CA-IR-1

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

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, "[illegible]"

- **Customer Service Department, Analysts**: Lynn Bronaugh, Robb Tanaka, Glenn Maglasang, Doni Yokoi, and Iris Eala; **Supervisors**: Judy Hirashima, Lloyd Shibata, Sylvia Chock, Wendy Oda and Curtis Tominaga; **Administrators**: Victoria Marzano, Jill Reppun and Jan Loose who transferred to Education and Consumer Affairs Department in mid 2004; **Directors**: Arline Konishi, Sharon Suzuki (transferred to MECO in early 2004) and **Manager**, Darren Yamamoto (recently promoted from Director of Field Services to Manager of the Customer Service Department as of December 1, 2004); former Manager of Customer Service, Amy Ejercito recently promoted to Vice President Corporate Excellence as of January 1, 2005. See Attachment 1.
- In addition, to the Customer Service Department staff involved in the budget preparation there are preparers from the **Information Technology & Services Department**, Blane Murakami (see Attachment 1); **Customer Installations Department**, Darlene Bajadali and Randy China (see Attachment 1); and the **Legal Department**, Cheryl Fujiwara (see Attachment 1).

b. The Customer Service Department's information within the NARUC accounts 901-904, (see Attachment 2 pages, 1-38). The Information Technology Department (see Attachment 3), for the Customer Installation Department (see attachment 4) and for the Legal Department (see attachment 5).

c. The Customer Service Department's information within the NARUC accounts 901-904, see Attachment 2, pages 39-43. For the Information Technology Department, Customer Installation Department and the Legal Department (see attachment 1).

d. See response to c. for the Customer Service Department. Information Technology

Department, Customer Installation Department and for the Legal Department (see Attachment 1).

e. Some of the challenges that the Customer Service Department faces, are the increase in calls received (406,500 in 1995 vs. 430,000 in 2003), increase in special or complex rate and billing situations (e.g., MV 90 commercial accounts 135 in 1999 vs. 374 in 2003) and deferred initiatives in the areas of new technology, customer options and services and process improvements.

f. Customer Service Department's information within the NARUC accounts 901-904, (see Attachment 2, page 44). Information Technology Department, Customer Installation Department and the Legal Department (n/a).

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

NONPROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
LABOR

t	RA	Resp Area	Act	Activity	EE	Proj or NonProj	FY05	a. Budget Preparer	b. Support	c.	d.	e.	f.	g. Gen. Assump. & guidelines
Svc	PCA	Admin-Cust Svc	750	Maint Rel- Cust	301	NonProject	92	D.Yokoi;A.Ejercito	Attch. 2					Attch. 2
Svc	PCA	Admin-Cust Svc	899		501	Project	48,000							
Svc	PCA	Admin-Cust Svc	720	Improve Bus Processes	501	Project	100,000							
Svc	PCA	Admin-Cust Svc	600	Resp to Cus Inq/Svc Req	201	NonProject	6,708	D.Yokoi;A.Ejercito	Attch. 2					
Svc	PCA	Admin-Cust Svc	600	Resp to Cus Inq/Svc Req	501	NonProject	4,182	D.Yokoi;A.Ejercito	Attch. 2					
Svc	PCA	Admin-Cust Svc	600	Resp to Cus Inq/Svc Req	901	NonProject	0	D.Yokoi;A.Ejercito	Attch. 2					
Svc	PCA	Admin-Cust Svc	604	Maint Cus Account Info	461	NonProject	204,000	D.Yokoi;A.Ejercito	Attch. 2	Attch. 2				
Svc	PCA	Admin-Cust Svc	614	Process Cust Bills	201	NonProject	98,764	D.Yokoi;A.Ejercito	Attch. 2	Attch. 2				
Svc	PCA	Admin-Cust Svc	700	Dev & Adm Business Plans	501	NonProject	100,012	D.Yokoi;A.Ejercito	Attch. 2	Attch. 2				
Svc	PCA	Admin-Cust Svc	720	Improve Bus Processes	462	NonProject	18,376	D.Yokoi;A.Ejercito	Attch. 2					
Svc	PCA	Admin-Cust Svc	720	Improve Bus Processes	501	NonProject	2,112	D.Yokoi;A.Ejercito	Attch. 2					
Svc	PCA	Admin-Cust Svc	720	Improve Bus Processes	520	NonProject	2,100	D.Yokoi;A.Ejercito	Attch. 2					
Svc	PCA	Admin-Cust Svc	721	Dev Meas & Anlz Perf	501	NonProject	35,607	D.Yokoi;A.Ejercito	Attch. 2					
Svc	PCA	Admin-Cust Svc	600	Resp to Cus Inq/Svc Req	501	Project	167,353							
Svc	PCA	Admin-Cust Svc	614	Process Cust Bills	501	Project	100,000							
Svc	PCA	Admin-Cust Svc	600	Resp to Cus Inq/Svc Req	501	Project	100,000							
Svc	PCA	Admin-Cust Svc	600	Resp to Cus Inq/Svc Req	501	Project	124,000							
Svc	PCA	Admin-Cust Svc	600	Resp to Cus Inq/Svc Req	501	Project	18,000							
Svc	PCA	Admin-Cust Svc	600	Resp to Cus Inq/Svc Req	501	Project	22,000							
Svc	PCA	Admin-Cust Svc	600	Resp to Cus Inq/Svc Req	501	Project	49,500							
Svc	PCB	Cust Acctg & Bill	610	Read Billing Meters	501	NonProject	6,050	L.Shibata;L.Bronaugh	Attch. 2					
Svc	PCB	Cust Acctg & Bill	611	Mg Billing & Acct Prob	201	NonProject	3,000	L.Shibata;L.Bronaugh	Attch. 2					
Svc	PCB	Cust Acctg & Bill	611	Mg Billing & Acct Prob	205	NonProject	600	L.Shibata;L.Bronaugh	Attch. 2					
Svc	PCB	Cust Acctg & Bill	611	Mg Billing & Acct Prob	501	NonProject	13,000	L.Shibata;L.Bronaugh	Attch. 2					
Svc	PCB	Cust Acctg & Bill	611	Mg Billing & Acct Prob	570	NonProject	240	L.Shibata;L.Bronaugh	Attch. 2					
Svc	PCD	Credit	618	Mng Past Due Accts	205	NonProject	1,200	A.Konishi; I. Eala	Attch. 2					
Svc	PCD	Credit	618	Mng Past Due Accts	501	NonProject	96,000	A.Konishi; I. Eala	Attch. 2					
Svc	PCD	Credit	618	Mng Past Due Accts	502	NonProject	3,000	A.Konishi; I. Eala	Attch. 2					
Svc	PCD	Credit	789	Attend Training	501	NonProject	6,500	A.Konishi; I. Eala	Attch. 2					
Svc	PCD	Credit	618	Mng Past Due Accts	900	NonProject	1,082,300	A.Konishi; I. Eala	Attch. 2					
Svc	PCF	Customer Field Svcs	610	Read Billing Meters	301	NonProject	1,140	Jan Loose;J.Reppun	Attch. 2					
Svc	PCF	Customer Field Svcs	600	Resp to Cus Inq/Svc Req	301	NonProject	1,220	Jan Loose;J.Reppun	Attch. 2					
Svc	PCF	Customer Field Svcs	600	Resp to Cus Inq/Svc Req	462	NonProject	2,188	Jan Loose;J.Reppun	Attch. 2					
Svc	PCF	Customer Field Svcs	611	Mg Billing & Acct Prob	301	NonProject	5,405	Jan Loose;J.Reppun	Attch. 2					
Svc	PCF	Customer Field Svcs	619	Perf Discon/Recon-NonPay	301	NonProject	1,140	Jan Loose;J.Reppun	Attch. 2					
Svc	PCF	Customer Field Svcs	720	Improve Bus Processes	301	NonProject	1,140	Jan Loose;J.Reppun	Attch. 2					
Svc	PCF	Customer Field Svcs	789	Attend Training	501	NonProject	5,000	Jan Loose;J.Reppun	Attch. 2					
Svc	PCG	Fld Svc & Collection	610	Read Billing Meters	201	NonProject	1,850	Jan Loose;W.Oda	Attch. 2					
Svc	PCG	Fld Svc & Collection	610	Read Billing Meters	301	NonProject	37,419	Jan Loose;W.Oda	Attch. 2					
Svc	PCG	Fld Svc & Collection	610	Read Billing Meters	501	NonProject	42,800	Jan Loose;W.Oda	Attch. 2					
Svc	PCG	Fld Svc & Collection	600	Resp to Cus Inq/Svc Req	301	NonProject	12,140	Jan Loose;W.Oda	Attch. 2					
Svc	PCG	Fld Svc & Collection	611	Mg Billing & Acct Prob	301	NonProject	2,120	Jan Loose;W.Oda	Attch. 2					
Svc	PCG	Fld Svc & Collection	619	Perf Discon/Recon-NonPay	201	NonProject	40,700	Jan Loose;W.Oda	Attch. 2					
Svc	PCG	Fld Svc & Collection	619	Perf Discon/Recon-NonPay	205	NonProject	24,500	Jan Loose;W.Oda	Attch. 2					

	_RA	Resp Area	_Act	Activity	_EE	Proj_or_NonProj	FY05	a. Budget Preparer	b. Support	c.	d.	e.	f.	g. Gen. Assump. & guidelines
Svc	PCG	Fld Svc & Collection	619	Perf Discon/Recon-NonPay	301	NonProject	35,705	Jan Loose;W.Oda	Attch. 2					
Svc	PCG	Fld Svc & Collection	777	Process Payroll	301	NonProject	120	Jan Loose;W.Oda	Attch. 2					
Svc	PCG	Fld Svc & Collection	785	Plan Emp Trng & Dev	301	NonProject	460	Jan Loose;W.Oda	Attch. 2					
Svc	PCH	Customer Assist Ctr	600	Resp to Cus Inq/Svc Req	205	NonProject	8,640	L.Bronaugh,R.Tanaka	Attch. 2					
Svc	PCH	Customer Assist Ctr	600	Resp to Cus Inq/Svc Req	501	NonProject	8,640	L.Bronaugh,R.Tanaka	Attch. 2					
Svc	PCH	Customer Assist Ctr	600	Resp to Cus Inq/Svc Req	600	NonProject	5,000	L.Bronaugh,R.Tanaka	Attch. 2					
Svc	PCH	Customer Assist Ctr	789	Attend Training	501	NonProject	22,650	L.Bronaugh,R.Tanaka	Attch. 2					
Svc	PCM	Meter Reading	610	Read Billing Meters	201	NonProject	22,750	Jan Loose;C.Tominaga	Attch. 2					
Svc	PCM	Meter Reading	610	Read Billing Meters	205	NonProject	13,350	Jan Loose;C.Tominaga	Attch. 2					
Svc	PCM	Meter Reading	610	Read Billing Meters	301	NonProject	169,252	Jan Loose;C.Tominaga	Attch. 2					
Svc	PCM	Meter Reading	610	Read Billing Meters	501	NonProject	40,000	Jan Loose;C.Tominaga	Attch. 2					
Svc	PCP	Pmt Proc & Supp Ctr	614	Process Cust Bills	201	NonProject	123,120	J.Hirashima	Attch. 2					
Svc	PCP	Pmt Proc & Supp Ctr	614	Process Cust Bills	640	NonProject	1,068,588	J.Hirashima	Attch. 2					
Svc	PCP	Pmt Proc & Supp Ctr	616	Process Cust Payments	201	NonProject	115,200	J.Hirashima	Attch. 2					
Svc	PCP	Pmt Proc & Supp Ctr	616	Process Cust Payments	205	NonProject	15,600	J.Hirashima	Attch. 2					
Svc	PCP	Pmt Proc & Supp Ctr	616	Process Cust Payments	501	NonProject	205,500	J.Hirashima	Attch. 2					
Svc	PCP	Pmt Proc & Supp Ctr	616	Process Cust Payments	503	NonProject	30,000	J.Hirashima	Attch. 2					
Svc	PCP	Pmt Proc & Supp Ctr	616	Process Cust Payments	600	NonProject	78,200	J.Hirashima	Attch. 2					
Svc	PCP	Pmt Proc & Supp Ctr	789	Attend Training	501	NonProject	2,400	J.Hirashima	Attch. 2					
Svc	PCP	Pmt Proc & Supp Ctr	600	Resp to Cus Inq/Svc Req	640	Project	50,000							
Svc	PCS	Customer Acct Svcs	600	Resp to Cus Inq/Svc Req	201	NonProject	2,472	L.Bronaugh;S.Suzuki	Attch. 2					
Svc	PCS	Customer Acct Svcs	600	Resp to Cus Inq/Svc Req	205	NonProject	7,200	L.Bronaugh;S.Suzuki	Attch. 2					
Svc	PCS	Customer Acct Svcs	600	Resp to Cus Inq/Svc Req	501	NonProject	1,200	L.Bronaugh;S.Suzuki	Attch. 2					
Svc	PCS	Customer Acct Svcs	789	Attend Training	201	NonProject	1,200	L.Bronaugh;S.Suzuki	Attch. 2					
Svc	PCS	Customer Acct Svcs	789	Attend Training	501	NonProject	13,000	L.Bronaugh;S.Suzuki	Attch. 2					
							4,631,705							
ch	PEP	Project & Bus Mgt	611	Mg Billing & Acct Prob	901	NonProject	38,579	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
ch	PEZ	ISD Chargeback	720	Improve Bus Processes	451	NonProject	781,465	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
ch	PEZ	ISD Chargeback	610	Read Billing Meters	451	NonProject	41,916	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
ch	PEZ	ISD Chargeback	612	Process OCARS	451	NonProject	5,472	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
ch	PEZ	ISD Chargeback	611	Mg Billing & Acct Prob	451	NonProject	107,928	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
ch	PEZ	ISD Chargeback	614	Process Cust Bills	451	NonProject	9,084	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
ch	PEZ	ISD Chargeback	616	Process Cust Payments	451	NonProject	69,828	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
ch	PEZ	ISD Chargeback	611	Mg Billing & Acct Prob	451	NonProject	160,812	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
							1,215,084							
	PWX	Engineering & Meter	610	Read Billing Meters	301	NonProject	875	Randy China	Attch. 4					
	PWX	Engineering & Meter	619	Perf Discon/Recon-NonPay	301	NonProject	1,280	Randy China	Attch. 4					
							2,155							
							5,848,944							

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

CUSTOMER SERVICE DEPARTMENT
NONPROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
LABOR

Labor Input Sheet - NonProject
2005

A
nager

Prepared by D. Yokoi
Date 07/26/03

Dimension tab card							Rates tab card	Units tab card												
tA	Act	Loc	Ind	Proj	EE	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")												
CA	*Supply	*Supply	*Supply	*Supply	*Supply	Manager	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
								(enter hours in "Units tab card")												
CA	098	PHE	ND		107	Manager	Manager	0	8	8	0	8	8	8	8	8	8	16	16	96
CA	098	PHE	ND		107	Manager	Manager							60			60			120
CA	098	PHE	ND		107	Manager	Manager													0
CA	098	PHE	ND		108	Manager	Manager													0
CA	131	PHE	NI	NPCZZZZZ	150	Manager	Manager	8	8	9	8	8	8	5	9	8	5	8	8	92
CA	600	PHE	NE	NPCZZZZZ	150	Manager	Manager	17	15	17	17	17	17	10	17	17	10	16	16	186
CA	611	PHE	NE	NPCZZZZZ	150	Manager	Manager	17	15	17	17	17	17	10	17	17	10	16	16	186
CA	618	PHE	NE	NPCZZZZZ	150	Manager	Manager	17	15	17	17	17	17	10	17	17	10	16	16	186
CA	700	PHE	NS	NPCZZZZZ	150	Manager	Manager	17	15	17	17	17	17	10	17	17	10	16	16	186
CA	701	PHE	NS	NPCZZZZZ	150	Manager	Manager	17	15	18	17	17	17	10	18	17	10	16	16	188
CA	720	PHE	NS	NPCZZZZZ	150	Manager	Manager	17	15	18	17	17	17	10	18	17	10	16	16	188
CA	730	PHE	NS	NPCZZZZZ	150	Manager	Manager	8	8	9	8	8	8	5	9	8	5	8	8	92
CA	750	PHE	NS	NPCZZZZZ	150	Manager	Manager	17	15	18	17	17	17	10	18	17	10	16	16	188
CA	775	PHE	NS	NPCZZZZZ	150	Manager	Manager	17	15	18	17	17	17	10	18	17	10	16	16	188
CA	785	PHE	NS	NPCZZZZZ	150	Manager	Manager	8	8	9	8	8	8	5	9	8	5	8	8	92
CA	789	PHE	NS	NPCZZZZZ	150	Manager	Manager	8	8	9	8	8	8	5	9	8	5	8	8	92
CA					150	Manager	Manager													0
CA					150	Manager	Manager													0
CA					150	Manager	Manager													0
CA					150	Manager	Manager													0
							Total NonProj/Pgm Demand	168	160	184	168	176	176	168	184	176	168	176	176	2,080
							Total Supply	168	160	184	168	176	176	168	184	176	168	176	176	2,080
								-168	-152	-176	-168	-168	-168	-100	-176	-168	-100	-160	-160	-1,864
6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2)								0	8	8	0	8	8	8	8	8	8	16	16	96
yee								168	160	184	168	176	176	168	184	176	168	176	176	2080

ect Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCA
Labor Class Secretary

Prepared by D. Yokoi
Date 7/26/03

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	NARUC	PCA	*Supply	*Supply	*Supply	*Supply	*Supply	Secretary	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
Labor Demand:										*(enter **hours** in **"Units tab card"**)*												
Holiday	184	PCA	098	PHE	ND		107	Secretary	Secretary	0	8	8	0	8	8	8	8	8	8	16	16	96
Vacation	184	PCA	098	PHE	ND		107	Secretary	Secretary					60				60				120
Other NPW		PCA	098	PHE	ND		107	Secretary	Secretary													0
Workers Comp		PCA	098	PHE	ND		108	Secretary	Secretary													0
Resp to Cust Inquiries	903	PCA	600	OAH	NE	NPCZZZZZ	150	Secretary	Secretary	50	43	52	50	34	50	48	52	34	48	48	48	557
Maintain Cust Acct Info	903	CA	604	OAH	NE	NPCZZZZZ	150	Secretary	Secretary	26	23	26	26	16	26	24	26	16	24	24	24	261
Man & Resolve Billing	903	PCA	611	OAH	NE	NPCZZZZZ	150	Secretary	Secretary	5	5	5	5	3	5	5	5	3	5	5	5	56
Proc, Verify & Mail Bills	903	PCA	614	OAH	NE	NPCZZZZZ	150	Secretary	Secretary	8	8	9	8	5	8	8	9	5	8	8	8	92
Manage Past Due Accts	903	PCA	618	OAH	NE	NPCZZZZZ	150	Secretary	Secretary	2	2	2	2	1	2	2	2	1	2	2	2	22
Handle Mail	901	PCA	966	PHE	NE	NPCZZZZZ	150	Secretary	Secretary	25	23	26	25	16	25	24	26	16	24	24	24	278
Maintain Empl Records	901	PCA	766	PHE	NS	NPCZZZZZ	150	Secretary	Secretary	17	15	18	17	11	17	16	18	11	16	16	16	188
Process Payroll	901	PCA	777	PHE	NS	NPCZZZZZ	150	Secretary	Secretary	8	8	9	8	5	8	8	9	5	8	8	8	92
Attend meetings and trng	901	PCA	789	PHE	NS	NPCZZZZZ	150	Secretary	Secretary	2	2	2	2	1	2	2	2	1	2	2	2	22
Order Matl, Equip, Supply	901	PCA	842	PHE	NS	NPCZZZZZ	150	Secretary	Secretary	17	15	18	17	11	17	15	18	11	15	15	15	184
Process Inv & Oth Pymts	901	PCA	843	PHE	NS	NPCZZZZZ	150	Secretary	Secretary	8	8	9	8	5	8	8	9	5	8	8	8	92
		PCA					150															0
		PCA					150															0
		PCA					150															0
		PCA					150															0
		PCA					150															0
								Total NonProj/Pgm Demand		168	160	184	168	176	176	168	184	176	168	176	176	2,080
								Total Supply		168	160	184	168	176	176	168	184	176	168	176	176	2,080
										-168	-152	-176	-168	-108	-168	-160	-176	-108	-160	-160	-160	-1,864
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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

NOTE: Total NonProject Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Prepared by V. Marzano
Date 02/06/04

	Rates tab card	Units tab card												
bor Class	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
		*(enter **employee count** in **"Units tab card"**)*												
ninistrator	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
		*(enter **hours** in **"Units tab card"**)*												
ninistrator	Administrator	0	8	8	0	8	8	8	8	8	8	16	16	96
ninistrator	Administrator					20	20		20	20				80
ninistrator	Administrator													0
ninistrator	Administrator													0
ninistrator	Administrator	84	76	88	84	74	74	80	78	74	80	80	80	952
ninistrator	Administrator	84	76	88	84	74	74	80	78	74	80	80	80	952
ninistrator	Administrator													0
ninistrator	Administrator													0
ninistrator	Administrator													0
ninistrator	Administrator													0
ninistrator	Administrator													0
ninistrator	Administrator													0
ninistrator	Administrator													0
ninistrator	Administrator													0
Proj/Pgm Demand		168	160	184	168	176	176	168	184	176	168	176	176	2,080
ply		168	160	184	168	176	176	168	184	176	168	176	176	2,080
urs (Supply -Hol.-vac)		168	152	176	168	148	148	160	156	148	160	160	160	1,904
12/30 (1/2)		0	8	8	0	8	8	8	8	8	8	16	16	96
		168	160	184	168	176	176	168	184	176	168	176	176	2080

/ hours due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCA
Labor Class Oper Analyst _TC

Prepared by D. Yokoi
Date 07/26/03

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	NARUC	PCA	*Supply	*Supply	*Supply	*Supply	*Supply	Oper Analyst	_ Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
Labor Demand:										*(enter **hours** in **"Units tab card"**)*												
Holiday	184	PCA	098	PHE	ND		107	Oper Analyst	Oper Analyst	0	8	8	0	8	8	8	8	8	8	16	16	96
Vacation	184	PCA	098	PHE	ND		107	Oper Analyst	Oper Analyst	8	8	8	8	8	8	8	8	8	8			80
Other NPW		PCA	098	PHE	ND		107	Oper Analyst	Oper Analyst													0
Workers Comp		PCA	098	PHE	ND		108	Oper Analyst	Oper Analyst													0
Dev & Adm Bus Plans	903	PCA	700	PHE	NS	NPCZZZZZ	150	Oper Analyst	Oper Analyst	32	32	36	32	32	32	30	33	32	30	32	32	385
Impr Bus Processes	903	PCA	720	PHE	NS	NPCZZZZZ	150	Oper Analyst	Oper Analyst	32	28	33	32	32	32	30	33	30	30	32	32	376
Res New Tech	912	PCA	730	PHE	NS	NPCZZZZZ	150	Oper Analyst	Oper Analyst	32	28	33	32	32	32	30	33	30	30	32	32	376
Dev & Demo New Tech	9302	PCA	731	PHE	NS	NPCZZZZZ	150	Oper Analyst	Oper Analyst	32	28	33	32	32	32	30	34	34	30	32	32	381
Plan for & Det Empl Trng	903	PCA	785	PHE	NS	NPCZZZZZ	150	Oper Analyst	Oper Analyst	32	28	33	32	32	32	32	35	34	32	32	32	386
		PCA					150	Oper Analyst	Oper Analyst													0
		PCA					150	Oper Analyst	Oper Analyst													0
		PCA					150	Oper Analyst	Oper Analyst													0
		PCA					150	Oper Analyst	Oper Analyst													0
		PCA					150	Oper Analyst	Oper Analyst													0
							Total NonProj/Pgm Demand			168	160	184	168	176	176	168	184	176	168	176	176	2,080
							Total Supply			168	160	184	168	176	176	168	184	176	168	176	176	2,080
										-160	-144	-168	-160	-160	-160	-152	-168	-160	-152	-160	-160	-1,904
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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

NOTE: Total NonProject Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

PCA
Customer Care Analyst _TC

Prepared by D. Yokoi
Date 7/25/03

Dimension tab card								Rates tab card	Units tab card												
-NARUC	RA	Act	Loc	Ind	Proj	EE	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")												
	PCA	*Supply	*Supply	*Supply	*Supply	*Supply	Customer Care	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
									(enter hours in "Units tab card")												
184	PCA	098	PHE	ND		107	Customer Care	Customer Care Ana	0	8	8	0	8	8	8	8	8	8	16	16	96
184	PCA	098	PHE	ND		107	Customer Care	Customer Care Analyst					20	20							40
	PCA	098	PHE	ND		107	Customer Care	Customer Care Analyst													0
	PCA	098	PHE	ND		108	Customer Care	Customer Care Analyst													0
903	CA	600	OAH	NE	NPCZZZZZ	150	Customer Care	Customer Care Ana	84	76	88	84	74	74	80	88	84	80	80	80	972
903	CA	720	PHE	NE	NPCZZZZZ	150	Customer Care	Customer Care Ana	84	76	88	84	74	74	80	88	84	80	80	80	972
	PCA					150	Customer Care	Customer Care Analyst													0
	PCA					150	Customer Care	Customer Care Analyst													0
	PCA					150	Customer Care	Customer Care Analyst													0
	PCA					150	Customer Care	Customer Care Analyst													0
	PCA					150	Customer Care	Customer Care Analyst													0
	PCA					150	Customer Care	Customer Care Analyst													0
	PCA					150	Customer Care	Customer Care Analyst													0
	PCA					150	Customer Care	Customer Care Analyst													0
								Total NonProj/Pgm Demand	168	160	184	168	176	176	168	184	176	168	176	176	2,080
								Total Supply	168	160	184	168	176	176	168	184	176	168	176	176	2,080
									-168	-152	-176	-168	-148	-148	-160	-176	-168	-160	-160	-160	-1,944
5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2)									0	8	8	0	8	8	8	8	8	8	16	16	96
nployee									168	160	184	168	176	176	168	184	176	168	176	176	2080

Project Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

Total	12	96	120	0	0	120	120	420	928	60	96	120	0	0	0	2,080	2,080	96	2080

[redacted]

abor Input Sheet - NonProject
2005

Prepared by I. Eala
Date 8/4/2003

	Rates tab card	Units tab card												
Class	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
		*(enter **employee count** in **"Units tab card"**)*												
	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
		*(enter **hours** in **"Units tab card"**)*												
	IMPLTR	0	8	8	0	8	8	8	8	8	8	16	16	96
	IMPLTR	10	10	10	10	10	10	10	10	10	10	10	10	120
	IMPLTR													0
	IMPLTR													0
	IMPLTR	35	35	35	35	35	35	35	35	35	35	35	35	420
	IMPLTR	12	12	12	12	12	12	12	12	12	12	12	12	144
	IMPLTR	5	5	5	5	5	5	5	5	5	5	5	5	60
	IMPLTR	94	78	102	94	94	94	86	102	94	86	86	86	1,096
	IMPLTR	5	5	5	5	5	5	5	5	5	5	5	5	60
	IMPLTR	7	7	7	7	7	7	7	7	7	7	7	7	84
	IMPLTR													0
	IMPLTR													0
	IMPLTR													0
	IMPLTR													0
Pgm Demand		168	160	184	168	176	176	168	184	176	168	176	176	2,080
		168	160	184	168	176	176	168	184	176	168	176	176	2,080
0 (1/2)		0	8	8	0	8	8	8	8	8	8	16	16	96
		168	160	184	168	176	176	168	184	176	168	176	176	2080

urs due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Prepared by J HIRASHIMA
Date ######

			Rates tab card	Units tab card												
j	EE	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"**)*												
ply	*Supply	TSUP	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	1
				*(enter **hours** in **"Units tab card"**)*												
	107	TSUP	TSUP	0	8	8	0	8	8	8	8	8	8	16	16	96
	107	TSUP	TSUP			40				40			40			120
	107	TSUP	TSUP													0
	108	TSUP	TSUP													0
ZZZ	150	TSUP	TSUP	75	59	43	75	75	75	22	78	75	27	67	67	738
ZZZ	150	TSUP	TSUP	20	20	20	20	20	20	20	20	20	20	20	20	240
ZZZ	150	TSUP	TSUP	20	20	20	20	20	20	20	20	20	20	20	20	240
ZZZ	150	TSUP	TSUP	15	15	15	15	15	15	15	15	15	15	15	15	180
ZZZ	150	TSUP	TSUP	5	5	5	5	5	5	10	10	5	5	5	5	70
ZZZ	151	TSUP	TSUP	20	20	20	20	20	20	20	20	20	20	20	20	240
ZZZ	150	TSUP	TSUP	3	3	3	3	3	3	3	3	3	3	3	3	36
ZZZ	150	TSUP	TSUP	5	5	5	5	5	5	5	5	5	5	5	5	60
ZZZ	150	TSUP	TSUP	5	5	5	5	5	5	5	5	5	5	5	5	60
	150	TSUP	TSUP													0
	160	TSUP	TSUP													0
	Total NonProj/Pgm Demand			168	160	184	168	176	176	168	184	176	168	176	176	2,080
	Total Supply			168	160	184	168	176	176	168	184	176	168	176	176	2,080
'26, 12/30 (1/2)				0	8	8	0	8	8	8	8	8	8	16	16	96
				168	160	184	168	176	176	168	184	176	168	176	176	2080

pply hours due to Project Demand hours (which are budgeted in the Project file)

eet - NonProject
005

Prepared by J HIRASHIMA
Date 2/6/2004

s tab card	Units tab card												
s Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
*(enter **employee count** in **"Units tab card"**)*													
able Hours	1	1	1	1	1	1	1	1	1	1	1	1	1
*(enter **hours** in **"Units tab card"**)*													
	0	8	8	0	8	8	8	8	8	8	16	16	96
			40				40			40			120
													0
													0
	75	59	43	75	75	75	22	78	75	27	67	67	738
	20	20	20	20	20	20	20	20	20	20	20	20	240
	20	20	20	20	20	20	20	20	20	20	20	20	240
	15	15	15	15	15	15	15	15	15	15	15	15	180
	5	5	5	5	5	5	10	10	5	5	5	5	70
	20	20	20	20	20	20	20	20	20	20	20	20	240
	3	3	3	3	3	3	3	3	3	3	3	3	36
	5	5	5	5	5	5	5	5	5	5	5	5	60
	5	5	5	5	5	5	5	5	5	5	5	5	60
													0
													0
nd	168	160	184	168	176	176	168	184	176	168	176	176	2,080
	168	160	184	168	176	176	168	184	176	168	176	176	2,080
	0	8	8	0	8	8	8	8	8	8	16	16	96
	168	160	184	168	176	176	168	184	176	168	176	176	2080

Demand hours (which are budgeted in the Project file)

nProject

Prepared by J HIRASHIMA
Date 3/17/2004

Units tab card											
Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
*(enter **employee count** in **"Units tab card"**)*											
18	18	18	18	18	18	18	18	18	18	18	216
*(enter **hours** in **"Units tab card"**)*											
144	144	0	144	144	144	144	144	144	288	288	1,728
156	156	156	156	156	156	156	156	156	156	156	1,872
											0
											0
45	45	45	45	45	45	45	45	45	45	45	540
450	450	450	450	450	450	450	450	450	450	450	5,400
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	789
65	65	65	65	65	65	65	65	65	64	64	778
650	650	650	650	650	650	650	650	650	650	650	7,800
100	100	100	100	100	100	100	100	100	100	100	1,200
30	30	30	30	30	30	30	30	30	30	30	360
15	15	15	15	15	15	15	15	15	15	15	180
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	651
54	53	53	53	52	52	52	52	52	52	52	629
1,041	1,473	1,330	1,330	1,331	1,167	1,475	1,331	1,188	1,189	1,189	15,393
10	10	10	10	10	10	10	10	10	10	10	120
2,880	3,312	3,024	3,168	3,168	3,024	3,312	3,168	3,024	3,168	3,168	37,440
2,880	3,312	3,024	3,168	3,168	3,024	3,312	3,168	3,024	3,168	3,168	37,440
8	8	0	8	8	8	8	8	8	16	16	96
160	184	168	176	176	168	184	176	168	176	176	2080

Demand hours (which are budgeted in the Project file)

Total	12	96	160	0	0	480	480	480	384	0	0	0	0	0	0	2,080	2,080	96	2080

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCF
Labor Class TC
Administrator

Prepared by J Loose
Date 7/31/2003

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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		PCF	*Supply	*Supply	*Supply	*Supply	*Supply	TC	_ Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
Labor Demand:										*(enter **hours** in **"Units tab card"**)*												
Holiday		PCF	098	PHE	ND		107	TC	TC	0	8	8	0	8	8	8	8	8	8	16	16	96
Vacation		PCF	098	PHE	ND		107	TC	TC					20	20				20	20		80
Other NPW		PCF	098	PHE	ND		107	TC	TC													0
Workers Comp		PCF	098	PHE	ND		108	TC	TC													0
Customer Installations	587	PCF	620	OAH	NE	NPCZZZZZ	150	TC	TC	56	56	56	56	56	56	56	56	56	56	56	56	672
Manage Account Problem	903	PCF	611	OAH	NE	NPCZZZZZ	150	TC	TC	73	73	73	73	73	73	73	73	73	73	73	74	880
Budget	903	PCF	701	PHE	NE	NPCZZZZZ	150	TC	TC	13	13	13	13	13	13	13	13	13	13	13	13	160
Development, PDS, Etc.	903	PCF	785	PHE	NE	NPCZZZZZ	150	TC	TC	16	16	16	16	16	16	16	16	16	16	16	16	192
		PCF					150	TC	TC													0
		PCF					150	TC	TC													0
		PCF					150	TC	TC													0
		PCF					150	TC	TC													0
		PCF					150	TC	TC													0
		PCF					150	TC	TC													0
							Total NonProj/Pgm Demand			159	167	167	159	187	187	167	167	167	187	195	175	2,080
							Total Supply			159	167	167	159	187	187	167	167	167	187	195	175	2,080
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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

NOTE: Total NonProject Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCF
Labor Class Implementor
Credit Analyst

Prepared by J Loose
Date 6/8/2004

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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		PCF	*Supply	*Supply	*Supply	*Supply	*Supply	Implementor	_ Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
Labor Demand:										*(enter hours in "Units tab card")*												
Holiday		PCF	098	PHE	ND		107	Implementor	Implementor	0	8	8	0	8	8	8	8	8	8	16	16	96
Vacation		PCF	098	PHE	ND		107	Implementor	Implementor			40		40		40				40		160
Other NPW		PCF	098	PHE	ND		107	Implementor	Implementor													0
Workers Comp		PCF	098	PHE	ND		108	Implementor	Implementor													0
Respond to Cust Inquiries	903	PCF	600	OAH	NE	NPCZZZZZ	150	Implementor	Implementor	40	40	40	40	40	40	40	40	40	40	40	40	480
Manage Customer Accour	903	PCF	604	OAH	NE	NPCZZZZZ	150	Implementor	Implementor	20	20	20	20	20	20	20	20	20	20	20	20	240
Manage/Resolve Billing	903	PCF	611	OAH	NE	NPCZZZZZ	150	Implementor	Implementor	40	40	40	40	40	40	40	40	40	40	40	40	480
Mange Past Due Accounts	903	PCF	618	OAH	NE	NPCZZZZZ	150	Implementor	Implementor	68	52	36	68	28	68	20	76	68	60	20	60	624
		PCF					150	Implementor	Implementor													0
		PCF					150	Implementor	Implementor													0
		PCF					150	Implementor	Implementor													0
		PCF					150	Implementor	Implementor													0
		PCF					150	Implementor	Implementor													0
		PCF					150	Implementor	Implementor													0
							Total NonProj/Pgm Demand			168	160	184	168	176	176	168	184	176	168	176	176	2,080
							Total Supply			168	160	184	168	176	176	168	184	176	168	176	176	2,080
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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

NOTE: Total NonProject Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

or Input Sheet - NonProject
2005

Prepared by J Loose
Date #######

	Rates tab card	Units tab card												
ss	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
		(enter employee count in "Units tab card")												
	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
		(enter hours in "Units tab card")												
	TC	0	8	8	0	8	8	8	8	8	8	16	16	96
	TC							16	16	24	24			80
	TC													0
	TC													0
	TC	80	56	96	88	88	93	48	80	64	56	80	80	909
	TC	56	56	56	56	56	56	56	56	56	56	56	56	672
	TC	16	24	8	8	8	3	24	8	8	8	8	8	131
	TC	16	16	16	16	16	16	16	16	16	16	16	16	192
	TC													0
	TC													0
	TC													0
	TC													0
	TC													0
	TC													0
	m Demand	168	160	184	168	176	176	168	184	176	168	176	176	2,080
		168	160	184	168	176	176	168	184	176	168	176	176	2,080
	2)	0	8	8	0	8	8	8	8	8	8	16	16	96
		168	160	184	168	176	176	168	184	176	168	176	176	2080

; due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCG
Labor Class TC-S
Field Service Supervisor

Prepared by J Loose
Date 7/31/2003

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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		PCG	*Supply	*Supply	*Supply	*Supply	*Supply	TC-S	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
Labor Demand:										*(enter **hours** in **"Units tab card"**)*												
Holiday		PCG	098	PHE	ND		107	TCS	TCS	0	8	8	0	8	8	8	8	8	8	16	16	96
Vacation		PCG	098	PHE	ND		107	TCS	TCS	8	8	8	16	8	8	8	8	8	8	16	16	120
Other NPW		PCG	098	PHE	ND		107	TCS	TCS													0
Workers Comp		PCG	098	PHE	ND		108	TCS	TCS													0
HBI/Resp to cust req	903	PCG	600	OAH	NE	NPCZZZZZ	150	TCS	TCS	32	32	32	32	32	32	24	24	32	32	32	32	368
Itron Act/Re-reads	902	PCG	610	OAH	NE	NPCZZZZZ	150	TCS	TCS	40	40	40	40	40	40	32	32	40	40	40	40	464
Mng/resolv billing & acct p	903	PCG	611	OAH	NE	NPCZZZZZ	150	TCS	TCS	32	32	32	32	32	32	24	24	32	32	32	32	368
Credit/Collections	903	PCG	619	OAH	NE	NPCZZZZZ	150	TCS	TCS	44	28	52	36	44	36	20	36	44	36	28	28	432
Timesheets	903	PCG	777	OAH	NE	NPCZZZZZ	150	TCS	TCS	4	4	4	4	4	4	4	4	4	4	4	4	48
Perf Reviews	903	PCG	785	OAH	NE	NPCZZZZZ	150	TCS	TCS	8	8	8	8	8	16	48	48	8	8	8	8	184
		PCG					150	TC-S	TC-S													0
		PCG					150	TC-S	TC-S													0
		PCG					150	TC-S	TC-S													0
		PCG					150	TC-S	TC-S													0
							Total NonProj/Pgm Demand			168	160	184	168	176	176	168	184	176	168	176	176	2,080
							Total Supply			168	160	184	168	176	176	168	184	176	168	176	176	2,080
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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

NOTE: Total NonProject Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCG
Labor Class TC-S
Senior Supervisor

Prepared by J Loose
Date 10/17/2003

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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		PCG	*Supply	*Supply	*Supply	*Supply	*Supply	TC-S	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
Labor Demand:										*(enter **hours** in **"Units tab card"**)*												
Holiday		PCG	098	PHE	ND		107	TCS	TCS	0	8	8	0	8	8	8	8	8	8	16	16	96
Vacation		PCG	098	PHE	ND		107	TCS	TCS	8	8	8	16	8	8	8	8	8	8	16	16	120
Other NPW		PCG	098	PHE	ND		107	TCS	TCS													0
Workers Comp		PCG	098	PHE	ND		108	TCS	TCS													0
HBI/Resp to cust req	903	PCG	600	OAH	NE	NPCZZZZZ	150	TCS	TCS	40	40	40	40	40	40	40	40	40	40	40	40	480
Itron Act/Re-reads	902	PCG	610	OAH	NE	NPCZZZZZ	150	TCS	TCS	40	40	40	40	40	40	32	32	40	40	40	40	464
Mng/resolv billing & acct p	903	PCG	611	OAH	NE	NPCZZZZZ	150	TCS	TCS	68	52	76	60	68	60	28	44	68	60	52	52	688
Timesheets	903	PCG	777	OAH	NE	NPCZZZZZ	150	TCS	TCS	4	4	4	4	4	4	4	4	4	4	4	4	48
Perf Reviews	903	PCG	785	OAH	NE	NPCZZZZZ	150	TCS	TCS	8	8	8	8	8	16	48	48	8	8	8	8	184
		PCG					160	TC-S	TC-S													0
		PCG					160	TC-S	TC-S													0
		PCG					150	TC-S	TC-S													0
		PCG					150	TC-S	TC-S													0
							Total NonProj/Pgm Demand			168	160	184	168	176	176	168	184	176	168	176	176	2,080
							Total Supply			168	160	184	168	176	176	168	184	176	168	176	176	2,080
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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

NOTE: Total NonProject Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Prepared by J Loose
Date 7/31/2003

		Rates tab card	Units tab card												
EE	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"**)*												
Supply	TC	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
			*(enter **hours** in **"Units tab card"**)*												
107	TC	TC	0	8	8	0	8	8	8	8	8	8	16	16	96
107	TC	TC			40			40	40					40	160
107	TC	TC													0
108	TC	TC													0
150	TC	TC	64	48	32	64	64	24	16	72	64	56	56	16	576
150	TC	TC	48	48	48	48	48	48	48	48	48	48	48	48	576
150	TC	TC	56	56	56	56	56	56	56	56	56	56	56	56	672
150	TC	TC													0
150	TC	TC													0
150	TC	TC													0
150	TC	TC													0
150	TC	TC													0
otal NonProj/Pgm Demand			168	160	184	168	176	176	168	184	176	168	176	176	2,080
otal Supply			168	160	184	168	176	176	168	184	176	168	176	176	2,080
), 12/26, 12/30 (1/2)			0	8	8	0	8	8	8	8	8	8	16	16	96
			168	160	184	168	176	176	168	184	176	168	176	176	2080

Supply hours due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Prepared by J Loose
Date ########

				Rates tab card	Units tab card												
Ind	Proj	EE	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")												
upply	*Supply	*Supply	BUOC	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
					(enter hours in "Units tab card")												
ND		107	BUOC	BUOC	0	8	8	0	8	8	8	8	8	8	16	16	96
ND		107	BUOC	BUOC				40			40			40			120
ND		107	BUOC	BUOC													0
ND		108	BUOC	BUOC													0
NE	NPCZZZZZ	150	BU-OC	BU-OC	8	8	8	8	8	8	8	8	8	8	8	8	96
NE	NPCZZZZZ	150	BU-OC	BU-OC	48	48	48	48	48	48	48	48	48	48	48	48	576
NE	NPCZZZZZ	150	BU-OC	BU-OC	8	8	8	8	8	8	8	8	8	8	8	8	96
NE	NPCZZZZZ	150	BU-OC	BU-OC	72	56	80	32	72	72	24	80	72	24	64	64	712
NE	NPCZZZZZ	150	BU-OC	BU-OC	32	32	32	32	32	32	32	32	32	32	32	32	384
		150	BUOC	BUOC													0
		150	BUOC	BUOC													0
		150	BUOC	BUOC													0
		150	BUOC	BUOC													0
		150	BUOC	BUOC													0
	Total NonProj/Pgm Demand				168	160	184	168	176	176	168	184	176	168	176	176	2,080
	Total Supply				168	160	184	168	176	176	168	184	176	168	176	176	2,080
I, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2)					0	8	8	0	8	8	8	8	8	8	16	16	96
					168	160	184	168	176	176	168	184	176	168	176	176	2080

OT equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCG
Labor Class BUOC
Clerk 2

Prepared by J Loose
Date 7/31/2003

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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		PCG	*Supply	*Supply	*Supply	*Supply	*Supply	BUOC	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
Labor Demand:										*(enter **hours** in **"Units tab card"**)*												
Holiday		PCG	098	PHE	ND		107	BUOC	BUOC	0	8	8	0	8	8	8	8	8	8	16	16	96
Vacation		PCG	098	PHE	ND		107	BUOC	BUOC					40						40		80
Other NPW		PCG	098	PHE	ND		107	BUOC	BUOC													0
Workers Comp		PCG	098	PHE	ND		108	BUOC	BUOC													0
HBI/Resp to cust req	903	PCG	600	OAH	NE	NPCZZZZZZ	150	BU-OC	BU-OC	16	16	16	16	16	16	16	16	16	16	16	16	192
locks/unlocks/NCOPS/CB	586	PCG	602	OAH	NE	NPCZZZZZZ	150	BU-OC	BU-OC	48	48	48	48	48	48	48	48	48	48	48	48	576
Update cust accts	903	PCG	604	OAH	NE	NPCZZZZZZ	150	BU-OC	BU-OC	16	16	16	16	16	16	16	16	16	16	16	16	192
Collections	903	PCG	619	OAH	NE	NPCZZZZZZ	150	BU-OC	BU-OC	88	72	96	88	48	88	80	96	88	80	40	80	944
		PCG					150	BU-OC	BU-OC													0
		PCG					150	BUOC	BUOC													0
		PCG					150	BUOC	BUOC													0
		PCG					150	BUOC	BUOC													0
		PCG					150	BUOC	BUOC													0
		PCG					150	BUOC	BUOC													0
								Total NonProj/Pgm Demand		168	160	184	168	176	176	168	184	176	168	176	176	2,080
								Total Supply		168	160	184	168	176	176	168	184	176	168	176	176	2,080
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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

NOTE: Total NonProject Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Prepared by J Loose
Date 7/31/2003

