**$ -**
Install 3 bushing each month 3.5 mandays	224		28	28
	$ 7,542.08	**$ -**	**$ 942.76**	**$ 942.76**
Disposal Bushings (9 ea @ $3700)				
	$ 11,100.00			

Replace GE Type U bushings on 8 transformers.
Each transformer has 3 bushings
Bushings can be replaced in one day by a crew
A crew may have 3 or 4 members
Disposal is based on 9 bushings at a time.
$411 per bushings

Project P0000433 Workpaper
GE Type U Bushing Replacement
Project Manager: Anbe K.

Description	Apr	May	Jun	Jul	Aug
Purchase 24 bushings @ $1700 ea	0	0	0	0	0
	$ -	**$ -**	**$ -**	**$ -**	**$ -**
Install 3 bushing each month 3.5 mandays	28	28	28	28	28
	$ 942.76	**$ 942.76**	**$ 942.76**	**$ 942.76**	**$ 942.76**
Disposal Bushings (9 ea @ $3700)	3700			3700	
	$ 3,700.00			**$ 3,700.00**	

Replace GE Type U bushings on 8 transforme
Each transformer has 3 bushings
Bushings can be replaced in one day by a cre
A crew may have 3 or 4 members
Disposal is based on 9 bushings at a time.
$411 per bushings

Project P0000433 Workpaper
GE Type U Bushing Replacement
Project Manager: Anbe K.

Description	Sep	Oct	Nov	Dec
Purchase 24 bushings @ $1700 ea	0	0	0	0
	$ -	$ -	$ -	$ -
Install 3 bushing each month 3.5 mandays	28			
	$ 942.76	$ -	$ -	$ -
Disposal Bushings (9 ea @ $3700)		3700		
		$ 3,700.00		

Replace GE Type U bushings on 8 transforme
Each transformer has 3 bushings
Bushings can be replaced in one day by a cre
A crew may have 3 or 4 members
Disposal is based on 9 bushings at a time.
$411 per bushings

12/20/2004 New Product Development

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY06
P0000456	Omellas, L	Engineering	PBA	Admin-ED Engr	B31	Prod Maint	511	Labor	210	KWW	150	0
												$0.00
P0000456	Omellas, L	Engineering	PBA	Admin-ED Engr	B31	Prod Maint	511	Labor	211	KWW	150	12
												$267.36
P0000456	Omellas, L	Engineering	PBA	Admin-ED Engr	B31							12 (A)
												$267.36
P0000456	Omellas, L	Engineering	PBA									12
												$267.36
P0000456	Omellas, L	Engineering	PBT	Structural	B31	Prod Maint	510	Labor	211	KWW	150	0.00
												$0.00
P0000456	Omellas, L	Engineering	PBT	Structural	B31	Prod Maint	511	Labor	210	KWW	150	23.04
												$706.21
P0000456	Omellas, L	Engineering	PBT	Structural	B31	Prod Maint	511	Labor	211	KWW	150	0.00
												$0.00
P0000456	Omellas, L	Engineering	PBT	Structural	B31							23.04 (B)
												$706.21
P0000456	Omellas, L	Engineering	PBT									23.04
												$706.21
P0000456	Omellas, L	Engineering										35.04
												$973.57
P0000456	Omellas, L	Production	PIP	Planning	B31	Prod Maint	510	Non-Labor	212	KWW	508	0.00
												$0.00
P0000456	Omellas, L	Production	PIP	Planning	B31	Prod Maint	511	Labor	212	KWW	150	0.00
												$0.00
P0000456	Omellas, L	Production	PIP	Planning	B31	Prod Maint	511	Non-Labor	212	KWW	505	0.00
												$0.00
P0000456	Omellas, L	Production	PIP	Planning	B31	Prod Maint	511	Non-Labor	212	KWW	508	0.00
												$0.00
P0000456	Omellas, L	Production	PIP	Planning	B31							0.00
												$0.00
P0000456	Omellas, L	Production	PIP									0.00
												$0.00
P0000456	Omellas, L	Production										0.00
												$0.00
P0000456												35.04
												$973.57

W/P Ref. for details

(A) CA-IR-1, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT 4D, Page 1 of 1.
(B) CA-IR-1, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT 4E, Page 1 of 3.

Kahe Pond 1A Clean + Lining

12/20/2004

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05
P0000458	Omellas, L	Engineering	PBA	Admin-ED Engr	B31	Prod Maint	511	Labor	210	KWW	150	7.36 (C)
												$163.98
P0000458	Omellas, L	Engineering	PBA	Admin-ED Engr	B31	Prod Maint	511	Labor	211	KWW	150	11.04 (C)
												$245.97
P0000458	Omellas, L	Engineering	PBA	Admin-ED Engr	B31							18.40
												$409.95
P0000458	Omellas, L	Engineering	PBA									18.40
												$409.95
P0000458	Omellas, L	Engineering	PBT	Structural	B31	Prod Maint	510	Labor	211	KWW	150	200.04 (D)
												$6,695.34
P0000458	Omellas, L	Engineering	PBT	Structural	B31	Prod Maint	511	Labor	210	KWW	150	21.00 (D)
												$706.82
P0000458	Omellas, L	Engineering	PBT	Structural	B31	Prod Maint	511	Labor	211	KWW	150	9.99 (D)
												$314.49
P0000458	Omellas, L	Engineering	PBT	Structural	B31							231.03
												$7,716.84
P0000458	Omellas, L	Engineering										

												$7,716.84
P0000458	Omellas, L	Engineering										240.43
												$8,128.80
P0000458	Omellas, L	Production	PIP	Planning	B31	Prod Maint	510	Labor	212	KWW	150	200.04 (E)
												$6,181.23
P0000458	Omellas, L	Production	PIP	Planning	B31	Prod Maint	511	Non-Labor	212	KWW	506	830,000
												$830,000.00 (F)
P0000458	Omellas, L	Production	PIP	Planning	B31	Prod Maint	511	Non-Labor	212	KWW	508	20,000.04
												$20,000.04 (F)
P0000458	Omellas, L	Production	PIP	Planning	B31							850,200.08
												$856,161.27
P0000458	Omellas, L	Production	PIP									850,200.08
												$856,161.27
P0000458	Omellas, L	Production										850,200.08
												$856,161.27
P0000458												850,449.51
												$864,287.87

W/P Ref. for details

(C) CA-IR-1, DOCKET NO. 04-113, HECO T-6, ATTACHMENT 4D, Page 1 of 1.

(D) CA-IR-1, DOCKET NO. 04-113, HECO T-6, ATTACHMENT 4E, Page 1 of 3.

(E) CA-IR-1, DOCKET NO. 04-113, HECO T-6, ATTACHMENT 4A, Page 1 of 1.

(F) CA-IR-2, DOCKET NO. 04-113, HECO T-6, ATTACHMENT 4A, Page 1 of 9.

#2/Waiau-Wahiawa Stn.

*O&M for All Depts with Loc

4:32PM

Acct Blk	Acct Blk Descr	NARUC	Exp Class	Act	Loc	EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
B33	Transmission Maint	571	Labor	315	OAH	150	800	0	0	0	400	400	0	0	0	0	0	0	0
							$28,864.00	$0.00	$0.00	$0.00	$14,432.00	$14,432.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
B33							800	0	0	0	400	400	0	0	0	0	0	0	0
							$28,864.00	$0.00	$0.00	$0.00	$14,432.00	$14,432.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
							800	0	0	0	400	400	0	0	0	0	0	0	0
							$28,864.00	$0.00	$0.00	$0.00	$14,432.00	$14,432.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
							800	0	0	0	400	400	0	0	0	0	0	0	0
							$28,864.00	$0.00	$0.00	$0.00	$14,432.00	$14,432.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
							800	0	0	0	400	400	0	0	0	0	0	0	0
							$28,864.00	$0.00	$0.00	$0.00	$14,432.00	$14,432.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

ated for O&M on the PILLAR file (see attachment) for the project is
ly Division's work to transfer the existing conductors from the
to the new structure. That "change over" portion of the total project
)&M. In total for the project, C&M has been allocated 3,420 hours.
) hours is considered to be capital work and 800 hours to be O&M work.

stimated by assuming that it will take a 10 man crew, working an 8
g days (2 weeks) to complete the change over. This time was estimated
nield wires and 6 double bundled 138kV phases will need to be
e old to the new structure.

Kahe-Halawa #2/Waiau-Wahiawa Str. 86/25 Labor and Cost Estimates

Labor Hours	Hours	Comments
Administrative	70	
Electrical Engineering	180	Estimated hours from HECO T&D Div
Structural Engineering	658	Estimated hours from HECO Structural Div
Construction & Maintenance	3,600	Estimated hours from HECO C&M (email dated 3/18/2002 from T. Ryder)
Construction	**Costs**	
Structure Cost	$180,000	Estimated costs based on preliminary Valmont designs
Foundation Construction	$300,000	Estimated costs from HECO C&M (per work sheet from A. Chun)
Helicopter Costs	$55,500	Estimated costs from HECO C&M and Pacific Helicopters
Outside Material Costs	$11,000	Estimated costs from HECO C&M
Stock Material Costs	$11,000	Estimated costs from HECO C&M

4:32PM

EE	FY06	Feb 06	Mar 06	Apr 06	May 06	Jun 06	Jul 06	Aug 06	Sep 06	Oct 06	Nov 06	Dec 06
201	2	0	0	0	0	0	0	0	0	0	0	2
	$2.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2.00
501	4,801	400	400	400	400	400	400	400	400	400	400	401
	$4,801.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$401.00
	4,803	400	400	400	400	400	400	400	400	400	400	403
	$4,803.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$403.00
	4,803	400	400	400	400	400	400	400	400	400	400	403
	$4,803.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$403.00
150	96	8	8	8	8	8	8	8	8	8	8	8
	$2,944.32	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36
	96	8	8	8	8	8	8	8	8	8	8	8
	$2,944.32	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36
	96	8	8	8	8	8	8	8	8	8	8	8
	$2,944.32	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36	$245.36
	4,899	408	408	408	408	408	408	408	408	408	408	411
	$7,747.32	$645.36	$645.36	$645.36	$645.36	$645.36	$645.36	$645.36	$645.36	$645.36	$645.36	$648.36
	4,899	408	408	408	408	408	408	408	408	408	408	411
	$7,747.32	$645.36	$645.36	$645.36	$645.36	$645.36	$645.36	$645.36	$645.36	$645.36	$645.36	$648.36

| | | |

PSOM Structural Engr

12/20/2004

Proj	ProjMgrOrEngr	Dept	RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	Act	Loc	EE	FY06
P0000524	Omellas, L	Engineering	PBT	Structural	B31	Prod Maint	511	Labor	265	WST	150	1,285 (6)
												$42,589.35
P0000524	Omellas, L	Engineering	PBT	Structural	B31							1,285
												$42,589.35
P0000524	Omellas, L	Engineering	PBT									1,285
												$42,589.35
P0000524	Omellas, L	Engineering										1,285
												$42,589.35
P0000524												1,285
												$42,589.35

W/P Ref. for details

(6) CA-IR-1, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT HE, Page 1 of 3.

4:32PM

May 06	Jun 06	Jul 06	Aug 06	Sep 06	Oct 06	Nov 06	Dec 06
66	66	66	66	24	24	0	0
-$3,340.02	$4,453.36	$4,453.36	$4,453.36	$1,174.68	$1,174.68	$0.00	$0.00
66	66	66	66	24	24	0	0
-$3,340.02	$4,453.36	$4,453.36	$4,453.36	$1,174.68	$1,174.68	$0.00	$0.00
66	66	66	66	24	24	0	0
$3,340.02	$4,453.36	$4,453.36	$4,453.36	$1,174.68	$1,174.68	$0.00	$0.00
66	66	66	66	24	24	0	0
$3,340.02	$4,453.36	$4,453.36	$4,453.36	$1,174.68	$1,174.68	$0.00	$0.00
60	80	80	80	20	20	0	0
$3,156.00	$4,208.00	$4,208.00	$4,208.00	$1,052.00	$1,052.00	$0.00	$0.00
60	80	80	80	20	20	0	0
$3,156.00	$4,208.00	$4,208.00	$4,208.00	$1,052.00	$1,052.00	$0.00	$0.00
60	80	80	80	20	20	0	0
$3,156.00	$4,208.00	$4,208.00	$4,208.00	$1,052.00	$1,052.00	$0.00	$0.00
60	80	80	80	20	20	0	0
$3,156.00	$4,208.00	$4,208.00	$4,208.00	$1,052.00	$1,052.00	$0.00	$0.00
60	80	80	80	20	20	0	0
$3,156.00	$4,208.00	$4,208.00	$4,208.00	$1,052.00	$1,052.00	$0.00	$0.00
60	80	80	80	20	20	0	0
$3,156.00	$4,208.00	$4,208.00	$4,208.00	$1,052.00	$1,052.00	$0.00	$0.00
60	80	80	80	20	20	0	0
$3,156.00	$4,208.00	$4,208.00	$4,208.00	$1,052.00	$1,052.00	$0.00	$0.00
0	40	0	80	0	40	40	0
$0.00	$1,592.40	$0.00	$3,184.80	$0.00	$1,592.40	$1,592.40	$0.00
0	40	0	80	0	40	40	0
$0.00	$1,592.40	$0.00	$3,184.80	$0.00	$1,592.40	$1,592.40	$0.00
0	40	0	80	0	40	40	0
$0.00	$1,592.40	$0.00	$3,184.80	$0.00	$1,592.40	$1,592.40	$0.00
80	80	80	80	20	20	0	0
$3,205.80	$3,002.00	$3,002.00	$3,002.00	$798.20	$798.20	$0.00	$0.00
80	80	80	80	20	20	0	0
$3,205.80	$3,002.00	$3,002.00	$3,002.00	$798.20	$798.20	$0.00	$0.00
80	80	80	80	20	20	0	0
$3,205.80	$3,002.00	$3,002.00	$3,002.00	$798.20	$798.20	$0.00	$0.00
9	22	12	22	3	3	0	0
$276.03	$674.74	$368.04	$674.74	$92.01	$92.01	$0.00	$0.00
9	22	12	22	3	3	0	0
$276.03	$674.74	$368.04	$674.74	$92.01	$92.01	$0.00	$0.00
9	22	12	22	3	3	0	0
$276.03	$674.74	$368.04	$674.74	$92.01	$92.01	$0.00	$0.00
67	88	88	84	50	54	40	40
$228.55	$2,170.46	$2,250.08	$2,090.84	$1,634.04	$1,856.18	$1,226.80	$1,226.80
67	88	88	84	50	54	40	40
$228.55	$2,170.46	$2,250.08	$2,090.84	$1,634.04	$1,856.18	$1,226.80	$1,226.80

*O&M for All Depts with Loc

4:32PM

FY06	Jan 06	Feb 06	Mar 06	Apr 06	May 06	Jun 06	Jul 06	Aug 06	Sep 06	Oct 06	Nov 06	Dec 06
721	66	79	61	64	67	68	66	64	60	64	40	40
8.49	$2,231.80	$2,606.59	$1,926.71	$2,090.64	$2,229.55	$2,170.48	$2,260.08	$2,090.64	$1,654.04	$1,656.18	$1,226.80	$1,226.80
079	290	130	112	157	196	298	240	326	93	137	80	40
8.45	$11,402.24	$4,641.71	$4,010.83	$5,930.15	$7,866.38	$11,647.80	$9,829.12	$13,160.38	$3,674.25	$5,188.79	$3,019.20	$1,226.80
450	80	5	5	20	60	80	80	80	20	20	0	0
4.60	$8,208.80	$513.05	$513.05	$2,052.20	$6,156.60	$8,208.80	$8,208.80	$8,208.80	$2,052.20	$2,052.20	$0.00	$0.00
450	80	5	5	20	60	80	80	80	20	20	0	0
4.50	$8,208.80	$513.05	$513.05	$2,052.20	$6,156.60	$8,208.80	$8,208.80	$8,208.80	$2,052.20	$2,052.20	$0.00	$0.00
450	80	5	5	20	60	80	80	80	20	20	0	0
4.50	$8,208.80	$513.05	$513.05	$2,052.20	$6,156.60	$8,208.80	$8,208.80	$8,208.80	$2,052.20	$2,052.20	$0.00	$0.00
450	80	5	5	20	60	80	80	80	20	20	0	0
4.50	$8,208.80	$513.05	$513.05	$2,052.20	$6,156.60	$8,208.80	$8,208.80	$8,208.80	$2,052.20	$2,052.20	$0.00	$0.00
472	84	7	7	20	60	94	80	70	20	20	0	0
3.84	$4,814.08	$350.64	$350.64	$1,212.80	$3,269.20	$4,814.08	$4,482.00	$4,244.80	$1,212.80	$1,212.80	$0.00	$0.00
472	84	7	7	20	60	94	80	70	20	20	0	0
3.84	$4,814.08	$350.64	$350.64	$1,212.80	$3,269.20	$4,814.08	$4,482.00	$4,244.80	$1,212.80	$1,212.80	$0.00	$0.00
472	84	7	7	20	60	94	80	70	20	20	0	0
3.84	$4,814.08	$350.64	$350.64	$1,212.80	$3,269.20	$4,814.08	$4,482.00	$4,244.80	$1,212.80	$1,212.80	$0.00	$0.00
230	40	20	10	20	40	40	20	40	0	0	0	0
1.10	$1,226.80	$613.40	$306.70	$613.40	$1,226.80	$1,226.80	$613.40	$1,226.80	$0.00	$0.00	$0.00	$0.00
230	40	20	10	20	40	40	20	40	0	0	0	0
1.10	$1,226.80	$613.40	$306.70	$613.40	$1,226.80	$1,226.80	$613.40	$1,226.80	$0.00	$0.00	$0.00	$0.00
230	40	20	10	20	40	40	20	40	0	0	0	0
1.10	$1,226.80	$613.40	$306.70	$613.40	$1,226.80	$1,226.80	$613.40	$1,226.80	$0.00	$0.00	$0.00	$0.00
250	30	30	20	30	30	40	30	40	0	0	0	0
.30	$1,102.90	$1,102.90	$704.80	$1,102.90	$1,102.90	$1,501.00	$1,102.90	$1,501.00	$0.00	$0.00	$0.00	$0.00
250	30	30	20	30	30	40	30	40	0	0	0	0
.30	$1,102.90	$1,102.90	$704.80	$1,102.90	$1,102.90	$1,501.00	$1,102.90	$1,501.00	$0.00	$0.00	$0.00	$0.00
250	30	30	20	30	30	40	30	40	0	0	0	0
.30	$1,102.90	$1,102.90	$704.80	$1,102.90	$1,102.90	$1,501.00	$1,102.90	$1,501.00	$0.00	$0.00	$0.00	$0.00
952	164	87	37	70	130	174	130	150	20	20	0	0
.24	$7,143.78	$2,066.94	$1,362.14	$2,929.10	$5,598.90	$7,541.66	$6,199.30	$6,872.60	$1,212.80	$1,212.80	$0.00	$0.00
60	12	0	0	12	0	24	0	12	0	0	0	0
.20	$276.84	$0.00	$0.00	$276.84	$0.00	$553.68	$0.00	$276.84	$0.00	$0.00	$0.00	$0.00
60	12	0	0	12	0	24	0	12	0	0	0	0
.20	$276.84	$0.00	$0.00	$276.84	$0.00	$553.68	$0.00	$276.84	$0.00	$0.00	$0.00	$0.00
60	12	0	0	12	0	24	0	12	0	0	0	0
.20	$276.84	$0.00	$0.00	$276.84	$0.00	$553.68	$0.00	$276.84	$0.00	$0.00	$0.00	$0.00
60	12	0	0	12	0	24	0	12	0	0	0	0
.20	$276.84	$0.00	$0.00	$276.84	$0.00	$553.68	$0.00	$276.84	$0.00	$0.00	$0.00	$0.00
95	90	5	5	20	66	90	90	90	20	20	0	0
.40	$5,088.40	$303.20	$303.20	$1,212.80	$3,757.00	$5,088.40	$5,088.40	$5,088.40	$1,212.80	$1,212.80	$0.00	$0.00
95	90	5	5	20	66	90	90	90	20	20	0	0
.40	$5,088.40	$303.20	$303.20	$1,212.80	$3,757.00	$5,088.40	$5,088.40	$5,088.40	$1,212.80	$1,212.80	$0.00	$0.00

4:32PM

Dec 06	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	40	$1,226.80	40	$1,226.80	
40	$1,226.80	40	$1,226.80	0	$0.00	0	$0.00	0	$0.00																						

12/20/2004 *O&M for All Depts with Loc 4:32PM

Proj	Proj Mgr Or Engr	Dept	RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	Act	Loc	EE	FY06	Jan 06	Feb 06	Mar 06	Apr 06	May 06	Jun 06	Jul 06	Aug 06	Sep 06	Oct 06	Nov 06	Dec 06
P0000526	Nanbu, P	RiskMgt										140	10	10	10	10	10	30	40	20	0	0	0	0
												$5,873.40	$398.10	$398.10	$398.10	$398.10	$398.10	$1,194.30	$1,592.40	$796.20	$0.00	$0.00	$0.00	$0.00
P0000526	Nanbu, P	SVP-Pub Aff	P9V	Sr VP-Public Affairs	B38	A & G Operation	920	Labor	735	PHE	150	105	10	3	2	10	15	10	20	20	10	5	0	0
												$10,774.05	$1,026.10	$307.83	$205.22	$1,026.10	$1,539.15	$1,026.10	$2,052.20	$2,052.20	$1,026.10	$513.05	$0.00	$0.00
P0000526	Nanbu, P	SVP-Pub Aff	P9V	Sr VP-Public Affairs	B38							105	10	3	2	10	15	10	20	20	10	5	0	0
												$10,774.05	$1,026.10	$307.83	$205.22	$1,026.10	$1,539.15	$1,026.10	$2,052.20	$2,052.20	$1,026.10	$513.05	$0.00	$0.00
P0000526	Nanbu, P	SVP-Pub Aff	P9V									105	10	3	2	10	15	10	20	20	10	5	0	0
												$10,774.05	$1,026.10	$307.83	$205.22	$1,026.10	$1,539.15	$1,026.10	$2,052.20	$2,052.20	$1,026.10	$513.05	$0.00	$0.00
P0000526	Nanbu, P	SVP-Pub Aff										105	10	3	2	10	15	10	20	20	10	5	0	0
												$10,774.05	$1,026.10	$307.83	$205.22	$1,026.10	$1,539.15	$1,026.10	$2,052.20	$2,052.20	$1,026.10	$513.05	$0.00	$0.00
P0000526	Nanbu, P	VP-Gov & Com	P3V	VP-Govt & Comm Affairs	B38	A & G Operation	920	Labor	735	PHE	150	850	40	25	25	100	40	100	50	120	20	50	40	40
												$41,282.10	$2,949.20	$1,410.05	$1,410.05	$5,640.20	$3,526.80	$5,640.20	$4,552.90	$7,692.40	$2,052.20	$2,820.10	$1,794.00	$1,794.00
P0000526	Nanbu, P	VP-Gov & Com	P3V	VP-Govt & Comm Affairs	B38							850	40	25	25	100	40	100	50	120	20	50	40	40
												$41,282.10	$2,949.20	$1,410.05	$1,410.05	$5,640.20	$3,526.80	$5,640.20	$4,552.90	$7,692.40	$2,052.20	$2,820.10	$1,794.00	$1,794.00
P0000526	Nanbu, P	VP-Gov & Com	P3V									850	40	25	25	100	40	100	50	120	20	50	40	40
												$41,282.10	$2,949.20	$1,410.05	$1,410.05	$5,640.20	$3,526.80	$5,640.20	$4,552.90	$7,692.40	$2,052.20	$2,820.10	$1,794.00	$1,794.00
P0000526	Nanbu, P	VP-Gov & Com										850	40	25	25	100	40	100	50	120	20	50	40	40
												$41,282.10	$2,949.20	$1,410.05	$1,410.05	$5,640.20	$3,526.80	$5,640.20	$4,552.90	$7,692.40	$2,052.20	$2,820.10	$1,794.00	$1,794.00
P0000526												9,894	1,314	445	406	733	1,162	1,814	1,428	1,816	417	481	160	120
												$439,625.99	$60,264.42	$18,930.86	$15,452.69	$31,123.67	$52,865.15	$70,965.32	$66,996.58	$74,297.16	$19,626.53	$21,223.67	$5,840.00	$4,247.60

n

Project: HECO 2005 TY Rate Case
P0000526

Resource Explanations

a) Labor budgeted for witness, J. K. Price (E), HECO T-15, testifying on the subject of A&G Expenses – Employee Benefits, and one support staff (T/C)

b) Labor budgeted for witness, A. E. Ejercito (E), HECO T-9, testifying on the subjects of Customer Accounts Expense, Customer Deposits, Interest on Customer Deposits, Revenue Lag Days

c) Labor budgeted for witness, A. K. C. Hee (E), HECO T-10, testifying on the subjects of Customer Service Expense, DSM Programs, IRP Expense, and Energy Cost Adjustment Clause

d) Labor budgeted for Director of DSM Programs (F/S) in support of DSM witnesses, G. A. Wikler and D. M. Violette, testifying on the subjects of DSM Programs and Appropriate DSM Incentives and Alignment with Policy Objectives, respectively

e) Labor budgeted for witness, C. A. Hazama (T/C), HECO T-2, testifying on the subjects of Electricity Sales and Customer Forecasts

f) Labor budgeted for witnesses, E. A. Seese (F/S), HECO T-22, testifying on the subject of Cost of Service, and P. C. Young (T/C), HECO T-3, testifying on the subjects of Electric Revenues and other Operating Revenues

g) Labor budgeted for witness, R. A. von Gnechten (Exec), HECO T-21, testifying on the subject of Rate of Return on Rate Base

h) Labor budgeted for witness, E. T. Shiraki (Exec 2), HECO T-13, testifying on the subjects of A&G Expenses, Accounting for Computer Software Development Costs, Abandoned Capital Project Costs, Gains on Sale of Land and Iolani Court Plaza Lease Premium, and two support staff (one T/C and one Implementor)

i) Labor budgeted for witness, T. S. Y. Sekimura (F/S), HECO T-16, testifying on the subjects of Miscellaneous A&G Expenses, Depreciation Expense and Accumulated Depreciation, and two support staff (two T/C)

j) Labor budgeted for witness, L. A. Nagata (Exec 2), HECO T-18, testifying on the subjects of Plant Additions, Underground Cost Sharing, Property Held for Future Use, CIAC, Customer Advances, O&M Expense Budget Methodology, and one support staff (one Implementor)

k) Labor budgeted for witness, G. T. Ohashi (F/S), HECO T-19, testifying on the subject of Rate Base, and one support staff (one T/C)

Project: HECO 2005 TY Rate Case
P0000526

Resource Explanations

l) Labor budgeted for witness, R. H. Sakuda (Y. Gonpln), HECO T-4, testifying on the subject

[redacted]

of Fuel Expense, Generation Efficiency, Fuel Inventory

m) Labor budgeted for Director of Regulatory Affairs (F/S) and two support staff (one T/C and one Implementor) in support of assisting in all filings pertaining to the Rate Case

n) Labor budgeted for witness, W. A. Bonnet (Exec), HECO T-23, testifying on the subject of Results of Operations, Revenue Requirements, Rate Increase Implementation, and one support staff (F)

The labor estimates were based on the following assumptions:

1) File rate case application on September 1, 2004.

[redacted]

Initial Budget Recycle 4/21/.

04 *ENTER: Direct Project Cost 3:42PM

ct #	*M-Pr...	*RA #	*A...	*L...	*I...	*EE #	*Labor Class #	Line Item	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
26	P000...	P3V	735	PHE	NE	150	__EXEC	VP Gov/Comm Aff Support	210	20	5	5	20	30	20	40	40	20	10	0	0
26	P000...	P3V	735	PHE	NE	150	__F	Executive Staff Assist Support	440	20	20	20	80	10	80	10	80	0	40	40	40
26	P000...	P4V	735	PHE	NE	150	__EXEC	VP Financial Support	450	80	5	5	20	60	80	80	80	20	20	0	0
26	P000...	P9V	735	PHE	NE	150	__EXEC	Sr VP Public Affairs Support	105	10	3	2	10	15	10	20	20	10	5	0	0
26	P000...	PAA	735	PHE	NE	150	__EXEC2	Controller Support	400	70	5	5	20	50	70	70	70	20	20	0	0
26	P000...	PAA	735	PHE	NE	150	__I	Controller Implementor Support	72	24	2	2	0	10	24	10	0	0	0	0	0
26	P000...	PAA	735	PHE	NE	150	__TC	Controller T/C Support	0	0	0	0	0	0	0	0	0	0	0	0	0
26	P000...	PAC	735	PHE	NE	150	__TC	Misc A/G Support	230	40	20	10	20	40	40	20	40	0	0	0	0
26	P000...	PAT	735	PHE	NE	150	__FS	Misc A/G / Depreciation	170	20	20	10	20	20	30	20	30	0	0	0	0
26	P000...	PAT	735	PHE	NE	150	__TC	Depreciation Support	80	10	10	10	10	10	10	10	10	0	0	0	0
26	P000...	PBA	735	OAH	NC	150	__E-B	Engineering Enabler (Distribution) Support	114	20	2	2	5	15	20	20	20	5	5	0	0
26	P000...	PBA	735	OAH	NC	150	__E-B	Engineering Enabler (Transmission) Supp...	114	20	2	2	5	15	20	20	20	5	5	0	0
26	P000...	PCA	735	PHE	NS	150	__E	Cust Service Enabler Support	450	80	5	5	20	60	80	80	80	20	20	0	0
26	P000...	PDA	735	OAH	NC	150	__E-ED	C&M Enabler (Distribution) Support	114	20	2	2	5	15	20	20	20	5	5	0	0
26	P000...	PDA	735	OAH	NC	150	__E-ED	C&M Enabler (Transmission) Support	114	20	2	2	5	15	20	20	20	5	5	0	0
26	P000...	PDC	735	OAH	NC	150	__TC-ED	C&M T/C (Distribution) Support	114	20	2	2	5	15	20	20	20	5	5	0	0
26	P000...	PDC	735	OAH	NC	150	__TC-ED	C&M T/C (Transmission) Support	112	20	1	1	5	15	20	20	20	5	5	0	0
26	P000...	PEI	735	PHE	NE	150	__BUOC	Printshop Support	60	12	0	0	12	0	24	0	12	0	0	0	0
26	P000...	PFB	735	PHE	NE	150	__E	Benefits Enabler Support	450	80	5	5	20	60	80	80	80	20	20	0	0
26	P000...	PFB	735	PHE	NE	150	__TC	Benefits T/C Support	50	8	0	0	4	6	8	8	8	4	4	0	0
26	P000...	PIB	735	PHE	NC	150	__E-I	Power Supply Op & Maint Enabler Support	450	80	5	5	20	60	80	80	80	20	20	0	0
26	P000...	PIC	735	PHE	NC	150	__FS-I	Power Purchase F/S Support	450	80	5	5	20	60	80	80	80	20	20	0	0
26	P000...	PKB	735	PHE	NE	150	__EXEC2	Mgmt Acct & Fin Svcs Exec Support	450	80	5	5	20	60	80	80	80	20	20	0	0
26	P000...	PKB	735	PHE	NE	150	__I	Mgmt Acct & Fin Svcs Implementor Supp...	45	10	0	0	0	5	10	10	10	0	0	0	0
26	P000...	PKC	735	PHE	NE	150	__TC	MA & FS Budgets T/C Support	450	80	5	5	20	60	80	80	80	20	20	0	0
26	P000...	PKF	735	PHE	NE	150	__FS	Financial Analysis F/S Support	410	40	5	5	20	60	80	80	80	20	20	0	0
26	P000...	PKF	735	PHE	NE	150	__TC	Financial Analysis T/C Support	180	40	0	0	20	40	80	0	0	0	0	0	0
26	P000...	PKI	735	PHE	NE	150	__FS	Insurance F/S Support	140	10	10	10	10	10	30	40	20	0	0	0	0
26	P000...	PKT	735	PHE	NE	150	__TC	MA & FS Securities T/C Support	480	40	10	10	40	60	80	80	80	40	40	0	0
26	P000...	PNP	735	PHE	ND	201		Supplies	1,000	0	0	0	0	1,000	0	0	0	0	0	0	0
26	P000...	PNP	735	PHE	ND	501		Consultant (Rate Design)	30,000	0	0	0	0	0	10,000	0	20,000	0	0	0	0
26	P000...	PNP	735	PHE	ND	501		Consultant (ROR)	30,000	0	0	0	0	0	15,000	0	0	15,000	0	0	0
26	P000...	PNP	735	PHE	ND	501		Consultant HEI Impact - Affidavit	8,000	0	0	0	0	0	6,000	0	2,000	0	0	0	0
26	P000...	PNP	735	PHE	ND	501		Transcripts	10,000	0	0	0	0	0	0	0	0	5,000	0	5,000	0
26	P000...	PNP	735	PHE	ND	502		Legal	205,000	5,000	0	0	30,000	0	40,000	20,000	70,000	25,000	5,000	10,000	0
26	P000...	PNP	735	PHE	NE	150	__FS	Regulatory Affairs F/S Support	255	20	10	10	10	10	20	80	80	10	5	0	0
26	P000...	PNP	735	PHE	NE	150	__I	Regulatory Affairs Implementor Support	110	10	10	10	10	10	20	10	20	10	0	0	0
26	P000...	PNP	735	PHE	NE	150	__TC	Regulatory Affairs T/C Support	1,040	120	50	50	100	110	140	130	140	40	80	40	40
26	P000...	PRA	735	OAH	NC	150	__E-ED	System Operation Enabler Support	114	20	2	2	5	15	20	20	20	5	5	0	0
26	P000...	PSA	735	PHE	NS	150	__E	ESD Enabler Support	450	80	5	5	20	60	80	80	80	20	20	0	0
26	P000...	PSD	735	PHE	NE	150	__FS	ESD DSM F/S Support	360	40	40	40	40	0	40	0	80	0	40	40	0
26	P000...	PSF	735	PHE	NE	150	__FS	ESD Forecasting F/S Support	350	60	5	5	20	40	60	60	60	20	20	0	0
26	P000...	PSF	735	PHE	NE	150	__TC	ESD Forecasting T/C Support	100	20	0	0	0	20	20	20	20	0	0	0	0
26	P000...	PSM	735	PHE	NE	150	__TC	ESD Accounting T/C Support	68	12	1	1	3	9	12	12	12	3	3	0	0
26	P000...	PSM	735	PHE	NE	150	__TC	ESD Load Research Analyst T/C Support	30	0	0	0	10	0	10	0	10	0	0	0	0
26	P000...	PSP	735	PHE	NE	150	__FS	ESD Pricing F/S Support	133	16	19	6	14	19	16	18	14	11	0	0	0
26	P000...	PSP	735	PHE	NE	150	__TC	ESD Pricing (Rate) Analyst T/C Support	588	52	60	55	50	48	50	50	50	39	54	40	40
26	P000...	PYB	735	PPO	NE	150	Y_GENPLN	Generation Planning Support	1,090	110	110	110	70	170	150	150	150	50	20	0	0
16	P000...	P3V	738	PHE	NE	150	__F	Executive Staff Assistant Support	0	0	0	0	0	0	0	0	0	0	0	0	0

ITS | Project and Business Management Division

Facilities Attachment Program
Rate Case Workpaper Summary

The following information has been provided as supporting documentation for the Facilities Attachment ("FA") Program budget estimates for 2005. The items include:

- Exhibit A – Copy of original budget estimate worksheet
- Exhibit B – Copy of budget estimate worksheet with comment fields displayed
- Exhibit C1 – Copy of O&M worksheet (provided by Regulatory Affairs) with reference notes to Exhibit C2
- Exhibit C2 – Copy of Exhibit B with reference notes to Exhibit C1

Exhibit A is a copy of our original worksheet that we used to estimate labor hours for the 2005 budget for the FA Program. The labor hours are driven by assumptions/estimations (i.e., acquiring new business, maintaining current project levels, and other administrative tasks). Based on the assumptions, the worksheet will calculate the designated number of labor hours for each labor category identified in the worksheet.

Exhibit B is the same budget estimate worksheet with our comment fields displayed, so you are able to view our assumptions. We assumed the following (please see number references on Exhibit B):

1) We would have 1 new Master Agreement with Verizon Wireless
2) Will maintain 6 Master Agreements with PLNI, T-Mobile, AT&T-W (wireless), Sprint PCS, AT&T HITS, Time Warner
3) We assumed that we would be evaluating 2 new sites. One for Verizon Koolau Sub and another yet to be named.
4) We assumed that Verizon Koolau Sub would go to the PUC for filing in 2005.
5) We also assumed that Verizon Koolau Sub would be installed in 2005.
6) We assumed that we would start billing for Verizon Koolau Sub in 2005.
7) We assumed that would have a total of 7 established sites to administer that include: PLNI (1 site), AT&T (2 sites), T-Mobile (2 sites), AT&T HITS (1 site), Time Warner (1 site).