	Rates tab card	Units tab card												
abor Class	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
		*(enter **employee count** in **"Units tab card"**)*												
OC	Available Hours	4	4	4	4	4	4	4	4	4	4	4	4	48
		*(enter **hours** in **"Units tab card"**)*												
OC	BUOC	0	32	32	0	32	32	32	32	32	32	64	64	384
OC	BUOC	80	40	40	40	40	80	40	80	40	40	80	80	680
OC	BUOC													0
OC	BUOC													0
OC	BU-OC	364	340	436	404	404	364	372	396	404	372	332	332	4,620
OC	BU-OC	180	180	180	180	180	180	180	180	180	180	180	180	2,160
OC	BU-OC	48	48	48	48	48	48	48	48	48	48	48	48	576
OC	BUOC													0
OC	BUOC													0
OC	BUOC													0
OC	BUOC													0
OC	BUOC													0
DC	BUOC													0
DC	BUOC													0
Proj/Pgm Demand		672	640	736	672	704	704	672	736	704	672	704	704	8,320
ply		672	640	736	672	704	704	672	736	704	672	704	704	8,320
12/30 (1/2)		0	8	8	0	8	8	8	8	8	8	16	16	96
		168	160	184	168	176	176	168	184	176	168	176	176	2080

y hours due to Project Demand hours (which are budgeted in the Project file)

ıput Sheet - NonProject
2005

Prepared by J Loose
Date 7/31/2003

es tab card	Units tab card												
tes Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
*(enter **employee count** in **"Units tab card"**)*													
ailable Hours	16	16	16	16	16	16	16	16	16	16	16	16	192
*(enter **hours** in **"Units tab card"**)*													
C	0	128	128	0	128	128	128	128	128	128	256	256	1,536
C	0	180	240	180	180	240	180	180	240	180	240	160	2,200
C													0
C													0
C	790	750	790	790	790	850	790	790	790	790	670	910	9,500
C	790	750	790	790	790	850	790	790	790	790	670	850	9,440
C	1,108	752	996	928	928	748	800	1,056	868	800	980	640	10,604
C													0
C													0
C													0
C													0
C													0
C													0
C													0
and	2,688	2,560	2,944	2,688	2,816	2,816	2,688	2,944	2,816	2,688	2,816	2,816	33,280
	2,688	2,560	2,944	2,688	2,816	2,816	2,688	2,944	2,816	2,688	2,816	2,816	33,280
	0	8	8	0	8	8	8	8	8	8	16	16	96
	168	160	184	168	176	176	168	184	176	168	176	176	2080

:o Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCM
Labor Class TCS
Meter Reading Supervisor

Prepared by J Loose
Date 7/31/2003

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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		PCM	*Supply	*Supply	*Supply	*Supply	*Supply	TCS	_ Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
Labor Demand:										*(enter **hours** in **"Units tab card"**)*												
Holiday		PCM	098	PHE	ND		107	TCS	TCS	0	8	8	0	8	8	8	8	8	8	16	16	96
Vacation		PCM	098	PHE	ND		107	TCS	TCS		40	40				40	40					160
Other NPW		PCM	098	PHE	ND		107	TCS	TCS													0
Workers Comp		PCM	098	PHE	ND		108	TCS	TCS													0
Respond to Cust Inq/Reqst	903	PCM	600	OAH	NE	NPCZZZZZ	150	TCS	TCS	4	4	4	4	4	4	4	4	4	4	4	4	48
Maintain Meter Information	586	PCM	603	OAH	NE	NPCZZZZZ	150	TCS	TCS	8	8	8	8	8	8	8	8	8	8	8	8	96
Read Meters	902	PCM	610	OAH	NE	NPCZZZZZ	150	TCS	TCS	92	80	84	88	88	84	25	84	88	92	77	92	974
Read Meters (OT)	902	PCM	610	OAH	NE	NPCZZZZZ	150	TCS	TCS	8					8					8		24
Dev measures/analyze	902	PCM	721	PHE	NE	NPCZZZZZ	150	TCS	TCS	56	12	32	60	60	56	27	8	60	48	63	48	530
Empl Training and Reviews	902	PCM	785	PHE	NE	NPCZZZZZ	150	TCS	TCS	8	8	8	8	8	16	56	32	8	8	8	8	176
		PCM					150	TCS	TCS													0
		PCM					150	TCS	TCS													0
		PCM					150	TCS	TCS													0
		PCM					150	TCS	TCS													0
		PCM					150	TCS	TCS													0
							Total NonProj/Pgm Demand			176	160	184	168	176	184	168	184	176	168	184	176	2,104
							Total Supply			168	160	184	168	176	176	168	184	176	168	176	176	2,080

Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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

NOTE: Total NonProject Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

r Input Sheet - NonProject
2005

Prepared by J Loose
Date 2/6/2004

	Rates tab card	Units tab card												
ss	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
		*(enter **employee count** in **"Units tab card"**)*												
	Avail Hrs	1	1	1	1	1	1	1	1	1	1	1	1	12
		*(enter **hours** in **"Units tab card"**)*												
	TC	0	8	8	0	8	8	8	8	8	8	16	16	96
	TC				40				40					80
	TC													0
	TC													0
	TC	4	4	4	4	4	4	4	4	4	4	4	4	48
	TC	8	8	8	8	8	8	8	8	8	8	8	8	96
	TC	92	80	84	88	88	84	25	84	88	92	77	92	974
	TC	56	52	72	20	60	56	67	8	60	48	63	48	610
	TC	8	8	8	8	8	16	56	32	8	8	8	8	176
	TC													0
	TC													0
	TC													0
	TC													0
	TC													0
	Pgm Demand	168	160	184	168	176	176	168	184	176	168	176	176	2,080
		168	160	184	168	176	176	168	184	176	168	176	176	2,080
		0	8	8	0	8	8	8	8	8	8	16	16	96
		168	160	184	168	176	176	168	184	176	168	176	176	2080

to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Resp Area (RA): PCM
Labor Class: BUOC
Clerk

Prepared by: J Loose
Date: 7/31/2003

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	RA	Act	Loc	Ind	Proj	EE	Lbr 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		PCM	*Supply	*Supply	*Supply	*Supply	*Supply	BUOC	_ Avail Hrs	1	1	1	1	1	1	1	1	1	1	1	1	12
Labor Demand:										*(enter **hours** in **"Units tab card"**)*												
Holiday		PCM	098	PHE	ND		107	BUOC	BUOC	0	8	8	0	8	8	8	8	8	8	16	16	96
Vacation		PCM	098	PHE	ND		107	BUOC	BUOC	16	8	8	16	8	8	8	8	8	16	16		120
Other NPW		PCM	098	PHE	ND		107	BUOC	BUOC													0
Workers Comp		PCM	098	PHE	ND		108	BUOC	BUOC													0
Respond to Cust Rqsts	903	PCM	600	OAH	NE	NPCZZZZZ	150	BUOC	BUOC	32	32	32	32	32	32	32	32	32	32	32	32	384
Maintain Meter Info	586	PCM	603	OAH	NE	NPCZZZZZ	150	BUOC	BUOC	40	40	40	40	40	40	40	40	40	40	40	40	480
Maintain Cust Acct Info	903	PCM	604	OAH	NE	NPCZZZZZ	150	BUOC	BUOC	40	40	40	40	40	40	40	40	40	40	40	40	480
Upload/Download to CIS	902	PCM	610	OAH	NE	NPCZZZZZ	150	BUOC	BUOC	32	24	48	32	40	40	32	48	40	24	24	40	424
Upload/Download (OT)	902	CM	610	OAH	NE	NPCZZZZZ	150	BUOC	BUOC	8					8					8		24
Payroll Processing	902	PCM	777	OAH	NE	NPCZZZZZ	150	BUOC	BUOC	8	8	8	8	8	8	8	8	8	8	8	8	96
		PCM					150	BUOC	BUOC													0
		PCM					150	BUOC	BUOC													0
		PCM					150	BUOC	BUOC													0
		PCM					150	BUOC	BUOC													0
		PCM					150	BUOC	BUOC													0
								Total NonProj/Pgm Demand		176	160	184	168	176	184	168	184	176	168	184	176	2,104
								Total Supply		168	160	184	168	176	176	168	184	176	168	176	176	2,080
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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

NOTE: Total NonProject Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

bor Input Sheet - NonProject
2005

Prepared by J Loose
Date 7/31/2003

	Rates tab card	Units tab card												
ss	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
		*(enter **employee count** in **"Units tab card"**)*												
	Avail Hrs	32	32	32	32	32	32	32	32	32	32	32	32	384
		*(enter **hours** in **"Units tab card"**)*												
	BUOC	0	256	256	0	256	256	256	256	256	256	512	512	3,072
	BUOC	337	337	337	337	337	337	337	337	337	337	345	0	3,715
	BUOC													0
	BUOC													0
	BUOC	5,039	4,527	5,295	5,039	5,039	5,039	4,783	5,295	5,039	4,783	4,775	5,120	59,773
	BUOC	256					256					256		768
	BUOC													0
	BUOC													0
	BUOC													0
	BUOC													0
	BUOC													0
	BUOC													0
	BUOC													0
	BUOC													0
	gm Demand	5,632	5,120	5,888	5,376	5,632	5,888	5,376	5,888	5,632	5,376	5,888	5,632	67,326
		5,376	5,120	5,888	5,376	5,632	5,632	5,376	5,888	5,632	5,376	5,632	5,632	66,560
	/2)	0	8	8	0	8	8	8	8	8	8	16	16	96
		168	160	184	168	176	176	168	184	176	168	176	176	2080

's due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCS
Labor Class Facilitator

Prepared by L Bronaugh
Date Aug-03

Dimension tab card									Rates tab ca	Units tab card												
Line Item	NARUC	RA	Act	Loc	Ind	Proj	EE	Labor Clas	ates Link T	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Labor Supply :										*(enter* ***employee count*** *in* ***"Units tab card"****)*												
Labor Supply		PCS	Supply	Supply	Supply	*Supply	Supply	Facilitator	Availabl	1	1	1	1	1	1	1	1	1	1	1	1	1
Labor Demand :										*(enter* ***hours*** *in* ***"Units tab card"****)*												
Holiday		PCS	098	PHE	ND		107	Facilitator	Facilitator	-	8	8	-	8	8	8	8	8	8	16	16	96
Vacation		PCS	098	PHE	ND		107	Facilitator	Facilitator			40					40				40	120
Other NPW		PCS	098	PHE	ND		107	Facilitator	Facilitator													-
Workers Comp		PCS	098	PHE	ND		108	Facilitator	Facilitator													-
Dev & Admin Bus Plans	903	PCS	700	PHE	NE	NPCZZZZZ	150	Facilitator	Facilitator	91	75	59	91	91	91	83	59	91	83	83	43	940
Impv Bus Process	903	PCS	720	PHE	NE	NPCZZZZZ	150	Facilitator	Facilitator	39	39	39	39	39	39	39	39	39	39	39	39	468
Dev Meas & Anal Perf	903	PCS	721	PHE	NE	NPCZZZZZ	150	Facilitator	Facilitator	23	23	23	23	23	23	23	23	23	23	23	23	276
Cust Inquiries	903	PCS	600	OAH	NE	NPCZZZZZ	150	Facilitator	Facilitator	15	15	15	15	15	15	15	15	15	15	15	15	180
		PCS					150	Facilitator	Facilitator													-
		PCS					150	Facilitator	Facilitator													-
		PCS					150	Facilitator	Facilitator													-
		PCS					150	Facilitator	Facilitator													-
							Total NonProj/Pgm Demanc			168	160	184	168	176	176	168	184	176	168	176	176	2,080
							Total Supply			168	160	184	168	176	176	168	184	176	168	176	176	2,080
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2)										-	8	8	-	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	2,080

NOTE: Project/Program Demand hours (which are budgeted in the Project model) are labor in addition to daily operations needs.

t - NonProject
5

Prepared by L Bronaugh
Date Aug-03

Units tab card												
n	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
(enter employee count in "Units tab card")												
1	1	1	1	1	1	1	1	1	1	1	1	1
(enter hours in "Units tab card")												
	8	8	-	8	8	8	8	8	8	16	16	96
					40	40	40	40	40			200
												-
												-
52	136	160	152	152	112	104	120	112	104	144	144	1,592
10	10	10	10	10	10	10	10	10	10	10	10	120
6	6	6	6	6	6	6	6	6	6	6	6	72
												-
												-
												-
												-
												-
58	160	184	168	176	176	168	184	176	168	176	176	2,080
58	160	184	168	176	176	168	184	176	168	176	176	2,080
	8	8	-	8	8	8	8	8	8	16	16	96
58	160	184	168	176	176	168	184	176	168	176	176	2,080

are labor in addition to daily operations needs.

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCS
Labor Class Analyst #1

Prepared by L Bronaugh
Date ####

Dimension tab card									Rates tab ca	Units tab card												
Line Item	NARUC	RA	Act	Loc	Ind	Proj	EE	Labor Clas	ates Link T	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Labor Supply :										*(enter* ***employee count*** *in* ***"Units tab card"***												
Labor Supply		PCS	Supply	Supply	Supply	*Supply	Supply	Analyst	Availab	1	1	1	1	1	1	1	1	1	1	1	1	1
Labor Demand :										***(enter hours in "Units tab card")***												
Holiday		PCS	098	PHE	ND		107	Analyst	Analyst	-	8	8	-	8	8	8	8	8	8	16	16	96
Vacation		PCS	098	PHE	ND		107	Analyst	Analyst			40					40					80
Other NPW		PCS	098	PHE	ND		107	Analyst	Analyst													-
Workers Comp		PCS	098	PHE	ND		108	Analyst	Analyst													-
Dev & Mng Fcst	903	PCS	701	PHE	NE	NPCZZZZZ	150	Analyst	Analyst	41	25	9	41	41	41	33	9	41	33	33	33	380
Improv bus Process	903	PCS	720	PHE	NE	NPCZZZZZ	150	Analyst	Analyst	48	48	48	48	48	48	48	48	48	48	48	48	576
Dev & Admin Bus Plns	903	PCS	700	PHE	NE	NPCZZZZZ	150	Analyst	Analyst	40	40	40	40	40	40	40	40	40	40	40	40	480
Mg Billing & Acct Prob	903	PCS	611	OAH	NE	NPCZZZZZ	150	Analyst	Analyst	15	15	15	15	15	15	15	15	15	15	15	15	180
Customer Inquiries	903	PCS	600	OAH	NE	NPCZZZZZ	150	Analyst	Analyst	24	24	24	24	24	24	24	24	24	24	24	24	288
		PCS					150	Analyst	Analyst													-
		PCS					150	Analyst	Analyst													-
		PCS					150	Analyst	Analyst													-
		PCS					150	Analyst	Analyst													-
							Total NonProj/Pgm Demanc			168	160	184	168	176	176	168	184	176	168	176	176	2,080
							Total Supply			168	160	184	168	176	176	168	184	176	168	176	176	2,080
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2)										-	8	8	-	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	2,080

NOTE: Project/Program Demand hours (which are budgeted in the Project model) are labor in addition to daily operations needs.

L. Shibata

73

	Nov	Dec	Total
1	1	1	12
8	16	16	96
0	10		120
			-
			-
4	24	24	288
6	126	136	1,576
			-
			-
			-
			-
			-
			-
			-
			-
8	176	176	####
8	176	176	####

8	16	16	96
8	176	176	####

nput Sheet - NonProject
2005

Prepared by L. Shibata
Date #####

	Rates tab card	Units tab card												
lass	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
		(enter employee count in "Units tab card")												
	Available Ho	5	5	5	5	5	5	5	5	5	5	5	5	60
		(enter hours in "Units tab card")												
D	BUOC	-	40	40	-	40	40	40	40	40	40	80	80	480
D	BUOC	80	80	80	80	40	80	80	80	80	40	80	80	880
D	BUOC													-
D	BUOC													-
D	BUOC	740	660	780	740	780	740	700	780	740	740	700	700	8,800
D	BUOC	20	20	20	20	20	20	20	20	20	20	20	20	240
D	BUOC													-
D	BUOC													-
D	BUOC													-
D	BUOC													-
D	BUOC													-
D	BUOC													-
D	BUOC													-
D	BUOC													-
	Pgm Demand	840	800	920	840	880	880	840	920	880	840	880	880	10,400
		840	800	920	840	880	880	840	920	880	840	880	880	10,400
30 (1/2)		-	8	8	-	8	8	8	8	8	8	16	16	96
		168	160	184	168	176	176	168	184	176	168	176	176	2,080

ırs due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCB
Labor Class MERR
Analyst

Prepared by L. Shibata
Date ####

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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		PCB	Supply	Supply	Supply	*Supply	Supply	MERR	Available Ho	1	1	1	1	1	1	1	1	1	1	1	1	12
Labor Demand :										*(enter hours in "Units tab card")*												
Holiday		PCB	098	PHE	ND	NPCZZZZZ	107	MERR	MERR	-	8	8	-	8	8	8	8	8	8	16	16	96
Vacation		PCB	098	PHE	ND	NPCZZZZZ	107	MERR	MERR				40			40			40			120
Other NPW		PCB	098	PHE	ND	NPCZZZZZ	107	MERR	MERR													-
Workers Comp		PCB	098	PHE	ND	NPCZZZZZ	108	MERR	MERR													-
MV90 Processing	902	PCB	610	OAH	NE	NPCZZZZZ	150	MERR	MERR	4	4	4	4	4	4	4	4	4	4	4	4	48
Billing/Acct Issues	903	PCB	611	OAH	NE	NPCZZZZZ	150	MERR	MERR	156	140	164	116	156	156	92	128	156	108	148	148	1,668
OCARS	903	PCB	612	OAH	NE	NPCZZZZZ	150	MERR	MERR	4	4	4	4	4	4	4	4	4	4	4	4	48
Develop/ manage forecast	903	PCB	701	PHE	NE	NPCZZZZZ	150	MERR	MERR	4	4	4	4	4	4	20	40	4	4	4	4	100
		PCB					150	MERR	MERR													-
		PCB					150	MERR	MERR													-
		PCB					150	MERR	MERR													-
		PCB					150	MERR	MERR													-
		PCB					150	MERR	MERR													-
		PCB					150	MERR	MERR													-
							Total NonProj/Pgm Demand			168	160	184	168	176	176	168	184	176	168	176	176	####
							Total Supply			168	160	184	168	176	176	168	184	176	168	176	176	####
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2)										-	8	8	-	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	####

NOTE: Total NonProject Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

.) PCH
SUPV2

Prepared by L Bronaugh
Date Oct-03

Dimension tab card									Rates tab c	Units tab card												
em	NARUC	RA	Act	Loc	Ind	Proj	EE	abor Cla	tes Link	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ly :										(enter employee count in "Units tab card")												
		PCH	Supply	Supply	Supply	*Supply	Supply	SUPV2	vailable H	1	1	1	1	1	1	1	1	1	1	1	1	12
nd :										(enter hours in "Units tab card")												
		PCH	098	PHE	ND		107	SUPV2	SUPV2	-	8	8	-	8	8	8	8	8	8	16	16	96
		PCH	098	PHE	ND		107	SUPV2	SUPV2			40			40					40		120
		PCH	098	PHE	ND		107	SUPV2	SUPV2													-
		PCH	098	PHE	ND		108	SUPV2	SUPV2													-
Inquiries	903	PCH	600	OAH	NE	NPCZZZZZ	150	SUPV2	SUPV2	168	152	136	168	168	128	160	176	168	160	120	160	1,864
		PCH					150	SUPV2	SUPV2													-
		PCH					150	SUPV2	SUPV2													-
		PCH					150	SUPV2	SUPV2													-
		PCH					150	SUPV2	SUPV2													-
		PCH					150	SUPV2	SUPV2													-
									Total NonProj/Pgm Dem	168	160	184	168	176	176	168	184	176	168	176	176	2,080
									Total Supply	168	160	184	168	176	176	168	184	176	168	176	176	2,080
1, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2										-	8	8	-	8	8	8	8	8	8	16	16	96
s per employee										168	160	184	168	176	176	168	184	176	168	176	176	2,080

ect/Program Demand hours (which are budgeted in the Project model) are labor in addition to daily operations needs.

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCH
Labor Class SUPV

Prepared by L Bronaugh
Date Aug-03

Dimension tab card									Rates tab c	Units tab card												
Line Item	NARUC	RA	Act	Loc	Ind	Proj	EE	abor Clas	tes Link	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Labor Supply **:**										(*enter* ***employee count*** *in* ***"Units tab card"***)												
Labor Supply		PCH	Suppl	Suppl	Suppl	*Supply	Suppl	SUPV	vailable H	1	1	1	1	1	1	1	1	1	1	1	1	12
Labor Demand **:**										***(enter hours in "Units tab card")***												
Holiday		PCH	098	PHE	ND		107	SUPV	SUPV	-	8	8	-	8	8	8	8	8	8	16	16	96
Vacation		PCH	098	PHE	ND		107	SUPV	SUPV		40		40			40	40				40	200
Other NPW		PCH	098	PHE	ND		107	SUPV	SUPV													-
Workers Comp		PCH	098	PHE	ND		108	SUPV	SUPV													-
Respond to Cust Inquiries	903	PCH	600	OAH	NE	NPCZZZZZ	150	SUPV	SUPV	168	112	176	128	168	168	120	136	168	160	160	120	1,784
		PCH					150	SUPV	SUPV													-
		PCH					150	SUPV	SUPV													-
		PCH					150	SUPV	SUPV													-
		PCH					150	SUPV	SUPV													-
		PCH					150	SUPV	SUPV													-
							Total NonProj/Pgm Dema			168	160	184	168	176	176	168	184	176	168	176	176	2,080
							Total Supply			168	160	184	168	176	176	168	184	176	168	176	176	2,080
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2										-	8	8	-	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	2,080

NOTE: Project/Program Demand hours (which are budgeted in the Project model) are labor in addition to daily operations needs.

Labor Input Sheet - NonProject
2005

:H
:ADS

Prepared by L Bronaugh
Date Aug-03

imension tab card						Rates tab c		Units tab card												
:A	Act	Loc	Ind	Proj	EE	abor Cla	tes Link	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
								(enter employee count in "Units tab card")												
CH	*Supply	*Supply	*Supply	*Supply	*Supply	LEADS	vailable H	3	3	3	3	3	3	3	3	3	3	3	3	36
								(enter hours in "Units tab card")												
CH	098	PHE	ND		107	LEADS	LEADS	-	24	24	-	24	24	24	24	24	24	48	48	288
CH	098	PHE	ND		107	LEADS	LEADS		80		80		80		80		80		80	480
CH	098	PHE	ND		107	LEADS	LEADS													-
CH	098	PHE	ND		108	LEADS	LEADS													-
CH	600	OAH	NE	NPCZZZZZ	150	LEADS	LEADS	504	376	528	424	504	424	480	448	504	400	480	##	5,472
CH					150	LEADS	LEADS													-
CH					150	LEADS	LEADS													-
CH					150	LEADS	LEADS													-
CH					150	LEADS	LEADS													-
CH					150	LEADS	LEADS													-
					Total NonProj/Pgm Dem			504	480	552	504	528	528	504	552	528	504	528	528	6,240
					Total Supply			504	480	552	504	528	528	504	552	528	504	528	528	6,240
7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2)								-	8	8	-	8	8	8	8	8	8	16	16	96
								168	160	184	168	176	176	168	184	176	168	176	176	2,080

:mand hours (which are budgeted in the Project model) are labor in addition to daily operations needs.

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCH
Labor Class REPS

Prepared by L Bronaugh
Date Aug-03

Dimension tab card								Rates tab c		Units tab card												
Line Item	NARUC	RA	Act	Loc	Ind	Proj	EE	bor Cla	es Link	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Labor Supply :										*(enter employee count in "Units tab card")*												
Labor Supply		PCH	Suppl	Suppl	Suppl	*Supply	Supply	REPS	ailable I	25	25	25	25	25	25	25	25	25	25	25	25	300
Labor Demand :										*(enter hours in "Units tab card")*												
Holiday		PCH	098	PHE	ND		107	REPS	REPS	-	200	200	-	200	200	200	200	200	200	400	400	2,400
Vacation		PCH	098	PHE	ND		107	REPS	REPS	333	333	334	333	333	334	333	333	334	333	333	334	4,000
Other NPW		PCH	098	PHE	ND		107	REPS	REPS													-
Workers Comp		PCH	098	PHE	ND		108	REPS	REPS													-
Respond to Cust Inquiries	903	PCH	600	OAH	NE	NPCZZZZZ	150	REPS	REPS	3,867	3,467	4,066	3,867	3,867	3,866	3,667	4,067	3,866	3,667	3,667	3,666	#####
		PCH					150	REPS	REPS													-
		PCH					150	REPS	REPS													-
							Total NonProj/Pgm D			4,200	4,000	4,600	4,200	4,400	4,400	4,200	4,600	4,400	4,200	4,400	4,400	#####
							Total Supply			4,200	4,000	4,600	4,200	4,400	4,400	4,200	4,600	4,400	4,200	4,400	4,400	#####
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/3										-	8	8	-	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	2,080

NOTE: Project/Program Demand hours (which are budgeted in the Project model) are labor in addition to daily operations needs.

Labor Input Sheet - NonProject
2005

Resp Area (RA) PCH
Labor Class REPS (adjust)

Prepared by R. Tanaka
Date 09/22/04

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	PCH	*Supply	*Supply	*Supply	*Supply	*Supply	REPS (adjust)	Available Hours	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-12
Labor Demand:									*(enter **hours** in **"Units tab card"**)*												
Holiday	PCH	098	PHE	ND		107	REPS (adjust)	REPS (adjust)	0	-8	-8	0	-8	-8	-8	-8	-8	-8	-16	-16	-96
Vacation	PCH	098	PHE	ND		107	REPS (adjust)	REPS (adjust)	-14	-12	-14	-12	-12	-14	-14	-12	-12	-12	-16	-16	-160
Other NPW	PCH	098	PHE	ND		107	REPS (adjust)	REPS (adjust)													0
Workers Comp	PCH	098	PHE	ND		108	REPS (adjust)	REPS (adjust)													0
Respond to Cust Inquiries	PCH	600	OAH	NE	NPCZZZZZ	150	REPS (adjust)	REPS (adjust)	-154	-140	-162	-156	-156	-154	-146	-164	-156	-148	-144	-144	-1,824
	PCH					150	REPS (adjust)	REPS (adjust)													0
	PCH					150	REPS (adjust)	REPS (adjust)													0
	PCH					150	REPS (adjust)	REPS (adjust)													0
	PCH					150	REPS (adjust)	REPS (adjust)													0
	PCH					150	REPS (adjust)	REPS (adjust)													0
	PCH					150	REPS (adjust)	REPS (adjust)													0
	PCH					150	REPS (adjust)	REPS (adjust)													0
	PCH					150	REPS (adjust)	REPS (adjust)													0
	PCH					150	REPS (adjust)	REPS (adjust)													0
							Total NonProj/Pgm Demand		-168	-160	-184	-168	-176	-176	-168	-184	-176	-168	-176	-176	-2,080
							Total Supply		-168	-160	-184	-168	-176	-176	-168	-184	-176	-168	-176	-176	-2,080
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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

NOTE: Project/Program Demand hours (which are budgeted in the Project model) are labor in addition to daily operations needs.

tomer Service Department

CA-IR-1 (c), (d) & (e)

Position Title	Labor Class	BU/ Merit	Actual 4/04	2005 Test Year	Diff.
		Total	4	5	1
cretary	Implementor	M			1
		Total	17	23	6
min. Assistant	Implementor	M			1
D Analyst	Teacher/Coach	M			1
ct. Service Clerks		BU			4
		Total	34	42	8
D Analyst	Teacher/Coach	M			1
st. Billing Reps		BU			2
D Analyst	Teacher/Coach	M			1
st. Assist. Reps		BU			4
		Total	58	64	6
D Analyst	Teacher/Coach	M			1
ter Reading Supv	T/C- Supv.	M			1
D Analyst	Teacher/Coach	M			1
ter Readers		BU			3
			113	134	21

Customer Services Administration Division

CA-IR-1 (c), (d) & (e)

RA	Position	Status	Labor Class	Actual 04/04	2005 Test Year	Notes
				S1	S2	
PCA	Manager	M	_E	1	1	--
PCA	Operations Analyst	M	_TC	1	1	--
PCA	Customer Care Analyst	M	_TC	1	1	--
PCA	Administrator	M	_TC	1	1	--
PCA	Secretary	M	_I	-	1	Note 1
PCA	Total	--	--	4	5	

Tick mark Legend

S1	Per the DARS Report No. 635 (Employee Count By Department/Division) @ 04/30/04.
S2	Per the Pillar report (ResLev05-01-CustSvc.Pln).
Note 1	The Secretary position was was vacant at the time the budget was fianlized.

Credit & Payment Processing Division
Rate Case
CA-IR-1(c), (d) & (e)

RA	BU / Merit	Position Title	Labor Class	Actual 4/04	2005 Test Year	Difference	
PCD	M	Credit Manager	FacSup	1	1	-	
PCD	M	Sr. Credit Analyst	TC	1	1	-	
PCD	M	Customer Service Assistant	IMPLTR	-	1	1	a
PCP	M	Customer Service Analyst	TC	-	1	1	b
PCP	M	Supv, Pymt Procg & Supp Cntr	TSUP	1	1	-	
PCP	BU	Account Services Clerk	BUOC	14	18	4	c
			Total:	17	23	6	

a: Customer Service Assistant - IMPLTR (PCD)
This position is required to provide support in the overall operations of the division. Facilitates and expedites communications, research, support and information in response to daily priorities and operation needs.

b: Customer Service Analyst - TC (PCP)
This position is required to provide analytical, technical and strategic professional support to meet the quality improvement, cost savings, and business objectives of the Customer Service Sections, Divisions, and Department.

c: Account Services Clerk - BUOC (PCP)
These positions are required to perform various cash processing duties, applying payments to customer accounts, preparing checks for deposit to banks and to maintain and ensure a 99% same day processing metric.

Note: Apr.'04 from DARS Rpt. No. 635. Dec.2005 from Pillar Rpt. ResLEv05-01CustSvc.Pln

Customer Field Serivces Division
CA-IR-1(c), (d) & (e)

RA	Position	Status	Actual 04/30/04	2005 Test Year	Notes
PCF	Director, Customer Field Services (_FS)	M	1	1	--
PCF	Customer Field Services Administrator (_TC)	M	1	1	--
PCF	Credit Analyst (_I)	M	1	1	--
PCF	Customer Service Analyst (_TC)	M	-	1	Note 1
PCF	Subtotal	--	3	4	
PCG	Supervisor, Field Services & Collections (_TCS)	M	2	2	--
PCG	Customer Field Services Planner/Analyst (_TC)	M	1	1	--
PCG	Customer Field Services Representative (_BUCO)	BU	20	20	--
PCG	Field Service Clerk (_BUOC)	BU	2	2	--
PCG	Subtotal	--	25	25	
PCM	Supervisor, Meter Reading (_TCS)	M	-	1	Note 2
PCM	Meter Reader (_BUOC)	BU	29	32	Note 3
PCM	Meter Reader Clerk (_BUOC)	BU	1	1	
PCM	Customer Service Analyst (_TC)	M	-	1	Note 4
PCM	Subtotal	--	30	35	
	Total - Customer Field Services Division		58	64	
	Subtotal - Merit		6	9	
	Subtotal - BU		52	55	
	Total - Customer Field Services Division		58	64	

S1 Source: DARS report #638 - Employee *Count* (April 2004).

S2 Source: Pillar ResLev05-01CustSvc.PLN - *RA_EmployCount_2005.pdf* file.

Note 1 This position was added to address the project and operational gaps/needs of the Field Services Division.

Note 2 The vacant Meter Reading Supervisor position represents a vacancy at the point the budget was finalized and is required to supervise the day to day operations of the Meter Reader activities.

Note 3 The difference represents vacancies at the point the budget was finalized and is required to fill the operational needs of the Meter Reading section.

Note 4 This position was added to address the project and operational gaps/needs of the Meter Reading Section.

Customer Account Services Division

CA-IR-1 (c), (d) & (e)

RA	Position	Status	Labor Class	Actual 04/04 S1	2005 Test Year S2	Notes
PCB	Supervisor, Customer Accounting & Billing	M	TCS	1	1	--
PCB	Analyst	M	TC	-	1	Note 1
PCB	Translation System Coordinator	M	I	1	1	--
PCB	Customer Billing Representative	BU	BUOC	3	5	Note 2
PCB	Subtotal	--	--	5	8	
PCH	Supervisor, Customer Assistance Center	M	TCS	2	2	--
PCH	Customer Assistance Representative	BU	BUOC	25	29	Note 3
PCH	Subtotal	--	--	27	31	
PCS	Director, Customer Account Services	M	FS	1	1	--
PCS	Billing & Accounting Analyst	M	TC	-	1	Note 4
PCS	Customer Account Services Clerk	BU	BUOC	1	1	--
PCS	Subtotal	--	--	2	3	
	Total - Customer Account Services Division			34	42	
	Subtotal - Merit			5	7	
	Subtotal - BU			29	35	
	Total - Customer Account Services Division			34	42	

Tick mark Legend

S1	Per the DARS Report No. 635 (Employee Count By Department/Division) @ 04/30/04.
S2	Per the Pillar report (ResLev05-01-CustSvc.Pln).
Note 1	The Analyst position was added to address the project and operational gaps / needs of the Customer Accounting & Billing Section (i.e., Company billings, complex rate and billing situations, implementation of new billing software technologies, etc.).
Note 2	The variance represents a vacancy at the time the budget was finalized and is required to perform the daily responsibilities of the Customer Accounting & Billing Section (e.g., process billings).
Note 3	The variance represents the required level of staff to perform the daily responsibilities of the Customer Assistance Center.
Note 4	The variance represents a vacancy at the time the budget was finalized and is required to support and address the needs of the Customer Account Services Section.

HECO STAFFING BENCHMARK (without contractors)

Update 9/30/2001 Based on Mercer 14 Peer/Grp staffing Survey

with Mercer 1995 data

		Emp as of		Emp. as of			Benchmark Average			Current HECO		
		07/31/95		09/30/01		Staffing	Mercer	Heco	Heco	Non-HECO WK**	HECO Ees***	Equivalent
Department	Functions	Dept.	Company	Dept.	Company	Basis	Ratio (mean)	No. of Ees	No. of Ees	Equiv # Ees	Current	#Contractors
Customer Service cm	Meter Reading	36		32		1000 Cust	0.1743	46.10	47.8			2.0
cb	Revenue Accounting	6		7		1000 Cust	0.0697	18.40	19.1			
cp	Central Cash/Bill Process	18		19		1000 Cust	0.0323	8.50	8.8			
cd,cg,cf	Credit & Collections	31		29		1000 Cust	0.0822	21.70	22.5			
ch	Customer Inquiry	26	27	28	29	1000 Cust	0.1782	45.40	47.1			
(ca,cs, cf+1)	Mgmt. Admin (Cust Svcs)	5	7	5	7	1000 Cust	0.0405	7.70	7.9			
	Total	122		120				147.80	153.3			2.0

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

INFORMATION TECHNOLOGY DEPARTMENT
NONPROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
LABOR

12/20/2004

Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Proj	_Act	_Loc	_EE	FY05
InfoTech	PEC	Customer Care	B38	A & G Operation	920	Labor	NPEZZZZZ	965	PHE	150	5,506
											$143,073.96
InfoTech	PEC	Customer Care	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	965	PHE	501	80,000
											$80,000.00
InfoTech	PEC	Customer Care	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	967	PHE	501	7,600
											$7,600.00
InfoTech	PEC	Customer Care	B38								93,106
											$230,673.96
InfoTech	PEC	Customer Care	B39	A & G Maint	932	Non-Labor	NPEZZZZZ	967	PHE	600	4,300
											$4,300.00
InfoTech	PEC	CustomerCare	B39								4,300
											$4,300.00
InfoTech	PEC										97,406
											$234,973.96
InfoTech	PEI	Infrastruct & Oper	B38	A & G Operation	920	Labor	NPEZZZZZ	967	PHE	150	7,272
											$183,230.04
InfoTech	PEI	Infrastruct & Oper	B38	A & G Operation	920	Labor	NPEZZZZZ	968	PHE	150	1,800
											$41,526.00
InfoTech	PEI	Infrastruct & Oper	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	967	PHE	201	92,400
											$92,400.00
InfoTech	PEI	Infrastruct & Oper	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	967	PHE	205	107,200
											$107,200.00
InfoTech	PEI	Infrastruct & Oper	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	967	PHE	501	11,688
											$11,688.00
InfoTech	PEI	Infrastruct & Oper	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	968	PHE	462	4,302
											$2,352.76
InfoTech	PEI	Infrastruct & Oper	B38								224,662
											$438,396.80
InfoTech	PEI	Infrastruct & Oper	B39	A & G Maint	932	Non-Labor	NPEZZZZZ	967	PHE	600	151,512
											$151,512.00
InfoTech	PEI	Infrastruct & Oper	B39								151,512
											$151,512.00
InfoTech	PEI										376,174
											$589,908.80
InfoTech	PEM	Mailing Services	B36	Customer Accounts	903	Labor	NPEZZZZZ	614	OAH	150	3,756
											$86,650.92
InfoTech	PEM	Mailing Services	B36								3,756
											$86,650.92
InfoTech	PEM	Mailing Services	B38	A & G Operation	920	Labor	NPEZZZZZ	966	PHE	150	13,488
											$331,137.60
InfoTech	PEM	Mailing Services	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	966	PHE	205	7,800
											$7,800.00
InfoTech	PEM	Mailing Services	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	966	PHE	301	3,960
											$22,770.00

ERNEST SHIRAKI

TAYNE SUKIMURA

DARREN YAMAMOTO

Hawaiian Electric Company, Inc.
Information Technology & Services Department
Direct Charges to O&M

ITS Department costs for non-core IT functions, including Records Management, Printing Services and Mailing Services are directly charged to Operations & Maintenance Expenses. Amortizaton of deferred Ebusiness costs are also directly charged to Operations & Maintenance Expenses. These costs not processed through the ITS Costing System.

The attached workpapers H and H-1 show the assumptions for 2005 Estimates for non-core IT functions. These costs are directly charged to functional area code block in the following areas:

Non-Core IT Function Direct O&M Charges:
- A & G Operation
- Customer Operations

Ebusiness Amortization Direct O&M Charges:
- Customer Services
- Distribution Operations
- Customer Accounts
- Customer Services
- Production Operations
- A & G Operations

12/22/2004 » budget manager: PR300 NPUpd - Exp Category $ 10:24AM

Dept	*RA #	*Act #	*Ind #	*Loc #	*Proj #	*EE #	Line Item	FY05 Upd04 RA	Expense Category	
~~InfoTech~~	~~PEA~~	~~901~~	~~NE~~	~~PHE~~	~~NPEZZZZZ~~	~~461~~	~~Prioritization List Additions~~	~~$185,000~~	~~Other~~	DELETED 6/3/04
InfoTech	PEA	965	NE	PHE	NPEZZZZZ	205	Records Mgt Supplies & Ref Materials	$1,200	Materials	
InfoTech	PEA							$106,200		
InfoTech	PEC	965	NE	PHE	NPEZZZZZ	150	IMPL 965-150 Provide Records Mgmt Svcs	$43,169	Labor	1752 HRS - 1 EMPL
InfoTech	PEC	965	NE	PHE	NPEZZZZZ	150	BUOC Provide Records Mgmt Svcs 965	$42,732	Labor	1800 HRS - 1 EMPL
InfoTech	PEC	965	NE	PHE	NPEZZZZZ	150	TC Provide Records Mgmt Svcs 965	$62,318	Labor	1956 HRS - 1 EMPL
InfoTech	PEC	965	NE	PHE	NPEZZZZZ	501	Records Equip Maintenance	$2,000	Outside Svcs	[illegible]
InfoTech	PEC	965	NE	PHE	NPEZZZZZ	501	Records Outside Svcs (ie Storage)	$60,000	Outside Svcs	$80,000
InfoTech	PEC	965	NE	PHE	NPEZZZZZ	501	Records Outside Svcs (ie Microfilm, Rearch, etc)	$13,000	Outside Svcs	
InfoTech	PEC	965	NE	PHE	NPEZZZZZ	501	Shredex	$5,000	Outside Svcs	
InfoTech	PEC	967	NE	PHE	NPEZZZZZ	501	Copyright Clearinghouse License	$7,600	Outside Svcs	
InfoTech	PEC	967	NE	PHE	NPEZZZZZ	600	Shredder Equip Maint	$4,300	Other	
InfoTech	PEC							$240,119		
InfoTech	PEI	967	NE	PHE	NPEZZZZZ	150	TC Provide Printing Svcs 967 (PER TCS)	$60,024	Labor	1884 HRS - 1 EMPL
InfoTech	PEI	967	NE	PHE	NPEZZZZZ	150	I Provide Printing Svcs 967 (PER)	$43,465	Labor	1764 HRS - 1 EMPL
InfoTech	PEI	967	NE	PHE	NPEZZZZZ	150	BUOC Provide Printing Svcs 967 (PER)	$86,034	Labor	3624 HRS - 2 EMPL
InfoTech	PEI	967	NE	PHE	NPEZZZZZ	201	Copier, Fax, Toner & Misc Supplies	$84,000	Materials	$92,400
InfoTech	PEI	967	NE	PHE	NPEZZZZZ	201	Printshop Supplies (PER)	$8,400	Materials	
InfoTech	PEI	967	NE	PHE	NPEZZZZZ	205	Printshop Supplies (PER)	$32,200	Materials	$107,200
InfoTech	PEI	967	NE	PHE	NPEZZZZZ	205	Copier & Fax Paper - Pro Card	$75,000	Materials	
InfoTech	PEI	967	NE	PHE	NPEZZZZZ	501	Safety Shoes (PER)	$864	Outside Svcs	
InfoTech	PEI	967	NE	PHE	NPEZZZZZ	501	Copier Software & Software Upgrades	$3,300	Outside Svcs	$11,688
InfoTech	PEI	967	NE	PHE	NPEZZZZZ	501	Printshop Outside Svcs (PER)	$7,524	Outside Svcs	
InfoTech	PEI	967	NE	PHE	NPEZZZZZ	600	Copier & Fax Equip Maint	$144,000	Other	$151,512
InfoTech	PEI	967	NE	PHE	NPEZZZZZ	600	Printshop Equip Maint (PER)	$7,512	Other	
InfoTech	PEI	968	NE	PHE	NPEZZZZZ	150	BUOC Prov Word Proc Svcs 968 (PER)	$42,732	Labor	1800 HRS - 1 EMPL
InfoTech	PEI	968	NE	PHE	NPEZZZZZ	462	Word Proc Software & Upgrades (PER)	$2,151	Other	
InfoTech	PEI							$597,206		
InfoTech	PEM	614	NE	OAH	NPEZZZZZ	150	BUOC Proc Customer Bills 614	$89,167	Labor	3756 HRS - 2 EMPL
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	150	BUTC Handle & Deliver Mail 966	$52,473	Labor	1932 HRS - 1 EMPL
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	150	TCS Handle & Deliver Mail 966	$60,096	Labor	1920 HRS - 1 EMPL
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	150	BUOC Handle & Deliver Mail 966	$228,759	Labor	9636 HRS - 5 EMPL

A&G OPERATIONS

CUSTOMER OPERATIONS

A&G OPERATIONS

12/22/2004 » budget manager: PR300 NPUpd - Exp Category $ 10:24AM

Dept	*RA #	*Act #	*Ind #	*Loc #	*Proj #	*EE #	Line Item	FY05 Upd04 RA	Expense Category
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	205	Mailroom Supplies	$7,800	Materials
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	301	Vehicle (1): Van	$10,890	Transportation
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	301	Vehicle (1): Light vehicle	$10,890	Transportation
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	501	Postal Fees: Postal P. O. Box fees + subscription	$3,493	Outside Svcs
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	600	EM Mach Maint: Pitney Bowes + B&H + Valenti	$36,780	Other
InfoTech	PEM							$500,348	
InfoTech	PEP	110	NE	PHE	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$12,062	Other
InfoTech	PEP	110	NE	PHE	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$6,841	Other
InfoTech	PEP	600	NE	OAH	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$24,617	Other
InfoTech	PEP	600	NE	OAH	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$13,962	Other
InfoTech	PEP	611	NE	OAH	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$24,617	Other
InfoTech	PEP	611	NE	OAH	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$13,962	Other
InfoTech	PEP	713	NE	PHE	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$31,017	Other
InfoTech	PEP	713	NE	PHE	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$17,592	Other
InfoTech	PEP	730	NE	PPO	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$6,154	Other
InfoTech	PEP	730	NE	PPO	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$3,491	Other
InfoTech	PEP	750	NE	PHE	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$12,308	Other
InfoTech	PEP	750	NE	PHE	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$6,154	Other
InfoTech	PEP	750	NE	PHE	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$6,981	Other
InfoTech	PEP	750	NE	PHE	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$3,491	Other
InfoTech	PEP	950	NE	PHE	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$6,154	Other
InfoTech	PEP	950	NE	PHE	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$3,491	Other
InfoTech	PEP							$192,896	
								$1,636,769	

A&G OPERATIONS

CUSTOMER SERVICES 18,903

DISTRIBUTION OPERATIONS 38,579

CUSTOMER ACCOUNTS 38,579

CUSTOMER SERVICES 48,669

PRODUCTION OPERATIONS 9644

CUSTOMER SERVICES 28,934

A&G OPERATIONS 9,645

BASED ON HISTORY

5-YEAR PROJECTIONS

» budget manager: PR110H NPUpd - Detail Hrs

*c...	*Lo...	*In...	*Proj #	*E...	*Lbr Class	Line Item	FY05 Upd04 RA (HOURS)	Employees
65	PHE	NE	NPEZZ...	150	__BUOC	BUOC Provide Records Mgmt Svcs 965	1,800	1
65	PHE	NE	NPEZZ...	150	__I	IMPL 965-150 Provide Records Mgmt Svcs	1,752	1
65	PHE	NE	NPEZZ...	150	__TC	TC Provide Records Mgmt Svcs 965	1,956	1
							5,508	
67	PHE	NE	NPEZZ...	150	__BUOC	BUOC Provide Printing Svcs 967 (PER)	3,624	2
67	PHE	NE	NPEZZ...	150	__I	I Provide Printing Svcs 967 (PER)	1,764	1
67	PHE	NE	NPEZZ...	150	__TC	TC Provide Printing Svcs 967 (PER TCS)	1,884	1
68	PHE	NE	NPEZZ...	150	__BUOC	BUOC Prov Word Proc Svcs 968 (PER)	1,800	1
							9,072	
14	OAH	NE	NPEZZ...	150	__BUOC	BUOC Proc Customer Bills 614	3,756	2
66	PHE	NE	NPEZZ...	150	__BUOC	BUOC Handle & Deliver Mail 966	9,636	5
66	PHE	NE	NPEZZ...	150	__BUTC	BUTC Handle & Deliver Mail 966	1,932	1
66	PHE	NE	NPEZZ...	150	__TCS	TCS Handle & Deliver Mail 966	1,920	1
							17,244	
							31,824	17