Exhibit C1 the O&M worksheet reflects the labor hours projected for each labor category. Exhibit C2 is our budget estimate worksheet which contains our assumptions and the labor hours for each labor category based on those assumptions. Exhibit C1 and C2 are cross-referenced as follows:

1) C&M PDH on Exhibit C1 correlates to C&M Customer Division on Exhibit C2 estimated 7 billable hours per month
2) C&M PDS on Exhibit C1 correlates to C&M West, Koolau, and Ward Overhead on Exhibit C2 estimated a total of 3 billable hours (1 hour for each group) per month
3) CID PWP on Exhibit C1 correlates with CID Planning & Design on Exhibit C2 estimated 3 billable hours and 3 non-billable hours per month

ITS Project and Business Management Division

Facilities Attachment Program
Rate Case Workpaper Summary

4) Cust Svc PCB on Exhibit C1 correlates with Cust Serv – Cust Acct & Bill on Exhibit C2 estimated 0 hours for both billable and non-billable labor hours per month.
5) Engineering PBE on Exhibit C1 correlates with Engr - Trans & Distr on Exhibit C2 estimates 9 billable hours and 3 non-billable hours per month.
6) Engineering PBT on Exhibit C1 correlates with Engr - Structural and Engr - Survey on Exhibit C2 estimated a total of 4 billable hours (2 hours each) per month.
7) Engineering PBY on Exhibit C1 correlates with Engr - Substation on Exhibit C2 estimated 5 billable hours per month.
8) Engineering PBZ on Exhibit C1 correlates with Engr Technical Services on Exhibit C2 estimated 2 billable hours and 3 non-billable hours per month.
9) Info Tech PEP on Exhibit C1 correlates with ITS-PMO on Exhibit C2 estimated 21 non-billable hours per month (112)
10) Info Tech PEP on Exhibit C1 correlates with ITS-PMO on Exhibit C2 estimated 10 non-billable hours per month (909)
11) Info Tech PEP on Exhibit C1 correlates with ITS-PMO on Exhibit C2 estimated $250 per month to non-labor
12) Legal PNC on Exhibit C1 correlates with Legal on Exhibit C2 estimated 2 billable hours and 10 non-billable hours per month.
13) Legal PNL on Exhibit C1 correlates with Land Rights of Way on Exhibit C2 estimated 7 billable hours per month.
14) MAFS PKF on Exhibit C1 correlates with Financial Analysis on Exhibit C2 estimated 3 non billable hours per month.
15) MAFS PKT on Exhibit C1 correlates with Securities on Exhibit C2 estimated 2 billable hours per month.
16) Reg Affairs PNP on Exhibit C1 correlates with Regulatory on Exhibit C2 estimated 4 hours per month
17) SSF PFS on Exhibit C1 correlates with Safety – Corporate Safety on Exhibit C2 estimated 6 billable hours per month.
18) Sys Op PRC on Exhibit C1 correlates with Sys Op – Tech Svc – Comm estimated 2 billable hours

EXHIBIT-A

Pillar Inputs for th. **Attachment Project - Year 2005**

		Master Agreement Negotiation	Program Coordination	FCC Rate/ PUC Stds Compliance	Site Evaluation Proposal Review	PUC Filing	Site Installation	Billing Collection	Contract Admin	Totals	Pillar Input
New Master Agrmts		1							1		
Established Mstr Agrmts		8							8		
New Sites					2	1	1	1			
Established Sites								7			
Engr - Trans & Distr 35	Bills PBE 112OUTBENPEZZZZZ	4			80		20			104	9
	Non PBE 112PHENENPEZZZZZ			40						40	3
Engr - Structural 33.64	Bills PBT 112OUTBENPEZZZZZ				16		8			24	2
	Non PBT 112PHENENPEZZZZZ									0	0
Engr - Survey 30.51	Bills PBT 112OUTBENPEZZZZZ				16		8			24	2
	Non PBT 112PHENENPEZZZZZ									0	0
Engr - Substation (includes Sr. Telecom Eng) 29.93	Bills PBY 112OUTBENPEZZZZZ				48		14			62	5
	Non PBY 112PHENENPEZZZZZ									0	0
Engr - Technical Services 37.65	Bills PBZ 112OUTBENPEZZZZZ	4			16					20	2
	Non PBZ 112PHENENPEZZZZZ			40						40	3
Cust Serv - Cust Acct & Bil 22.93	Bills PCB 112OUTBENPEZZZZZ									0	0
	Non PCB 112PHENENPEZZZZZ							0		0	0
C&M - Customer Division 30.56	Bills PDH 112OUTBENPEZZZZZ	4			40		40			84	7
	Non PDH 112PHENENPEZZZZZ									0	0
C&M - West Overhead 35.21	Bills PDJ 112OUTBENPEZZZZZ						16			16	1
	Non PDJ 112PHENENPEZZZZZ									0	0
C&M - Koolau Overhead	Bills PDK 112OUTBENPEZZZZZ						16			16	1
	Non PDK 112PHENENPEZZZZZ									0	0
C&M - Ward Overhead	Bills PDL 112OUTBENPEZZZZZ						16			16	1
	Non PDL 112PHENENPEZZZZZ									0	0
ITS-PMO 31.35	Bills PEP 112OUTBENPEZZZZZ	80			80	4	60			224	19
	Non PEP 112PHENENPEZZZZZ		120					64	70	254	21
	Non PEP 909PHENENPEZZZZZ			120						120	10
Safety - Corp Safety	Bills PFS 112OUTBENPEZZZZZ			40	24		12			76	6
	Non PFS 112PHENENPEZZZZZ									0	0
Financial Analysis	Bills PKF 112OUTBENPEZZZZZ									0	0
	Non PKF 112PHENENPEZZZZZ			40						40	3
Securities	Bills PKS 112OUTBENPEZZZZZ	4			24					28	2
	Non PKS 112PHENENPEZZZZZ									0	0
Legal 50.16	Bills PNC 112OUTBENPEZZZZZ	4			16					20	2
	Non PNC 112PHENENPEZZZZZ			40		1		10	70	121	10
Land Rights of Way	Bills PNL 112OUTBENPEZZZZZ	4			40		40			84	7
	Non PNL 112PHENENPEZZZZZ									0	0
Regulatory	Bills PNP 112OUTBENPEZZZZZ	4				10				14	1
	Non PNP 112PHENENPEZZZZZ			40						40	3
Sys Op - Tech Svc - Comm 34.61	Bills PRC 112OUTBENPEZZZZZ						24			24	2
	Non PRC 112PHENENPEZZZZZ									0	0
CID - Planning & Design 35.87	Bills PWP 112OUTBENPEZZZZZ				32		4			36	3
	Non PWP 112PHENENPEZZZZZ			40						40	3
	Total									1567	
Total 634.59/19 33.40	Billable	108	0	40	432	14	278	0	0	872	52320
	NonBillable	0	120	360	0	1	0	74	140	695	41700
		108	120	400	432	15	278	74	140	1567	
	Average Labor Rate									60	
	Total Labor $									$ 94,020	94020
Materials (201)	Bills PEP 112OUTBENPEZZZZZ									$ 2,400	$ 200
Outside Services (501)	Non PEP 112PHENENPEZZZZZ									$ 3,000	$ 250
	Total Non-Labor $									$ 5,400	
	Revenues per month									1,500	
	Revenues including $278 for Wireline					# of antenna attach billings	3	@$1.5k/m + $141,955		195,955	20,890 per mo
	Reimburseable Billings									52,320	/12 = 20,681
	Billable Labor									(52,320)	
	Nonbillable Labor									(41,700)	
	Reimburseable Non-Labor Billings									2,400	
	Billable Non-Labor									(2,400)	
	Nonbillable Non-Labor									(3,000)	
	Income before Taxes									151,255	per Pillar
									Target Rev tgt	/12 = $12,605	

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EXHIBIT - B

achment Project - Year 2005

	Master Agreement Negotiation	Program Coordination	FCC Rate/ PUC Stds Compliance	Site Evaluation Proposal Review	PUC Filing	Site Installation	Billing Collection	Contract Admin	Totals	Pillar Input
	1									
	6							8		
				2	1	1	1			
							7			
112OUTBENPEZZZZZ	4			80		20			104	9
112PHENENPEZZZZZ			40						40	3
112OUTBENPEZZZZZ				16		8			24	2
112PHENENPEZZZZZ									0	0
112OUTBENPEZZZZZ				16		8			24	2
112PHENENPEZZZZZ									0	0
112OUTBENPEZZZZZ				48		14			62	5
112PHENENPEZZZZZ									0	0
112OUTBENPEZZZZZ	4			16					20	2
112PHENENPEZZZZZ			40						40	3
112OUTBENPEZZZZZ									0	0
112PHENENPEZZZZZ							0		0	0
112OUTBENPEZZZZZ	4			40		40			84	7
112PHENENPEZZZZZ									0	0
112OUTBENPEZZZZZ						16			16	1
112PHENENPEZZZZZ									0	0
112OUTBENPEZZZZZ						16			16	1
112PHENENPEZZZZZ									0	0
112OUTBENPEZZZZZ						16			16	1
112PHENENPEZZZZZ									0	0
112OUTBENPEZZZZZ	80			80	4	60			224	19
112PHENENPEZZZZZ		120					64	70	254	21
909PHENENPEZZZZZ			120						120	10
112OUTBENPEZZZZZ			40	24		12			76	6
112PHENENPEZZZZZ									0	0
112OUTBENPEZZZZZ									0	0
112PHENENPEZZZZZ			40						40	3
112OUTBENPEZZZZZ	4			24					28	2
112PHENENPEZZZZZ									0	0
112OUTBENPEZZZZZ	4			16					20	2
112PHENENPEZZZZZ			40		1		10	70	121	10
112OUTBENPEZZZZZ	4			40		40			84	7
112PHENENPEZZZZZ									0	0
112OUTBENPEZZZZZ	4				10				14	1
112PHENENPEZZZZZ			40						40	3
112OUTBENPEZZZZZ						24			24	2
112PHENENPEZZZZZ									0	0
112OUTBENPEZZZZZ				32		4			36	3
112PHENENPEZZZZZ			40						40	3
									1567	
	108	0	40	432	14	278	0	0	872	52320
e	0	120	360	0	1	0	74	140	695	41700
	108	120	400	432	15	278	74	140	1567	
abor Rate									60	
r $									$ 94,020	94020
112OUTBENPEZZZZZ									$ 2,400	$ 200
112PHENENPEZZZZZ									$ 3,000	$ 250
Labor $									$ 5,400	
s per month									1,500	
including $278 for Wireline					# of antenna attach billings	3	@$1.5k/m +	$141,955	195,955	20,690 per mo
sable Billings									52,320	
bor									(52,320)	
e Labor									(41,700)	
sable Non-Labor Billings									2,400	
on-Labor									(2,400)	
e Non-Labor									(3,000)	
efore Taxes									151,255	per Pillar
								Target Rev tgt		

(1) HECO: Verizon Wireless

(2) HECO: PLNI, T-Mobile, AT&T-W, Sprint PCS, AT&T HITS, Time Warner

(3) Yonamine: Verizon Koolau Sub, 1 new

(4) HECO: Verizon Koolau Sub

(5) Yonamine: Verizon Koolau Sub

(6) Yonamine: Verizon Koolau Sub

(7) HECO: PLNI (1), AT&T (2) T-Mobile (2), AT&T HITS (1), Time Warner (1)

HECO: Per Lloyd Shibata time to process is minimal (approx 5 minutes/contract) so not charging to FA Program. If number of agreements increases will contact FA Program Mgr to update budget estimate.

HECO: Comm Shop materials and misc equipment.

HECO: 4 cell phones, PUC filing fee, outside attorneys fee.

HECO:
Wireline revenues
$139K PLNI
$137K PLNI Dark Fiber (not included contract expires)
$2K for AT&T-Hits PH
$.3K for AT&T-Hits Scho
$.1K for AT&T-Hits Halaw
$.5K for Time Warner Salt Lake

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05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
7	7	7	7	7	7	7	7	7	7	7
8	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78
7	7	7	7	7	7	7	7	7	7	7
8	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78
7	7	7	7	7	7	7	7	7	7	7
8	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78	$220.78
3	3	3	3	3	3	3	3	3	3	3
4	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24
3	3	3	3	3	3	3	3	3	3	3
4	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24
3	3	3	3	3	3	3	3	3	3	3
4	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24	$108.24
0	10	10	10	10	10	10	10	10	10	10
2	$329.02	$329.02	$329.02	$329.02	$329.02	$329.02	$329.02	$329.02	$329.02	$329.02
3	3	3	3	3	3	3	3	3	3	3
5	$104.55	$104.55	$104.55	$104.55	$104.55	$104.55	$104.55	$104.55	$104.55	$104.55
3	3	3	3	3	3	3	3	3	3	3
5	$104.55	$104.55	$104.55	$104.55	$104.55	$104.55	$104.55	$104.55	$104.55	$104.55
6	6	6	6	6	6	6	6	6	6	6
0	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10
6	6	6	6	6	6	6	6	6	6	6
0	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10
6	6	6	6	6	6	6	6	6	6	6
0	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10	$209.10
0	0	0	0	0	0	0	0	0	0	0
0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0	0
0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0	0
0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0	0
0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
9	9	9	9	9	9	9	9	9	9	9
2	$296.28	$296.28	$296.28	$296.28	$296.28	$296.28	$296.28	$296.28	$296.28	$296.28
3	3	3	3	3	3	3	3	3	3	3
6	$98.76	$98.76	$98.76	$98.76	$98.76	$98.76	$98.76	$98.76	$98.76	$98.76
12	12	12	12	12	12	12	12	12	12	12
4	$395.04	$395.04	$395.04	$395.04	$395.04	$395.04	$395.04	$395.04	$395.04	$395.04
12	12	12	12	12	12	12	12	12	12	12
4	$395.04	$395.04	$395.04	$395.04	$395.04	$395.04	$395.04	$395.04	$395.04	$395.04
4	4	4	4	4	4	4	4	4	4	4
4	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44
4	4	4	4	4	4	4	4	4	4	4
4	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44

Exhi - C1 (page 2)

12/20/2004 *O&M for All Depts with Loc 4:32PM

	_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	HARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
	P0000527	Yonamin, K	Engineering	PBT									48	4	4	4	4	4	4	4	4	4	4	4	4
													$1,517.28	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44	$126.44
(7)	P0000527	Yonamin, K	Engineering	PBY	Substn, Protect & Tel	B34	Distribution Oper	588	Labor	112	OUT	150	60	5	5	5	5	5	5	5	5	5	5	5	5
													$2,038.80	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90
	P0000527	Yonamin, K	Engineering	PBY	Substn, Protect & Tel	B34							60	5	5	5	5	5	5	5	5	5	5	5	5
													$2,038.80	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90
	P0000527	Yonamin, K	Engineering	PBY									60	5	5	5	5	5	5	5	5	5	5	5	5
													$2,038.80	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90	$169.90
(8)	P0000527	Yonamin, K	Engineering	PBZ	T&D Technical Svcs	B32	Transmission Oper	566	Labor	112	OUT	150	24	2	2	2	2	2	2	2	2	2	2	2	2
													$947.04	$78.92	$78.92	$78.92	$78.92	$78.92	$78.92	$78.92	$78.92	$78.92	$78.92	$78.92	$78.92
	P0000527	Yonamin, K	Engineering	PBZ	T&D Technical Svcs	B32	Transmission Oper	566	Labor	112	PHE	150	36	3	3	3	3	3	3	3	3	3	3	3	3
													$1,420.56	$118.38	$118.38	$118.38	$118.38	$118.38	$118.38	$118.38	$118.38	$118.38	$118.38	$118.38	$118.38
	P0000527	Yonamin, K	Engineering	PBZ	T&D Technical Svcs	B32							60	5	5	5	5	5	5	5	5	5	5	5	5
													$2,367.60	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30
	P0000527	Yonamin, K	Engineering	PBZ									60	5	5	5	5	5	5	5	5	5	5	5	5
													$2,367.60	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30	$197.30
	P0000527	Yonamin, K	Engineering										312	26	26	26	26	26	26	26	26	26	26	26	26
													$10,664.16	$888.68	$888.68	$888.68	$888.68	$888.68	$888.68	$888.68	$888.68	$888.68	$888.68	$888.68	$888.68
(9)	P0000527	Yonamin, K	InfoTech	PEP	Project & Bus Mgt	B38	A & G Operation	920	Labor	112	PHE	150	252	21	21	21	21	21	21	21	21	21	21	21	21
													$7,728.84	$644.07	$644.07	$644.07	$644.07	$644.07	$644.07	$644.07	$644.07	$644.07	$644.07	$644.07	$644.07
(10)	P0000527	Yonamin, K	InfoTech	PEP	Project & Bus Mgt	B38	A & G Operation	920	Labor	909	PHE	150	120	10	10	10	10	10	10	10	10	10	10	10	10
													$3,680.40	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70	$306.70
(11)	P0000527	Yonamin, K	InfoTech	PEP	Project & Bus Mgt	B38	A & G Operation	921	Non-Labor	112	PHE	501	3,000	250	250	250	250	250	250	250	250	250	250	250	250
													$3,000.00	$250.00	$250.00	$250.00	$250.00	$250.00	$250.00	$250.00	$250.00	$250.00	$250.00	$250.00	$250.00
	P0000527	Yonamin, K	InfoTech	PEP	Project & Bus Mgt	B38							3,372	281	281	281	281	281	281	281	281	281	281	281	281
													$14,409.24	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77
	P0000527	Yonamin, K	InfoTech	PEP									3,372	281	281	281	281	281	281	281	281	281	281	281	281
													$14,409.24	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77
	P0000527	Yonamin, K	InfoTech										3,372	281	281	281	281	281	281	281	281	281	281	281	281
													$14,409.24	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77	$1,200.77
(12)	P0000527	Yonamin, K	Legal	PNC	Legal	B37	Customer Services	910	Labor	112	OUT	150	24	2	2	2	2	2	2	2	2	2	2	2	2
													$1,075.40	$89.70	$89.70	$89.70	$89.70	$89.70	$89.70	$89.70	$89.70	$89.70	$89.70	$89.70	$89.70
	P0000527	Yonamin, K	Legal	PNC	Legal	B37	Customer Services	910	Labor	112	PHE	150	120	10	10	10	10	10	10	10	10	10	10	10	10
													$5,382.00	$448.50	$448.50	$448.50	$448.50	$448.50	$448.50	$448.50	$448.50	$448.50	$448.50	$448.50	$448.50
	P0000527	Yonamin, K	Legal	PNC	Legal	B37							144	12	12	12	12	12	12	12	12	12	12	12	12
													$6,458.40	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20
	P0000527	Yonamin, K	Legal	PNC									144	12	12	12	12	12	12	12	12	12	12	12	12
													$6,458.40	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20	$538.20
	P0000527	Yonamin, K	Legal	PNL	Land & Rights of Way	B37	Customer Services	910	Labor	112	OUT	150	84	7	7	7	7	7	7	7	7	7	7	7	7
													$2,576.28	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69
(13)	P0000527	Yonamin, K	Legal	PNL	Land & Rights of Way	B37							84	7	7	7	7	7	7	7	7	7	7	7	7
													$2,576.28	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69
	P0000527	Yonamin, K	Legal	PNL									84	7	7	7	7	7	7	7	7	7	7	7	7
													$2,576.28	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69	$214.69
	P0000527	Yonamin, K	Legal										228	19	19	19	19	19	19	19	19	19	19	19	19
													$9,034.68	$752.89	$752.89	$752.89	$752.89	$752.89	$752.89	$752.89	$752.89	$752.89	$752.89	$752.89	$752.89

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	_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
14	P0000527	Yonamin, K	MAFS	PKF	Financial Analysis	B38	A & G Operation	920	Labor	112	PHE	150	36	3	3	3	3	3	3	3	3	3	3	3	3
													$1,104.12	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01
	P0000527	Yonamin, K	MAFS	PKF	Financial Analysis	B38							36	3	3	3	3	3	3	3	3	3	3	3	3
													$1,104.12	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01
	P0000527	Yonamin, K	MAFS	PKF									36	3	3	3	3	3	3	3	3	3	3	3	3
													$1,104.12	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01	$92.01
15	P0000527	Yonamin, K	MAFS	PKT	Treasury	B38	A & G Operation	920	Labor	112	OUT	150	24	2	2	2	2	2	2	2	2	2	2	2	2
													$736.08	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34
	P0000527	Yonamin, K	MAFS	PKT	Treasury	B38							24	2	2	2	2	2	2	2	2	2	2	2	2
													$736.08	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34
	P0000527	Yonamin, K	MAFS	PKT									24	2	2	2	2	2	2	2	2	2	2	2	2
													$736.08	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34	$61.34
	P0000527	Yonamin, K	MAFS										60	5	5	5	5	5	5	5	5	5	5	5	5
													$1,840.20	$153.35	$153.35	$153.35	$153.35	$153.35	$153.35	$153.35	$153.35	$153.35	$153.35	$153.35	$153.35
16	P0000527	Yonamin, K	Reg Affairs	PNP	Regulatory Affairs	B38	A & G Operation	920	Labor	112	OUT	150	48	4	4	4	4	4	4	4	4	4	4	4	4
													$1,472.16	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68
	P0000527	Yonamin, K	Reg Affairs	PNP	Regulatory Affairs	B38							48	4	4	4	4	4	4	4	4	4	4	4	4
													$1,472.16	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68
	P0000527	Yonamin, K	Reg Affairs	PNP									48	4	4	4	4	4	4	4	4	4	4	4	4
													$1,472.16	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68
	P0000527	Yonamin, K	Reg Affairs										48	4	4	4	4	4	4	4	4	4	4	4	4
													$1,472.16	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68	$122.68
17	P0000527	Yonamin, K	SSF	PFS	Corporate Safety	B38	A & G Operation	925	Labor	112	OUT	150	72	6	6	6	6	6	6	6	6	6	6	6	6
													$2,208.24	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02
	P0000527	Yonamin, K	SSF	PFS	Corporate Safety	B38							72	6	6	6	6	6	6	6	6	6	6	6	6
													$2,208.24	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02
	P0000527	Yonamin, K	SSF	PFS									72	6	6	6	6	6	6	6	6	6	6	6	6
													$2,208.24	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02
	P0000527	Yonamin, K	SSF										72	6	6	6	6	6	6	6	6	6	6	6	6
													$2,208.24	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02	$184.02
18	P0000527	Yonamin, K	Sys Op	PRC	Communications	B37	Customer Services	910	Labor	112	OUT	150	24	2	2	2	2	2	2	2	2	2	2	2	2
													$828.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00
	P0000527	Yonamin, K	Sys Op	PRC	Communications	B37							24	2	2	2	2	2	2	2	2	2	2	2	2
													$828.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00
	P0000527	Yonamin, K	Sys Op	PRC									24	2	2	2	2	2	2	2	2	2	2	2	2
													$828.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00
	P0000527	Yonamin, K	Sys Op										24	2	2	2	2	2	2	2	2	2	2	2	2
													$828.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00	$69.00
	P0000527												4,306	359	359	359	359	359	359	359	359	359	359	359	359
													$46,914.12	$3,909.51	$3,909.51	$3,909.51	$3,909.51	$3,909.51	$3,909.51	$3,909.51	$3,909.51	$3,909.51	$3,909.51	$3,909.51	$3,909.51

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EXHIBIT-C2

Pillar inputs for the P... ...achment Project - Year 2005

	Master Agreement Negotiation	Program Coordination	FCC Rate/ PUC Stds Compliance	Site Evaluation Proposal Review	PUC Filing	Site Installation	Billing Collection	Contract Admin	Totals	Pillar Input
New Master Agrmts	1									
Established Mstr Agrmts	6							8		
New Sites				2	1	1	1			
Established Sites							7			

HECO: Verizon Wireless

HECO: PLNI, T-Mobile, AT&T-W, Sprint PCS, AT&T HITS, Time Warner

Verizon Mine: Verizon Koolau Sub, 1 new

HECO: Verizon Koolau Sub

Verizon Mine: Verizon Koolau Sub

Verizon Mine: Verizon Koolau Sub

HECO: PLNI (1), AT&T (2) T-Mobile (2), AT&T HITS (1), Time Warner (1)

Engr - Trans & Distr	Billa PBE	112OUTBENPEZZZZZ	4			80		20			104	9
	Non PBE	112PHENENPEZZZZZ			40						40	3
Engr - Structural	Billa PBT	112OUTBENPEZZZZZ				16		8			24	2
	Non PBT	112PHENENPEZZZZZ									0	0
Engr - Survey	Billa PBT	112OUTBENPEZZZZZ				16		8			24	2
	Non PBT	112PHENENPEZZZZZ									0	0
Engr - Substation (includes Sr. Telecom Eng)	Billa PBY	112OUTBENPEZZZZZ				48		14			62	5
	Non PBY	112PHENENPEZZZZZ									0	0
Engr - Technical Services	Billa PBZ	112OUTBENPEZZZZZ	4			16					20	2
	Non PBZ	112PHENENPEZZZZZ			40						40	3
Cust Serv - Cust Acct & Bill	Billa PCB	112OUTBENPEZZZZZ									0	0
	Non PCB	112PHENENPEZZZZZ							0		0	0
C&M - Customer Divisior	Billa PDH	112OUTBENPEZZZZZ	4			40		40			84	7
	Non PDH	112PHENENPEZZZZZ									0	0
C&M - West Overhead	Billa PDJ	112OUTBENPEZZZZZ						16			16	1
	Non PDJ	112PHENENPEZZZZZ									0	0
C&M - Koolau Overhead	Billa PDK	112OUTBENPEZZZZZ						16			16	1
	Non PDK	112PHENENPEZZZZZ									0	0
C&M - Ward Overhead	Billa PDL	112OUTBENPEZZZZZ						16			16	1
	Non PDL	112PHENENPEZZZZZ									0	0
ITS-PMO	Billa PEP	112OUTBENPEZZZZZ	80			80	4	60			224	19
	Non PEP	112PHENENPEZZZZZ		120					64	70	254	21
	Non PEP	909PHENENPEZZZZZ			120						120	10
Safety - Corp Safety	Billa PFS	112OUTBENPEZZZZZ			40	24		12			76	6
	Non PFS	112PHENENPEZZZZZ									0	0
Financial Analysis	Billa PKF	112OUTBENPEZZZZZ									0	0
	Non PKF	112PHENENPEZZZZZ			40						40	3
Securities	Billa PKS	112OUTBENPEZZZZZ	4			24					28	2
	Non PKS	112PHENENPEZZZZZ									0	0
Legal	Billa PNC	112OUTBENPEZZZZZ	4			16					20	2
	Non PNC	112PHENENPEZZZZZ			40		1		10	70	121	10
Land Rights of Way	Billa PNL	112OUTBENPEZZZZZ	4			40		40			84	7
	Non PNL	112PHENENPEZZZZZ									0	0
Regulatory	Billa PNP	112OUTBENPEZZZZZ	4				10				14	1
	Non PNP	112PHENENPEZZZZZ			40						40	3
Sys Op - Tech Svc - Comm	Billa PRC	112OUTBENPEZZZZZ						24			24	2
	Non PRC	112PHENENPEZZZZZ									0	0
CID - Planning & Design	Billa PWP	112OUTBENPEZZZZZ				32		4			36	3
	Non PWP	112PHENENPEZZZZZ			40						40	3
	Total										1567	
Total	Billable		108	0	40	432	14	278	0	0	872	52320
	NonBillable		0	120	360	0	1	0	74	140	695	41700
			108	120	400	432	15	278	74	140	1567	
	Average Labor Rate										60	
	Total Labor $										$ 94,020	94020
Materials (201)	Billa PEP	112OUTBENPEZZZZZ									$ 2,400	$ 200
Outside Services (501)	Non PEP	112PHENENPEZZZZZ									$ 3,000	$ 250
	Total Non-Labor $										$ 5,400	
	Revenues per month										1,500	
	Revenues including $278 for Wireline						# of antenna attach billings	3	@$1.5k/m → $141,955		195,955	20,690 per mo
	Reimburseable Billings										52,320	
	Billable Labor										(52,320)	
	Nonbillable Labor										(41,700)	
	Reimburseable Non-Labor Billings										2,400	
	Billable Non-Labor										(2,400)	
	Nonbillable Non-Labor										(3,000)	
	Income before Taxes										151,255	per Pillar
										Target Rev Igt		

HECO: Per Lloyd Shibata time to process is minimal (approx 5 minutes/contract) so not charging to FA Program. If number of agreements increases will contact FA Program Mgr to update budget estimate.

HECO: Comm Shop materials and misc equipment.

HECO: 4 cell phones, PUC filing fee, outside attorneys fee.

HECO: Wireline revenues
$139K PLNI
$137K PLNI Dark Fiber (not included contract expires)
$2K for AT&T-Hits PH
$.3K for AT&T-Hits Scho
$.1K for AT&T-Hits Halaw
$.5K for Time Warner Salt Lake

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OHANA TES TEAm

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_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY06	Jan 06	Feb 06	Mar 06	Apr 06	May 06	Jun 06	Jul 06	Aug 06	Sep 06	Oct 06	Nov 06	Dec 06
P0000559	Nordyke, M	Corp Comm	PQC	Corp Communications	B37	Customer Services	910	Labor	112	PHE	150	192	16	16	16	16	16	16	16	16	16	16	16	16
												$7,643.52	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96
P0000559	Nordyke, M	Corp Comm	PQC	Corp Communications	B37							192	16	16	16	16	16	16	16	16	16	16	16	16
												$7,643.52	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96
P0000559	Nordyke, M	Corp Comm	PQC									192	16	16	16	16	16	16	16	16	16	16	16	16
												$7,643.52	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96
P0000559	Nordyke, M	Corp Comm										192	16	16	16	16	16	16	16	16	16	16	16	16
												$7,643.52	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96	$636.96
P0000559	Nordyke, M	Engineering	PBZ	T&D Technical Svcs	B32	Transmission Oper	566	Labor	112	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000559	Nordyke, M	Engineering	PBZ	T&D Technical Svcs	B32							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000559	Nordyke, M	Engineering	PBZ									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000559	Nordyke, M	Engineering										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000559	Nordyke, M	Engy Svcs	PSA	Admin-Engy Svcs	B37	Customer Services	910	Labor	112	PHE	150	96	8	8	8	8	8	8	8	8	8	8	8	8
												$5,049.60	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80
P0000559	Nordyke, M	Engy Svcs	PSA	Admin-Engy Svcs	B37							96	8	8	8	8	8	8	8	8	8	8	8	8
												$5,049.60	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80
P0000559	Nordyke, M	Engy Svcs	PSA									96	8	8	8	8	8	8	8	8	8	8	8	8
												$5,049.60	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80	$420.80
P0000559	Nordyke, M	Engy Svcs	PSF	Forecasts	B37	Customer Services	910	Labor	112	PHE	150	96	8	8	8	8	8	8	8	8	8	8	8	8
												$3,821.76	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48
P0000559	Nordyke, M	Engy Svcs	PSF	Forecasts	B37							96	8	8	8	8	8	8	8	8	8	8	8	8
												$3,821.76	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48
P0000559	Nordyke, M	Engy Svcs	PSF									96	8	8	8	8	8	8	8	8	8	8	8	8
												$3,821.76	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48
P0000559	Nordyke, M	Engy Svcs										162	16	16	16	16	16	16	16	16	16	16	16	16
												$8,871.36	$739.28	$739.28	$739.28	$739.28	$739.28	$739.28	$739.28	$739.28	$739.28	$739.28	$739.28	$739.28
P0000559	Nordyke, M	MAFS	PKF	Financial Analysis	B38	A & G Operation	920	Labor	112	PHE	150	96	8	8	8	8	8	8	8	8	8	8	8	8
												$3,821.76	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48
P0000559	Nordyke, M	MAFS	PKF	Financial Analysis	B38							96	8	8	8	8	8	8	8	8	8	8	8	8
												$3,821.76	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48
P0000559	Nordyke, M	MAFS	PKF									96	8	8	8	8	8	8	8	8	8	8	8	8
												$3,821.76	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48
P0000559	Nordyke, M	MAFS										96	8	8	8	8	8	8	8	8	8	8	8	8
												$3,821.76	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48	$318.48
P0000559	Nordyke, M	Plng & Eng	PYJ	PP Project Mgt	B37	Customer Services	910	Labor	112	PHE	150	96	8	8	8	8	8	8	8	8	8	8	8	8
												$3,780.48	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04
P0000559	Nordyke, M	Plng & Eng	PYJ	PP Project Mgt	B37							96	8	8	8	8	8	8	8	8	8	8	8	8
												$3,780.48	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04
P0000559	Nordyke, M	Plng & Eng	PYJ									96	8	8	8	8	8	8	8	8	8	8	8	8
												$3,780.48	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04	$315.04

AllCorpRABud05-RateCase -Direct-ABM.PLN

Subject: HECO Rate Case Supporting Information

P0000559 Project 'Ohana Total Energy Solution (TES) Team

The Project Identification Form (PIF), attached, reflects the project budget planning implemented in 2001 for a five-year time frame and has little changed subsequently. This project encompasses "the steering team for the Project 'Ohana strategy plan and to carry out the development of identified Total Energy Solution work segments." The Project 'Ohana customer retention mission was successfully furthered within the first two years of the project with the extensive input of the TES team leading to Company pursuit of a utility CHP offering that is currently being addressed at the PUC in the generic DG docket. The remaining three years of the project budget allowed the identified cross-functional team a budget allocation for minimal ongoing support of the CHP efforts and other Energy Solution new technology initiatives that keep the Company competitive and provide a balanced toolbox of options, and products and services, for customers. 2005 is the final year of this 'Ohana effort and reflects a relatively low monthly hourly allocation by the various team representatives, e.g., 4 - 16 hours per month.

The non-labor budget of $55,200 for 2005 is scaled back from the first two years of the project when an outside consultant was hired within the combined 2001 - 2002 budget of $140,000. The current non-labor budget provides for outside services in support of the Energy Solution goals, in the areas of new technology assessment, strategy development, and business model development.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Ohana TES Team

Project Number: OHANA1
(Temporary)

Stategic Plan Linkage: 2A - Retain Customers
(Primary)

Plant Addition Date: -

Commitment Date: -

Primary Corporate Goal: Loss of Lg Cust

Impact on Goal: High

Project Forecast (Thousand $)

(Attach the "View - 5-Yr Proj Costs by Ind & Cost Cat" report obtained from the estimators' Pillar file.)

Prior Years	2000	2001	2002	2003	2004	Future Years	Total
$0	$0	$139	$168	$108	$108	$108	$631

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
0	30	-25	0	12	17

Purpose/Objectives:

To serve as the steering team for the Project 'Ohana strategy plan and to carry out the development of identified Total Energy Solution work segments. To support the Project 'Ohana customer retention mission: a) prevent loss of significant customer sales to competitors, b) minimize any competitive gap, and c) maintain the Company as the preferred option.

Scope Description:

The TES Team project includes the following sub-projects: a) Administration: TES Team meetings and work segment efforts, b) Consultants: bypass quantitative analyses (periodic analysis of competitive on-site generation options) and support work, and c) Corporate Communications: preparation of talking points and white papers, advertising, brochures, promotional events.

MANAGEMENT ACCOUNTING

APR 30 2001

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

Resources include approximately ten part-time members of the TES Team, executive involvement, and consultant support.

Justification:

The TES Team was created to guide Company strategies for retaining customers with on-site generation options and to develop identified work segments in support of SWAT Team work.

Issues, Impacts, Considerations:

Customer retention is a critical issue for the Company. Losing customer sales would impact ratepayers at HECO, HELCO, and MECO. Revenues at risk related to possible loss of sales from hotels with on-site options on the Kohala Coast alone are estimated at $15 million. The Company has developed a plan to proactively deal with this situation and is increasing the tools available to ensure a competitive position.

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: - - Docket Number:

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are not capital

Submitted by: Mary Ellen Nordyke Grace **Phone/Ext #:** 7000

Originator's Name: T. Mike May

Responsible Estimator: M. NordykeGrace
(Pillar UserID)

Resp. Estimator Dept: Strategic Initiatives
(Pillar Department Folder)

Project Manager: M. NordykeGrace
(Note: Value does not appear in MIMS or Pillar)

Date: 04/27/2001

Required Approvals to Authorize a Project:

T Michael May 4/30/01
Responsible Manager **Date**

Responsible Vice President **Date**
(not required for budgeted projects $250,000 and less)

VP, Regulatory Affairs **Date**
(not required if PUC approval is obtained

for [signature] 5/01/01
Controller **Date**

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

PRODUCTION CHANGE REQUEST (PCR) FORM

Requestor:	
Phone Number:	
District:	P-HECO
Temporary Project Number:	OHANA1
Project Number:	P0000559
Project Title: (28 characters)	Ohana TES Team
Short Project Title: (10 characters)	TES Team
Originator Employee's Number:	10166
Person Assigned To:	M. NordykeGrace
Person Assigned to Employee Number:	21042
Responsibility Area:	P9P
Activity:	112
Location:	PHE
Indicator:	NE
Apply AFUDC (yes or no):	No
Existing Grandparent Project Number: or **New Grandparent Project Description:**	Y00026 Project 'Ohana
Pillar Temporary Projects or 5th Segment Projects to link to Grandparent Project above:	Class Load Study, Rate Restructuring Case, SWAT Team
Plant Addition Date:	-
Plant Functional Category:	
Project or Program:	Project

For Admin use only:
Date updated MIMS Prod files: 4/30/01 LY
Copy given to Pillar Admin:

AU – A

Date: 04/30/2001

PROJECT 'OHANA TES TEAM PROJECT: Total

	Total	4/01-12/01	2002	2003	2004	2005
Labor Hours	9,051	2,183	2,446	1,474	1,474	1,474
Labor Dollars	326,690.98	79,191.06	87,916.48	53,194.48	53,194.48	53,194.48
NonLabor Dollars	305,000.00	60,000.00	80,000.00	55,000.00	55,000.00	55,000.00
Total ($)	631,690.98	139,191.06	167,916.48	108,194.48	108,194.48	108,194.48

Estimates for Administrative

Line Item Description	Person	RA	Labor Class	4/01-12/01	2002	2003	2004	2005	Rate
Labor:									
	Carol	P9P	TC	27	48	48	48	48	26.75
Admin-Team Mtg-Execs	Execs		EXEC	36	48	48	48	48	80.51
Admin-Team Mtg	MaryEllen	P9P	FS	900	660	360	360	360	36.85
Admin-Team Mtg-KF	Ken Fong	PYJ	PPPROJ	135	180	96	96	96	30.49
Admin-Team Mtg-DW	Dave Waller	PSA	E-V	135	180	96	96	96	46.98
Admin-Team Mtg	Alan Hee	PSF	FS	135	180	96	96	96	36.56
Admin-Team Mtg	Ronald Wong	PBS	DISPLN	135	180	96	96	96	30.49
Admin-Team Mtg	Gayle Ohashi	PKF	FS	135	180	96	96	96	36.56
Admin-Team Mtg	Barry Utsumi	P3V	F	135	180	96	96	96	36.85
Admin-Team Mtg	Lynne Unemori	PQC	FS	135	180	96	96	96	36.82
Admin-Team Mtg	Linda Chinn	PQC	TC	135	180	96	96	96	27.00
				2,043	2,196	1,224	1,224	1,224	
Subs:									
Earle Ifuku (MECO)				135	180	96	96	96	
Curt Beck (HELCO)				135	180	96	96	96	

2001 ($)	2002 ($)	2003 ($)	2004 ($)	2005 ($)
722.25	1,284.00	1,284.00	1,284.00	1,284.00
2,898.36	3,864.48	3,864.48	3,864.48	3,864.48
33,165.00	24,321.00	13,266.00	13,266.00	13,266.00
4,116.15	5,488.20	2,927.04	2,927.04	2,927.04
6,342.30	8,456.40	4,510.08	4,510.08	4,510.08
4,935.60	6,580.80	3,509.76	3,509.76	3,509.76
4,116.15	5,488.20	2,927.04	2,927.04	2,927.04
4,935.60	6,580.80	3,509.76	3,509.76	3,509.76
4,974.75	6,633.00	3,537.60	3,537.60	3,537.60
4,970.70	6,627.60	3,534.72	3,534.72	3,534.72
3,645.00	4,860.00	2,592.00	2,592.00	2,592.00
74,821.86	80,184.48	45,462.48	45,462.48	45,462.48

Estimates for Other Consultants

Line Item Description	RA	4/01-12/01	2002	2003	2004	2005
NonLabor: (dollars)						
Consultant-bypass quant. analysis	P9P	10,000	10,000	10,000	10,000	10,000
Consultant-general	P9P	50,000	50,000	25,000	25,000	25,000
		60,000	60,000	35,000	35,000	35,000

Estimates for Communications

Line Item Description	Person	RA	Labor Class	4/01-12/01	2002	2003	2004	2005	Rate ($)
Labor: (hours)									
Comm-LU	Lynne Unemori	PQC	FS	60	100	100	100	100	36.82
Comm-LC	Linda Chinn	PQC	TC	80	150	150	150	150	27.00
				140	250	250	250	250	
NonLabor: (dollars)									
Comm-advertising, brochures,events		PQC			20,000	20,000	20,000	20,000	
				-	20,000	20,000	20,000	20,000	

2001 ($)	2002 ($)	2003 ($)	2004 ($)	2005 ($)
2,209.20	3,682.00	3,682.00	3,682.00	3,682.00
2,160.00	4,050.00	4,050.00	4,050.00	4,050.00
4,369.20	7,732.00	7,732.00	7,732.00	7,732.00

CA-IR-1

PROJECT P0000571 CIS Replacement Project

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted staffing and associated labor direct expense amounts included in the witnesses' portion of the rate case test period budget.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a), documenting all work done to determine required staffing levels and overtime hours by Department, RA, Activity and NARUC Account.

c. Describe the actual force level that existed at the date the budget was prepared or otherwise served as a base for purposes of preparing the budget level.

d. For each budgeted employee position that is added to existing actual force levels (as the date the budget was prepared), **explain** the analyses undertaken to determine that each added position was necessary and should be filled in order to meet present or anticipated work requirements. Also, please explain how the anticipated work requirements were defined and determined.

e. Describe and, to the extent possible, quantify the backlog of work, unfinished projects, deferred maintenance and other labor requirements unfulfilled at present staffing levels, that will be satisfied by adding the employee positions identified in your response to part (d).

f. Provide complete copies of all studies, analyses, workpapers, projections, notes, correspondence, assumptions and other documents associated with your responses to parts (d) and (e) above.

HECO Response:

a. Employees involved in preparation of CIS Replacement Project (P0000571) budgeted staffing and associated labor amounts were: Tommy Hull, Consultant; Ted Nolte & Carl Calvo, Bass & Company; Lori Oishi & Lynn Bronaugh, HECO Customer Service; Brenda

Deryke & Ramona Hamasu, Information Technology; Linda Yamamoto & Lori Okazaki

Matsunaga, MECO Accounting; Joanne Ide, MECO Customer Service.

b. See Attachment 1 worksheet for Project #P0000571 internal labor hours to support estimated project labor $.

c. Not applicable.

d. Not applicable.

e. Not applicable.

f. Not applicable.

artments by Project Number

b	05 Mar	05 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
32	36	0	0	0	0	0	0	0	0	0
,683	$1,894	$0	$0	$0	$0	$0	$0	$0	$0	$0
6,716	$53,723	$0	$0	$0	$0	$0	$0	$0	$0	$0
3,399	$55,617	$0	$0	$0	$0	$0	$0	$0	$0	$0
0	0	0	0	0	0	0	0	0	0	0
$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
0	0	0	0	0	0	32	176	112	0	64
$0	$0	$0	$0	$0	$0	$981	$5,398	$3,435	$0	$1,963
$0	$0	$0	$0	$0	$0	$981	$5,398	$3,435	$0	$1,963
3,399	$55,617	$0	$0	$0	$0	$981	$5,398	$3,435	$0	$1,963
5,389	$6,320	$0	$0	$0	$0	$0	$0	$0	$0	$0
8,788	$61,937	$0	$0	$0	$0	$981	$5,398	$3,435	$0	$1,963

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PROJECT NO. P0000571
ATTACHMENT 1
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Hawaiian Electric Company
CIS Replacement Project (P0000571)
HECO Labor Hours
2005 Expenses

NARUC 903

RA #	IND	Labor Class	Description	ACT.	Company	Jan 2005 Hours	Feb 2005 Hours	Mar 2005 Hours	Apr 2005 Hours	May 2005 Hours	Jun 2005 Hours	Jul 2005 Hours	Aug 2005 Hours	Sep 2005 Hours	Oct 2005 Hours	Nov 2005 Hours	Dec 2005 Hours	2005 Hours
PCA	NE	E	Project Director	600	HECO	35	32	36										103
PCF	NE	TC	PPP Analyst #1	600	HECO	80												80
PCS	NE	TC	PPP Analyst #2	600	HECO	80												80
PCS	NE	TC	Trainer #1	600	HECO								32	176	112		64	384

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ATTACHMENT 1
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CA-IR-2

PROJECT P0000571 CIS Replacement

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted non-labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted non-labor direct expense amounts included in the rate case test period budget and sponsored by the witness.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a), indicating the amounts by Department, RA, Activity and NARUC Account that such calculations support.

c. For each budgeted non-labor amount in the test period forecast that exceeds $50,000, please describe the basis for determining the budgeted amount (for example, bid solicitation, price times quantity estimation, historical cost escalated, etc.)

d. For each item in your response to part (c), where specific quantities and prices were discretely forecasted, explain the basis for and source of the budgeted quantity inputs and budgeted prices for each such item. Provide complete copies of all studies, reports and other documents that were relied upon.

e. For each item in your response to part (c) where historical costs were escalated, provide all

Lori Oishi & Lynn Bronaugh, HECO Customer Service; Brenda Deryke & Ramona Hamasu, Information Technology.

b. See Attachment 1 worksheets for Project #P0000571 Expense Element #451, ITS Labor Hours and $, to support $50,563.20 cost allocation to HECO (RA=PEZ, Activity=600, NARUC=921); and Expense Element #501, Outside Services Labor Hours and $, to support $167,353.20 cost allocation to HECO (RA=PCA, Activity=600, NARUC=903.) These cost estimates are used in the CIS Application to the PUC and assume a project start date of January 1, 2005. These cost estimates have been provided under Protective Order No. 21444 for the Customer Information System Project.

c. EE #451 and EE #501 budget estimates are based on a price times quantity estimation.

d. Staffing levels for EE #451 and EE #501 are based on previous implementation experience by Bass & Company, vendor provided information and detailed discussions with ITS personnel. EE #451 cost estimates are based on $50 per hour average (including on-costs) for all ITS labor categories. EE #501 hourly rates are based on Bass & Company's experience with new CIS implementations, and working with different vendors and third party integrators.

e. No escalation.

f. Not applicable.

g. See Attachment 1.

O & M for All Departments by Project Number

Proj	Proj Mgr	Dept	RA	Acct. Descp	NARUC	Exp Class	Act	Loc	EE	Unit	FY05	05 Jan	05 Feb	05 Mar	05 Apr	05 May	06 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
P0000571	Hull, T	CS	PCA	CS Acc	903	Lab	600	OAH	150	Hrs.	103	35	32	36	0	0	0	0	0	0	0	0	0
P0000571	Hull, T	CS	PCA	CS Acc	903	Lab	600	OAH	150	$	$5,418	$1,841	$1,683	$1,894	$0	$0	$0	$0	$0	$0	$0	$0	$0
P0000571	Hull, T	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$	$167,353	$66,914	$46,716	$53,723	$0	$0	$0	$0	$0	$0	$0	$0	$0
											$172,771	**$68,755**	**$48,399**	**$55,617**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
P0000571	Hull, T	CS	PCF	CS Acc	903	Lab	600	OAH	150	Hrs.	80	80	0	0	0	0	0	0	0	0	0	0	0
P0000571	Hull, T	CS	PCF	CS Acc	903	Lab	600	OAH	150	$	$2,454	$2,454	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
											$2,454	**$2,454**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
P0000571	Hull, T	CS	PCF	CS Acc	903	Lab	600	OAH	150	Hrs.	464	80	0	0	0	0	0	0	32	176	112	0	64
P0000571	Hull, T	CS	PCF	CS Acc	903	Lab	600	OAH	150	$	$14,231	$2,454	$0	$0	$0	$0	$0	$0	$981	$5,398	$3,435	$0	$1,963
											$14,231	**$2,454**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$981**	**$5,398**	**$3,435**	**$0**	**$1,963**
P0000571		CS		CS Acc	903		sub	total	CS	$	$189,455	$73,662	$48,399	$55,617	$0	$0	$0	$0	$981	$5,398	$3,435	$0	$1,963
P0000571	Hull, T	Info Tech	PEZ	A&G Op	921	N Lab	600	OAH	451	$	$50,563	$28,854	$15,389	$6,320	$0	$0	$0	$0	$0	$0	$0	$0	$0
P0000571		All			All	Grand Total Project				Hrs.	647												
P0000571		Depts.			Accts	Grand Total Project				$	**$240,019**	**$102,516**	**$63,788**	**$61,937**	**$0**	**$0**	**$0**	**$0**	**$981**	**$5,398**	**$3,435**	**$0**	**$1,963**

Source: Pillar, AllConsRaBud05-RateCase-Direct-ABM.PLN_O&M for All Depts with Loc

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Hawaiian Electric Company
CIS REPLACEMENT PROJECT (P0000571)
Non-Labor Allocation Percentages to Companies

Allocation percentages:		
	# Cust Dec2003	% of tot
HECO	286,677	68.7%
HELCO	69,235	16.6%
MECO	61,423	14.7%
Total	417,335	100.0%

CIS Replacement Project
Assumptions

General Project Assumptions	1	New CIS goes live 22 months after project start up
	2	[illegible]

CIS Replacement Project
Assumptions

Accounting Treatment of Project Costs		The CIS Replacement Project costs were developed based on the accounting standards for handling software development project drafted and proposed to the Consumer Advocate. Development of the project cost was based on the following: 1) All costs prior to vendor product selection will be an O&M expense 2) Following vendor selection, costs will be either deferred or O&M depending on the following: a) Costs to convert current system data into the format required by the new system will be O&M b) All training costs will be O&M; both development of training materials and training sessions c) All other labor costs will be deferred expenses 3) Hardware will be a capital expense 4) License fee will be a deferred expense 5) Inter-island travel, lodging, and per dien will be a deferred expense
Installation Costs		
External Costs	1	Project manager for PUC Application project will continue as project manager for the Replacement Project. Current hourly rate is $ per hour, no expenses
	2	System Integrator Project Manager, Business Transistion Team Lead, and Functional Architect positions will be filled by Bass & Company consultants at $ /hour. Hourly rate adjusted to reflect % expenses
	3	Selected vendor will provide resources for the following positions: 1) Installation Team Lead 2) Product Architect 3) CIS Programmer / Analysts (4) Installation Team Lead and Product Architect positions use a $ per hour rate. A % expense rate is built into the hourly rate. The CIS Programmer Analyst positions have a $ per hour rate. A % expense rate is built into the hourly rate.
	4	Contractors, preferably local, will fill the following positions: 1) Tester - $ per hour 2) Policy/Process/Procedure Analyst - $ per hour 3) Data Conversion Analysts (2) - $ per hour 4) Data Conversion Programmers (2) - $ per hour 5) Interface Programmer Analysts (3) - $ per hour 6) CIS Programmer Analyst - $ per hour 7) Database Administrator - $ per hour, estimate provide by ITS based on IBM rates 8) Technical Support - $ per hour, estimate provided by ITS based on IBM rates.
ITS	5	ITS has agreed to provide 4 CSS (Customer Support Services)/EIS (Employee Information Systems) Application Affinity Group members for the project.
	6	ITS has agreed to provide, at no charge, a database administrator and technical support person to shadow and learn from the consultants hired to fill those roles.
	7	For simplification ITS is requesting that all non-ITS prpoject managers use $ per hour for all ITS Labor Categories. In ITS, the predominant labor class is Teacher Coach which applies to BSCs, PMs, Sr Analysts or Analysts.

12/20/2004 Kahe 2 Overhaul

	_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FYDE
K2	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Labor	257	K02	150	0
													$0.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	257	K02	201	0
													$0.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	257	K02	501	168,000
													$168,000.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	258	K02	201	0
													$0.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	258	K02	501	52,500
													$52,500.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	259	K02	201	0
													$0.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	259	K02	501	63,750
													$63,750.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Labor	260	K02	150	0
													$0.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	260	K02	201	0
													$0.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	260	K02	501	107,250
													$107,250.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	261	K02	501	82,500
													$82,500.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	262	K02	201	0
													$0.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	262	K02	501	7,500
													$7,500.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B31							481,500
													$481,500.00 (3)
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	348	K02	201	0
													$0.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	349	K02	501	6,375
													$6,375.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	350	K02	201	0
													$0.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	350	K02	501	2,250
													$2,250.00
	P0000650	Marzano, V	Production	PIT	Traveling Maintenance	B33							8,625
													$8,625.00
	P0000650	Marzano, V	Production	PIT									490,125
													$490,125.00
	P0000650	Marzano, V	Production										490,125
													$490,125.00
	P0000650												490,125
													$490,125.00

W/P Ref.

(3) CA-IR-2, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT 4B, Page 1 of 16.

CA-IR-2

CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000686 Competitive Pricing/Billing

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted non-labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted **non-labor direct expense** amounts included in the rate case test period budget and sponsored by the witness.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" work papers, surveys and other analyses performed by each of the employees identified in response to part (a), indicating the amounts by Department, RA, Activity and NARUC Account that such calculations support.

c. For each budgeted non-labor amount in the test period forecast that exceeds $50,000, please describe the basis for determining the budgeted amount (for example, bid solicitation, price times quantity estimation, historical cost escalated, etc.)

d. For each item in your response to part (c), where specific quantities and prices were discretely forecasted, explain the basis for and source of the budgeted quantity inputs and budgeted prices for each such item. Provide complete copies of all studies, reports and other documents that were relied upon.

e. For each item in your response to part (c) where historical costs were escalated, provide all historical cost information that was considered and explain how such data was evaluated and escalated to derive test year proposed levels.

f. For each item in your response to part (c) where a bid solicitation or other special analysis was conducted, explain what was done and provide complete copies of all supporting reports, bid solicitations, proposal, analyses, work papers and other documents associated with such efforts.

g. Provide complete copies of all other information required to completely support and document the test year projected expense levels being proposed by the Company, including general assumptions and forecasting instructions that were employed.

HECO Response:

a. Employee's involved in budgeted staffing: Amy Ejercito, former Manager of the Customer

Service Department and Lori Oishi, former Operations Analyst of the Customer Service Department.

b. See Attachment 1.

c. **P0000686 Competitive Pricing/Billing**, non-labor forecast is based on an estimation of consultant costs for a feasibility assessment for competitive rate offerings, business case and implementation.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
NONLABOR

O & M for All Departments by Project Number

Proj	Proj Mgr	Dept	RA	Acct Descp	NARUC	Exp Class	Act	Loc	EE	FY05	05 Jan	05 Feb	05 Mar	05 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
P0000686	Ejercito, A	CS	PCA	CS Acc	903	N Lab	614	OAH	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000692	Ejercito, A	CS	PCA	CS Acc	901	N Lab	899	PHE	501	$ 48,000.00	-	-	6,750.00	-	-	13,750.00	-	-	13,750.00	-	-	13,750.00
										$ 48,000.00	$ -	$ -	$ 6,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00
P0000694	Ejercito, A	CS	PCA	CS Acc	901	N Lab	720	PHE	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	480	40	40	40	40	40	40	40	40	40	40	40	40
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	$ 14,721.60	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80
P0000984	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 100,000.00	-	-	-	-	-	-	-	10,000.00	20,000.00	25,000.00	37,500.00	7,500.00
P0000984	Ejercito, A	CS	PCP	CS Acc	903	N Lab	600	OAH	640	$ 50,000.00	-	-	-	-	-	-	-	-	4,000.00	-	46,000.00	-
P0000984	Ejercito, A	CS	PEZ	CS Acc	921	N Lab	600	OAH	451	$ 12,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
										$ 176,721.60	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 12,226.80	$ 26,226.80	$ 27,226.80	$ 85,726.80	$ 9,726.80
P0000985	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 124,000.00	20,333.00	20,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	260	130	130	-	-	-	-	-	-	-	-	-	-
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 7,833.80	3,916.90	3,916.90	-	-	-	-	-	-	-	-	-	-
										$ 131,833.80	$ 24,249.90	$ 24,249.90	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00
P0000986	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 18,000.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	132	11	11	11	11	11	11	11	11	11	11	11	11
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	$ 3,977.16	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43
										21,977.16	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43
P0000987	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 22,000.00	-	22,000.00	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	80	-	80	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 2,410.40	-	2,410.40	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	IT	PEZ	A&G	921	N Lab	600	OAH	451	$ 4,000.00	-	4,000.00	-	-	-	-	-	-	-	-	-	-
										$ 28,410.40	$ -	$ 28,410.40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
P0000988	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 49,500.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	520	43	43	44	43	43	44	43	43	44	43	43	44
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	$ 11,996.40	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08
										$ 61,496.40	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08

CA-IR-2

CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000692 CSD Technical Support

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted non-labor direct expense amounts, please provide the following information:

Service Department and Lori Oishi, former Operations Analyst of the Customer Service Department.

b. See Attachment 1.

c. **P0000692 CSD Technical Support Program**, non-labor forecast is based on as estimation of consultant costs to insure all technical tools and equipment are effectively and efficiently supported and maintained.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
NONLABOR

ey Project Number

5 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
-	$ -	$24,999.00	$ -	$ -	$24,999.00	$ -	$ -	$25,003.00
-	-	13,750.00	-	-	13,750.00	-	-	13,750.00
-	$ -	$13,750.00	$ -	$ -	$13,750.00	$ -	$ -	$13,750.00
-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
-	$ -	$24,999.00	$ -	$ -	$24,999.00	$ -	$ -	$25,003.00
40	40	40	40	40	40	40	40	40
,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80
-	-	-	-	10,000.00	20,000.00	25,000.00	37,500.00	7,500.00
-	-	-	-	-	4,000.00	-	46,000.00	-
,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
,226.80	$2,226.80	$ 2,226.80	$2,226.80	$12,226.80	$26,226.80	$27,226.80	$85,726.80	$ 9,726.80
,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
,333.00	$8,333.00	$ 8,334.00	$8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00
,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
11	11	11	11	11	11	11	11	11
331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43
,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00
43	43	44	43	43	44	43	43	44
992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08
5,117.01	$5,117.01	$ 5,140.08	$5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08

CA-IR-2

CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000694 CSD Continuous Improvement

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted non-labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted **non-labor direct expense** amounts included in the rate case test period budget and sponsored by the witness.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" work papers, surveys and other analyses performed by each of the employees identified in response to part (a), indicating the amounts by Department, RA, Activity and NARUC Account that such calculations support.

c. For each budgeted non-labor amount in the test period forecast that exceeds $50,000, please describe the basis for determining the budgeted amount (for example, bid solicitation, price times quantity estimation, historical cost escalated, etc.)

d. For each item in your response to part (c), where specific quantities and prices were discretely forecasted, explain the basis for and source of the budgeted quantity inputs and budgeted prices for each such item. Provide complete copies of all studies, reports and other documents that were relied upon.

e. For each item in your response to part (c) where historical costs were escalated, provide all historical cost information that was considered and explain how such data was evaluated and escalated to derive test year proposed levels.

f. For each item in your response to part (c) where a bid solicitation or other special analysis

Service Department and Lori Oishi, former Operations Analyst of the Customer Service Department.

b. See Attachment 1.

c. **P0000694 CSD Continuous Improvement**, non-labor forecast is based on an estimation of consultant costs to provide support in identifying, implementing and sustaining improvements.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
NONLABOR

O & M for All Departments by Project Number

Proj	Proj Mgr	Dept	RA	Acct Descp	NARUC	Exp Class	Act	Loc	EE	FY05	05 Jan	05 Feb	05 Mar	05 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
P0000686	Ejercito, A	CS	PCA	CS Acc	903	N Lab	614	OAH	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000692	Ejercito, A	CS	PCA	CS Acc	901	N Lab	899	PHE	501	$ 48,000.00	-	-	6,750.00	-	-	13,750.00	-	-	13,750.00	-	-	13,750.00
										$ 48,000.00	$ -	$ -	$ 6,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00
P0000694	Ejercito, A	CS	PCA	CS Acc	901	N Lab	720	PHE	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	480	40	40	40	40	40	40	40	40	40	40	40	40
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	$ 14,721.60	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80
P0000984	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 100,000.00	-	-	-	-	-	-	-	10,000.00	20,000.00	25,000.00	37,500.00	7,500.00
P0000984	Ejercito, A	CS	PCP	CS Acc	903	N Lab	600	OAH	640	$ 50,000.00	-	-	-	-	-	-	-	-	4,000.00	-	46,000.00	-
P0000984	Ejercito, A	CS	PEZ	CS Acc	921	N Lab	600	OAH	451	$ 12,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
										$ 176,721.60	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 12,226.80	$ 26,226.80	$ 27,226.80	$ 85,726.80	$ 9,726.80
P0000985	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 124,000.00	20,333.00	20,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	260	130	130	-	-	-	-	-	-	-	-	-	-
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 7,833.80	3,916.90	3,916.90	-	-	-	-	-	-	-	-	-	-
										$ 131,833.80	$ 24,249.90	$ 24,249.90	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00
P0000986	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 18,000.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	132	11	11	11	11	11	11	11	11	11	11	11	11
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	$ 3,977.16	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43
										21,977.16	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43
P0000987	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 22,000.00	-	22,000.00	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	80	-	80	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 2,410.40	-	2,410.40	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	IT	PEZ	A&G	921	N Lab	600	OAH	451	$ 4,000.00	-	4,000.00	-	-	-	-	-	-	-	-	-	-
										$ 28,410.40	$ -	$ 28,410.40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
P0000988	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 49,500.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	520	43	43	44	43	43	44	43	43	44	43	43	44
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	$ 11,996.40	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08
										$ 61,496.40	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08

ABOVE-THE-LINE TV ARS

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000701	Unemori, L	Corp Comm	PQC	Corp Communications	B37	Customer Services	911	Labor	751	PHE	150	9.96	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
												$396.51	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04
P0000701	Unemori, L	Corp Comm	PQC	Corp Communications	B37	Customer Services	911	Non-Labor	751	PHE	501	250,000	0	0	0	0	0	0	125,000	0	0	0	0	125,000
												$250,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$125,000.00	$0.00	$0.00	$0.00	$0.00	$125,000.00
P0000701	Unemori, L	Corp Comm	PQC	Corp Communications	B37							250,009.96	0.83	0.83	0.83	0.83	0.83	0.83	125,000.83	0.83	0.83	0.83	0.83	125,000.83
												$250,396.51	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$125,033.04	$33.04	$33.04	$33.04	$33.04	$125,033.04
P0000701	Unemori, L	Corp Comm	PQC									250,009.96	0.83	0.83	0.83	0.83	0.83	0.83	125,000.83	0.83	0.83	0.83	0.83	125,000.83
												$250,396.51	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$125,033.04	$33.04	$33.04	$33.04	$33.04	$125,033.04
P0000701	Unemori, L	Corp Comm										250,009.96	0.83	0.83	0.83	0.83	0.83	0.83	125,000.83	0.83	0.83	0.83	0.83	125,000.83
												$250,396.51	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$125,033.04	$33.04	$33.04	$33.04	$33.04	$125,033.04
P0000701	Unemori, L	Engy Svcs	PSM	Research & Evaluation	B37	Customer Services	911	Labor	751	PHE	150	9.96	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
												$396.51	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04
P0000701	Unemori, L	Engy Svcs	PSM	Research & Evaluation	B37							9.96	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
												$396.51	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04
P0000701	Unemori, L	Engy Svcs	PSM									9.96	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
												$396.51	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04
P0000701	Unemori, L	Engy Svcs										9.96	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
												$396.51	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04	$33.04
P0000701												250,019.92	1.66	1.66	1.66	1.66	1.66	1.66	125,001.66	1.66	1.66	1.66	1.66	125,001.66
												$250,793.02	$66.08	$66.08	$66.08	$66.08	$66.08	$66.08	$125,066.08	$66.08	$66.08	$66.08	$66.08	$125,066.08

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Advertising
2005 forecast

		Exp element		
A/C 911	**Act 751**	**201**	Rule 16 bill inserts	**$ 6,000**

(actual costs for 2003 $3357; however, costs were for paper only as printing was done in-house. Per ITS, as of 2004, printing services for this very large run will be outsourced.)

A/C 911	**Act 751 Non-Project**	**501**	2003 actual	$ 44,056.11
			plus cust advertising mistakenly accrued in act 754 instead of 751	21446.86
			Adjusted actuals for 2003	65502.97
			Est 2% inflation	1310
				66813.03
			Forecast for 2005 (rounded)	**$ 65,000**
A/C 911	**Act 751 Project**	**501**	2002 actual	$ 304,029.41
			Forecast for 2005 (rounded)	**$ 250,000**

Note: For 2002, these TV ads featured HECO's "My Home Energy Check" online energy audit program. In 2003, it was decided to hold off on these TV flights while the company conducted focus groups to obtain feedback for purposes of honing future messages for maximum effectiveness. Actual costs for customer advertising charged to this project in 2004 amounted to $400,640. The lower amount forecast for 2005 was a conservative estimate.

A/C 9301	**Act 754**	**501**	2003 actual	$ 69,528.60
			less cust advertising mistakenly accrued in act 754	-21446.86
			Adjusted actuals for 2003	48081.74
			Est 2% inflation	961.63
				49043.37
			Forecast for 2005 (rounded)	**$ 50,000**

ITS Dept Renovation

12/20/2004 *O&M for All Depts with Loc 4:32PM

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000826	Nakano, W	SSF	PHF	Facilities Planning	B38	A & G Operation	921	Non-Labor	930	PHE	501	15,000	0	0	0	5,000	5,000	5,000	0	0	0	0	0	0
												$15,000.00	$0.00	$0.00	$0.00	$5,000.00	$5,000.00	$5,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000826	Nakano, W	SSF	PHF	Facilities Planning	B38							15,000	0	0	0	5,000	5,000	5,000	0	0	0	0	0	0
												$15,000.00	$0.00	$0.00	$0.00	$5,000.00	$5,000.00	$5,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000826	Nakano, W	SSF	PHF									15,000	0	0	0	5,000	5,000	5,000	0	0	0	0	0	0
												$15,000.00	$0.00	$0.00	$0.00	$5,000.00	$5,000.00	$5,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000826	Nakano, W	SSF										15,000	0	0	0	5,000	5,000	5,000	0	0	0	0	0	0
												$15,000.00	$0.00	$0.00	$0.00	$5,000.00	$5,000.00	$5,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000826												15,000	0	0	0	5,000	5,000	5,000	0	0	0	0	0	0
												$15,000.00	$0.00	$0.00	$0.00	$5,000.00	$5,000.00	$5,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

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or	5-Jan	5-Feb	5-Mar	5-Apr	5-May	5-Jun	5-Jul	5-Aug	5-Sep	5-Oct	5-Nov	5-Dec	FY05	a	b	c	d	e	f	g
	0.00	0.00	0.00	20.00	20.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	60.00							
	0.00	0.00	0.00	5,000.00	5,000.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	15,000.00	Wendy Nakano, Project Manager	See note below	Not applicable See note below	NA	NA	NA	NA
C	0.00	0.00	0.00	1,226.80	2,453.60	1,226.80	0.00	0.00	0.00	0.00	0.00	0.00	4,907.20							
	0.00	0.00	0.00	0.00	0.00	100,000.00	0.00	0.00	0.00	0.00	0.00	0.00	100,000.00							
	0.00	0.00	0.00	55,000.00	55,000.00	55,000.00	55,000.00	0.00	0.00	0.00	0.00	0.00	220,000.00							
	0.00	0.00	0.00	5,000.00	5,000.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	15,000.00							
	0.00	0.00	0.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	5,000.00							
	0.00	0.00	0.00	474.40	948.80	474.40	0.00	0.00	0.00	0.00	0.00	0.00	1,897.60							
UTCED	0.00	0.00	0.00	2,520.80	2,520.80	2,520.80	0.00	0.00	0.00	0.00	0.00	0.00	7,562.40							
	0.00	0.00	0.00	69,242.00	70,943.20	174,242.00	55,000.00	0.00	0.00	0.00	0.00	0.00	369,427.20							
	0.00	0.00	0.00	69,242.00	70,943.20	174,242.00	55,000.00	0.00	0.00	0.00	0.00	0.00	369,427.20							

2nd/3rd Floors. This project scope is no longer valid, as the company
relocating ITS to Pauahi Towers, 5th floor. More than likely, the space
perational requirements of the non-public sections of the Customer
l Street, 1st floor.

VDI's labor to do the respective moving of the ITS Department BEFORE
While we have never identified the actual phasing of the work yet, it was
erall effort (project never commenced with programming nor design).

s:

x 1.5 OT rate x $50/labor rate p	$14,400
ck rental rate per hour =	$360
	$14,760 *

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4:32PM

Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
0	0	0	0	0	0	0	0	0	0
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
.417	10,417	10,417	10,417	10,417	10,417	0	0	0	0
1.50	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	52,644
.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$56,305.39
0	0	0	0	0	0	1,667	1,667	1,667	1,667
.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,782.94	$1,782.94	$1,782.94	$1,782.94
417	10,417	10,417	10,417	10,417	10,417	1,667	1,667	1,667	54,311
.50	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$1,782.94	$1,782.94	$1,782.94	$58,088.33
417	10,417	10,417	10,417	10,417	10,417	1,667	1,667	1,667	54,311
.50	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$1,782.94	$1,782.94	$1,782.94	$58,088.33
417	10,417	10,417	10,417	10,417	10,417	1,667	1,667	1,667	54,311
.50	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$1,782.94	$1,782.94	$1,782.94	$58,088.33
0	0	0	0	0	0	0	0	0	0
.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0	0
00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Proj	ProjMgrOrEngr	Dept	RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	Act	Loc	EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000828	Nalto, C	VP-En Del										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000828												142,848.00	10,417.00	10,417.00	10,417.00	10,417.00	10,417.00	10,417.00	10,417.00	10,417.00	1,667.00	1,667.00	1,667.00	54,311.00
												$152,589.17	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$11,141.50	$1,782.94	$1,782.94	$1,782.94	$58,068.33

P0000828 Outage Management System
Docket No. 04-0131

Craig Naito

Please refer to HECO's PUC Application Docket No. 04-0131 for supporting documentation and cost estimates for estimated budgeted non-labor direct expense amounts. The following are items estimated over $50,000 for 2005:

External Support Specification Preparation and Bid Evaluation - $89,132.02
Data Clean Up - $56,305.39

For the basis of the estimates, please refer to the Operations Information Systems Strategic Plan (OISSP) prepared by Stan P Weber Executive Consulting and KEMA Consulting submitted as Exhibit B in Docket No. 04-0131. Also, please refer to CA-IR-32 for a more detailed explanation on HECO estimates compared to the OISSP report. These estimates for 2005 may vary depending on the schedule of the overall project or the change in order of specific tasks.

CA-IR-32

Ref: Application, Exhibit I – OMS Project Cost.

a. On Exhibit I, HECO estimates $5,841,882 for the OMS Project. However, the OISSP study estimates $3,587,000 for the OMS Project (see Exhibit B, page 45, Table 9-1 Implementation Cost Summary). Please explain why HECO increased the OMS Project estimated cost by nearly $2.3 million in comparison to the total OMS Project cost estimated in the OISSP report.

b. Please reconcile HECO's $5,841,882 OMS Project costs provided in Exhibit I with the items included in the $3,587,000 OMS Project Implementation Cost Summary provided in Table 9-1 of Exhibit B, page 45.

c. Please list and identify the types of costs included in the $596,756 "On-Costs" estimate. Include a copy of the calculations and documentation used to support your response.

d. Please identify and describe the costs included in the $88,933 "Other" cost estimate. Include a copy of the calculations and documentation used to support your response.

HECO Response:

a. HECO's cost are higher than those given in the Application, Exhibit B, page 45, Table 9-1 Implementation Cost Summary for the following reasons:

- An escalation factor was applied to the estimates to reflect the relative amounts in 2005 and 2006 dollars. (The OISSP Report had assumed implementation in 2003 and 2004.)
- AFUDC in the amount of $419,865 is included in the total for the Application cost estimate.
- The estimates for data clean-up, internal labor, and integration were increased based on HECO's own assessment of the amount of work required for these activities and HECO's understanding of what needed to be done and the timeframe in which to accomplish this work. For the data clean-up, recent assessments of the data indicates that more work is required than originally anticipated based on the condition of the data and this is reflected by the higher estimate. HECO has also budgeted monies for

outside services to assist with clean-up and integration.

b. A reconciliation of the PUC Application estimate of $5,841,882 and the amount from the Application, Exhibit B, Table 9-1 page 45 is shown below.

	OISSP Report	HECO Budget Estimate
Internal Labor	754,000	955,720
Consulting	432,000	696,339
Software – Licensed	570,000	1,274,366
Integration	406,000	770,502
Hardware	287,000	353,436
Software - Configuration and applications	316,000	178,120
Data	338,000	686,451
Training	69,000	54,791
Contingency	415,000	363,358
Subtotal	3,587,000	5,333,083
Other		88,933
Subtotal		5,422,016
AFUDC		419,865
Total		5,841,881

c. See the response to CA-IR-33, subpart e.

d. The costs that are in "Other" $88,933 include in-house Information Technology support to the project. Based on our accounting procedures, the Information Technology area's labor hours are not used in the estimates, dollars are forecasted instead.

CA-IR-33

Ref: Application, Exhibit A, page 3 – OMS Project Cost Breakdown – Expense.

a. For the OMS Project costs HECO proposes to expense, (e.g., Pre-selection/evaluation, converting data from current system to new, etc.) please provide the amount incurred from project inception to-date and compare it to the amount budgeted for the work completed to-date. Please explain any variance.

b. Please identify the Account Numbers to which HECO has recorded the OMS Project expenses.

c. The Consumer Advocate notes that HECO is proposing to spend $686,451 to convert data from the current system to a new system. In Exhibit B, page 26, Table 4-1 OMS Data Cost, however, the OISSP estimates $338,000 for data cleanup. Please explain why HECO estimated double the data cleanup cost for the OMS Project in comparison to the amount estimated in Table 4-1 for the OISSP.

d. For each amount listed in the accounting treatment columns, please provide a breakdown by labor costs, on-costs, materials, and outside services.

e. Please provide the calculation and supporting documentation showing how the following overhead amounts were derived:

   1. $82,820 Overhead on Expense Items.

   2. $504,721 Overhead on Deferred Items.

HECO Response:

a. The amount that HECO has incurred to-date for the project is $72,416, compared to the budget forecast of $221,176. This variance is mainly due to hiring a consultant to prepare the request for proposal later than forecasted.

b. The OMS Project expenses are recorded in NARUC expense account 588 "Miscellaneous Distribution Expenses."

c. See the response to CA-IR-32.

d. Please note that HECO inadvertently did not allocate $9,215 in on-costs from the Pre-selection/evaluation expense of $285,556. The revised Pre-selection/evaluation and

Overhead on Expense costs are $276,341 and $92,035, respectively (versus $285,556 and $82,820, respectively.) See attached page 3.

e. See attached page 4.

Description of Cost		Accounting Treatment			
	Cost Category	**Capital**	**Deferred**	**Expense**	**Total**
Pre-selection/evaluation				$276,341	$276,341
	Labor Other Outside Services			$36,677 $2,943 $236,722	
Convert data from current system to new	Outside Services			$686,451	$686,451
Training material development & training sessions				$85,873	$85,873
	Labor Outside Services			$31,082 $54,791	
Overhead on Expense Items	On-Costs			$92,035	$92,035
Other internal & external labor costs	Labor		$291,204		$291,204
Software license fees	Materials		$1,274,366		$1,274,366
Outside Services	Outside Services		$1,771,599		$1,771,599
Other costs	Other		$66,010		$66,010
AFUDC on Deferred Items	AFUDC		$398,565		$398,565
Overhead on Deferred Items	On-Costs		$504,721		$504,721
Hardware	Materials	$353,436			$353,436
Other costs	Other	$19,980			$19,980
AFUDC on Capital Items	AFUDC	$21,300			$21,300
Total		$394,716	$4,306,466	$1,140,702	$5,841,883

Overhead on Expense Items

g 2003	Sep-03	Oct-Dec 2003	Jan-04	Feb-04	Budget 2004	Budget 2005	Budget 2006	Total
8.54%	8.54%	7.69%	8.51%	8.51%	8.51%	8.46%	8.46%	
1,171	514.87	5343.88	366.81	2150.74	24,339	0	31,082	
100	44	411	31	183	2,071	0	2,630	5,708
$8.32	$8.32	$8.32	$9.38	$5.96	$9.38	$10.73	$10.73	
37	13	109	10	49	720	0	1,000	
304	104	907	94	292	6,754	0	10,730	19,933
$5.57	$5.57	$4.50	$4.44	$4.44	$4.44	$4.02	$4.02	
37	13	109	10	49	720	0	1,000	
203	70	491	44	218	3,197	0	4,020	8,[illegible]
21.62	$21.62	$21.62	$28.22	$27.75	$28.22	$27.82	$27.82	
35	7	9	10	14	720	0	1,000	
757	151	184	282	389	20,318	0	27,820	51,741
$2.50	$2.50	$2.50	$2.89	$2.74	$2.89	$3.20	$3.20	
37	13	109	10	49	720	0	1,000	
91	31	273	29	134	2,081	0	3,200	6,053
1,455	400	2,265	481	1,215	34,421	0	48,400	92,035

46 KV Fdrs to F1 Substation

12/20/2004 *O&M for All Depts with Loc 4:32PM

_Proj	ProjMgrOrEngr	Dept	_RA	Reap Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000838	Chong, R	C&M	PDS	Supply Division	B33	Transmission Maint	571	Labor	315	GAH	150	60	0	0	0	0	0	0	20	20	20	0	0	0
												$2,164.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$721.60	$721.60	$721.60	$0.00	$0.00	$0.00
P0000838	Chong, R	C&M	PDS	Supply Division	B33							60	0	0	0	0	0	0	20	20	20	0	0	0
												$2,164.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$721.60	$721.60	$721.60	$0.00	$0.00	$0.00
P0000838	Chong, R	C&M	PDS									60	0	0	0	0	0	0	20	20	20	0	0	0
												$2,164.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$721.60	$721.60	$721.60	$0.00	$0.00	$0.00
P0000838	Chong, R	C&M										60	0	0	0	0	0	0	20	20	20	0	0	0
												$2,164.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$721.60	$721.60	$721.60	$0.00	$0.00	$0.00
P0000838												60	0	0	0	0	0	0	20	20	20	0	0	0
												$2,164.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$721.60	$721.60	$721.60	$0.00	$0.00	$0.00

Labor hours are for the Primary Troubleman's time to go out in the field and perform switching on the 46kV lines to allow installation of new facilities.

Gen Estimate Summary

Estimate ID: GTFFDISLE5 **Start Date:** 12/01/2003 **End Date:** 12/01/2005

Description: Ford Island Substation - OH 46kV (In-House)

Reference EGI: GTF-FDISLE **Rev#:** 0 **D/C:** D

Description: Ford Island Service - Option 5

Component Ln# / Description	SMU Labor	SMU Lbr On-Cost	Mtl	Mtl On-Cost	Outside Svcs	Non-SMU Labor	Non-SMU On-Cost
1-46kV Switch (1ea)	8,847.85	10,583.12	6,105.14	961.68	0.00	2,035.36	2,506.86
2-46kV Tang Framings (11ea)	5,535.25	6,620.86	4,617.39	727.33	0.00	11,194.48	13,787.68
3-46kV DE Framings (2ea)	1,038.10	1,241.71	1,006.00	158.47	0.00	2,035.36	2,506.86
4-46kV DE & Buck (2ea)	1,572.51	1,880.93	1,110.25	174.89	0.00	2,035.36	2,506.86
5-DDE Framings (11ea)	16,951.93	20,276.66	15,683.39	2,470.45	0.00	11,194.48	13,787.68
6-46kV Risers	6,562.78	7,849.92	7,308.32	1,151.21	0.00	2,035.36	2,506.86
7-46kV Cond (556.5kcm AAC)	34,888.66	41,731.22	18,837.50	2,967.28	0.00	0.00	0.00
Sub-totals:	**75,397.08**	**90,184.42**	**54,667.99**	**8,611.31**	**0.00**	**30,530.40**	**37,602.80**

Project Subtotal	296,994.00
Adjustments	
Police	10,769.30
Police On-Cost	0.00
Barricade Days	11,900.00
AFUDC	18,100.90
Total Project Cost	**337,764.20**

Joint Pole Shr Comp. Ln

Notes:

Cost Estimate for OH 46KV LINE component of project.

Scope assumes providing a new 46kV circuit to feed proposed Ford Island Substation. This work involves new framing and stringing of 556 conductors on existing 138kV steel poles, for segment from Makalapa Sub out to Navy-Halawa Gate along Kamehameha Highway. Existing poles were initially designed to support the addition of the proposed 46kV circuit.

Engineering Estimation System

Non-SMU Labor Details

Estimate ID: GTFFDISLE5 **Type:** General **WkGrp:** HEDENG

Est Desc: Ford Island Substation - OH 46kV (In-House) **Start:** 12/1/03 **End:** 12/1/05

Component: 1 - 46kV Switch (1ea)

PA Labor Desc	Hours	Description	Labor Cls	Rate	Total $	Del
DF-PRIMARY TROUBLEMAN THFTR	4.00	Switching	D_PTM	36.38	145.52	
BE-ENGINEER II	24.00	T&D Engineer	B_TNDENG	33.99	815.76	
BE-DESIGN DRAFT TECHN	16.00	T&D Drafting	B_TNDDFT	33.12	529.92	
BT-ENGINEER II	16.00	Struct Engineer	B_STRENG	34.01	544.16	
	0			0.00	0.00	

Update Close

Engineering Estimation System

Non-SMU Labor Details

Estimate ID: GTFFDISLE5 **Type:** General **WkGrp:** HEDENG

Est Desc: Ford Island Substation - OH 46kV (In-House) **Start:** 12/1/03 **End:** 12/1/05

Component: 2 - 46kV Tang Framings (11ea)

RA Labor Desc	Hours	Description	Labor Cls	Rate	Total $	Del
DF-PRIMARY TROUBLEMAN THFTR	22.00	Switching	D_PTM	36.38	800.36	
BE-ENGINEER II	132.00	T&D Engineer	B_TNDENG	33.99	4,486.68	
BE-DESIGN DRAFT TECHN	88.00	T&D Drafting	B_TNDDFT	33.12	2,914.56	
BT-ENGINEER II	88.00	Struct Engineer	B_STRENG	34.01	2,992.88	
	0			0.00	0.00	

Update Close

Engineering Estimation System

Non-SMU Labor Details

Estimate ID: GTFFDISLE5 **Type:** General **WkGrp:** HEDENG

Est Desc: Ford Island Substation - OH 46kV (In-House) **Start:** 12/1/03 **End:** 12/1/05

Component: 3 - 46kV DE Framings (2ea)

RA Labor Desc	Hours	Description	Labor Cls	Rate	Total $	Del
DF-PRIMARY TROUBLEMAN THFTR	4.00	Switching	D_PTM	36.38	145.52	
BE-ENGINEER II	24.00	T&D Engineer	B_TNDENG	33.99	815.76	
BE-DESIGN DRAFT TECHN	16.00	T&D Drafting	B_TNDDFT	33.12	529.92	
BT-ENGINEER II	16.00	Struct Engineer	B_STRENG	34.01	544.16	
	0			0.00	0.00	

Update Close

Engineering Estimation System

Non-SMU Labor Details

Estimate ID: GTFFDISLE5 **Type:** General **WkGrp:** HEDENG

Est Desc: Ford Island Substation - OH 46kV (In-House) **Start:** 12/1/03 **End:** 12/1/05

Component: 5 - DDE Framings (11ea)

RA Labor Desc	Hours	Description	Labor Cls	Rate	Total $	Del
DF-PRIMARY TROUBLEMAN THFTR	22.00	Switching	D_PTM	36.38	800.36	
BE-ENGINEER II	132.00	T&D Engineer	B_TNDENG	33.99	4,486.68	
BE-DESIGN DRAFT TECHN	88.00	T&D Drafting	B_TNDDFT	33.12	2,914.56	
BT-ENGINEER II	88.00	Struct Engineer	B_STRENG	34.01	2,992.88	
	0			0.00	0.00	

Update Close

12/20/2004 Kahe 6 Overhaul

	_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05
KU	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Labor	257	K06	150	14,062 (4)
													$487,948.58
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	257	K06	201	73,000
													$73,000.00 (5)
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	257	K06	501	53,000.33
													$53,000.33
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	258	K06	201	359,500
													$359,500.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	258	K06	501	116,000.01
													$116,000.01
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	259	K06	201	383,000
													$383,000.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	259	K06	501	75,000
													$75,000.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Labor	260	K06	150	8,640 (4)
													$315,936.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	260	K06	201	3,500
													$3,500.00 (5)
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	260	K06	501	45,000
													$45,000.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	261	K06	201	48,000
													$48,000.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	261	K06	501	163,000
													$163,000.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	262	K06	201	84,500
													$84,500.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	262	K06	501	55,000
													$55,000.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B31							1,481,202.34
													$2,262,364.92
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	348	K06	201	1,000
													$1,000.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	349	K06	501	8,500
													$8,500.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	350	K06	201	1,000
													$1,000.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	350	K06	501	1,000
													$1,000.00
	P0000844	Marzano, V	Production	PIT	Traveling Maintenance	B33							11,500
													$11,500.00
	P0000844	Marzano, V	Production	PIT									1,492,702.34
													$2,273,864.92
	P0000844	Marzano, V	Production										1,492,702.34
													$2,273,864.92
	P0000844												1,492,702.34
													$2,273,864.92

W/P Ref.

(4) CA-IR-1, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT 4B, Page 2 of 10,

&(5) = $1,458,500 CA-IR-2, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT 4B, Page 1 of 16.