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

CUSTOMER INSTALLATION DEPARTMENT
NONPROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
LABOR

CA-IR-1

General Information Requests

[redacted]

PWP-26

d. PWX-Increased from 10 to 11

Through the years, Meter Division's workforce reduced substantially by attrition and these positions were not replaced. The workforce reduced from 11 meter electricians (ME) in 1999 to 7 in 2004. Presently the division has a veteran workforce where additional MEs are nearing the age of retirement. In anticipation of these MEs retiring, the 5 year apprenticeship program to become a senior ME and possible future meter projects, the Division is taking the necessary steps to re-build

its workforce.

f. An electronic file entitled "staffing.xls" is attached to this email used as a projection to forecast staffing levels.

or input Sheet - NonProject
2005

Prepared by _____
Date _____

Rates tab card	Units tab card												
Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	*(enter **employee count** in **"Units tab card"**)*												
Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
	*(enter **hours** in **"Units tab card"**)*												
v_mtsupv	0	8	8	0	8	8	8	8	8	8	16	16	96
v_mtsupv	16	16	16	16	16	16	16	16	16	16	16	16	192
v_mtsupv													0
v_mtsupv													0
v_mtsupv	19	19	19	19	19	19	19	19	19	19	19	19	228
v_mtsupv	2	2	2	2	2	2	2	2	2	2	2	2	24
v_mtsupv													0
v_mtsupv	8	8	8	8	8	8	8	8	8	8	8	8	96
v_mtsupv	42	46	42	42	42	39	42	42	42	42	42	42	505
v_mtsupv	2	2	2	2	2	2	2	2	2	2	2	2	24
v_mtsupv	5	5	5	5	5	5	5	5	5	5	5	5	60
v_mtsupv	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**36**
v_mtsupv	**1**	**1**	**1**	**1**	**1**	**4**	**1**	**1**	**1**	**1**	**1**	**1**	**15**
v_mtsupv	4	4	4	4	4	5	4	4	4	4	4	5	50
v_mtsupv	4	4	4	4	4	4	4	4	4	4	4	4	48
v_mtsupv	3	3	3	3	3	3	3	3	3	3	3	3	36
v_mtsupv	1	1	1	1	1	1	1	1	1	1	1	1	12
v_mtsupv	3	3	3	3	3	2	3	3	3	3	3	2	34
v_mtsupv	3	3	3	3	3	3	3	3	3	3	3	3	36
v_mtsupv	3	3	3	3	3	3	3	3	3	3	3	3	36
v_mtsupv	2	2	2	2	2	2	2	2	2	2	2	2	24
v_mtsupv	2	2	2	2	2	2	2	2	2	2	2	2	24
Demand	123	135	131	123	131	131	131	131	131	131	139	139	1,576
	168	160	184	168	176	176	168	184	176	168	176	176	2,080
	45	25	53	45	45	45	37	53	45	37	37	37	504
2/30 (1/2)	0	8	8	0	8	8	8	8	8	8	16	16	96
	168	160	184	168	176	176	168	184	176	168	176	176	2080

hours due to Project Demand hours (which are budgeted in the Project file)

Labor Input Sheet - NonProject
2005

Resp Area (RA) wx
Labor Class mtengr

Prepared by _____
Date _____

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	wx	*Supply	*Supply	*Supply	*Supply	*Supply	mtengr	Available Hours	2	2	2	2	2	2	2	2	2	2	2	2	24
Labor Demand:									*(enter **hours** in **"Units tab card"**)*												
Holiday	wx	098	PHE	ND		107	mtengr	mtengr	0	16	16	0	16	16	16	16	16	16	32	32	192
Vacation	wx	098	PHE	ND		107	mtengr	mtengr	16	16	16	16	16	16	16	16	16	16	16	16	192
Other NPW	wx	098	PHE	ND		107	mtengr	mtengr	8	8	8	8	8	8	8	8	8	8	8	8	96
Workers Comp	wx	098	PHE	ND		108	mtengr	mtengr													0
	wx	600	oah	ne	npwzzzzz	150	mtengr	mtengr	15	15	15	15	15	15	15	15	15	15	15	15	180
	wx	601	oah	ne	npwzzzzz	150	mtengr	mtengr	26	26	26	26	26	26	26	26	26	26	26	26	312
	wx	602		ne	npwzzzzz	150	mtengr	mtengr	8	8	8	8	8	5	8	8	8	8	8	5	90
	wx	603		ne	npwzzzzz	150	mtengr	mtengr	17	13	17	17	17	17	17	17	17	17	17	17	200
NARUC 903	**wx**	**604**		**ne**	**npwzzzzz**	**150**	**mtengr**	**mtengr**	**1**	**1**	**1**	**1**	**1**	**4**	**1**	**1**	**1**	**1**	**1**	**1**	**15**
	wx	701		ne	npwzzzzz	150	mtengr	mtengr	3	3	3	3	3	3	3	3	3	3	3	3	36
	wx	720		ne	npwzzzzz	150	mtengr	mtengr	20	20	20	20	20	20	20	20	20	20	20	20	240
	wx	722		ne	npwzzzzz	150	mtengr	mtengr	3	3	3	3	3	3	3	3	3	3	3	3	36
	wx	786		ne	npwzzzzz	150	mtengr	mtengr	7	7	7	7	7	7	7	7	7	7	7	7	84
	wx	788		ne	npwzzzzz	150	mtengr	mtengr	12	8	12	12	12	12	12	12	12	12	12	12	140
	wx	789		ne	npwzzzzz	150	mtengr	mtengr	7	7	7	7	7	7	7	7	7	7	7	7	84
	wx	797		ne	npwzzzzz	150	mtengr	mtengr	3	3	3	3	3	3	3	3	3	3	3	3	36
	wx	842		ne	npwzzzzz	150	mtengr	mtengr	3	3	3	3	3	3	3	3	3	3	3	3	36
						Total NonProj/Pgm Demand			149	157	165	149	165	165	165	165	165	165	181	178	1,969
						Total Supply			336	320	368	336	352	352	336	368	352	336	352	352	4,160
									187	163	203	187	187	187	171	203	187	171	171	174	2,191
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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

NOTE: Total NonProject Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

Total	
96	8
740	14
1,464	22
576	48
0	
3,732	22
180	15
84	7
180	15
3,738	17
481	30
625	53
1,146	05
130	11
88	7
72	6
456	98
192	16
0	
0	
13,884	26
16,640	08
2,756	32
96	16
2080	76

[redacted]

Customer Installations Department
Planning and Design Division

	Staffing Levels		
	Past	Present	Future
Grades	HECo[1]	HECo	HECo
10	6	5	6
12	5	4	4
15	5	3	3
Total	16	12	13

[1]The past count is for year 1995.

No. of Service Requests	2000	2001	2002	2003	2004*
HECo	5846	5827	5999	6819	7800
Increase		-0.33%	2.95%	13.67%	14.39%

* HECo: Normalized for the year based on November 2004 totals.

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

LEGAL DEPARTMENT
NONPROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
LABOR

CA-IR-1
DOCKET NO. 04-0113
HECO T-9
ATTACHMENT 5
PAGE 2 OF 3

›or Input Sheet - NonProject/NonProgram

2005

Prepared by CKF
Date 4/16/2003

Rates tab ca		Units tab card													
›bor Class	Rates Link T	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
		(enter employee count in "Units tab card")													
;ilitator (LRR	Available H	1	1	1	1	1	1	1	1	1	1	1	1	12	
		(enter hours in "Units tab card")													
;ilitator (LRR)		0	8	8	0	8	8	8	8	8	8	16	16	96	4.6%
;ilitator (LRR)				40						40			40	120	5.8%
;ilitator (LRR)														0	0.0%
;ilitator (LRR)														0	0.0%
;ilitator (LRR	AD000667	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
;ilitator (LRR	AD000666	68	66	57	48	46	47	29	27	28	29	27	28	500	24.0%
;ilitator (LRR	AD000668	16	9	6	16	16	16	16	16	16	16	16	8	167	8.0%
;ilitator (LRR	AD000664	4	4	4	4	4	4	4	4	4	4	4	4	48	2.3%
;ilitator (LRR	AD000018	16	10	6	16	16	16	16	16	16	16	16	16	176	8.5%
;ilitator (LRR	AD000051	15	10	5	15									45	2.2%
;ilitator (LRR	AD000456	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
;ilitator (LRR	AD000066	8	8	8	8	8	8	8	8	8	8	8	8	96	4.6%
;ilitator (LRR	AD000674	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
;ilitator (LRR	AD000011	8	8	8	8	8	8	8	8	8	8	8	8	96	4.6%
;ilitator (LRR	AD000055	13	10	14	15	15	15	15	15	15	15	15	15	172	8.3%
;ilitator (LRR	AD000058	4	3	4	8	8	8	8	8	8	8	8	8	83	4.0%
;ilitator (LRR	AD000340	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
;ilitator (LRR	AD000047	13	13	13	19	36	35	45	63	14	45	47	14	357	17.2%
;ilitator (LRR	EE000139	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
;ilitator (LRR)														0	0.0%
														0	
														0	
Proj/Pgm Demand		176	160	184	168	176	176	168	184	176	168	176	176	2,088	100.4%
ply		168	160	184	168	176	176	168	184	176	168	176	176	2,080	
	LEGAL-GENER	-8	0	0	0	0	0	0	0	0	0	0	0	-8	
;/2), 12/26, 12/30 (1/2)		0	8	8	0	8	8	8	8	8	8	16	16	96	
		168	160	184	168	176	176	168	184	176	168	176	176	2080	

***'OT* equal Total Supply hours due to Project/Program Demand hours (which are budgeted in the Project model)**

CA-IR-2

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

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:

Attachment 1 identifies all of the non-labor direct expenses that impacts the NARUC Accounts 901-904 and shows Department, RA (Responsibility Area within Department), NARUC

accounts, activity, activity description, expense element, project or non project identifier, dollar amount in the test year 2005, budget preparer and a reference to the attachment that has the pertinent data.

a. The following employees involved in budgeted non-labor direct expense amounts charged to NARUC Account Numbers 901-904:

- **Customer Service Department's Analysts**: Lynn Bronaugh, Robb Tanaka, Glenn Maglasang, Doni Yokoi and Iris Eala; **Supervisors**: Judy Hirashima, Lloyd Shibata, Sylvia Chock, Wendy Oda and Curtis Tominaga; **Administrators**: Victoria Marzano, Jill Reppun and Jan Loose who transferred to Education and Consumer Affairs Department in mid 2004; **Directors**: Arline Konishi, Sharon Suzuki (transferred to MECO in early 2004) and **Manager**, Darren Yamamoto (recently promoted from Director of Field Services to Manager of the Customer Service Department as of December 1, 2004); former Manager of Customer Service, Amy Ejercito, was recently promoted to Vice President Corporate Excellence as of January 1 2005. See Attachment 1.
- In addition, to the Customer Service Department staff involved in the budget preparation there are preparers from the Information Technology & Services Department, Blane Murakami, and Customer Installations Department, Randy China (see Attachment 1).

b. The Customer Service Department's information within the NARUC accounts 901-904, see Attachment 2 pages 1-10. The Information Technology & Services Department (see Attachment 3). The Customer Installations Department (see Attachment 4).

c. The Customer Service Department's information within the NARUC accounts 901-904, (see Attachment 2, pages 11-15). The Information Technology & Services Department (see

Attachment 3).

d. Customer Service Department (see response to c.). Information Technology & Services Department (see response to c).

e. Customer Service Department (see response to c.). Information Technology & Services Department (see response to c.).

f. Customer Service Department (see response to c.). Information Technology & Services Department (see response to c.).

g. Customer Service Department (see Attachment 2, pages 16-20).

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

NONPROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
NONLABOR

a.	».	c.	d.	e.	f.	g.
Budget Preparer	**port**					Gen. Assump. & guidelines
D.Yokoi;A.Ejercito	ı. 2					Attch. 2
D.Yokoi;A.Ejercito	ı. 2					
D.Yokoi;A.Ejercito	ı. 2					
D.Yokoi;A.Ejercito	ı. 2					
D.Yokoi;A.Ejercito	ı. 2	Attch. 2				
D.Yokoi;A.Ejercito	ı. 2	Attch. 2				
D.Yokoi;A.Ejercito	ı. 2	Attch. 2				
D.Yokoi;A.Ejercito	ı. 2					
D.Yokoi;A.Ejercito	ı. 2					
D.Yokoi;A.Ejercito	ı. 2					
D.Yokoi;A.Ejercito	ı. 2					
..Shibata;L.Bronaugh	ı. 2					
..Shibata;L.Bronaugh	ı. 2					
..Shibata;L.Bronaugh	ı. 2					
..Shibata;L.Bronaugh	ı. 2					
..Shibata;L.Bronaugh	ı. 2					
A.Konishi; I. Eala	ı. 2					
A.Konishi; I. Eala	ı. 2					
A.Konishi; I. Eala	ı. 2					
A.Konishi; I. Eala	ı. 2					
A.Konishi; I. Eala	ı. 2					
Jan Loose;J.Reppun	ı. 2					
Jan Loose;J.Reppun	ı. 2					
Jan Loose;J.Reppun	ı. 2					
Jan Loose;J.Reppun	ı. 2					
Jan Loose;J.Reppun	ı. 2					
Jan Loose;J.Reppun	ı. 2					
Jan Loose;J.Reppun	ı. 2					
Jan Loose;W.Oda	ı. 2					
Jan Loose;W.Oda	ı. 2					
Jan Loose;W.Oda	ı. 2					
Jan Loose;W.Oda	ı. 2					
Jan Loose;W.Oda	ı. 2					
Jan Loose;W.Oda	ı. 2					
Jan Loose;W.Oda	ı. 2					

NARUC	Dept	_RA	Resp Area	_Act	Activity	_EE	Proj_or_NonProj	FY05	a. Budget Preparer	b. Support	c.	d.	e.	f.	g. Gen. Assump. & guidelines
903	Cust Svc	PCG	Fld Svc & Collection	619	Perf Discon/Recon-NonPay	301	NonProject	35,705	Jan Loose;W.Oda	Attch. 2					
903	Cust Svc	PCG	Fld Svc & Collection	777	Process Payroll	301	NonProject	120	Jan Loose;W.Oda	Attch. 2					
903	Cust Svc	PCG	Fld Svc & Collection	785	Plan Emp Trng & Dev	301	NonProject	460	Jan Loose;W.Oda	Attch. 2					
903	Cust Svc	PCH	Customer Assist Ctr	600	Resp to Cus Inq/Svc Req	205	NonProject	8,640	L.Bronaugh,R.Tanaka	Attch. 2					
903	Cust Svc	PCH	Customer Assist Ctr	600	Resp to Cus Inq/Svc Req	501	NonProject	8,640	L.Bronaugh,R.Tanaka	Attch. 2					
903	Cust Svc	PCH	Customer Assist Ctr	600	Resp to Cus Inq/Svc Req	600	NonProject	5,000	L.Bronaugh,R.Tanaka	Attch. 2					
903	Cust Svc	PCH	Customer Assist Ctr	789	Attend Training	501	NonProject	22,650	L.Bronaugh,R.Tanaka	Attch. 2					
902	Cust Svc	PCM	Meter Reading	610	Read Billing Meters	201	NonProject	22,750	Jan Loose;C.Tominaga	Attch. 2					
902	Cust Svc	PCM	Meter Reading	610	Read Billing Meters	205	NonProject	13,350	Jan Loose;C.Tominaga	Attch. 2					
902	Cust Svc	PCM	Meter Reading	610	Read Billing Meters	301	NonProject	169,252	Jan Loose;C.Tominaga	Attch. 2					
902	Cust Svc	PCM	Meter Reading	610	Read Billing Meters	501	NonProject	40,000	Jan Loose;C.Tominaga	Attch. 2					
903	Cust Svc	PCP	Pmt Proc & Supp Ctr	614	Process Cust Bills	201	NonProject	123,120	J.Hirashima	Attch. 2					
903	Cust Svc	PCP	Pmt Proc & Supp Ctr	614	Process Cust Bills	640	NonProject	1,068,588	J.Hirashima	Attch. 2					
903	Cust Svc	PCP	Pmt Proc & Supp Ctr	616	Process Cust Payments	201	NonProject	115,200	J.Hirashima	Attch. 2					
903	Cust Svc	PCP	Pmt Proc & Supp Ctr	616	Process Cust Payments	205	NonProject	15,600	J.Hirashima	Attch. 2					
903	Cust Svc	PCP	Pmt Proc & Supp Ctr	616	Process Cust Payments	501	NonProject	205,500	J.Hirashima	Attch. 2					
903	Cust Svc	PCP	Pmt Proc & Supp Ctr	616	Process Cust Payments	503	NonProject	30,000	J.Hirashima	Attch. 2					
903	Cust Svc	PCP	Pmt Proc & Supp Ctr	616	Process Cust Payments	600	NonProject	78,200	J.Hirashima	Attch. 2					
903	Cust Svc	PCP	Pmt Proc & Supp Ctr	789	Attend Training	501	NonProject	2,400	J.Hirashima	Attch. 2					
903	Cust Svc	PCP	Pmt Proc & Supp Ctr	600	Resp to Cus Inq/Svc Req	640	Project	50,000							
903	Cust Svc	PCS	Customer Acct Svcs	600	Resp to Cus Inq/Svc Req	201	NonProject	2,472	L.Bronaugh;S.Suzuki	Attch. 2					
903	Cust Svc	PCS	Customer Acct Svcs	600	Resp to Cus Inq/Svc Req	205	NonProject	7,200	L.Bronaugh;S.Suzuki	Attch. 2					
903	Cust Svc	PCS	Customer Acct Svcs	600	Resp to Cus Inq/Svc Req	501	NonProject	1,200	L.Bronaugh;S.Suzuki	Attch. 2					
903	Cust Svc	PCS	Customer Acct Svcs	789	Attend Training	201	NonProject	1,200	L.Bronaugh;S.Suzuki	Attch. 2					
903	Cust Svc	PCS	Customer Acct Svcs	789	Attend Training	501	NonProject	13,000	L.Bronaugh;S.Suzuki	Attch. 2					
								4,631,705							
903	InfoTech	PEP	Project & Bus Mgt	611	Mg Billing & Acct Prob	901	NonProject	38,579	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
901	InfoTech	PEZ	ISD Chargeback	720	Improve Bus Processes	451	NonProject	781,465	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
902	InfoTech	PEZ	ISD Chargeback	610	Read Billing Meters	451	NonProject	41,916	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
903	InfoTech	PEZ	ISD Chargeback	612	Process OCARS	451	NonProject	5,472	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
903	InfoTech	PEZ	ISD Chargeback	611	Mg Billing & Acct Prob	451	NonProject	107,928	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
903	InfoTech	PEZ	ISD Chargeback	614	Process Cust Bills	451	NonProject	9,084	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
903	InfoTech	PEZ	ISD Chargeback	616	Process Cust Payments	451	NonProject	69,828	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
903	InfoTech	PEZ	ISD Chargeback	611	Mg Billing & Acct Prob	451	NonProject	160,812	Blane Murikami	Attch. 3	Attch. 3				Attch. 3
								1,215,084							
902	CID	PWX	Engineering & Meter	610	Read Billing Meters	301	NonProject	875	Randy China	Attch. 4					
903	CID	PWX	Engineering & Meter	619	Perf Discon/Recon-NonPay	301	NonProject	1,280	Randy China	Attch. 4					
								2,155							
								5,848,944							

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

CUSTOMER SERVICE DEPARTMENT
NONPROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
NONLABOR

NonLabor Input Sheet - NonProject
2005

Prepared by D. Yokoi
Date 02/04/04

ension tab card						Rates tab card	Units tab card												
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"**)*												
30	OUT	BE	NPCZZZZZ	905	none	no escalation	0	0	0	8,333	0	0	0	8,333	0	0	0	8,334	25,000
30	OUT	BO	NPCZZZZZ	501	none	no escalation	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-72,000
600	OAH	NE	NPCZZZZZ	501	none	no escalation	761	311	311	311	311	311	311	311	311	311	311	311	4,182
600	OAH	NE	NPCZZZZZ	201	none	no escalation	311	311	311	311	311	311	311	311	311	311	311	311	3,732
600	OAH	NE	NPCZZZZZ	201	none	no escalation	248	248	248	248	248	248	248	248	248	248	248	248	2,976
604	OAH	NE	NPCZZZZZ	461	none	no escalation	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	204,000
614	OAH	NE	NPCZZZZZ	201	none	no escalation		3,796		3,796		3,796		3,796		3,796		3,796	22,776
614	OAH	NE	NPCZZZZZ	201	none	no escalation	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,336	75,999
614	HEL	BE	NPCZZZZZ	201	none	no escalation	1,462	1,462	1,462	1,462	1,462	1,462	1,462	1,462	1,462	1,462	1,462	1,465	17,547
614	MAU	BE	NPCZZZZZ	201	none	no escalation	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,284	15,353
700	PHE	NE	NPCZZZZZ	501	none	no escalation				33,337				33,337				33,338	100,012
720	PHE	NS	NPCZZZZZ	462	none	no escalation				4,594				4,594				9,188	18,376
721	PHE	NE	NPCZZZZZ	501	none	no escalation				11,869				11,869				11,869	35,607
720	PHE	NE	NPCZZZZZ	520	none	no escalation							2,100						2,100
720	PHE	NE	NPCZZZZZ	521	none	no escalation													0
720	PHE	NE	NPCZZZZZ	501	none	no escalation								2,112				1	2,113
789	PHE	NE	NPCZZZZZ	501	none	no escalation				7,000				7,000				7,000	21,000
																			0
																			0
																			0
																			0
																			0
																			0
																			0
																			0
																			0
																			0
																			478,773

NonLabor Input Sheet - NonProject
2005

Resp Area (RA) PCD

Prepared by I. Eala
Date 2/20/2004

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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")																						
Energy Assistance Program	903	PCD	617	OAH	NE	NPCZZZZZ	900			0	0	0	0	0	0	0	0	0	0	0	0	0
Office Supply-Purchasing Card	903	PCD	618	OAH	NE	NPCZZZZZ	205			100	100	100	100	100	100	100	100	100	100	100	100	1,200
Collection & Credit Reporting	903	PCD	618	OAH	NE	NPCZZZZZ	501			8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	96,000
Outside Svcs - Legal	903	PCD	618	OAH	NE	NPCZZZZZ	502			250	250	250	250	250	250	250	250	250	250	250	250	3,000
Emp Memberships - NACM & CPI	903	PCD	618	OAH	NE	NPCZZZZZ	516			0	0	0	0	0	0	0	0	0	0	0	0	0
Meals & Entertainment-NACM,CPI, Mnlnd Travel	903	PCD	618	OAH	NE	NPCZZZZZ	521			0	0	0	0	0	0	0	0	0	0	0	0	0
Bad Debt Expense	903	PCD	618	OAH	NE	NPCZZZZZ	900			86,900	80,600	87,300	85,000	89,200	89,300	92,000	95,000	95,900	96,700	91,700	92,700	1,082,300
Leadership Training	903	PCD	789	PHE	NE	NPCZZZZZ	501														1,500	1,500
Travel/Cont/Seminar	903	PCD	789	PHE	NE	NPCZZZZZ	501														5,000	5,000
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0
		PCD																				0

Sheet - NonProject/NonProgram
2005

Prepared by J Hirashima
Date 4/15/2004

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")														
	89,049	89,049	89,049	89,049	89,049	89,049	89,049	89,049	89,049	89,049	89,049	89,049	1,068,588	z	1,068,588
	21,345	21,345	21,345	21,345	21,345	21,345	21,345	21,345	21,345	21,345	21,345	21,351	256,146		
		74,000											74,000	q	
						4,200							4,200	q	78,200
			1,500										1,500	x	
										Main TTL		79,700			
	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	84,000	x	
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000	x	205,500
	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	72,000	x	
	500	500	500	500	500	500	500	500	500	500	500	500	6,000	x	
	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	x	
			15,000						15,000				30,000		
										O/S TTL		234,000			
	10,260	10,260	10,260	10,260	10,260	10,260	10,260	10,260	10,260	10,260	10,260	10,260	123,120	o	123,120
										Bill Env TTL		123,120			
	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	100,800	y	115,200
	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	14,400	y	
										Pymt Proc TTL		115,200			
	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	15,600		
	83	83	83	83	83	84	84	84	84	84	84	84	1,003		
	180		180		180			180		180			900		
			1,500										1,500		
													0		
													0		
													0		
													0		
													0		
													0		
													0		
													0		
													0		
													2,110,044		

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NonLabor Input Sheet - NonProject
2005

Resp Area (RA) PCF

Prepared by J Loose
Date 7/31/2003

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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"**)*												
Photo/Video Equip		PCF	620	OAH	NE	NPCZZZZZ	201								1,500						1,500	3,000
Trade Tools		PCF	620	OAH	NE	NPCZZZZZ	201								1,500						1,500	3,000
Tools - Toolroom		PCF	620	OAH	NE	NPCZZZZZ	201				50		50		50		50		50		50	300
CF Field Materials	587	PCF	620	OAH	NE	NPCZZZZZ	201		No escalation	0	50	0	50	0	3,050	0	50	0	50	0	3,050	6,300
Photo/Video		PCF	620	OAH	NE	NPCZZZZZ	205								150			150			150	450
Small Tools		PCF	620	OAH	NE	NPCZZZZZ	205					100			100			100			100	400
Stationary/Ofc Supplies		PCF	620	OAH	NE	NPCZZZZZ	205			150			150			150			150			600
CF Supplies/Small tools	587		620	OAH			205		No escalation	150	0	100	150	0	250	150	0	250	150	0	250	1,450
Attend training	903	PCF	789	OAH	NE	NPCZZZZZ	501		No escalation						5,000							5,000
Outside Services (RP-HD)	587	PCF	620	OAH	NE	NPCZZZZZ	501		No escalation	24,000												24,000
Software/Hardware	903	PCF	600	OAH	NE	NPCZZZZZ	462		No escalation	2,188												2,188
																						38,938
Sedan - CF	903	PCF	600	OAH	NE	NPCZZZZZ	301		VEH Sedan	40	40	40	45	45	40	38	40	40	40	40	40	488
Sedan - CF	902	PCF	610	OAH	NE	NPCZZZZZ	302		VEH Sedan	38	38	38	38	38	38	38	38	38	38	38	38	456
Sedan - CF	903	PCF	619	OAH	NE	NPCZZZZZ	303		VEH Sedan	38	38	38	38	38	38	38	38	38	38	38	38	456
Sedan - CF	903	PCF	720	OAH	NE	NPCZZZZZ	304		VEH Sedan	38	38	38	38	38	38	38	38	38	38	38	38	456
Total Sedan Hours																						1,856
Mini Van - CF	903	PCF	611	OAH	NE	NPCZZZZZ	301		VEH LightTruck	72	72	104	88	80	70	70	72	72	80	80	80	940
Mini Van - CF	587	PCF	620	OAH	NE	NPCZZZZZ	301		VEH LightTruck	72	82	80	72	80	70	90	90	70	80	80	90	956
Total Mini Van Hours																						1,896
		PCF																				0
		PCF																				0
		PCF																				0
		PCF																				
		PCF																				0
		PCF																				0
		PCF																				0

NonLabor Input Sheet - NonProject
2005

Resp Area (RA) PCG

Prepared by J Loose
Date #######

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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")												
Keys - Dup		PCG	610				201			100	50	50	50	50	50	100	100	100	50	50	50	800
Petty Cash		PCG	610				201			50	50	50	50	50	50	50	50	50	50	50	50	600
Subscriptions/Reference		PCG	610				201							100				100		100		300
Special Access Decal Fees		PCG	610				201							150								150
Misc Supplies	**902**	**PCG**	**610**	**OAH**	**NE**	**NPCZZZZZ**	**201**		**No escalation**	**150**	**100**	**100**	**100**	**350**	**100**	**150**	**150**	**250**	**100**	**200**	**100**	**1,850**
GPS		PCG	610				501			900	900	900	900	900	900	900	900	900	900	900	900	10,800
Itron Maint Contract/Field Manager - CG		PCG	610				501			8,000			8,000			8,000			8,000			32,000
Outside Services	**902**	**PCG**	**610**	**OAH**	**NE**	**NPCZZZZZ**	**501**		**No escalation**	**8,900**	**900**	**900**	**8,900**	**900**	**900**	**8,900**	**900**	**900**	**8,900**	**900**	**900**	**42,800**
Seals		PCG	619	OAH	NE		201												20,000			20,000
Disc Sleeves		PCG	619	OAH	NE		201						1,000					1,000				2,000
Toolroom - tools, PPE, etc.		PCG	619	OAH	NE		201			50	50	50	50	50	50	50	50	50	50	50	50	600
Safety Shoes		PCG	619	OAH	NE		201			300	300	300	300	300	300	300	300	300	300	300	300	3,600
Uniforms - Pants/Shirts		PCG	619	OAH	NE		201								6,000				4,000			10,000
Uniforms - Jackets		PCG	619	OAH	NE		201								4,500							4,500
Field Materials & Supplies	**903**	**PCG**	**619**	**OAH**	**NE**	**NPCZZZZZ**	**201**		**No escalation**	**350**	**350**	**350**	**1,350**	**350**	**10,850**	**350**	**350**	**1,350**	**24,350**	**350**	**350**	**40,700**
Lubricants		PCG	619	OAH	NE		205					100			100			100			100	400
Cell Phones		PCG	619	OAH	NE		205			1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	15,600
Batteries		PCG	619	OAH	NE		205					100			100			100			100	400
Stationary/Ofc Supplies - CG		PCG	619	OAH	NE		205			600	600	600	600	600	600	600	600	600	600	600	600	7,200
Sm Tools		PCG	619	OAH	NE		205			75	75	75	75	75	75	75	75	75	75	75	75	900
Field Materials & Supplies (PC)	**903**	**PCG**	**619**	**OAH**	**NE**	**NPCZZZZZ**	**205**		**No escalation**	**1,975**	**1,975**	**2,175**	**1,975**	**1,975**	**2,175**	**1,975**	**1,975**	**2,175**	**1,975**	**1,975**	**2,175**	**24,500**
Subtotal Expenses										11,375	3,325	3,525	12,325	3,575	14,025	11,375	3,375	4,675	35,325	3,425	3,525	109,850

NonLabor Input Sheet - NonProject
2005

A) PCG

Prepared by J Loose
Date #######

sion tab card									Rates tab card	Units tab card												
ine Item	NARUC	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")												
		PCG	600	OAH	NE		301			364	340	468	404	372	364	404	364	404	372	300	332	4,488
Cust Inq		PCG	600	OAH	NE		301			32	32	32	32	32	32	24	24	32	32	32	32	368
	903	PCG	600	OAH	NE	NPCZZZZZ	301		VEH Sedans	396	372	500	436	404	396	428	388	436	404	332	364	4,856
/unlocks		PCG	602	OAH	NE		301			148	144	148	148	148	158	148	148	148	148	128	169	1,783
s/unlocks		PCG	602	OAH	NE		301			692	656	692	692	692	742	692	692	692	692	592	791	8,317
	586	PCG	602	OAH	NE	NPCZZZZZ	301		VEH Sedans	840	800	840	840	840	900	840	840	840	840	720	960	10,100
er Insp.		PCG	610	OAH	NE		301			180	180	180	180	180	180	180	180	180	180	180	180	2,160
reads		PCG	610	OAH	NE		301			692	656	692	692	692	742	692	692	692	692	592	742	8,268
- FS		PCG	610	OAH	NE		301			40	40	40	40	40	40	32	32	40	40	40	40	464
	902	PCG	610	OAH	NE	NPCZZZZZ	301		VEH Sedans	912	876	912	912	912	962	904	904	912	912	812	962	10,892
ads		PCG	610	OAH	NE		301			148	144	148	148	148	158	148	148	148	148	128	158	1,772
s		PCG	611	OAH	NE		301			40	40	40	40	40	40	40	40	40	40	40	40	480
- Mng/resolve billing		PCG	611	OAH	NE		301			32	32	32	32	32	32	24	24	32	32	32	32	368
	903	PCG	611	OAH	NE	NPCZZZZZ	301		VEH Sedans	72	72	72	72	72	72	64	64	72	72	72	72	848
sc/Rec		PCG	619	OAH	NE		301			804	678	1,028	836	725	672	672	804	836	725	745	510	9,035
- Disc		PCG	619	OAH	NE		301			44	28	60	36	36	36	28	28	44	36	20	28	424
	903	PCG	619	OAH	NE	NPCZZZZZ	301		VEH Sedans	848	706	1,088	872	761	708	700	832	880	761	765	538	9,459
Rec		PCG	619	OAH	NE		301			172	146	220	180	155	144	304	172	180	155	159	110	2,097
- Time & Attendance		PCG	777	OAH	NE		301			4	4	4	4	4	4	4	4	4	4	4	4	48
	903	PCG	777	OAH	NE	NPCZZZZZ	301		VEH Sedans	4	4	4	4	4	4	4	4	4	4	4	4	48
- Perf Reviews		PCG	785	OAH	NE		301			8	8	8	8	8	16	48	48	8	8	8	8	184
	903	PCG	785	OAH	NE	NPCZZZZZ	301		VEH Sedans	8	8	8	8	8	16	48	48	8	8	8	8	184
ours)										3,080	2,838	3,424	3,144	3,001	3,058	2,988	3,080	3,152	3,001	2,713	2,908	36,387

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NonLabor Input Sheet - NonProject
2005

Resp Area (RA) PCM

Prepared by J Loose
Date 7/31/2003

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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")												
Uniform pants			610	OAH	NE		201													6,000		6,000
Uniform shirts			610	OAH	NE		201													6,000		6,000
Seals			610	OAH	NE		201			2,800			2,800					2,800				8,400
Tools - Toolroom			610	OAH	NE		201			75	75	75	75	75	400	75	75	75	75	400	75	1,550
Safety Shoes			610	OAH	NE		201			200			200			200			200			800
Field Materials	**902**	**PCM**	**610**	**OAH**	**NE**	**NPCZZZZZ**	**201**		**No escalation**	**3,075**	**75**	**75**	**3,075**	**75**	**400**	**275**	**75**	**2,875**	**275**	**12,400**	**75**	**22,750**
Cell Phones			610	OAH	NE		205			650	650	650	650	650	650	650	650	650	650	650	650	7,800
Office supplies			610	OAH	NE		205					550			550			550			500	2,150
Misc			610	OAH	NE		205			250	250	250	250	250	250	250	250	250	250	250	250	3,000
Tools			610	OAH	NE		205				100			100			100			100		400
Field Materials & Supplies (PC)	**902**	**PCM**	**610**	**OAH**	**NE**	**NPCZZZZZ**	**205**		**No escalation**	**900**	**1,000**	**1,450**	**900**	**1,000**	**1,450**	**900**	**1,000**	**1,450**	**900**	**1,000**	**1,400**	**13,350**
Compact Sedan			610	OAH	NE		301			1,232	1,120	1,288	1,232	1,176	1,232	1,232	1,232	1,232	1,176	1,232	1,288	14,672
Sedans (7) Hours	**902**	**PCM**	**610**	**OAH**	**NE**	**NPCZZZZZ**	**301**		**VEH Sedan**													**14,672**
Pass Mini-Van (1)			610	OAH	NE		301		VEH LightTruck	176	160	184	176	168	176	176	176	176	168	176	184	2,096
Cherokee (1)			610	OAH	NE		301		VEH LightTruck	176	160	184	176	168	176	176	176	176	168	176	184	2,096
Tracker (3)			610	OAH	NE		301		VEH LightTruck	528	480	552	528	504	528	528	528	528	504	528	552	6,288
Vitara (6)			610	OAH	NE		301		VEH LightTruck	1,056	960	1,104	1,056	1,008	1,056	1,056	1,056	1,056	1,008	1,056	1,104	12,576
SUV & Van (11) Hours	**902**	**PCM**	**610**	**OAH**	**NE**	**NPCZZZZZ**	**301**		**VEH LightTruck**	**1,936**	**1,760**	**2,024**	**1,936**	**1,848**	**1,936**	**1,936**	**1,936**	**1,936**	**1,848**	**1,936**	**2,024**	**23,056**
GPS			610	OAH	NE		501			900	900	900	900	900	900	900	900	900	900	900	900	10,800
Handheld Maint Contract - HECo			610	OAH	NE		501			7,300			7,300			7,300			7,300			29,200
Outside Services	**902**	**PCM**	**610**	**OAH**	**NE**	**NPCZZZZZ**	**501**		**No escalation**	**8,200**	**900**	**900**	**8,200**	**900**	**900**	**8,200**	**900**	**900**	**8,200**	**900**	**900**	**40,000**
Handheld Maint Contract-HELCO		PCM	610	HAH	BE	NPCZZZZZ	501		HCF NPCZZZZZ	2,610			2,610			2,610			2,610			10,440
Handheld Maint Contract-MECO		PCM	610	MAU	BE	NPCZZZZZ	501		MCM NPCZZZZZ	2,500			2,500			2,500			2,500			10,000
Outside Services - Billable										**5,110**	**0**	**0**	**5,110**	**0**	**0**	**5,110**	**0**	**0**	**5,110**	**0**	**0**	**20,440**
																			Total Non-labor			**134,268**

NonLabor Input Sheet - NonProject/NonProgram
2005

Resp Area (RA) PCB

Prepared by LS
Date 07/09/02

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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")																						
CB Phone Charges	903	PCB	611	OAH	NE	NPCZZZZZ	201			50	50	50	50	50	50	50	50	50	50	50	50	600
MV90 Phone Charges	903	PCB	611	OAH	NE	NPCZZZZZ	570			20	20	20	20	20	20	20	20	20	20	20	20	240
Material Purchases	903	PCB	611	OAH	NE	NPCZZZZZ	201			200	200	200	200	200	200	200	200	200	200	200	200	2,400
Office Supplies	903	PCB	611	OAH	NE	NPCZZZZZ	205			50	50	50	50	50	50	50	50	50	50	50	50	600
Outside Services	903	PCB	611	OAH	NE	NPCZZZZZ	501			250	250	250	250	250	250	250	250	250	250	250	250	3,000
Training	903	PCB	611	OAH	NE	NPCZZZZZ	501			-	-	-	-	-	-	-	-	5,000	5,000	-	-	10,000
MV90/MV-WEB Maint fee-P	902	PCB	610	OAH	NE	NPCZZZZZ	501				6,050											6,050
MV90/MV-WEB Maint fee-H	Billable	PCB	610	HAH	BE	NPCZZZZZ	501				6,050											6,050
MV90/MV-WEB Maint fee-M	Billable	PCB	610	MAU	BE	NPCZZZZZ	501				6,050											6,050
		PCB																				-
(1) 1/1 - 12/31/03 $16,785/3 = $5,595 x 1.04% x 1.04% = $6,050		PCB																				-
		PCB																				-
		PCB																				-

Total 34,990

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NonLabor Input Sheet - NonProject/NonProgram
2005

Resp Area (RA) PCH

Prepared by L Bronaugh

Date Aug-03

Dimension tab card								Units tab card												
Line Item	NARUC	RA	Act	Loc	Ind	Proj	EE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
*(enter **Dollars** or **Vehicle Hours** in **"Units tab card"**)*																				
MATERIALS	903	PCH	600	OAH	NE	NPCZZZZZ	205	720	720	720	720	720	720	720	720	720	720	720	720	8,640
MAINT LL	903	PCH	600	OAH	NE	NPCZZZZZ	600	-	-	-	-	-	-	-	-	-	-	5,000	-	5,000
UTILITY-Telephone Chgs	903	PCH	600	OAH	NE	NPCZZZZZ	501	720	720	720	720	720	720	720	720	720	720	720	720	8,640
Training	903	PCH	789	PHE	NE	NPCZZZZZ	501	-	-	-	2,250	3,000	-	5,000	2,400	-	10,000	-	-	22,650
		PCH																		-
		PCH																		-
		PCH																		-
		PCH																		-
		PCH																	TOTAL	44,930

NonLabor Input Sheet - NonProject/NonProgram
2005

Resp Area (RA) PCS

Prepared by L Bronaugh

Date Jul-03

Dimension tab card								Units tab card												
Line Item	NARUC	RA	Act	Loc	Ind	Proj	EE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
*(enter **Dollars** or **Vehicle Hours** in **"Units tab card"**)*																				
Stationery/Supplies	903	PCS	600	OAH	NE		201	206	206	206	206	206	206	206	206	206	206	206	206	2,472
Purchase Card	903	PCS	600	OAH	NE		205	600	600	600	600	600	600	600	600	600	600	600	600	7,200
O/S Services	903	PCS	600	OAH	NE		501	-	-	300	-	-	300	-	-	300	-	-	300	1,200
Seminars & Conf	903	PCS	789	OAH	NE		501	-	-	-	3,000	-	-	5,000	-	5,000	-	-	-	13,000
Training Supplies	903	PCS	789	PHE	NE		201	100	100	100	100	100	100	100	100	100	100	100	100	1,200
PC Software	903	PCS	600	OAH	NE		462	400	-	-	-	-	-	-	-	-	-	-	-	400
		PCS																		-
		PCS																		-
		PCS																		-
		PCS																		-
		PCS																		-
		PCS																		-
		PCS																		-
		PCS																	TOTAL	25,472

Administration Division **PCA**, Customer Service Dept.

CA-IR-2 (c), (d), (e)

For each budgeted non-labor amount in the test period forecast that exceeds $50,000, describe the basis for determining the budgeted amount.

For each item in your response, where specific quantities and prices were discretely forecasted, explain the basis

Customer Information Systems support, of $204,000 represents the cost of supporting an aged mainframe system

Hawaiian Electric Company
Book Bad Debt Expense
2005 Operating Forecast
($ in thousands)

CA-IR-2 (c) , (d) & (e)

RA - PCD

Bad Debt % = **0.13%**

	2005					
Month	Billed Revenues	Bad Debt	Unbilled Revenues	Bad Debt	Total Revenues	Total Bad Debt
Jan	66,841.9	86.9		0.0	66,841.9	86.9
Feb	62,037.7	80.6		0.0	62,037.7	80.6
Mar	67,132.1	87.3		0.0	67,132.1	87.3
Apr	65,355.1	85.0		0.0	65,355.1	85.0
May	68,641.0	89.2		0.0	68,641.0	89.2
Jun	68,705.5	89.3		0.0	68,705.5	89.3
Jul	70,731.8	92.0		0.0	70,731.8	92.0
Aug	73,086.0	95.0		0.0	73,086.0	95.0
Sep	73,739.1	95.9		0.0	73,739.1	95.9
Oct	74,385.9	96.7		0.0	74,385.9	96.7
Nov	70,502.2	91.7		0.0	70,502.2	91.7
Dec	71,271.1	92.7		0.0	71,271.1	92.7
	832,429.4	1,082.3	0.0	0.0	832,429.4	1,082.3

To code block:
PCD 618 OAH NE 900
(PCD to input
to Pillar).

NOTE: Per Additional Rate Relief Calculation from Forecast Division per Pf080205.xls

nt Processing Division

& (e)

2005 Collection Agency Expense

ecoveries	26,667	26,667	26,667	26,667	26,667	26,667	26,667	26,667	26,667	26,667	26,667	26,667	320,000
& Credit Reporting Expense	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	96,000
	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	

unpredictable collection rate of the assigned collection agencies, the $8,000 was
nthly recovery of approximately $30,000 of which 30% is paid to the agency. Also
sideration was pervious performance.

	2003	2002
ctual collations per month:	6,992.74	7,375.72
Jan	9,656.72	
Feb	14,143.49	6092.57
Mar	(1,396.11)	10836.6
Apr	6,211.31	6958.68
May	9,187.55	3246.85
Jun	7,019.03	11543.47
Jul	5,341.83	4411.06
Aug	3,012.77	6610.55
Sep	10,886.61	3315.6
Oct		2234.98
Nov	4,218.09	7084.21
Dec	8,638.88	18798.35

RA - **PCP**

HAWAIIAN ELECTRIC COMPANY, INC.
Customer Service Dept. - Payment Processing PCP
Vendor List

2005

2003 PO#	WO#	Supplier No.	**Maintenance**	Description	Date of Agt	Renewal Date	Copy on File	Average Monthly Charges	Average Annual Costs 2005
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]

Field Division, Customer Service Dept.

CA-IR-2 (c), (d), (e)

For each budgeted non-labor amount in the test period forecast that exceeds $50,000, describe the basis for determining the budgeted amount.

For each item in your response, 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.

Meter Reading (PCM) transport cost of **$169,252** - This cost is determined by:

Vehicle hours x Vehicle rate (rate determined by the Accounting Department)

The following lists the specific costs:

Vehicle Hours (by type of vehicle)	2005 Budgeted Vehicle Rate	Total ($)
14,672 (7 sedans)	$2.50	36,680
23,056 (11 SUV & vans)	$5.75	132,572
Total	-	**$169,252**

The per unit (vehicle) allocation is 2,096 hours/unit. Thus, 7 sedans are allocated for 14,672 hours (7 units x 2,096 hours/unit) and 11 SUV & Vans are allocated for 23,056 hours (11 units x 2,096 hours/unit). After applying the vehicle rates budgeted for 2005, the total transport cost is $169,252 [(14,672 x $2.50) + (23,056 x $5.75)].

INTEROFFICE CORRESPONDENCE

Hawaiian Electric Co., Inc.