Hawaiian Electric Company, Inc.
2005 Rate Case Data
Projects - Direct Non-Labor

Transmission Maint (NARUC 570)

RA	Trans Maint
PIT	109,625

(Per Pillar) PojMgrOrEngr	Proj	Proj Description	
Marzano, V	P0000650	Kahe 2 Overhaul (2004)	$8,625
Marzano, V	P0000844	Kahe 6 Overhaul (2005)	$11,500
Marzano, V	P0000845	Kahe 4 Overhaul (2005)	$11,500
Marzano, V	P0000846	Kahe 1 Overhaul (2005)	$11,500
Marzano, V	P0000847	Waiau 4 Overhaul (2005)	$11,500
Kiyabu, R	P0000937	W9 Major Inspection	$27,500
Kiyabu, R	P0000938	W10 Major Inspection	$27,500
			$109,625

2005 OVERHAUL
NON-LABOR BUDGET

K2 - 501 Data

Σ(A) = $11,500 Σ(B) = $11,500 Σ(C) = $11,500

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
5	PREVENTIVE MAINTENANCE - ASSOCIATED WITH THE OPENING, INSPECTION, AND						
6	CLOSING OF UNIT. WORK DONE ON A TIME CYCLE BASIS						
7	BOILER PM 257						
8	Material 201	[redacted]					

2005 OVERHAUL
NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV

2005 OVERHAUL
NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
111	ERV Controls						
112	FD Fan Vane Replacement						
113	FDF/IDF Ball Pins	$1,000		$1,000		$1,000	
114	Ignitors	$6,000		$5,000		$5,000	
115	ID Fan Vane parts						
116	Instrumentation (thermocouples, etc.)	$10,000		$5,000		$5,000	
117	Insulation/Refractory	$30,000		$25,000		$25,000	
118	MS Clam Shell Elbow Repl (CE Boilers)			$0		$0	
119	Main Steam Stop Disk			$0		$0	
120	Main Steam Stop Vlv Packing Gld Replace	$500					
121	Main Steam Stop Shaft	$4,500		$0		$0	
122	Main Steam Stop Seal Rings	$2,500		$2,500		$2,500	
123	Observation Ports	$10,000		$15,000		$5,000	
124	Piping Replacements			$15,000			
125	Siding-Blr Structural/Enclosure			$10,000			
126	Silencers						
127	Sootblower (Blr G9B) Parts						
128	Sootblower (Blr IK) Parts	$8,000		$0		$0	
129	Sootblower (APH) Parts (spray nozzle)	$2,000		$2,000		$2,000	
130	Sootblower Wall Box Refractory Replace	$15,000					
131	Sootblower Wall box Replacement			$5,000		$5,000	
132	Steam Trap Repairs	$3,000		$1,000		$1,000	
133	Valve Packing	$5,000		$5,000		$5,000	
134	Valves (root, isolation, drain) Replacement	$18,000		$15,000		$15,000	
135	Water Cooled Doors			$10,000			
136	Water wall tubes/panels						
137	**SUBTOTAL**	**$383,000** ✓		**$246,000** ✓		**$204,000**	✓
138		JAN/FEB		FEB/MAR/APR/MAY/JUN		JUN/JUL/AUG	
139		**PIT259K06NEP000084420**		**PIT259K04NEP000084520**		**PIT259K01NEP000084620**	
140							
141	**BOILER CM 259**						
142	**Outside Services 501**						
143	Scaffolding Svcs to Support Duct Repairs (APH hoppers, GR, Air, Gas.)	$15,000		$10,000		$10,000	
144	Blr Exterior Asbestos Abatement-TURN KEY						
145	Blr Sootblower (IK) Refurbishment			$10,000		$10,000	
146	Blr Sootblower (G9B) Refurbishment						
147	Control Valves Refurbish	$20,000		$20,000		$20,000	
148	Corrosion Control-Penthouse/Safety Valve Exhaust Piping/Blr Structure/Drains	$10,000		$55,000		$10,000	
149	Electricians-outsourcing						
150	Insulators-Outsourcing	$25,000		$60,000		$25,000	
151	Scaffolding Svcs to Support Corrosion Control	$5,000		$20,000		$10,000	
152	Silencers-Corrosion Control						
153	Welders/Mechanic-Outsourcing	$0		$25,000		$10,000	
154	**SUBTOTAL**	**$75,000** ✓		**$200,000** ✓		**$95,000**	✓
155		FEB/MAR/APR		MAY/JUN/JUL/AUG		AUG/SEP/OCT	
156		**PIT259K06NEP000084450**		**PIT259K04NEP000084550**		**PIT259K01NEP000084650**	
157							
158	**TURBINE CM 262**						
159	**Material 201**						
160	Breaker / Starter Parts	$5,000		$2,500		$2,500	
161	Cathodic Protection Parts	$5,000		$1,000		$1,000	

2005 OVERHAUL
NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
166	H2 Sensing Relocate from Brg Enlargemnt			$5,000			
167	Instrumentation			$3,000		$3,000	
168	Intake Bar Screen						
169	Motor Bearings	$3,000		$2,000		$2,000	
170	MOV Parts (Turbine Drn Valves, CW System)	$15,000		$10,000		$10,000	
171							
172	T/G Packing Spring Repl (Brandonized Packing)						
173	Turbine Valve Parts			$15,000			
174	~~Travel Screen Overhaul~~						
175	Turbine Cooperheat Pads/Ctrllr Parts	$0					
176	**SUBTOTAL**	**$84,500**	✓	**$88,500**		**$68,500**	✓
177		JAN/FEB		FEB/MAR/APR/MAY/JUN		JUN/JUL/AUG	
178		**PIT262K06NEP000084420**		**PIT262K04NEP000084520**		**PIT262K01NEP000084620**	
179							
180	**TURBINE CM 262**						
181	**Services 501**						
182	Central Well Sluice Gate Replace-Diver Services	$15,000		$15,000		$15,000	
183	CW Tunnel Between TS and CWP (K5/6 stilling basin)	$40,000					
184	Roof Cooling Wtr Tank Inspect/Rpr/Recoat						
185	Floor Cooling Wtr Tank Inspect/Rpr/Recoat						
186							
187	**SUBTOTAL**	**$55,000**	✓	**$15,000**	✓	**$15,000**	✓
188		FEB/MAR/APR		MAY/JUN/JUL/AUG		AUG/SEP/OCT	
189		**PIT262K0NEP0000844501**		**PIT262K04NEP000084550**		**PIT262K01NEP000084650**	
190							
191	**TRANSFORMER CM 350**						
192	**Material 201**						
193	Containment Rock Replacement			$0		$0	
194	Fans/Misc Xfmer Parts (including painting)	$1,000		$1,000		$1,000	
195							
196							
197	**SUBTOTAL**	**$1,000**	A	**$1,000**	B	**$1,000**	C
198		JAN/FEB		FEB/MAR/APR/MAY/JUN		JUN/JUL/AUG	
199		**PIT350K06NEP000084420**		**PIT350K04NEP000084520**		**PIT350K01NEP000084620**	
200	**TRANSFORMER CM 350**						
201	**Services 501**						
202	Containment Rock Disposal			$0		$0	
203	Containment Maint - Helpers			$0		$0	
204	Fabrication of Xfmer Components	$1,000		$1,000		$1,000	
205	**SUBTOTAL**	**$1,000**	A	**$1,000**	B	**$1,000**	C
206		FEB/MAR/APR		MAY/JUN/JUL/AUG		AUG/SEP/OCT	
207		**PIT350K06NEP000084450**		**PIT350K04NEP000084550**		**PIT350K01NEP000084650**	
208							
209	**PREDICTIVE MAINTENANCE** - NON-DESTRUCTIVE, DESTRUCTIVE TESTING, DATA ANALYSI						
210							
211	**BOILER PDM 258**						
212	**Material 201**						
213	Boiler Chemical Cleaning	$85,000		$85,000		$0	
214	Bearing (Pump/Fan) Replacement	$7,500		$5,000		$5,000	
215	BFP Volute Replacement	$170,000		$170,000		$170,000	
216	Aux Cooling Water Pump OH	$8,000		$8,000		$8,000	

2005 OVERHAUL
NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
217	Condensate Pump OH	$10,000		$10,000		$10,000	
218	Electrical Cables Replace-Motors			$15,000		$10,000	
219	Dissimilar Metal Weld Dutchman-SSH			$15,000			
220	Circ Water Pump Overhaul	$15,000		$15,000		$15,000	
221	Chordal (Blr) Thermocouples			$10,000			
222	Penthouse bends	$5,000					
223	Rear WW Tubes Replace						
224	RH Attemperator Nozzle Replacement						

2005 OVERHAUL
NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
270	Clean LO Tank (tank for the unit)	$0		$0		$0	
271	Eddy Current Condenser/Chiller-Contractor	$20,000		$15,000		$20,000	
272	Eddy Current Condenser/Chiller-tube cleaning-Contractor	$15,000		$10,000		$25,000	
273	EH System Hydraulic Rams Refurbish	$20,000		$20,000			
274	EH Fluid Flush (TFA, oil disposal)	$60,000		$60,000			
275	Iris Testing Gen H2 Coolers-Contractor	$0		$0		$0	
276	HP or HP/IP Bore	$0					
277	LP Bore						
278	Generator Bore						
279	Post Weld Heat Treatment Console/Contractor Services						
280	Motor Repairs	$30,000		$25,000		$25,000	
281	NDT Turbine Blades	$0					
282	NDT Generator Retaining Rings	$0		$0			
283	NDT Valves/Steam Chest	$0					
284	Positive Material Identification Services	$0					
285	Steam Path Audit (turbine efficiency)						
286	Generator Inspection/NDT						
287	Generator Field Specialist (support gen repairs, i.e. re-wedging)			$80,000			
288	Gen Voltage Regulator/Rheostat Calibration	$8,000		$8,000		$8,000	
289	Scaffolding to support BRULS/HiEL	$10,000		$10,000		$10,000	
290	Video Probe of Weld Repair						
291	**SUBTOTAL**	**$163,000**	✓	**$228,000**	✓	**$88,000**	✓

Kahe 4 Overhaul

12/20/2004

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05
KH P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Labor	257	K04	150	20,240 (6)
												$702,281.20
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	257	K04	201	84,800
												$84,800.00 (7)
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	257	K04	501	59,000
												$59,000.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	258	K04	201	349,000
												$349,000.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	258	K04	501	118,000
												$118,000.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	259	K04	201	246,000
												$246,000.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	259	K04	501	200,000
												$200,000.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Labor	260	K04	150	12,240 (6)
												$447,576.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	260	K04	201	6,500
												$6,500.00 (7)
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	260	K04	501	45,000
												$45,000.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	261	K04	201	106,000
												$106,000.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	261	K04	501	228,000
												$228,000.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	262	K04	201	88,500
												$88,500.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	262	K04	501	15,000
												$15,000.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B31							1,578,280
												$2,695,857.20
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	348	K04	201	1,000
												$1,000.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	349	K04	501	8,500
												$8,500.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	350	K04	201	1,000
												$1,000.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	350	K04	501	1,000
												$1,000.00
P0000845	Marzano, V	Production	PIT	Traveling Maintenance	B33							11,500
												$11,500.00
P0000845	Marzano, V	Production	PIT									1,589,780
												$2,707,157.20
P0000845	Marzano, V	Production										1,589,780
												$2,707,157.20
P0000845												1,589,780
												$2,707,157.20

W/P Ref.

(6) CA-IR-1, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT 4B, Page 2 of 10.

(7) $1,545,800 CA-IR-2, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT 4B, Page 1 of 16.

AllCorpRABud05-RateCase -Direct-ABM.PLN

Hawaiian Electric Company, Inc.
2005 Rate Case Data
Projects - Direct Non-Labor

Transmission Maint (NARUC 570)

RA	Trans Maint
PIT	109,625

(Per Pillar) PojMgrOrEngr	Proj	Proj Description	
Marzano, V	P0000650	Kahe 2 Overhaul (2004)	$8,625
Marzano, V	P0000844	Kahe 6 Overhaul (2005)	$11,500
Marzano, V	P0000845	Kahe 4 Overhaul (2005)	$11,500
Marzano, V	P0000846	Kahe 1 Overhaul (2005)	$11,500
Marzano, V	P0000847	Waiau 4 Overhaul (2005)	$11,500
Kiyabu, R	P0000937	W9 Major Inspection	$27,500
Kiyabu, R	P0000938	W10 Major Inspection	$27,500
			$109,625

2005 OVERHAUL
NON-LABOR BUDGET

Σ(A) = $11,500 Σ(B) = $11,500 Σ(C) = $11,500

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
5	**PREVENTIVE MAINTENANCE** - ASSOCIATED WITH THE OPENING, INSPECTION, AND						
6	CLOSING OF UNIT. WORK DONE ON A TIME CYCLE BASIS						
7	**BOILER PM 257**						
8	**Material 201**						
9	Boiler Door Gaskets	$7,000		$5,000		$5,000	
10	Boiler Observation Ports	$1,000		$2,300		$1,000	
11	Boiler Ash Waste Treatment (Chemicals)	$1,000		$1,000		$1,000	
12	Dampers	$8,000		$8,000		$8,000	
13	DCS BattRAM	$5,000		$5,000		$0	
14	DCS Power Supply Modules/DCS Cabinet Fans	$10,000		$5,000		$30,000	
15	DCS UPS Batteries/Fans	$5,000		$1,500		$1,500	
16	Draft lines	$500		$500		$500	
17	Expansion Joints-Ducts/Downcomers			$30,000			
18	Ignitors	$2,500		$1,000		$1,000	
19	Instrument Air	$1,000		$1,000		$1,000	
20	O2 Analyzers	$2,000		$2,000		$2,000	
21	Power Operators (service kits)	$2,500		$10,000		$3,000	
22	Safety Valves Section I	$5,000		$5,000		$5,000	
23	Switchgear/MCC/Breaker Parts	$2,500		$2,500		$2,500	
24	Relief Valves Section VIII	$20,000		$5,000		$5,000	
25							
26	**SUBTOTAL**	**$73,000** ✓		**$84,800** ✓		**$66,500** ✓	
27		JAN/FEB		FEB/MAR/APR//MAY/JUN		JUN/JUL/AUG	
28		**PIT257K06NEP000084420**		**PIT257K04NEP000084520**		**PIT257K01NEP000084620**	
29							
30	**BOILER PM 257**						
31	**Outside Services 501**						
32	Draft Lines-scaffolding rental	$1,000		$1,000		$1,000	
33	Stack Inspection and/or Repairs	$25,000		$15,000		$15,000	
34	Boiler Waste Treat and Disposal	$5,000		$5,000		$5,000	
35	Forklift Rental	$6,000		$6,000		$6,000	
36	Helpers-Outsourcing	$16,000		$32,000		$20,000	
37	Mechanical Tube Cleaning (blr)						
38	Power Operators (service outsourcing)	$0					
39	PRV (Sec 1 safeties) Contractor						
40	Technicians (Outsourcing)	$0					
41	**SUBTOTAL**	**$53,000** ✓		**$59,000** ✓		**$47,000** ✓	
42		FEB/MAR/APR		MAY/JUN/JUL\AUG		AUG/SEP/OCT	
43		**PIT257K06NEP000084450**		**PIT257K04NEP000084550**		**PIT257K01NEP000084650**	

2005 OVERHAUL
NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
59		PIT260K06NEP000084420		PIT260K04NEP000084520		PIT260K01NEP000084620	

2005 OVERHAUL
NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
111	ERV Controls						
112	FD Fan Vane Replacement						
113	FDF/IDF Ball Pins	$1,000		$1,000		$1,000	
114	Ignitors	$6,000		$5,000		$5,000	
115	ID Fan Vane parts						
116	Instrumentation (thermocouples, etc.)	$10,000		$5,000		$5,000	
117	Insulation/Refractory	$30,000		$25,000		$25,000	
118	MS Clam Shell Elbow Repl (CE Boilers)			$0		$0	
119	Main Steam Stop Disk			$0		$0	
120	Main Steam Stop Vlv Packing Gld Replace	$500					
121	Main Steam Stop Shaft	$4,500		$0		$0	
122	Main Steam Stop Seal Rings	$2,500		$2,500		$2,500	
123	Observation Ports	$10,000		$15,000		$5,000	
124	Piping Replacements			$15,000			
125	Siding-Blr Structural/Enclosure			$10,000			
126	Silencers						
127	Sootblower (Blr G9B) Parts						
128	Sootblower (Blr IK) Parts	$8,000		$0		$0	
129	Sootblower (APH) Parts (spray nozzle)	$2,000		$2,000		$2,000	
130	Sootblower Wall Box Refractory Replace	$15,000					
131	Sootblower Wall box Replacement			$5,000		$5,000	
132	Steam Trap Repairs	$3,000		$1,000		$1,000	
133	Valve Packing	$5,000		$5,000		$5,000	
134	Valves (root, isolation, drain) Replacement	$18,000		$15,000		$15,000	
135	Water Cooled Doors			$10,000			
136	Water wall tubes/panels						
137	**SUBTOTAL**	**$383,000**	✓	**$246,000**	✓	**$204,000**	✓
138		JAN/FEB		FEB/MAR/APR/MAY/JUN		JUN/JUL/AUG	
139		**PIT259K06NEP000084420**		**PIT259K04NEP000084520**		**PIT259K01NEP00008 4620**	
140							
141	**BOILER CM 259**						
142	**Outside Services 501**						
143	Scaffolding Svcs to Support Duct Repairs (APH hoppers, GR, Air, Gas.)	$15,000		$10,000		$10,000	
144	Blr Exterior Asbestos Abatement-TURN KEY						
145	Blr Sootblower (IK) Refurbishment			$10,000		$10,000	
146	Blr Sootblower (G9B) Refurbishment						
147	Control Valves Refurbish	$20,000		$20,000		$20,000	
148	Corrosion Control-Penthouse/Safety Valve Exhaust Piping/Blr Structure/Drains	$10,000		$55,000		$10,000	
149	Electricians-outsourcing						
150	Insulators-Outsourcing	$25,000		$60,000		$25,000	
151	Scaffolding Svcs to Support Corrosion Control	$5,000		$20,000		$10,000	
152	Silencers-Corrosion Control						
153	Welders/Mechanic-Outsourcing	$0		$25,000		$10,000	
154	**SUBTOTAL**	**$75,000**	✓	**$200,000**	✓	**$95,000**	✓
155		FEB/MAR/APR		MAY/JUN/JUL/AUG		AUG/SEP/OCT	
156		**PIT259K06NEP000084450**		**PIT259K04NEP000084550**		**PIT259K01NEP00008 4650**	
157							
158	**TURBINE CM 262**						
159	**Material 201**						
160	Breaker / Starter Parts	$5,000		$2,500		$2,500	
161	Cathodic Protection Parts	$5,000		$1,000		$1,000	
162	Central Well Slucie Gates	$25,000		$25,000		$25,000	
163	Chiller Covers, Vlvs, Strainer Repairs	$15,000		$15,000		$15,000	
164	Condenser Repairs (waterbox)	$6,500		$10,000		$10,000	

2005 OVERHAUL
NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
166	H2 Sensing Relocate from Brg Enlargemnt			$5,000			
167	Instrumentation			$3,000		$3,000	
168	Intake Bar Screen						
169	Motor Bearings	$3,000		$2,000		$2,000	
170	MOV Parts (Turbine Drn Valves, CW System)	$15,000		$10,000		$10,000	

2005 OVERHAUL NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
217	Condensate Pump OH	$10,000		$10,000		$10,000	
218	Electrical Cables Replace-Motors			$15,000		$10,000	
219	Dissimilar Metal Weld Dutchman-SSH			$15,000			
220	Circ Water Pump Overhaul	$15,000		$15,000		$15,000	
221	Chordal (Blr) Thermocouples			$10,000			
222	Penthouse bends	$5,000					
223	Rear WW Tubes Replace						
224	RH Attemperator Nozzle Replacement						
225	RH Attemperator nozzle/liner Replacement						
226	Reheater Bends Replacement						
227	SH Attemperator Nozzle Replacment	$23,000					
228	SH Attemperator Nozzle/Liner Replacement						
229	Steam Cooled Spacer Tube Expansion Jt.			$5,000			
230	SSH T2 Tubes Replace (K6)	$25,000					
231	SSH/PSH/RSH tube end support castings and Header Handhole Plugs	$10,000		$10,000		$10,000	
232	N2 Blanket for FWHs	$1,000		$1,000		$1,000	
233	**SUBTOTAL**	**$359,500** ✓		**$349,000** ✓		**$229,000** ✓	
234		JAN/FEB		FEB/MAR/APR/MAY/JUN		JUN/JUL/AUG	
235		**PIT258K06NEP000084420**		**PIT258K04NEP000084520**		**PIT258K01NEP00008 4620**	
236							
237	**BOILER PDM 258**						
238	**Outside Services 501**						
239	Blr Chemical Cleaning Services (TFA/Tube Analysis)	$30,000		$30,000		$0	
240	Blr Chemical Cleaning-Frac Tank Rental and Other Support Eqmt.	$10,000		$10,000			
241	BRULS/HiEL	$20,000		$20,000		$20,000	
242	FWH ECT-tube cleaning	$15,000		$15,000		$15,000	
243	FWH ECT-ECT contractor	$20,000		$20,000		$6,000	
244	Motor Repairs	$20,000		$20,000		$20,000	
245	MS to SSH Outlet Hdr Weld (H9)						
246	Xray of Dissimilar Weld Areas			$3,000			
247	WFMT WW Roof Tube bends	$1,000					
248							
249	**SUBTOTAL**	**$116,000** ✓		**$118,000** ✓		**$61,000** ✓	
250		FEB/MAR/APR		MAY/JUN/JUL/AUG		AUG/SEP/OCT	
251		**PIT258K06NEP000084450**		**PIT258K04NEP000084550**		**PIT258K01NEP00008 4650**	
252							
253							
254	**TURBINE PDM 261**						
255	**Material 201**						
256	EH Fluid Flush/Oil Replacement	$8,000		$8,000			
257	EHC(K3/K4) Parts Replace (trb trip devices, etc.)						
258	EH System Servo Valves Replace	$20,000		$20,000			
259	Circulating Water Pumps-Overhaul	$15,000		$35,000			
260	Thermocouple for Generator	$0					
261	Turbine Lube Oil Replace (reservoir)	$5,000		$5,000		$5,000	
262	Turbine Lube Oil Replace (tank for the unit)	$0		$8,000			
263	Generator Stator Wedges			$30,000			
264	**SUBTOTAL**	**$48,000** ✓		**$106,000** ✓		**$5,000** ✓	
265		JAN/FEB		FEB/MAR/APR//MAY/JUN		JUN/JUL/AUG	
266		**PIT261K06NEP000084420**		**PIT261K04NEP000084520**		**PIT261K01NEP00008 4620**	
267							
268	**TURBINE PDM 261**	?					
269	**Services 501**						

2005 OVERHAUL
NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
270	Clean LO Tank (tank for the unit)	$0		$0		$0	
271	Eddy Current Condenser/Chiller-Contractor	$20,000		$15,000		$20,000	
272	Eddy Current Condenser/Chiller-tube cleaning-Contractor	$15,000		$10,000		$25,000	
273	EH System Hydraulic Rams Refurbish	$20,000		$20,000			
274	EH Fluid Flush (TFA, oil disposal)	$60,000		$60,000			
275	Iris Testing Gen H2 Coolers-Contractor	$0		$0		$0	
276	HP or HP/IP Bore	$0					
277	LP Bore						
278	Generator Bore						
279	Post Weld Heat Treatment Console/Contractor Services						
280	Motor Repairs	$30,000		$25,000		$25,000	
281	NDT Turbine Blades	$0					
282	NDT Generator Retaining Rings	$0		$0			
283	NDT Valves/Steam Chest	$0					
284	Positive Material Identification Services	$0					

12/20/2004 Kahe 1 Overhaul

	_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY06
K-1	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Labor	257	K01	150	9,990 (8)
													$346,560.90
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	257	K01	201	86,500
													$86,500.00 (9)
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	257	K01	501	47,000.00
													$47,000.00
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	258	K01	201	229,000.33
													$229,000.33
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	258	K01	501	61,000
													$61,000.00
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	259	K01	201	204,000
													$204,000.00
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	259	K01	501	95,000.00
													$95,000.00
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Labor	260	K01	150	5,631.98 (3)
													$206,286.20
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	260	K01	201	6,500.00
													$6,500.00 (9)
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	260	K01	501	45,000
													$45,000.00
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	261	K01	201	5,000.00
													$5,000.00
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	261	K01	501	88,000
													$88,000.00
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	262	K01	201	68,500.33
													$68,500.33
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	262	K01	501	15,000
													$15,000.00
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B31							946,122.64
													$1,483,327.76
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	348	K01	201	1,000
													$1,000.00
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	349	K01	501	8,500
													$8,500.00
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	350	K01	201	1,000
													$1,000.00
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	350	K01	501	1,000
													$1,000.00
	P0000846	Marzano, V	Production	PIT	Traveling Maintenance	B33							11,500
													$11,500.00
	P0000846	Marzano, V	Production	PIT									957,622.64
													$1,494,827.76
	P0000846	Marzano, V	Production										957,622.64
													$1,494,827.76
	P0000846												957,622.64
													$1,494,827.76

WIP Ref. details

(8) CA-IR-1, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT 4B, Page 2 of 10.

(9) $930,501 CA-IR-2, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT 4B, 1 of 16.

AllConsRABud06-RateCase -Direct-ABM.PLN

Hawaiian Electric Company, Inc.
2005 Rate Case Data
Projects - Direct Non-Labor

Transmission Maint (NARUC 570)

RA	Trans Maint
PIT	109,625

(Per Pillar) PojMgrOrEngr	Proj	Proj Description	
Marzano, V	P0000650	Kahe 2 Overhaul (2004)	$8,625
Marzano, V	P0000844	Kahe 6 Overhaul (2005)	$11,500
Marzano, V	P0000845	Kahe 4 Overhaul (2005)	$11,500
Marzano, V	P0000846	Kahe 1 Overhaul (2005)	$11,500
Marzano, V	P0000847	Waiau 4 Overhaul (2005)	$11,500
Kiyabu, R	P0000937	W9 Major Inspection	$27,500
Kiyabu, R	P0000938	W10 Major Inspection	$27,500
			$109,625

2005 OVERHAUL
NON-LABOR BUDGET

K2 - 501 Data

Σ(A) = $11,500 Σ(B) = $11,500 Σ(C) = $11,500

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
5	**PREVENTIVE MAINTENANCE** - ASSOCIATED WITH THE OPENING, INSPECTION, AND						
6	CLOSING OF UNIT. WORK DONE ON A TIME CYCLE BASIS						
7	**BOILER PM 257**						
8	**Material 201**						
9	Boiler Door Gaskets	$7,000		$5,000		$5,000	
10	Boiler Observation Ports	$1,000		$2,300		$1,000	
11	Boiler Ash Waste Treatment (Chemicals)	$1,000		$1,000		$1,000	
12	Dampers	$8,000		$8,000		$8,000	
13	DCS BattRAM	$5,000		$5,000		$0	
14	DCS Power Supply Modules/DCS Cabinet Fans	$10,000		$5,000		$30,000	
15	DCS UPS Batteries/Fans	$5,000		$1,500		$1,500	
16	Draft lines	$500		$500		$500	
17	Expansion Joints-Ducts/Downcomers			$30,000			
18	Ignitors	$2,500		$1,000		$1,000	
19	Instrument Air	$1,000		$1,000		$1,000	
20	O2 Analyzers	$2,000		$2,000		$2,000	
21	Power Operators (service kits)	$2,500		$10,000		$3,000	
22	Safety Valves Section I	$5,000		$5,000		$5,000	
23	Switchgear/MCC/Breaker Parts	$2,500		$2,500		$2,500	
24	Relief Valves Section VIII	$20,000		$5,000		$5,000	
25							
26	**SUBTOTAL**	**$73,000**	✓	**$84,800**	✓	**$66,500**	
27		JAN/FEB		FEB/MAR/APR//MAY/JUN		JUN/JUL/AUG	
28		**PIT257K06NEP000084420**		**PIT257K04NEP000084520**		**PIT257K01NEP000084620**	
29							
30	**BOILER PM 257**						
31	**Outside Services 501**						
32	Draft Lines-scaffolding rental	$1,000		$1,000		$1,000	
33	Stack Inspection and/or Repairs	$25,000		$15,000		$15,000	
34	Boiler Waste Treat and Disposal	$5,000		$5,000		$5,000	
35	Forklift Rental	$6,000		$6,000		$6,000	
36	Helpers-Outsourcing	$16,000		$32,000		$20,000	
37	Mechanical Tube Cleaning (blr)						
38	Power Operators (service outsourcing)	$0					
39	PRV (Sec 1 safeties) Contractor						
40	Technicians (Outsourcing)	$0					
41	**SUBTOTAL**	**$53,000**	✓	**$59,000**	✓	**$47,000**	✓
42		FEB/MAR/APR		MAY/JUN/JUL\AUG		AUG/SEP/OCT	
43		**PIT257K06NEP000084450**		**PIT257K04NEP000084550**		**PIT257K01NEP000084650**	
44							
45	**TURBINE PM 260**						
46	**Material 201**						
47	Generator Gas (H2/CO2)	$1,500		$1,500		$1,500	
48	Generator H2 Seals	$0		$0		$0	
49	Instrumentation	$2,000		$2,000		$2,000	
50	Sand blast grit	$0		$0		$0	
51	T/G Insulation	$0		$0		$0	
52	Turbine Steam (or Water) Seals	$0		$0			
53	Turbine HP Bell Seals Replacement	$0					
54	Turbine Valve Parts	$0				$0	
55	Turbine Seals/Packing			$0			
56	Gen H2 System Valves/Piping Inspect/Replace			$3,000		$3,000	

2005 OVERHAUL
NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
59		PIT260K06NEP000084420		PIT260K04NEP000084520		PIT260K01NEP000084620	
60							
61	**TURBINE PM 260**						
62	**Services 501**						
63	Calibrate Flow meter (Gas Turbines)			$0		$0	
64	CW Tunnel Inspection and cleaning (if req'd)	$45,000		$45,000		$45,000	
65	Fire Protection Testing (CT's)						
66	Lube Oil Reservoir Painting/Coating			$0		$0	
67	Helpers	$0					
68	T/G Sandblast incl dust collection	$0				$0	
69	Turbine/Trb Valves Weld/Machining Services	$0				$0	
70	Vac Truck Services	$0					
71	Grind Trb/Gen Bearing Journals or Rebabbit Trb/Gen Bearing Journals	$0		$0		$0	
72	Balance Turbine Spindle			$0		$0	
73	Balance Turbine Stub Shaft						
74	**SUBTOTAL**	**$45,000** ✓		**$45,000** ✓		**$45,000** ✓	
75		FEB/MAR/APR		MAY/JUN/JUL/AUG		AUG/SEP/OCT	
76		PIT260K06NEP000084450		PIT260K04NEP000084550		PIT260K01NEP000084650	
77							
78	**TRANSFORMER PM 348**						
79	**Material 201**						
80	Misc Xfmer Parts	$1,000		$1,000		$1,000	
81							
82	**SUBTOTAL**	**$1,000**		**$1,000**		**$1,000**	
83		JAN/FEB		FEB/MAR/APR/MAY/JUN		JUN/JUL/AUG	
84		PIT348K06NELORNELLA1		PIT348K04NEP000084520		PIT348K01NEP000084620	
85							
86	**TRANSFORMER PM 348**						
87	**Services 501**						
88							
89							
90	**SUBTOTAL**	**$0**		**$0**		**$0**	
91		JAN/FEB/MAR/APR		MAY/JUN/JUL/AUG		AUG/SEP/OCT	
92		PIT348K06NEP000084401		PIT348K04NEP000084550		PIT348K01NEP000084650	
93							
94	**CORRECTIVE MAINTENANCE** - REPAIR OR REPLACEMENT OF FAILED OR FAILING EQUIP						
95	**BOILER CM 259**						
96	**Material 201**						
97	Air Preheater Misc Parts (seals)	$5,000		$2,000		$2,000	
98	APH Basket Replacements	$175,000		$40,000		$80,000	
99	APH Gearbox						
100	APH Tube Sleeves (W3/4, H8)						
101	APH Tubes Replacement						
102	APH-Channel frame for manual damper and expansion joint (Waianae side AH duct)			$10,000			
103	Attemperator (SH/RH) CV Internals	$20,000					
104	Breaker / Starter Parts	$2,500		$2,500		$2,500	
105	Control Valve Internals/Actuator Parts	$25,000		$25,000		$25,000	
106	Economizer Tube Bend Repl (W6, W5, H8, H9)						
107	Electrical Cables (Bad Insulation)/Cable Trays			$15,000			
108	Expansion Jts (duct)	$25,000		$15,000		$15,000	
109	Expansion Jts (dwncmers, piping)	$15,000		$8,000		$8,000	
110	ERV Stop Valve Repair/Replace			$12,000			

2005 OVERHAUL
NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
111	ERV Controls						
112	FD Fan Vane Replacement						
113	FDF/IDF Ball Pins	$1,000		$1,000		$1,000	

2005 OVERHAUL
NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
166	H2 Sensing Relocate from Brg Enlargemnt			$5,000			
167	Instrumentation			$3,000		$3,000	
168	Intake Bar Screen						
169	Motor Bearings	$3,000		$2,000		$2,000	
170	MOV Parts (Turbine Drn Valves, CW System)	$15,000		$10,000		$10,000	
171							
172	T/G Packing Spring Repl (Brandonized Packing)						
173	Turbine Valve Parts			$15,000			
174	~~Travel Screen Overhaul~~						
175	Turbine Cooperheat Pads/Ctrllr Parts	$0					
176	**SUBTOTAL**	**$84,500** ✓		**$88,500**		**$68,500**	✓
177		JAN/FEB		FEB/MAR/APR/MAY/JUN		JUN/JUL/AUG	
178		PIT262K06NEP000084420		PIT262K04NEP000084520		PIT262K01NEP000084620	
179							
180	**TURBINE CM 262**						
181	**Services 501**						
182	Central Well Sluice Gate Replace-Diver Services	$15,000		$15,000		$15,000	
183	CW Tunnel Between TS and CWP (K5/6 stilling basin)	$40,000					
184	Roof Cooling Wtr Tank Inspect/Rpr/Recoat						
185	Floor Cooling Wtr Tank Inspect/Rpr/Recoat						
186							
187	**SUBTOTAL**	**$55,000** ✓		**$15,000** ✓		**$15,000**	✓
188		FEB/MAR/APR		MAY/JUN/JUL/AUG		AUG/SEP/OCT	
189		PIT262K0NEP0000844501		PIT262K04NEP000084550		PIT262K01NEP000084650	
190							
191	**TRANSFORMER CM 350**						
192	**Material 201**						
193	Containment Rock Replacement			$0		$0	
194	Fans/Misc Xfmer Parts (including painting)	$1,000		$1,000		$1,000	-
195							
196							
197	**SUBTOTAL**	**$1,000**	A	**$1,000**	B	**$1,000**	C
198		JAN/FEB		FEB/MAR/APR/MAY/JUN		JUN/JUL/AUG	
199		PIT350K06NEP000084420		PIT350K04NEP000084520		PIT350K01NEP000084620	
200	**TRANSFORMER CM 350**						
201	**Services 501**						
202	Containment Rock Disposal			$0		$0	
203	Containment Maint - Helpers			$0		$0	
204	Fabrication of Xfmer Components	$1,000		$1,000		$1,000	
205	**SUBTOTAL**	**$1,000**	A	**$1,000**	B	**$1,000**	C
206		FEB/MAR/APR		MAY/JUN/JUL/AUG		AUG/SEP/OCT	
207		PIT350K06NEP000084450		PIT350K04NEP000084550		PIT350K01NEP000084650	
208							

2005 OVERHAUL NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
217	Condensate Pump OH	$10,000		$10,000		$10,000	
218	Electrical Cables Replace-Motors			$15,000		$10,000	
219	Dissimilar Metal Weld Dutchman-SSH			$15,000			
220	Circ Water Pump Overhaul	$15,000		$15,000		$15,000	
221	Chordal (Blr) Thermocouples			$10,000			
222	Penthouse bends	$5,000					
223	Rear WW Tubes Replace						
224	RH Attemperator Nozzle Replacement						
225	RH Attemperator nozzle/liner Replacement						
226	Reheater Bends Replacement						
227	SH Attemperator Nozzle Replacment	$23,000					
228	SH Attemperator Nozzle/Liner Replacement						
229	Steam Cooled Spacer Tube Expansion Jt.			$5,000			
230	SSH T2 Tubes Replace (K6)	$25,000					
231	SSH/PSH/RSH tube end support castings and Header Handhole Plugs	$10,000		$10,000		$10,000	
232	N2 Blanket for FWHs	$1,000		$1,000		$1,000	
233	**SUBTOTAL**	**$359,500** ✓		**$349,000** ✓		**$229,000** ✓	
234		JAN/FEB		FEB/MAR/APR/MAY/JUN		JUN/JUL/AUG	
235		**PIT258K06NEP000084420**		**PIT258K04NEP000084520**		**PIT258K01NEP000084620**	
236							
237	**BOILER PDM 258**						
238	**Outside Services 501**						
239	Blr Chemical Cleaning Services (TFA/Tube Analysis)	$30,000		$30,000		$0	
240	Blr Chemical Cleaning-Frac Tank Rental and Other Support Eqmt.	$10,000		$10,000			
241	BRULS/HiEL	$20,000		$20,000		$20,000	
242	FWH ECT-tube cleaning	$15,000		$15,000		$15,000	
243	FWH ECT-ECT contractor	$20,000		$20,000		$6,000	
244	Motor Repairs	$20,000		$20,000		$20,000	
245	MS to SSH Outlet Hdr Weld (H9)						
246	Xray of Dissimilar Weld Areas			$3,000			
247	WFMT WW Roof Tube bends	$1,000					
248							
249	**SUBTOTAL**	**$116,000** ✓		**$118,000** ✓		**$61,000** ✓	
250		FEB/MAR/APR		MAY/JUN/JUL/AUG		AUG/SEP/OCT	
251		**PIT258K06NEP000084450**		**PIT258K04NEP000084550**		**PIT258K01NEP000084650**	
252							
253							
254	**TURBINE PDM 261**						
255	**Material 201**						
256	EH Fluid Flush/Oil Replacement	$8,000		$8,000			
257	EHC(K3/K4) Parts Replace (trb trip devices, etc.)						
258	EH System Servo Valves Replace	$20,000		$20,000			
259	Circulating Water Pumps-Overhaul	$15,000		$35,000			
260	Thermocouple for Generator	$0					
261	Turbine Lube Oil Replace (reservoir)	$5,000		$5,000		$5,000	
262	Turbine Lube Oil Replace (tank for the unit)	$0		$8,000			
263	Generator Stator Wedges			$30,000			
264	**SUBTOTAL**	**$48,000** ✓		**$106,000** ✓		**$5,000** ✓	
265		JAN/FEB		FEB/MAR/APR//MAY/JUN		JUN/JUL/AUG	
266		**PIT261K06NEP000084420**		**PIT261K04NEP000084520**		**PIT261K01NEP000084620**	
267							
268	**TURBINE PDM 261**	?					
269	**Services 501**						

2005 OVERHAUL NON-LABOR BUDGET

	A	B	D	E	G	H	J
1		KAHE 6 01/15/05 TO 03/		KAHE 4 04/09/05 TO 07/		KAHE 1 07/23/05 TO 09/	
2	PROJECT NAME:	P0000844		P0000845		P0000846	
3		EST'D COST	REV	EST'D COST	REV	EST'D COST	REV
4							
270	Clean LO Tank (tank for the unit)	$0		$0		$0	
271	Eddy Current Condenser/Chiller-Contractor	$20,000		$15,000		$20,000	
272	Eddy Current Condenser/Chiller-tube cleaning-Contractor	$15,000		$10,000		$25,000	
273	EH System Hydraulic Rams Refurbish	$20,000		$20,000			
274	EH Fluid Flush (TFA, oil disposal)	$60,000		$60,000			
275	Iris Testing Gen H2 Coolers-Contractor	$0		$0		$0	
276	HP or HP/IP Bore	$0					
277	LP Bore						
278	Generator Bore						
279	Post Weld Heat Treatment Console/Contractor Services						
280	Motor Repairs	$30,000		$25,000		$25,000	
281	NDT Turbine Blades	$0					
282	NDT Generator Retaining Rings	$0		$0			
283	NDT Valves/Steam Chest	$0					
284	Positive Material Identification Services	$0					
285	Steam Path Audit (turbine efficiency)						
286	Generator Inspection/NDT						
287	Generator Field Specialist (support gen repairs, i.e. re-wedging)			$80,000			
288	Gen Voltage Regulator/Rheostat Calibration	$8,000		$8,000		$8,000	
289	Scaffolding to support BRULS/HiEL	$10,000		$10,000		$10,000	
290	Video Probe of Weld Repair						
291	**SUBTOTAL**	**$163,000** ✓		**$228,000** ✓		**$88,000**	✓
292		FEB/MAR/APR		MAY/JUN/JUL/AUG		AUG/SEP/OCT	
293		PIT261K06NEP000084450		PIT261K04NEP000084550		PIT261K01NEP000084650	
294							
295	**TRANSFORMER PDM 349**						
296	**Material 201**						
297	Transformer Oil Replace (mineral oil)			$0		$0	
298							
299	**SUBTOTAL**	**$0**		**$0**		**$0**	
300		JAN/FEB		FEB/MAR/APR/MAY/JUN		JUN/JUL/AUG	
301		PIT349K06NEP000084420		PIT349K04NEP000084520		PIT349K01NEP000084620	
302							
303	**TRANSFORMER PDM 349**						
304	**Services 501**						
305	Disposal of Xfmer Oil	$0		$0		$0	
306	Main / Aux Trans Testing	$8,500		$8,500		$8,500	
307	**SUBTOTAL**	**$8,500**		**$8,500**		**$8,500**	
308		FEB/MAR/APR		MAY/JUN/JUL/AUG		AUG/SEP/OCT	
309		PIT349K06NEP000084450		PIT349K04NEP000084550		PIT349K01NEP000084650	
310							
312	**TOTAL**	**$1,470,000**		**$1,557,300**		**$942,000**	
313							
314	**TOTAL ALL OVERHAULS**			**$5,936,500**			

Waiau 4 Overhaul

12/20/2004

	_Proj	ProMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY06
W4	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Labor	257	W04	150	16,100 (10)
													$559,828.60
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	257	W04	201	69,500
													$69,500.00 (11)
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	257	W04	501	41,000
													$41,000.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	258	W04	201	221,000
													$221,000.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	258	W04	501	80,000
													$80,000.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	259	W04	201	142,200
													$142,200.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	512	Non-Labor	259	W04	501	576,000
													$576,000.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Labor	260	W04	150	12,800 (12)
													$456,192.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	260	W04	201	128,500
													$128,500.00 (11)
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	260	W04	501	210,000
													$210,000.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	261	W04	201	83,000
													$83,000.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	261	W04	501	336,000
													$336,000.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	262	W04	201	33,500
													$33,500.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31	Prod Maint	513	Non-Labor	262	W04	501	36,000.00
													$36,000.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B31							1,984,400.00
													$2,971,720.60
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	348	W04	201	1,000
													$1,000.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	349	W04	201	0
													$0.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	349	W04	501	8,500
													$8,500.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	350	W04	201	1,000
													$1,000.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	350	W04	501	1,000
													$1,000.00
	P0000847	Marzano, V	Production	PIT	Traveling Maintenance	B33							11,500
													$11,500.00
	P0000847	Marzano, V	Production	PIT									1,995,900.00
													$2,983,220.60
	P0000847	Marzano, V	Production										1,995,900.00
													$2,983,220.60
	P0000847												1,995,900.00
													$2,983,220.60

WIP Ref. for details

(10) CA-IR-1, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT 4B, Page 3 of 10.