July 30, 2003

To: Officers
Direct Reports to Officers

Subject: Instructions for Refining the 2004-2008 Project/Program Estimates and Preparing the 2004-2005 Non-Project/Non-Program Estimates

Transmitted herewith is information regarding the preparation of HECO's capital and operating budgets.

Attachment:	Description:
A	Budget Preparation Schedule
B	Budgeting Responsibilities Unique to an Organization
C	Reference Materials

This year's Budget Preparation Schedule can be found on Attachment A. Workshops will be held to help users in developing their budgets and answering questions regarding the codeblock. Workshops will be held in Classroom B on Wednesday August 6th and Tuesday August 12th, from 8:00am to noon. See page three of attachment A for additional information, including class size limitation. Information regarding the Officer's Briefing Sessions, which are scheduled for September 17th and 19th, and October 1st, 8th and 15th and required forms will be forthcoming. Please note that select organizations may be

Please refer to attachment B for any specific budget responsibilities unique to your organization. Please

Attachment A

BUDGET PREPARATION SCHEDULE

Preparation:

Aug 4 — Estimates for Information Technology and Services (ITS).
ITS (Rick Stuber) issues memo regarding IT items departments need to forecast

Aug 6 & 12 8am-Noon — Workshops available to help users prepare and input budget into Pillar (see page 3 for additional information.)

Intercompany Billing (ICB) Schedule:

Jul 31 – Aug 7 — Provider of service develops estimate and inputs required information for ICBs in Pillar files. ICB reports, "ICB Direct Labor Cost", "ICB Direct Total Cost", and "ICB Labor Hours" are included in the Expenses Module of your Pillar files. Note that the "ICB Direct Labor Cost" and "ICB Direct Total Cost" reports do not include on-costs.

No later than Aug 7 — Provider of service places appropriate Pillar file(s) in appropriate folder on the O:drive.

Aug 12 — HECO Pillar Administrator consolidates files, provides HELCO/MECO Pillar Administrator with file containing ICB estimates and information, and provides non-utility contact persons with reports containing ICB estimates and information.

Aug 14 — HELCO/MECO Pillar Administrator distributes ICB estimates and information to respective departments for review and approval

Aug 15 – 26 — Receiver of services approves ICB estimates on ICB report and sends a signed copy of the report to provider. For Utility Companies, also send a copy of the report to your Pillar Administrator. Revisions, if any, must be reflected in the Pillar files of the provider and receiver of services

Detail Budgeting - 2004-2008 Project and Program, and 2004-2005 Non-Project/Non-Program Estimates:

July 31 — Pillar file distribution:

- Pillar Administrator distributes Project and Non-Project files to Department folders
- Consolidators, if applicable, distribute Project and Non-Project files to persons responsible

Attachment A

(cont'd):

Aug 14 Complete revisions to 2004-2005 labor estimates for REVISED resource leveling:

- Users complete revisions to 2004-2005 labor estimates in Project (for project and program demand) and Non-Project (for non-project/non-program demand and RA supply) files
- Users place copy of completed Project and Non-Project files in the appropriate folder on the O: drive by 12 noon

Pillar Administrator distributes revised Resource Leveling Reports for review, analysis, and to aid in balancing RA resource supply and demand.

Aug 18 Pillar Administrator distributes ViewBud RA file, which shows total Capital and O&M (including on-costs) for comparison purposes

Aug 20 Complete Project and Program budget & update:

- Users complete 2003 update and 2004-2008 project and program estimates in Project files
- Users place copy of completed Project files in the appropriate folder on the O: drive by 12 noon

Attachment A

WORKSHOP SCHEDULE

Workshops have been created to help users develop their budgets and input estimates in Pillar and answer questions regarding the Code Block (RA, activity, location, indicator, project number, expense element combination). Your attendance at the Workshops is optional, and note that no formal presentations will be made. Please bring materials that will help you in developing your estimates. If you have Pillar questions, please make sure to place a copy of your Pillar file on your department shared drive so that the files may be accessed in Classroom B.

[illegible] at Classroom B from 8am to 12 noon:

Wednesday, August 6
Tuesday, August 12

Reservations will be taken on a first-come, first-served basis. Note that only ten PCs are available so only ten individuals will be able to input their budget into Pillar at a time. To reserve a space, please e-mail Wendy Yamamoto with the attendee(s) name, RA code, phone number, and first and second choice of date.

Attachment C

REFERENCE MATERIALS

The following reference materials are available on the HECO Intranet under Management Accounting:

Document	Information Included
Planning & Budgeting:	
2004-2005 Budget Preparation Instructions	Guidelines, cost distribution reminders, capital project information, other items, instructions for developing inter-company billing estimates

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

INFORMATION TECHNOLOGY DEPARTMENT
NONPROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
NONLABOR

12/20/2004

_ept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Proj	_Act	_Loc	_EE	FY05
InfoTech	PEM	Mailing Services	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	966	PHE	501	3,493
											$3,493.00
											28,741
InfoTech	PEM	Mailing Services	B38								$365,200.60
						ERNEST SHIRAKI					
InfoTech	PEM	Mailing Services	B39	A & G Maint	932	Non-Labor	NPEZZZZZ	966	PHE	600	36,780
											$36,780.00
											36,780
InfoTech	PEM	Mailing Services	B39								$36,780.00
						TAYNE SEKIMURA					
											EBUS
InfoTech	PEM										AMORTIZATION 69,277
											$488,631.52
InfoTech	PEP	Project & Bus Mgt	B30	Prod Oper	506	Non-Labor	NPNEZZZZ	730	PPO	901	9,644.84
											$9,644.84
											9,644.84
InfoTech	PEP	Project & Bus Mgt	B30								$9,644.84
						AARON FUJINAKA					
InfoTech	PEP	Project & Bus Mgt	B34	Distribution Oper	587	Non-Labor	NPNEZZZZ	600	OAH	901	38,579.13
											$38,579.13
											38,579.13
InfoTech	PEP	Project & Bus Mgt	B34								$38,579.13
						STEVE YOSHIDA					
InfoTech	PEP	Project & Bus Mgt	B36	Customer Accounts	903	Non-Labor	NPNEZZZZ	611	OAH	901	38,579.13
											$38,579.13
											38,579.13
InfoTech	PEP	Project & Bus Mgt	B36								$38,579.13
						DARREN YAMAMOTO					
InfoTech	PEP	Project & Bus Mgt	B37	Customer Services	910	Non-Labor	NPNEZZZZ	110	PHE	901	18,903.71
											$18,903.71
InfoTech	PEP	Project & Bus Mgt	B37	Customer Services	910	Non-Labor	NPNEZZZZ	713	PHE	901	48,509.61
											$48,509.61
InfoTech	PEP	Project & Bus Mgt	B37	Customer Services	910	Non-Labor	NPNEZZZZ	750	PHE	901	28,934.41
											$28,934.41
											96,447.73
InfoTech	PEP	Project & Bus Mgt	B37								$96,447.73
						ALAN HEE					
InfoTech	PEP	Project & Bus Mgt	B38	A & G Operation	925	Non-Labor	NPNEZZZZ	950	PHE	901	9,644.84
											$9,644.84
											9,644.84
InfoTech	PEP	Project & Bus Mgt	B38								$9,644.84
						RUSSELL HARRIS					
											192,895.67
InfoTech	PEP										$192,895.67
InfoTech	PEZ	ISD Chargeback	B30	Prod Oper	500	Non-Labor	NPYZZZZZ	201	WST	451	103,512
											$103,512.00
InfoTech	PEZ	ISD Chargeback	B30	Prod Oper	502	Non-Labor	NPAVP2ZZ	245	KST	451	12,900
											$12,900.00

12/20/2004

Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Proj	_Act	_Loc	_EE	FY05
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	584	Non-Labor	NPAVP2ZZ	462	OAH	451	3,720 $3,720.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	586	Non-Labor	NPWZZZZZ	465	OAH	451	16,944 $16,944.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	586	Non-Labor	NPWZZZZZ	603	OAH	451	68,316 $68,316.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	586	Non-Labor	NPDZZZZZ	455	OAH	451	701,676 $701,676.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	588	Non-Labor	NPEZZZZZ	455	OAH	451	4,788 $4,788.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	588	Non-Labor	NPEZZZZZ	456	OAH	451	81,528 $81,528.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	588	Non-Labor	NPRZZZZZ	456	OAH	451	69,036 $69,036.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	588	Non-Labor	NPWZZZZZ	826	PDO	451	54,696 $54,696.00
InfoTech	PEZ	ISD Chargeback	B34			STEVE YOSHIDA					1,017,000 $1,017,000.00
InfoTech	PEZ	ISD Chargeback	B35	Distribution Maint	592	Non-Labor	NPAVP2ZZ	486	OAH	451	2,124 $2,124.00
InfoTech	PEZ	ISD Chargeback	B35	Distribution Maint	593	Non-Labor	NPAVP2ZZ	474	OAH	451	6,648 $6,648.00
InfoTech	PEZ	ISD Chargeback	B35	Distribution Maint	594	Non-Labor	NPAVP2ZZ	477	OAH	451	6,516 $6,516.00
InfoTech	PEZ	ISD Chargeback	B35	Distribution Maint	598	Non-Labor	NPAVP2ZZ	420	OAH	451	80,088 $80,088.00
InfoTech	PEZ	ISD Chargeback	B35			STEVE YOSHIDA					95,376 $95,376.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	901	Non-Labor	NPCZZZZZ	720	PHE	451	781,465 $781,465.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	902	Non-Labor	NPCZZZZZ	610	OAH	451	41,916 $41,916.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	903	Non-Labor	NPAZZZZZ	612	OAH	451	5,472 $5,472.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	903	Non-Labor	NPCZZZZZ	611	OAH	451	107,928 $107,928.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	903	Non-Labor	NPCZZZZZ	614	OAH	451	9,084 $9,084.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	903	Non-Labor	NPEZZZZZ	616	OAH	451	69,828 $69,828.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	903	Non-Labor	NPNEZZZZ	611	OAH	451	160,812 $160,812.00
InfoTech	PEZ	ISD Chargeback	B36			DARREN YAMAMOTO					1,176,505 $1,176,505.00
InfoTech	PEZ	ISD Chargeback	B37	Customer Services	910	Non-Labor	NPEZZZZZ	713	PHE	451	136,092 $136,092.00
InfoTech	PEZ	ISD Chargeback	B37	Customer Services	910	Non-Labor	NPEZZZZZ	714	PHE	451	0 $0.00
InfoTech	PEZ	ISD Chargeback	B37	Customer Services	910	Non-Labor	NPNEZZZZ	110	PHE	451	78,780 $78,780.00

Hawaiian Electric Company, Inc.
Information Technology & Services Department
ITS Costing System Allocated Costs - PEZ Entries

HECO's IT costs are allocated to functional area code blocks via the IT Costing System. The allocation entries are coded with the Responsibility Area (RA) code PEZ in HECO's financial system. The following is a general description of the PEZ budgeting methodology. Workpapers A-1 through A-7 show the detail allocation amounts for 2005.

Costs to be Cleared

IT Non-Project and non-capital Project costs represent the base of costs to be allocated. These costs are coded with Indicator NC (Non-billable clearing) and are therefore said to be subject to "Clearing". For 2005, the Costs to be Cleared were estimated to be $12,865,283, as shown on workpaper A-1. Details of these costs are shown on workpapers B and C.

Costs Cleared to

IT Costs are cleared to the following categories:

1) HELCO IT Costing System Direct Charges (2005 Estimate - $226,338)
2) MECO IT Costing System Direct Charges (2005 Estimate - $177,768)
3) Non-ITS Project Charges - Expense Element 451 transactions (2005 Estimate - $709,008)
4) Intercompany Billings (2005 Estimate - $265,335)
5) EFMS Program Charges (2005 Estimate - $799,992)
6) Ebusiness Program Charges (2005 Estimate - $758,292)
7) Other Functional Area Charges ($9,928,550)

Basis for Clearing

Amounts which are cleared to the first 4 items above (HELCO/MECO IT Direct Charges, Non-ITS Project Charges, Intercompany Billings) are directly identified. Workpapers D, E, and F show the basis for the amounts included in the 2005 budget.

Amounts which are cleared for items 5 (EFMS Program) and 6 (Ebusiness Program) are estimated by the Program Managers of these IT-Managed programs. Costs are cleared to HECO functional area code

PEZ ALLOCATION MODEL

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

	RA	Act	Loc	Ind	Project	EE	Monthly 05		Total 2005
COSTS TO BE CLEARED:									
Total NC charges									
NC per Non-Project								B	9,093,607
Non-Project on-cost								B	2,149,763
NC per EFMS Project								C	800,000
NC per EBUS Project								C	758,300
NC per Other Projects								C	63,613
Total NC charges							1,072,107		12,865,283
COSTS CLEARED TO:									
Less: HELCO-IT Costing System direct charge per B. Tobara							18,862	D	226,338
Less: MECO-IT Costing System direct charge per B. Tobara							14,814	D	177,768
Less: Expense Element 451 charges by non-ITS PMs								E	709,008
									11,752,169
Less: InterCompany									
	PEZ	700	RHI	BE	NPASVP7Z	451	89	F	1,070
	PEZ	775	HEI	BE	NPFZZZZZ	451	212	F	2,544
	PEZ	776	HEL	BE	NPFZZZZZ	451	212	F	2,544
	PEZ	777	MAU	BE	NPFZZZZZ	451	212	F	2,544
	PEZ	776	HEI	BE	NPFZZZZZ	451	167	F	1,998
	PEZ	776	HPC	BE	NPFZZZZZ	451	7	F	87
	PEZ	776	PEC	BE	NPFZZZZZ	451	15	F	174
	PEZ	778	HEI	BE	NPFZZZZZ	451	87	F	1,045

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE	Monthly 05	Total 2005
PEZ	455	OAH	NC	NPEZZZZZ		3,928	47,136.00
PEZ	455	OAH	NE	NPEZZZZZ		399	4,788.00
PEZ	456	OAH	NE	NPEZZZZZ		6,794	81,528.00
PEZ	600	OAH	NE	NPWZZZZZ		14,944	179,328.00
PEZ	907	OAH	NC	NPBZZZZZ		1,993	23,916.00
PEZ	926	PHE	NE	NPEZZZZZ		1,108	13,296.00
PEZ	931	PHE	NE	NPEZZZZZ		2,038	24,456.00
Total EFMS						66,667	799,992.00
			NE	42%	NE		331,944.00
			NC	58%	NC		468,048.00
			Total	100%			799,992.00

Jmax: Business_allocations

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE	Monthly 05	Total 2005
PEZ	242	KST	NE	**NPIZZZZZ**	451	6,904	82,848
PEZ	242	WST	NE	**NPIZZZZZ**	451		
PEZ	242	HST	NE	**NPIZZZZZ**	451		
	242 Total						
PEZ	245	KST	NE	NPAVP2ZZ	451	1,075	12,900
	245 Total						
PEZ	246	KST	NE	NPAVP2ZZ	451	898	10,776
	246 Total						
PEZ	256	WST	NE	**NPIZZZZZ**	451	34,054	408,648
PEZ	256	KST	NE	**NPIZZZZZ**	451		
PEZ	256	HST	NE	**NPIZZZZZ**	451		
	256 Total						

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE	Monthly 05	Total 2005
PEZ	714	PHE	NE	NPEZZZZZ	451		
	714 Total						
PEZ	720	PHE	NS	**NPCZZZZZ**	451	60,493	725,916
PEZ	720	PHE	NE	NPNEZZZZ	451		
	720 Total						
PEZ	722	PHE	NE	**NPFZZZZZ**	451	1,667	20,004
	722 Total						
PEZ	730	PPO	NE	NPEZZZZZ	451	367	4,404
	730 Total						
PEZ	736	PHE	NE	NPSZZZZZ	451	2,910	34,920
PEZ	736	PHE	NE	P0000035	451		
	736 Total						
PEZ	738	PHE	NE	**NPNPZZZZ**	451	3,648	43,776
	738 Total						
PEZ	750	PHE	NE	**NPQCZZZZ**	451	11,685	140,220
	750 Total						
PEZ	753	PHE	NE	NPQEZZZZ	451	5,155	61,860
	753 Total						
PEZ	760	PHE	NE	NPNAZZZZ	451	3,718	44,616
	760 Total						
PEZ	765	PHE	NE	**NPFZZZZZ**	451	5,693	68,316
PEZ	765	PHE	NE	NPPZZZZZ	451		
	765 Total						
PEZ	766	PHE	NE	NPAVP2ZZ	451	2,384	28,608
PEZ	766	PHE	NE	**NPAVP6ZZ**	451		
	766 Total						
PEZ	767	PHE	NE	**NPFZZZZZ**	451	5,083	60,996
	767 Total						
PEZ	775	PHE	NE	NPFZZZZZ	451	1,605	19,260
	775 Total						
PEZ	776	PHE	NE	NPFZZZZZ	451	9,751	117,012
	776 Total						
PEZ	777	PHE	NE	NPAVP2ZZ	451	23,239	278,868
PEZ	777	PHE	NE	NPAZZZZZ	451		
	777 Total						
PEZ	778	PHE	NE	NPFZZZZZ	451	2,742	32,904
	778 Total						
PEZ	779	PHE	NE	NPFZZZZZ	451	2,994	35,928

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE	Monthly 05	Total 2005
PEZ	818	PHE	NE	NPAVP1ZZ	451		
PEZ	818	PHE	NE	NPAZZZZZ	451		
	818 Total						
PEZ	825	PHE	NE	NPKZZZZZ	451	1,452	17,424
	825 Total						
PEZ	826	PHE	NE	NPKZZZZZ	451	4,289	51,468
PEZ	826	PHE	NE	NPAVP4ZZ	451		
	826 Total						
PEZ	827	PHE	NE	NPKZZZZZ	451	2,846	34,152
	827 Total						
PEZ	842	PHE	NE	NPVZZZZZ	451	16,574	198,888
PEZ	842	PHE	NE	NPAVP2ZZ	451		
	842 Total						
PEZ	843	PHE	NE	NPAVP2ZZ	451	16,353	196,236
PEZ	843	PHE	NE	NPEZZZZZ	451		
PEZ	843	PHE	NI	P0000340	451		
PEZ	843	PHE	NE	NPAZZZZZ	451		
	843 Total						
PEZ	850	PHE	NE	NPAVP2ZZ	451	4,484	53,808
PEZ	850	PHE	NE	NPIZZZZZ	451		
	850 Total						
PEZ	853	PHE	NC	NPVZZZZZ	451	12,945	155,340
	853 Total						
PEZ	875	HST	NE	NPIZZZZZ	451	7,005	84,060
PEZ	875	PHE	NE	NPIZZZZZ	451		
	875 Total						
PEZ	876	PHE	NE	NPIZZZZZ	451	11,888	142,656
	876 Total						
PEZ	896	PHE	NE	NPEZZZZZ	451	3,417	41,004
	896 Total						
PEZ	899	PHE	NE	NPKZZZZZ	451	-	-
	899 Total						
PEZ	907	OAH	NC	NPBZZZZZ	451	1,570	18,840
PEZ	907	OAH	NC	NPEZZZZZ	451		
	907 Total						
PEZ	916	PHE	NC	NPRZZZZZ	451	2,846	34,152
	916 Total						
PEZ	926	PDO	NE	NPWZZZZZ	451	4,558	54,696
PEZ	926	PHE	NE	NPNLZZZZ	451		
	926 Total						
PEZ	928	PHE	NE	NPNLZZZZ	451	3,262	39,144
	928 Total						
PEZ	931	PHE	NE	NPHZZZZZ	451	5,009	60,108
	931 Total						
PEZ	932	PHE	NE	NPVZZZZZ	451	2,950	35,400
	932 Total						
PEZ	933	PHE	NE	NPHZZZZZ	451	5,605	67,260
	933 Total						
PEZ	940	PHE	NC	NPVZZZZZ	451	6,366	76,392
PEZ	940	PHE	NC	NPEZZZZZ	451		
	940 Total						

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE	Monthly 05	Total 2005

4/20/2004 » budget manager: P... 11:49AM

Dept	Expense Categ...	FY05 Upd04 RA
InfoTech	Labor	$4,714,393
	Materials	$105,604
	On-Costs	0
	Other	$1,181,513
	Outside Svcs	$3,090,837
	Transportation	$1,260
		$9,093,607

SEE WORKPAPER B-3 FOR DETAILS

LABOR

LABOR ON-COST %

3

NON-P.T.L.T. TOTAL CHARGES

4/20/2004 » budget manager: P... 11:49AM

NOTE: USED TO CALCULATE LABOR ON-COST?

Dept	Expense Categ...		FY05 Upd04 RA
InfoTech	Labor	L	$6,241,212
	Materials	A	$314,204
	On-Costs	L	$2,875,047
	Other		$1,761,191
	Outside Svcs		$3,311,618
	Transportation		$23,040
			$14,526,312

MATERIAL A

MATERIAL ON-COST 2,78750 2

TOTAL ON-COST B 2,875,047

LABOR ON-COST 2,246,297

LABOR [illegible] L

On-Costs and Vehicle Rates

On-Cost	2004 Budget Rates	1/1/2004 Recorded Rates	2/1/2004 Recorded Rates	4/1/2004 Recorded Rates	Preliminary 2005 Budget Rates
Payroll Taxes	8.51%	8.51%	8.51%	8.51%	8.42%
Employee Benefits	$6.25	$9.38	$5.96	$5.96	$6.46
Non-Productive Wages	$4.44	$4.44	$4.44	$4.44	$3.84
Corporate Administration	$2.76	$2.89	$2.74	$2.74	$2.86
Customer Engineering	$113.55	$119.53	$100.00	$90.00	$98.56
Stores	12.00%	12.55%	10.70%	10.70%	9.15%
Energy Delivery	$26.80	$28.22	$27.75	$27.75	$26.88
Power Supply	$6.38	$6.72	$6.24	$6.24	$6.70
Vehicles					
Heavy Trucks (VH)	$12.50	$12.47	$16.39		$12.50
Medium Trucks (VM)	$8.50	$9.45	$12.53		$8.75
Light Trucks (VL)	$5.50	$5.08	$4.98		$5.50
Sedans (VS)	$2.75	$1.89	$2.79		$2.50
Condor 150l (VC)	$58.25	$31.79	$37.32		$59.25
Misc (VZ)	$1.50	$1.26	$1.55		$1.50
Caterpillar (VX)	$4.25	$2.25	$2.61		$4.25

x B-1

Productive labor is labor less non-productive hours such as holiday, sick, vacation, etc.

Effective 1/1/01, there are no recorded vehicle rates. Instead, transportation clearing costs are allocated monthly to (1) assigned vehicles based on 8 hours per day, Monday through Friday, excluding holidays and (2) pool vehicles based on actual usage.

NON-PROJECT "NC" CHARGES

12/22/2004 » budget manager: PR300 NPUpd - Exp Category $ 9:12AM

Dept	*RA #	*Act #	*Ind #	*Loc #	*Proj #	*EE #	Line Item	FY05 Upd04 RA	Expense Category
InfoTech	PEA	730	NC	PHE	NPEZZZZZ	150	E res new tech 730	$7,796	Labor
InfoTech	PEA	777	NC	PHE	NPEZZZZZ	150	I process payroll 777	$2,365	Labor
InfoTech	PEA	890	NC	PHE	NPEZZZZZ	150	E dev-new 890	$32,484	Labor
InfoTech	PEA	891	NC	PHE	NPEZZZZZ	150	E dev comp apps enh 891	$27,287	Labor
InfoTech	PEA	895	NC	PHE	NPEZZZZZ	150	E mainframe 895	$10,395	Labor
InfoTech	PEA	896	NC	PHE	NPEZZZZZ	150	E LAN 896	$20,790	Labor
InfoTech	PEA	897	NC	PHE	NPEZZZZZ	150	E desktop-bus 897	$11,694	Labor
InfoTech	PEA	898	NC	PHE	NPEZZZZZ	150	E desktop-tech 898	$9,096	Labor
InfoTech	PEA	901	NC	PHE	NPEZZZZZ	150	E provide IT cust asst 901	$10,395	Labor
InfoTech	PEA	901	NC	PHE	NPEZZZZZ	150	I provide IT cust asst 901	$44,648	Labor
InfoTech	PEC	701	NC	PHE	NPEZZZZZ	150	TC Dev Mnge Fcst 701	$12,234	Labor
InfoTech	PEC	721	NC	PHE	NPEZZZZZ	150	TC Dev Meas & Ant Perf 721	$41,673	Labor
InfoTech	PEC	840	NC	PHE	NPEZZZZZ	150	TC Admin Oth Procur Pgm 840	$6,117	Labor
InfoTech	PEC	842	NC	PHE	NPEZZZZZ	150	I order mat'ls equip-clrg 842	$9,757	Labor
InfoTech	PEC	844	NC	PHE	NPEZZZZZ	150	I prepare contracts-clrg 844	$47,900	Labor
InfoTech	PEC	844	NC	PHE	NPEZZZZZ	150	TC prep/mge contracts-clrg 844	$24,468	Labor
InfoTech	PEC	901	NC	PHE	NPEZZZZZ	150	FS IT cust asst 901	$51,605	Labor
InfoTech	PEC	901	NC	PHE	NPEZZZZZ	150	TC provide it customer assistance-clrg 901	$295,533	Labor
InfoTech	PEC	901	NC	PHE	NPEZZZZZ	150	I provide IT cust asst-clrg 901	$183,913	Labor
InfoTech	PEC	965	NC	PHE	NPEZZZZZ	150	FS dev mng fcst 701	$17,367	Labor
InfoTech	PEC	966	NC	PHE	NPEZZZZZ	150	FS maint rel 721	$8,435	Labor
InfoTech	PEC	967	NC	PHE	NPEZZZZZ	150	FS Org Dev Strat 722	$8,435	Labor
InfoTech	PED	730	NC	PHE	NPEZZZZZ	150	TC new tech 730	$18,351	Labor
InfoTech	PED	785	NC	PHE	NPEZZZZZ	150	FS Plan Emp Trng & Dev 785	$8,435	Labor
InfoTech	PED	789	NC	PHE	NPEZZZZZ	150	TC attend training 789	$55,436	Labor
InfoTech	PED	890	NC	PHE	NPEZZZZZ	150	TC develop comp apps-new 890	$221,746	Labor
InfoTech	PED	891	NC	PHE	NPEZZZZZ	150	FS develop comp apps-enh 891	$76,911	Labor
InfoTech	PED	891	NC	PHE	NPEZZZZZ	150	TC develop comp apps-enhanced 891	$1,532,721	Labor
InfoTech	PED	901	NC	PHE	NPEZZZZZ	150	TC Prov IT Cust Assist 901	$18,351	Labor
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	150	FS oper & main mainframe 895	$13,894	Labor
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	150	BUOC oper & main mainframe 895	$216,509	Labor
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	150	TCS oper & main mainframe 895	$63,476	Labor

SEE HOURS/ EMPLOYEES ON WORKPAPER B-4

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Dept	*RA #	*Act #	*Ind #	*Loc #	*Proj #	*EE #	Line Item		FY05 Upd04 RA	Expense Category
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	150	TC oper & main mainframe 895		$242,391	Labor
InfoTech	PEI	896	NC	PHE	NPEZZZZZ	150	FS oper & main LAN 896		$46,147	Labor
InfoTech	PEI	896	NC	PHE	NPEZZZZZ	150	I oper & main LAN 896		$50,561	Labor
InfoTech	PEI	896	NC	PHE	NPEZZZZZ	150	TC oper & main LAN 896		$423,611	Labor
InfoTech	PEI	897	NC	PHE	NPEZZZZZ	150	TC oper & main desktop 897		$116,225	Labor
InfoTech	PEI	897	NC	PHE	NPEZZZZZ	150	I oper & maint desktop 897		$45,239	Labor
InfoTech	PEI	897	NC	PHE	NPEZZZZZ	150	FS oper & main desktop 897		$32,253	Labor
InfoTech	PEI	900	NC	PHE	NPEZZZZZ	150	I op desk top offc telecom 900		$44,056	Labor
InfoTech	PEP	700	NC	PHE	NPEZZZZZ	150	FS dev & adm bus plans 700		$4,466	Labor
InfoTech	PEP	700	NC	PHE	NPEZZZZZ	150	TC dev & adm bus plans 700		$10,323	Labor
InfoTech	PEP	701	NC	PHE	NPEZZZZZ	150	TC dev & mg fcst 701		$51,613	Labor
InfoTech	PEP	722	NC	PHE	NPEZZZZZ	150	TC org dev strat 722		$20,645	Labor
InfoTech	PEP	722	NC	PHE	NPEZZZZZ	150	FS org dev strat 722		$8,932	Labor
InfoTech	PEP	730	NC	PHE	NPEZZZZZ	150	TC research new tech 730		$77,229	Labor
InfoTech	PEP	730	NC	PHE	NPEZZZZZ	150	FS rsrch new technology 730		$57,063	Labor
InfoTech	PEP	765	NC	PHE	NPEZZZZZ	150	FS empl pol prac proc 765		$4,466	Labor
InfoTech	PEP	785	NC	PHE	NPEZZZZZ	150	FS performance appraisals 785		$4,466	Labor
InfoTech	PEP	789	NC	PHE	NPEZZZZZ	150	TC attend training - local 789		$5,352	Labor
InfoTech	PEP	890	NC	PHE	NPEZZZZZ	150	TC develop apps - new 890		$20,645	Labor
InfoTech	PEP	891	NC	PHE	NPEZZZZZ	150	TC maintain apps - enhances 891		$211,041	Labor
InfoTech	PEP	896	NC	PHE	NPEZZZZZ	150	TC op and maintain LAN 896		$51,613	Labor
InfoTech	PEP	906	NC	PHE	NPEZZZZZ	150	TC plan the Sys Telecom 906		$66,906	Labor
InfoTech	PEP	906	NC	PHE	NPEZZZZZ	150	FS telecom-man, engr, design 906		$8,932	Labor
InfoTech									$4,714,393	Labor
InfoTech	PEA	901	NC	PHE	NPEZZZZZ	205	Materials-misc, cells, pagers	<EA>	$42,500	Materials
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	201	Laser forms	<Eo>	$19,404	Materials
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	201	Laser supplies	<Eo>	$4,000	Materials
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	201	Micr toner forms	<Eo>	$7,000	Materials
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	201	Tapes		$1,500	Materials
InfoTech	PEI	896	NC	PHE	NPEZZZZZ	201	Cabling	<ES>	$7,200	Materials
InfoTech	PEI	897	NC	PHE	NPEZZZZZ	201	PC hdwre purchases	<EI>	$24,000	Materials
InfoTech									$105,604	Materials

based on history

B-3

9:12AM

5 A	Expense Category	
)	Other	BASED ON HISTORY
)	Other	
)	Other	
)	Other	
)	Other	
)	Other	
)	Other	
)	Other	
)	Other	
)	Other	
)	Other	
0	Other	
)	Other	NEW 2005 BUDGET
0	Other	BASED ON HISTORY
3	Other	
3	Other	
0	Outside Svcs	BASED ON HISTORY
)	Outside Svcs	
0	Outside Svcs	
0	Outside Svcs	
3	Outside Svcs	
5	Outside Svcs	
0	Outside Svcs	
6	Outside Svcs	
2	Outside Svcs	
1	Outside Svcs	
4	Outside Svcs	
6	Outside Svcs	
0	Outside Svcs	
0	Outside Svcs	
0	Outside Svcs	

Version: Mar04

» budget manager: PR300 NPUpd - Exp Category $ 9:12AM

	*EE #	Line item		FY05 Upd04 RA	Expense Category	
ZZ	501	10 ISDN Phones		$4,800	Outside Svcs	based upon
ZZ	501	MEA for HECO	<EC>	$311,000	Outside Svcs	
ZZ	501	PC maintenance	<EI>	$374,400	Outside Svcs	
ZZ	501	EFMS maint (Intergraph)	<EI>	$275,000	Outside Svcs	
ZZ	501	Generator propane	<EI>	$540	Outside Svcs	
ZZ	501	Moves, adds, chgs	<EI>	$6,000	Outside Svcs	
ZZ	501	Long Distance Charges	<ES>	$20,000	Outside Svcs	
ZZ	501	Directory Listing	<EI>	$7,200	Outside Svcs	
				$3,090,837	Outside Svcs	
ZZ	301	Car pools		$1,260	Transportation	based on [illegible]
				$1,260	Transportation	
				$9,093,607		

HOURS / EMPLOYEES – "NC" CHARGES

12/22/2004 » budget manager: PR110H NPUpd - Det... 1:06PM

*R...	*Ac...	*Lo...	*In...	*Proj #	*E...	*Lbr Class	Line item	FY05 Upd04 RA (HOURS)	EMPLOYEES
PEA	730	PHE	NC	NPEZZ...	150	__E	E res new tech 730	144	
PEA	890	PHE	NC	NPEZZ...	150	__E	E dev-new 890	600	
PEA	891	PHE	NC	NPEZZ...	150	__E	E dev comp apps enh 891	504	
PEA	895	PHE	NC	NPEZZ...	150	__E	E mainframe 895	192	
PEA	896	PHE	NC	NPEZZ...	150	__E	E LAN 896	384	
PEA	897	PHE	NC	NPEZZ...	150	__E	E desktop-bus 897	216	
PEA	898	PHE	NC	NPEZZ...	150	__E	E desktop-tech 898	168	
PEA	901	PHE	NC	NPEZZ...	150	__E	E provide IT cust asst 901	192	
PEA							ITS CHIEF INFORMATION OFFICER	2,400	1
PEA	777	PHE	NC	NPEZZ...	150	__I	I process payroll 777	96	
PEA	901	PHE	NC	NPEZZ...	150	__I	I provide IT cust asst 901	1,812	
PEA							ITS SECRETARY	1,908	1
PEC	901	PHE	NC	NPEZZ...	150	__FS	FS IT cust asst 901	1,248	
PEC	965	PHE	NC	NPEZZ...	150	__FS	FS dev mng fcst 701	420	
PEC	966	PHE	NC	NPEZZ...	150	__FS	FS maint rel 721	204	
PEC	967	PHE	NC	NPEZZ...	150	__FS	FS Org Dev Strat 722	204	
PEC							DIRECTOR - CUSTOMER CARE	2,076	1
PEC	842	PHE	NC	NPEZZ...	150	__I	I order mat'ls equip-clrg 842	396	
PEC	844	PHE	NC	NPEZZ...	150	__I	I prepare contracts-clrg 844	1,944	
PEC	901	PHE	NC	NPEZZ...	150	__I	I provide IT cust asst-clrg 901	7,464	
PEC							SPECIALISTS	9,804	5
PEC	701	PHE	NC	NPEZZ...	150	__TC	TC Dev Mnge Fcst 701	384	
PEC	721	PHE	NC	NPEZZ...	150	__TC	TC Dev Meas & Ani Perf 721	1,308	
PEC	840	PHE	NC	NPEZZ...	150	__TC	TC Admin Oth Procur Pgm 840	192	
PEC	844	PHE	NC	NPEZZ...	150	__TC	TC prep/mge contracts-clrg 844	768	
PEC	901	PHE	NC	NPEZZ...	150	__TC	TC provide it customer assistance-clrg...	9,276	
PEC							CONSULTANTS / ANALYSTS	11,928	6
PED	785	PHE	NC	NPEZZ...	150	__FS	FS Plan Emp Trng & Dev 785	204	
PED	891	PHE	NC	NPEZZ...	150	__FS	FS develop comp apps-enh 891	1,860	
PED							DIRECTOR - DEVELOPMENT SERVICES	2,064	1
PED	789	PHE	NC	NPEZZ...	150	__TC	TC attend training 789	1,740	
PED	890	PHE	NC	NPEZZ...	150	__TC	TC develop comp apps-new 890	6,960	
PED	891	PHE	NC	NPEZZ...	150	__TC	TC develop comp apps-enhanced 891	48,108	
PED	901	PHE	NC	NPEZZ...	150	__TC	TC Prov IT Cust Assist 901	576	
PED							LEAD ANALYSTS / SPECIALISTS	57,960	30
PEI	895	PHE	NC	NPEZZ...	150	__BUOC	BUOC oper & main mainframe 895	9,120	

12/22/2004 » budget manager: PR110H NPUpd - Det... 1:06PM

HOURS

*R...	*Ac...	*Lo...	*In...	*Proj #	*E...	*Lbr Class	Line item	FY05 Upd04 RA	EMPLOYEE
PEI	897	PHE	NC	NPEZZ...	150	__I	I oper & maint desktop 897	1,836	
PEI	900	PHE	NC	NPEZZ...	150	__I	I op desk top offc telecom 900	1,788	
PEI							SPECIALISTS/COORDINATOR	5,676	3
PEI	895	PHE	NC	NPEZZ...	150	__TC	TC oper & main mainframe 895	7,608	
PEI	896	PHE	NC	NPEZZ...	150	__TC	TC oper & main LAN 896	13,296	
PEI	897	PHE	NC	NPEZZ...	150	__TC	TC oper & main desktop 897	3,648	
PEI							LEAD/ADMINISTRATOR/ANALYSTS	24,552	17
PEI	895	PHE	NC	NPEZZ...	150	__TCS	TCS oper & main mainframe 895	2,028	
PEI							SUPERVISOR	2,028	1
PEP	700	PHE	NC	NPEZZ...	150	__FS	FS dev & adm bus plans 700	108	
PEP	722	PHE	NC	NPEZZ...	150	__FS	FS org dev strat 722	216	
PEP	730	PHE	NC	NPEZZ...	150	__FS	FS rsrch new technology 730	1,380	
PEP	765	PHE	NC	NPEZZ...	150	__FS	FS empl pol prac proc 765	108	
PEP	785	PHE	NC	NPEZZ...	150	__FS	FS performance appraisals 785	108	
PEP	906	PHE	NC	NPEZZ...	150	__FS	FS telecom-man, engr, design 906	216	
PEP							DIRECTOR-PROJECT & BUS MGT	2,136	1
PEP	700	PHE	NC	NPEZZ...	150	__TC	TC dev & adm bus plans 700	324	
PEP	701	PHE	NC	NPEZZ...	150	__TC	TC dev & mg fcst 701	1,620	
PEP	722	PHE	NC	NPEZZ...	150	__TC	TC org dev strat 722	648	
PEP	730	PHE	NC	NPEZZ...	150	__TC	TC research new tech 730	2,424	
PEP	789	PHE	NC	NPEZZ...	150	__TC	TC attend training - local 789	168	
PEP	890	PHE	NC	NPEZZ...	150	TC	TC develop apps - new 890	648	
PEP	891	PHE	NC	NPEZZ...	150	__TC	TC maintain apps - enhances 891	6,624	
PEP	896	PHE	NC	NPEZZ...	150	__TC	TC op and maintain LAN 896	1,620	
PEP	906	PHE	NC	NPEZZ...	150	__TC	TC plan the Sys Telecom 906	2,100	
PEP							LEAD	16,176	9
								150,060	77

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PROJECT "NC" CHARGES

FROM PROJECT FILE
INDICATOR = NC

4/20/2004 » budget manager: PR9100-P: Summa... 11:34AM

*Project #	Project	*M-Proj #	Curr Upd New Total $	Proj to Date Act $	FY05 UPDATE04
P0000040	EFMS Program	P0000040	$3,780,000	0	$800,000
		R0003012	$25,234	$25,234	0
		R0003621	$79,981	$79,981	0
		R0003624	$65,116	$65,116	0
		R0003625	$168,320	$168,320	0
		R0003627	-$14,583	-$14,583	0
		R0003628	$31,662	$31,662	0
		R0004779	$35,110	$35,110	0
		R0004780	$13,263	$13,263	0
		R0004884	$0	$0	0
		R0004885	$63,305	$63,305	0
		R0004886	$38,964	$38,964	0
		R0004887	$38,964	$38,964	0
		R0004888	$38,964	$38,964	0
		R0005500	$12,188	$12,188	0
		R0005749	$28,100	$28,100	0
		R0006579	$54,938	$54,938	0
		R0006598	$26,880	$26,880	0
		R0009382	$4	$4	0
		R0009383	$7,486	$7,486	0
			$4,493,893	$713,893	$800,000
P0000427	e-Bus HECOcom Proje...		$24,827	0	$18,300
		P0000427	$2,721,233	$50,233	$740,000
			$2,746,060	$50,233	$758,300
P0000868	Middleware Implementa...		$50,311	0	$7,842
		P0000868	$425,727	0	$55,771
			$476,039	0	$63,613
			$7,715,992	$764,126	$1,621,913

HECO IT Costing Estimates for 2005-2006 for HELCO

HELCO - IT COSTING SYSTEM DIRECT CHARGE

DIRECT CHARGES

Dist.	Project #	WO #		Account Code					Estimate 2005	Estimate 2006
HELC			H9P	700	HEL	NE	NHAPRESI	451	1,143	1,143
HELC			HAA	701	HEL	NE	NHAZZZZZ	451	1,714	1,714
HELC			HAA	818	HEL	NE	NHAZZZZZ	451	1,714	1,714
HELC			HAC	818	HEL	NE	NHAZZZZZ	451	3,727	3,727
HELC			HAK	604	HAK	NE	NHAZZZZZ	451	5,407	5,407
HELC			HAP	817	HEL	NE	NHAZZZZZ	451	2,285	2,285
HELC			HDA	965	HED	NC	NHDZZZZZ	451	7,013	7,013
HELC			HDC	603	HAH	NE	NHDZZZZZ	451	15,328	15,328
HELC			HDR	455	HED	NC	NHDZZZZZ	451	3,428	3,428
HELC			HDR	600	HAH	NE	NHDZZZZZ	451	3,428	3,428
HELC			HGA	211	ANS	NS	NHGZZZZZ	451	3,620	3,620
HELC			HNA	775	HEL	NE	NHNZZZZZ	451	1,299	1,299
HELC			HNL	928	HEL	NE	NHNZZZZZ	451	1,517	1,517
HELC		CS000024	HCS	112	HEL	NE	NHCZZZZZ	451	6,040	6,040
HELC		CS000101	HCE	750	HEL	NE	NHCZZZZZ	451	1,143	1,143
HELC		CS000274	HAW	604	HEL	NE	NHAZZZZZ	451	8,448	8,448
HELC		CS000317	HAK	604	HAK	NE	NHAZZZZZ	451	17,470	17,470
HELC		CS000347	HAS	604	HAH	NE	NHAZZZZZ	451	32,863	32,863
HELC		CS000431	HCB	711	HEL	NE	H0000004	451	3,802	3,802
HELC		EE000629	HWA	408	HED	NC	NHWZZZZZ	451	49,364	49,364

Murakami, Blane

From: Inouye, Juliane
Sent: Tuesday, April 20, 2004 1:34 PM
To: Murakami, Blane
Subject: FW: 2005-2006 ITCosting Estimates for HELCO

From: Inouye, Juliane
Sent: Tuesday, March 16, 2004 10:16 AM
To: Fujioka, Paul
Cc: Young, Patti; Tobara, Bryce
Subject: 2005-2006 ITCosting Estimates for HELCO

Paul,

Attached are HECO's ITS Costing Estimates for 2005 and 2006. As in the past, all estimates except for those marked "App Labor" are based on last year's actual charges. The App labor estimates are projections. Note that

HECO IT Costing Estimates for 2005-2006 for MECO

MECO - IT COSTING SYSTEM DIRECT CHARGE

DIRECT CHARGES

Dist.	Project #	WO #		Account Code					Estimate 2005	Estimate 2006
MECO			M9P	700	MAU	NE	NMAZZZZZ	451	2,439	2,439
MECO			MAA	612	MAU	NE	NMAZZZZZ	451	1,143	1,143
MECO			MAA	818	MAU	NE	NMAZZZZZ	451	1,105	1,105
MECO			MAB	612	MAU	NE	NMAZZZZZ	451	3,428	3,428
MECO			MAG	612	MAU	NE	NMAZZZZZ	451	1,439	1,439

Murakami, Blane

From: Inouye, Juliane
Sent: Tuesday, April 20, 2004 1:34 PM
To: Murakami, Blane
Subject: FW: 2005-2006 ITCosting Estimates for MECO

From: Inouye, Juliane
Sent: Tuesday, March 16, 2004 10:24 AM
To: Matsunaga, Lyle
Cc: Matsumura, Joyce; Young, Patti; Tobara, Bryce
Subject: 2005-2006 ITCosting Estimates for MECO

Lyle,

Attached are our ITS Costing Estimates for 2005 and 2006. As in the past, all estimates except for those marked "App Labor" are based on last year's actual charges. The App labor estimates are projections. Note that although most Benefits and Compensation charges were App labor charges are now being direct charged, one charge will continue to be processed through intercompany billing.

Completed Intercompany Service forms for Microsoft MEA and Customer Service (CB) are being mailed to you. We also completed for and sent IS forms to Monica Lynch and Wendy Nathan (they requested that their forms be sent directly to them) One of Wendy's forms is for the ICB charge ($2,574/yr) shown in the attached spreadsheet.

Please feel free to call me if you have any questions.