(11) & [illegible]

Hawaiian Electric Company, Inc.
2005 Rate Case Data
Projects - Direct Non-Labor

Transmission Maint (NARUC 570)

RA	Trans Maint
PIT	109,625

(Per Pillar) PojMgrOrEngr	Proj	Proj Description	
Marzano, V	P0000650	Kahe 2 Overhaul (2004)	$8,625
Marzano, V	P0000844	Kahe 6 Overhaul (2005)	$11,500
Marzano, V	P0000845	Kahe 4 Overhaul (2005)	$11,500
Marzano, V	P0000846	Kahe 1 Overhaul (2005)	$11,500
Marzano, V	P0000847	Waiau 4 Overhaul (2005)	$11,500
Kiyabu, R	P0000937	W9 Major Inspection	$27,500
Kiyabu, R	P0000938	W10 Major Inspection	$27,500
			$109,625

2005 OVERHAUL
NON-LABOR BUDGET

EST'D = $11,500

	A	K	M	N
1		WAIAU 4	09/24/05 TO 12/30/05	
2	PROJECT NAME:	P0000847		
3		EST'D COST	REV	
4				
5	PREVENTIVE MAINTENANCE - AS			
6	CLOS			
7	**BOILER PM 257**			
8	**Material 201**			
9	Boiler Door Gaskets	$5,000		$22,000
10	Boiler Observation Ports	$1,000		$5,300
11	Boiler Ash Waste Treatment (Chemicals)	$1,000		$4,000
12	Dampers	$2,000		$26,000
13	DCS BattRAM	$0		$10,000
14	DCS Power Supply Modules/DCS Cabinet Fans	$30,000		$75,000
15	DCS UPS Batteries/Fans	$1,500		$9,500
16	Draft lines	$500		$2,000
17	Expansion Joints-Ducts/Downcomers			
18	Ignitors	$0		$4,500
19	Instrument Air	$1,000		$4,000
20	O2 Analyzers	$2,000		$8,000
21	Power Operators (service kits)	$3,000		$18,500
22	Safety Valves Section I	$5,000		$20,000
23	Switchgear/MCC/Breaker Parts	$2,500		$10,000
24	Relief Valves Section VIII	$15,000		$45,000
25				$0
26	**SUBTOTAL**	**$69,500** ✓		**$263,800**
27		AUG/SEPT/OCT/NOV		
28		**PIT257W04NEP0000847201**		
29				
30	**BOILER PM 257**			
31	**Outside Services 501**			
32	Draft Lines-scaffolding rental	$1,000		$4,000
33	Stack Inspection and/or Repairs	$0		$55,000
34	Boiler Waste Treat and Disposal	$2,000		$17,000
35	Forklift Rental	$6,000		$24,000
36	Helpers-Outsourcing	$32,000		$100,000
37	Mechanical Tube Cleaning (blr)	$0		$0
38	Power Operators (service outsourcing)			$0
39	PRV (Sec 1 safeties) Contractor	$0		$0
40	Technicians (Outsourcing)	$0		$0
41	**SUBTOTAL**	**$41,000** ✓		**$200,000**
42		OCT/NOV/DEC		
43		**PIT257W04NEP0000847501**		
44				
45	**TURBINE PM 260**			
46	**Material 201**			
47	Generator Gas (H2/CO2)	$1,500		$6,000
48	Generator H2 Seals	$10,000		$10,000
49	Instrumentation	$2,000		$8,000
50	Sand blast grit	$10,000		$10,000
51	T/G Insulation	$5,000		$5,000
52	Turbine Steam (or Water) Seals	$10,000		$10,000
53	Turbine HP Bell Seals Replacement	$25,000		$25,000
54	Turbine Valve Parts	$30,000		$30,000
55	Turbine Seals/Packing	$30,000		$30,000
56	Gen H2 System Valves/Piping Inspect/Replace	$5,000		$11,000
57	**SUBTOTAL**	**$128,500** ✓		**$145,000**
58		AUG/SEP/OCT/NOV		

2005 OVERHAUL
NON-LABOR BUDGET

	A	K	M	N
1		WAIAU 4 09/24/05 TO 12/30/05		
2	PROJECT NAME:	P0000847		
3		EST'D COST	REV	
4				
59		PIT260W04NEP0000846201		
60				
61	**TURBINE PM 260**			
62	**Services 501**			
63	Calibrate Flow meter (Gas Turbines)			$0
64	CW Tunnel Inspection and cleaning (if req'd)	$45,000		$180,000
65	Fire Protection Testing (CT's)			$0
66	Lube Oil Reservoir Painting/Coating	$5,000		$5,000
67	Helpers	$10,000		$10,000
68	T/G Sandblast incl dust collection	$30,000		$30,000
69	Turbine/Trb Valves Weld/Machining Services	$80,000		$80,000
70	Vac Truck Services			$0
71	Grind Trb/Gen Bearing Journals or Rebabbit Trb/Gen Bearing Journals	$30,000		$30,000
72	Balance Turbine Spindle	$10,000		$10,000
73	Balance Turbine Stub Shaft			$0
74	**SUBTOTAL**	**$210,000**		**$345,000**
75		OCT/NOV/DEC		
76		PIT260W04NEP0000847501		
77				
78	**TRANSFORMER PM 348**			
79	**Material 201**			
80	Misc Xfmer Parts	$1,000		$4,000
81				$0
82	**SUBTOTAL**	**$1,000**		**$4,000**
83		AUG/SEP/OCT/NOV		
84		PIT348W04NEP0000847201		
85				
86	**TRANSFORMER PM 348**			
87	**Services 501**			
88				
89				$0
90	**SUBTOTAL**	**$0**		**$0**
91		OCT/NOV/DEC		
92		PIT348W04NEP0000847501		
93				
94	**CORRECTIVE MAINTENANCE** - RI			
95	**BOILER CM 259**			
96	**Material 201**			
97	Air Preheater Misc Parts (seals)	$0		$9,000
98	APH Basket Replacements			$295,000
99	APH Gearbox			$0
100	APH Tube Sleeves (W3/4, H8)	$10,000		$10,000
101	APH Tubes Replacement			$0
102	APH-Channel frame for manual damper and expansion joint (Waianae side AH duct)			
103	Attemperator (SH/RH) CV Internals			$20,000
104	Breaker / Starter Parts	$2,000		$9,500
105	Control Valve Internals/Actuator Parts	$25,000		$100,000
106	Economizer Tube Bend Repl (W6, W5, H8, H9)			$0
107	Electrical Cables (Bad Insulation)/Cable Trays	$10,000		$25,000
108	Expansion Jts (duct)	$16,000		$71,000
109	Expansion Jts (dwncmers, piping)	$5,000		$36,000
110	ERV Stop Valve Repair/Replace			

2005 OVERHAUL
NON-LABOR BUDGET

	A	K	M	N
1		WAIAU 4 09/24/05 TO 12/30/05		
2	PROJECT NAME:	P0000847		
3		EST'D COST	REV	
4				
111	ERV Controls			$0
112	FD Fan Vane Replacement	$0		$0
113	FDF/IDF Ball Pins	$1,000		$4,000
114	Ignitors			$16,000
115	ID Fan Vane parts			$0
116	Instrumentation (thermocouples, etc.)	$5,000		$25,000
117	Insulation/Refractory	$25,000		$105,000
118	MS Clam Shell Elbow Repl (CE Boilers)			$0
119	Main Steam Stop Disk	$2,500		$2,500
120	Main Steam Stop Vlv Packing Gld Replace			$500
121	Main Steam Stop Shaft	$0		$4,500
122	Main Steam Stop Seal Rings	$2,500		$10,000
123	Observation Ports			
124	Piping Replacements			
125	Siding-Blr Structural/Enclosure			
126	Silencers	$12,000		$12,000
127	Sootblower (Blr G9B) Parts			$0
128	Sootblower (Blr IK) Parts	$0		$8,000
129	Sootblower (APH) Parts (spray nozzle)	$2,000		$8,000
130	Sootblower Wall Box Refractory Replace			
131	Sootblower Wall box Replacement	$5,000		$15,000
132	Steam Trap Repairs	$1,200		$6,200
133	Valve Packing	$3,000		$18,000
134	Valves (root, isolation, drain) Replacement	$15,000		$63,000
135	Water Cooled Doors			
136	Water wall tubes/panels	$0		$0
137	**SUBTOTAL**	**$142,200**	✓	$873,200
138		AUG/SEP/OCT/NOV		
139		PIT259W04NEP0000847201		
140				
141	**BOILER CM 259**			
142	**Outside Services 501**			
143	Scaffolding Svcs to Support Duct Repairs (APH hoppers, GR, Air, Gas.)	$10,000		$45,000
144	Blr Exterior Asbestos Abatement-TURN KEY	$500,000		$500,000
145	Blr Sootblower (IK) Refurbishment	$12,000		$32,000
146	Blr Sootblower (G9B) Refurbishment	$4,000		$4,000
147	Control Valves Refurbish	$10,000		$70,000
148	Corrosion Control-Penthouse/Safety Valve Exhaust Piping/Blr Structure/Drains			
149	Electricians-outsourcing			$0
150	Insulators-Outsourcing	$25,000		$135,000
151	Scaffolding Svcs to Support Corrosion Control			
152	Silencers-Corrosion Control	$5,000		$5,000
153	Welders/Mechanic-Outsourcing	$10,000		$45,000
154	**SUBTOTAL**	**$576,000**	✓	$836,000
155		OCT/NOV/DEC		
156		PIT259W04NEP0000847501		
157				
158	**TURBINE CM 262**			
159	**Material 201**			
160	Breaker / Starter Parts	$2,500		$12,500
161	Cathodic Protection Parts	$1,000		$8,000
162	Central Well Slucie Gates			
163	Chiller Covers, Vlvs, Strainer Repairs	$0		$45,000
164	Condenser Repairs (waterbox)	$10,000		$36,500
165	EH (K5 or K6) Coolers Replace			$10,000

2005 OVERHAUL
NON-LABOR BUDGET

	A	K	M	N
1		WAIAU 4 09/24/05 TO 12/30/05		
2	PROJECT NAME:	P0000847		
3		EST'D COST	REV	
4				
166	H2 Sensing Relocate from Brg Enlargemnt			$5,000
167	Instrumentation			$6,000
168	Intake Bar Screen			$0
169	Motor Bearings	$2,000		$9,000
170	MOV Parts (Turbine Drn Valves, CW System)	$10,000		$45,000
171				
172	T/G Packing Spring Repl (Brandonized Packing)			$0
173	Turbine Valve Parts	$5,000		
174	~~Travel Screen Overhaul~~			$0
175	Turbine Cooperheat Pads/Ctrllr Parts	$3,000		$3,000
176	**SUBTOTAL**	**$33,500**	✓	$180,000
177		AUG/SEP/OCT/NOV		
178		PIT262W04NEP0000847201		
179				
180	**TURBINE CM 262**			
181	**Services 501**			
182	Central Well Sluice Gate Replace-Diver Services			$45,000
183	CW Tunnel Between TS and CWP (K5/6 stilling basin)			$40,000
184	Roof Cooling Wtr Tank Inspect/Rpr/Recoat	$20,000		$20,000
185	Floor Cooling Wtr Tank Inspect/Rpr/Recoat	$15,000		$15,000
186				$0
187	**SUBTOTAL**	**$35,000**	✓	$120,000
188		OCT/NOV/DEC		
189		PIT262W04NEP0000847501		
190				
191	**TRANSFORMER CM 350**			
192	**Material 201**			
193	Containment Rock Replacement	$0		$0
194	Fans/Misc Xfmer Parts (including painting)	$1,000		$4,000
195				$0
196				$0
197	**SUBTOTAL**	**$1,000**	D	$4,000
198		AUG/SEP/OCT/NOV		
199		PIT350W04NEP0000847201		
200	**TRANSFORMER CM 350**			
201	**Services 501**			
202	Containment Rock Disposal	$0		$0
203	Containment Maint - Helpers	$0		$0
204	Fabrication of Xfmer Components	$1,000		$4,000
205	**SUBTOTAL**	**$1,000**	D	$4,000
206		OCT/NOV/DEC		
207		PIT350W04NEP0000847501		
208				
209	**PREDICTIVE MAINTENANCE** - NOS			
210				
211	**BOILER PDM 258**			
212	**Material 201**			
213	Boiler Chemical Cleaning	$0		$170,000
214	Bearing (Pump/Fan) Replacement	$5,000		$22,500
215	BFP Volute Replacement	$170,000		$680,000
216	Aux Cooling Water Pump OH			$24,000

2005 OVERHAUL
NON-LABOR BUDGET

	A	K	M	N
1		WAIAU 4 09/24/05 TO 12/30/05		
2	PROJECT NAME:	P0000847		
3		EST'D COST	REV	
4				
217	Condensate Pump OH	$10,000		$40,000
218	Electrical Cables Replace-Motors	$5,000		$30,000
219	Dissimilar Metal Weld Dutchman-SSH			$15,000
220	Circ Water Pump Overhaul	$15,000		$60,000
221	Chordal (Blr) Thermocouples			$10,000
222	Penthouse bends			
223	Rear WW Tubes Replace	$5,000		
224	RH Attemperator Nozzle Replacement			$0
225	RH Attemperator nozzle/liner Replacement			$0
226	Reheater Bends Replacement			$0
227	SH Attemperator Nozzle Replacment			$23,000
228	SH Attemperator Nozzle/Liner Replacement			$0
229	Steam Cooled Spacer Tube Expansion Jt.			$5,000
230	SSH T2 Tubes Replace (K6)			$25,000
231	SSH/PSH/RSH tube end support castings and Header Handhole Plugs	$10,000		$40,000
232	N2 Blanket for FWHs	$1,000		$4,000
233	**SUBTOTAL**	**$221,000**	✓	**$1,148,500**
234		AUG/SEP/OCT/NOV		
235		**PIT258W04NEP0000847201**		
236				
237	**BOILER PDM 258**			
238	**Outside Services 501**			
239	Blr Chemical Cleaning Services (TFA/Tube Analysis)	$0		$60,000
240	Blr Chemical Cleaning-Frac Tank Rental and Other Support Eqmt.	$0		$20,000
241	BRULS/HiEL	$20,000		$80,000
242	FWH ECT-tube cleaning	$20,000		$65,000
243	FWH ECT-ECT contractor	$20,000		$66,000
244	Motor Repairs	$20,000		$80,000
245	MS to SSH Outlet Hdr Weld (H9)			$0
246	Xray of Dissimilar Weld Areas			$3,000
247	WFMT WW Roof Tube bends			$1,000
248				$0
249	**SUBTOTAL**	**$80,000**	✓	**$375,000**
250		OCT/NOV/DEC		
251		**PIT258W04NEP0000847501**		
252				
253				
254	**TURBINE PDM 261**			
255	**Material 201**			
256	EH Fluid Flush/Oil Replacement	$0		$16,000
257	EHC(K3/K4) Parts Replace (trb trip devices, etc.)			$0
258	EH System Servo Valves Replace			
259	Circulating Water Pumps-Overhaul			
260	Thermocouple for Generator	$1,000		$1,000
261	Turbine Lube Oil Replace (reservoir)	$5,000		$20,000
262	Turbine Lube Oil Replace (tank for the unit)	$12,000		$20,000
263	Generator Stator Wedges	$65,000		$95,000
264	**SUBTOTAL**	**$83,000**	✓	**$152,000**
265		AUG/SEP/OCT/NOV		
266		**PIT261W04NEP0000847201**		
267				
268	**TURBINE PDM 261**			
269	**Services 501**			

2005 OVERHAUL
NON-LABOR BUDGET

	A	K	M	N
1		WAIAU 4 09/24/05 TO 12/30/05		
2	PROJECT NAME:	P0000847		
3		EST'D COST	REV	
4				
270	Clean LO Tank (tank for the unit)	$3,000		$3,000
271	Eddy Current Condenser/Chiller-Contractor	$20,000		$75,000
272	Eddy Current Condenser/Chiller-tube cleaning-Contractor	$15,000		$65,000
273	EH System Hydraulic Rams Refurbish			
274	EH Fluid Flush (TFA, oil disposal)			$120,000
275	Iris Testing Gen H2 Coolers-Contractor	$5,000		$5,000
276	HP or HP/IP Bore	$30,000		$30,000
277	LP Bore	$30,000		$30,000
278	Generator Bore	$30,000		$30,000
279	Post Weld Heat Treatment Console/Contractor Services	$75,000		$75,000
280	Motor Repairs	$10,000		$90,000
281	NDT Turbine Blades	$20,000		$20,000
282	NDT Generator Retaining Rings	$20,000		$20,000
283	NDT Valves/Steam Chest	$10,000		$10,000
284	Positive Material Identification Services			$0
285	Steam Path Audit (turbine efficiency)			$0
286	Generator Inspection/NDT	$20,000		$20,000
287	Generator Field Specialist (support gen repairs, i.e. re-wedging)	$30,000		$110,000
288	Gen Voltage Regulator/Rheostat Calibration	$8,000		$32,000
289	Scaffolding to support BRULS/HiEL	$10,000		
290	Video Probe of Weld Repair			$0
291	**SUBTOTAL**	**$336,000** ✓		**$735,000**
292		OCT/NOV/DEC		
293		**PIT261W04NEP0000847501**		
294				
295	**TRANSFORMER PDM 349**			
296	**Material 201**			
297	Transformer Oil Replace (mineral oil)	$0		$0
298				$0
299	**SUBTOTAL**	**$0**		**$0**
300		AUG/SEP/OCT/NOV		
301		**PIT349W04NEP0000847201**		
302				
303	**TRANSFORMER PDM 349**			
304	**Services 501**			
305	Disposal of Xfmer Oil	$0		$0
306	Main / Aux Trans Testing	$8,500		$34,000
307	**SUBTOTAL**	**$8,500** 0		**$34,000**
308		OCT/NOV/DEC		
309		**PIT349W04NEP0000847501**		
310				
312	**TOTAL**	**$1,967,200**		**$5,936,500**
313				
314	**TOTAL ALL OVERHAULS**			

4:32PM

pr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
0	0	0	0	0	0	0	0	0
50.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
0	0	0	0	0	0	0	0	0
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

12/20/2004 *O&M for All Depts with Loc 4:32PM

Proj	ProjMgrOrEngr	Dept	RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	Act	Loc	EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000907	Nordyke, M	SVP-EnSol	P9S	Sr VP-Energy Solutions	B38	A & G Operation	921	Non-Labor	730	PHE	501	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000907	Nordyke, M	SVP-EnSol	P9S	Sr VP-Energy Solutions	B38	A & G Operation	9302	Non-Labor	730	PHE	900	30,000	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
												$30,000.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00
P0000907	Nordyke, M	SVP-EnSol	P9S	Sr VP-Energy Solutions	B38							30,000	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
												$30,000.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00
P0000907	Nordyke, M	SVP-EnSol	P9S									30,000	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
												$30,000.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00
P0000907	Nordyke, M	SVP-EnSol										30,000	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
												$30,000.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00
P0000907	Nordyke, M	Sys Op	PRC	Communications	B38	A & G Operation	9302	Labor	730	PHE	150	0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000907	Nordyke, M	Sys Op	PRC	Communications	B38							0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000907	Nordyke, M	Sys Op	PRC									0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000907	Nordyke, M	Sys Op										0	0	0	0	0	0	0	0	0	0	0	0	0
												$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
P0000907												30,000	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
												$30,000.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00	$2,500.00

P0000907 Broadband over Power Lines

The $30,000 non-labor budget provides an allocation for outside services in support of the BPL initiative, in the areas of new technology assessment, strategy development, and business model development.

W9 Major Inspection

12/20/2004

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY04
P0000937	Kiyabu, R	Production	PIT	Traveling Maintenance	B31	Prod Maint	553	Non-Labor	272	W09	201	88,000
												$88,000.00
P0000937	Kiyabu, R	Production	PIT	Traveling Maintenance	B31	Prod Maint	553	Non-Labor	272	W09	501	525,000
												$525,000.00
P0000937	Kiyabu, R	Production	PIT	Traveling Maintenance	B31	Prod Maint	553	Non-Labor	273	W09	201	44,000
												$44,000.00
P0000937	Kiyabu, R	Production	PIT	Traveling Maintenance	B31	Prod Maint	553	Non-Labor	273	W09	501	245,000
												$245,000.00
P0000937	Kiyabu, R	Production	PIT	Traveling Maintenance	B31	Prod Maint	553	Non-Labor	274	W09	201	56,000
												$56,000.00
P0000937	Kiyabu, R	Production	PIT	Traveling Maintenance	B31	Prod Maint	553	Non-Labor	274	W09	501	28,000
												$28,000.00
P0000937	Kiyabu, R	Production	PIT	Traveling Maintenance	B31							986,000
												$986,000.00 (1)
P0000937	Kiyabu, R	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	348	W09	201	1,000
												$1,000.00
P0000937	Kiyabu, R	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	349	W09	201	3,500
												$3,500.00
P0000937	Kiyabu, R	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	349	W09	501	15,000
												$15,000.00
P0000937	Kiyabu, R	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	350	W09	501	8,000
												$8,000.00
P0000937	Kiyabu, R	Production	PIT	Traveling Maintenance	B33							27,500
												$27,500.00
P0000937	Kiyabu, R	Production	PIT									1,012,500
												$1,012,500.00
P0000937	Kiyabu, R	Production										1,012,500
												$1,012,500.00
P0000937												1,012,500
												$1,012,500.00

W/P Ref. for details

(1) CA-IR-2, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT 4B, Page 1 of 16.

[redacted]

Hawaiian Electric Company, Inc.
2005 Rate Case Data
Projects - Direct Non-Labor

Transmission Maint (NARUC 570)

RA	Trans Maint
PIT	109,625

(Per Pillar) PojMgrOrEngr	Proj	Proj Description	
Marzano, V	P0000650	Kahe 2 Overhaul (2004)	$8,625
Marzano, V	P0000844	Kahe 6 Overhaul (2005)	$11,500
Marzano, V	P0000845	Kahe 4 Overhaul (2005)	$11,500
Marzano, V	P0000846	Kahe 1 Overhaul (2005)	$11,500
Marzano, V	P0000847	Waiau 4 Overhaul (2005)	$11,500
Kiyabu, R	P0000937	W9 Major Inspection	$27,500
Kiyabu, R	P0000938	W10 Major Inspection	$27,500
			$109,625

2005 OVERHAUL
NON-LABOR BUDGET (Gas Turbines)

Σ(E) = $27,500 Σ(F) = $27,500

PROJECT NAME:	WAIAU 9 1/17/05 to 3/25/05 P0000937 / RKIYABU08 EST'D COST	REV	WAIAU 10 4/25/05 to 7/1/05 P0000938 / RKIYABU20 EST'D COST	REV
PREVENTATIVE MAINTENANCE - ASSOCIATED WITH THE OPENING, INSPECTION, AN CLOSING OF UNIT. WORK DONE ON A TIME CYCLE BAS				
GAS TURBINE PM 272				
Material 201				
Turbine insulation	$3,000		$3,000	
Lubricants, fluids replace (radiator, pumps, etc.)	$7,000		$7,000	
Consumables (filters, gaskets, etc.)	$5,000		$5,000	
Combustion Section (liner, transition pieces)/Turbine parts (bolts)	$60,000		$60,000	
Instrumentation	$3,000		$3,000	
Sand blast grit	$10,000		$10,000	
SUBTOTAL	**$88,000** JAN / FEB		**$88,000** MAR / APR / MAY	
	PJT272W09NERKIYABU0820		PIT272W09NERKIYABU20201	

GAS TURBINE PM 272				
Services 501				
Outsourcing of major inpspection	$325,000		$325,000	
Weld repairs/machining services	$60,000		$60,000	
Helpers	$16,000		$16,000	
Flow meter calibration	$2,500		$2,500	
Voltage regulator calibration	$7,000		$7,000	
Fire protection system inspection/servicing	$3,000		$3,000	
Sand blast compressor/turbine parts (outsource)	$25,000		$25,000	
Sand blast grit disposal	$6,000		$6,000	
Forklift rental	$2,500		$2,500	
Breaker servicing (outsource)	$8,000		$8,000	
Compressor/Trb/Generator bearing re-babbit	$20,000		$20,000	
Crane rental	$50,000		$50,000	
SUBTOTAL	**$525,000** MAR / APR		**$525,000** JUN / JUL	
	PIT272W09NERKIYABU0850		PIT272W10NERKIYABU20501	
TRANSFORMER PM 348				
Material 201				
Transformer Parts/Instrumentation	$1,000		$1,000	

2005 OVERHAUL
NON-LABOR BUDGET (Gas Turbines)

PROJECT NAME:	WAIAU 9 1/17/05 to 3/25/05 P0000937 / RKIYABU08 EST'D COST	REV	WAIAU 10 4/25/05 to 7/1/05 P0000938 / RKIYABU20 EST'D COST	REV
CORRECTIVE MAINTENANCE - REPAIR OR REPLACEMENT OF FAILED OR FAILING EC				
GAS TURBINE CM 274				
Material 201				
Torque converter parts	$50,000		$50,000	
Valves, piping	$5,000		$5,000	
	$55,000		**$55,000**	
	JAN / FEB		MAR / APR / MAY	
	PIT274W09NERKIYABU0820		PIT274W10NERKIYABU20201	
GAS TURBINE CM 274				
Outside Services 501				
Welders	$20,000		$20,000	
Turbine compartment roof side panels	$8,000		$8,000	
SUBTOTAL	**$28,000**		**$28,000**	
	MAR / APR		JUN / JUL	
	PIT274W09NERKIYABU0850		PIT274W10NERKIYABU20501	
TRANSFORMER CM 350				
Material 201				
SUBTOTAL	**$0**		**$0**	
	JAN / FEB		MAR / APR / MAY	
	PIT350W09NERKIYABU0820		PIT350W10NERKIYABU20201	
TRANSFORMER CM 350				
Outside Services 501				
Transformer bus duct-corrosion control	$8,000		$8,000	
SUBTOTAL	**$8,000** E		**$8,000** F	
	MAR / APR		JUN / JUL	
	PIT350W09NERKIYABU0850		PIT350W10NERKIYABU20501	
PREDICTIVE MAINTENANCE - INFORMATION BASED ON ANALYSIS				
GAS TURBINE PDM 273				
Materials 201				
Generator	$23,000		$23,000	
Generator stator wedges	$21,000		$21,000	
SUBTOTAL	**$44,000**		**$44,000**	

2005 OVERHAUL
NON-LABOR BUDGET (Gas Turbines)

	WAIAU 9 1/17/05 to 3/25/05		WAIAU 10 4/25/05 to 7/1/05	
PROJECT NAME:	P0000937 / RKIYABU08		P0000938 / RKIYABU20	
	EST'D COST	REV	EST'D COST	REV

12/20/2004 W10 Major Inspection

_Proj	ProjMgrOrEngr	Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Act	_Loc	_EE	FY05
P0000938	Kiyabu, R	Production	PIT	Traveling Maintenance	B31	Prod Maint	553	Non-Labor	272	W10	201	88,000
												$88,000.00
P0000938	Kiyabu, R	Production	PIT	Traveling Maintenance	B31	Prod Maint	553	Non-Labor	272	W10	501	525,000
												$525,000.00
P0000938	Kiyabu, R	Production	PIT	Traveling Maintenance	B31	Prod Maint	553	Non-Labor	273	W10	201	44,000
												$44,000.00
P0000938	Kiyabu, R	Production	PIT	Traveling Maintenance	B31	Prod Maint	553	Non-Labor	273	W10	501	245,000
												$245,000.00
P0000938	Kiyabu, R	Production	PIT	Traveling Maintenance	B31	Prod Maint	553	Non-Labor	274	W10	201	55,000
												$55,000.00
P0000938	Kiyabu, R	Production	PIT	Traveling Maintenance	B31	Prod Maint	553	Non-Labor	274	W10	501	28,000
												$28,000.00
P0000938	Kiyabu, R	Production	PIT	Traveling Maintenance	B31							985,000
												$985,000.00 (2)
P0000938	Kiyabu, R	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	348	W10	201	1,000
												$1,000.00
P0000938	Kiyabu, R	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	349	W10	201	3,500
												$3,500.00
P0000938	Kiyabu, R	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	349	W10	501	15,000
												$15,000.00
P0000938	Kiyabu, R	Production	PIT	Traveling Maintenance	B33	Transmission Maint	570	Non-Labor	350	W10	501	8,000
												$8,000.00
P0000938	Kiyabu, R	Production	PIT	Traveling Maintenance	B33							27,500
												$27,500.00
P0000938	Kiyabu, R	Production	PIT									1,012,500
												$1,012,500.00
P0000938	Kiyabu, R	Production										1,012,500
												$1,012,500.00
P0000938												1,012,500
												$1,012,500.00

W/P Ref.

(2) CA-IR-2, DOCKET NO. 04-0113, HECO T-6, ATTACHMENT 4B, Page 1 of 16.

Hawaiian Electric Company, Inc.
2005 Rate Case Data
Projects - Direct Non-Labor

Transmission Maint (NARUC 570)

RA	Trans Maint
PIT	109,625

(Per Pillar) PojMgrOrEngr	Proj	Proj Description	
Marzano, V	P0000650	Kahe 2 Overhaul (2004)	$8,625
Marzano, V	P0000844	Kahe 6 Overhaul (2005)	$11,500
Marzano, V	P0000845	Kahe 4 Overhaul (2005)	$11,500
Marzano, V	P0000846	Kahe 1 Overhaul (2005)	$11,500
Marzano, V	P0000847	Waiau 4 Overhaul (2005)	$11,500
Kiyabu, R	P0000937	W9 Major Inspection	$27,500
Kiyabu, R	P0000938	W10 Major Inspection	$27,500
			$109,625

2005 OVERHAUL
NON-LABOR BUDGET (Gas Turbines)

Σ(E) = $27,500 Σ(F) = $27,500

PROJECT NAME:	WAIAU 9 1/17/05 to 3/25/05 P0000937 / RKIYABU08 EST'D COST	REV	WAIAU 10 4/25/05 to 7/1/05 P0000938 / RKIYABU20 EST'D COST	REV
PREVENTATIVE MAINTENANCE - ASSOCIATED WITH THE OPENING, INSPECTION, AN CLOSING OF UNIT. WORK DONE ON A TIME CYCLE BAS				
GAS TURBINE PM 272				
Material 201				
Turbine insulation	$3,000		$3,000	
Lubricants, fluids replace (radiator, pumps, etc.)	$7,000		$7,000	
Consumables (filters, gaskets, etc.)	$5,000		$5,000	
Combustion Section (liner, transition pieces)/Turbine parts (bolts)	$60,000		$60,000	
Instrumentation	$3,000		$3,000	
Sand blast grit	$10,000		$10,000	
SUBTOTAL	**$88,000** JAN / FEB PIT272W09NERKIYABU0820		**$88,000** MAR / APR / MAY PIT272W09NERKIYABU20201	
GAS TURBINE PM 272				
Services 501				
Outsourcing of major inpspection	$325,000		$325,000	
Weld repairs/machining services	$60,000		$60,000	
Helpers	$16,000		$16,000	
Flow meter calibration	$2,500		$2,500	
Voltage regulator calibration	$7,000		$7,000	
Fire protection system inspection/servicing	$3,000		$3,000	
Sand blast compressor/turbine parts (outsource)	$25,000		$25,000	
Sand blast grit disposal	$6,000		$6,000	
Forklift rental	$2,500		$2,500	
Breaker servicing (outsource)	$8,000		$8,000	
Compressor/Trb/Generator bearing re-babbit	$20,000		$20,000	
Crane rental	$50,000		$50,000	
SUBTOTAL	**$525,000** MAR / APR PIT272W09NERKIYABU0850		**$525,000** JUN / JUL PIT272W10NERKIYABU20501	
TRANSFORMER PM 348				
Material 201				
Transformer Parts/Instrumentation	$1,000		$1,000	
SUBTOTAL	**$1,000** (E) JAN / FEB PIT348W09NERKIYABU0820		**$1,000** (F) MAR / APR / MAY PIT348W10NERKIYABU20201	
TRANSFORMER PM 348				
Outside Services 501				
SUBTOTAL	**$0** MAR / APR PIT348W09NERKIYABU0850		**$0** JUN / JUL PIT348W10NERKIYABU20501	

2005 OVERHAUL
NON-LABOR BUDGET (Gas Turbines)

PROJECT NAME:	WAIAU 9 1/17/05 to 3/25/05 P0000937 / RKIYABU08 EST'D COST	REV	WAIAU 10 4/25/05 to 7/1/05 P0000938 / RKIYABU20 EST'D COST	REV
CORRECTIVE MAINTENANCE - REPAIR OR REPLACEMENT OF FAILED OR FAILING E				
GAS TURBINE CM 274				
Material 201				
Torque converter parts	$50,000		$50,000	
Valves, piping	$5,000		$5,000	
	$55,000		**$55,000**	
	JAN / FEB		MAR / APR / MAY	
	PIT274W09NERKIYABU0820		PIT274W10NERKIYABU20201	
GAS TURBINE CM 274				
Outside Services 501				
Welders	$20,000		$20,000	
Turbine compartment roof side panels	$8,000		$8,000	
SUBTOTAL	**$28,000**		**$28,000**	
	MAR / APR		JUN / JUL	
	PIT274W09NERKIYABU0850		PIT274W10NERKIYABU20501	
TRANSFORMER CM 350				
Material 201				
SUBTOTAL	**$0**		**$0**	
	JAN / FEB		MAR / APR / MAY	
	PIT350W09NERKIYABU0820		PIT350W10NERKIYABU20201	
TRANSFORMER CM 350				
Outside Services 501				
Transformer bus duct-corrosion control	$8,000		$8,000	
SUBTOTAL	**$8,000** E		**$8,000** F	
	MAR / APR		JUN / JUL	
	PIT350W09NERKIYABU0850		PIT350W10NERKIYABU20501	
PREDICTIVE MAINTENANCE - INFORMATION BASED ON ANALYSIS				
GAS TURBINE PDM 273				
Materials 201				
Generator	$23,000		$23,000	
Generator stator wedges	$21,000		$21,000	
SUBTOTAL	**$44,000**		**$44,000**	

2005 OVERHAUL
NON-LABOR BUDGET (Gas Turbines)

PROJECT NAME:	WAIAU 9 1/17/05 to 3/25/05		WAIAU 10 4/25/05 to 7/1/05	
	P0000937 / RKIYABU08		P0000938 / RKIYABU20	
	EST'D COST	REV	EST'D COST	REV
	JAN / FEB		MAR / APR / MAY	
	PIT273W09NERKIYABU0820		PIT273W10NERKIYABU20201	
GAS TURBINE PDM 273				
Outside Services 501				
Generator retaining rings NDT	$12,000		$12,000	
Compressor/turbine blades/blade rings NDT	$15,000		$15,000	
Generator rotor/stator NDT	$25,000		$25,000	
Generator stator re-wedge	$100,000		$100,000	
Generator	$15,000		$15,000	
Compressor/turbine blades/blade rings repairs	$25,000		$25,000	
Exhaust stack inspection/repairs	$25,000		$25,000	
Motor re-conditioning	$15,000		$15,000	
Generator Testing	$25,000		$25,000	
SUBTOTAL	**$245,000**		**$245,000**	
	MAR / APR		JUN / JUL	
	PIT273W09NERKIYABU0850		PIT273W10NERKIYABU20501	
TRANSFORMER PDM 349				

Pearl Highlands 2nd Feeder Project

12/20/2004

*O&M for All Depts with Loc

4:32PM

Proj	ProjMgrOrEngr	Dept	RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	Act	Loc	EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P0000940	Chang, C	C&M	PDF	Field Operation	B35	Distribution Maint	593	Labor	415	OAH	150	24	0	12	12	0	0	0	0	0	0	0	0	0
												$873.84	$0.00	$436.92	$436.92	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000940	Chang, C	C&M	PDF	Field Operation	B35							24	0	12	12	0	0	0	0	0	0	0	0	0
												$873.84	$0.00	$436.92	$436.92	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000940	Chang, C	C&M	PDF									24	0	12	12	0	0	0	0	0	0	0	0	0
												$873.84	$0.00	$436.92	$436.92	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000940	Chang, C	C&M										24	0	12	12	0	0	0	0	0	0	0	0	0
												$873.84	$0.00	$436.92	$436.92	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
P0000940												24	0	12	12	0	0	0	0	0	0	0	0	0
												$873.84	$0.00	$436.92	$436.92	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

For P000940, 24 hours were calculated for switching. This number is obtained by calculating the number of days for our crews to do the job. Switching hours is 4 hours per day of C&M construction.

CA-IR-1
DOCKET NO. 04-0113
PROJECT NO. P0000940
PAGE 1 OF 1

CA-IR-1

CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000984 Promote e-Customer Service

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted staffing and associated labor direct expense amounts included in the witnesses' portion of the rate case test period budget.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a), documenting all work done to determine required staffing levels and overtime hours by Department, RA, Activity and NARUC Account.

c. Describe the actual force level that existed at the date the budget was prepared or otherwise served as a base for purposes of preparing the budget level.

d. For each budgeted employee position that is added to existing actual force levels (as the date the budget was prepared), **explain** the analyses undertaken to determine that each added position was necessary and should be filled in order to meet present or anticipated work requirements. Also, please explain how the anticipated work requirements were defined and determined.

e. Describe and, to the extent possible, quantify the backlog of work, unfinished projects, deferred maintenance and other labor requirements unfulfilled at present staffing levels, that will be satisfied by adding the employee positions identified in your response to part (d).

f. Provide complete copies of all studies, analyses, workpapers, projections, notes, correspondence, assumptions and other documents associated with your responses to parts (d) and (e) above.