Thank you,

Juliane Inouye
HECO - ITS Dept.
ph. 808-543-7135

NON-ITS PROJECT - EXPENSE ELEMENT 451 CHARGES FROM LINDA

*Project #	Project	*M-Proj #	ProjMgrOrEngr	*RA #	*Ind #	*EE #	FY05	FY05 Adj
P0000318	Project Ellipse	P0000318	Noda, R	PEZ	BE	451		
P0000318							-	-
P0000350	Field Service System Replacement	P0000350	Oda, W	PEZ	NI	451	-	
P0000350							-	-
P0000502	Waiau Minor Gen Addns	P0000502	Nakano, W	PEZ	NI	451	48	
P0000502							48	2,400
P0000503	Ward Ave Minor Addns	P0000503	Nakano, W	PEZ	NI	451	96	
P0000503							96	4,800
P0000504	King St Minor Addns	P0000504	Nakano, W	PEZ	NI	451	48	
P0000504							48	2,400
P0000571	CIS Replacement	P0000571	Hull, Thomas	PEZ	BD	451	78,813	
P0000571	CIS Replacement	P0000571	Hull, Thomas	PEZ	BE	451	23,037	
P0000571	CIS Replacement	P0000571	Hull, Thomas	PEZ	ND	451	172,987	
P0000571	CIS Replacement	P0000571	Hull, Thomas	PEZ	NE	451	50,563	
P0000571							325,400	325,400
P0000825	C&M Renovation	P0000825	Nakano, W	PEZ	NI	451	120	
P0000825							120	6,000
P0000826	ITS Renovation	P0000826	Nakano, W	PEZ	NI	451	-	
P0000826							-	-
P0000851	Overhauling Warehouse Repair	P0000851	Nakano, W	PEZ	NI	451		
P0000851							-	-
P0000878	Check Processing Upgrade	P0000878	Ejercito, A	PEZ	NE	451	-	
P0000878							-	-
00896	Finance Plus Replacement		Takamura, J	PEZ	NE	451	-	
00896							-	-
P0000907	PLC Market Trial		Nordyke, M	PEZ	NE	451	154,800	
P0000907							154,800	154,800
P0000984	Promote e-Customer Service		Ejercito, A	PCA	NE	451	12,000	
P0000984							12,000	12,000
P0000985	Bill Payment System/ATM Proj		Ejercito, A	PCA	NE	451	6,000	

YAMAMOTO

Murakami, Blane

From: Yamamoto, Linda
Sent: Thursday, April 15, 2004 12:43 PM
To: Murakami, Blane
Cc: Young, Patti; Shimabukuro, Gail
Subject: RE: ITS cost reports aka EE451 reports

0415 ITS Upd Costs EDProj.ASC 0415 ITS Upd Costs NEDProj.ASC...

Attached are your reports for the Update.

-----Original Message-----
From: Murakami, Blane
Sent: Thursday, April 15, 2004 11:08 AM
To: Yamamoto, Linda
Cc: Young, Patti; Shimabukuro, Gail

Subject: RE: ITS cost reports aka EE451 reports

Would you send me an update of the ascii files below (based on Pillar inputs submitted on April 12). I would like to review the current EE451 estimates to determine if changes to ITS's 2005 Budget PEZ estimates are required.

Thanks.

-----Original Message-----
From: Yamamoto, Linda
Sent: Friday, February 13, 2004 9:48 AM
To: Murakami, Blane
Cc: Young, Patti; Takahashi, Cynthia
Subject: RE: ITS cost reports aka EE451 reports

<< File: 0212 ITS Bud Costs EDProj.ASC >> << File: 0212 ITS Bud Costs NEDProj.ASC >> << File: 0212 ITS Upd Costs EDProj.ASC >> << File: 0212 ITS Upd Costs NEDProj.ASC >>

Attached are the reports you requested. Let me know if you have any questions.

Linda

-----Original Message-----
From: Murakami, Blane
Sent: Friday, February 13, 2004 9:16 AM
To: Yamamoto, Linda
Cc: Young, Patti; Takahashi, Cynthia
Subject: FW: ITS cost reports aka EE451 reports

Would you be able to provide the reports below based on the current Pillar inputs (as of Feb 12). We call these the EE451 entries in ITS.

Thanks

-----Original Message-----
From: Yamamoto, Linda
Sent: Wednesday, August 27, 2003 11:34 AM
To: Murakami, Blane; Young, Patti; Takahashi, Cynthia
Subject: ITS cost reports

<< File: 0826 ED ITS Bud Costs 04-05.ASC >> << File: 0826 ED ITS Costs Aug-Dec03.ASC >> << File: 0826 NED ITS Bud Costs 04-05.ASC >> << File: 0826 NED ITS Costs Aug-Dec03.ASC >>

Attached are the ITS cost reports for 2003 Update (Aug-Dec) as well as 2004 and 2005 Budget.

Linda Yamamoto
543-7752

E

11:22AM

2005 INTERCOMPANY BILLINGS

INTERCOMPANY BILLABLE PROJECTED FROM 2003 ACTUALS

30: Mar04

NTER: Direct RA Cost Feb04 2005 NLab

	FY05
tec ...	$160.00
tec ...	$580.00
ec ...	$180.00
ec ...	$580.00
HE...	$2,000.00
ion	$9,600.00
Ce ...	$23,376.00
	$60,000.00
	$49,000.00
	$9,000.00
	$1,070.00
Co...	$2,544.00
Co...	$2,544.00
C...	$2,544.00
Pla...	$1,996.00
Pla...	$87.00
Pla...	$174.00
Flex...	$1,045.00
Fle...	$45.00
Fle...	$91.00
Ret...	$1,140.00
Re...	$20.00
Ret...	$40.00
	$0.00
	$0.00
ge ...	$2,464.00
	$180.00
	$189.00
	$791.00
	$931.00
	$1,357.00
Ma...	$123,036.00
& M...	$123,036.00

(HISTORY)

ITS Department
PEZ Actuals Jan-Dec 2003

2003 INTERCOMPANY BILLABLES

PA	Act	Loc	Ind	Proj	EE	Q1	Q2	Q3	Q4	FY 03	Mo Avg
PEZ	775	HEI	BE	NPFZZZZZ	451	670	637	648	588	2,544	212
PEZ	776	HEI	BE	NPFZZZZZ	451	1,357	416	91	134	1,998	167
PEZ	778	HEI	BE	NPFZZZZZ	451	198	264	176	408	1,045	87
PEZ	779	HEI	BE	NPFZZZZZ	451	400	267	169	305	1,140	95
PEZ	825	HEI	BE	NPKZZZZZ	451	641	616	632	574	2,464	205
PEZ	891	HEI	BE	NPEZZZZZ	451	0	1,357	0	0	1,357	113
PEZ	700	RHI	BE	NPASVP7Z	451	0	13,573	(12,503)	0	1,070	89
PEZ	776	PVT	BE	NPFZZZZZ	451	118	36	0	0	154	13
PEZ	778	PVT	BE	NPFZZZZZ	451	17	23	0	0	40	3
PEZ	779	PVT	BE	NPFZZZZZ	451	21	7	0	0	29	2
PEZ	776	PEC	BE	NPFZZZZZ	451	118	36	8	12	174	15
PEZ	778	PEC	BE	NPFZZZZZ	451	17	23	15	35	91	8
PEZ	779	PEC	BE	NPFZZZZZ	451	21	7	5	6	40	3
PEZ	776	HPC	BE	NPFZZZZZ	451	59	18	4	6	87	7
PEZ	778	HPC	BE	NPFZZZZZ	451	9	11	8	18	45	4
PEZ	779	HPC	BE	NPFZZZZZ	451	11	4	3	3	20	2
PEZ	775	MAU	BE	NPFZZZZZ	451	670	637	648	588	2,544	212
PEZ	775	HEL	BE	NPFZZZZZ	451	670	637	648	588	2,544	212
PEZ	776	MAU	BE	NPFZZZZZ	451	9,086	2,786	607	900	13,378	1,115
PEZ	776	HEL	BE	NPFZZZZZ	451	8,791	2,695	591	877	12,953	1,079
PEZ	778	MAU	BE	NPFZZZZZ	451	1,323	1,768	1,178	2,731	7,000	583
PEZ	778	HEL	BE	NPFZZZZZ	451	1,280	1,710	1,148	2,660	6,798	567
PEZ	779	MAU	BE	NPFZZZZZ	451	2,678	1,794	1,133	2,051	7,657	638
PEZ	779	HEL	BE	NPFZZZZZ	451	2,591	1,735	1,099	1,988	7,413	618
PEZ	817	MAU	BE	NPAZZZZZ	451	0	337	0	0	337	28
PEZ	817	HEL	BE	NPAZZZZZ	451	0	337	0	0	337	28
PEZ	825	MAU	BE	NPKZZZZZ	451	49	47	49	44	189	16
PEZ	825	HEL	BE	NPKZZZZZ	451	49	47	49	44	189	16
PEZ	826	MAU	BE	NPKZZZZZ	451	47	0	0	884	931	78
PEZ	826	HEL	BE	NPKZZZZZ	451	40	0	0	751	791	66
PEZ	895	MAU	BE	NPAVP2ZZ	451	27,447	31,510	25,052	39,027	123,036	10,253
PEZ	895	HEL	BE	NPAVP2ZZ	451	27,447	31,510	25,052	39,027	123,036	10,253

F-1

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

	RA	Act	Loc	Ind	Project	EE	Jan-Dec 03	Proportions
	PEZ	100	PHE	NE	NPSZZZZZ	451	67,746	
		100 Total					67,746	0.7%

2003 PEZ ACTUALS
ITS COSTING SYSTEM
ALLOCATIONS

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE	Jan-Dec 03	Proportions
PEZ	331	OAH	NE	NPAVP2ZZ	451	2,584	
	331 Total					2,584	0.0%
PEZ	333	OAH	NC	**NPRZZZZZ**	451	124,556	

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE	Jan-Dec 03	Proportions
PEZ	614	OAH	NE	NPCZZZZZ	451	8,400	
	614 Total					8,400	0.1%
PEZ	616	OAH	NE	NPCZZZZZ	451	64,575	
	616 Total					64,575	0.7%
PEZ	700	PHE	NE	NPAVP7ZZ	451	31,586	
PEZ	700	PHE	NE	NPAVP3ZZ	451	31,586	
PEZ	700	PHE	NE	NPAPRESI	451	25,615	
PEZ	700	PHE	NE	NPASVP9Z	451	26,090	
	700 Total					114,877	1.3%
PEZ	701	PHE	NC	NPKZZZZZ	451	17,947	
	701	OAH	NC	NPRZZZZZ	451	38,713	0.6%
PEZ	701	PHE	NE	NPKZZZZZ	451	32,591	0.4%
	701 Total					89,251	
PEZ	710	PHE	NE	NPSZZZZZ	451	31,835	
	710 Total					31,835	0.3%
PEZ	712	PHE	ND	NPYZZZZZ	451	7,594	
PEZ	712	PHE	ND	NPSZZZZZ	451	2,009	
	712 Total					9,603	0.1%
PEZ	713	PHE	NE	NPEZZZZZ	451	125,856	
	713 Total					125,856	1.4%
PEZ	714	PHE	NE	P0000021	451	0	
PEZ	714	PHE	NE	P0000022	451	0	
PEZ	714	PHE	NE	P0000023	451	0	
PEZ	714	PHE	NE	P0000024	451	0	
PEZ	714	PHE	NE	P0000025	451	0	
PEZ	714	PHE	NE	NPEZZZZZ	451	0	
	714 Total					0	0.0%
PEZ	720	PHE	NS	NPCZZZZZ	451	670,975	
PEZ	720	PHE	NE	NPNEZZZZ	451	346	
	720 Total					671,321	7.3%
PEZ	722	PHE	NE	NPFZZZZZ	451	18,505	
	722 Total					18,505	0.2%
PEZ	730	PPO	NE	NPEZZZZZ	451	4,069	
	730 Total					4,069	0.0%
PEZ	736	PHE	NE	NPSZZZZZ	451	32,298	

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE	Jan-Dec 03	Proportions
PEZ	767	PHE	NE	**NPFZZZZZ**	451	56,408	
	767 Total					56,408	0.6%
PEZ	775	PHE	NE	NPFZZZZZ	451	17,807	
	775 Total					17,807	0.2%
PEZ	776	PHE	NE	NPFZZZZZ	451	108,215	

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE	Jan-Dec 03	Proportions
PEZ	876	PHE	NE	NPIZZZZZ	451	131,933	
	876 Total					131,933	1.4%
PEZ	896	PHE	NE	NPEZZZZZ	451	37,921	
	896 Total					37,921	0.4%
PEZ	899	PHE	NE	NPKZZZZZ	451	0	
	899 Total					0	0.0%
PEZ	907	OAH	NC	NPBZZZZZ	451	17,425	
PEZ	907	OAH	NC	NPEZZZZZ	451	0	
	907 Total					17,425	0.2%
PEZ	916	PHE	NC	NPRZZZZZ	451	31,586	
	916 Total					31,586	0.3%
PEZ	926	PDO	NE	NPWZZZZZ	451	10,125	
PEZ	926	PHE	NE	NPNLZZZZ	451	40,454	
	926 Total					50,579	0.6%
PEZ	928	PHE	NE	NPNLZZZZ	451	36,205	
	928 Total					36,205	0.4%
PEZ	931	PHE	NE	NPHZZZZZ	451	55,593	
	931 Total					55,593	0.6%
PEZ	932	PHE	NE	NPVZZZZZ	451	32,741	
	932 Total					32,741	0.4%
PEZ	933	PHE	NE	NPHZZZZZ	451	62,201	Wrong corrected
	933 Total					62,201	0.7%
PEZ	940	PHE	NC	NPVZZZZZ	451	70,645	
PEZ	940	PHE	NC	NPEZZZZZ	451	0	
	940 Total					70,645	0.8%
PEZ	950	PHE	NE	NPHZZZZZ	451	69,647	
PEZ	950	PHE	NE	NPKZZZZZ	451	22,111	
	950 Total					91,758	1.0%
PEZ	951	PHE	NE	NPKZZZZZ	451	31,347	
	951 Total					31,347	0.3%
PEZ	953	PHE	NE	NPFZZZZZ	451	39,058	
	953 Total					39,058	0.4%
PEZ	960	PHE	NE	NPNCZZZZ	451	69,291	
	[illegible]					69,291	0.8%

ITS Department
EFMS and Ebus Allocations

EFMS Allocations		Allocation Basis:	
PEZ 211 WST NC	NPYZZZZZ	62,388	10.8%
PEZ 256 KST NE	NPEZZZZZ	2,964	0.5%
PEZ 256 WST NE	NPEZZZZZ	2,964	0.5%
PEZ 307 OAH NC	NPEZZZZZ	112,644	19.4%
PEZ ## OAH NE	NPEZZZZZ	14,760	2.5%
PEZ 455 OAH NC	NPEZZZZZ	34,152	5.9%
PEZ 455 OAH NE	NPEZZZZZ	3,468	0.6%
PEZ 456 OAH NE	NPEZZZZZ	59,076	10.2%
PEZ 600 OAH NE	NPWZZZZZ	129,948	22.4%
PEZ 907 OAH NC	NPBZZZZZ	17,328	3.0%
PEZ ## PHE NE	NPEZZZZZ	9,636	1.7%
PEZ 931 PHE NE	NPEZZZZZ	17,724	3.1%
Total EFMS		579,696	100.0%

EBusiness Allocations		Allocation Basis:	
PEZ ## PHE NE	NPNEZZZZ	1,767	10.4%
PEZ ## OAH NE	NPNEZZZZ	119	0.7%

ntegory $ 10:24AM

	FY05 Upd04 RA	Expense Category	
	~~$105,000~~	~~Other~~	DELETED 6/3/04
	$1,200	Materials	
	$106,200		
/cs	$43,169	Labor	1752 HRS - 1 EMPL
	$42,732	Labor	1800 HRS - 1 EMPL
	$62,318	Labor	1956 HRS - 1 EMPL
	$2,000	Outside Svcs	BASED ON HISTORY
	$80,000 $60,000	Outside Svcs	
rch, etc)	$13,000	Outside Svcs	
	$5,000	Outside Svcs	
	$7,600	Outside Svcs	
	$4,300	Other	
	$240,119		
AIG OPERATIONS	$60,024	Labor	1884 HRS - 1 EMPL
	$43,485	Labor	1764 HRS - 1 EMPL
	$86,034	Labor	3624 HRS - 2 EMPL
	$92,400 $84,000	Materials	BASED ON HISTORY
	$8,400	Materials	
	$107,200 $32,200	Materials	
	$75,000	Materials	
	$864	Outside Svcs	
	$11,688 $3,300	Outside Svcs	
	$7,524	Outside Svcs	
	$151,512 $144,000	Other	
	$7,512	Other	
	$42,732	Labor	1800 HRS - 1 EMPL
	$2,151	Other	
	$597,206		
STOMER PERATIONS	$89,167	Labor	3756 HRS - 2 EMPL
	$52,473	Labor	1932 HRS - 1 EMPL
AIG	$60,096	Labor	1920 HRS - 1 EMPL
PERATIONS	$228,759	Labor	9636 HRS - 5 EMPL

Version: Mar04

10:24AM

nse Category

ials
sportation
sportation
de Svcs

Version: Mar04

ler: PR110H NPUpd - Detail Hrs

	HOURS FY05 Upd04 RA	Employees
mt Svcs 965	1,800	1
ords Mgmt Svcs	1,752	1
Svcs 965	1,956	1
	5,508	
cs 967 (PER)	3,624	2
(PER)	1,764	1
67 (PER TCS)	1,884	1
cs 968 (PER)	1,800	1
	9,072	
614	3,756	2.5
ail 966	9,636	1
ail 966	1,932	1
l 966	1,920	1
	17,244	
	31,824	17

HAWAIIAN ELECTRIC COMPANY
2005 TEST YEAR RATE CASE

CUSTOMER INSTALLATION DEPARTMENT
NONPROJECT COST DATA

NARUC 901-904
CUSTOMER ACCOUNTS
NONLABOR

Non-Labor Input Sheet - NonProject
2005

Prepared by _____

Date _____

Dimension tab card						Units tab card												
A	Act	Loc	Ind	Proj	EE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
						*(enter **hours** in **"Units tab card"**)*												
x	465	oah	ne	npwzzzzz	301	1,956.25	1,963.75	1,956.25	1,956.25	1,956.25	1,956.25	1,956.25	1,956.25	1,956.25	1,956.25	1,956.25	1,956.25	23,482.50
x	493	oah	ne	npwzzzzz	301	153.75	118.75	153.75	153.75	153.75	153.75	153.75	153.75	153.75	153.75	153.75	153.75	1,810.00
x	601	oah	ne	npwzzzzz	201,205,220,301,501	3,753.00	3,753.00	3,753.00	3,753.00	3,753.00	3,753.00	3,753.00	3,753.00	3,753.00	3,753.00	3,753.00	3,753.00	45,036.00
x	602	oah	ne	npwzzzzz	301	323.75	341.25	323.75	323.75	323.75	323.75	323.75	323.75	323.75	323.75	323.75	323.75	3,902.50
x	603	oah	ne	npwzzzzz	462,503	328.14	328.14	328.14	328.14	328.14	328.14	328.14	328.14	328.14	328.14	328.14	328.14	3,937.68
x	**610**	**oah**	**ne**	**npwzzzzz**	**301**	**70.00**	**105.00**	**70.00**	**70.00**	**70.00**	**70.00**	**70.00**	**70.00**	**70.00**	**70.00**	**70.00**	**70.00**	**875.00**
x	**619**	**oah**	**ne**	**npwzzzzz**	**301**	**98.75**	**171.25**	**98.75**	**98.75**	**121.25**	**98.75**	**98.75**	**98.75**	**98.75**	**98.75**	**98.75**	**98.75**	**1,280.00**
x	620	pdo	ne	npwzzzzz	301	80.00	120.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	1,000.00
x	789	pdo	ne	npwzzzzz	520,522	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	7,200.00
																		88,523.68
					Total Non-Labor Demand	7,363.64	7,501.14	7,363.64	7,363.64	7,386.14	7,363.64	7,363.64	7,363.64	7,363.64	7,363.64	7,363.64	7,363.64	88,523.68

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:

The following areas charge labor costs to the Customer Service block of accounts:

NARUC 909
Energy Services

NARUC 910
Legal
Corporate Communications ("Corp Comm")
Education & Consumer Affairs ("ECA")
Energy Services

NARUC 911
Environmental
Corporate Communications ("Corp Comm")

NARUC 912
Customer Service

NARUC# 909

Energy Services

HECO Response:

a., b., c., d., e., and f. See Energy Services response below.

NARUC# 910

Legal

HECO Response:

a. Cheryl Fujiwara prepared the budget for Legal prior to her move to Facilities.

b. Calculations for the Legal Department were based on the attorneys' and support staffs' labor hours from the previous year to get an estimated figure for 2005. See Attachment A.

c. Not applicable since the number of hours is small.

d. Not applicable since the number of hours is small.

e. Not applicable since the number of hours is small.

f. Not applicable since the number of hours is small.

Corporate Communications ("Corp Comm") – Includes charges for 910 and 911

HECO Response:

a. Cost estimates were provided by Lynne Unemori, Director, Corporate Communications.

b. See Attachment B.

c. Regarding the actual force level that existed at the time this budget was prepared, Corp Comm was staffed at 9 (8 merit/1 BU). The budget is based on 11 (10 merit/1 BU). The reason for the higher staffing forecast is because staffing levels were abnormally low at the time the forecast was prepared. One employee had retired at the end of January 2004 and the hiring process for a replacement was ongoing at the time of forecast preparation (replacement was hired later in 2004). The second additional position was forecast to help address increasing communications workload due to increasing company public issues related to environment, new infrastructure projects, consumer information needs, greater SEC disclosure requirements and other issues. (The addition of this position would bring dept staffing levels back to what they previously were as of the end of 2000). This second position was later filled instead by a hiring in the VP Government and Community Affairs area.

d. See response to c. above.

e. See response to c. above.

f. See response to c. above.

Education & Consumer Affairs ("ECA")

HECO Response:

a. The employees involved in preparation of budgeted staffing and associated labor direct expense amounts for the Education and Consumer Affairs Division are: Ka'iulani de Silva (Education and Consumer Affairs Director) and Karen Watanabe (Education and Consumer Affairs Administrator).

b. To forecast labor hours for 2004 and 2005, we ran labor reports for the time period of July 1, 2002 to June 30, 2003 to determine how each employee actually expended their time. We used data from July 1, 2002 to June 30, 2003 (rather than January 1, 2002 to December 31, 2002) because it more accurately reflects the actual labor hours expended when we're fully staffed (we had two vacancies in 2002). Using these labor reports, we determined the percentage of available hours expended on each activity for each employee. We assumed that there would be no changes in the nature of the work performed by each employee for 2005. We then used the "Labor Input Sheet-Non Project 2005" (see Attachment C) to compute labor hours for each employee by multiplying the available hours (less vacation and holidays) by the percentages computed from the labor reports.

c. We had six full-time employees when the 2005 budget was finalized in April 2004. We had five merit positions and one bargaining unit position. The merit positions consisted of one director, two administrators, and two coordinators. The bargaining unit position is our division clerk. In April 2004, our actual force level had one vacancy due to an administrator who resigned in March 2004.

d. Based on company and department goals as well as the calculations used in part (b) above, we need three administrator positions (rather than two administrators) to fulfill our

This position also provides support for the production of The Electric Kitchen (our television cooking program that educates viewers on energy efficiency and conservation); Electron Marathon (an educational program that teaches hundreds of students a year about an environmentally clean ground transportation fuel alternative and provides a context for learning teamwork and problem-solving); and answers customer calls on residential energy use. These programs could not be offered without this key position. The hours expended on these programs by this administrator position are quantified in the DARS report #1706.

f. All work papers are provided with part (b) above.

Energy Services - Response for 909 and 910 (Note: DSM Program Expenses are covered by HECO Witness HECO T-11.)

HECO Response:

a. Energy Services Department individuals involved in the budgeting process include:

RA	Name	Position at time of Budget
SA	Dave Waller	Manager, Energy Services
SD	Norris Creveston	Director, Customer Efficiency Programs (DSM)
SD	Elaine Wong	Customer Efficiency Analyst
SF	Alan Hee	Director, Forecasting
SM	George Willoughby	Director, Research & Evaluation
SM	Stanley Shimoda	Customer Efficiency Analyst
SN	Richard Lee	Director, Marketing Services
SP	Estrella Seese	Director, Pricing
SR	Paul Fetherland	Director, Customer Technology Applications

b. See Attachment D.

c. See attached Employee Count sheet for actual force level as of the budget preparation date (4/30/04) and the 2005 employee count reflected in the Rate case numbers.

d.,e.,f. (Non-DSM only)

SN: Increase of two Account Manager positions noted for the Marketing Services (SN) Division. Refer to HECO T-10, Page 15 of 72 for work performed by the Account Managers. Two additional Account Managers were hired during December 2004 to allow for all major customers to receive a higher level of service.

SR: Refer to HECO T-10, Pages 15 thru 16 for major activities performed by the Customer Technology Applications ('CTAD") Division. As of April 30, 2004 the Division had a Senior Technical Services Engineer vacancy as a result of a January 2004 retirement. This vacancy was subsequently filled during September 2004 thereby increasing the CTAD employee count by one.

NARUC# 911

Environmental

HECO Response:

a. For the Environmental Dept. the employee involved in the preparation of budgeted staffing and associated labor direct expense amounts included in the witnesses' portion of the rate case test period budget is Doug Rinehart, Laboratory Supervisor – Chemistry Division.

b. See Attachment E

c., d., e., and f. Not applicable since the number of hours is small.

Customer Service

HECO Response:

a. For the Customer Service Department, Victoria Marzano, is involved in the preparation of budgeted staffing and associated labor direct expense amounts.

b. See Attachment F.

c. Not applicable since the number of hours is small.

d. Not applicable since the number of hours is small.

e. Not applicable since the number of hours is small.

f. Not applicable since the number of hours is small.

Hawaiian Electric Company, Inc.
2005 Test Year Rate Case

Customer Service Expense
O&M Expense Budget

Workpapers

PNC Legal

		49.0%	51.0%	0.0%	0.0%		0.0%	10.2%	6.8%	10.2%	6.8%	10.2%	6.8%												151.0%	
Total	72	576	600	0	0			120	80	120	80	120	80	0	0	0	0	0	0	0	0	0	0	0	1,176	96 2080

CA-IR-1
DOCKET NO. 04-0113
HECO T-10
ATTACHMENT A
PAGE 3 OF 15

out Sheet - NonProj nProgram

2005

Prepared by KKM
Date 3/19/2002

Rates tab car	Units tab card													
s Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
(enter employee count in "Units tab card")														
Su Available Ho	4	4	4	4	4	4	4	4	4	4	4	4	48	
(enter hours in "Units tab card")														
Support Staff)	0	32	32	0	32	32	32	32	32	32	64	64	384	46.6%
Support Staff)	0	0	80	0	0	80	80	100	0	0	60	40	440	53.4%
Support Staff)													0	0.0%
Support Staff)													0	0.0%
													0	0.0%
	0	0	0	0	0	0	80	80	0	0	0	0	160	19.4%
	0	0	40	0	0	40	0	0	0	0	0	40	120	14.6%
	0	0	40	0	0	0	0	0	0	0	40	0	80	9.7%
	0	0	0	0	0	40	0	20	0	0	20	0	80	9.7%
													0	
													0	
													0	
													0	
													0	
													0	
													0	
													0	
													0	
													0	
													0	
													0	
													0	
													0	
													0	
													0	
Demand	0	32	112	0	32	112	112	132	32	32	124	104	824	153.4%
													0	
LEGAL-GENERAL:													0	
/30 (1/2)	0	8	8	0	8	8	8	8	8	8	16	16	96	
	168	160	184	168	176	176	168	184	176	168	176	176	2080	

otal Supply hours due to Project/Program Demand hours (which are budgeted in the Project model)

Input Sheet - NonProj nProgram

2005

Prepared by CKF
Date 4/16/2003

Rates tab car		Units tab card													
Class	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
		(enter employee count in "Units tab card")													
(LRR)	Available Ho	1	1	1	1	1	1	1	1	1	1	1	1	12	
		(enter hours in "Units tab card")													
(LRR)		0	8	8	0	8	8	8	8	8	8	16	16	96	4.6%
(LRR)				40						40			40	120	5.8%
(LRR)														0	0.0%
(LRR)														0	0.0%
(LRR)	AD000667	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
(LRR)	AD000666	68	66	57	48	46	47	29	27	28	29	27	28	500	24.0%
(LRR)	AD000668	16	9	6	16	16	16	16	16	16	16	16	8	167	8.0%
(LRR)	AD000664	4	4	4	4	4	4	4	4	4	4	4	4	48	2.3%
(LRR)	AD000018	16	10	6	16	16	16	16	16	16	16	16	16	176	8.5%
(LRR)	AD000051	15	10	5	15									45	2.2%
(LRR)	AD000456	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
(LRR)	AD000066	8	8	8	8	8	8	8	8	8	8	8	8	96	4.6%
(LRR)	AD000674	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
(LRR)	AD000011	8	8	8	8	8	8	8	8	8	8	8	8	96	4.6%
(LRR)	AD000055	13	10	14	15	15	15	15	15	15	15	15	15	172	8.3%
(LRR)	AD000058	4	3	4	8	8	8	8	8	8	8	8	8	83	4.0%
(LRR)	AD000340	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
(LRR)	AD000047	13	13	13	19	36	35	45	63	14	45	47	14	357	17.2%
(LRR)	EE000139	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
(LRR)														0	0.0%
														0	
														0	
														0	
'gm Demand		176	160	184	168	176	176	168	184	176	168	176	176	2,088	100.4%
		168	160	184	168	176	176	168	184	176	168	176	176	2,080	
	LEGAL-GENER/	-8	0	0	0	0	0	0	0	0	0	0	0	-8	
3, 12/30 (1/2)		0	8	8	0	8	8	8	8	8	8	16	16	96	
		168	160	184	168	176	176	168	184	176	168	176	176	2080	

al Total Supply hours due to Project/Program Demand hours (which are budgeted in the Project model)

Total	
12	
96	4.6%
80	3.8%
0	0.0%
0	0.0%
0	0.0%
20	1.0%
800	38.5%
24	1.2%
24	1.2%
30	1.4%
60	2.9%
120	5.8%
48	2.3%
48	2.3%
60	2.9%
670	32.2%
0	0.0%
2,080	100.0%
2,080	
0	
96	
2080	

odel)

Labor Input Sheet - NonProject/Nonrrogram

2005

Prepared by CKF
Date 4/16/2003

	Rates tab ca		Units tab card													
	Labor Class	Rates Link T	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
			(enter employee count in "Units tab card")													
Qty	Facilitator (SC)	Available H	1	1	1	1	1	1	1	1	1	1	1	1	12	
			(enter hours in "Units tab card")													
	Facilitator (SC)		0	8	8	0	8	8	8	8	8	8	16	16	96	4.6%
	Facilitator (SC)					60						40	10	10	120	5.8%
	Facilitator (SC)														0	0.0%
	Facilitator (SC)														0	0.0%
	Facilitator (SC)	AD001072	1	1	1	1	1	1	1	1	1	1	1	1	12	0.6%
	Facilitator (SC)	AD000538	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
	Facilitator (SC)	AD000481	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
	Facilitator (SC)	AD001021	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
	Facilitator (SC)	AD000720	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
	Facilitator (SC)	AD001086	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
	Facilitator (SC)	AD000458	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
	Facilitator (SC)	AD000772	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
	Facilitator (SC)	AD000140	1	1	1	1	1	1	1	1	1	1	1	1	12	0.6%
	Facilitator (SC)	AD000087	1	1	1	1	1	1	1	1	1	1	1	1	12	0.6%
	Facilitator (SC)	AD000047	114	98	122	54	114	114	106	122	114	66	96	96	1,216	58.5%
	Facilitator (SC)	AD000095	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
	Facilitator (SC)	AD000083	4	4	4	4	4	4	4	4	4	4	4	4	48	2.3%
															0	
	Facilitator (SC)		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0.0%
	Facilitator (SC)		**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	144	6.9%
															0	
	l NonProj/Pgm Demand		168	160	184	168	176	176	168	184	176	168	176	176	2,080	100.0%
	l Supply		168	160	184	168	176	176	168	184	176	168	176	176	2,080	
		LEGAL-GENER	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1/2), 12/26, 12/30 (1/2)		0	8	8	0	8	8	8	8	8	8	16	16	96	
			168	160	184	168	176	176	168	184	176	168	176	176	2080	

OT equal Total Supply hours due to Project/Program Demand hours (which are budgeted in the Project model)

Total	12	96	120	0	0	0	408	4	17	17	82	77	12	12	120	105	327		0	75	150	100	240	0	124		2,086	2,080	-6	96	2080	ei)	

Prepared by CKF
Date 4/16/2003

Units tab card

	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
employee count in "Units tab card")									
1	1	1	1	1	1	1	1	12	
nter hours in "Units tab card")									
8	8	8	8	8	8	16	16	96	4.6%
	20		20				20	80	3.8%
								0	0.0%
								0	0.0%
								0	
1	1	1	1	1	1	1	1	12	0.6%
2	2	2	2	2	2	2	2	24	1.2%
5	15	15	15	15	15	15	15	180	8.7%
4	4	4	4	4	4	4	4	48	2.3%
6	6	6	6	6	6	6	6	72	3.5%
0	0	1	0	0	1	0	0	4	0.2%
0	0	0	0	0	0	0	0	32	1.5%
0	20	20	20	20	20	20	20	240	11.5%
0	30	30	30	30	30	30	30	360	17.3%
6	6	6	6	6	6	6	6	72	3.5%
4	4	4	4	4	4	4	4	48	2.3%
5	5	5	5	5	5	5	5	60	2.9%
5	5	5	5	5	5	5	5	60	2.9%
4	4	4	4	4	4	4	4	48	2.3%
8	38	53	50	62	53	54	34	572	27.5%
4	4							24	1.2%
4	4	4	4	4	4	4	4	48	2.3%
0	0	0	0	0	0	0	0	0	0.0%
									0.0%
5	176	168	184	176	168	176	176	2,080	100.0%
5	176	168	184	176	168	176	176	2,080	
0	0	0	0	0	0	0	0	0	
8	8	8	8	8	8	16	16	96	
5	176	168	184	176	168	176	176	2080	

and hours (which are budgeted in the Project model)

Total
12
96
80
0
0
96
84
12
12
12
12
12
12
12
12
12
12
197
24
12
12
12
115
12
12
12
12
12
12
90
12
349
24
12
12
12
12
60
12
120
48

SJO	AD0005	1	1	1	1	1	1	1	1	1	1	1	1	[illegible]
SJO	AD000980	1	1	1	1	1	1	1	1	1	1	1	1	12
SJO	AD000025			5			2			5			10	22
SJO	AD001017	2	2	2	2	2	2	2	2	2	2	2	2	24
SJO	AD000340	20	20	20	10	20	20	20	20	20	5	20	15	210
SJO	AD000047	21	0	0	6	21	40	0	24	0	0	13	0	125
gm Demand		168	160	184	168	176	176	176	184	176	168	176	176	2,088
		168	160	184	168	176	176	168	184	176	168	176	176	2,080
	LEGAL-GENER	0	0	0	0	0	0	-8	0	0	0	0	0	-8
r2)		0	8	8	0	8	8	8	8	8	8	16	16	96
		168	160	184	168	176	176	168	184	176	168	176	176	2080

Supply hours due to Project/Program Demand hours (which are budgeted in the Project model)

Labor Input Sheet - NonProje ıProgram
2005

a (RA) PNC
ss Enabler (SAL)

Prepared by CKF
Date 6/5/2003

	Dimension tab card							Rates tab ca	Units tab card													
e Item	RA	Act	Loc	Ind	Proj	EE	Labor Class	Rates Link T	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
pply:									*(enter employee count in "Units tab card")*													
y	PNC	*Supply	*Supply	*Supply	*Supply	*Supply	Enabler (SAL)	*Available H	1	1	1	1	1	1	1	1	1	1	1	1	12	
mand:									*(enter hours in "Units tab card")*													
	PNC	098	PHE	ND		107	Enabler (SAL)		0	8	8	0	8	8	8	8	8	8	16	16	96	4.6%
	PNC	098	PHE	ND		107	Enabler (SAL)				40			40						40	120	5.8%
	PNC	098	PHE	ND		107	Enabler (SAL)														0	0.0%
rip	PNC	098	PHE	ND		108	Enabler (SAL)														0	0.0%
n-HECO	PNC	700	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD000067	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
:O	PNC	701	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD000006	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
IECO	PNC	745	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD000051	8	8	8	8									32	1.5%
it-HECO	PNC	760	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD0000847	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
l-HECO	PNC	785	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD000063	20	5	8	1	1	1	1	1	1	1	1	1	42	2.0%
CO	PNC	789	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD000075	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
omm-HECO	PNC	807	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD000028	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
ıcessing/Matls	PNC	843	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD000044	4	4	4	4	4	4	4	4	4	4	4	4	48	2.3%
ECO	PNC	844	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD000011	10	10	10	10	10	10	10	10	10	10	10	10	120	5.8%
ings / Reports	PNC	960	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD000340	30	30	30	30	30	30	30	30	30	30	30	30	360	17.3%
overnance	PNC	961	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD001017	7	7	7	7	7	7	7	7	7	7	7	7	84	4.0%
get, Dev/Mnge F	PNC	701	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	LA000002	4	3	3	3	4	2	3	4	3	4	3	2	38	1.8%
gn/Deploy Strat	PNC	722	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	LA000003	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
ing (Perf App)	PNC	785	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	LA000005	5												5	0.2%
(Admin)	PNC	807	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	LA000007	6	6	6	6	6	6	6	6	6	6	6	6	72	3.5%
age Engr	PNC	926	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	LA000009	4	3	3	3	4	2	3	4	3	4	3	2	38	1.8%
age Fac KS	PNC	926	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	LA000012	1	1	1	1	1	1	1	1	1	1	1	1	12	0.6%
ments	PNC	928	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	LA000015	10	10	8	10	10	8	10	10	10	10	10	6	112	5.4%
al-HECO	PNC	960	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD000047	45	55	38	71	81	47	71	89	83	69	75	41	765	36.8%
e-HECO	PNC	961	PHE	NE	NPNCZZZZ	150	Enabler (SAL)	AD000025	4			4			4			4			16	0.8%
							Total NonProj/Pgm Demand		168	160	184	168	176	176	168	184	176	168	176	176	2,080	100.0%
							Total Supply		168	160	184	168	176	176	168	184	176	168	176	176	2,080	
								LEGAL-GENER	0	0	0	0	0	0	0	0	0	0	0	0	0	
2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2)									0	8	8	0	8	8	8	8	8	8	16	16	96	
hours per employee									168	160	184	168	176	176	168	184	176	168	176	176	2080	

Total NonProject/NonProgram Demand hours may *NOT* equal Total Supply hours due to Project/Program Demand hours (which are budgeted in the Project model)

4.6%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	91.5%	100.0%

Labor Input Sheet - NonProject/NonProgram

2005

Resp Area (RA) PNC
Labor Class Implementor (CA)

Prepared by CKF
Date 4/16/2003

Dimension tab card								Rates tab ca	Units tab card												
Line Item	RA	Act	Loc	Ind	Proj	EE	Labor Class	tates Link T	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
Labor Supply:									*(enter employee count in "Units tab card")*													
Labor Supply	PNC	Supply	Supply	Supply	Supply	Supply	Implementor (CA)	Available H	1	1	1	1	1	1	1	1	1	1	1	1	12	
Labor Demand:									*(enter hours in "Units tab card")*													
Holiday	PNC	098	PHE	ND		107	Implementor (CA)		0	8	8	0	8	8	8	8	8	8	16	16	96	4.6%
Vacation	PNC	098	PHE	ND		107	Implementor (CA)				40								40		80	3.8%
Other NPW	PNC	098	PHE	ND		107	Implementor (CA)														0	0.0%
Workers Comp	PNC	098	PHE	ND		108	Implementor (CA)														0	0.0%
	PNC					160	Implementor (CA)														0	0.0%
Employment	PNC	765	PHE	NE	NPNCZZZZ	160	Implementor (CA)	AD000030	10	10	10	10	10	10	10	10	10	10	10	10	120	5.8%
Due Diligence (Financings)	PNC	961	PHE	NE	NPNCZZZZ	160	Implementor (CA)	AD000025	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
Due Diligence-HEI	PNC	961	HEI	BE	NPNCZZZZ	160	Implementor (CA)	AD000132	5			5			5			5		5	25	1.2%
Litigation (Doc Prod)	PNC	950	PHE	NE	NPNCZZZZ	160	Implementor (CA)	AD000059	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
Litigation (PI)	PNC	950	PHE	NE	NPNCZZZZ	160	Implementor (CA)	AD000055	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
MECO-Litigation (PI)	PNC	950	MAU	BE	NPNCZZZZ	160	Implementor (CA)	AD000117	1	1	1	1	1	1	1	1	1	1	1	1	12	0.6%
MECO-Land	PNC	928	MAU	BE	NPNCZZZZ	160	Implementor (CA)	AD000113	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
HELCO-Land	PNC	928	HEL	BE	NPNCZZZZ	160	Implementor (CA)	AD000094	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
HELCO-Litigation (PI)	PNC	950	HEL	BE	NPNCZZZZ	160	Implementor (CA)	AD000098	2	2	2	2	2	2	2	2	2	2	2	2	24	1.2%
Legal-General	PNC	960	PHE	NE	NPNCZZZZ	160	Implementor (CA)	AD000047	131	120	104	131	136	136	123	144	136	123	88	123	1,495	71.9%
CIS Replacement	PNC	618	PHE	NE	P0000571	160	Implementor (CA)		0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
							Total NonProj/Pgm Demand		168	160	184	168	176	176	168	184	176	168	176	176	2,080	100.0%
							Total Supply		168	160	184	168	176	176	168	184	176	168	176	176	2,080	
								LEGAL-GENEI	0	0	0	0	0	0	0	0	0	0	0	0	0	

Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Holidays	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

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)

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Labor Input Sheet - NonProject/NonProgram

2005

Resp Area (RA) PNC

Labor Class Implementor (DVO)

Prepared by CKF

Date 6/5/2003

Dimension tab card								Rates tab ca	Units tab card													
Line Item	RA	Act	Loc	Ind	Proj	EE	Labor Class	ates Link T	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
Labor Supply:									*(enter employee count in "Units tab card")*													
Labor Supply	PNC	Supply	Supply	Supply	Supply	Supply	Implementor (D	Available	1	1	1	1	1	1	1	1	1	1	1	1	12	
Labor Demand:									*(enter hours in "Units tab card")*													
Holiday	PNC	098	PHE	ND		107	Implementor (DVO)		0	8	8	0	8	8	8	8	8	8	16	16	96	4.6%
Vacation	PNC	098	PHE	ND		107	Implementor (DVO)								80	80					160	7.7%
Other NPW	PNC	098	PHE	ND		107	Implementor (DVO)														0	0.0%
Workers Comp	PNC	098	PHE	ND		108	Implementor (DVO)														0	0.0%
Payroll	PNC	777	PHE	NE	NPNCZZZZ	150	Implementor (D	AD000073	20	20	20	20	20	20	20	20	20	20	20	20	240	11.5%
Invoices-Processing/matls	PNC	843	PHE	NE	NPNCZZZZ	150	Implementor (D	AD000044	1	1	1	1	1	1	1	1	1	1	1	1	12	0.6%
Litigation-PI-Docketing	PNC	950	PHE	NE	NPNCZZZZ	150	Implementor (D	AD000055	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
Meetings / Reports (Admin)	PNC	960	PHE	NE	NPNCZZZZ	150	Implementor (D	AD000340	4	4	4	4	4	4	4	4	4	4	4	4	48	2.3%
Legal-General	PNC	960	PHE	NE	NPNCZZZZ	150	Implementor (D	AD000047	138	122	146	138	138	138	50	66	138	130	130	130	1464	70.4%
							Total NonProj/Pgm Demand		168	160	184	168	176	176	168	184	176	168	176	176	2,080	100.0%
							Total Supply		168	160	184	168	176	176	168	184	176	168	176	176	2,080	
								LEGAL-GENE	0	0	0	0	0	0	0	0	0	0	0	0	0	
Holidays - 1/1, 2/16, 4/9, 5/31, 6/11, 7/5, 8/20, 9/6, 10/11, 11/2, 11/11, 11/25, 12/23 (1/2), 12/27, 12/31 (1/									8	8	0	8	8	8	8	8	8	8	24	16	112	
Available hours per employee									168	160	184	168	176	176	168	184	176	168	176	176	2096	

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)

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S:\Management\Accounting\MacctBud\Forecast\Forms\LABOR INPUT 2005 (2).xls

Labor Input Sheet - NonProject/NonProgram

2005

Prepared by CKF
Date 4/16/2003

		Rates tab ca	Units tab card													
EE	Labor Class	ates Link T	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
			(enter employee count in "Units tab card")													
upply	Implementor (U)	Available	1	1	1	1	1	1	1	1	1	1	1	1	12	
			(enter hours in "Units tab card")													
07	Implementor (U)		0	8	8	0	8	8	8	8	8	8	16	16	96	4.6%
07	Implementor (U)				40			40						40	120	5.8%
07	Implementor (U)														0	0.0%
08	Implementor (U)														0	0.0%
50	Implementor (U)	AD000073	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
50	Implementor (U)	AD000055	3	3	3	3	3	3	3	3	3	3	3	3	36	1.7%
50	Implementor (U)	AD000058	3	3	3	3	3	3	3	3	3	3	3	3	36	1.7%
50	Implementor (U)	AD000044	48	32	32	48	40	30	44	44	44	40	48	30	480	23.1%
50	Implementor (U)	AD000340	4	4	4	4	4	4	4	4	4	4	4	4	48	2.3%
50	Implementor (U)	AD000006	35	35	27	35	35	30	35	35	35	35	35	25	397	19.1%
50	Implementor (U)	AD000669	21	21	21	21	21	19	21	21	21	21	21	18	247	11.9%
50	Implementor (U)	AD000797	21	21	21	21	21	19	21	21	21	21	21	18	247	11.9%
50	Implementor (U)	AD000030	5	5	5	5	5	5	5	5	5	5	5	5	60	2.9%
50	Implementor (U)	AD000047	23	23	15	23	31	10	19	35	27	23	15	9	258	12.2%
tal NonProj/Pgm Demand			168	160	184	168	176	176	168	184	176	168	176	176	2,080	100.0%
tal Supply			168	160	184	168	176	176	168	184	176	168	176	176	2,080	
		LEGAL-GENE	0	0	0	0	0	0	0	0	0	0	0	0	0	
/23 (1/2), 12/26, 12/30 (1/2)			0	8	8	0	8	8	8	8	8	8	16	16	96	
			168	160	184	168	176	176	168	184	176	168	176	176	2080	

y *NOT* equal Total Supply hours due to Project/Program Demand hours (which are budgeted in the Project model)

Hawaiian Electric Company, Inc.
2005 Test Year Rate Case

Customer Service Expense
O&M Expense Budget

Workpapers

PQC Corporate Communications
("Corp Comm")

Corp Comm
Allocation of Vacation Hours
2004/2005 Forecast

2004

NAME		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Teacher/Coach														
Mike						40						40	40	120
Harry							40					40	40	120
Pepi				40			40						40	120
Annette							40						20	60
New ee													40	40
Peter						40							40	80
Jose				28			20		24			8	40	120
New ee													40	40
Bruce									80				40	120
TOTAL		0	0	68	0	80	140	0	104	0	0	88	340	820
Facilitator														
Lynne				24		8	16	8	64			8	32	160
Implementor														
Chris				20		32			20			8	40	120

2005

NAME		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Teacher/Coach														
Mike						40						40	40	120
Harry	(15 yr @3/05)			40			40					40	40	160
Pepi				40			40						40	120
Annette							40						20	60
New ee													40	40
Peter						40							40	80
Jose				28			20		24			8	40	120
New ee								40					40	80
Bruce									80				40	120
TOTAL		0	0	108	0	80	140	40	104	0	0	88	340	900
Facilitator														
Lynne				24		8	16	8	64			8	32	160
Implementor														
Chris				20		32			20			8	40	120

ST										
escription	AV #1	AV #2	Comm Consul1	Comm Consul2	Comm Consul3	Comm Consul4	Comm Consul5	Comm Consul6	(Eng Lib) Comm Consul7	TOTAL TEACHER/ COACH
lan & Develop Marketing Programs - Core	0	100	0	0	0	50	0	0	0	150
(Use for PCEA and other Energy Services		100	0			50				
Seminars...and for assistance in the PLANNING of										
marketing programs for residential & commercial										
customers within regulated business)										
		0								0
nplement Marketing Programs - Core (HECO)		40								40
(Use for activities to carry out Energy Services										
marketing plans developed in 102...										
e.g., AV work to support a marketing video, PowerLines)										
Powerlines project info input by Stanley Shimoda.										
nplement Marketing Programs - Core (HELCO)		0								0
nplement Marketing Programs - Core (MECO)										0
evelop & Manage Customer Relationships	0	10	150	10	0	0	0	0	0	170
NOTE: Use for DOD-HECO & UH Pship work.										
See 750 for most other Corp Comm customer work)										
DOD Pship		10	150	10						
UH Pship							0			
CHP/DG						0				
evelop/Administer Business Plans	4	4	4	4	4	4	4	4	0	32
Competition Docket					0	0				0
Strat Planning	4	4	4	4	4	4	4	4		32
evelop/Administer Forecasts						0				0
dminister & Implement IRP Programs - BASE										
abor - HECO			80		0					80
abor - HELCO			80							80
abor - MECO (INCREMENTAL)			~~10~~							10
dminister & Implement DSM Programs - BASE										
I Energy Efficiency (CIEE) Labor - HECO		10								10
I New Construction (CINC) Labor - HECO										0
I Customized Rebate (CICR) Labor - HECO										0
esidential Efficient Water Heating (REWH) Labor - HECO		10								10
esidential New Construction (RNC) Labor - HECO										0

2005

Corp Comm
LABOR HOURS FORECAST
2005

Acct Blk	Activity Number	Description	AV #1	AV #2	Comm Consul1	Comm Consul2	Comm Consul3	Comm Consul4	Comm Consul5	Comm Consul6	(Eng Lib) Comm Consul7	TOTAL TEACHER/ COACH
	713	CIEE Labor - HELCO		30								30
	713	REWH Labor - HELCO										0
	713	CIEE Labor - MECO		30								30
	713	REWH Labor - MECO										0
920	720	**Improve Business Processes**	0	0	0	0	100	0	0		0	100
		ELLIPSE						0	0			0
		Environmental Compliance Committee					100		0			
920	735	**Prepare & Support Rate Case filings**						20				20
920	745	**Maintain Relations w/ Legislators & Govt Agencies**	10		0			10				20
920	747	**Manage/Participate In Environmental Initiatives**					70					70
920	749	**Maintain Relations w/ Industry, Professional & Trade Organizations**	0	0	8	12			8			28
910	750	**Maintain Relations w/ Customers - HECO**	348	20	636	198	252	1058	649	1076	0	4237
		Issues Management (including emergency preparedness)	20	0	250	70	160	530		420		1450
		Speakers Bureau			50	0						50
		Internet maintenance	150									150
		Other customer brochures/publications						0				0
		Customer Survey - HECO										0
		VIP Letters (HECO)						0				0
		Misc office										0
		Transportation										0
		HECO In Your Community - labor (other than for advertising)			8			0				8
		Staff Meetings - customer issues	78	0	78	78	78	78	78	78	0	546
		UG task force										0
		Misc - customer relations (inquiries, phones, etc)	100	20	250	50	14	450	571	578		2033
												0
910	750	**Consumer Lines - HECO**			10			10	160	10		190
910	750	**Maintenance - HECO**	120	400				0	0			520
910	750	**Electric Kitchen**	650	150								800
			650	100								
			0									
910	750	**Misc AV Support (HECO) (Customer-related)**	20	200								220
			20	200								
				0								

Corp Comm

LABOR HOURS FORECAST

2005

Acct Blk	Activity Number	Description	AV #1	AV #2	Comm Consul1	Comm Consul2	Comm Consul3	Comm Consul4	Comm Consul5	Comm Consul6	(Eng Lib) Comm Consul7	TOTAL TEACHER/ COACH
910	751	**Administer Informational Advertising**	0	0	0	0	70	0	0		0	70
		Energy Efficiency advertising (incl rule 16 insert/emerg prep)				0	70					70
910	751	**Sun Power for Schools**	0	0	0		0		0			0
	751	Rule 16 insert (HELCO)										0
	751	Rule 16 insert (MECO)										0
920	752	**Maintain Relations w/ Media**			870	24	110	40	10	40		1094
					850	24	110	40	10	40		1074
					20							20
9301	753	**Maintain Relations w/ Community - HECO (O&M)**	10	50	70	168	470	106	351	300	0	1525
		Invention Convention			0	0	0					0
		Electron Marathon		0	30	8	150	6	6			200
		Arbor Day					300		85			385
		March of Dimes							0			0
		Display case							10			10
												0
		Misc Audiovisual support (Community related)	0	50								50

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Corp Comm

LABOR HOURS FORECAST

2005

Acct Blk	Activity Number	Description	AV #1	AV #2	Comm Consul1	Comm Consul2	Comm Consul3	Comm Consul4	Comm Consul5	Comm Consul6	(Eng Lib) Comm Consul7	TOTAL TEACHER/ COACH
		Misc community activities (e.g., McGruff)	10		40	160	20	100	250	300		880
				0		0			0			0
9301	754	**Administer Institutional or Goodwill Advertising**					250					250
920	755	**Maintain Relations with Board of Directors**	8									8
920	756	**Maintain Relations with Investors**										
		Misc Investor Relations / Disclosure work										
	756	GAM										0
	756	Annual Meeting (billed to HEI)										0
	756	Annual Report (billed to HEI)										0
920	777	**Process Payroll**										0
920	785	**Plan for & Determine Employee Training & Develop needs (includes Perf Appraisals)**	8	8	8	8	8	8	8	8	8	72
920	789	**Attend Training**	16	16	16	16	16	16	16			112
920	807	**Manage & Provide Companywide Employee Communications - HECO**	558	728	353	504	478	416	478	444	0	3959
		Staff meetings - employee issues	78	78	78	78	78	78	78	78		624
		Misc employee communications	450	50	275	426	400	338	400	366		2705
		AV support -- ee comm (includes News Bytes)	30	600								630
				0								0

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2005

Corp Comm

LABOR HOURS FORECAST

2005

Acct Blk	Activity Number	Description	AV #1	AV #2	Comm Consul1	Comm Consul2	Comm Consul3	Comm Consul4	Comm Consul5	Comm Consul6	(Eng Lib) Comm Consul7	TOTAL TEACHER/ COACH
920	807	Currents - HECO	10	10	10	350	10	40	20	10		460
920	807	HE 2000+		0	0	0	0	0	0			0
920	807	HUDDLE / Strat Plan	75	80	6	80	6	6	6	10		269
	807	Maintain Relations with Customers - HEI										
		Hoa Hana	0	30	0	240	20	10	40			340
				0								0
	807	Manage & Provide Companywide Employee Communications - HELCO										
		HELCOHANA										
		Currents - HELCO				110			0			0
												110
	807	Manage & Provide Companywide Employee Communications - MECO										
		Currents - MECO				110			0			110
	875	Comply with ongoing permits &/or regulatory reqts - Air					0					0
920	843	Process Invoices & other payments					0	0	0		60	60
932	969	Provide Library and Research Services									1400	1400
	O98	Vacation	160	120	120	120	120	80	80	40	60	900
	O98	Sick										
	O98	Holidays	96	96	96	96	96	96	96	96	48	816
	CAPITAL PROJECTS - TO BE INPUT BY OTHER DEPTS											

					(Eng Lib)	TOTAL
m	Comm	Comm	Comm	Comm	Comm	TEACHER/
sul2	Consul3	Consul4	Consul5	Consul6	Consul7	COACH
		60				69
0						0
		50				80
		0				0
						0
0		0				0
						0
						0
2080	2080	2080	2080	2038	1576	18763
0	0	0	0	-42	-504	43

2005

m			
)URS FORECAST			
		FAC-SUP	BU-OC
Activity			
Number	Description		
102	Plan & Develop Marketing Programs - Core		
	(Use for PCEA and other Energy Services		
	Seminars...and for assistance in the PLANNING of		
	marketing programs for residential & commercial		
	customers within regulated business)		
110	Implement Marketing Programs - Core (HECO)	24	
	(Use for activities to carry out Energy Services		
	marketing plans developed in 102...		
	e.g., AV work to support a marketing video, PowerLines)		
	Powerlines project info input by Stanley Shimoda.		
110	Implement Marketing Programs - Core (HELCO)		
110	Implement Marketing Programs - Core (MECO)		
112	Develop & Manage Customer Relationships	0	0
	(NOTE: Use for DOD-HECO & UH Pship work.		
	See 750 for most other Corp Comm customer work)		
	DOD Pship		
	UH Pship		
	CHP/DG		
	Develop/Administer Business Plans	40	4
738	Competition Docket		
700	Strat Planning	40	4
701	Develop/Administer Forecasts	100	0
711	Administer & Implement IRP Programs - BASE		
711	Labor - HECO	20	
711	Labor - HELCO		
711	Labor - MECO (INCREMENTAL)		
713	Administer & Implement DSM Programs - BASE		
713	CI Energy Efficiency (CIEE) Labor - HECO		
713	CI New Construction (CINC) Labor - HECO		
713	CI Customized Rebate (CICR) Labor - HECO		
713	Residential Efficient Water Heating (REWH) Labor - HECO		
713	Residential New Construction (RNC) Labor - HECO		

2005

m
)URS FORECAST

Activity Number	Description	FAC-SUP	BU-OC
713	CIEE Labor - HELCO		
713	REWH Labor - HELCO		
713	CIEE Labor - MECO		
713	REWH Labor - MECO		
720	**Improve Business Processes**		0
	ELLIPSE		0
	Environmental Compliance Committee		
735	**Prepare & Support Rate Case filings**	30	
745	**Maintain Relations w/ Legislators & Govt Agencies**	125	
747	**Manage/Participate In Environmental Initiatives**		
749	**Maintain Relations w/ Industry, Professional & Trade Organizations**	100	
750	**Maintain Relations w/ Customers - HECO**	**610**	**418**
	Issues Management (including emergency preparedness)	400	10
	Speakers Bureau		
	Internet maintenance	20	
	Other customer brochures/publications		
	Customer Survey - HECO		
	VIP Letters (HECO)		
	Misc office		50
	Transportation		
	HECO In Your Community - labor (other than for advertising)		
	Staff Meetings - customer issues	100	78
	UG task force		
	Misc - customer relations (inquiries, phones, etc)	90	280
		0	
750	**Consumer Lines - HECO**	**40**	**10**
750	**Maintenance - HECO**	**0**	
750	**Electric Kitchen**		50
750	**Misc AV Support (HECO) (Customer-related)**	**0**	

2005

m			
)URS FORECAST			
		FAC-SUP	BU-OC
Activity Number	Description		
751	**Administer Informational Advertising**	5	
	Energy Efficiency advertising (incl rule 16 insert/emerg prep)	5	
751	**Sun Power for Schools**	10	
751	Rule 16 insert (HELCO)		
751	Rule 16 insert (MECO)		
752	**Maintain Relations w/ Media**	100	
		100	
		0	
753	**Maintain Relations w/ Community - HECO (O&M)**	35	65
	Invention Convention		
	Electron Marathon	15	5
	Arbor Day		
	March of Dimes	0	
	Display case		10
	Misc Audiovisual support (Community related)		

	FAC-SUP	BU-OC
	20	50
		60
	Incl ATL TV ad project	
	60	
	120	
	30	
	55	
		60
	80	
	16	**16**
	350	**996**
	100	78
	250	910
		8

2005

m			
)URS FORECAST			
		FAC-SUP	BU-OC
Activity			
Number	Description		
807	Currents - HECO	15	25
807	HE 2000+	0	
807	HUDDLE / Strat Plan	50	8
807	Maintain Relations with Customers - HEI		
	Hoa Hana	10	20
807	Manage & Provide Companywide Employee		
	Communications - HELCO		
	HELCOHANA		
	Currents - HELCO		
807	Manage & Provide Companywide Employee		
	Communications - MECO		
	Currents - MECO		
875	Comply with ongoing permits &/or regulatory reqts - Air		
843	Process Invoices & other payments	35	60
969	Provide Library and Research Services		80
O98	Vacation	160	120
O98	Sick		
O98	Holidays	96	96
CAPITAL PROJECTS - TO BE INPUT BY OTHER DEPTS			

2005

m			
)URS FORECAST			
		FAC-SUP	BU-OC
Activity			
Number	Description		
307	EOTP	30	
320?	New Generation	16	
211	BTL TV advertising	20	
211	PIPELINE	0	
211	Keahole		
TOTAL		2382	2088
		302	8

Hawaiian Electric Company, Inc.
2005 Test Year Rate Case

Customer Service Expense
O&M Expense Budget

Workpapers

PQE Education and Consumer Affairs ("ECA")

July 02 - June 30, 2003 Percent Summary of Labor Hours for E a A

Name	position	701	711	720	731	746	749	750	753	767	777	778	785	789	842	843	891	899	total
Ruth	Clerk							62.52%	4.45%		2.89%			0.71%	9.64%	19.79%			100.00%
Ka'iulani	Director	2.98%	0.74%		0.21%	0.12%		36.65%	50.23%	6.02%			1.98%	1.07%					100.00%
Stacey	Coordinator							92.46%	6.50%	0.44%			0.22%	0.36%					100.00%
Liane	Coordinator							46.79%	52.15%					1.06%					100.00%
Candace	Administrator							16.46%	83.02%					0.51%					100.00%
Ellie	Administrator	0.16%						64.35%	33.72%				0.16%	1.61%					100.00%
Karen	Administrator	20.73%			0.15%			59.18%	17.49%	0.85%			1.23%	0.37%					100.00%

To calculate 2004 labor cost
July 1, 2002 to
June 30, 2003 > DARS 1706 Labor Report to Excel

Actuals

(Since Ellie + Lianne started in Nov. 2002)

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Kds

Labor Input Sheet - NonProject
2005

Resp Area (RA) PQE
Labor Class FS

Prepared by Karen Watanabe
Date 8/5/2003

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	PQE	*Supply	*Supply	*Supply	*Supply	*Supply	FS	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12			
Labor Demand:									*(enter hours in "Units tab card")*															
Holiday	PQE	098	PHE	ND		107	FS	FS	0	8	8	0	8	8	8	8	8	8	16	16	96			
Vacation	PQE	098	PHE	ND		107	FS	FS					40				40		20	20	120			
Other NPW	PQE	098	PHE	ND		107	FS	FS													0			
Workers Comp	PQE	098	PHE	ND		108	FS	FS													0			
Maintain Rel Comm	PQE	753				150	FS	FS	101	85	133	96	57	91	78	94	51	75	73	73	1,007	1002.37	83.5305	0.53775
Maintain Rel Cust	PQE	750				150	FS	FS	64	64	40	64	58	64	64	64	64	72	64	64	746	749.235	62.4362	0.40195
Respond to Cust. Inq.	PQE	600				150	FS	FS	0	0	0	0	0	0	0	0	0	0	0	0	0			
Attend Training	PQE	789				150	FS	FS					10					10			20	19.9448	1.66207	0.0107
Dev & Manage Forecasts	PQE	701				150	FS	FS				5		10	15	15	10				55	55.5472	4.62893	0.0298
Plan EE Training & Dev	PQE	785				150	FS	FS	3	3	3	3	3	3	3	3	3	3	3	3	36	36.9072	3.0756	0.0198
	PQE					150	FS	FS													0			
	PQE					150	FS	FS													0	1864		1.00
	PQE					150	FS	FS													0			
	PQE					150	FS	FS													0			
Total NonProj/Pgm Demand									168	160	184	168	176	176	168	184	176	168	176	176	2,080			
Total Supply									168	160	184	168	176	176	168	184	176	168	176	176	2,080	1,984	1,864	
									0	0	0	0	0	0	0	0	0	0	0	0				

Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Holidays	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
Vehicle	168	152	176	168	168	168	160	176	168	160	160	160	

NOTE: Total NonProject Demand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

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Rut.

Labor Input Sheet - NonProject/NonProgram
2005

Resp Area (RA) PQE
Labor Class BUOC

Prepared by Karen Watanabe
Date 8/5/2003

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	PQE	75 Supv	75 Supv	75 Supv	75 Supv	75 Supv	BUOC	Avg. 36 hr/wk	1	1	1	1	1	1	1	1	1	1	1	1	12			
Labor Demand:									*(enter hours in "Units tab card")*															
Holiday	PQE	09	PHE	NE		07	BUOC	BUOC	0	8	8	0	8	8	8	8	8	8	16	16	96			
Vacation	PQE	09	PHE	NE		07	BUOC	BUOC			40			20		20				80	160			
Other NPW	PQE	09	PHE	NE		07	BUOC	BUOC													0			
Workers Comp	PQE	09	PHE	NE		07	BUOC	BUOC													0			
Maintain Rel Comm	PQE	753	PHE	NE	NPQEZZZZ	07	BUOC	BUOC	16	16	40	8	0	0	0	0	0	0	0	0	80	81.168	6.764	0.0445
Maintain Rel Cust	PQE	750	PHE	NE	NPQEZZZZ	07	BUOC	BUOC	115	83	43	107	119	103	115	107	123	111	91	19	1136	1140.36	95.0304	0.6252
Respond to Cust. Inq.	PQE	600	PHE	NE	NPQEZZZZ	07	BUOC	BUOC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Attend Training	PQE	789	PHE	NE	NPQEZZZZ	07	BUOC	BUOC					4			4		4			12	12.9504		0.0071
Payroll	PQE	777	PHE	NE	NPQEZZZZ	07	BUOC	BUOC	5	5	5	5	5	5	5	5	5	5	5	5	60	52.7136	4.3928	0.0289
Order Materials	PQE	842	PHE	NE	NPQEZZZZ	07	BUOC	BUOC	8	16	16	16	16	16	16	16	16	16	16	8	176	175.834	14.6528	0.0964
Process Payment	PQE	843	PHE	NE	NPQEZZZZ	07	BUOC	BUOC	24	32	32	32	24	24	24	24	24	24	48	48	360	360.97	30.0808	0.1979
	PQE					07	BUOC	BUOC													0			
	PQE					07	BUOC	BUOC													0	1824		1
	PQE					07	BUOC	BUOC													0			
								Total NonProj/Pgm Demand	168	160	184	168	176	176	168	184	176	168	176	176	2,080			
								Total Supply	168	160	184	168	176	176	168	184	176	168	176	176	2,080	1,984	1,824	
									0	0	0	0	0	0	0	0	0	0	0	0				
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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			

2/19/04 - Add the 8 hours back - CIS training deferred to 2006
8/20/03
reduce by 8 for CIS training

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)

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Adm ısolidated

Labor Input Sheet - NonProject/No... ..ogram
2005

Resp Area (RA) PQE
Labor Class TC

Prepared by Karen Watanabe
Date 8/5/2003

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	PQE	*Supply	*Supply	*Supply	*Supply	*Supply	TC	Available Hours	3	3	3	3	3	3	3	3	3	3	3	3	36
Labor Demand:																					
									(enter hours in "Units tab card")												
Holiday	PQE	098	PHE	ND		107	TC	TC	0	24	24	0	24	24	24	24	24	24	48	48	288
Vacation	PQE	098	PHE	ND		107	TC	TC	0	40	0	40	0	40	40	40	40	20	40	100	400
Other NPW	PQE	098	PHE	ND		107	TC	TC	0	0	0	0	0	0	0	0	0	0	0	0	0
Workers Comp	PQE	098	PHE	ND		108	TC	TC	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	
Maintain Rel Comm	PQE	753				150	TC	TC	252	308	360	200	216	144	165	176	179	173	160	150	2,483
Maintain Rel Cust	PQE	750				150	TC	TC	240	97	157	241	254	253	193	233	252	225	254	214	2,613
Respond to Cust. Inq.	PQE	600				150	TC	TC	0	0	0	0	0	0	0	0	0	0	0	0	0
Attend Training	PQE	789				150	TC	TC	0	0	0	5	8	5	8	5	3	12	0	0	46
Dev & Manage Forecasts	PQE	701				150	TC	TC	8	8	8	16	24	60	72	72	28	48	24	16	384
Plan EE Training & Dev	PQE	785				150	TC	TC	4	3	3	2	2	2	2	2	2	2	2	0	26
	PQE					150	TC	TC													0
	PQE					150	TC	TC													0
	PQE					150	TC	TC													0
	PQE					150	TC	TC													0
								Total NonProj/Pgm Demand	504	480	552	504	528	528	504	552	528	504	528	528	6,240
								Total Supply	504	480	552	504	528	528	504	552	528	504	528	528	6,240
									0	0	0	0	0	0	0	0	0	0	0	0	0
Holidays - 2/21, 3/25, 5/30, 6/10, 7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (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

kw 2/19/04 Add 24 hours back CIS training deferred to 2006 8/20/03 rcw reduce by (3x8)=24 for CIS training

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)

et - NonProject/NonProgram
2005

Prepared by Karen Watanabe
Date 8/4/2003

card	Units tab card														
k To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total		
(enter employee count in "Units tab card")															
	1	1	1	1	1	1	1	1	1	1	1	1	12		
(enter hours in "Units tab card")															
	0	8	8	0	8	8	8	8	8	8	16	16	96		
				40		40		40				40	160		
													0		
													0		
	160	144	168	104	144	96	117	120	133	117	112	104	1,619	1514.28	0.8302
	8	8	8	24	24	32	40	16	32	40	48	16	296	300.23	0.1646
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
							3		3	3			9	9.3024	0.0051
													0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
													0	1823.82	0.9999
													0		
													0		
													0		
													0		
	168	160	184	168	176	176	168	184	176	168	176	176	2,080		
	168	160	184	168	176	176	168	184	176	168	176	176	2,080	1,984	
	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	8	8	0	8	8	8	8	8	8	16	16	96		
	168	160	184	168	176	176	168	184	176	168	176	176	2080		

/ hours due to Project/Program Demand hours (which are budgeted in the Project model)

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NonProject/NonProgram
2005

Prepared by Karen Watanabe
Date 8/4/2003

Units tab card															
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total			
(enter employee count in "Units tab card")															
1	1	1	1	1	1	1	1	1	1	1	1	12			
(enter hours in "Units tab card")															
0	8	8	0	8	8	8	8	8	8	16	16	96			
								40			40	80			
												0			
												0			
60	120	120	40	40	40	40	40	30	40	40	30	640	642.029	53.5024	0.3372
107	31	55	123	123	123	115	131	98	115	120	90	1,233	1225.22	102.102	0.6435
												0	0		0
			5	5	5	5	5		5			30	30.6544		0.0161
												0	0		0
1	1	1										3	3.0464		0.0016
												0	1900.95		0.9984
												0			
												0			
												0			
												0			
168	160	184	168	176	176	168	184	176	168	176	176	2,080			
168	160	184	168	176	176	168	184	176	168	176	176	2,080	1,984	1,904	
0	0	0	0	0	0	0	0	0	0	0	0				
0	8	8	0	8	8	8	8	8	8	16	16	96			
168	160	184	168	176	176	168	184	176	168	176	176	2080			

rs due to Project/Program Demand hours (which are budgeted in the Project model)

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8/5/2003

0.1749
0.5918
0
0.0037
0.2073
0.0123
0.99

319.018
1079.44
0
6.7488
378.115
22.4352
1805.76

1,824
1,984

8/5/2003

eet - NonProject/Nonrrogram
2005

Prepared by Karen Watanabe
Date 8/5/2003

ab card	Units tab card												
.ink To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
(enter employee count in "Units tab card")													
e Hours	2	2	2	2	2	2	2	2	2	2	2	2	24
(enter hours in "Units tab card") 2/19/04 KW hold 16 hrs book CIS training 8/20/03													
	0	16	16	0	16	16	16	16	16	16	32	32	192
	40	0	0	0	0	0	80	0	0	0	0	40	160
	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	
	134	142	198	167	45	70	35	70	74	38	58	87	1,118
	159	158	160	166	282	258	203	275	255	272	259	190	2,627
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	5	5	0	5	4	8	0	0	27
	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	4	4	3	4	3	2	2	3	2	3	3	36
													0
													0
													0
													0
	336	320	368	336	352	352	336	368	352	336	352	352	4,160
	336	320	368	336	352	352	336	368	352	336	352	352	4,160
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	8	8	0	8	8	8	8	8	8	16	16	96
	168	160	184	168	176	176	168	184	176	168	176	176	2080

ply hours due to Project/Program Demand hours (which are budgeted in the Project model)

8/5/2003

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abor Input Sheet - NonProject/NonProgram
2005

Prepared by Karen Watanabe
Date 8/5/2003

	Rates tab card	Units tab card															
or Class	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total			
		(enter employee count in "Units tab card")															
	[illegible]	1	1	1	1	1	1	1	1	1	1	1	1	12			
		(enter hours in "Units tab card")															
		0	8	8	0	8	8	8	8	8	8	16	16	96			
		40						40						80			
														0			
														0			
		4	16	40	32	4	4	4	4	4	4	4	4	124	123.76		0.065
		123	134	134	134	162	162	115	171	159	152	155	154	1,755	1760.44		0.9246
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
										4	3			7	7.2352		0.0038
														0	0		
		1	2	2	2	2	2	1	1	1	1	1	2	18	19.04		0.01
														0			1.0034
														0			
														0			
														0			
														0			
oj/Pgm Demand		168	160	184	168	176	176	168	184	176	168	176	176	2,080			
/		168	160	184	168	176	176	168	184	176	168	176	176	2,080	1,984	1,904	
		0	0	0	0	0	0	0	0	0	0	0	0	0			
12/26, 12/30 (1/2)		0	8	8	0	8	8	8	8	8	8	16	16	96			
		168	160	184	168	176	176	168	184	176	168	176	176	2080			

qual Total Supply hours due to Project/Program Demand hours (which are budgeted in the Project model)

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or Input Sheet - NonProject/NonProgram
2005

Prepared by Karen Watanabe
Date 8/5/2003

	Rates tab card	Units tab card														
Class	Rates Link To	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total		
		(enter employee count in "Units tab card")														
		1	1	1	1	1	1	1	1	1	1	1	1	12		
		(enter hours in "Units tab card")														
		0	8	8	0	8	8	8	8	8	8	16	16	96		
								40					40	80		
														0		
														0		
		130	126	158	135	41	66	31	66	70	34	54	83	994	992.936	0.5215
		36	24	16	32	120	96	88	104	96	120	104	36	872	890.882	0.4679
														0	0	0
						5	5		5		5			20	20.1824	0.0106
														0	0	0
		2	2	2	1	2	1	1	1	2	1	2	1	18	19.04	0.01
														0		1.01
														0		
														0		
														0		
														0		
														0		
'gm Demand		168	160	184	168	176	176	168	184	176	168	176	176	2,080		
		168	160	184	168	176	176	168	184	176	168	176	176	2,080	1,984	1,904
		0	0	0	0	0	0	0	0	0	0	0	0			
6, 12/30 (1/2)		0	8	8	0	8	8	8	8	8	8	16	16	96		
		168	160	184	168	176	176	168	184	176	168	176	176	2080		

l Total Supply hours due to Project/Program Demand hours (which are budgeted in the Project model)

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8/5/2003

Hawaiian Electric Company, Inc.
2005 Test Year Rate Case

Customer Service Expense
O&M Expense Budget

Workpapers

PS0 Energy Services

Energy Services Department
Employee Count

CA-IR-1 (c)

Employee Count by Department/Division
O&M Labor costs roll up to NARUC accounts 909, 910 & 920.

RA	a/o 4/30/04* (a)	2005 Rate Case** (b)	Increase (b)-(a)	Primary O&M roll-up	Comments
SA	2	2		909,910	
SD	6	18	12	910	DSM Program additional hires
SF	5	5		920	
SM	6	8	2	910	DSM Program additional hires
SN	10	12	2	910	Two Account Managers
SP	3	5	2	910/920	One: DSM Position Hire, Other - Billable/O&M (920)
SR	8	10	2	910	One Replacement, One additional DSM Program Hire
TOTAL	**40**	**60**	**20**		

* Per DARS Report 635
** Per Resource Leveling Report - 2005 (12 month average)

- Worksheet can be revised/reformatted as needed.
- (Note: 4/30/04 do not reflect contract

Note:
One new SP Pricing Analyst goes to 920/Billable

unction as of 04/30/2004

SSIFICATION GROUPINGS

EXEC	MERIT	TOTAL
1	124	355
0	6	6
2	1	3
2	7	9
0	5	10
0	3	10
0	11	25
0	19	45
0	5	5
0	2	2
0	5	6
0	7	8
0	5	5
0	6	6
0	9	10
0	3	3
0	37	40
0	3	3

A. He

*EE #	Exp Element	2005 Budget
150	Labor Cost	$3,945
150	Labor Cost	$1,052
150	Labor Cost	$237
		$5,234
150	Labor Cost	$15,236
150	Labor Cost	$15,131
150	Labor Cost	$50,702
150	Labor Cost	$20,188
150	Labor Cost	$3,680
150	Labor Cost	$93,366
150	Labor Cost	$69,684
150	Labor Cost	$42,202
150	Labor Cost	$165,936
150	Labor Cost	$4,416
150	Labor Cost	$478
150	Labor Cost	$1,227
150	Labor Cost	$350,725
150	Labor Cost	$287,406
150	Labor Cost	$2,076
150	Labor Cost	$2,787
150	Labor Cost	$3,374
150	Labor Cost	$13,117
150	Labor Cost	$8,069
150	Labor Cost	$11,115
		$1,160,915
522	Interisland Travel	$900
205	Matl-Purchasing Card	$1,026
462	IS Exp-PC Sftw Purch	179 $196
501	Outside Svcs-General	$6,747
520	Mainland Travel	$1,500
521	Meals & Entertainment	$1,000
205	Matl-Purchasing Card	$1,026
462	IS Exp-PC Sftw Purch	180 $197
501	Outside Svcs-General	$6,747

ESD-Nonproj
12/28/2004

Exp Element	2005 Budget
land Travel	$1,500
s & Entertainment	$1,000
sland Travel	$2,700
sland Travel	$2,700
Purchasing Card	$2,000
cles	200 $182
p-PC Sftw Purch	$8,750
de Svcs-General	$82,015
and Travel	$4,200
& Entertainment	$200
sland Travel	$2,700
Purchasing Card	$4,000
es	6,650 $6,045
-PC Sftw Purch	162 $177
le Svcs-General	$29,525
yee Memberships	$750
nd Travel	$3,450
& Entertainment	$4,500
and Travel	$9,900
urchasing Card	$4,000
es	6,650 $6,045
-PC Sftw Purch	163 $178
e Svcs-General	$9,525
ee Memberships	$750
nd Travel	$3,450
& Entertainment	$4,500
nd Travel	$2,700
nd Travel	$2,700
	$219,482
	$1,380,396

NONPROJECTS
NARUC 909
ESD LABOR

2005 LABOR SHEET

lass..... ENABL
..... Manager -- SA (Enabler)

LABOR INPUT SHEET
2005

Responsibility Areas (RA) PSA
Prepared by SS/ Date

(B) No.* of Emp	(C)=A*B Total Avail Hours	* ST Rate	Dollar Amount	HOLIDAY Activity 098, Location PHE, Indicator ND, Project/WO NPZZZZZZ, EE # 107 — Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	VACATION Activity 098, Location PHE, Indicator ND, Project/WO NPZZZZZZ, EE # 107, 140 hours — HOURS NPW(107)*	Dollar Amount	Activity 102, Location PHE, Indicator NE, Project/WO P0000034, EE # 150, C0000590 (New Product Development) — ST(101)*	Dollar Amount	Activity 111, Location PHE, Indicator, Project/WO Privatization, EE # (Privatization -- Forecast by Eng.) (Forecast Taken out by M. Ho)	Dollar Amount	HOURS NET TO BE SPREAD
1	168	48.49	8,146.32	0	1	0	0.00	12	581.88	8	387.92		0.00	148
1	160	48.49	7,758.40	8	1	8	387.92		0.00	8	387.92		0.00	144
1	184	48.49	8,922.16	8	1	8	387.92	22	1,066.78	8	387.92		0.00	146
1	168	48.49	8,146.32	0	1	0	0.00		0.00	8	387.92		0.00	160
1	176	48.49	8,534.24	8	1	8	387.92	22	1,066.78	8	387.92		0.00	138
1	176	48.49	8,534.24	8	1	8	387.92		0.00	8	387.92		0.00	160
1	168	48.49	8,146.32	8	1	8	387.92	22	1,066.78	8	387.92		0.00	130
1	184	48.49	8,922.16	8	1	8	387.92		0.00	8	387.92		0.00	168
1	176	48.49	8,534.24	8	1	8	387.92	22	1,066.78	8	387.92		0.00	136
1	168	48.49	8,146.32	8	1	8	387.92		0.00	8	387.92		0.00	152
1	176	48.49	8,534.24	16	1	16	775.84	22	1,066.78	8	387.92		0.00	130
1	176	48.49	8,534.24	16	1	16	775.84	18	872.82	8	387.92		0.00	134
	2080		100,859.20	96		96	4,655.04	140	6,788.60	96	4,655.04	0	0.00	1748

Activity / Location / Indicator / Project/WO / EE # (TES TEAM forecasted by M.E. Grace) (96 hours) — ST(101)*	Dollar Amount	Activity 745 (NARUC 909), Location PHE, Indicator NS, Project/WO NPSZZZZZ, EE # 150 (Allow 75hours) (Lobbying /Legislative -- 75 hours) — ST(101)*	Dollar Amount	Activity HECO Acct 795 (NARUC 909), Location Rate, Indicator, Project/WO Case, EE # P0000526 (Forecasted by Regulatory) — ST(101)*	Dollar Amount	Activity CIS Replacement, Location, Indicator, Project/WO, EE # (Forecasted by T. Hull) — ST(101)*	Dollar Amount	Activity 785 (NARUC 909), Location PHE, Indicator NS, Project/WO NPSZZZZZ, EE # 150 (Allow about 20 hours) Performance Appraisals — ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD (be 0) **
8	387.92	10	484.90	80	3,879.20	0	0.00	8	387.92	42
8	387.92	20	969.80	5	242.45	0	0.00		0.00	111
8	387.92	25	1,212.25	5	242.45	0	0.00	10	484.90	98
8	387.92	20	969.80	20	969.80	0	0.00	2	96.98	110
8	387.92	0	0.00	60	2,909.40	0	0.00		0.00	70
8	387.92	0	0.00	80	3,879.20	0	0.00		0.00	72
8	387.92	0	0.00	80	3,879.20	0	0.00		0.00	42
8	387.92	0	0.00	80	3,879.20	0	0.00		0.00	80
8	387.92	0	0.00	20	969.80	0	0.00		0.00	110
8	387.92	0	0.00	20	969.80	0	0.00		0.00	124
8	387.92	0	0.00	0	0.00	0	0.00		0.00	122
96	4,655.04	75	3,636.75	450	21,820.50	0	0.00	20	969.80	1107

BY MENG

UT SHEET
5

Responsibility Areas (RA) PS
Prepared by SS/ Date

VACATION

	098	Activity	789 (NARUC 909)	Activity		HOURS NET TO BE SPREAD
n	PHE	Location	PHE	Location		
or	ND	Indicator	NS	Indicator		
/WO	NPZZZZZZ	Project/WO	NPSZZZZZ	Project/WO		
	107	EE #	150	EE #		
e 160 hours)		(Allow 10 hours training)				
RS 07)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	
13	315.90		0.00		0.00	155
13	315.90		0.00		0.00	139
13	315.90		0.00		0.00	163
13	315.90	5	121.50		0.00	150
13	315.90		0.00		0.00	155
13	315.90	5	121.50		0.00	150
13	315.90		0.00		0.00	147
13	315.90		0.00		0.00	163
14	340.20		0.00		0.00	154
14	340.20		0.00		0.00	146
14	340.20		0.00		0.00	146
14	340.20		0.00		0.00	146
60	3,888.00	10	243.00	0	0.00	1814

	110	Activity	112	Activity		HOURS NET TO BE SPREAD be 0)
	PHE	Location	PHE	Location		
	NE	Indicator	NE	Indicator		
VO	NPSZZZZZ	Project/WO	NPSZZZZZ	Project/WO		
	150	EE #	150	EE #		
.5		0.2				
nt Market Programs		Dev. & Man. Cust. Relations				
*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
8	1,895.40	31	753.30		0.00	0
0	1,701.00	27	656.10		0.00	0
2	1,992.60	33	801.90		0.00	0
5	1,822.50	29	704.70		0.00	0
8	1,895.40	31	753.30		0.00	0
3	1,773.90	31	753.30		0.00	0
4	1,798.20	29	704.70		0.00	0
1	1,968.30	34	826.20		0.00	0
7	1,871.10	31	753.30		0.00	0
4	1,798.20	28	680.40		0.00	0
4	1,798.20	28	680.40		0.00	0
3	1,773.90	29	704.70		0.00	0
9	22,088.70	361	8,772.30	0	0.00	0

PM

2/15/ 4 SA labor assumptions

SA vision
2005 Labor Forecast Assumptions

SAlabassum, is05.xls

Labor Assumptions used to allocate Productive hours for 2005.

TES hours from M. E. Grace. Rate Case hours from Regulatory Affairs.
(Based on discussion with Dave Waller, review of actual hours for 2003.
TES estimates, Rate Case estimates and Dave Waller's "best estimate" of anticipated work.)

				Y2005	
DW	Forecasted as follows:	Act. 110	TES Team	96	(Forecasted by M. E. Grace)
		Act. 102	New Product Development	96	
		Act. 735	HECO Rate Case	450	(Forecasted by Regulatory Affairs)
		Act. 745	Maintain Relations - Leg./Lobbying	75	
		Act. 785	Performance Appraisals/etc.	20	
		Act. 600	CIS Replacement	0	
		Act. 101	Develop Market Plans - Reg.	167	(15% of remaining prod. Time.)
		Act. 102	Plan & Dev. Mktg. Prgms -Core	165	(15% of remaining prod. Time.)
		Act. 110	Implement Marketing Prgms.	554	(50% of remaining prod. Time.)
		Act. 112	Dev. & Main. Cust. Relations	221	(20% of remaining prod. Time.)
SK	Forecasted as follows:	Act. 789	Training	10	
		Act. 101	Develop Market Plans - Reg.	272	(15% of remaining prod. Time.)
		Act. 102	Plan & Dev. Mktg. Prgms -Core	272	(15% of remaining prod. Time.)
		Act. 110	Implement Marketing Prgms.	909	(50% of remaining prod. Time.)
		Act. 112	Dev. & Main. Cust. Relations	361	(20% of remaining prod. Time.)

NONPROJECTS
NARUC 910
ESD LABOR

CA-IR-1
DOCKET NO. 04-0113
HECO T-10
ATTACHMENT D
PAGE 12 OF 42

LABO... ...UT SHEET
2005

Responsibility Areas (RA) PS
Prepared by SB/ Date

HOLIDAY

...y	098
...on	PHE
...tor	ND
...t/WO	NPZZZZZZ
	107

VACATION

Activity	098
Location	PHE
Indicator	ND
Project/WO	NPZZZZZZ
EE #	107

(Assume 160 hours)

Activity	789 (NMRUC 909)
Location	PHE
Indicator	NS
Project/WO	NPSZZZZZ
EE #	150

(Allow 10 hours training)

Activity	
Location	
Indicator	
Project/WO	
EE #	

...day ...urs	No. of Emp	NPW (107)*	Dollar Amount	HOURS NPW(107)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD
0	1	0	0.00	13	315.90		0.00		0.00	155
8	1	8	194.40	13	315.90		0.00		0.00	139
8	1	8	194.40	13	315.90		0.00		0.00	163
0	1	0	0.00	13	315.90	5	121.50		0.00	150
8	1	8	194.40	13	315.90		0.00		0.00	155
8	1	8	194.40	13	315.90	5	121.50		0.00	150
8	1	8	194.40	13	315.90		0.00		0.00	147
8	1	8	194.40	13	315.90		0.00		0.00	163
8	1	8	194.40	14	340.20		0.00		0.00	154
8	1	8	194.40	14	340.20		0.00		0.00	146
16	1	16	388.80	14	340.20		0.00		0.00	146
16	1	16	388.80	14	340.20		0.00		0.00	146
96		96	2,332.80	160	3,888.00	10	243.00	0	0.00	1814

...y	102
...on	PHE
...tor	NE
...t/WO	NPSZZZZZ
	150

0.15

Dev. Mktg. Prgs.-Core

Activity	110
Location	PHE
Indicator	NE
Project/WO	NPSZZZZZ
EE #	150

0.5

Implement Market Programs

Activity	112
Location	PHE
Indicator	NE
Project/WO	NPSZZZZZ
EE #	150

0.2

Dev. & Man. Cust. Relations

Activity	
Location	
Indicator	
Project/WO	
EE #	

...01)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD be 0) **
23			558.90	78	1,895.40	31	753.30		0.00	0
21			510.30	70	1,701.00	27	656.10		0.00	0
24			583.20	82	1,992.60	33	801.90		0.00	0
23			558.90	75	1,822.50	29	704.70		0.00	0
23			558.90	78	1,895.40	31	753.30		0.00	0
23			558.90	73	1,773.90	31	753.30		0.00	0
22			534.60	74	1,798.20	29	704.70		0.00	0
24			583.20	81	1,968.30	34	826.20		0.00	0
23			558.90	77	1,871.10	31	753.30		0.00	0
22			534.60	74	1,798.20	28	680.40		0.00	0
22			534.60	74	1,798.20	28	680.40		0.00	0
22			534.60	73	1,773.90	29	704.70		0.00	0
272			6,609.60	909	22,088.70	361	8,772.30	0	0.00	0

7/29/2003 1:01 PM

NEW 2005 LABOR SHEET

Employee Class..... ENABL
Description..... Manager -- SA (Enabler)

LABOR INPUT SHEET
2005

Responsibility Areas (RA) PSA
Prepared by SS/ Date

	(A) Avail Hrs in Month	(B) No.* of Emp	(C)=A*B Total Avail Hours	* ST Rate	Dollar Amount	HOLIDAY Activity 098, Location PHE, Indicator ND, Project/WO NPZZZZZZ, EE # 107 — Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	VACATION Activity 098, Location PHE, Indicator ND, Project/WO NPZZZZZZ, EE # 107, 140 hours — HOURS NPW(107)*	Dollar Amount	Activity 102, Location PHE, Indicator NE, Project/WO P0000034, EE # 150, C0000590 (New Product Development) — ST(101)*	Dollar Amount	Activity 111, Location PHE, Indicator, Project/WO Privatization, EE # (Privatization -- Forecast by Eng.) (Forecast Taken out by M. Ho)	Dollar Amount	HOURS NET TO BE SPREAD
J	168	1	168	48.49	8,146.32	0	1	0	0.00	12	581.88	8	387.92		0.00	148
F	160	1	160	48.49	7,758.40	8	1	8	387.92		0.00	8	387.92		0.00	144
M	184	1	184	48.49	8,922.16	8	1	8	387.92	22	1,066.78	8	387.92		0.00	146
A	168	1	168	48.49	8,146.32	0	1	0	0.00		0.00	8	387.92		0.00	160
M	176	1	176	48.49	8,534.24	8	1	8	387.92	22	1,066.78	8	387.92		0.00	138
J	176	1	176	48.49	8,534.24	8	1	8	387.92		0.00	8	387.92		0.00	160
J	168	1	168	48.49	8,146.32	8	1	8	387.92	22	1,066.78	8	387.92		0.00	130
A	184	1	184	48.49	8,922.16	8	1	8	387.92		0.00	8	387.92		0.00	168
S	176	1	176	48.49	8,534.24	8	1	8	387.92	22	1,066.78	8	387.92		0.00	138
O	168	1	168	48.49	8,146.32	8	1	8	387.92		0.00	8	387.92		0.00	152
N	176	1	176	48.49	8,534.24	16	1	16	775.84	22	1,066.78	8	387.92		0.00	130
D	176	1	176	48.49	8,534.24	16	1	16	775.84	18	872.82	8	387.92		0.00	134
TOT	2080		2080		100,859.20	96		96	4,655.04	140	6,788.60	96	4,655.04	0	0.00	1748

	Total Hours Remaining to be Spread	Activity, Location, Indicator, Project/WO, EE # (TES TEAM forecasted by M.E. Grace) (96 hours) — ST(101)*			Dollar Amount	Activity 745, Location PHE, Indicator NS, Project/WO NPSZZZZZ, EE # 150 (Allow 75hours) (Lobbying /Legislative -- 75 hours) — ST(101)*			Dollar Amount	Activity HECO, Location, Indicator Rate, Project/WO Case, EE # P0000526 (Forecasted by Regulatory) — ST(101)*	Dollar Amount	Activity CIS Replacement, Location, Indicator, Project/WO, EE # (Forecasted by T. Hull) — ST(101)*	Dollar Amount	Activity 785, Location PHE, Indicator NS, Project/WO NPSZZZZZ, EE # 150 (Allow about 20 hours) Performance Appraisals — ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD be 0)
J	148	8			387.92	10			484.90	80	3,879.20	0	0.00	8	387.92	42
F	144	8			387.92	20			969.80	5	242.45	0	0.00		0.00	111
M	146	8			387.92	25			1,212.25	5	242.45	0	0.00	10	484.90	98
A	160	8			387.92	20			969.80	20	969.80	0	0.00	2	96.98	110
M	138	8			387.92	0			0.00	60	2,909.40	0	0.00		0.00	70
J	160	8			387.92	0			0.00	80	3,879.20	0	0.00		0.00	72
J	130	8			387.92	0			0.00	80	3,879.20	0	0.00		0.00	42
A	168	8			387.92	0			0.00	80	3,879.20	0	0.00		0.00	80
S	138	8			387.92	0			0.00	20	969.80	0	0.00		0.00	110
O	152	8			387.92	0			0.00	20	969.80	0	0.00		0.00	124
N	130	8			387.92	0			0.00	0	0.00	0	0.00		0.00	122
D	134	8			387.92	0			0.00	0	0.00	0	0.00		0.00	126
TOT	1748	96			4,655.04	75			3,636.75	450	21,820.50	0	0.00	20	969.80	1107

BY MENG

SAmanlabor2005forecast.xlw Sheet 2005

2/15/2004 2:22 PM

BY LAS AFE

CA-IR-1
DOCKET NO. 04-0113
HECO T-10
ATTACHMENT D
PAGE 13 OF 42

NEW 2005 LABOR SHEET

Employee Class..... ENABL
Description..... Manager -- SA (Enabler)

LABOR INPUT SHEET
2005

Responsibility Areas (RA) PSA
Prepared by SS/ Date

	Total Hours Remaining to be Spread	Activity 101 Location PHE Indicator NE Project/WO NPSZZZZZ EE # 150 0.15 Develop Market Plans - Reg. ST(101)*			Dollar Amount	Activity 102 Location PHE Indicator NE Project/WO NPSZZZZZ EE # 150 0.15 Plan & Dev. Mktg. Prgs.-Core ST(101)*			Dollar Amount	Activity 110 Location PHE Indicator NE Project/WO NPSZZZZZ EE # 150 0.5 Implement Market Programs ST(101)*	Dollar Amount	Activity 112 Location PHE Indicator NE Project/WO NPSZZZZZ EE # 150 0.2 Dev. & Man. Cust. Relations ST(101)*	Dollar Amount	Activity Location Indicator Project/WO EE # ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD (be 0) **
J	42	5			242.46	6			290.94	23	1,116.27	8	387.92		0.00	0
F	111	17			824.33	17			824.33	55	2,666.95	22	1,066.78		0.00	0
M	98	15			727.35	15			727.35	48	2,327.52	20	969.80		0.00	0
A	110	17			824.33	17			824.33	54	2,618.46	22	1,066.78		0.00	0
M	70	11			533.39	10			484.90	35	1,697.15	14	678.86		0.00	0
J	72	11			533.39	11			533.39	36	1,745.64	14	678.86		0.00	0
J	42	6			290.94	6			290.94	22	1,066.78	8	387.92		0.00	0
A	80	12			581.88	11			533.39	41	1,988.09	16	775.84		0.00	0
S	110	17			824.33	16			775.84	55	2,666.95	22	1,066.78		0.00	0
O	124	19			921.31	19			921.31	60	2,909.40	26	1,260.74		0.00	0
N	122	18			872.82	18			872.82	62	3,006.38	24	1,163.76		0.00	0
D	126	19			921.31	19			921.31	63	3,054.87	25	1,212.25		0.00	0
TOT	1107	197			8,097.63	185			8,000.85	554	26,863.46	221	10,716.29	0	0.00	0

SA vision
2005 Labor Forecast Assumptions

ıs used to allocate Productive hours for 2005.