HECO Response:

a. Employee's involved in budgeted staffing: Amy Ejercito, former Manager of Customer Service Department and Lori Oishi, former Operations Analyst of Customer Service Department.

b. See Attachment 1.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
LABOR

HAWAIIAN ELECTRIC COMPANY
PROJECTS
HOURS AND DOLLARS

	Project	NARUC	Dept	_LbrClass	_RA	Unit Identity	TY 2005	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	05	Oct-05	Nov-05	Dec-05
0984	Promote e-Customer Svc.	903	Cust Svc	__TC	PCA	Hours	480	40	40	40	40	40	40	40	40	40	40	40	40
0984	Promote e-Customer Svc.	903	Cust Svc	__TC	PCA	Dollars	$14,722	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	7	$1,227	$1,227	$1,227
0985	Bill Pay. Sys./ATM Proj	903	Cust Svc	__TCS	PCP	Hours	260	130	130	0	0	0	0	0	0	0	0	0	0
0985	Bill Pay. Sys./ATM Proj	903	Cust Svc	__TCS	PCP	Dollars	$7,834	$3,917	$3,917	$0	$0	$0	$0	$0	$0	0	$0	$0	$0
0986	GPS (Global Posit. Sys.)	903	Cust Svc	__TCS	PCG	Hours	132	11	11	11	11	11	11	11	11	11	11	11	11
0986	GPS (Global Posit. Sys.)	903	Cust Svc	__TCS	PCG	Dollars	$3,977	$331	$331	$331	$331	$331	$331	$331	$331	1	$331	$331	$331
0987	3rd Party Pay Solutions	903	Cust Svc	__TCS	PCP	Hours	80	0	80	0	0	0	0	0	0	0	0	0	0
0987	3rd Party Pay Solutions	903	Cust Svc	__TCS	PCP	Dollars	$2,410	$0	$2,410	$0	$0	$0	$0	$0	$0	0	$0	$0	$0
0988	ACCESS (solutions to issues)	903	Cust Svc	__BUOC	PCM	Hours	520	43	43	44	43	43	44	43	43	4	43	43	44
0988	ACCESS (solutions to issues)	903	Cust Svc	__BUOC	PCM	Dollars	$11,996	$992	$992	$1,015	$992	$992	$1,015	$992	$992	5	$992	$992	$1,015

O & M for All Departments by Project Number

Acct Descp	NARUC	Exp Class	Act	Loc	EE	FY05	05 Jan	05 Feb	05 Mar	05 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
S Acc	903	N Lab	614	OAH	501	100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
						100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
S Acc	901	N Lab	899	PHE	501	48,000.00	-	-	6,750.00	-	-	13,750.00	-	-	13,750.00	-	-	13,750.00
						48,000.00	$ -	$ -	$ 6,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00
S Acc	901	N Lab	720	PHE	501	100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
						100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
S Acc	903	Lab	600	OAH	150	480	40	40	40	40	40	40	40	40	40	40	40	40
S Acc	903	Lab	600	OAH	150	14,721.60	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80
S Acc	903	N Lab	600	OAH	501	100,000.00	-	-	-	-	-	-	-	10,000.00	20,000.00	25,000.00	37,500.00	7,500.00
S Acc	903	N Lab	600	OAH	640	50,000.00	-	-	-	-	-	-	-	-	4,000.00	-	46,000.00	-
S Acc	921	N Lab	600	OAH	451	12,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
						176,721.60	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 12,226.80	$ 26,226.80	$ 27,226.80	$ 85,726.80	$ 9,726.80
S Acc	903	N Lab	600	OAH	501	24,000.00	20,333.00	20,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00
S Acc	903	Lab	600	OAH	150	260	130	130	-	-	-	-	-	-	-	-	-	-
S Acc	903	Lab	600	OAH	150	7,833.80	3,916.90	3,916.90	-	-	-	-	-	-	-	-	-	-
						131,833.80	$ 24,249.90	$ 24,249.90	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00
S Acc	903	N Lab	600	OAH	501	18,000.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
S Acc	903	Lab	600	OAH	150	132	11	11	11	11	11	11	11	11	11	11	11	11
S Acc	903	Lab	600	OAH	150	3,977.16	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43
						21,977.16	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43
S Acc	903	N Lab	600	OAH	501	22,000.00	-	22,000.00	-	-	-	-	-	-	-	-	-	-
S Acc	903	Lab	600	OAH	150	80	-	80	-	-	-	-	-	-	-	-	-	-
S Acc	903	Lab	600	OAH	150	2,410.40	-	2,410.40	-	-	-	-	-	-	-	-	-	-
A&G	921	N Lab	600	OAH	451	4,000.00	-	4,000.00	-	-	-	-	-	-	-	-	-	-
						28,410.40	$ -	$ 28,410.40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
S Acc	903	N Lab	600	OAH	501	49,500.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00
S Acc	903	Lab	600	OAH	150	520	43	43	44	43	43	44	43	43	44	43	43	44
S Acc	903	Lab	600	OAH	150	11,996.40	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08
						61,496.40	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08

CA-IR-2

CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000984 Promote e-Customer Service

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted non-labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted **non-labor direct expense** amounts included in the rate case test period budget and sponsored by the witness.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" work papers, surveys and other analyses performed by each of the employees identified in response to part (a), indicating the amounts by Department, RA, Activity and NARUC Account that such calculations support.

c. For each budgeted non-labor amount in the test period forecast that exceeds $50,000, please describe the basis for determining the budgeted amount (for example, bid solicitation, price times quantity estimation, historical cost escalated, etc.)

d. For each item in your response to part (c), where specific quantities and prices were discretely forecasted, explain the basis for and source of the budgeted quantity inputs and budgeted prices for each such item. Provide complete copies of all studies, reports and other documents that were relied upon.

e. For each item in your response to part (c) where historical costs were escalated, provide all historical cost information that was considered and explain how such data was evaluated and escalated to derive test year proposed levels.

f. For each item in your response to part (c) where a bid solicitation or other special analysis was conducted, explain what was done and provide complete copies of all supporting reports, bid solicitations, proposal, analyses, work papers and other documents associated with such efforts.

g. Provide complete copies of all other information required to completely support and document the test year projected expense levels being proposed by the Company, including

Service Department and Lori Oishi, former Operations Analyst of the Customer Service Department.

b. See Attachment 1.

c. **P0000984, Promote e-Customer Service** non-labor forecast is based on an estimation of consultant costs to provide promotions to raise customer awareness of the various alternatives available to them for conducting business with HECO.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
NONLABOR

O & M for All Departments by Project Number

Proj	Proj Mgr	Dept	RA	Acct Descp	NARUC	Exp Class	Act	Loc	EE	FY05	05 Jan	05 Feb	05 Mar	05 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
P0000686	Ejercito, A	CS	PCA	CS Acc	903	N Lab	614	OAH	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000692	Ejercito, A	CS	PCA	CS Acc	901	N Lab	899	PHE	501	$ 48,000.00	-	-	6,750.00	-	-	13,750.00	-	-	13,750.00	-	-	13,750.00
										$ 48,000.00	$ -	$ -	$ 6,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00
P0000694	Ejercito, A	CS	PCA	CS Acc	901	N Lab	720	PHE	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	480	40	40	40	40	40	40	40	40	40	40	40	40
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	$ 14,721.60	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80
P0000984	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 100,000.00	-	-	-	-	-	-	-	10,000.00	20,000.00	25,000.00	37,500.00	7,500.00
P0000984	Ejercito, A	CS	PCP	CS Acc	903	N Lab	600	OAH	640	$ 50,000.00	-	-	-	-	-	-	-	-	4,000.00	-	46,000.00	-
P0000984	Ejercito, A	CS	PEZ	CS Acc	921	N Lab	600	OAH	451	$ 12,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
										$ 176,721.60	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 12,226.80	$ 26,226.80	$ 27,226.80	$ 85,726.80	$ 9,726.80
P0000985	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 124,000.00	20,333.00	20,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	260	130	130	-	-	-	-	-	-	-	-	-	-
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 7,833.80	3,916.90	3,916.90	-	-	-	-	-	-	-	-	-	-
										$ 131,833.80	$ 24,249.90	$ 24,249.90	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00
P0000986	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 18,000.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	132	11	11	11	11	11	11	11	11	11	11	11	11
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	$ 3,977.16	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43
										21,977.16	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43
P0000987	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 22,000.00	-	22,000.00	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	80	-	80	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 2,410.40	-	2,410.40	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	IT	PEZ	A&G	921	N Lab	600	OAH	451	$ 4,000.00	-	4,000.00	-	-	-	-	-	-	-	-	-	-
										$ 28,410.40	$ -	$ 28,410.40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
P0000988	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 49,500.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	520	43	43	44	43	43	44	43	43	44	43	43	44
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	$ 11,996.40	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08
										$ 61,496.40	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08

CA-IR-1
CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000985 Bill Payment System

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted staffing and associated labor direct expense amounts included in the witnesses' portion of the rate case test period budget.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a), documenting all work done to determine required staffing levels and overtime hours by Department, RA, Activity and NARUC Account.

c. Describe the actual force level that existed at the date the budget was prepared or otherwise served as a base for purposes of preparing the budget level.

d. For each budgeted employee position that is added to existing actual force levels (as the date

b. See Attachment 1.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
LABOR

HAWAIIAN ELECTRIC COMPANY
PROJECTS
HOURS AND DOLLARS

_Proj	Project	NARUC	Dept	_LbrClass	_RA	Unit Identity	TY 2005	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
P0000984	Promote e-Customer Svc.	903	Cust Svc	__TC	PCA	Hours	480	40	40	40	40	40	40	40	40	40	40	40	40
P0000984	Promote e-Customer Svc.	903	Cust Svc	__TC	PCA	Dollars	$14,722	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227
P0000985	Bill Pay. Sys./ATM Proj	903	Cust Svc	__TCS	PCP	Hours	260	130	130	0	0	0	0	0	0	0	0	0	0
P0000985	Bill Pay. Sys./ATM Proj	903	Cust Svc	__TCS	PCP	Dollars	$7,834	$3,917	$3,917	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
P0000986	GPS (Global Posit. Sys.)	903	Cust Svc	__TCS	PCG	Hours	132	11	11	11	11	11	11	11	11	11	11	11	11
P0000986	GPS (Global Posit. Sys.)	903	Cust Svc	__TCS	PCG	Dollars	$3,977	$331	$331	$331	$331	$331	$331	$331	$331	$331	$331	$331	$331
P0000987	3rd Party Pay Solutions	903	Cust Svc	__TCS	PCP	Hours	80	0	80	0	0	0	0	0	0	0	0	0	0
P0000987	3rd Party Pay Solutions	903	Cust Svc	__TCS	PCP	Dollars	$2,410	$0	$2,410	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
P0000988	ACCESS (solutions to issues)	903	Cust Svc	__BUOC	PCM	Hours	520	43	43	44	43	43	44	43	43	44	43	43	44
P0000988	ACCESS (solutions to issues)	903	Cust Svc	__BUOC	PCM	Dollars	$11,996	$992	$992	$1,015	$992	$992	$1,015	$992	$992	$1,015	$992	$992	$1,015

O & M for All Departments by Project Number

ıl	Proj Mgr	Dept	RA	Acct Descp	NARUC	Exp Class	Act	Loc	EE	FY05	05 Jan	05 Feb	05 Mar	05 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
686	Ejercito, A	CS	PCA	CS Acc	903	N Lab	614	OAH	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	25,003.00
692	Ejercito, A	CS	PCA	CS Acc	901	N Lab	899	PHE	501	$ 48,000.00	-	-	6,750.00	-	-	13,750.00	-	-	13,750.00	-	-	13,750.00
										$ 48,000.00	$ -	$ -	$ 6,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	13,750.00
694	Ejercito, A	CS	PCA	CS Acc	901	N Lab	720	PHE	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	25,003.00
984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	480	40	40	40	40	40	40	40	40	40	40	40	40
984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	$ 14,721.60	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80
984	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 100,000.00	-	-	-	-	-	-	-	10,000.00	20,000.00	25,000.00	37,500.00	7,500.00
984	Ejercito, A	CS	PCP	CS Acc	903	N Lab	600	OAH	640	$ 50,000.00	-	-	-	-	-	-	-	-	4,000.00	-	46,000.00	-
984	Ejercito, A	CS	PEZ	CS Acc	921	N Lab	600	OAH	451	$ 12,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
										$ 176,721.60	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 12,226.80	$ 26,226.80	$ 27,226.80	$ 85,726.80	9,726.80
985	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 124,000.00	20,333.00	20,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00
985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	260	130	130	-	-	-	-	-	-	-	-	-	-
985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 7,833.80	3,916.90	3,916.90	-	-	-	-	-	-	-	-	-	-
										$ 131,833.80	$ 24,249.90	$ 24,249.90	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	8,334.00
986	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 18,000.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	132	11	11	11	11	11	11	11	11	11	11	11	11
986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	$ 3,977.16	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43
										21,977.16	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43
987	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 22,000.00	-	22,000.00	-	-	-	-	-	-	-	-	-	-
987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	80	-	80	-	-	-	-	-	-	-	-	-	-
987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 2,410.40	-	2,410.40	-	-	-	-	-	-	-	-	-	-
987	Ejercito, A	IT	PEZ	A&G	921	N Lab	600	OAH	451	$ 4,000.00	-	4,000.00	-	-	-	-	-	-	-	-	-	-
										$ 28,410.40	$ -	$ 28,410.40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
988	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 49,500.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00
988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	520	43	43	44	43	43	44	43	43	44	43	43	44
988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	$ 11,996.40	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08
										$ 61,496.40	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	5,140.08

CA-IR-2

CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000985 Bill Payment System ATM

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted non-labor direct expense amounts, please provide the following information:

[redacted]

Service Department and Lori Oishi, former Operations Analyst of the Customer Service Department.

b. See Attachment 1.

c. **P0000985, Bill Payment System/ATM-Credit Card Payment** non-labor forecast is based on an estimation of consultant costs to implement a pilot offering of credit card payment options, assess financial impact to HECO, and ultimately, its customer base, assess customer satisfaction with new payment option and perform cost-benefit analysis of this payment option.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
NONLABOR

O & M for All Departments by Project Number

Proj	Proj Mgr	Dept	RA	Acct Descp	NARUC	Exp Class	Act	Loc	EE	FY05	05 Jan	05 Feb	05 Mar	05 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
P0000686	Ejercito, A	CS	PCA	CS Acc	903	N Lab	614	OAH	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000692	Ejercito, A	CS	PCA	CS Acc	901	N Lab	899	PHE	501	$ 48,000.00	-	-	6,750.00	-	-	13,750.00	-	-	13,750.00	-	-	13,750.00
										$ 48,000.00	$ -	$ -	$ 6,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00
P0000694	Ejercito, A	CS	PCA	CS Acc	901	N Lab	720	PHE	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	480	40	40	40	40	40	40	40	40	40	40	40	40
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	$ 14,721.60	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80
P0000984	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 100,000.00	-	-	-	-	-	-	-	10,000.00	20,000.00	25,000.00	37,500.00	7,500.00
P0000984	Ejercito, A	CS	PCP	CS Acc	903	N Lab	600	OAH	640	$ 50,000.00	-	-	-	-	-	-	-	-	4,000.00	-	46,000.00	-
P0000984	Ejercito, A	CS	PEZ	CS Acc	921	N Lab	600	OAH	451	$ 12,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
										$ 176,721.60	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 12,226.80	$ 26,226.80	$ 27,226.80	$ 85,726.80	$ 9,726.80
P0000985	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 124,000.00	20,333.00	20,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	260	130	130	-	-	-	-	-	-	-	-	-	-
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 7,833.80	3,916.90	3,916.90	-	-	-	-	-	-	-	-	-	-
										$ 131,833.80	$ 24,249.90	$ 24,249.90	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00
P0000986	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 18,000.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	132	11	11	11	11	11	11	11	11	11	11	11	11
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	$ 3,977.16	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43
										21,977.16	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43
P0000987	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 22,000.00	-	22,000.00	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	80	-	80	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 2,410.40	-	2,410.40	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	IT	PEZ	A&G	921	N Lab	600	OAH	451	$ 4,000.00	-	4,000.00	-	-	-	-	-	-	-	-	-	-
										$ 28,410.40	$ -	$ 28,410.40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
P0000988	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 49,500.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	520	43	43	44	43	43	44	43	43	44	43	43	44
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	$ 11,996.40	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08
										$ 61,496.40	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08

CA-IR-1

CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000986 GPS (Global Positioning System)

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted staffing and associated labor direct expense amounts included in the witnesses' portion of the rate case test period budget.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a), documenting all work done to determine required staffing levels and overtime hours by Department, RA, Activity and NARUC Account.

c. Describe the actual force level that existed at the date the budget was prepared or otherwise served as a base for purposes of preparing the budget level.

d. For each budgeted employee position that is added to existing actual force levels (as the date the budget was prepared), **explain** the analyses undertaken to determine that each added position was necessary and should be filled in order to meet present or anticipated work requirements. Also, please explain how the anticipated work requirements were defined and determined.

e. Describe and, to the extent possible, quantify the backlog of work, unfinished projects, deferred maintenance and other labor requirements unfulfilled at present staffing levels, that will be satisfied by adding the employee positions identified in your response to part (d).

f. Provide complete copies of all studies, analyses, workpapers, projections, notes, correspondence, assumptions and other documents associated with your responses to parts (d) and (e) above.

HECO Response:

a. Employee's involved in budgeted staffing: Amy Ejercito, former Manager of Customer Service Department and Lori Oishi, former Operations Analyst of Customer Service Department.

b. See Attachment 1.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
LABOR

HAWAIIAN ELECTRIC COMPANY
PROJECTS
HOURS AND DOLLARS

	NARUC	Dept	_LbrClass	_RA	nit Identity	TY 2005	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
r Svc.	903	Cust Svc	__TC	PCA	ours	480	40	40	40	40	40	40	40	40	40	40	40	40
r Svc.	903	Cust Svc	__TC	PCA	ollars	$14,722	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227
Proj	903	Cust Svc	__TCS	PCP	ours	260	130	130	0	0	0	0	0	0	0	0	0	0
Proj	903	Cust Svc	__TCS	PCP	ollars	$7,834	$3,917	$3,917	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sys.)	903	Cust Svc	__TCS	PCG	ours	132	11	11	11	11	11	11	11	11	11	11	11	11
Sys.)	903	Cust Svc	__TCS	PCG	ollars	$3,977	$331	$331	$331	$331	$331	$331	$331	$331	$331	$331	$331	$331
ons	903	Cust Svc	__TCS	PCP	ours	80	0	80	0	0	0	0	0	0	0	0	0	0
ons	903	Cust Svc	__TCS	PCP	ollars	$2,410	$0	$2,410	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
issues)	903	Cust Svc	__BUOC	PCM	ours	520	43	43	44	43	43	44	43	43	44	43	43	44
issues)	903	Cust Svc	__BUOC	PCM	ollars	$11,996	$992	$992	$1,015	$992	$992	$1,015	$992	$992	$1,015	$992	$992	$1,015

O & M for All Departments by Project Number

Proj	Proj Mgr	Dept	RA	Acct Descp	NARUC	Exp Class	Act	Loc	EE	FY05	05 Jan	05 Feb	05 Mar	05 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
P0000686	Ejercito, A	CS	PCA	CS Acc	903	N Lab	614	OAH	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000692	Ejercito, A	CS	PCA	CS Acc	901	N Lab	899	PHE	501	$ 48,000.00	-	-	6,750.00	-	-	13,750.00	-	-	13,750.00	-	-	13,750.00
										$ 48,000.00	$ -	$ -	$ 6,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00
P0000694	Ejercito, A	CS	PCA	CS Acc	901	N Lab	720	PHE	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	480	40	40	40	40	40	40	40	40	40	40	40	40
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	$ 14,721.60	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80
P0000984	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 100,000.00	-	-	-	-	-	-	-	10,000.00	20,000.00	25,000.00	37,500.00	7,500.00
P0000984	Ejercito, A	CS	PCP	CS Acc	903	N Lab	600	OAH	640	$ 50,000.00	-	-	-	-	-	-	-	-	4,000.00	-	46,000.00	-
P0000984	Ejercito, A	CS	PEZ	CS Acc	921	N Lab	600	OAH	451	$ 12,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
										$ 176,721.60	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 12,226.80	$ 26,226.80	$ 27,226.80	$ 85,726.80	$ 9,726.80
P0000985	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 124,000.00	20,333.00	20,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	260	130	130	-	-	-	-	-	-	-	-	-	-
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 7,833.80	3,916.90	3,916.90	-	-	-	-	-	-	-	-	-	-
										$ 131,833.80	$ 24,249.90	$ 24,249.90	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00
P0000986	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 18,000.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	132	11	11	11	11	11	11	11	11	11	11	11	11
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	$ 3,977.16	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43
										21,977.16	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43
P0000987	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 22,000.00	-	22,000.00	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	80	-	80	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 2,410.40	-	2,410.40	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	IT	PEZ	A&G	921	N Lab	600	OAH	451	$ 4,000.00	-	4,000.00	-	-	-	-	-	-	-	-	-	-
										$ 28,410.40	$ -	$ 28,410.40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
P0000988	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 49,500.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	520	43	43	44	43	43	44	43	43	44	43	43	44
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	$ 11,996.40	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08
										$ 61,496.40	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08

CA-IR-2

CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000986 Global Positioning System

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted non-labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted **non-labor direct expense** amounts included in the rate case test period budget and sponsored by the witness.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" work papers, surveys and other analyses performed by each of the employees identified in response to part (a), indicating the amounts by Department, RA, Activity and NARUC Account that such calculations support.

c. For each budgeted non-labor amount in the test period forecast that exceeds $50,000, please describe the basis for determining the budgeted amount (for example, bid solicitation, price times quantity estimation, historical cost escalated, etc.)

d. For each item in your response to part (c), where specific quantities and prices were discretely forecasted, explain the basis for and source of the budgeted quantity inputs and budgeted prices for each such item. Provide complete copies of all studies, reports and other documents that were relied upon.

e. For each item in your response to part (c) where historical costs were escalated, provide all historical cost information that was considered and explain how such data was evaluated and escalated to derive test year proposed levels.

f. For each item in your response to part (c) where a bid solicitation or other special analysis was conducted, explain what was done and provide complete copies of all supporting reports, bid solicitations, proposal, analyses, work papers and other documents associated with such efforts.

g. Provide complete copies of all other information required to completely support and document the test year projected expense levels being proposed by the Company, including general assumptions and forecasting instructions that were employed.

HECO Response:

a. Employee's involved in budgeted staffing: Amy Ejercito, former Manager of the Customer

Service Department and Lori Oishi, former Operations Analyst of the Customer Service Department.

b. See Attachment 1.

c. **P0000986, (GBS) Global Positioning System** non-labor forecast is based on an estimation of consultant costs to expand current capabilities and improve communication between field/office real time utilizing the Global Positioning System.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
NONLABOR

for All Departments by Project Number

Jan	05 Feb	05 Mar	05 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
-	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
-	-	6,750.00	-	-	13,750.00	-	-	13,750.00	-	-	13,750.00
-	$ -	$ 6,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00
-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
-	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
40	40	40	40	40	40	40	40	40	40	40	40
,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80
-	-	-	-	-	-	-	10,000.00	20,000.00	25,000.00	37,500.00	7,500.00
-	-	-	-	-	-	-	-	4,000.00	-	46,000.00	-
,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 12,226.80	$ 26,226.80	$ 27,226.80	$ 85,726.80	$ 9,726.80
,333.00	20,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00
130	130	-	-	-	-	-	-	-	-	-	-
3,916.90	3,916.90	-	-	-	-	-	-	-	-	-	-
1,246.90	$ 24,249.90	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00
1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
11	11	11	11	11	11	11	11	11	11	11	11
331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43
1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43
-	22,000.00	-	-	-	-	-	-	-	-	-	-
-	80	-	-	-	-	-	-	-	-	-	-
-	2,410.40	-	-	-	-	-	-	-	-	-	-
-	4,000.00	-	-	-	-	-	-	-	-	-	-
-	$ 28,410.40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00
43	43	44	43	43	44	43	43	44	43	43	44
992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08
5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08

CA-IR-1

CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000987 3rd Party Solutions

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted staffing and associated labor direct expense amounts included in the witnesses' portion of the rate case test period budget.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a), documenting all work done to determine required staffing levels and overtime hours by Department, RA, Activity and NARUC Account.

c. Describe the actual force level that existed at the date the budget was prepared or otherwise served as a base for purposes of preparing the budget level.

d. For each budgeted employee position that is added to existing actual force levels (as the date the budget was prepared), **explain** the analyses undertaken to determine that each added position was necessary and should be filled in order to meet present or anticipated work requirements. Also, please explain how the anticipated work requirements were defined and determined.

e. Describe and, to the extent possible, quantify the backlog of work, unfinished projects, deferred maintenance and other labor requirements unfulfilled at present staffing levels, that will be satisfied by adding the employee positions identified in your response to part (d).

f. Provide complete copies of all studies, analyses, workpapers, projections, notes, correspondence, assumptions and other documents associated with your responses to parts (d) and (e) above.

HECO Response:

a. Employee's involved in budgeted staffing: Amy Ejercito, former Manager of Customer Service Department and Lori Oishi, former Operations Analyst of Customer Service Department.

b. See Attachment 1.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
LABOR

HAWAIIAN ELECTRIC COMPANY
PROJECTS
HOURS AND DOLLARS

_Proj	Project	NARUC	Dept	_LbrClass	_RA	Unit Identity	TY 2005	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
P0000984	Promote e-Customer Svc.	903	Cust Svc	__TC	PCA	Hours	480	40	40	40	40	40	40	40	40	40	40	40	40
P0000984	Promote e-Customer Svc.	903	Cust Svc	__TC	PCA	Dollars	$14,722	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227
P0000985	Bill Pay. Sys./ATM Proj	903	Cust Svc	__TCS	PCP	Hours	260	130	130	0	0	0	0	0	0	0	0	0	0
P0000985	Bill Pay. Sys./ATM Proj	903	Cust Svc	__TCS	PCP	Dollars	$7,834	$3,917	$3,917	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
P0000986	GPS (Global Posit. Sys.)	903	Cust Svc	__TCS	PCG	Hours	132	11	11	11	11	11	11	11	11	11	11	11	11
P0000986	GPS (Global Posit. Sys.)	903	Cust Svc	__TCS	PCG	Dollars	$3,977	$331	$331	$331	$331	$331	$331	$331	$331	$331	$331	$331	$331
P0000987	3rd Party Pay Solutions	903	Cust Svc	__TCS	PCP	Hours	80	0	80	0	0	0	0	0	0	0	0	0	0
P0000987	3rd Party Pay Solutions	903	Cust Svc	__TCS	PCP	Dollars	$2,410	$0	$2,410	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
P0000988	ACCESS (solutions to issues)	903	Cust Svc	__BUOC	PCM	Hours	520	43	43	44	43	43	44	43	43	44	43	43	44
P0000988	ACCESS (solutions to issues)	903	Cust Svc	__BUOC	PCM	Dollars	$11,996	$992	$992	$1,015	$992	$992	$1,015	$992	$992	$1,015	$992	$992	$1,015

05 Aug	05 Sep	05 Oct	05 Nov
-	24,999.00	-	-
$ -	$ 24,999.00	$ -	$ -
-	13,750.00	-	-
$ -	$ 13,750.00	$ -	$ -
-	24,999.00	-	-
$ -	$ 24,999.00	$ -	$ -
40	40	40	40
1,226.80	1,226.80	1,226.80	1,226.80
10,000.00	20,000.00	25,000.00	37,500.00
-	4,000.00	-	46,000.00
1,000.00	1,000.00	1,000.00	1,000.00
$ 12,226.80	$ 26,226.80	$ 27,226.80	$ 85,726.80
8,333.00	8,334.00	8,333.00	8,333.00
-	-	-	-
-	-	-	-
$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00
1,500.00	1,500.00	1,500.00	1,500.00
11	11	11	11
331.43	331.43	331.43	331.43
1,831.43	1,831.43	1,831.43	1,831.43
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
$ -	$ -	$ -	$ -
4,125.00	4,125.00	4,125.00	4,125.00
43	44	43	43
992.01	1,015.08	992.01	992.01
$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01

CA-IR-2

CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000987 3rd Party Solutions

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted non-labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted **non-labor direct expense** amounts included in the rate case test period budget and sponsored by the witness.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" work papers, surveys and other analyses performed by each of the employees identified in response to part (a), indicating the amounts by Department, RA, Activity and NARUC Account that such calculations support.

c. For each budgeted non-labor amount in the test period forecast that exceeds $50,000, please describe the basis for determining the budgeted amount (for example, bid solicitation, price times quantity estimation, historical cost escalated, etc.)

d. For each item in your response to part (c), where specific quantities and prices were discretely forecasted, explain the basis for and source of the budgeted quantity inputs and budgeted prices for each such item. Provide complete copies of all studies, reports and other documents that were relied upon.

e. For each item in your response to part (c) where historical costs were escalated, provide all historical cost information that was considered and explain how such data was evaluated and escalated to derive test year proposed levels.

f. For each item in your response to part (c) where a bid solicitation or other special analysis was conducted, explain what was done and provide complete copies of all supporting reports, bid solicitations, proposal, analyses, work papers and other documents associated with such efforts.

g. Provide complete copies of all other information required to completely support and document the test year projected expense levels being proposed by the Company, including general assumptions and forecasting instructions that were employed.

HECO Response:

a. Employee's involved in budgeted staffing: Amy Ejercito, former Manager of the Customer

Service Department and Lori Oishi, former Operations Analyst of the Customer Service Department.

b. See Attachment 1.

c. **P0000987, 3rd Party Solutions** non-labor forecast is based on an estimation of consultant costs to expand current locations where customers can make a walk-in payment.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
NONLABOR

ents by Project Number

Mar	05 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
99.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
99.00	$ -	$ -	$24,999.00	$ -	$ -	$24,999.00	$ -	$ -	$25,003.00
50.00	-	-	13,750.00	-	-	13,750.00	-	-	13,750.00
50.00	$ -	$ -	$13,750.00	$ -	$ -	$13,750.00	$ -	$ -	$13,750.00
99.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
99.00	$ -	$ -	$24,999.00	$ -	$ -	$24,999.00	$ -	$ -	$25,003.00
40	40	40	40	40	40	40	40	40	40
26.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80
-	-	-	-	-	10,000.00	20,000.00	25,000.00	37,500.00	7,500.00
-	-	-	-	-	-	4,000.00	-	46,000.00	-
00.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
26.80	$2,226.80	$2,226.80	$ 2,226.80	$2,226.80	$12,226.80	$26,226.80	$27,226.80	$85,726.80	$ 9,726.80
34.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
34.00	$8,333.00	$8,333.00	$ 8,334.00	$8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00
00.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
11	11	11	11	11	11	11	11	11	11
31.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43
31.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
25.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00
44	43	43	44	43	43	44	43	43	44
15.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08
40.08	$5,117.01	$5,117.01	$ 5,140.08	$5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08

CA-IR-1

CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000988 Access – Solutions to Issues

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted staffing and associated labor direct expense amounts included in the witnesses' portion of the rate case test period budget.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a), documenting all work done to determine required staffing levels and overtime hours by Department, RA, Activity and NARUC Account.

c. Describe the actual force level that existed at the date the budget was prepared or otherwise served as a base for purposes of preparing the budget level.

d. For each budgeted employee position that is added to existing actual force levels (as the date the budget was prepared), **explain** the analyses undertaken to determine that each added position was necessary and should be filled in order to meet present or anticipated work requirements. Also, please explain how the anticipated work requirements were defined and determined.

e. Describe and, to the extent possible, quantify the backlog of work, unfinished projects, deferred maintenance and other labor requirements unfulfilled at present staffing levels, that will be satisfied by adding the employee positions identified in your response to part (d).

f. Provide complete copies of all studies, analyses, workpapers, projections, notes, correspondence, assumptions and other documents associated with your responses to parts (d) and (e) above.

HECO Response:

a. Employee's involved in budgeted staffing: Amy Ejercito, former Manager of Customer Service Department and Lori Oishi, former Operations Analyst of Customer Service Department.

b. See Attachment 1.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
LABOR

HAWAIIAN ELECTRIC COMPANY
PROJECTS
HOURS AND DOLLARS

_Proj	Project	NARUC	Dept	_LbrClass	_RA	Unit Identity	TY 2005	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
P0000984	Promote e-Customer Svc.	903	Cust Svc	__TC	PCA	Hours	480	40	40	40	40	40	40	40	40	40	40	40	40
P0000984	Promote e-Customer Svc.	903	Cust Svc	__TC	PCA	Dollars	$14,722	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227	$1,227
P0000985	Bill Pay. Sys./ATM Proj	903	Cust Svc	__TCS	PCP	Hours	260	130	130	0	0	0	0	0	0	0	0	0	0
P0000985	Bill Pay. Sys./ATM Proj	903	Cust Svc	__TCS	PCP	Dollars	$7,834	$3,917	$3,917	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
P0000986	GPS (Global Posit. Sys.)	903	Cust Svc	__TCS	PCG	Hours	132	11	11	11	11	11	11	11	11	11	11	11	11
P0000986	GPS (Global Posit. Sys.)	903	Cust Svc	__TCS	PCG	Dollars	$3,977	$331	$331	$331	$331	$331	$331	$331	$331	$331	$331	$331	$331
P0000987	3rd Party Pay Solutions	903	Cust Svc	__TCS	PCP	Hours	80	0	80	0	0	0	0	0	0	0	0	0	0
P0000987	3rd Party Pay Solutions	903	Cust Svc	__TCS	PCP	Dollars	$2,410	$0	$2,410	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
P0000988	ACCESS (solutions to issues)	903	Cust Svc	__BUOC	PCM	Hours	520	43	43	44	43	43	44	43	43	44	43	43	44
P0000988	ACCESS (solutions to issues)	903	Cust Svc	__BUOC	PCM	Dollars	$11,996	$992	$992	$1,015	$992	$992	$1,015	$992	$992	$1,015	$992	$992	$1,015

O & M for All Departments by Project Number

Proj	Proj Mgr	Dept	RA	Acct Descp	NARUC	Exp Class	Act	Loc	EE	FY05	05 Jan	05 Feb	05 Mar	05 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
P0000686	Ejercito, A	CS	PCA	CS Acc	903	N Lab	614	OAH	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000692	Ejercito, A	CS	PCA	CS Acc	901	N Lab	899	PHE	501	$ 48,000.00	-	-	6,750.00	-	-	13,750.00	-	-	13,750.00	-	-	13,750.00
										$ 48,000.00	$ -	$ -	$ 6,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00
P0000694	Ejercito, A	CS	PCA	CS Acc	901	N Lab	720	PHE	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	480	40	40	40	40	40	40	40	40	40	40	40	40
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	$ 14,721.60	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80
P0000984	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 100,000.00	-	-	-	-	-	-	-	10,000.00	20,000.00	25,000.00	37,500.00	7,500.00
P0000984	Ejercito, A	CS	PCP	CS Acc	903	N Lab	600	OAH	640	$ 50,000.00	-	-	-	-	-	-	-	-	4,000.00	-	46,000.00	-
P0000984	Ejercito, A	CS	PEZ	CS Acc	921	N Lab	600	OAH	451	$ 12,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
										$ 176,721.60	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 12,226.80	$ 26,226.80	$ 27,226.80	$ 85,726.80	$ 9,726.80
P0000985	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 124,000.00	20,333.00	20,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	260	130	130	-	-	-	-	-	-	-	-	-	-
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 7,833.80	3,916.90	3,916.90	-	-	-	-	-	-	-	-	-	-
										$ 131,833.80	$ 24,249.90	$ 24,249.90	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00
P0000986	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 18,000.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	132	11	11	11	11	11	11	11	11	11	11	11	11
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	$ 3,977.16	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43
										21,977.16	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43
P0000987	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 22,000.00	-	22,000.00	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	80	-	80	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 2,410.40	-	2,410.40	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	IT	PEZ	A&G	921	N Lab	600	OAH	451	$ 4,000.00	-	4,000.00	-	-	-	-	-	-	-	-	-	-
										$ 28,410.40	$ -	$ 28,410.40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
P0000988	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 49,500.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	520	43	43	44	43	43	44	43	43	44	43	43	44
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	$ 11,996.40	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08
										$ 61,496.40	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08

CA-IR-2

CUSTOMER ACCOUNTS **NARUC (901-904)**

PROJECT P0000988 Access – Solutions to Issues

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted non-labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted **non-labor direct expense** amounts included in the rate case test period budget and sponsored by the witness.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" work papers, surveys and other analyses performed by each of the employees identified in response to part (a), indicating the amounts by Department, RA, Activity and NARUC Account that such calculations support.

c. For each budgeted non-labor amount in the test period forecast that exceeds $50,000, please describe the basis for determining the budgeted amount (for example, bid solicitation, price times quantity estimation, historical cost escalated, etc.)

d. For each item in your response to part (c), where specific quantities and prices were

Service Department and Lori Oishi, former Operations Analyst of the Customer Service Department.

b. See Attachment 1.

c. **P0000988, Access – Solutions to Issues** non-labor forecast is based on an estimation of consultant costs to access current issues and situations that prevent HECO from accessing customer meters safely and timely and develop systems and processes that allow HECO to access meters on customer property safely and timely.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

PROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
NONLABOR

O & M for All Departments by Project Number

Proj	Proj Mgr	Dept	RA	Acct Descp	NARUC	Exp Class	Act	Loc	EE	FY05	05 Jan	05 Feb	05 Mar	05 Apr	05 May	05 Jun	05 Jul	05 Aug	05 Sep	05 Oct	05 Nov	05 Dec
P0000686	Ejercito, A	CS	PCA	CS Acc	903	N Lab	614	OAH	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000692	Ejercito, A	CS	PCA	CS Acc	901	N Lab	899	PHE	501	$ 48,000.00	-	-	6,750.00	-	-	13,750.00	-	-	13,750.00	-	-	13,750.00
										$ 48,000.00	$ -	$ -	$ 6,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00	$ -	$ -	$ 13,750.00
P0000694	Ejercito, A	CS	PCA	CS Acc	901	N Lab	720	PHE	501	$ 100,000.00	-	-	24,999.00	-	-	24,999.00	-	-	24,999.00	-	-	25,003.00
										$ 100,000.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 24,999.00	$ -	$ -	$ 25,003.00
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	480	40	40	40	40	40	40	40	40	40	40	40	40
P0000984	Ejercito, A	CS	PCA	CS Acc	903	Lab	600	OAH	150	$ 14,721.60	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80	1,226.80
P0000984	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 100,000.00	-	-	-	-	-	-	-	10,000.00	20,000.00	25,000.00	37,500.00	7,500.00
P0000984	Ejercito, A	CS	PCP	CS Acc	903	N Lab	600	OAH	640	$ 50,000.00	-	-	-	-	-	-	-	-	4,000.00	-	46,000.00	-
P0000984	Ejercito, A	CS	PEZ	CS Acc	921	N Lab	600	OAH	451	$ 12,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
										$ 176,721.60	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 2,226.80	$ 12,226.80	$ 26,226.80	$ 27,226.80	$ 85,726.80	$ 9,726.80
P0000985	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 124,000.00	20,333.00	20,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00	8,333.00	8,333.00	8,334.00
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	260	130	130	-	-	-	-	-	-	-	-	-	-
P0000985	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 7,833.80	3,916.90	3,916.90	-	-	-	-	-	-	-	-	-	-
										$ 131,833.80	$ 24,249.90	$ 24,249.90	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00	$ 8,333.00	$ 8,333.00	$ 8,334.00
P0000986	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 18,000.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	132	11	11	11	11	11	11	11	11	11	11	11	11
P0000986	Ejercito, A	CS	PCG	CS Acc	903	Lab	600	OAH	150	$ 3,977.16	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43	331.43
										21,977.16	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43	1,831.43
P0000987	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 22,000.00	-	22,000.00	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	80	-	80	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	CS	PCP	CS Acc	903	Lab	600	OAH	150	$ 2,410.40	-	2,410.40	-	-	-	-	-	-	-	-	-	-
P0000987	Ejercito, A	IT	PEZ	A&G	921	N Lab	600	OAH	451	$ 4,000.00	-	4,000.00	-	-	-	-	-	-	-	-	-	-
										$ 28,410.40	$ -	$ 28,410.40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
P0000988	Ejercito, A	CS	PCA	CS Acc	903	N Lab	600	OAH	501	$ 49,500.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00	4,125.00
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	520	43	43	44	43	43	44	43	43	44	43	43	44
P0000988	Ejercito, A	CS	PCM	CS Acc	903	Lab	600	OAH	150	$ 11,996.40	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08	992.01	992.01	1,015.08
										$ 61,496.40	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08	$ 5,117.01	$ 5,117.01	$ 5,140.08

4:32PM

eCase -Direct

58	59	58
3.91	$1,524.04	$1,493.91
58	59	58
3.91	$1,524.04	$1,493.91
58	59	58
3.91	$1,524.04	$1,493.91
0	1	0
0.00	$30.87	$0.00
0	1	0
0.00	$30.87	$0.00
0	1	0
0.00	$30.87	$0.00
1	1	1
3.72	$23.72	$23.72
1	1	1
3.72	$23.72	$23.72
1	1	1
3.72	$23.72	$23.72
58	81	58
7.63	$1,579.43	$1,517.63
5	5	5
8.60	$118.60	$118.60
5	5	5
8.60	$118.60	$118.60
5	5	5
8.60	$118.60	$118.60
5	5	5
8.60	$118.60	$118.60
23	23	23
2.17	$702.17	$702.17
23	23	23
2.17	$702.17	$702.17
23	23	23
2.17	$702.17	$702.17
15	15	15
5.80	$355.80	$355.80
15	15	15
5.80	$355.80	$355.80
15	15	15
5.80	$355.80	$355.80
38	38	38
7.97	$1,057.97	$1,057.97
102	104	102
1.20	$2,755.00	$2,694.20

Project Input Sheet
2005

Prepared by _____
Date 3/30/2004

Rates tab card	Units tab card												
Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
*(enter **Dollars** or **Vehicle Hours** in **"Units tab card"**)*													
													0
													0
													0
	42,027	42,027	42,027	42,027	42,027	42,027	42,027	42,027	42,027	42,027	42,027	42,028	504,325
	9,673	9,673	9,673	9,673	9,673	9,673	9,673	9,673	9,673	9,673	9,673	9,675	116,078
	9,838	9,838	9,838	9,838	9,838	9,838	9,838	9,838	9,838	9,838	9,838	9,841	118,059
	8,358	8,358	8,358	8,358	8,358	8,358	8,358	8,358	8,358	8,358	8,358	8,352	100,290
	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,919	23,083
	1,956	1,956	1,956	1,956	1,956	1,956	1,956	1,956	1,956	1,956	1,956	1,961	23,477
	73,776	73,776	73,776	73,776	73,776	73,776	73,776	73,776	73,776	73,776	73,776	73,776	885,312
	******** LABOR HOURS ********												0
	1	1		1		1		1		1		1	7
	16	16	16	17	17	17	17	17	17	17	17	17	201
	3	3	4	4	4	4	4	4	4	4	4	4	46
	3	4	4	4	4	4	4	4	4	4	4	4	47
		1		1		1		1		1		2	7
	17	17	17	17	17	17	17	17	17	16	16	16	201
	4	4	4	4	4	4	4	4	4	4	3	3	46
	4	4	4	4	4	4	4	4	4	4	4	3	47
	42	42	42	42	42	42	42	42	41	41	41	41	500
	42	42	42	42	42	42	42	42	41	41	41	41	500
	1	1		1		1		1		1		1	7
	1					1							2
	1					1							2
	1		1		1		1		1		1	1	7
						1						1	2
						1						1	2
	1	1		1		1		1		1		1	7
	1					1							2
	1					1							2

Ho, Karen

From: Ho, Karen
Sent: Tuesday, March 23, 2004 5:37 PM
To: Okada, Phyllis
Subject: RE: Lifecycle Dream

Importance: High

Phyllis,

A copy of the 2004-2006 labor and non-labor forecast is in your tray. Since the project has been accelerated, please make changes on the worksheet and return to me. I need to update the Pillar files when I return on Tuesday, March 30. The update is due that day.