ı. E. Grace. Rate Case hours from Regulatory Affairs.
sion with Dave Waller, review of actual hours for 2003.
ate Case estimates and Dave Waller's "best estimate" of anticipated work.)

			Y2005	
asted as follows:	Act. 110	TES Team	96	(Forecasted by M. E. Grace)
	Act. 102	New Product Development	96	
	Act. 735	HECO Rate Case	450	(Forecasted by Regulatory Affairs)
	Act. 745	Maintain Relations - Leg./Lobbying	75	
	Act. 785	Performance Appraisals/etc.	20	
	Act. 600	CIS Replacement	0	
	Act. 101	Develop Market Plans - Reg.	167	(15% of remaining prod. Time.)
	Act. 102	Plan & Dev. Mktg. Prgms -Core	165	(15% of remaining prod. Time.)
	Act. 110	Implement Marketing Prgms.	554	(50% of remaining prod. Time.)
	Act. 112	Dev. & Main. Cust. Relations	221	(20% of remaining prod. Time.)

asted as follows:	Act. 789	Training	10	
	Act. 101	Develop Market Plans - Reg.	272	(15% of remaining prod. Time.)
	Act. 102	Plan & Dev. Mktg. Prgms -Core	272	(15% of remaining prod. Time.)
	Act. 110	Implement Marketing Prgms.	909	(50% of remaining prod. Time.)
	Act. 112	Dev. & Main. Cust. Relations	361	(20% of remaining prod. Time.)

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DOCKET NO. 04-0113
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ATTACHMENT D
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OURS NET BE PREAD	42	42	42	42	42	10	10	10	10	10	10	10	280
URS NET BE PREAD be 0) **	0	0	0	0	0	0	0	0	0	0	0	0	0

Responsibility Areas (RA)

Prepared by _____ Date _____

CATION

098	Activity	713	Activity	713	HOURS NET TO BE SPREAD
	Location	REWH	Location	RNC	
	Indicator		Indicator		
ZZZZ	Project/WO	C00002084	Project/WO	C0000310	
	EE #	150	EE #	150	

Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	
0.00	42	1,351.98	42	1,351.98	84
1,287.60	28	901.32	28	901.32	56
0.00	44	1,416.36	44	1,416.36	88
0.00	42	1,351.98	42	1,351.98	84
0.00	44	1,416.36	44	1,416.36	80
0.00	42	1,351.98	42	1,351.98	84
0.00	38	1,223.22	38	1,223.22	84
1,287.60	34	1,094.46	34	1,094.46	68
0.00	42	1,351.98	42	1,351.98	84
0.00	40	1,287.60	40	1,287.60	80
0.00	40	1,287.60	40	1,287.60	80
1,287.60	30	965.70	30	965.70	60
3,862.80	466	15,000.54	466	15,000.54	932

	Activity		Activity	0	HOURS NET TO BE SPREAD be 0)
	Location		Location		
	Indicator		Indicator		
	Project/WO		Project/WO		
	EE #	150	EE #	150	

Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
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	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	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	0

LABOR INPUT SHEET
2005

acher/Coach
ine Wong

Responsibility Areas (RA)
Prepared by
Date

)=A*B			HOLIDAY				VACATION							
			Activity 098				Activity 098		Activity 714		Activity 714			
			Location PHE				Location PHE		Location MECO CIEE		Location MECO CINC			
			Indicator ND				Indicator ND		Indicator		Indicator			
			Project/WO NPSZZZZZ				Project/WO NPSZZZZZ		Project/WO C0002032		Project/WO C0002033			
			EE # 107				EE # 107		EE # 150		EE # 150			
Total Avail Hours	ST Rate	Dollar Amount	Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	HOURS NPW(107)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD	
168	32.19	5,407.92	0	1	0	0.00		0.00	2	64.38	1	32.19	165	
160	32.19	5,150.40	8	1	8	257.52		0.00	3	96.57	2	64.38	147	
184	32.19	5,922.96	8	1	8	257.52		0.00	3	96.57	3	96.57	170	
168	32.19	5,407.92	0	1	0	0.00	40	1,287.60	2	64.38	1	32.19	125	
176	32.19	5,665.44	8	1	8	257.52	0	0.00	3	96.57	1	32.19	164	
176	32.19	5,665.44	8	1	8	257.52	40	1,287.60	3	96.57	1	32.19	124	
168	32.19	5,407.92	8	1	8	257.52		0.00	3	96.57	1	32.19	156	
184	32.19	5,922.96	8	1	8	257.52		0.00	3	96.57	1	32.19	172	
176	32.19	5,665.44	8	1	8	257.52	40	1,287.60	3	96.57	1	32.19	124	
168	32.19	5,407.92	8	1	8	257.52		0.00	2	64.38	1	32.19	157	
176	32.19	5,665.44	16	1	16	515.04		0.00	3	96.57	2	64.38	155	
176	32.19	5,665.44	16	1	16	515.04	40	1,287.60	2	64.38	1	32.19	117	
2080		66,955.20	96		96	3,090.24	160	5,150.40	32	1,030.08	16	515.04	1776	

			Activity 714				Activity 714		Activity 714		Activity 711		HOURS NET TO BE SPREAD be 0)	
			Location MECO RWH				Location HELCO CIEE		Location HELCO RWH		Location PHE			
			Indicator				Indicator		Indicator		Indicator NE			
			Project/WO C0002035				Project/WO		Project/WO		Project/WO CS000066			
			EE # 150				EE # 150		EE # 150		EE # 150			
											HECO IRP			
		Dollar Amount	ST(101)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**	
		32.19	7			225.33	5	160.95	9	289.71	12	386.28	131	
		64.38	8			257.52	6	193.14	10	321.90	12	386.28	109	
		96.57	8			257.52	6	193.14	10	321.90	12	386.28	131	
		32.19	5			160.95	5	160.95	9	289.71	12	386.28	93	
		32.19	6			193.14	5	160.95	9	289.71	14	450.66	129	
		32.19	6			193.14	5	160.95	9	289.71	14	450.66	89	
		32.19	6			193.14	5	160.95	9	289.71	14	450.66	121	
		32.19	6			193.14	5	160.95	9	289.71	14	450.66	137	
		32.19	6			193.14	5	160.95	9	289.71	14	450.66	89	
		32.19	8			257.52	6	193.14	10	321.90	14	450.66	118	
		64.38	8			257.52	6	193.14	10	321.90	14	450.66	115	
		32.19	6			193.14	5	160.95	9	289.71	14	450.66	82	
		515.04	80			2,575.20	64	2,060.16	112	3,605.28	160	5,150.40	1344	

ros. (Available hours = Forecast hours)
ero appear, recheck work.

LABOR INPUT S
2005

Employee Class..... Facilitator/Supervisor -SD
Description..... Norris Creveston

Responsibility Areas (RA)
Prepared by
Date

	(A) Avail Hrs in Month	(B) No.* of Emp	(C)=A*B Total Avail Hours	* ST Rate	Dollar Amount	HOLIDAY Activity 098 Location PHE Indicator ND Project/WO NPSZZZZZ EE # 107 Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	VACATION Activity 098 Location PHE Indicator ND Project/WO NPSZZZZZ EE # 107 HOURS NPW(107)*	Dollar Amount	Activity 711 Location PHE Indicator ND Project/WO CS000066 EE # 150 HECO IRP ST(101)*	Dollar Amount	Activity 735 Location PHE Indicator NE Project/WO P0000526 EE # 150 HECO 2005 Rate Case Forecasted and Inputted by Carolyn Kuwana ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD
J	168	1	168	43.50	7,308.00	0	1	0	0.00		0.00	128	5,568.00	40	1,740.00	0
F	160	1	160	43.50	6,960.00	8	1	8	348.00		0.00	152	6,612.00	0	0.00	0
M	184	1	184	43.50	8,004.00	8	1	8	348.00		0.00	136	5,916.00	40	1,740.00	0
A	168	1	168	43.50	7,308.00	0	1	0	0.00		0.00	128	5,568.00	40	1,740.00	0
M	176	1	176	43.50	7,656.00	8	1	8	348.00	0	0.00	128	5,568.00	40	1,740.00	0
J	176	1	176	43.50	7,656.00	8	1	8	348.00		0.00	128	5,568.00	40	1,740.00	0
J	168	1	168	43.50	7,308.00	8	1	8	348.00		0.00	160	6,960.00	0	0.00	0
A	184	1	184	43.50	8,004.00	8	1	8	348.00	0	0.00	136	5,916.00	40	1,740.00	0
S	176	1	176	43.50	7,656.00	8	1	8	348.00	120	5,220.00	48	2,088.00	0	0.00	0
O	168	1	168	43.50	7,308.00	8	1	8	348.00		0.00	80	3,480.00	80	3,480.00	0
N	176	1	176	43.50	7,656.00	16	1	16	696.00		0.00	160	6,960.00	0	0.00	0
D	176	1	176	43.50	7,656.00	16	1	16	696.00	0	0.00	120	5,220.00	40	1,740.00	0
TOT	2080		2080		90,480.00	96		96	4,176.00	120	5,220.00	1504	65,424.00	360	15,660.00	0

	Total Hours Remainin to be Spread	Activity 714 Location Indicator BE Project/WC C0002062 EE # 150 HELCO CIEE ST(101)*	Dollar Amount	Activity 714 Location HELCO REWH Indicator BE Project/WO C0002067 EE # 150 ST(101)*	Dollar Amount	Activity 714 Location MECO CIEE Indicator BE Project/WO C0002032 EE # 150 ST(101)*	Dollar Amount	Activity 714 Location MECO REWH Indicator BE Project/WO C00002035 EE # 150 ST(101)*	Dollar Amount	Activity 711 Location PHE Indicator HECO IRP Project/WO CS000066 EE # 150 ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD be 0) **
J	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
F	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
M	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
A	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
M	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
J	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
J	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
A	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
S	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
O	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
N	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
D	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
TOT	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0

* Required Data Entry Field
** Column should be all zeros. (Available hours = Forecast hours)
If numbers other than zero appear, recheck work.

SM ision
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.

2/18/2004

SM Division
2005 Forecast

SM Division Assumptions

Staffing:

8 full time employees:

GW/AT	IRP Staff/Market Research
AT	IRP Staff
SS	Budgets
WS	IRP/DSM
MF	Market Research
RE	CLS Work/various

(NEW for 2005)

Two new DSM positions to be forecasted.

(1) Contract hires will not be forecasted by E. Wong as these contract hires will be converted to full-time employees.

(2) DSM program dollars will be forecasted to the DSM programs/projects. Note: Two additional full time SM positions will be added in Y2005 and forecasted under the DSM programs.

(3) DSM program advertising will be derived by Program managers and forecasted under SM Division. These forecasts will be forecasted to the DSM programs/project. Budget for RCEA Program will also be derived by DSM but forecasted to SM.

(4) CLS Project --
MECO to be done Y2004-Y2006.

6/12/2000

Dollar Amount	HOURS NET TO BE SPREAD
0.00	160
0.00	144
0.00	152
0.00	160
0.00	120
0.00	160
0.00	112
0.00	168
0.00	160
0.00	140
0.00	136
0.00	136
0.00	1748

Dollar Amount	HOURS NET TO BE SPREAD (sb be 0) **
0.00	149
0.00	137
0.00	145
0.00	145
0.00	113
0.00	153
0.00	105
0.00	161
0.00	143
0.00	123
0.00	119
0.00	109
0.00	1602

PSM

Date [illegible]

		Activity		HOURS
		Location		NET
		Indicator		TO BE
		Project/WO		SPREAD
		EE #		(sb be 0)
		HECO IRP		
ar unt		ST(101)*	Dollar Amount	**
0.00			0.00	0
0.00			0.00	0
0.00			0.00	0
0.00			0.00	0
0.00			0.00	0
0.00			0.00	0
0.00			0.00	0
0.00			0.00	0
0.00			0.00	0
0.00			0.00	0
0.00			0.00	0
0.00			0.00	0
0.00		0	0.00	0

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HOURS NET TO BE SPREAD (sb be 0)	**	Dollar Amount
	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

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PSM

Date

		Activity		HOURS
		Location		NET
		Indicator		TO BE
ZZZZZ		Project/WO		
		EE #		
for Division)				SPREAD
Dollar Amount		ST(101)*	Dollar Amount	
0.00			0.00	168
0.00			0.00	152
0.00			0.00	176
313.50			0.00	142
0.00			0.00	168
0.00			0.00	152
313.50			0.00	150
0.00			0.00	176
313.50			0.00	142
0.00			0.00	152
313.50			0.00	126
0.00			0.00	120
1,254.00		0	0.00	1824

		Activity		HOURS
		Location		NET
		Indicator		TO BE
		Project/WO		SPREAD
		EE #		(sb be 0)
Dollar Amount		ST(101)*	Dollar Amount	**
0.00			0.00	104
0.00			0.00	87
0.00			0.00	111
0.00			0.00	77
0.00			0.00	103
0.00			0.00	87
0.00			0.00	85
0.00			0.00	111
0.00			0.00	77
0.00			0.00	87
0.00			0.00	61
0.00			0.00	69
0.00		0	0.00	1059

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RA) PSR

S/ Date

	Activity Location Indicator Project/WO EE # HECO IRP		HOURS NET TO BE SPREAD (sb be 0)
Dollar Amount	ST(101)*	Dollar Amount	**
0.00		0.00	0
0.00		0.00	0
0.00		0.00	0
0.00		0.00	0
0.00		0.00	0
0.00		0.00	0
0.00		0.00	0
0.00		0.00	0
0.00		0.00	0
0.00		0.00	0
0.00		0.00	0
0.00		0.00	0
0.00		0.00	0
0.00	0	0.00	0

REVI_ - 2005

LABO_ _PUT SHEET
2005

Employee Class..... TC
Description..... Teacher/Coach -- S. Shimoda

Responsibility Areas (RA) PSM
Prepared by SS/ Date

	(A) Avail Hrs in Month	(B) No.* of Emp	(C)=A*B Total Avail Hours	* ST Rate	Dollar Amount	HOLIDAY Activity 098, Location PHE, Indicator ND, Project/WO NPZZZZZZ, EE # 107 — Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	VACATION Activity 098, Location PHE, Indicator ND, Project/WO NPZZZZZZ, EE # 107 (Assume 140 hours vacation) — HOURS NPW(107)*	Dollar Amount	Activity 721, Location PHE, Indicator NE, Project/WO NPSZZZZZ, EE # 150 (ABM Work) — ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # (HECO RATE CASE) Forecasted by Reg. Affa — ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD
J	168	1	168	31.35	5,266.80	0	1	0	0.00		0.00	12	376.20	12	376.20	144
F	160	1	160	31.35	5,016.00	8	1	8	250.80	8	250.80	12	376.20	1	31.35	131
M	184	1	184	31.35	5,768.40	8	1	8	250.80	24	752.40	12	376.20	1	31.35	139
A	168	1	168	31.35	5,266.80	0	1	0	0.00	8	250.80	12	376.20	3	94.05	145
M	176	1	176	31.35	5,517.60	8	1	8	250.80		0.00	12	376.20	9	282.15	147
J	176	1	176	31.35	5,517.60	8	1	8	250.80	32	1,003.20	12	376.20	12	376.20	112
J	168	1	168	31.35	5,266.80	8	1	8	250.80		0.00	12	376.20	12	376.20	136
A	184	1	184	31.35	5,768.40	8	1	8	250.80		0.00	12	376.20	12	376.20	152
S	176	1	176	31.35	5,517.60	8	1	8	250.80	8	250.80	12	376.20	3	94.05	145
O	168	1	168	31.35	5,266.80	8	1	8	250.80	12	376.20	12	376.20	3	94.05	133
N	176	1	176	31.35	5,517.60	16	1	16	501.60	16	501.60	12	376.20		0.00	132
D	176	1	176	31.35	5,517.60	16	1	16	501.60	32	1,003.20	12	376.20		0.00	116
TOT	2080		2080		65,208.00	96		96	3,009.60	140	4,389.00	144	4,514.40	68	2,131.80	1632

FORECASTED BY REG. AFFAIRS

	Total Hours Remainin to be Spread	Activity 711, Location PHE, Indicator NE, Project NPSZZZZZ, EE # 150 (HECO IRP Base) - ST(101)*			Dollar Amount	Activity, Location, Indicator, Project/WO, EE # — ST(101)*			Dollar Amount	Activity 140, Location PHE, Indicator BN, Project/WO P0000033, EE # 150 (BTL Support) (C0000620) — ST(101)*	Dollar Amount	Activity 701, Location PHE, Indicator NE, Project/WO NPSZZZZZ, EE # 150 (Forecasts) -- Bulk of time (Accounting related support) — ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # — ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD (sb be 0) **
J	144	4			125.40				0.00	9	282.15	131	4,106.85		0.00	0
F	131	24			752.40				0.00	9	282.15	98	3,072.30		0.00	0
M	139	32			1,003.20				0.00	9	282.15	98	3,072.30		0.00	0
A	145	4			125.40				0.00	9	282.15	132	4,138.20		0.00	0
M	147	4			125.40				0.00	9	282.15	134	4,200.90		0.00	0
J	112	4			125.40				0.00	9	282.15	99	3,103.65		0.00	0
J	136	8			250.80				0.00	9	282.15	119	3,730.65		0.00	0
A	152	32			1,003.20				0.00	9	282.15	111	3,479.85		0.00	0
S	145	16			501.60				0.00	9	282.15	120	3,762.00		0.00	0
O	133	4			125.40				0.00	9	282.15	120	3,762.00		0.00	0
N	132	10			313.50				0.00	10	313.50	112	3,511.20		0.00	0
D	116	4			125.40				0.00	10	313.50	102	3,197.70		0.00	0
TOT	1632	146			4,577.10	0			0.00	110	3,448.50	1376	43,137.60	0	0.00	0

* Required Data Entry Field
** Column should be all zeros. (Available hours = Forecast hours)
If numbers other than zero appear, recheck work.

SSLabor2005forecast.xlw Sheet 2005

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URS	168
VET	152
BE	160
	168
	168
	128
	120
	176
	168
	152
	144
	120
READ	824

URS	0
VET	0
BE	0
	0
	0
	0
	0
	0
	0
	0
	0
READ	0

HOURS NET TO BE SPREAD	
	168
	152
	168
	160
	160
	152
	160
	176
	160
	120
	144
	120
	1840

HOURS NET TO BE SPREAD (sb be 0)	**
	0
	0
	0
	0
	0
	0
	0
	0
	0
	0
	0
	0
	0

2/19/2004

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

2005 FC (ITEMS TO CONSIDER)

SN Division:

(1) Labor: Assume Two positions not included in 2004 Current Count.

1 Director
1 Clerical Support
10 Staff --- A/0 Jan.04 8, put in 10 in 2005.
12

(2) No DSM Program contract hire made in 2005. Elaine Wong will not forecast in 2005 for contract hire.

(3) EMS Project: Forecast to be made by Dan Sakamoto. Project to be extended and completed in 2006. Project extended two years from 2004 to 2006.

(4) Major Customer Dinner – included in 2005

(5)All Electric Sub Promo - $65K ads, $225K incentives in past. Same level??? ***YES, keep at same level per DW.***

(6) PCEA – Addressed with Dave. ***Keep in for 2005.***

--Sponsorship (SN): Leave at $20K???? ***YES, under SN.***

--Travel: How much to allow???? In past
SA – 1 (Manager)
SD – 3 (Director + two staff)
SF – 3 (Director + two staff)
SM – 3 (Director + two staff)
SN – 10 (Director + eight staff)
SP – 3 (Director + two staff)
SR – 3 (Director + two staff)
(For 2005, allow for additional staffing hire above the old 2005 forecast, Total to be forecasted will now be 11 (Director+10 staff))

(7) Factor in hours for the following non-ESD Controlled Projects:
- Privatization
- CIS Replacement

REVISED - 2005

Employee Class..... FS
Description..... Director – SN

SN-FC

LABOR INPUT SHEET
2005

Responsibility Areas (RA) PSN
Prepared by SSI Date

	(A) Avail Hrs in Month	(B) No.* of Emp	(C)=A*B 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 (PRIVATIZATION), Location AIR FORCE, Indicator, Project/WO, EE # 150		Activity (PRIVATIZATION), Location OTHERS, Indicator, Project/WO, EE # 150		HOURS NET TO BE SPREAD
										Assume 120 hours		(Forecasted by M. Ho) P0000007 -- NE		(Forecasted by M. Ho) P0000007 NP		
						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	20	848.20	27	1,145.07	121
F	160	1	160	42.41	6,785.60	8	1	8	339.28		0.00	20	848.20	26	1,102.66	108
M	184	1	184	42.41	7,803.44	8	1	8	339.28		0.00	20	848.20	26	1,102.66	130
A	168	1	168	42.41	7,124.88	0	1	0	0.00	8	339.28	20	848.20	27	1,145.07	113
M	176	1	176	42.41	7,464.16	8	1	8	339.28	16	678.56	20	848.20	7	296.87	125
J	176	1	176	42.41	7,464.16	8	1	8	339.28		0.00	20	848.20	7	296.87	141
J	168	1	168	42.41	7,124.88	8	1	8	339.28	8	339.28	20	848.20	7	296.87	125
A	184	1	184	42.41	7,803.44	8	1	8	339.28	8	339.28	20	848.20	21	890.61	127
S	176	1	176	42.41	7,464.16	8	1	8	339.28	16	678.56		0.00	21	890.61	131
O	168	1	168	42.41	7,124.88	8	1	8	339.28	16	678.56		0.00	22	933.02	122
N	176	1	176	42.41	7,464.16	16	1	16	678.56	16	678.56		0.00	22	933.02	122
D	176	1	176	42.41	7,464.16	16	1	16	678.56	32	1,357.12		0.00	28	1,187.48	100
TOT	2080		2080		88,212.80	96		96	4,071.36	120	5,089.20	160	6,785.60	241	10,220.81	1463

	Total Hours Remaining to be Spread	Activity 785, Location PHE, Indicator NE, Project/WO NPSZZZZZ, EE # 150, Training (Performance App. Etc.) ST(101)*			Dollar Amount	Activity CIS REPLACEMENT, Location, Indicator, Project/WO, EE # 150 (CIS Replacement - by T. Hull) O&M Portion ST(101)*			Dollar Amount	Activity CIS REPLACEMENT, Location, Indicator, Project/WO, EE # 150 (CIS Rept. - by T. Hull) Deferred Portion ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD (be 0) **
J	121	15			636.15				0.00		0.00		0.00		0.00	106
F	106	2			84.82				0.00		0.00		0.00		0.00	104
M	130	6			254.46				0.00		0.00		0.00		0.00	124
A	113	15			636.15				0.00		0.00		0.00		0.00	98
M	125	10			424.10				0.00		0.00		0.00		0.00	115
J	141	1			42.41				0.00		0.00		0.00		0.00	140
J	125	1			42.41				0.00		0.00		0.00		0.00	124
A	127	1			42.41				0.00		0.00		0.00		0.00	126
S	131	10			424.10				0.00		0.00		0.00		0.00	121
O	122	1			42.41				0.00		0.00		0.00		0.00	121
N	122	1			42.41				0.00		0.00		0.00		0.00	121
D	100	7			296.87				0.00		0.00		0.00		0.00	93
TOT	1463	70			2,966.70	0			0.00	0	0.00	0	0.00	0	0.00	1393

FS

LABOR INF[illegible]JHEET
2005

Responsibility Areas (RA) PSN
Prepared by [illegible] Date

	112			Activity		Activity		Activity		HOURS	
n	PHE			Location		Location		Location		NET	
r	NE			Indicator		Indicator		Indicator		TO BE	
/WO	NPSZZZZZ			Project/WO		Project/WO		Project/WO		SPREAD	
	150		0.45	EE #		EE #		EE #		be 0)	
p & Manage Cust. Relations)											
1)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**	
48			2,035.68		0.00		0.00		0.00	0	
48			2,035.68		0.00		0.00		0.00	0	
57			2,417.37		0.00		0.00		0.00	0	
44			1,866.04		0.00		0.00		0.00	0	
52			2,205.32		0.00		0.00		0.00	0	
63			2,671.83		0.00		0.00		0.00	0	
56			2,374.96		0.00		0.00		0.00	0	
57			2,417.37		0.00		0.00		0.00	0	
55			2,332.55		0.00		0.00		0.00	0	
54			2,290.14		0.00		0.00		0.00	0	
54			2,290.14		0.00		0.00		0.00	0	
42			1,781.22		0.00		0.00		0.00	0	
630			28,718.30	0	0.00	0	0.00	0	0.00	0	

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Date

WO		HOURS NET TO BE	
		SPREAD	
1)*	Dollar Amount		
	0.00	1632	
	0.00	1452	
	0.00	1692	
	0.00	1592	
	0.00	1587	
	0.00	1587	
	0.00	1512	
	0.00	1667	
	0.00	1587	
	0.00	1492	
	0.00	1462	
	0.00	1402	
0	0.00	18664	

CIS REPLACEME		HOURS NET TO BE SPREAD (sb be 0)	
WO	150		
PLACEMENT (RED)			
1)*	Dollar Amount	**	
	0.00	1595	
	0.00	1415	
	0.00	1655	
16	501.60	1538	
24	752.40	1526	
32	1,003.20	1513	
88	2,758.80	1376	
40	1,254.00	1590	
20	3,762.00	1449	
64	2,006.40	1400	
96	3,009.60	1328	
	0.00	1339	
80	15,048.00	17724	

REVIS -- 02/04 SN-K

LABOR INP SHEET
2005

Employee Class..... TC
Description..... Teacher/Coach -- Assume 10 staff.

Responsibility Area (RA) PSN
Prepared by
Date

HOLIDAY VACATION

	Total Hours Remaining to be Spread	Activity 102 Location PHE Indicator NE Project/WO NPSZZZZZ EE # 150 0.55 (Plan & Develop Mktg. Prg-Core)				Activity 112 Location PHE Indicator NE Project/WO NPSZZZZZ EE # 150 0.45 (Develop & Manage Cust. Relations)				Activity Location Indicator Project/WO EE #		Activity Location Indicator Project/WO EE #		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	1595	877			27,493.95	718			22,509.30		0.00		0.00		0.00	0
F	1415	778			24,390.30	637			19,969.95		0.00		0.00		0.00	0
M	1655	910			28,528.50	745			23,355.75		0.00		0.00		0.00	0
A	1538	845			26,490.75	693			21,725.55		0.00		0.00		0.00	0
M	1526	838			26,271.30	688			21,568.80		0.00		0.00		0.00	0
J	1513	832			26,083.20	681			21,349.35		0.00		0.00		0.00	0
J	1376	757			23,731.95	619			19,405.65		0.00		0.00		0.00	0
A	1590	874			27,399.90	716			22,446.60		0.00		0.00		0.00	0
S	1449	798			25,017.30	651			20,408.85		0.00		0.00		0.00	0
O	1400	770			24,139.50	630			19,750.50		0.00		0.00		0.00	0
N	1328	730			22,885.50	598			18,747.30		0.00		0.00		0.00	0
D	1339	735			23,042.25	604			18,935.40		0.00		0.00		0.00	0
TOT	17724	9744			305,474.40	7980			250,173.00	0	0.00	0	0.00	0	0.00	0

CA-IR-1
DOCKET NO. 04-0113
HECO T-10
ATTACHMENT D
PAGE 35 OF 42

REV...D 2005

Employee Class..... BUOC
Description..... BU Clerical -- (Joyce)

SN-BUOC

LABOR INPUT SHEET
2005

Responsibility Areas (RA) PSN
Prepared by SS/ Date

	(A) Avail Hrs in Month	(B) No.* of Emp	(C)=A*B Total Avail Hours	* ST Rate	Dollar Amount	HOLIDAY Activity 098, Location PHE, Indicator ND, Project/WO NPZZZZZZ, EE # 107 — Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	VACATION Activity 098, Location PHE, Indicator ND, Project/WO NPZZZZZZ, EE # 107 (Assume 200 hours vacation) — HOURS NPW(107)*	Dollar Amount	Activity 777, Location PHE, Indicator NE, Project/WO NPSZZZZZ, EE # 150 (Process Payroll) — ST(101)*	Dollar Amount	Activity CIS Repl., Location, Indicator, Project/WO, EE # (CIS Replacement by T. Hull) (None in 2005) — ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD
J	168	1	168	22.93	3,852.24	0	1	0	0.00		0.00	7	160.51		0.00	161
F	160	1	160	22.93	3,668.80	8	1	8	183.44		0.00	7	160.51		0.00	145
M	184	1	184	22.93	4,219.12	8	1	8	183.44		0.00	7	160.51		0.00	169
A	168	1	168	22.93	3,852.24	0	1	0	0.00		0.00	7	160.51		0.00	161
M	176	1	176	22.93	4,035.68	8	1	8	183.44	40	917.20	7	160.51		0.00	121
J	176	1	176	22.93	4,035.68	8	1	8	183.44		0.00	7	160.51		0.00	161
J	168	1	168	22.93	3,852.24	8	1	8	183.44		0.00	8	183.44		0.00	152
A	184	1	184	22.93	4,219.12	8	1	8	183.44	80	1,834.40	8	183.44		0.00	88
S	176	1	176	22.93	4,035.68	8	1	8	183.44		0.00	8	183.44		0.00	160
O	168	1	168	22.93	3,852.24	8	1	8	183.44		0.00	8	183.44		0.00	152
N	176	1	176	22.93	4,035.68	16	1	16	366.88	40	917.20	8	183.44		0.00	112
D	176	1	176	22.93	4,035.68	16	1	16	366.88	40	917.20	8	183.44		0.00	112
TOT	2080		2080		47,694.40	96		96	2,201.28	200	4,586.00	90	2,063.70	0	0.00	1694

	Total Hours Remaining to be Spread	Activity 102, Location PHE, Indicator NE, Project/WO NPSZZZZZ, EE # 150 (Plan & Develop Mktg. Prg-Core) 0.55 — ST(101)*			Dollar Amount	Activity 112, Location PHE, Indicator NE, Project/WO NPSZZZZZ, EE # 150 (Develop & Manage Cust. Relations) 0.45 — ST(101)*			Dollar Amount	Activity, Location, Indicator, Project/WO, EE # — ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # — ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # — ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD be 0)
J	161	88			2,017.84	73			1,673.89		0.00		0.00		0.00	0
F	145	80			1,834.40	65			1,490.45		0.00		0.00		0.00	0
M	169	92			2,109.56	77			1,765.61		0.00		0.00		0.00	0
A	161	89			2,040.77	72			1,650.96		0.00		0.00		0.00	0
M	121	66			1,513.38	55			1,261.15		0.00		0.00		0.00	0
J	161	89			2,040.77	72			1,650.96		0.00		0.00		0.00	0
J	152	84			1,926.12	68			1,559.24		0.00		0.00		0.00	0
A	88	48			1,100.64	40			917.20		0.00		0.00		0.00	0
S	160	88			2,017.84	72			1,650.96		0.00		0.00		0.00	0
O	152	84			1,926.12	68			1,559.24		0.00		0.00		0.00	0
N	112	62			1,421.66	50			1,146.50		0.00		0.00		0.00	0
D	112	62			1,421.66	50			1,146.50		0.00		0.00		0.00	0
TOT	1694	932			21,370.76	762			17,472.66	0	0.00	0	0.00	0	0.00	0

* Required Data Entry Field
** Column should be all zeros. (Available hours = Forecast hours)
If numbers other than zero appear, recheck work.

SR DIRECTOR

		Activity	110			Activity	140			Activity	140	Activity	140	Activity	731	HOURS	
		Location	PHE			Location	OUT			Location	OUT	Location	OUT	Location	PHE	NET	
	Total	Indicator	NE			Indicator	BN			Indicator	BN	Indicator	BN	Indicator	NE	TO BE	
	Hours	Project	P0000032			Project/WO	P0000160			Project/WO	P0000160	Project/WO	P0000160	Project/WO	P0000036	SPREAD	
	Remainin	EE #	150			EE #	150			EE #	150	EE #	150	EE #	150	(sb be 0)	
		C0000585												C0000603			
		(Small Commercial Support)				(BTL HECO -- TOTAL FOR ALL PROJECTS)				(BTL HECO FTE-Coconut Is		(BTL HECO FTE-UH)		(Local R&D Admin)			
	to be				Dollar			TOTAL	Dollar		Dollar		Dollar		Dollar	**	
	Spread	ST(101)*			Amount	ST(101)*		BTL	Amount	ST(101)*	Amount	ST(101)*	Amount	ST(101)*	Amount		
J	89	4			169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	77	
F	82	4			169.64	0		7	0.00	7	296.87	0	0.00	0	0.00	71	
M	95	4			169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	83	
A	89	4			169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	77	
M	89	4			169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	77	
J	89	4			169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	77	
J	84	4			169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	72	
A	95	4			169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	83	
S	89	4			169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	77	
O	84	4			169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	72	
N	84	4			169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	72	
D	84	4			169.64	0		8	0.00	8	339.28	0	0.00	0	0.00	72	
TOT	1053	48			2,035.68	0		95	0.00	95	4,028.95	0	0.00	0	0.00	910	

		Activity	102			Activity	101			Activity	789	Activity	785	Activity	131	HOURS	
		Location	PHE			Location	PHE			Location	PHE	Location	PHE	Location	PHE	NET	
	Total	Indicator	NE			Indicator	NE			Indicator	NE	Indicator	NE	Indicator	NN	TO BE	
	Hours	Project	P00000034			Project/WO	NPSZZZZZ			Project/WO	NPSZZZZZ	Project/WO	NPSZZZZZ	Project/WO	P0000531	SPREAD	
	Remainin	EE #	150			EE #	150			EE #	150	EE #	150	EE #	150	(sb be 0)	
		C0004564												PROSPECTING -Nonproj.			
		(New Product Development)				(Develop Marketing Plan-Regulated)				(Employee Training)		(Perform Appraisals)		(BTL Contract Prospecting & Balance Hours)			
	to be				Dollar				Dollar		Dollar		Dollar		Dollar	**	
	Spread	ST(101)*			Amount	ST(101)*			Amount	ST(101)*	Amount	ST(101)*	Amount	ST(101)*	Amount		
J	77	3			127.23	8			339.28	3	127.23	8	339.28	55	2,332.55	0	
F	71	3			127.23	7			296.87	3	127.23	7	296.87	51	2,162.91	0	
M	83	3			127.23	8			339.28	3	127.23	8	339.28	61	2,587.01	0	
A	77	3			127.23	8			339.28	3	127.23	8	339.28	55	2,332.55	0	
M	77	3			127.23	8			339.28	3	127.23	8	339.28	55	2,332.55	0	
J	77	3			127.23	8			339.28	3	127.23	8	339.28	55	2,332.55	0	
J	72	3			127.23	8			339.28	3	127.23	8	339.28	50	2,120.50	0	
A	83	3			127.23	8			339.28	3	127.23	8	339.28	61	2,587.01	0	
S	77	3			127.23	8			339.28	3	127.23	8	339.28	55	2,332.55	0	
O	72	3			127.23	8			339.28	3	127.23	8	339.28	50	2,120.50	0	
N	72	3			127.23	8			339.28	3	127.23	8	339.28	50	2,120.50	0	
D	72	3			127.23	8			339.28	3	127.23	8	339.28	50	2,120.50	0	
TOT	910	36			1,526.76	95			4,028.95	36	1,526.76	95	4,028.95	648	27,481.68	0	

* Required Data Entry Field

** Column should be all zeros. (Available hours = Forecast hours)

If numbers other than zero appear, recheck work.

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													
					R&D Develop & Administer (Minimum Hrs	BTL Labor (BOA) - For HECO FTE's				Develop Train				

SR - TC

	Activity	110			Activity	140			Activity	140		Activity	140		Activity	731	HOURS
	Location	PHE			Location	OUT			Location	OUT		Location	OUT		Location	PHE	NET
al	Indicator	NE			Indicator	BN			Indicator	BN		Indicator	BN		Indicator	NE	TO BE
rs	Project	P0000032			Project/WO	P0000033			Project/WO	P0000033		Project/WO	P0000160		Project/WO	P0000036	SPREAD
inin	EE #	150			EE #	150			EE #	150		EE #	150		EE #	150	(sb be 0)
	C0000585														C0000603		
	(Small Commercial Support)				(BTL HECO FTE-Coconut Island)				(BTL HECO FTE-Lumped DOD)			(BTL HECO FTE-UH)			(Local R&D Admin)		
ɔe				Dollar				Dollar		Dollar			Dollar			Dollar	**
ıad	ST(101)*			Amount	ST(101)*			Amount	ST(101)*	Amount		ST(101)*	Amount		ST(101)*	Amount	
303	16			501.60	86			2,696.10	0	0.00		0	0.00		0	0.00	201
272	14			438.90	77			2,413.95	0	0.00		0	0.00		0	0.00	181
341	16			501.60	90			2,821.50	0	0.00		0	0.00		0	0.00	235
320	16			501.60	86			2,696.10	0	0.00		0	0.00		0	0.00	218
320	16			501.60	86			2,696.10	0	0.00		0	0.00		0	0.00	218
320	16			501.60	86			2,696.10	0	0.00		0	0.00		0	0.00	218
296	15			470.25	81			2,539.35	0	0.00		0	0.00		0	0.00	200
341	16			501.60	90			2,821.50	0	0.00		0	0.00		0	0.00	235
320	16			501.60	86			2,696.10	0	0.00		0	0.00		0	0.00	218
148	15			470.25	81			2,539.35	0	0.00		0	0.00		0	0.00	52
296	15			470.25	81			2,539.35	0	0.00		0	0.00		0	0.00	200
296	15			470.25	81			2,539.35	0	0.00		0	0.00		0	0.00	200
73	186			5,831.10	1011			31,694.85	0	0.00		0	0.00		0	0.00	2376

	Activity	102			Activity	101			Activity	789		Activity	785		Activity	131	HOURS
	Location	PHE			Location	PHE			Location	PHE		Location	PHE		Location	PHE	NET
al	Indicator	NE			Indicator	NE			Indicator	NE		Indicator	NE		Indicator	NN	TO BE
rs	Project	P0000034			Project/WO	NPSZZZZZ			Project/WO	NPSZZZZZ		Project/WO	NPSZZZZZ		Project/WO	P0000531	SPREAD
inin	EE #	150			EE #	150			EE #	150		EE #	150		EE #	150	(sb be 0)
	C0004564														PROSPECTING -Nonproj.		
	(New Product Development-Dir & BU Only)				(Develop Marketing Plan-Regulated)				(Employee Training)			(Perform Appraisals)			(BTL Contract Prospecting & Balance Hours)		
ɔe				Dollar				Dollar		Dollar			Dollar			Dollar	**
ıad	ST(101)*			Amount	ST(101)*			Amount	ST(101)*	Amount		ST(101)*	Amount		ST(101)*	Amount	
201	0			0.00	22			689.70	22	689.70		11	344.85		146	4,577.10	0
181	0			0.00	20			627.00	20	627.00		10	313.50		131	4,106.85	0
235	0			0.00	23			721.05	23	721.05		11	344.85		178	5,580.30	0
218	0			0.00	22			689.70	22	689.70		11	344.85		163	5,110.05	0
218	0			0.00	22			689.70	22	689.70		11	344.85		163	5,110.05	0
218	0			0.00	22			689.70	22	689.70		11	344.85		163	5,110.05	0
200	0			0.00	21			658.35	21	658.35		10	313.50		148	4,639.80	0
235	0			0.00	23			721.05	23	721.05		11	344.85		178	5,580.30	0
218	0			0.00	22			689.70	22	689.70		11	344.85		163	5,110.05	0
52	0			0.00	21			658.35	21	658.35		10	313.50		0	0.00	0
200	0			0.00	21			658.35	21	658.35		10	313.50		148	4,639.80	0
200	0			0.00	21			658.35	21	658.35		10	313.50		148	4,639.80	0
76	0			0.00	260			8,151.00	260	8,151.00		127	3,981.45		1729	54,204.15	0

red Data Entry Field
mn should be all zeros. (Available hours = Forecast hours)
mbers other than zero appear, recheck work.