Thanks,
Karen

CA-IR-1
DOCKET NO. 04-0113
PROJECT NO. P0001010
PAGE 6 OF 12

Project Input Sheet
2004

Resp Area (RA) _____

Prepared by _____
Date _____

Dimension tab card								Rates tab card	Units tab card												
Line Item	RA	Act	Loc	Ind	Proj	EE	Lbr Class	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
												(enter Dollars or Vehicle Hours in "Units tab card")									
Software	PFB	778	PHE	ND	Benefits04	462								325,079							325,079
Software	PFB	778	HEL	BD	Benefits04	462								74,822							74,822
Software	PFB	778	MAU	BD	Benefits04	462								76,099							76,099
IT&S Development Svc	PEZ	778	PHE	NE	Benefits04	451						3,236	3,236	3,236	3,236	3,236	3,236	3,236	3,236	3,239	29,127
IT&S Development Svc	PEZ	778	HEL	BE	Benefits04	451						745	745	745	745	745	745	745	745	744	6,704
IT&S Development Svc	PEZ	778	MAU	BE	Benefits04	451						758	758	758	758	758	758	758	758	755	6,819
TOTAL												4,739	4,739	480,739	4,739	4,739	4,739	4,739	4,739	4,738	518,650
																					0
												******** LABOR HOURS ********									0
																					0
Benefits System Admin	PFB	778	PHE	NE	Benefits04	150	TC					22	22	22	22	22	22	22	22	24	200
Director, Compensation	PFC	775	PHE	NE	Benefits04	150	FS					2	6	6	6	6	6	6	6	6	50
Director, WC	PPW	953	PHE	NE	Benefits04	150	FS					2	6	6	6	6	6	6	6	6	50
HR System Analyst	PFA	766	PHE	NE	Benefits04	150	TC					2	6	6	6	6	6	6	6	6	50
TOTAL												28	40	40	40	40	40	40	40	42	350
																					0
																					0
																					0
																					0
																					0
																					0
																					0
																					0
																					0
																					0
																					0
																					0
																					0

add time for Teri, Myra, & Lois same as comp/wc.
30 hrs each per PO

S:\ManagementAccounting\MacctBud\Forecast\Forms\2004 Non-Labor Input Sheet.xls

2/16/2004

Project Input Sheet
2005

Prepared by _____
Date _____

12/04 ok

Class	Rates tab card Rates Link To	Units tab card Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
		(enter Dollars or Vehicle Hours in "Units tab card")												
		170,735	Please move to 12/04											170,735
		39,297												39,297
		39,968												39,968
		45,529	45,529	45,529	45,529	45,529	45,529	45,529	45,529	45,529	45,529	45,529	45,533	546,352
	extend to start 12/04 ok	10,479	10,479	10,479	10,479	10,479	10,479	10,479	10,479	10,479	10,479	10,479	10,482	125,751
		10,658	10,658	10,658	10,658	10,658	10,658	10,658	10,658	10,658	10,658	10,658	10,659	127,897
		8,358	8,358	8,358	8,358	8,358	8,358	8,358	8,358	8,358	8,358	8,358	8,352	100,290
		1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,919	23,083
		1,956	1,956	1,956	1,956	1,956	1,956	1,956	1,956	1,956	1,956	1,956	1,961	23,477
		328,904	78,904	78,904	78,904	78,904	78,904	78,904	78,904	78,904	78,904	78,904	78,906	1,196,850
		******** LABOR HOURS ********												0
		25	25	25	25	25	25	25	25	25	25	25	25	300
		25	25	25	25	25	25	25	25	25	25	25	25	300
		21	21	21	21	21	21	21	21	21	21	21	19	250
		21	21	21	21	21	21	21	21	21	21	21	19	250
				1	1	1	1	1	1	1	1	1	1	10
				1	1	1	1	1	1	1	1	1	1	10
				1	1	1	1	1	1	1	1	1	1	10
				1	1	1	1	1	1	1	1	1	1	10
		25	25	25	25	25	25	25	25	25	25	25	25	300
		25	25	25	25	25	25	25	25	25	25	25	25	300
		10	10	10	10	10	10	10	10	10	10	10	10	120
		10	10	10	10	10	10	10	10	10	10	10	10	120
		15	15	15	15	15	15	15	15	15	15	15	15	180
		5	5	5	5	5	5	5	5	5	5	5	5	60
		3	3	3	3	3	3	3	3	3	3	3	7	40
		3	3	3	3	3	3	3	3	3	3	3	7	40
		27	27	27	27	27	27	27	27	27	27	27	23	320
														0
		215	215	219	219	219	219	219	219	219	219	219	219	2,620
														0
														0

2/16/2004

Bill o Tc & TCS

Project Input Sheet
2006

Resp Area (RA) _____

Prepared by _____
Date _____

Dimension tab card								Rates tab card	Units tab card												
Line Item	RA	Act	Loc	Ind	Proj	EE	Lbr Class	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
									(enter Dollars or Vehicle Hours in "Units tab card")												
Consulting	PFB	778	PHE	NE	Benefits04	501			39,838	39,838	39,838	39,838	39,838	39,838	39,838	39,838	39,838	39,838	39,838	39,840	478,058
Consulting	PFB	778	HEL	BE	Benefits04	501			9,169	9,169	9,169	9,169	9,169	9,169	9,169	9,169	9,169	9,169	9,169	9,173	110,032
Consulting	PFB	778	MAU	BE	Benefits04	501			9,326	9,326	9,326	9,326	9,326	9,326	9,326	9,326	9,326	9,326	9,326	9,324	111,910
TOTAL									58,333	58,333	58,333	58,333	58,333	58,333	58,333	58,333	58,333	58,333	58,333	58,337	700,000
									******** LABOR HOURS ********												0
Benefits System Admin	PFB	778	PHE	NE	Benefits04	150	TC		50	50	50	50	50	50	50	50	50	50	50	50	600
Benefits Coordinator	PFB	778	PHE	NE	Benefits04	150	I		41	41	41	41	41	41	41	41	41	41	41	49	500
HR System Analyst	PFA	766	PHE	NE	Benefits04	150	TC		10	10	10	10	10	10	10	10	10	10	10	10	120
Consultant, HRIS	PFA	766	PHE	NE	Benefits04	150	TCS		4	4	4	4	4	4	4	4	4	4	4	6	50
WSD Coordinator	PFI	766	PHE	NE	Benefits04	150	I		15	15	15	15	15	15	15	15	15	15	15	15	180
IR Assistant	PPI	766	PHE	NE	Benefits04	150	I		5	5	5	5	5	5	5	5	5	5	5	5	60
TOTAL									125	125	125	125	125	125	125	125	125	125	125	135	1,510
																					0
																					0
																					0
																					0
																					0
																					0
																					0
																					0
																					0
																					0

S:\ManagementAccounting\MacctBud\Forecast\Forms\2006 Non-Labor Input Sheet.xls

2/16/2004

	Ind	HEI	PHE	HEL	MAU	Total 2004	HEI	PHE	HEL	MAU	Total 2005	HEI	PHE	HEL	MAU	Total 2006
Benefits System Admin	NE	5	134	30	31	200	7	201	46	47	300	14	401	91	94	600
Director, Compensation	NE	1	33	8	8	50	0	0	0	0	0	0	0	0	0	0
Director, WC	NE	1	33	8	8	50	0	0	0	0	0	0	0	0	0	0
HR System Analyst	NE	1	33	8	8	50	7	201	46	47	300	3	80	18	19	120
Coordinator, Benefits	NE						6	167	38	39	250	12	335	76	78	500
Comp Analyst	NE						0	7	2	2	10	0	0	0	0	0
Coordinator, WC	NE						0	7	2	2	10	0	0	0	0	0
Consultant, HRIS	NE						3	80	18	19	120	1	33	8	8	50
Coordinator, WSD	NE	not charged to subs					4	120	27	28	180	4	120	27	28	180
IR Assistant	NE						1	40	9	9	60	1	40	9	9	60
Benefits System Admin	ND						7	201	46	47	300	0	0	0	0	0
Coordinator, Benefits	ND						6	167	38	39	250	0	0	0	0	0
Comp Analyst	ND						0	7	2	2	10	0	0	0	0	0
Coordinator, WC	ND						0	7	2	2	10	0	0	0	0	0
HR System Analyst	ND						7	201	46	47	300	0	0	0	0	0
Consultant, HRIS	ND						3	80	18	19	120	0	0	0	0	0
Manager, IR	ND						1	27	6	6	40	0	0	0	0	0
Director, IR	ND						1	27	6	6	40	0	0	0	0	0
Consultant, IR	ND						7	214	49	50	320	0	0	0	0	0
		8	234	53	55	350	60	1753	398	409	2620	35	1010	230	236	1510

HEI and Utilities		
	Number of Employees	Allocation Percentage
HEI	44	2.3%
PHE	1275	66.9%
HEL	289	15.2%
MAU	298	15.6%
	1906	100.0%

		2004	2005	2006		
Software ($)		476,000				
Hardware ($)			250,000			
Consulting ($)			800,000	700,000		
Labor NE (expense) hrs.						
ITS	T/C	853	2937	2937		
FB	T/C	200	300	600	Phyllis	
	I		250	500	Coordinator	
FC	FS	50			Ryan	
	T/C		10		Mui Yim	
PW	FS	50			Pat	
	I		10		Coordinator	
FA WSD	T/C	50	300	120	Chase	766
FA	TCS		120	50	Linda	766 Activity
F1	I		180	180	?	766
IR	I		60	60	?	
HL	I		450	450	Blaire	
ME	T/C		200	200	Merle	
	I		250	250	Cheryl	
labor ND (deferred) hrs						
ITS						
FB	T/C		300		Phyllis	
	I		250		Coordinator	
FC	T/C		10		Mui Yim	
PW ~~PA~~	I		10		Coordinator	
WSD	T/C		300		Chase	
	TCS		120		Linda	
IR	E		40		Mike	
	FS		40		?	
	T/C		320		?	

Ho, Karen

From: Okada, Phyllis
ent: Thursday, February 12, 2004 5:59 AM
To: Tait, Linda; Ko, Ruth; Kam, Teri; Minami-Shima, Merle; Tanigawa, Blaire S.
Cc: Oshiro, Pat; Okahara, Ryan; Price, Julie; Ho, Karen
Subject: HR/Benefits/Comp Suite Project

Good Morning,
Attached are the hours & dollar information being used to set up our project in Pillar. We had to forecast the hours by the type of work & over the length of the project, this tells the acctg. folks if it can be expensed or deferred . Please be sure the person handling your forecast knows the labor information for you and any other person included in the information you provided.

If anyone has a question please call.
Thank you.
phyllis
X4673

		2004	2005	2006	
Software ($)		476,000			
Hardware ($)			250,000		
Consulting ($)			800,000	700,000	
Labor NE (expense) hrs.					
ITS	T/C	853	2937	2937	
FB	T/C	200	300	600	Phyllis
	I		250	500	Coordinator
FC	F	50			Ryan
	T/C		10		Mui Yim
PA	F	50			Pat
	I		10		Coordinator
WSD	T/C	50	300	120	Chase
	TCS		120	50	Linda
	I		180	180	?
IR	I		60	60	?
HL	I		450	450	Blaire
ME	T/C		200	200	Merle
	I		250	250	Cheryl
labor ND (deferred) hrs					
ITS					
FB	T/C		300		Phyllis
	I		250		Coordinator
FC	T/C		10		Mui Yim
PA	I		10		Coordinator
WSD	T/C		300		Chase
	TCS		120		Linda
IR	E		40		Mike
	F		40		?
	T/C		320		?

ation (Roll-out)

t for All Depts with Loc

4:32PM

n 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
9.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35
3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
9.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35
3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
9.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35
3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
9.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35	$149.35
6.66	416.66	416.66	416.66	416.66	416.66	416.66	416.66	416.66	416.66	416.66	416.66
6.66	$416.66	$416.66	$416.66	$416.66	$416.66	$416.66	$416.66	$416.66	$416.66	$416.66	$416.66
1.67	641.67	641.67	641.67	641.67	641.67	641.67	641.67	641.67	641.67	641.67	641.67
1.67	$641.67	$641.67	$641.67	$641.67	$641.67	$641.67	$641.67	$641.67	$641.67	$641.67	$641.67
8.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33
8.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33
8.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33
8.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33
8.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33	1,058.33
8.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33	$1,058.33
2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
6.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68
00	0	0	0	0	0	0	0	0	0	0	0
00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68
2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68
2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68	$76.68
16	1,064.16	1,064.16	1,064.16	1,064.16	1,064.16	1,064.16	1,064.16	1,064.16	1,064.16	1,064.16	1,064.16
36	$1,284.36	$1,284.36	$1,284.36	$1,284.36	$1,284.36	$1,284.36	$1,284.36	$1,284.36	$1,284.36	$1,284.36	$1,284.36

Employee Smart Card Project (P0001022)

Labor	RA	2005 Hrs	Tasks	Duration
Project Sponsor	4V	40	Determine scope, specifications; select vendor; coordinate resources	Start thru pilot
Infrastructure Dir	PEZ	20	Assign technical resources	Eval thru pilot
Program/Project Mgrs	PEZ	80	Architect solution, manage project activities	Pre-pilot thru pilot
Sr. Analyst	PEZ	54	Construct and test group policies and software deployment script	Pre-pilot
Analyst	PEZ	100	Deploy software to all employee computers (1,100 PCs)	Pilot thru end
Total IT Labor Hours		254		
Standard Labor Rate/HR		$ 50.00		
Non-labor Charges For IT service		$ 12,700.00		
Security Lt.	HS	30	Ensure compatibility with access system, modify issuance procedures	Pre-pilot thru pilot

The $600 non-labor item is for replacement of damaged smart card badges, estimated at 15% of the 100 cards used in the 2004 pilot, price estimated at $40 each.:

No. of card	100
Replacement %	15%
No. of replacement cards	15
Estimated Cost per card	$ 40.00
Total Cost For Replacement	$ 600.00

Project and Business Management Division
ITS

Project Charter

Employee SmartCard Pilot

Project: Employee SmartCard Pilot	
Work Request #: 6870	**Desired Completion Date:** 12/31/04

Overview: Goal and Purpose

GOAL

Consolidate physical access control and information access control into employee badges by integrating smart chips and deploying card readers to computer workstations so that the badge becomes an electronic authentication and information security identifier.

PURPOSE

The badge plus a Personal Identifying Number (PIN) will automatically log employees on to their computers, will store userids and passwords for the LAN, the mainframe and web sites, will store encryption keys for secure e-mail, and potentially store employee-specific business-related information for use by future computer applications. These capabilities improve ease-of-use for computer users and enhance the Company's information security through non-reputability of transactions and encryption of data.

Computer security enhancements are necessary to ensure that business information access is limited to those authorized, while improving ease-of-use, accountability and policy compliance. This project will replace multiple complex (changing and often forgotten) passwords with a single PIN that will activate the badge and through the two-factor combination of possession of a physical device and something known only to the employee, ensure the identity and authenticity of the user, reduce Help Desk calls and enable file and message signing and encryption. The smart chip will retrieve stored logon passwords known only to the chip and the network servers to automate and thus speed the logon process. The network authorization profile will then control and record access to permitted applications and data. Additionally, the smart chip will store encryption "keys" for creating and accessing secure documents. When the employee leaves their workstation, badge removal will automatically lock the device until they return and re-enter their badge and PIN. This will provide a virtually irrefutable trail of activities performed under each userid.

Project Objectives/Scope

OBJECTIVE

Furnish pilot users a combination badge to replace their existing badge; deploy readers to their workstations and add to the standard requirement for future workstations; revise issuance procedures (badges by Security and userids by ITS) to include activation and deactivation of smart chips for logons and encryption; provide workstations with appropriate software and train employees.

DELIVERABLES

Early on (April through July), functional and technical requirements and vendor selection criteria will be developed, information about prospective products will be obtained and evaluated, a vendor(s) chosen, a pilot project plan and schedule finalized and a contract negotiated.

Pilot users will be selected (July), including ten each from MECO and HELCO and 80 from HECO. Users will include executives and managers and their secretaries, plus a cross section of [illegible]

4:32PM

05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
3	1,333.33	1,333.33	1,333.33	1,333.33	1,333.33	1,333.33	1,333.33	1,333.33
3	$1,333.33	$1,333.33	$1,333.33	$1,333.33	$1,333.33	$1,333.33	$1,333.33	$1,333.33
3	1,333.33	1,333.33	1,333.33	1,333.33	1,333.33	1,333.33	1,333.33	1,333.33
3	$1,333.33	$1,333.33	$1,333.33	$1,333.33	$1,333.33	$1,333.33	$1,333.33	$1,333.33
7	2,666.67	2,666.67	2,666.67	2,666.67	2,666.67	2,666.67	2,666.67	2,666.67
7	$2,666.67	$2,666.67	$2,666.67	$2,666.67	$2,666.67	$2,666.67	$2,666.67	$2,666.67
3	5,333.33	5,333.33	5,333.33	5,333.33	5,333.33	5,333.33	5,333.33	5,333.33
3	$5,333.33	$5,333.33	$5,333.33	$5,333.33	$5,333.33	$5,333.33	$5,333.33	$5,333.33
3	5,333.33	5,333.33	5,333.33	5,333.33	5,333.33	5,333.33	5,333.33	5,333.33
3	$5,333.33	$5,333.33	$5,333.33	$5,333.33	$5,333.33	$5,333.33	$5,333.33	$5,333.33
3	5,333.33	5,333.33	5,333.33	5,333.33	5,333.33	5,333.33	5,333.33	5,333.33
3	$5,333.33	$5,333.33	$5,333.33	$5,333.33	$5,333.33	$5,333.33	$5,333.33	$5,333.33
3	1,333.33	1,333.33	1,333.33	1,333.33	1,333.33	1,333.33	1,333.33	1,333.33
3	$1,333.33	$1,333.33	$1,333.33	$1,333.33	$1,333.33	$1,333.33	$1,333.33	$1,333.33
7	666.67	666.67	666.67	666.67	666.67	666.67	666.67	666.67
7	$666.67	$666.67	$666.67	$666.67	$666.67	$666.67	$666.67	$666.67
7	666.67	666.67	666.67	666.67	666.67	666.67	666.67	666.67
7	$666.67	$666.67	$666.67	$666.67	$666.67	$666.67	$666.67	$666.67
7	2,666.67	2,666.67	2,666.67	2,666.67	2,666.67	2,666.67	2,666.67	2,666.67
7	$2,666.67	$2,666.67	$2,666.67	$2,666.67	$2,666.67	$2,666.67	$2,666.67	$2,666.67
	13,333.33	13,333.33	13,333.33	13,333.33	13,333.33	13,333.33	13,333.33	13,333.33
	$13,333.33	$13,333.33	$13,333.33	$13,333.33	$13,333.33	$13,333.33	$13,333.33	$13,333.33
	13,333.33	13,333.33	13,333.33	13,333.33	13,333.33	13,333.33	13,333.33	13,333.33
	$13,333.33	$13,333.33	$13,333.33	$13,333.33	$13,333.33	$13,333.33	$13,333.33	$13,333.33
	13,333.33	13,333.33	13,333.33	13,333.33	13,333.33	13,333.33	13,333.33	13,333.33
	$13,333.33	$13,333.33	$13,333.33	$13,333.33	$13,333.33	$13,333.33	$13,333.33	$13,333.33

2C. HISTORICAL DATA:

Back in 1996 HECO's substations experienced a rash of copper thefts one break-in ended with a fatality which caused an outage. HECO spent an excessive amount of dollars to replace and repair the damage caused by the criminal.

To prevent this unwanted behavior, HECO installed the necessary tools (i.e. cameras and photo electric beams) at numerous locations.

2E. Over a period of time HECO has increased its surveillance system by adding CCTV cameras, photo electric beams, and access control systems to various sites. Since our Security systems are under constant use (24/7) they eventually started wearing down. In order to maintain a robust system we needed to implement a maintenance program.

POST 9/11

Site security surveys were conducted by Federal and Local government agencies where several locations were identified as critical "MEVA" sites. Company responded by adding more CCTV to these areas to prevent criminal activity. A command center was also established to centrally monitor over 140 cameras.

2F. Security met with a local vendor to discuss a maintenance plan to help keep the cameras on. Vendor stated that the standard industry cost to maintain equipment ran about 5 to 10 percent of existing value of equipment.

Options discuss with vendor:

Levels of Service I, II, and III
Time and Materials
Company Saving

ACTIVITY ALLOCATION:

For HST, WST, KST funds were allocated by priority and response time. These facilities currently have live contract security so limited priority was given to theses locations.

Substations have no security and are vulnerable. To ensure system reliability a higher priority was given to these locations for quicker response time.

SSF	PHS	Security	B30	Prod Oper	506	Non Labor	NPHZZZZZ	933	HST, KST, WST	501	63,999.96	Eugene Uemura, Director & Alan Cardoza, Captain	Yes, see attached spreadsheet	Yes,see attachment	Yes,see attachment	Yes,see attachment	Yes,see attachment	Yes,see attachment
SSF	PHS	Security	B33	T&D	573	Non Labor	NPHZZZZZ	933	PTM	501	63,999.96	Eugene Uemura, Director & Alan Cardoza, Captain	Yes, see attached spreadsheet	Yes,see attachment	Yes,see attachment	Yes,see attachment	Yes,see attachment	Yes,see attachment
SSF	PHS	Security	B39	A&G Maint	932	Non Labor	NPHZZZZZ	933	KNG, WRD, OLP	600	32,000.00	Eugene Uemura, Director & Alan Cardoza, Captain	Yes, see attached spreadsheet	Yes,see attachment	Yes,see attachment	Yes,see attachment	Yes,see attachment	Yes,see attachment

2F

Security System Maintenance Cost Structure Explanation

Presented by Sensormatic Hawaii, 1/06/05
Contact: Teren Watamull, 779-9740, twatumull@sensormatichawaii.com

Summary:

The Mid-Pacific industry average for the standard maintenance of integrated digital security systems is 10% of the installation cost per annum. This average includes all labor to preventively maintain, troubleshoot, repair, replace and restore data for integrated access control and video surveillance systems. The primary driver of cost is that the standard life expectancy of security systems components is 5 years. Additional cost beyond this average could be required for 24/7 or emergency response.

Details:

Each year, because of the life expectancy of security system components, a minimum 10% probability exists that a component will require replacement. The maintenance cost covers all of these costs as well as the labor involved.

To ensure maximum performance and minimize outages of equipment, preventive maintenance in the form of checking, cleaning and replacing ancillary components is included in a maintenance agreement.

Today's security systems are computer based. The software must generally be upgraded at least once a year to ensure an optimal performance and compliance with developing IT standards and requirements. The maintenance agreement covers such activities.

Given the mission critical nature of security systems, anytime an outage occurs, the security system provider must ensure the continuous functionality of security at the facility including the restoring of any lost or damaged data due to the outage. The labor cost for this service is included in the maintenance agreement.

Summary:

Given the life expectancy of security equipment and the mission critical nature of these systems, the Mid-Pacific industry average for the standard maintenance of integrated digital security systems is 10% of the installation cost per annum

TIME	POLICE REPORT #	ITEM TAKEN/INCDENT	VALUED	REPORTING PERSON	COST TO REPLACE
6am	**95-086847**	COPPER	$ 5,320.74	Tom Harrington	**COST RECOVERED**
545AM	**95-091271**	TOOLS	$60,000.00	American Line Builders	**DNA**
830AM	**95-152538**	hoptoe bucket	$ 3,000.00	Gordon Mattos	**$ 1,500**
930AM	**95-203764**	Jumping Jack	$ 2,019.00	Gordon Mattos	**$ 2,019**
750AM	**95-215526**	COPPER	$ 60.00	Gordon Mattos	**$ 4,500**
830AM	**95-224478**	COPPER	$ 30.00	Jerry Donaldson	**$ 4,500**
700AM	**95-232792**	COPPER	$ 60.00	Nosaka, Leroy	**$ 4,500**
530PM	**95-234670**	COPPER	$ 30.00	Roy Yokono	**$ 4,500**
2PM	**95-237351**	COPPER	UNK	Substation	
310PM	**95-237522**	COPPER	$ 120.00	BURNS	**$ 4,500**
8AM	**95-26150**	COPPER	$ 60.00	Grounds Keeper	**$ 1,000**
	95-314988	COPPER	$ 300.00	Rodney Joseph	
4PM	**95-319054/055**	COPPER	$ 60.00	Roy Yokono	**$ 3,000**
815AM	**95-320770**	COPPER	$ 60.00	Robert Bull	**$ 5,000**
257PM	**95-354816**	COPPER	$ 200.00	Frank Nacino	
		COPPER	$ 200.00	Robert Souza	**$ 4,500**
815AM	**95-363608**	COPPER	$ 200.00	CSS	
12AM		CTRL WIRE	$ 2,000.00	Substation	
1PM	**95-396-005**	COPPER	$ 200.00	AL BASCON	**$ 4,500**
920AM	**95-397-340**	COPPER	$ 200.00	AL BASCON	**$ 4,500**
930PM	**95-407-147**	POWER TOOLS	$ 4,000.00	G. MATTOS	
2PM		COPPER		SUBSTATION	
0845AM		**NOTHING TAKEN**		G. MATTOS	
		hoptoe	$ 50.000	G. MATTOS	
		hoptoe recovered			
		TRESPASSING		ED LEWIS	
		BREAK-IN		SILVIA MC CRAW	
		SHOOTING			
		CRIMINAL PROPERTY		PAT MIZUTA	
	93-160-298	VANDALISM			
		THEFT			
		THEFT			
		THEFT	$ 75.00		**$ 48,519**

BPL WITH ADVANCED METERING

roj	ProjMgrOrEngr	Dept	RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	Act	Loc	EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
01026	Nordyke, M	SVP-EnSol	P9S	Sr VP-Energy Solutions	B38	A & G Operation	9302	Non-Labor	731	PHE	501	40,000.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,000.00	3,000.00	3,000.00	3,000.00
												$40,000.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,000.00	$3,000.00	$3,000.00	$3,000.00
01026	Nordyke, M	SVP-EnSol	P9S	Sr VP-Energy Solutions	B38							40,000.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,000.00	3,000.00	3,000.00	3,000.00
												$40,000.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,000.00	$3,000.00	$3,000.00	$3,000.00
01026	Nordyke, M	SVP-EnSol	P9S									40,000.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,000.00	3,000.00	3,000.00	3,000.00
												$40,000.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,000.00	$3,000.00	$3,000.00	$3,000.00
01026	Nordyke, M	SVP-EnSol										40,000.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,000.00	3,000.00	3,000.00	3,000.00
												$40,000.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,000.00	$3,000.00	$3,000.00	$3,000.00
01026												40,000.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,500.00	3,000.00	3,000.00	3,000.00	3,000.00
												$40,000.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,000.00	$3,000.00	$3,000.00	$3,000.00

P0001026 BPL with Advanced Meters

The $40,000 non-labor budget provides an allocation for outside services support of the BPL with Advanced Meters initiative, in the areas of new technology assessment, strategy development, and business model development.

Minor TID Customer Projects

12/20/2004

*O&M for All Depts with Loc

4:32PM

Proj	ProjMgrOrEngr	Dept	RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	Act	Loc	EE	FY05	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
P1690000	Ho, M	C&M	PDF	Field Operation	B35	Distribution Maint	593	Labor	415	OUT	150	57.12	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76
												$2,079.74	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31
P1690000	Ho, M	C&M	PDF	Field Operation	B35							57.12	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76
												$2,079.74	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31
P1690000	Ho, M	C&M	PDF									57.12	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76
												$2,079.74	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31	$173.31
P1690000	Ho, M	C&M	PDS	Supply Division	B33	Transmission Maint	571	Labor	315	OAH	150	428.4	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7
												$15,456.67	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06
P1690000	Ho, M	C&M	PDS	Supply Division	B33							428.4	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7
												$15,456.67	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06
P1690000	Ho, M	C&M	PDS	Supply Division	B35	Distribution Maint	593	Labor	415	OAH	150	428.4	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7
												$15,456.67	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06	$1,288.06
P1690000	Ho, M	C&M	PDS	Supply Division	B35	Distribution Maint	593	Labor	415	OUT	150	142.8	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
												$5,152.22	$429.35	$429.35	$429.35	$429.35	$429.35	$429.35	$429.35	$429.35	$429.35	$429.35	$429.35	$429.35
P1690000	Ho, M	C&M	PDS	Supply Division	B35							571.2	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6
												$20,608.90	$1,717.41	$1,717.41	$1,717.41	$1,717.41	$1,717.41	$1,717.41	$1,717.41	$1,717.41	$1,717.41	$1,717.41	$1,717.41	$1,717.41
P1690000	Ho, M	C&M	PDS									999.6	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
												$36,065.57	$3,005.46	$3,005.46	$3,005.46	$3,005.46	$3,005.46	$3,005.46	$3,005.46	$3,005.46	$3,005.46	$3,005.46	$3,005.46	$3,005.46
P1690000	Ho, M	C&M										1,056.72	88.06	88.06	88.06	88.06	88.06	88.06	88.06	88.06	88.06	88.06	88.06	88.06
												$38,145.31	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78
P1690000												1,056.72	88.06	88.06	88.06	88.06	88.06	88.06	88.06	88.06	88.06	88.06	88.06	88.06
												$38,145.31	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78	$3,178.78

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DOCKET NO. 04-0113
PROJECT NO. P1690000
PAGE 1 OF 3

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted staffing and associated labor direct expense amounts included in the witnesses' portion of the rate case test period budget.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a), documenting all work done to determine required staffing levels and overtime hours by Department, RA, Activity and NARUC Account.

c. Describe the actual force level that existed at the date the budget was prepared or otherwise served as a base for purposes of preparing the budget level.

d. For each budgeted employee position that is added to existing actual force levels (as the date the budget was prepared), **explain** the analyses undertaken to determine that each added position was necessary and should be filled in order to meet present or anticipated work requirements. Also, please explain how the anticipated work requirements were defined and determined.

e. Describe and, to the extent possible, quantify the backlog of work, unfinished projects, deferred maintenance and other labor requirements unfulfilled at present staffing levels, that will be satisfied by adding the employee positions identified in your response to part (d).

f. Provide complete copies of all studies, analyses, workpapers, projections, notes, correspondence, assumptions and other documents associated with your responses to parts (d) and (e) above.

HECO Response:

a. Project P0000007, P1690000 – Michael Ho

b. Project P0000007 is a compilation of all of HECO's efforts to prepare proposals to respond to Requests for Proposals to privatize customer (e.g. military) owned distribution systems. Project P1690000 is a compilation of several smaller (less than $100,000) T&D Customer relocation projects. Since several smaller projects make up these larger projects, since these smaller projects within these larger projects are all similar in characteristic, and since it to difficult to estimate for each of these smaller projects individually, the forecasts for these

projects were developed based on actual expenditures that were incurred to the project and trended to account for escalation. Periodic adjustments are made when actual expenditures are reviewed and compared to forecasted amounts.

c. For other Departments, refer to appropriate Department for explanation of force level at date the budget was prepared. For Engineering Department:

1. PBE – T&D Engineering: Actual work force at time budget was prepared was 20.
2. PBY – Substn, Protect & Tel: Actual work force at time budget was prepared was 17.
3. PBZ – T&D Technical Svcs: Actual work force at time budget was prepared was

d. For other Departments, not applicable - refer to item c. above. For Engineering Department:

1. PBE – T&D Engineering: Additional employees added to bring work force level to 25 are to fill vacancies that existed at that time and not to meet present or anticipated work in this activity.
2. PBY – Substn, Protect & Tel: Additional employees added to bring work force level to 21 are to fill vacancies that existed at that time and not to meet present or anticipated work in this activity.
3. PBZ – T&D Technical Svcs: Additional employees added to bring work force level to 10 are to fill vacancies that existed at that time and not to meet present or anticipated work in this activity.

e. Not applicable.

f. Not applicable.

4:32PM

-ar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05	Nov 05	Dec 05
48	48	48	48	48	48	48	48	48	48
1.84	$1,731.84	$1,731.84	$1,731.84	$1,731.84	$1,731.84	$1,731.84	$1,731.84	$1,731.84	$1,731.84
48	48	48	48	48	48	48	48	48	48
5.28	$1,805.28	$1,805.28	$1,805.28	$1,805.28	$1,805.28	$1,805.28	$1,805.28	$1,805.28	$1,805.28
96	96	96	96	96	96	96	96	96	96
7.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12
96	96	96	96	96	96	96	96	96	96
7.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12
96	96	96	96	96	96	96	96	96	96
7.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12
96	96	96	96	96	96	96	96	96	96
7.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12	$3,537.12

CA-IR-1

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted staffing and associated labor direct expense amounts included in the witnesses' portion of the rate case test period budget.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a), documenting all work done to determine required staffing levels and overtime hours by Department, RA, Activity and NARUC Account.

c. Describe the actual force level that existed at the date the budget was prepared or otherwise served as a base for purposes of preparing the budget level.

d. For each budgeted employee position that is added to existing actual force levels (as the date the budget was prepared), **explain** the analyses undertaken to determine that each added position was necessary and should be filled in order to meet present or anticipated work requirements. Also, please explain how the anticipated work requirements were defined and determined.

e. Describe and, to the extent possible, quantify the backlog of work, unfinished projects, deferred maintenance and other labor requirements unfulfilled at present staffing levels, that will be satisfied by adding the employee positions identified in your response to part (d).

f. Provide complete copies of all studies, analyses, workpapers, projections, notes, correspondence, assumptions and other documents associated with your responses to parts (d) and (e) above.

HECO Response:

a. Project P1990000 – Michael Lum

b. The 1,152 hours forecasted for the year 2005 were developed based on actual expenditures that were incurred to the project in previous years and trended to account for escalation. The 1,152 hours are allocated as follows: 48 hours per month for distribution underground O&M work and 48 hours per month for distribution overhead O&M work. These hours are an average based the quantity and types of construction projects incurred to project 1990000 in previous years. Periodic adjustments are made when actual expenditures are reviewed and compared to forecasted amounts.

c. Refer to C&M Department for explanation of force level at date the budget was prepared.

d. Refer to item b. above.

e. Not applicable.

f. Not applicable.

CA-IR-1

General Information Requests

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a. Identify each employee involved in preparation of budgeted staffing and associated labor direct expense amounts included in the witnesses' portion of the rate case test period budget.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a), documenting all work done to determine required staffing levels and overtime hours by Department, RA, Activity and NARUC Account.

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d. For each budgeted employee position that is added to existing actual force levels (as the date the budget was prepared), **explain** the analyses undertaken to determine that each added position was necessary and should be filled in order to meet present or anticipated work requirements. Also, please explain how the anticipated work requirements were defined and determined.

e. Describe and, to the extent possible, quantify the backlog of work, unfinished projects, deferred maintenance and other labor requirements unfulfilled at present staffing levels, that will be satisfied by adding the employee positions identified in your response to part (d).

and age of the utility plant and to account for the loss of technical knowledge and experience through

we will be faced with the loss of technical knowledge and experience due to retirements.

Replacement employees do not have similar levels of knowledge and experience as retiring

C.1 Transformers
Corrected

P0...20

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
__TC-ED	481	NC*	400	36	19	29	33	28	29	50	39	14	49	31	44	
				9%	5%	7%	8%	7%	7%	13%	10%	3%	12%	8%	11%	
__TCS-ED	481	NI	78	9	4	3	3	6	9	12	7	7	6	7	6	
				11%	5%	4%	4%	8%	11%	15%	8%	9%	7%	9%	8%	
__TCS-ED	504	NI	24	-	-	-	-	-	-	10	6	-	3	5	-	
				0%	0%	0%	0%	0%	0%	42%	26%	0%	13%	19%	0%	
D_OHCREW	481	NE	1,981	175	147	190	127	162	128	197	155	191	166	138	205	36%
				9%	7%	10%	6%	8%	6%	10%	8%	10%	8%	7%	10%	5,565
D_OHCREW	481	NI	2,699	212	154	210	182	255	205	228	234	234	301	216	266	48%
	Materials		28,791	2,261	1,647	2,236	1,943	2,720	2,191	2,436	2,500	2,501	3,211	2,303	2,841	
	O/S Svc-Const		30,000	2,356	1,716	2,330	2,025	2,834	2,283	2,538	2,605	2,606	3,346	2,400	2,961	
				8%	6%	8%	7%	9%	8%	8%	9%	9%	11%	8%	10%	
D_OHCREW	481	NR	885	76	69	72	58	77	70	74	67	72	77	71	102	16%
				9%	8%	8%	7%	9%	8%	8%	8%	8%	9%	8%	12%	
D_OHCREW	504	NE	121	-	-	-	-	-	47	13	-	61	11	(11)	-	39%
	Oth Oper Rev		(1,312)	-	-	-	-	-	(514)	(138)	-	(659)	(119)	119	-	307
				0%	0%	0%	0%	0%	39%	11%	0%	50%	9%	-9%	0%	
D_OHCREW	504	NI	186	25	5	22	12	10	16	12	12	16	9	34	13	61%
	Materials		4,001	529	104	465	252	221	352	257	269	353	199	727	272	
	Oth Oper Rev	NI	(41,210)	(5,450)	(1,073)	(4,794)	(2,600)	(2,274)	(3,625)	(2,648)	(2,767)	(3,633)	(2,051)	(7,489)	(2,805)	
	Oth Oper Rev	NR	(1,954)	(258)	(51)	(227)	(123)	(108)	(172)	(126)	(131)	(172)	(97)	(355)	(133)	
				13%	3%	12%	6%	6%	9%	6%	7%	9%	5%	18%	7%	

* As there is historically no clearing, will use the same distribution as the changeover.

L, G Transformers
Corrective

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
__TCS-ED	484	NI	**61**	6	5	1	4	3	6	5	14	6	4	5	2	61
				10%	7%	1%	6%	6%	10%	8%	23%	10%	7%	8%	4%	
__TC-ED	484	NC*	**399**	41	30	3	24	22	38	33	93	39	29	33	14	
				10%	7%	1%	6%	6%	10%	8%	23%	10%	7%	8%	4%	
__TCS-ED	505	NI	**60**	0	0	0	15	11	0	0	12	22	0	0	0	60
				0%	0%	0%	26%	18%	0%	0%	21%	36%	0%	0%	0%	
D_OHCREW	484	NE	**1,516**	148	123	103	170	177	93	158	178	78	83	115	90	1516
				10%	8%	7%	11%	12%	6%	10%	12%	5%	5%	8%	6%	45%
																3,391
D_OHCREW	484	NI	**922**	66	58	43	83	116	73	56	92	84	128	71	53	922
				7%	6%	5%	9%	13%	8%	6%	10%	9%	14%	8%	6%	27%
D_OHCREW	484	NR	**953**	108	55	72	60	99	83	81	76	74	58	86	103	953
				11%	6%	8%	6%	10%	9%	8%	8%	8%	6%	9%	11%	28%
D_OHCREW	505	NE	**(4,535)**	0	0	0	-121	0	-69	0	-138	-2860	-829	-259	-259	-4535
	Other Oper Rev			0%	0%	0%	3%	0%	2%	0%	3%	63%	18%	6%	6%	
D_OHCREW	505	NI	**246**	9	4	6	32	9	7	7	10	82	70	0	9	246
				4%	2%	3%	13%	4%	3%	3%	4%	33%	28%	0%	4%	
D_PTM	484	NI	**119**	4	3	4	6	11	8	17	10	13	19	10	13	119
				3%	3%	3%	5%	9%	7%	14%	9%	11%	16%	9%	11%	
D_PTM	505	NI	**72**	0	0	0	0	0	0	4	0	48	0	21	0	72
				0%	0%	0%	0%	0%	0%	5%	0%	66%	0%	29%	0%	
D_UGCREW	484	NE	**1,321**	114	80	76	131	56	80	187	92	151	69	218	67	1321
				9%	6%	6%	10%	4%	6%	14%	7%	11%	5%	16%	5%	53%
																2,485
D_UGCREW	484	NI	**517**	45	28	17	43	40	46	53	47	66	62	40	30	517
	Materials		**23,998**	2,086	1,293	789	1,976	1,850	2,151	2,473	2,172	3,054	2,867	1,879	1,407	21%
				9%	5%	3%	8%	8%	9%	10%	9%	13%	12%	8%	6%	
D_UGCREW	484	NR	**647**	64	56	27	41	31	55	92	78	62	42	49	51	647
	Other Oper Rev		**(11,547)**	(1,146)	(998)	(477)	(729)	(560)	(979)	(1,638)	(1,391)	(1,099)	(742)	(875)	(912)	26%
				10%	9%	4%	6%	5%	8%	14%	12%	10%	6%	8%	8%	
D_UGCREW	505	NI	**150**	3	0	1	3	0	7	0	21	80	21	9	5	
		NR**	**126**	3	0	1	3	0	6	0	18	67	18	8	4	150
	Materials		**3,301**	77	-	19	67	-	154	-	461	1,754	461	202	106	
	Other Oper Rev	NI	**(8,734)**	(203)	-	(51)	(178)	-	(407)	-	(1,220)	(4,640)	(1,220)	(534)	(280)	
	Other Oper Rev	NR**	**(5,699)**	(133)	-	(33)	(116)	-	(265)	-	(796)	(3,028)	(796)	(348)	(183)	
				2%	0%	1%	2%	0%	5%	0%	14%	53%	14%	6%	3%	

* As there is historically no clearing, will use the same distribution as the install.

** As there is historically no removal, will use the same distribution as the install.

U/G Cable - Corrective

P0000122

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
__TC-ED	478	NC*	**399**	3	10	0	41	92	21	52	126	17	14	22	0	
				1%	3%	0%	10%	23%	5%	13%	32%	4%	3%	6%	0%	
__TCS-ED	478	NE	**306**	0	64	48	0	0	0	0	0	0	0	193	0	81%
				0%	21%	16%	0%	0%	0%	0%	0%	0%	0%	63%	0%	376
__TCS-ED	478	NI	**59**	3	3	2	2	8	6	5	4	6	10	7	4	16%
				4%	5%	4%	3%	13%	10%	8%	7%	10%	17%	12%	6%	
__TCS-ED	478	NR	**11**	2	0	0	0	0	1	1	1	2	2	2	1	3%
				19%	0%	3%	0%	0%	6%	10%	6%	15%	19%	14%	7%	
__TCS-ED	501	NC*	**24**	0	0	2	0	0	0	1	0	3	2	3	0	
				2%	0%	10%	0%	0%	0%	3%	1%	13%	10%	14%	0%	
D_OHCREW	347	NE	**176**	13	18	9	14	13	12	24	9	9	23	13	19	
				7%	10%	5%	8%	7%	7%	14%	5%	5%	13%	7%	11%	
D_OHCREW	478	NI	**4,000**	267	326	273	152	293	311	321	328	497	452	269	511	96%
	Materials		**164,996**	11,024	13,434	11,270	6,275	12,089	12,834	13,251	13,524	20,482	18,628	11,099	21,087	4,155
	O/S Svc-Gen		**15,001**	1,002	1,221	1,025	570	1,099	1,167	1,205	1,230	1,862	1,694	1,009	1,917	
	O/S Svc-Const		**143,999**	9,621	11,725	9,836	5,476	10,551	11,201	11,565	11,803	17,875	16,257	9,686	18,403	
				7%	8%	7%	4%	7%	8%	8%	8%	12%	11%	7%	13%	
D_OHCREW	478	NR	**155**	10	15	6	13	12	10	23	8	7	22	12	17	4%
				6%	10%	4%	8%	8%	7%	15%	5%	5%	14%	8%	11%	
D_OHCREW	501	NE	**506**	7	23	53	171	116	72	6	-8	50	-41	14	43	70%
	Oth Oper Rev		**(38,441)**	(515)	(1,716)	(4,032)	(12,998)	(8,837)	(5,491)	(486)	601	(3,775)	3,097	(1,030)	(3,260)	719
				1%	4%	10%	34%	23%	14%	1%	-2%	10%	-8%	3%	8%	
D_OHCREW	501	NI	**213**	7	0	23	6	7	15	17	23	43	36	31	6	30%
	Materials		**33,000**	1,069	-	3,584	867	1,012	2,341	2,563	3,613	6,677	5,521	4,769	983	
	O/S Svc-Gen		**4,405**	143	-	478	116	135	313	342	482	891	737	637	131	
	O/S Svc-Const		**99,999**	3,241	-	10,861	2,628	3,066	7,095	7,766	10,949	20,233	16,730	14,452	2,978	
	Oth Oper Rev		**(22,182)**	(719)	-	(2,409)	(583)	(680)	(1,574)	(1,723)	(2,429)	(4,488)	(3,711)	(3,206)	(661)	
				3%	0%	11%	3%	3%	7%	8%	11%	20%	17%	14%	3%	
D_UGCREW	478	NE	**2,284**	119	121	80	41	137	164	288	143	271	641	59	219	71%
				5%	5%	3%	2%	6%	7%	13%	6%	12%	28%	3%	10%	3,238
D_UGCREW	478	NI	**507**	17	23	33	10	64	44	50	44	84	58	40	40	16%
				3%	5%	7%	2%	13%	9%	10%	9%	16%	11%	8%	8%	
D_UGCREW	478	NR	**447**	26	20	25	25	38	28	41	36	47	52	28	81	14%
				6%	5%	6%	6%	9%	6%	9%	8%	11%	12%	6%	18%	

P0000122

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
D_UGCREW	501	NE	**506**	29	0	185	64	62	-13	112	-84	0	0	39	113	91%
				6%	0%	37%	13%	12%	-3%	22%	-17%	0%	0%	8%	22%	557
D_UGCREW	501	NI	**51**	2	0	5	7	0	4	3	7	12	3	4	3	9%
				5%	0%	10%	15%	0%	8%	7%	13%	23%	7%	8%	5%	

* As there is historically no clearing, will use the same distribution as the install.

O... Distribution – poles, etc.
Corrective

P0...23

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
__TC-ED	475	NC*	**400**	15	0	0	98	29	20	73	137	29	0	0	0	
				4%	0%	0%	24%	7%	5%	18%	34%	7%	0%	0%	0%	
__TCS-ED	475	NE	**24**	6	2	0	4	0	0	0	3	2	2	2	2	17%
				27%	9%	0%	18%	0%	0%	0%	11%	9%	7%	9%	10%	140
__TCS-ED	475	NI	**103**	8	3	3	12	7	11	11	5	7	11	14	11	74%
				7%	3%	2%	11%	7%	11%	10%	5%	7%	11%	14%	11%	
__TCS-ED	475	NR	**13**	0	0	2	1	0	2	0	1	4	0	2	1	9%
				0%	0%	16%	10%	3%	13%	0%	5%	34%	0%	13%	6%	
__TCS-ED	500	NE	**15**	0	0	0	1	0	5	0	4	0	0	0	5	14%
				0%	0%	0%	7%	0%	31%	0%	28%	0%	0%	0%	34%	109
__TCS-ED	500	NI	**79**	4	4	0	4	13	8	6	7	14	0	10	9	72%
				5%	5%	0%	5%	16%	10%	8%	9%	18%	0%	12%	11%	
__TCS-ED	500	NR	**15**	0	0	5	5	0	5	0	0	0	0	0	0	14%
				0%	0%	33%	33%	0%	33%	0%	0%	0%	0%	0%	0%	
D_OHCREW	475	NE	**5,528**	616	574	436	496	421	367	471	386	413	441	401	505	37%
				11%	10%	8%	9%	8%	7%	9%	7%	7%	8%	7%	9%	14,833
D_OHCREW	475	NI	**5,123**	462	418	325	397	403	359	390	459	542	476	419	473	35%
	Materials		**144,998**	13,090	11,842	9,206	11,246	11,409	10,152	11,031	12,986	15,327	13,477	11,848	13,386	
	O/S Svc-Gen		**30,000**	2,708	2,450	1,905	2,327	2,360	2,100	2,282	2,687	3,171	2,788	2,451	2,769	
	O/S Svc-Const		**90,000**	8,125	7,350	5,714	6,980	7,081	6,301	6,847	8,060	9,513	8,365	7,354	8,308	
				9%	8%	6%	8%	8%	7%	8%	9%	11%	9%	8%	9%	
D_OHCREW	475	NR	**4,182**	395	286	271	480	319	305	367	351	311	344	379	375	28%
	O/S Svc-Gen		**400**	38	27	26	46	31	29	35	34	30	33	36	36	
	O/S Svc-Const		**8,498**	803	580	550	975	649	619	746	713	631	699	770	762	
				9%	7%	6%	11%	8%	7%	9%	8%	7%	8%	9%	9%	
D_OHCREW	500	NE	**1,158**	73	88	87	159	103	62	106	105	139	52	64	120	27%
	Materials		**700**	44	53	52	96	62	37	64	64	84	31	39	73	4,304
	Oth Oper Rev		**(53,724)**	(2,887)	(4,087)	(2,581)	(4,094)	(5,063)	(2,522)	(4,155)	(5,507)	(6,779)	(3,075)	(6,368)	(6,606)	
				6%	8%	7%	14%	9%	5%	9%	9%	12%	4%	6%	10%	
D_OHCREW	500	NI	**1,679**	66	108	105	104	165	106	146	137	297	89	188	167	39%
	Materials		**40,000**	1,580	2,573	2,497	2,486	3,936	2,533	3,481	3,255	7,077	2,131	4,478	3,974	
	O/S Svc-Gen		**2,000**	79	129	125	124	197	127	174	163	354	107	224	199	
	Oth Oper Rev		**(257,887)**	(10,185)	(16,586)	(16,098)	(16,030)	(25,374)	(16,330)	(22,440)	(20,986)	(45,626)	(13,736)	(28,873)	(25,623)	
				4%	6%	6%	6%	10%	6%	9%	8%	18%	5%	11%	10%	
D_OHCREW	500	NR	**1,467**	59	101	121	109	157	91	121	149	169	105	198	86	34%
	Oth Oper Rev		**(53,724)**	(2,171)	(3,687)	(4,441)	(3,984)	(5,746)	(3,344)	(4,421)	(5,461)	(6,199)	(3,839)	(7,264)	(3,167)	

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
				4%	7%	8%	7%	11%	6%	8%	10%	12%	7%	14%	6%	
D_PTM	475	NI	**143**	14	10	13	15	8	10	14	11	10	11	13	14	
				10%	7%	9%	10%	6%	7%	10%	8%	7%	8%	9%	10%	
D_PTM	500	NI	**71**	2	3	1	7	9	4	4	5	8	5	17	6	
				2%	4%	1%	11%	13%	5%	6%	7%	11%	8%	24%	8%	
D_UGCREW	475	NE	**294**	25	25	5	51	14	22	43	5	27	9	53	14	54%
				9%	8%	2%	17%	5%	7%	14%	2%	9%	3%	18%	5%	548
D_UGCREW	475	NI	**110**	3	8	4	0	10	5	17	3	4	39	6	12	20%
				3%	7%	4%	0%	9%	4%	15%	3%	3%	35%	5%	11%	
D_UGCREW	475	NR	**144**	0	0	2	34	50	0	4	4	10	29	1	9	26%
				0%	0%	1%	24%	34%	0%	3%	3%	7%	20%	0%	7%	

* As there is historically no clearing, will use the same distribution as the install.

rmission Collection

P0. .24

		2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
4	NE	**12**	0	0	1	9	0	0	1	0	0	0	0	1	32%
			0%	0%	11%	78%	0%	0%	7%	0%	0%	0%	0%	5%	37
4	NI	**13**	0	0	1	4	1	1	2	0	0	0	1	2	35%
4	NC	**400**	0	0	38	116	31	38	64	8	11	0	22	71	
			0%	0%	10%	29%	8%	10%	16%	2%	3%	0%	5%	18%	
4	NR	**12**	0	3	0	0	3	0	1	1	0	0	3	1	32%
			0%	29%	0%	0%	24%	0%	5%	5%	0%	0%	29%	9%	
0	NI	**11**	0	2	1	0	0	2	0	3	3	0	0	0	33%
0	NE	**11**	0	2	1	0	0	2	0	3	3	0	0	0	33%
0	NR	**11**	0	2	1	0	0	2	0	3	3	0	0	0	33%
			0%	14%	5%	4%	0%	20%	2%	32%	23%	0%	0%	0%	33
4	NE	**1,435**	45	336	104	560	35	39	85	57	57	52	33	34	
erials		**1,999**	85	837	211	84	79	84	195	131	74	114	71	34	
			3%	23%	7%	39%	2%	3%	6%	4%	4%	4%	2%	2%	
4	NI	**2,400**	291	252	198	269	74	147	290	100	213	140	246	180	79%
terials		**50,000**	6,072	5,253	4,116	5,601	1,534	3,071	6,049	2,088	4,435	2,914	5,124	3,742	3,040
S Svc-Const		**75,001**	9,108	7,880	6,174	8,402	2,301	4,607	9,074	3,133	6,652	4,370	7,687	5,613	
			12%	11%	8%	11%	3%	6%	12%	4%	9%	6%	10%	7%	
4	NR	**640**	43	91	57	104	14	38	114	31	31	22	26	69	21%
			7%	14%	9%	16%	2%	6%	18%	5%	5%	3%	4%	11%	
0	NE	**212**	14	5	4	11	7	34	29	34	32	14	0	28	21%
Oper Rev		**(15,521)**	(1,059)	(339)	(297)	(826)	(530)	(2,479)	(2,140)	(2,490)	(2,331)	(996)	21	(2,055)	997
			7%	2%	2%	5%	3%	16%	14%	16%	15%	6%	0%	13%	
0	NI	**480**	20	26	40	24	43	43	68	61	82	23	2	48	48%
terials		**20,000**	825	1,074	1,668	1,003	1,782	1,785	2,831	2,552	3,427	947	86	2,020	
S Svc-Gen		**2,999**	124	161	250	150	267	268	425	383	514	142	13	303	
S Svc-Const		**35,464**	1,464	1,905	2,958	1,778	3,160	3,165	5,020	4,526	6,076	1,680	152	3,582	
Oper Rev		**(43,896)**	(1,811)	(2,357)	(3,661)	(2,201)	(3,912)	(3,917)	(6,213)	(5,602)	(7,521)	(2,079)	(188)	(4,433)	
			4%	5%	8%	5%	9%	9%	14%	13%	17%	5%	0%	10%	
0	NR	**305**	22	29	11	16	20	41	27	48	38	25	1	27	31%
Oper Rev		**(22,838)**	(1,617)	(2,137)	(855)	(1,205)	(1,483)	(3,043)	(2,018)	(3,624)	(2,862)	(1,895)	(51)	(2,049)	
			7%	9%	4%	5%	6%	13%	9%	16%	13%	8%	0%	9%	

CA-IR-1
DOCKET NO. 04-0113
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T&D Vegetation Mgt.

P0[illegible].26

				2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
__TC-ED	494	NE*	P0000126	1,452	121	121	121	121	121	121	121	121	121	121	121	121
D_OHCREW	355	NE*	P0000126	1,380	115	115	115	115	115	115	115	115	115	115	115	115
	O/S Svc-Gen	NE**		500,004	23,333	23,333	23,333	133,333	23,333	23,333	23,333	23,333	23,333	23,333	23,333	133,341
__TC-ED	600	NE	P0000126	240	20	20	20	20	20	20	20	20	20	20	20	20
D_OHCREW	494	NE*	P0000126	1,452	121	121	121	121	121	121	121	121	121	121	121	121
	O/S Svc-Gen	NE		1,360,004	113,334	113,334	113,334	113,334	113,334	113,334	113,334	113,334	113,334	113,334	113,334	113,334

*Time represents hours spent by System Arborists, who are Merit employees. Therefore, hours will be applied consistently over the 12 month period.

** Per discussion w/System Arborists, increase in billings for Transmission system normally occur during April and December.

Test/Treat for Wooden Poles

P0[illegible].27

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
__BUOCED	471	NE	**300**	25	25	25	25	25	25	25	25	25	25	25	25
__BUOCED	341	NE	**100**	8	8	8	8	8	8	8	8	8	8	8	8
__TC-ED	341	NE	**100**	8	8	8	8	8	8	8	8	8	8	8	8
	Materials		**7,000**	583	583	583	583	583	583	583	583	583	583	583	583
	O/S Svcs-Gen		**50,000**	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167
__TCS-ED	471	NE	**300**	25	25	25	25	25	25	25	25	25	25	25	25
	Materials		**23,000**	1,917	1,917	1,917	1,917	1,917	1,917	1,917	1,917	1,917	1,917	1,917	1,917
	O/S Svcs-Gen		**400,000**	33,333	33,333	33,333	33,333	33,333	33,333	33,333	33,333	33,333	33,333	33,333	33,333
	Joint Pole Credit		**(190,800)**	(15,900)	(15,900)	(15,900)	(15,900)	(15,900)	(15,900)	(15,900)	(15,900)	(15,900)	(15,900)	(15,900)	(15,900)

Per discussion w/Mark Simmonds, T&D Engineer, expenses are relatively constant over the year. Therefore, amounts are forecasted constantly over the year.

Corrective Maintenance

P0[illegible]59

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
__TCS-ED	475	NC*	2,354	98	153	22	207	76	207	245	256	240	365	256	229	
__TC-ED	475	NC*	399	17	26	4	35	13	35	42	43	41	62	43	39	
				4%	6%	1%	9%	3%	9%	10%	11%	10%	16%	11%	10%	
__TCS-ED	478	NE	268	35	16	19	20	30	15	23	13	12	21	36	28	100%
				13%	6%	7%	8%	11%	6%	9%	5%	4%	8%	14%	11%	
D_OHCREW	475	NE	5,510	602	490	442	468	373	327	445	486	204	421	571	681	100%
	Materials		15,000	1,638	1,333	1,203	1,275	1,014	890	1,212	1,323	556	1,147	1,555	1,855	
	O/S Svc-Gen		40,000	4,369	3,554	3,209	3,399	2,705	2,372	3,232	3,527	1,482	3,058	4,147	4,946	
	O/S Svc-Const		40,000	4,369	3,554	3,209	3,399	2,705	2,372	3,232	3,527	1,482	3,058	4,147	4,946	
				11%	9%	8%	8%	7%	6%	8%	9%	4%	8%	10%	12%	
D_OHCREW	478	NE	7,929	437	522	586	788	791	620	731	763	527	518	576	1,069	100%
				6%	7%	7%	10%	10%	8%	9%	10%	7%	7%	7%	13%	
D_UGCREW	475	NE	492	-	14	10	61	262	211	41	27	53	(270)	-	83	100%
				0%	3%	2%	12%	53%	43%	8%	6%	11%	-55%	0%	17%	
D_UGCREW	478	NE	7,377	444	708	589	806	609	591	750	513	290	455	663	960	100%
	Materials		25,001	1,504	2,400	1,995	2,732	2,065	2,002	2,541	1,739	982	1,541	2,249	3,252	
	O/S Svc-Gen		65,001	3,909	6,240	5,187	7,104	5,368	5,204	6,607	4,521	2,552	4,007	5,846	8,455	
	O/S Svc-Const		399,999	24,058	38,402	31,921	43,718	33,033	32,025	40,656	27,820	15,705	24,656	35,975	52,029	
				6%	10%	8%	11%	8%	8%	10%	7%	4%	6%	9%	13%	

Modified during April 21 budget recycle, amount used represents highest previous year actual.

Per review of prior years allocated hours based off of historical, amount was previously forecasted only into Act 475.

* As there is historically no clearing, will use the same distribution as the changeover.

P0 60

s	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
00	0	0	0	89	0	28	0	0	50	33	0	0	
	0%	0%	0%	44%	0%	14%	0%	0%	25%	17%	0%	0%	
55	0	0	0	24	0	8	0	0	14	9	0	0	
	0%	0%	0%	44%	0%	14%	0%	0%	25%	17%	0%	0%	
30	0	3	0	3	14	0	0	0	27	12	0	0	
31	0	3	0	3	14	0	0	0	28	12	0	0	
	0%	6%	0%	6%	23%	0%	0%	0%	46%	20%	0%	0%	
32	5	0	0	0	0	6	18	15	8	9	1	0	
	7%	0%	0%	0%	0%	10%	29%	24%	14%	14%	1%	0%	
02	1	99	350	6	1	9	10	1	3	112	67	42	
0	5	495	1,743	30	3	47	52	5	15	559	335	210	
1	14	1,415	4,982	86	10	134	148	14	43	1,597	958	599	
0	17	1,698	5,977	103	11	161	178	17	52	1,917	1,149	718	
	0%	14%	50%	1%	0%	1%	1%	0%	0%	16%	10%	6%	
36	65	39	34	109	86	44	36	65	42	232	133	50	
0	870	516	455	1,459	1,145	590	486	870	558	3,103	1,783	664	
1	1,740	1,032	910	2,919	2,290	1,181	973	1,740	1,115	6,206	3,566	1,329	
0	9,467	5,616	4,948	15,879	12,458	6,422	5,293	9,467	6,067	33,758	19,396	7,229	
	7%	4%	4%	12%	9%	5%	4%	7%	4%	25%	14%	5%	
48	0	0	30	133	44	199	194	85	25	38	0	0	
9	-	-	1,977	8,898	2,966	13,277	12,994	5,650	1,695	2,542	-	-	
1	-	-	514	2,314	771	3,452	3,379	1,469	441	661	-	-	
0	-	-	791	3,559	1,186	5,311	5,198	2,260	678	1,017	-	-	
	0%	0%	4%	18%	6%	27%	26%	11%	3%	5%	0%	0%	
24	69	5	8	0	0	5	12	20	33	0	27	46	
	31%	2%	4%	0%	0%	2%	5%	9%	15%	0%	12%	20%	
50	43	33	25	11	15	15	12	13	13	16	17	39	250
	17%	13%	10%	4%	6%	6%	5%	5%	5%	6%	7%	15%	
00	111	113	77	93	111	91	88	80	94	65	84	92	1100
	10%	10%	7%	8%	10%	8%	8%	7%	9%	6%	8%	8%	
00	47	54	40	25	38	32	35	34	35	39	37	84	500
	9%	11%	8%	5%	8%	6%	7%	7%	7%	8%	7%	17%	
0	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	3,333	

April 21 Recycle adjustment, moved hours from P0000740, Activity 461. Hours determined by averaging total over 3 years (as 2000 had no costs). Amount then further increased to account for additional 4 bodies.

* As there is historically no clearing, will use the same distribution as the changeover.

** As there is historically no charges made to Activity 476 and clearing, will use the same distribution as Activity 473.

** As there is historically no charges made to Activity 482 and clearing, will use the same distribution as changeover costs for Activity 484.

Annual, Quarterly, Transmission, Transformers

P0...361

hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
363	40	6	15	-	-	-	68	18	24	133	37	24
	11%	2%	4%	0%	0%	0%	19%	5%	7%	37%	10%	7%
363	60	64	44	84	-	8	-	-	12	14	8	68
85	14	15	10	20	-	2	-	-	3	3	2	16
	17%	18%	12%	23%	0%	2%	0%	0%	3%	4%	2%	19%
353	2	-	3	9	90	0	52	144	26	-	17	9
	1%	0%	1%	3%	25%	0%	15%	41%	7%	0%	5%	3%
385	-	-	-	-	32	56	111	93	28	-	65	-
	0%	0%	0%	0%	8%	14%	29%	24%	7%	0%	17%	0%
200	-	-	-	31	17	33	117	-	-	-	-	3
	0%	0%	0%	15%	9%	16%	58%	0%	0%	0%	0%	1%
7,751	912	812	1,376	1,260	454	255	452	400	386	477	456	511
4,999	4,118	3,665	6,214	5,691	2,052	1,152	2,040	1,804	1,742	2,154	2,059	2,307
0,001	4,707	4,189	7,102	6,505	2,346	1,316	2,332	2,062	1,991	2,462	2,353	2,637
0,001	3,530	3,142	5,327	4,879	1,759	987	1,749	1,546	1,493	1,846	1,765	1,978
	12%	10%	18%	16%	6%	3%	6%	5%	5%	6%	6%	7%
6,942	403	349	434	480	774	818	458	553	697	637	683	656
5,999	348	302	375	415	669	707	396	478	602	551	590	567
2,999	105	110	169	371	431	211	274	370	295	272	196	195
5,000	290	251	313	346	558	589	330	398	502	459	492	472
	6%	5%	6%	7%	11%	12%	7%	8%	10%	9%	10%	9%
521	178	69	1	2	-	85	14	35	35	10	6	84
	34%	13%	0%	0%	0%	16%	3%	7%	7%	2%	1%	16%
96	-	-	63	14	-	-	-	14	-	-	-	6
	0%	0%	65%	14%	0%	0%	0%	14%	0%	0%	0%	6%
496	3	1	34	40	63	82	104	57	42	47	9	14
3,001	18	6	207	243	382	495	630	343	256	283	52	88
5,999	35	11	414	485	764	989	1,259	686	511	566	103	175
	1%	0%	7%	8%	13%	16%	21%	11%	9%	9%	2%	3%
3,000	253	190	201	282	354	231	243	229	266	246	244	260
	8%	6%	7%	9%	12%	8%	8%	8%	9%	8%	8%	9%
400	34	25	27	38	47	31	32	31	36	33	33	35
	8%	6%	7%	9%	12%	8%	8%	8%	9%	8%	8%	9%

P0[illegible]61

Preventive Inspection

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
D_PTM	461	NE	500	44	17	26	29	46	32	43	32	28	38	40	126	500
				9%	3%	5%	6%	9%	6%	9%	6%	6%	8%	8%	25%	
D_PTM	462	NE	650	44	19	35	54	60	60	52	62	56	58	61	90	650
				7%	3%	5%	8%	9%	9%	8%	10%	9%	9%	9%	14%	
D_PTM	463	NE	1,650	85	100	91	132	129	183	133	145	131	206	181	135	1,650
				5%	6%	5%	8%	8%	11%	8%	9%	8%	12%	11%	8%	
Joint Pole Credits	458	NE	(84,805)	(7,067)	(7,067)	(7,067)	(7,067)	(7,067)	(7,067)	(7,067)	(7,067)	(7,067)	(7,067)	(7,067)	(7,067)	

April 21 Recycle adjustment, moved hours from P0000740, Activity 461. Hours determined by averaging total over 3 years (as 2000 had no costs). Amount then further increased to account for additional 4 bodies.

* As there is historically no clearing, will use the same distribution as the changeover.

** As there is historically no charges made to Activity 329, will use the same distribution as Activity 328.

*** As there is historically no charges made by OH Crews, will use same percentages as UG Crews.

Forecast w/ PTM operations

P0000740

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
_PTM	333	NE	103	9	9	9	9	9	9	9	9	9	9	9	9	103
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	331	NE	196	16	16	16	16	16	16	16	16	16	16	16	16	196
	O/S Svc-Const		5,000	417	417	417	417	417	417	417	417	417	417	417	417	5000
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	350	NE	369	31	31	31	31	31	31	31	31	31	31	31	31	369
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	463	NE	2,613	265	243	266	240	230	182	229	218	231	152	179	178	2,613.00
	Material		7,200	600	600	600	600	600	600	600	600	600	600	600	600	7,200.00
				10%	9%	10%	9%	9%	7%	9%	8%	9%	6%	7%	7%	
_PTM	461	NE	8,129	644	704	723	699	654	688	691	699	695	709	684	539	8,129
				8%	9%	9%	9%	8%	8%	9%	9%	9%	9%	8%	7%	
_PTM	462	NE	1,695	141	141	141	141	141	141	141	141	141	141	141	141	1,695
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	602	NE	625	52	52	52	52	52	52	52	52	52	52	52	52	625
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	600	NE	16,344	1362	1362	1362	1362	1362	1362	1362	1362	1362	1362	1362	1362	16,344
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	475	NE	3,917	326	326	326	326	326	326	326	326	326	326	326	326	3917
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	500	NE	51	4	4	4	4	4	4	4	4	4	4	4	4	51
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	478	NE	3,011	251	251	251	251	251	251	251	251	251	251	251	251	3,011
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	501	NE	51	4	4	4	4	4	4	4	4	4	4	4	4	51
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	508	NE	51	4	4	4	4	4	4	4	4	4	4	4	4	51
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	484	NE	288	24	24	24	24	24	24	24	24	24	24	24	24	288
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	504	NE	51	4	4	4	4	4	4	4	4	4	4	4	4	51
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
_PTM	505	NE	51	4	4	4	4	4	4	4	4	4	4	4	4	51
				8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	

Note, as program was created in 2003 to forecast for Primary Troublemen, there is no history to allocate hours.
Therefore, hours were allocated constantly over each month.

Job Work - O/H Transformer

P1[illegible]00

		2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov			
479	NC	414	25	75	94	33	37	35	25	-	19	13	32	[illegible]7		
479	NI	241	15	44	55	19	21	21	15	-	11	7	18	[illegible]6		
			6%	18%	23%	8%	9%	9%	6%	0%	5%	3%	8%	[illegible]%		
479	NR	133	-	15	15	-	-	53	-	30	8	-	-	1		
			0%	11%	11%	0%	0%	40%	0%	23%	6%	0%	0%	[illegible]%		
479	NE	987	82	112	107	85	99	74	89	69	62	74	91	[illegible]6	9%	
Materials		35,000	2,919	3,961	3,780	2,997	3,507	2,618	3,140	2,430	2,194	2,607	3,227	[illegible]0		10,941
O/S Services		3,498	292	396	378	300	350	262	314	243	219	261	323	[illegible]2		
			8%	11%	11%	9%	10%	7%	9%	7%	6%	7%	9%	[illegible]%		
479	NI	5,197	448	520	498	411	720	470	391	340	377	345	463	[illegible]4	48%	
Materials		50,001	4,308	5,008	4,787	3,957	6,929	4,521	3,764	3,276	3,623	3,318	4,452	[illegible]8		
O/S Services		34,441	2,967	3,449	3,297	2,725	4,773	3,114	2,593	2,257	2,496	2,285	3,067	[illegible]7		
			9%	10%	10%	8%	14%	9%	8%	7%	7%	7%	9%	[illegible]%		
479	NR	4,757	500	528	441	428	627	380	439	287	317	322	329	[illegible]0	43%	
O/S Services		50,000	5,254	5,552	4,630	4,495	6,595	3,996	4,617	3,013	3,334	3,381	3,455	[illegible]9		
			11%	11%	9%	9%	13%	8%	9%	6%	7%	7%	7%	[illegible]%		
479	NI	258	4	19	35	37	93	41	14	3	3	-	7	2		
			1%	7%	14%	14%	36%	16%	6%	1%	1%	0%	3%	[illegible]%		

4... Transformer, Preventive

P1...00

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
__TC-ED	482	NC*	417	5	1	-	-	-	69	71	33	18	51	97	72	
				1%	0%	0%	0%	0%	16%	17%	8%	4%	12%	23%	17%	
__TCS-ED	482	NI	83	-	3	-	5	24	11	7	5	17	-	5	7	12%
				0%	4%	0%	6%	29%	13%	8%	6%	20%	0%	6%	8%	
__TCS-ED	482	NR	624	-	104	-	-	-	-	-	-	156	-	-	364	88%
				0%	17%	0%	0%	0%	0%	0%	0%	25%	0%	0%	58%	
D_OHCREW	482	NE	193	34	21	12	8	16	24	16	20	14	12	11	5	193
				18%	11%	6%	4%	8%	12%	8%	10%	7%	6%	6%	3%	2%
D_OHCREW	482	NI	5,145	710	355	634	263	535	571	372	432	496	427	271	78	5,145
				14%	7%	12%	5%	10%	11%	7%	8%	10%	8%	5%	2%	49%
																9,778
D_OHCREW	482	NR	5,065	525	411	417	287	559	409	502	571	441	311	478	154	5,065
				10%	8%	8%	6%	11%	8%	10%	11%	9%	6%	9%	3%	49%
D_PTM	482	NI	181	7	6	4	9	30	17	22	35	21	12	10	7	
				4%	3%	2%	5%	17%	9%	12%	19%	12%	7%	6%	4%	
D_UGCREW	482	NE	498	44	34	31	40	68	25	76	60	61	18	36	4	498
	O/S Svcs-Gen		2,600	228	177	164	209	357	128	397	315	321	95	187	22	7%
				9%	7%	6%	8%	14%	5%	15%	12%	12%	4%	7%	1%	
D_UGCREW	482	NI	3,633	178	123	378	425	402	267	400	583	251	159	336	131	3,633
	Materials**		19,999	977	675	2,083	2,340	2,214	1,469	2,204	3,208	1,384	875	1,850	720	48%
	O/S Svcs-Gen		14,000	684	473	1,458	1,638	1,550	1,029	1,543	2,245	969	613	1,295	504	7,593
	O/S Svcs-Const		22,237	1,087	751	2,316	2,601	2,461	1,634	2,451	3,566	1,539	973	2,057	801	
				5%	3%	10%	12%	11%	7%	11%	16%	7%	4%	9%	4%	
D_UGCREW	482	NR	3,462	271	180	389	372	393	355	333	385	280	134	268	103	3,462
	Materials		13,000	1,017	675	1,459	1,395	1,474	1,332	1,249	1,447	1,052	505	1,005	388	46%
	O/S Svcs-Gen		2,300	180	119	258	247	261	236	221	256	186	89	178	69	
				8%	5%	11%	11%	11%	10%	10%	11%	8%	4%	8%	3%	

* As there is historically no charges made to Activity 482, will use the same distribution as Activity 476.

** Per discussion w/Superintendents, amounts were transferred to O&M, as materials primarily relate to the changeover portion of work to be performed.

Dist .16 Cable - preventive

P1[illegible]00

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
__TC-ED	476	NC*	960	58	59	95	131	153	158	83	100	84	9	7	25
				6%	6%	10%	14%	16%	16%	9%	10%	9%	1%	1%	3%
__TCS-ED	476	NI	173	-	8	-	-	12	40	25	14	16	33	20	4
				0%	5%	0%	0%	7%	23%	14%	8%	9%	19%	12%	2%
D_OHCREW	476	NE	174	10	1	12	1	22	11	12	20	25	13	33	14
				6%	1%	7%	1%	12%	6%	7%	12%	14%	7%	19%	8%
D_UGCREW	476	NE	1,032	69	61	45	71	56	139	161	110	67	86	74	93
				7%	6%	4%	7%	5%	13%	16%	11%	7%	8%	7%	9%
D_UGCREW	476	NI	184	104	13	10	13	13	14	(90)	13	19	14	11	50
	Materials		125,000	5,272	4,393	4,064	12,617	12,013	16,269	21,568	15,473	13,592	(3,844)	8,265	15,320
	O/S Svcs-Gen		3,000	127	105	98	303	288	390	518	371	326	(92)	198	368
	O/S Svcs-Const		2,698,548	254,877	245,790	208,710	168,192	170,149	184,585	157,749	245,961	427,632	251,340	228,703	154,860
				4%	4%	3%	10%	10%	13%	17%	12%	11%	-3%	7%	12%
D_UGCREW	476	NR	13	(242)	15	13	17	8	5	13	9	33	13	121	8
	Materials		1,101	48	46	11	188	51	109	255	178	38	79	22	75
	O/S Svcs-Const		671,201	29,161	28,173	6,425	114,668	31,138	66,725	155,691	108,242	23,230	48,190	13,592	45,966
				4%	4%	1%	17%	5%	10%	23%	16%	3%	7%	2%	7%
Engineering	476	NI	800	67	67	67	67	67	67	67	67	67	67	67	67

* As there is historically no clearing, will use the same distribution as the install.

O/H Trib Line
Preventive

P3 J0

			.005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
_BUOCE	473	NC	2,148	109	108	115	169	213	187	188	219	230	259	186	165	2,148		
				5%	5%	5%	8%	10%	9%	9%	10%	11%	12%	9%	8%			
__TC-ED	473	NC	1,656	64	24	9	32	21	15	144	261	368	322	195	202	1,656		
				4%	1%	1%	2%	1%	1%	9%	16%	22%	19%	12%	12%			
__TCS-ED	473	NI	1,201	120	112	57	110	142	88	95	48	90	128	111	100	1,201		
				10%	9%	5%	9%	12%	7%	8%	4%	8%	11%	9%	8%			
D_OHCREW	473	NE	12,100	1,077	1,052	1,150	1,076	1,073	957	995	859	918	1,001	981	961	12,100	54%	
				9%	9%	10%	9%	9%	8%	8%	7%	8%	8%	8%	8%			22,216
D_OHCREW	473	NI	5,744	597	547	521	506	626	463	393	362	390	477	415	447	5,744	26%	
	Materials		300,000	31,165	28,583	27,213	26,440	32,717	24,191	20,525	18,920	20,352	24,889	21,684	23,320			
	O/S Svcs-Gen		(466,830)	(48,496)	(44,477)	(42,346)	(41,144)	(50,910)	(37,644)	(31,939)	(29,442)	(31,670)	(38,729)	(33,743)	(36,289)			
	O/S Svcs-Const		452,074	46,963	43,071	41,008	39,843	49,301	36,454	30,930	28,511	30,669	37,505	32,676	35,142			
	O/S Svcs-Const		203,000	21,088	19,341	18,414	17,891	22,138	16,369	13,889	12,803	13,771	16,841	14,673	15,780			
				10%	10%	9%	9%	11%	8%	7%	6%	7%	8%	7%	8%			
D_OHCREW	473	NR	4,372	414	390	519	394	509	417	327	209	269	362	272	289	4,372	20%	
	Materials		6,999	663	625	831	630	815	667	523	335	431	580	436	462			
	Materials		14,400	1,364	1,286	1,710	1,296	1,678	1,373	1,077	690	887	1,193	896	950			
	O/S Svcs-Const		35,000	3,314	3,125	4,156	3,150	4,078	3,338	2,617	1,677	2,156	2,901	2,179	2,310			
				9%	9%	12%	9%	12%	10%	7%	5%	6%	8%	6%	7%			
D_PTM	473	NI	2,779	252	232	219	235	407	311	306	177	168	162	197	114	2,779		
				9%	8%	8%	8%	15%	11%	11%	6%	6%	6%	7%	4%			
Restoration credit		NI	(120,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)			

P34..00

O/H Subtransmission - Preventive

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
__TC-ED	342	NC	1,507	153	124	197	94	103	101	140	134	164	108	75	114	
				10%	8%	13%	6%	7%	7%	9%	9%	11%	7%	5%	8%	
__TCS-ED	342	NI	133	5	8	9	17	11	7	9	15	16	16	12	7	133
				4%	6%	7%	13%	9%	6%	7%	11%	12%	12%	9%	5%	
D_OHCREW	342	NE	2,855	318	220	264	283	181	156	229	308	245	321	229	101	2,855
				11%	8%	9%	10%	6%	5%	8%	11%	9%	11%	8%	4%	23%
																12,585
D_OHCREW	342	NI	4,187	340	285	307	356	301	215	373	442	540	473	361	192	4,187
	Materials		600,003	48,681	40,898	44,049	51,022	43,073	30,836	53,522	63,358	77,446	67,842	51,690	27,585	33%
	O/S-Gen		30,002	2,434	2,045	2,203	2,551	2,154	1,542	2,676	3,168	3,873	3,392	2,585	1,379	
	O/S-Const		594,744	48,254	40,540	43,663	50,575	42,695	30,566	53,053	62,803	76,767	67,248	51,237	27,343	
	O/S-Const		77,004	6,248	5,249	5,653	6,548	5,528	3,957	6,869	8,131	9,939	8,707	6,634	3,540	
				8%	7%	7%	9%	7%	5%	9%	11%	13%	11%	9%	5%	
D_OHCREW	342	NR	5,543	542	544	577	572	343	217	446	547	527	564	475	189	5,543
	Materials		12,001	1,173	1,178	1,250	1,239	742	469	966	1,183	1,141	1,222	1,029	409	44%
	O/S-Gen		20,000	1,954	1,964	2,083	2,065	1,237	781	1,611	1,972	1,901	2,036	1,714	681	
	Materials		14,400	1,407	1,414	1,500	1,487	890	563	1,160	1,420	1,369	1,466	1,234	491	
				10%	10%	10%	10%	6%	4%	8%	10%	10%	10%	9%	3%	
D_PTM	342	NI	588	36	44	48	41	38	31	48	69	77	80	46	29	588
				6%	7%	8%	7%	6%	5%	8%	12%	13%	14%	8%	5%	
Engineering	342	NI	116	10	10	10	10	10	10	10	10	10	10	10	10	

Transmission 138kV poles, conductors

P34vvv00

			2005 hrs	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
D_OHCREW	342	NE	697	81	141	48	15	150	56	60	28	30	45	20	23	5%	
				12%	20%	7%	2%	22%	8%	9%	4%	4%	6%	3%	3%		13,020
__TC-ED*	342	NC	453	50	24	23	44	46	50	22	36	16	63	31	49		
__TCS-ED*	342	NI	89	10	5	4	9	9	10	4	7	3	12	6	10		
D_OHCREW	342	NI	12,000	1,332	648	599	1,154	1,214	1,333	589	952	411	1,662	813	1,293	92%	
	Materials		199,999	22,199	10,805	9,975	19,241	20,237	22,209	9,809	15,861	6,851	27,707	13,552	21,550		
	O/S Svc-C		71,759	7,965	3,877	3,579	6,904	7,261	7,969	3,520	5,691	2,458	9,941	4,862	7,732		
				11%	5%	5%	10%	10%	11%	5%	8%	3%	14%	7%	11%		
D_OHCREW	342	NR	323	45	28	9	11	38	30	28	30	35	26	35	8	2%	
				14%	9%	3%	3%	12%	9%	9%	9%	11%	8%	11%	2%		
D_PTM	342	NI	238	44	22	3	22	26	22	25	17	16	18	11	13		
				18%	9%	1%	9%	11%	9%	10%	7%	7%	8%	5%	6%		

* To calculate hours/month for TC_ED and TCS_ED, used the same percentages as D_OHCREW.
Teacher/Coach/Supervisor and Teacher/Coach's hours should mirror the hours of the D_OHCREW.

CA-IR-2

General Information Requests

For each of the HECO witnesses who sponsor test period budgeted non-labor direct expense amounts, please provide the following information:

a. Identify each employee involved in preparation of budgeted non-labor direct expense amounts included in the rate case test period budget and sponsored by the witness.

b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a), indicating the amounts by Department, RA, Activity and NARUC Account that such calculations support.

c. For each budgeted non-labor amount in the test period forecast that exceeds $50,000, please describe the basis for determining the budgeted amount (for example, bid solicitation, price times quantity estimation, historical cost escalated, etc.)

d. For each item in your response to part (c), where specific quantities and prices were discretely forecasted, explain the basis for and source of the budgeted quantity inputs and budgeted prices for each such item. Provide complete copies of all studies, reports and other documents that were relied upon.

e. For each item in your response to part (c) where historical costs were escalated, provide all historical cost information that was considered and explain how such data was evaluated and escalated to derive test year proposed levels.

f. For each item in your response to part (c) where a bid solicitation or other special analysis was conducted, explain what was done and provide complete copies of all supporting reports, bid solicitations, proposal, analyses, workpapers and other documents associated with such efforts.

g. Provide complete copies of all other information required to completely support and document the test year projected expense levels being proposed by the Company, including general assumptions and forecasting instructions that were employed.

HECO Response:

a. For the Construction and Maintenance (C&M) Department, the employees involved in the preparation of budgeted O&M direct non-labor expense amounts for various C&M projects are Arvin Fujii, Department Administrator and Douglas Kumataka, Work Coordinator.

b. Please refer to Attachment A, in CA-IR-1, Project No. Various C&M for additional details.

c. Non-labor costs were determined by escalating historical costs.

d. N/A.

e. Please refer to Attachment A in CA-IR-1, Project No. Various C&M for additional details.

f. N/A.

g. N/A.