	M	N	O
Train ds rm sals	BTL Contract Prospecting	Total Manhour Percentage	
5	131		
			Engineer No.
	35.0%	100.0%	1
	31.0%	100.0%	2
	31%	100.0%	3
	31.0%	100.0%	4
	0.0%	0.0%	5
	31.0%	100.0%	6
	35.0%	100.0%	7
	0.0%	0.0%	8
	31.0%	100.0%	9
	225.0%	700.0%	
	32%	100.0%	
7	2.25	700.0%	
		Mktg Progs Core 110	
rcial ess ort	Inter-Company Billables (Non-SWAT Stuff For MECO and HELCO)	Total Manhour Percentage	
585			
	0%	50.0%	
	0%	54.0%	
	0%	54.0%	
	0%	54.0%	
	0%	0.0%	
	0%	59.0%	
	0%	55.0%	
	0%	0.0%	

Each Engineer Must Total 100%

SR-BU

	Total Hours Remaining to be Spread	Activity	Location	Indicator	Project	EE #	ST(101)*	Dollar Amount
		110	PHE	NE	P0000032	150	C0000585 (Small Commercial Support)	
J	16						3	68.79
F	17						3	68.79
M	19						3	68.79
A	16						3	68.79
M	16						3	68.79
J	16						3	68.79
J	14						3	68.79
A	19						3	68.79
S	16						3	68.79
O	14						3	68.79
N	14						3	68.79
D	14						3	68.79
TOT	191						36	825.48

	Activity	Location	Indicator	Project/WO	EE #	ST(101)*	TOTAL BTL	Dollar Amount
	140	OUT	BN	P0000160	150	(BTL HECO FTE-USDA)		
J						0	3	0.00
F						0	3	0.00
M						0	3	0.00
A						0	3	0.00
M						0	3	0.00
J						0	3	0.00
J						0	3	0.00
A						0	3	0.00
S						0	3	0.00
O						0	3	0.00
N						0	3	0.00
D						0	3	0.00
TOT						0	36	0.00

	Activity	Location	Indicator	Project/WO	EE #	ST(101)*	Dollar Amount
	140	OUT	BN	P0000033	150	(BTL HECO FTE-DOD)	
J						0	0.00
F						0	0.00
M						0	0.00
A						0	0.00
M						0	0.00
J						0	0.00
J						0	0.00
A						0	0.00
S						0	0.00
O						0	0.00
N						0	0.00
D						0	0.00
TOT						0	0.00

	Activity	Location	Indicator	Project/WO	EE #	ST(101)*	Dollar Amount
	140	OUT	BN	P0000033	150	(BTL HECO FTE-UH)	
J						0	0.00
F						0	0.00
M						0	0.00
A						0	0.00
M						0	0.00
J						0	0.00
J						0	0.00
A						0	0.00
S						0	0.00
O						0	0.00
N						0	0.00
D						0	0.00
TOT						0	0.00

	Activity	Location	Indicator	Project/WO	EE #	ST(101)*	Dollar Amount	**
	731	PHE	NE	P0000036	150	C0000603 (Local R&D Admin)		
J						0	0.00	13
F						0	0.00	14
M						0	0.00	16
A						0	0.00	13
M						0	0.00	13
J						0	0.00	13
J						0	0.00	11
A						0	0.00	16
S						0	0.00	13
O						0	0.00	11
N						0	0.00	11
D						0	0.00	11
TOT						0	0.00	155

HOURS NET TO BE SPREAD (sb be 0)

	Total Hours Remaining to be Spread	Activity	Location	Indicator	Project	EE #	ST(101)*	Dollar Amount
		102	PHE	NE	P00000034	150	C0004564 (New Product Development)	
J	13						0	0.00
F	14						0	0.00
M	16						0	0.00
A	13						0	0.00
M	13						0	0.00
J	13						0	0.00
J	11						0	0.00
A	16						0	0.00
S	13						0	0.00
O	11						0	0.00
N	11						0	0.00
D	11						0	0.00
TOT	155						0	0.00

	Activity	Location	Indicator	Project/WO	EE #	ST(101)*	Dollar Amount
	101	PHE	NE	NPSZZZZZ	150	(Develop Marketing Plan-Regulated)	
J						5	114.65
F						4	91.72
M						5	114.65
A						5	114.65
M						5	114.65
J						5	114.65
J						5	114.65
A						5	114.65
S						5	114.65
O						5	114.65
N						5	114.65
D						5	114.65
TOT						59	1,352.87

	Activity	Location	Indicator	Project/WO	EE #	ST(101)*	Dollar Amount
	789	PHE	NE	NPSZZZZZ	150	(Employee Training)	
J						6	137.58
F						6	137.58
M						7	160.51
A						6	137.58
M						6	137.58
J						6	137.58
J						6	137.58
A						7	160.51
S						6	137.58
O						6	137.58
N						6	137.58
D						6	137.58
TOT						74	1,696.82

	Activity	Location	Indicator	Project/WO	EE #	ST(101)*	Dollar Amount
	785	PHE	NE	NPSZZZZZ	150	(Perform Appraisals)	
J						2	45.86
F						1	22.93
M						2	45.86
A						2	45.86
M						2	45.86
J						2	45.86
J						0	0.00
A						4	91.72
S						2	45.86
O						0	0.00
N						0	0.00
D						0	0.00
TOT						17	389.81

	Activity	Location	Indicator	Project/WO	EE #	ST(101)*	Dollar Amount	**
	131	PHE	NN	P0000531	150	PROSPECTING-Nonproj. (BTL Contract Prospecting & Balance Hours)		
J						0	0.00	0
F						3	68.79	0
M						2	45.86	0
A						0	0.00	0
M						0	0.00	0
J						0	0.00	0
J						0	0.00	0
A						0	0.00	0
S						0	0.00	0
O						0	0.00	0
N						0	0.00	0
D						0	0.00	0
TOT						5	114.65	0

HOURS NET TO BE SPREAD (sb be 0)

* Required Data Entry Field

** Column should be all zeros. (Available hours = Forecast hours)
If numbers other than zero appear, recheck work.

Allocate-BU2005

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	LABOR Allocation Projections-BU-OC 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	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	Neal Shimabukuro			89%	0%	2%	0%	3%	4%	1%	1%	100.0%		
12														
13	Totals >>			89%	0%	2%	0%	3%	4%	1%	1%	100.0%		
14														
15	% of SR Division's BU			89%	0%	2%	0%	3%	4%	1%	1%	100.0%		
16	Man Equivalents >>			0.89	0.00	0.02	0.00	0.03	0.04	0.01	0.01	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

Hawaiian Electric Company, Inc.
2005 Test Year Rate Case

Customer Service Expense
O&M Expense Budget

Workpapers

1)

	FY05
OIL M	746
OIL LA	1,866
OIL M	9,330
OIL KA	3,732
DIL HIL	9,330
TSF	9,330
OIL (	3,732
LE W	5,598
AEA W	13,062
UI W	5,598
WAST	5,598
ASTE	16,794
AN W	3,732
KAI OI	746
OIL-R	746
TSF C	11,196
AEA O	746
L-REL	746
LE N	622
AEA N	5,598
UI NO	1,866
NON-C	1,866
ON-OI	3,732
AN NO	746
00048	1,866
ED (G	746
	17,914
	28,612
4)	3,732
0)	14,617
QA/QC	746
6)	14,617
G000	933
G000	3,732
(G000	3,732
756)	9,330

r Class	Line item	FY05
EMST	HECO SS (E0000757)	10,419
EMST	DEV & MANAGE FORECASTS	1,866
EMST	ORG DEV MEETINGS (G00015	746
EMST	RELATIONS WITH REGULATO	622
EMST	RELATIONS WITH INDUSTRY	622
EMST	**RELATIONS WITH CUSTOMEF**	**1,796**
EMST	COMMUNITY SERVICE	622
EMST	PROCESS PAYROLL	1,493
EMST	PERFORMANCE APPRAISALS	622
EMST	ATTEND TRAINING (G0002898	4,416
EMST	ATTEND SAFETY TRAINING	4,478
EMST	ORDER MATERIALS	1,493
EMST	PROCESS INVOICES	373
EMST	HST WASTEWATER (G000036	11,196
EMST	KST WASTEWATER (G000038	36,480
EMST	MISCELLANEOUS & 09 HOURS	35,796
EMST	Update July 02 - Wastewater QA	9,330
EMST	WST WASTEWATER (G000037	36,480
EMST	HST OIL-RELATED (G0000363)	1,866
EMST	KST OIL-RELATED (G0000386)	3,732
EMST	WST OIL-RELATED (G0000374	1,866
EMST	HST NON-OIL (G0000365)	746
EMST	KST NON-OIL (G0000392)	1,866
		386,565

Resource Leveling Report (For CA-IR-1)
Labor Hours

_RA	_LbrClass	_Proj	_Act	Project	Line item	FY05
PJC	J_CHEMS	*Supply	*Supply	Labor Supp	Labor Supp	12480
PJC	J_CHEMS	NPJZZZZZ	98	Environme	Holiday	-576
PJC	J_CHEMS	NPJZZZZZ	98	Environme	Vacation	-920
PJC	J_CHEMS	NPJZZZZZ	241	Environme	MGT M008	-24
PJC	J_CHEMS	NPJZZZZZ	241	Environme	HST FUEL	-120
PJC	J_CHEMS	NPJZZZZZ	241	Environme	KST FUEL	-470
PJC	J_CHEMS	NPJZZZZZ	241	Environme	MGL M008	-60
PJC	J_CHEMS	NPJZZZZZ	241	Environme	MGM M00	-300
PJC	J_CHEMS	NPJZZZZZ	241	Environme	MGK M008	-120
PJC	J_CHEMS	NPJZZZZZ	241	Environme	HGA H002	-300
PJC	J_CHEMS	NPJZZZZZ	241	Environme	WST FUEL	-470
PJC	J_CHEMS	NPJZZZZZ	241	Environme	Update Jul	-24
PJC	J_CHEMS	NPJZZZZZ	245	Environme	HST MAIN	-30
PJC	J_CHEMS	NPJZZZZZ	245	Environme	KST MAIN	-120
PJC	J_CHEMS	NPJZZZZZ	245	Environme	WST MAIN	-120
PJC	J_CHEMS	NPJZZZZZ	344	Environme	HECO TSF	-300
PJC	J_CHEMS	NPJZZZZZ	349	Environme	HDC H006	-300
PJC	J_CHEMS	NPJZZZZZ	349	Environme	MDE M004	-120
PJC	J_CHEMS	NPJZZZZZ	349	Environme	HECO SS	-335
PJC	J_CHEMS	NPJZZZZZ	701	Environme	DEV & MA	-60
PJC	J_CHEMS	NPJZZZZZ	720	Environme	ORG DEV	-24
PJC	J_CHEMS	NPJZZZZZ	745	Environme	RELATION	-20
PJC	J_CHEMS	NPJZZZZZ	749	Environme	RELATION	-20
PJC	J_CHEMS	NPJZZZZZ	750	Environme	RELATION	-60
PJC	J_CHEMS	NPJZZZZZ	753	Environme	COMMUNI	-20
PJC	J_CHEMS	NPJZZZZZ	777	Environme	PROCESS	-48
PJC	J_CHEMS	NPJZZZZZ	785	Environme	PERFORM	-20
PJC	J_CHEMS	NPJZZZZZ	789	Environme	ATTEND T	-142
PJC	J_CHEMS	NPJZZZZZ	797	Environme	ATTEND S	-144
PJC	J_CHEMS	NPJZZZZZ	842	Environme	ORDER M	-48
PJC	J_CHEMS	NPJZZZZZ	843	Environme	PROCESS	-12
PJC	J_CHEMS	NPJZZZZZ	876	Environme	HGA H002	-180
PJC	J_CHEMS	NPJZZZZZ	876	Environme	HST WAST	-360
PJC	J_CHEMS	NPJZZZZZ	876	Environme	KST WAST	-1173
PJC	J_CHEMS	NPJZZZZZ	876	Environme	MGM M00	-420
PJC	J_CHEMS	NPJZZZZZ	876	Environme	MGK M008	-180
PJC	J_CHEMS	NPJZZZZZ	876	Environme	MISCELLA	-1151
PJC	J_CHEMS	NPJZZZZZ	876	Environme	HGA H002	-180
PJC	J_CHEMS	NPJZZZZZ	876	Environme	HGA H002	-540
PJC	J_CHEMS	NPJZZZZZ	876	Environme	HGA H002	-120
PJC	J_CHEMS	NPJZZZZZ	876	Environme	WST WAS	-1173
PJC	J_CHEMS	NPJZZZZZ	876	Environme	NON-UTIL	-60
PJC	J_CHEMS	NPJZZZZZ	876	Environme	Update Jul	-300

_RA	_LbrClass	_Proj	_Act	Project	Line item	FY05
PJC	J_CHEMS	NPJZZZZZ	877	Environme	MDE M159	-360
PJC	J_CHEMS	NPJZZZZZ	878	Environme	HGA H003	-20
PJC	J_CHEMS	NPJZZZZZ	878	Environme	HST NON-	-24
PJC	J_CHEMS	NPJZZZZZ	878	Environme	KST NON-	-60
PJC	J_CHEMS	NPJZZZZZ	878	Environme	MGM M008	-180
PJC	J_CHEMS	NPJZZZZZ	878	Environme	MGK M008	-60
PJC	J_CHEMS	NPJZZZZZ	878	Environme	HGA H003	-60
PJC	J_CHEMS	NPJZZZZZ	878	Environme	HGA H003	-120
PJC	J_CHEMS	NPJZZZZZ	878	Environme	HGA H003	-24
PJC	J_CHEMS	P0000571	600	CIS Replac	Heco Train	0
PJC	J_CHEMST					48
PJC						48

Hawaiian Electric Company, Inc.
2005 Test Year Rate Case

Customer Service Expense
O&M Expense Budget

Workpapers

PC0 Customer Service

Labor Input Sheet - NonProject
2005

CA
Oper Analyst _TC

Prepared by D. Yokoi
Date 07/26/03

Dimension tab card							Rates tab card	Units tab card												
RA	Act	Loc	Ind	Proj	EE	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")												
CA	!Supply	!Supply	!Supply	!Supply	!Supply	Oper Analyst	Available Hours	1	1	1	1	1	1	1	1	1	1	1	1	12
								(enter hours in "Units tab card")												
CA	098	PHE	ND		107	Oper Analyst	Oper Analyst	0	8	8	0	8	8	8	8	8	8	16	16	96
CA	099	PHE	ND		107	Oper Analyst	Oper Analyst	8	8	8	8	8	8	8	8	8	8			80
CA	099	PHE	ND		107	Oper Analyst	Oper Analyst													0
CA	099	PHE	ND		107	Oper Analyst	Oper Analyst													0
CA	700	PHE	NS	NPCZZZZZ	150	Oper Analyst	Oper Analyst	32	32	36	32	32	32	30	33	32	30	32	32	385
CA	720	PHE	NS	NPCZZZZZ	150	Oper Analyst	Oper Analyst	32	28	33	32	32	32	30	33	30	30	32	32	376
CA	730	PHE	NS	NPCZZZZZ	150	Oper Analyst	Oper Analyst	32	28	33	32	32	32	30	33	30	30	32	32	376
CA	731	PHE	NS	NPCZZZZZ	150	Oper Analyst	Oper Analyst	32	28	33	32	32	32	30	34	34	30	32	32	381
CA	785	PHE	NS	NPCZZZZZ	150	Oper Analyst	Oper Analyst	32	28	33	32	32	32	32	35	34	32	32	32	386
CA					150	Oper Analyst	Oper Analyst													0
CA					150	Oper Analyst	Oper Analyst													0
CA					150	Oper Analyst	Oper Analyst													0
CA					150	Oper Analyst	Oper Analyst													0
CA					150	Oper Analyst	Oper Analyst													0
						Total NonProj/Pgm Demand		168	160	184	168	176	176	168	184	176	168	176	176	2,080
						Total Supply		168	160	184	168	176	176	168	184	176	168	176	176	2,080
								-160	-144	-168	-160	-160	-160	-152	-168	-160	-152	-160	-160	-1,904
7/4, 8/19, 9/5, 10/10, 11/11, 11/24, 12/23 (1/2), 12/26, 12/30 (1/2)								0	8	8	0	8	8	8	8	8	8	16	16	96
								168	160	184	168	176	176	168	184	176	168	176	176	2080

emand hours may *NOT* equal Total Supply hours due to Project Demand hours (which are budgeted in the Project file)

acctBud\Forecast\Forms\2005 Lab Input Sheet Oper Anal NARUC (2).xls

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

NARUC 911
Corporate Communications ("Corp Comm")
Customer Service

NARUC# 910

Information Technology & Services ("ITS")

HECO Response:

a. ITS Costs estimates were prepared by Blane Murakami, IT Project Manager.

b. See Attachment A.

c. The basis for determining NARUC 910 Estimates are the ITS Costing System Allocation and Amortization of EBusiness Costs. ITS Costing System Allocation calculations and EBusiness Amortization amounts are shown in the IT Cost Workpapers. Specific NARUC 910 estimates are based on the following:

$78,780 – Ebusiness Amortization (workpaper A-2)

[redacted]

156,048 – PEZ Allocation – activity 110 (w/p A-2)

$234,828 - Total 7110 Expense (NARUC 910)

$68,256 – Ebusiness Amortization (workpaper A-2)

136,092 – PEZ Allocation – activity 713 (w/p A-4)

g. All other pertinent information is contained in the IT Cost Workpapers.

Technology ("Tech")

HECO Response:

a. George Willoughby of Energy Services Department.

b. There are no workpapers available. The budget is an estimate of costs to develop future Green Power efforts

c. The non-labor charges reflect consultant services for future Green Power efforts.

d., e., f., and g. No other information is available.

Corporate Communications ("Corp Comm") – Includes charges for 910 and 911

HECO Response:

a. Costs estimates were prepared by Lynne Unemori, Director, Corporate Communications.

b. See Attachment B.

c., d., e., f., and g. No other information is available.

Energy Services

HECO Response:

a. Energy Services individuals involved in the budgeting process include:

RA	Name	Position at time of Budget
SA	Dave Waller	Manager, Energy Services
SD	Norris Creveston	Director, Customer Efficiency Programs (DSM)
SD	Elaine Wong	Customer Efficiency Analyst
SF	Alan Hee	Director, Forecasting
SM	George Willoughby	Director, Research & Evaluation
SM	Stanley Shimoda	Customer Efficiency Analyst

RA	Name	Position at time of Budget
SN	Richard Lee	Director, Marketing Services
SP	Estrella Seese	Director, Pricing
SR	Paul Fetherland	Director, Customer Technology Applications

b. See Attachment C.

c. See below.

CA-IR-2 (c)
The following represents Energy Services non-DSM non labor budget items that exceed $50,000.

NARUC	RA	Act #	Activity	EE#	Expense Element	Amount
[redacted]						
910	PSM	100	Conduct Mktg. Research –Reg.	501	Outside Svc.- General	$82,015

The $82,015 budget represents an estimated amount for outside services consultants to perform various marketing studies ($62,145) and an estimate of HECO's share of the Residential Satisfaction Survey ($19,870). In the

Budget assumptions for each of these line items are documented in the SR nonlabor assumptions 2005 sheet.

NARUC	RA	Act #	Activity	EE#	Expense Element	Amount
910	PSA	102	Plan & Develop Mktg. Prgm.	501	Outside Svc.- General	$100,000

The $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.

d., e., f., and g. No other information is available.

Education & Consumer Affairs ("ECA")

HECO Response:

a. The employees involved in preparation of the Education and Consumer Affairs Division budgeted non-labor direct expense amounts included in the rate case test period budget and sponsored by the witness are: Ka'iulani de Silva (Education and Consumer Affairs Director) and Karen Watanabe (Education and Consumer Affairs Administrator).

b. To forecast non-labor direct expense amounts for 2004 and 2005, we ran work management reports (DARS #1745 – see Attachment D) for the time period July 1, 2002 to June 30, 2003 to determine actual costs for each Education and Consumer Affairs program (each program is set up with its own work order). We used data from July 1, 2002 to June 30, 2003 (rather than January 1, 2002 to December 31, 2002) because it more accurately reflects the expenses incurred while we're fully staffed (we had two vacancies in 2002). For those programs that we anticipated changes based on company goals and projects, we adjusted the forecast accordingly. For example, we planned to expand energy conservation and efficiency educational programs, therefore, we forecasted more dollars to the Customer

Education Program than what was forecasted or expended in 2003. We then used the "Education and Consumer Affairs Budget 2005" spreadsheet to allocate forecasted dollars for each expense element for January through December.

c. In Education and Consumer Affairs, we have a budged non-labor amount in the test period forecast for $76,735, activity 750 expense element 201. This reflects an aggregate sum of the cost of educational materials, brochures, and office supplies. The basis for determining the amounts was based on historical costs escalated by the inflationary rate provided in the Pillar (budgeting software) system.

d. See part (b) above.

e. See part (b) above.

f. Not applicable – see part (c) above.

g. See last two pages of Attachment D.

NARUC# 911

Customer Service

HECO Response:

a. For the Customer Service Department, Victoria Marzano, is involved in the preparation of budgeted staffing and associated labor direct expense amounts.

b. See Attachment E.

c., d., e., f., and g. No other information is available.

Hawaiian Electric Company, Inc.
2005 Test Year

Customer Service Expense
O&M Expense Budget

Workpapers

PE0 Info Tech & Svcs

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. IT Costs estimates were prepared by Blane Murakami, IT Project Manager.

b. IT Cost Workpapers supporting NARUC 909-912 were provided to Alan Hee, O&M Witness. Similar workpapers were provided to all other HECO O&M witnesses sponsoring IT Costs.

c. The basis for determining NARUC 910 Estimates are the ITS Costing System Allocation and Amortization of EBusiness Costs. ITS Costing System Allocation calculations and EBusiness Amortization amounts are shown in the IT Cost Workpapers. Specific NARUC 910 estimates are based on the following:

$78,780 - Ebusiness Amortization (workpaper A-2)

156,048 – PEZ Allocation – activity 110 (w/p A-2)

$234,828 - Total 7110 Expense (NARUC 910)

$68,256 – Ebusiness Amortization (workpaper A-2)

136,092 – PEZ Allocation – activity 713 (w/p A-4)

$204,348 – Total 713 Expense (NARUC 910)

d. Specific quantities and prices were not used to estimate NARUC 910 expenses.

e. Historical costs were not used to estimate NARUC 910 expenses.

f. A special analysis used to determine IT Cost Allocations, (PEZ Model) is contained in the IT Cost Workpapers.

g. All other pertinent information is contained in the IT Cost Workpapers.

O&M for All Depts with Loc

12/20/2004

Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Proj	_Act	_Loc	_EE	FY05
InfoTech	PEM	Mailing Services	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	966	PHE	501	3,493
											$3,493.00
InfoTech	PEM	Mailing Services	B38								28,741
											$365,200.60
InfoTech	PEM	Mailing Services	B39	A & G Maint	932	Non-Labor	NPEZZZZZ	966	PHE	600	36,780
											$36,780.00
InfoTech	PEM	Mailing Services	B39								36,780
											$36,780.00
InfoTech	PEM										69,277
											$488,631.52
InfoTech	PEP	Project & Bus Mgt	B30	Prod Oper	508	Non-Labor	NPNEZZZZ	730	PPO	901	9,644.84
											$9,644.84
InfoTech	PEP	Project & Bus Mgt	B30								9,644.84
											$9,644.84
InfoTech	PEP	Project & Bus Mgt	B34	Distribution Oper	587	Non-Labor	NPNEZZZZ	600	OAH	901	38,579.13
											$38,579.13
InfoTech	PEP	Project & Bus Mgt	B34								38,579.13
											$38,579.13
InfoTech	PEP	Project & Bus Mgt	B36	Customer Accounts	903	Non-Labor	NPNEZZZZ	611	OAH	901	38,579.13
											$38,579.13
InfoTech	PEP	Project & Bus Mgt	B36								38,579.13
											$38,579.13
InfoTech	PEP	Project & Bus Mgt	B37	Customer Services	910	Non-Labor	NPNEZZZZ	110	PHE	901	18,903.71
											$18,903.71
InfoTech	PEP	Project & Bus Mgt	B37	Customer Services	910	Non-Labor	NPNEZZZZ	713	PHE	901	48,609.61
											$48,609.61
InfoTech	PEP	Project & Bus Mgt	B37	Customer Services	910	Non-Labor	NPNEZZZZ	750	PHE	901	28,934.41
											$28,934.41
InfoTech	PEP	Project & Bus Mgt	B37								96,447.73
											$96,447.73
InfoTech	PEP	Project & Bus Mgt	B38	A & G Operation	925	Non-Labor	NPNEZZZZ	950	PHE	901	9,644.84
											$9,644.84
InfoTech	PEP	Project & Bus Mgt	B38								9,644.84
											$9,644.84
InfoTech	PEP										192,895.67
											$192,895.67
InfoTech	PEZ	ISO Chargeback	B30	Prod Oper	500	Non-Labor	NPYZZZZZ	201	WST	451	103,512
											$103,512.00
InfoTech	PEZ	ISO Chargeback	B30	Prod Oper	502	Non-Labor	NPAVP2ZZ	245	KST	451	12,900
											$12,900.00

1

O&M for All Depts with Loc

12/20/2004

Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Proj	_Act	_Loc	_EE	FY05
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	584	Non-Labor	NPAVP2ZZ	462	OAH	451	3,720
											$3,720.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	586	Non-Labor	NPWZZZZZ	465	OAH	451	16,944
											$16,944.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	586	Non-Labor	NPWZZZZZ	603	OAH	451	68,316
											$68,316.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	588	Non-Labor	NPDZZZZZ	455	OAH	451	701,676
											$701,676.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	588	Non-Labor	NPEZZZZZ	455	OAH	451	4,788
											$4,788.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	588	Non-Labor	NPEZZZZZ	456	OAH	451	81,528
											$81,528.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	588	Non-Labor	NPRZZZZZ	456	OAH	451	69,036
											$69,036.00
InfoTech	PEZ	ISD Chargeback	B34	Distribution Oper	588	Non-Labor	NPWZZZZZ	926	PDO	451	54,696
											$54,696.00
InfoTech	PEZ	ISD Chargeback	B34								1,017,000
											$1,017,000.00
InfoTech	PEZ	ISD Chargeback	B35	Distribution Maint	592	Non-Labor	NPAVP2ZZ	486	OAH	451	2,124
											$2,124.00
InfoTech	PEZ	ISD Chargeback	B35	Distribution Maint	593	Non-Labor	NPAVP2ZZ	474	OAH	451	6,648
											$6,648.00
InfoTech	PEZ	ISD Chargeback	B35	Distribution Maint	594	Non-Labor	NPAVP2ZZ	477	OAH	451	6,516
											$6,516.00
InfoTech	PEZ	ISD Chargeback	B35	Distribution Maint	598	Non-Labor	NPAVP2ZZ	420	OAH	451	80,088
											$80,088.00
InfoTech	PEZ	ISD Chargeback	B35								95,376
											$95,376.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	901	Non-Labor	NPCZZZZZ	720	PHE	451	781,465
											$781,465.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	902	Non-Labor	NPCZZZZZ	610	OAH	451	41,916
											$41,916.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	903	Non-Labor	NPAZZZZZ	612	OAH	451	5,472
											$5,472.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	903	Non-Labor	NPCZZZZZ	611	OAH	451	107,928
											$107,928.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	903	Non-Labor	NPCZZZZZ	614	OAH	451	9,084
											$9,084.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	903	Non-Labor	NPEZZZZZ	616	OAH	451	69,828
											$69,828.00
InfoTech	PEZ	ISD Chargeback	B36	Customer Accounts	903	Non-Labor	NPNEZZZZ	611	OAH	451	160,812
											$160,812.00
InfoTech	PEZ	ISD Chargeback	B36								1,176,505
											$1,176,505.00
InfoTech	PEZ	ISD Chargeback	B37	Customer Services	910	Non-Labor	NPEZZZZZ	713	PHE	451	136,092
											$136,092.00
InfoTech	PEZ	ISD Chargeback	B37	Customer Services	910	Non-Labor	NPEZZZZZ	714	PHE	451	0
											$0.00
InfoTech	PEZ	ISD Chargeback	B37	Customer Services	910	Non-Labor	NPNEZZZZ	110	PHE	451	78,780
											$78,780.00

O&M for All Depts with Loc

12/20/2004

Dept	_RA	Resp Area	Acct Blk	Acct Blk Descr	NARUC	Exp Class	_Proj	_Act	_Loc	_EE	FY05
InfoTech	PEZ	ISD Chargeback	B37	Customer Services	910	Non-Labor	NPNEZZZZ	713	PHE	451	68,256
											$68,256.00
InfoTech	PEZ	ISD Chargeback	B37	Customer Services	910	Non-Labor	NPSZZZZZ	102	PHE	451	14,916
											$14,916.00
InfoTech	PEZ	ISD Chargeback	B37	Customer Services	910	Non-Labor	NPSZZZZZ	110	PHE	451	156,048
											$156,048.00
InfoTech	PEZ	ISD Chargeback	B37								454,092
											$454,092.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPAVP2ZZ	766	PHE	451	28,808
											$28,808.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPAVP2ZZ	777	PHE	451	300,212
											$300,212.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPAVP2ZZ	818	PHE	451	471,861
											$471,861.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPAVP2ZZ	843	PHE	451	211,286
											$211,286.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPAVP2ZZ	850	PHE	451	53,808
											$53,808.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPAVP7ZZ	700	PHE	451	124,224
											$124,224.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPAZZZZZ	817	PHE	451	43,908
											$43,908.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	800	OAH	451	214,596
											$214,596.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	896	PHE	451	41,004
											$41,004.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	926	PHE	451	13,296
											$13,296.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	931	PHE	451	24,456
											$24,456.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	965	PHE	451	19,632
											$19,632.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	966	PHE	451	34,752
											$34,752.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPEZZZZZ	967	PHE	451	40,500
											$40,500.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPFZZZZZ	722	PHE	451	20,004
											$20,004.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPFZZZZZ	765	PHE	451	68,316
											$68,316.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPFZZZZZ	767	PHE	451	60,996
											$60,996.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPFZZZZZ	775	PHE	451	19,260
											$19,260.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPFZZZZZ	776	PHE	451	117,012
											$117,012.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPHZZZZZ	931	PHE	451	60,108
											$60,108.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPHZZZZZ	933	PHE	451	67,260
											$67,260.00
InfoTech	PEZ	ISD Chargeback	B38	A & G Operation	921	Non-Labor	NPIZZZZZ	122	PHE	451	[illegible]

(1)

Hawaiian Electric Company, Inc.
Information Technology & Services Department
ITS Costing System Allocated Costs - PEZ Entries

HECO's IT costs are allocated to functional area code blocks via the IT Costing System. The allocation entries are coded with the Responsibility Area (RA) code PEZ in HECO's financial system. The following is a general description of the PEZ budgeting methodology. Workpapers A-1 through A-7 show the detail allocation amounts for 2005.

Costs to be Cleared
IT Non-Project and non-capital Project costs represent the base of costs to be allocated. These costs are coded with Indicator NC (Non-billable clearing) and are therefore said to be subject to "Clearing". For 2005, the Costs to be Cleared were estimated to be $12,865,283, as shown on workpaper A-1. Details of these costs are shown on workpapers B and C.

Costs Cleared to
IT Costs are cleared to the following categories:
1) HELCO IT Costing System Direct Charges (2005 Estimate - $226,338)
2) MECO IT Costing System Direct Charges (2005 Estimate - $177,768)
3) Non-ITS Project Charges - Expense Element 451 transactions (2005 Estimate - $709,008)
4) Intercompany Billings (2005 Estimate - $265,335)
5) EFMS Program Charges (2005 Estimate - $799,992)
6) Ebusiness Program Charges (2005 Estimate - $758,292)
7) Other Functional Area Charges ($9,928,550)

Basis for Clearing
Amounts which are cleared to the first 4 items above (HELCO/MECO IT Direct Charges, Non-ITS Project Charges, Intercompany Billings) are directly identified. Workpapers D, E, and F show the basis for the amounts included in the 2005 budget.

Amounts which are cleared for items 5 (EFMS Program) and 6 (Ebusiness Program) are estimated by the Program Managers of these IT-Managed programs. Costs are cleared to HECO functional area code blocks benefiting from the services provided by these programs. EFMS and Ebusiness Program costs are shown on workpaper C. Proration percentages used to allocate these costs were identified by Program Managers in prior years and are shown on workpaper G-1.

The amount of item 7 (Other Functional Area Charges) represent the residual of "Costs to be Cleared" reduced by the first 6 items of "Costs Cleared to". These costs are prorated to functional area code blocks based on actual 2003 PEZ proration amounts shown on workpaper G.

PEZ Workpaper Index
A - PEZ Allocation Model
B - Non-Project "NC" Charges
C - Project "NC" Charges
D - HELCO and MECO IT Costing System Direct Charges
E - Non-ITS Project - Expense Element 451 Charges
F - Intercompany Billable Estimates
G - 2003 PEZ Actuals

Prepared by Blane Murakami, ITS Project Manager

PEZ ALLOCATION MODEL

Hawaiian Electric Company, Inc.								
Information Technology & Services Department								
PEZ Actuals Jan- Dec 2003								
							Monthly 05	Total 2005

CA-IR-2
DOCKET NO. 04-0113
HECO T-10

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

CA-IR-2
DOCKET NO. 04-0113
HECO T-10
ATTACHMENT A
PAGE 9 OF 42

RA	Act	Loc	Ind	Project	EE	Monthly 05	Total 2005	
PEZ	455	OAH	NC	NPEZZZZZ		3,928	47,136.00	
PEZ	455	OAH	NE	NPEZZZZZ		399	4,788.00	
PEZ	456	OAH	NE	NPEZZZZZ		6,794	81,528.00	
PEZ	600	OAH	NE	NPWZZZZZ		14,944	179,328.00	
PEZ	907	OAH	NC	NPBZZZZZ		1,993	23,916.00	
PEZ	926	PHE	NE	NPEZZZZZ		1,108	13,296.00	
PEZ	931	PHE	NE	NPEZZZZZ		2,038	24,456.00	
Total EFMS						66,667	799,992.00	
			NE	41%		NE	331,944.00	
			NC	59%		NC	468,048.00	
			Total	100%			799,992.00	
Less: EBusiness Allocations								
PEZ	110	PHE	NE	NPNEZZZZ		6565	78,780.00	NARUC 910
PEZ	600	OAH	NE	NPNEZZZZ		442	5,304.00	
PEZ	611	OAH	NE	NPNEZZZZ		13401	160,812.00	
PEZ	713	PHE	NE	NPNEZZZZ		5688	68,256.00	NARUC 910
PEZ	730	PHE	NE	NPNEZZZZ		0	-	
PEZ	750	PHE	NE	NPNEZZZZ		23255	279,060.00	
PEZ	950	PHE	NE	NPNEZZZZ		13840	166,080.00	
Total EBusiness						63,192	758,292.00	
Total NC less Direct Charge, Intercompan						827,379	9,928,550	
PEZ	100	PHE	NE	NPSZZZZZ	451	6,105	73,260	
	100 Total							
PEZ	102	PHE	NE	NPSZZZZZ	451	1,243	14,916	NARUC 910
	102 Total							
PEZ	110	PHE	NE	NPSZZZZZ	451	13,004	156,048	NARUC 910
PEZ	110	PHE	NE	NPEZZZZZ	451			
	110 Total							
PEZ	112	PHE	NE	NPSZZZZZ	451	6,764	81,168	
	112 Total							
PEZ	122	PHE	NE	NPIZZZZZ	451	4,905	58,860	
	122 Total							

Hawaiian Electric Company, Inc.									
Information Technology & Services Department									
PEZ Actuals Jan- Dec 2003									
	RA	Act	Loc	Ind	Project	EE		Monthly 05	Total 2005

CA-IR-2
DOCKET NO. 04-0113
HECO T-10

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE	Monthly 05	Total 2005
	461 Total						
PEZ	462	OAH	NE	NPAVP2ZZ	451	310	3,720
	462 Total						
PEZ	463	OAH	NE	NPAVP2ZZ	451	344	4,128
	463 Total						
PEZ	465	OAH	NE	NPWZZZZZ	451	1,412	16,944
	465 Total						
PEZ	474	OAH	NE	NPAVP2ZZ	451	554	6,648
	474 Total						
PEZ	477	OAH	NE	NPAVP2ZZ	451	543	6,516
	477 Total						
PEZ	486	OAH	NE	NPAVP2ZZ	451	177	2,124
	486 Total						
PEZ	600	OAH	NC	NPWZZZZZ	451	32,902	394,824
PEZ	600	OAH	NE	NPWZZZZZ	451	16,606	199,272
PEZ	600	OAH	NE	NPCZZZZZ	451		
PEZ	600	OAH	NE	NPCZZZZZ	452		
	600 Total						
PEZ	603	OAH	NE	NPWZZZZZ	451	5,693	68,316
	603 Total						
PEZ	610	OAH	NE	NPCZZZZZ	451	3,493	41,916
	610 Total						
PEZ	611	OAH	NE	NPCZZZZZ	451	8,994	107,928
	611 Total						
PEZ	612	OAH	NE	NPAZZZZZ	451	456	5,472
	612 Total						
PEZ	614	OAH	NE	NPCZZZZZ	451	757	9,084
	614 Total						
PEZ	616	OAH	NE	NPCZZZZZ	451	5,819	69,828
	616 Total						
PEZ	700	PHE	NE	NPAVP7ZZ	451	10,352	124,224
PEZ	700	PHE	NE	NPAVP3ZZ	451		
PEZ	700	PHE	NE	NPAPRESI	451		
PEZ	700	PHE	NE	NPASVP9Z	451		
	700 Total						
PEZ	701	PHE	NC	NPKZZZZZ	451		
	701	OAH	NC	NPRZZZZZ	451	5,106	61,272
PEZ	701	PHE	NE	NPKZZZZZ	451	2,937	35,244
	701 Total						
PEZ	710	PHE	NE	NPSZZZZZ	451	2,869	34,428
	710 Total						

Hawaiian Electric Company, Inc.										
Information Technology & Services Department										
PEZ Actuals Jan- Dec 2003										
	RA	Act	Loc	Ind	Project	EE		Monthly 05	Total 2005	

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Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

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RA	Act	Loc	Ind	Project	EE	Monthly 05	Total 2005
PEZ	818	PHE	NE	**NPAVP1ZZ**	451		
PEZ	818	PHE	NE	NPAZZZZZ	451		
	818 Total						
PEZ	825	PHE	NE	NPKZZZZZ	451	1,452	17,424
	825 Total						
PEZ	826	PHE	NE	NPKZZZZZ	451	4,289	51,468
PEZ	826	PHE	NE	NPAVP4ZZ	451		
	826 Total						
PEZ	827	PHE	NE	NPKZZZZZ	451	2,846	34,152
	827 Total						
PEZ	842	PHE	NE	**NPVZZZZZ**	451	16,574	198,888
PEZ	842	PHE	NE	NPAVP2ZZ	451		
	842 Total						
PEZ	843	PHE	NE	NPAVP2ZZ	451	16,353	196,236
PEZ	843	PHE	NE	NPEZZZZZ	451		
PEZ	843	PHE	NI	P0000340	451		
PEZ	843	PHE	NE	NPAZZZZZ	451		
	843 Total						
PEZ	850	PHE	NE	NPAVP2ZZ	451	4,484	53,808
PEZ	850	PHE	NE	**NPIZZZZZ**	451		
	850 Total						
PEZ	853	PHE	NC	**NPVZZZZZ**	451	12,945	155,340
	853 Total						
PEZ	875	HST	NE	NPJZZZZZ	451	7,005	84,060
PEZ	875	PHE	NE	NPJZZZZZ	451		
	875 Total						
PEZ	876	PHE	NE	NPJZZZZZ	451	11,888	142,656
	876 Total						
PEZ	896	PHE	NE	NPEZZZZZ	451	3,417	41,004
	896 Total						
PEZ	899	PHE	NE	NPKZZZZZ	451	-	-
	899 Total						
PEZ	907	OAH	NC	NPBZZZZZ	451	1,570	18,840
PEZ	907	OAH	NC	NPEZZZZZ	451		
	907 Total						
PEZ	916	PHE	NC	**NPRZZZZZ**	451	2,846	34,152
	916 Total						
PEZ	926	PDO	NE	NPWZZZZZ	451	4,558	54,696
PEZ	926	PHE	NE	**NPNLZZZZ**	451		
	926 Total						
PEZ	928	PHE	NE	NPNLZZZZ	451	3,262	39,144
	928 Total						
PEZ	931	PHE	NE	**NPHZZZZZ**	451	5,009	60,108
	931 Total						
PEZ	932	PHE	NE	**NPVZZZZZ**	451	2,950	35,400
	932 Total						
PEZ	933	PHE	NE	**NPHZZZZZ**	451	5,605	67,260
	933 Total						
PEZ	940	PHE	NC	**NPVZZZZZ**	451	6,366	76,392
PEZ	940	PHE	NC	NPEZZZZZ	451		
	940 Total						

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE		Monthly 05	Total 2005
PEZ	950	PHE	NE	**NPHZZZZZ**	451		8,268	99,216
PEZ	950	PHE	NE	**NPKZZZZZ**	451			
	950 Total							
PEZ	951	PHE	NE	NPKZZZZZ	451		2,825	33,900
	951 Total							
PEZ	953	PHE	NE	NPFZZZZZ	451		3,520	42,240
	953 Total							
PEZ	960	PHE	NE	NPNCZZZZ	451		6,244	74,928
	960 Total							
PEZ	965	PHE	NE	NPEZZZZZ	451		1,636	19,632
	965 Total							
PEZ	966	PHE	NE	NPEZZZZZ	451		2,896	34,752
	966 Total							
PEZ	967	PHE	NE	NPEZZZZZ	451		3,375	40,500
	967 Total							
	Grand Total						827,378	9,928,536
						NE	599,043	7,249,788
						NC/N	228,335	2,678,748
								9,928,536
Check total to pillar								11,752,155.00

Total Naruc 910 = 454,092

NON-PROJECT "NC" CHARGES

4/20/2004 » budget manager: PR300 11:49AM

Dept	Expense Categ...	FY05 Upd04 RA
InfoTech	Labor (A)	$4,714,393
	Materials	$105,604
	On-Costs	0
	Other	$1,181,513
	Outside Svcs	$3,090,837
	Transportation	$1,260
		$9,093,607

SEE WORKPAPER B-3 FOR DETAILS

LABOR (A)

LABOR ON-COST 2 XB-1 X [illegible]

LABOR ON-COST 2,149,763

NON-PROJECT TOTAL CHARGES

4/20/2004 » budget manager: P... 11:49AM

NOTE: USED TO CALCULATE LABOR ON-COSTS

Dept	Expense Categ...		FY05 Upd04 RA
InfoTech	Labor	C	$6,241,212
	Materials	A	$314,204
	On-Costs	E	$2,875,047
	Other		$1,761,191
	Outside Svcs		$3,311,618
	Transportation		$23,040
			$14,526,312

MATERIAL A

~~MATERIAL ON-COSTS~~

MATERIAL ON-COST

TOTAL ON-COST B

LABOR ON-COST

LABOR BASE C

LABOR ON-COST %

314,204

x B-2 x .0915

28,750

2,875,047

2,846,297

6,241,212

45.6%

x B

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On-Costs and Vehicle Rates

On-Cost	2004 Budget Rates	1/1/2004 Recorded Rates	2/1/2004 Recorded Rates	4/1/2004 Recorded Rates	Preliminary 2005 Budget Rates
Payroll Taxes	8.51%	8.51%	8.51%	8.51%	8.42%
Employee Benefits	$6.25	$9.38	$5.96	$5.96	$6.46
Non-Productive Wages	$4.44	$4.44	$4.44	$4.44	$3.84
Corporate Administration	$2.76	$2.89	$2.74	$2.74	$2.86
Customer Engineering	$113.55	$119.53	$100.00	$90.00	~~$98.56~~
Stores	12.00%	12.55%	10.70%	10.70%	9.15%
Energy Delivery	$26.80	$28.22	$27.75	$27.75	~~$26.88~~
Power Supply	$6.38	$6.72	$6.24	$6.24	$6.70
Vehicles					
Heavy Trucks (VH)	$12.50	$12.47	$16.39		$12.50
Medium Trucks (VM)	$8.50	$9.45	$12.53		$8.75
Light Trucks (VL)	$5.50	$5.08	$4.98		$5.50
Sedans (VS)	$2.75	$1.89	$2.79		$2.50
Condor 150I (VC)	$58.25	$31.79	$37.32		$59.25
Misc (VZ)	$1.50	$1.26	$1.55		$1.50
Caterpillar (VX)	$4.25	$2.25	$2.61		$4.25

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Productive labor is labor less non-productive hours such as holiday, sick, vacation, etc.

Effective 1/1/01, there are no recorded vehicle rates. Instead, transportation clearing costs are allocated monthly to (1) assigned vehicles based on 8 hours per day, Monday through Friday, excluding holidays and (2) pool vehicles based on actual usage.

NON-PROJECT "NC" CHARGES

12/22/2004

» budget manager: PR300 NPUpd - Exp Category $

9:12AM

Dept	*RA #	*Act #	*Ind #	*Loc #	*Proj #	*EE #	Line Item	FY05 Upd04 RA	Expense Category
InfoTech	PEA	730	NC	PHE	NPEZZZZZ	150	E res new tech 730	$7,796	Labor
InfoTech	PEA	777	NC	PHE	NPEZZZZZ	150	I process payroll 777	$2,365	Labor
InfoTech	PEA	890	NC	PHE	NPEZZZZZ	150	E dev-new 890	$32,484	Labor
InfoTech	PEA	891	NC	PHE	NPEZZZZZ	150	E dev comp apps enh 891	$27,287	Labor
InfoTech	PEA	895	NC	PHE	NPEZZZZZ	150	E mainframe 895	$10,395	Labor
InfoTech	PEA	896	NC	PHE	NPEZZZZZ	150	E LAN 896	$20,790	Labor
InfoTech	PEA	897	NC	PHE	NPEZZZZZ	150	E desktop-bus 897	$11,694	Labor
InfoTech	PEA	898	NC	PHE	NPEZZZZZ	150	E desktop-tech 898	$9,096	Labor
InfoTech	PEA	901	NC	PHE	NPEZZZZZ	150	E provide IT cust asst 901	$10,395	Labor
InfoTech	PEA	901	NC	PHE	NPEZZZZZ	150	I provide IT cust asst 901	$44,648	Labor
InfoTech	PEC	701	NC	PHE	NPEZZZZZ	150	TC Dev Mnge Fcst 701	$12,234	Labor
InfoTech	PEC	721	NC	PHE	NPEZZZZZ	150	TC Dev Meas & Anl Perf 721	$41,673	Labor
InfoTech	PEC	840	NC	PHE	NPEZZZZZ	150	TC Admin Oth Procur Pgm 840	$6,117	Labor
InfoTech	PEC	842	NC	PHE	NPEZZZZZ	150	I order mat'ls equip-clrg 842	$9,757	Labor
InfoTech	PEC	844	NC	PHE	NPEZZZZZ	150	I prepare contracts-clrg 844	$47,900	Labor
InfoTech	PEC	844	NC	PHE	NPEZZZZZ	150	TC prep/mge contracts-clrg 844	$24,468	Labor
InfoTech	PEC	901	NC	PHE	NPEZZZZZ	150	FS IT cust asst 901	$51,605	Labor
InfoTech	PEC	901	NC	PHE	NPEZZZZZ	150	TC provide it customer assistance-clrg 901	$295,533	Labor
InfoTech	PEC	901	NC	PHE	NPEZZZZZ	150	I provide IT cust asst-clrg 901	$183,913	Labor
InfoTech	PEC	965	NC	PHE	NPEZZZZZ	150	FS dev mng fcst 701	$17,367	Labor
InfoTech	PEC	966	NC	PHE	NPEZZZZZ	150	FS maint rel 721	$8,435	Labor
InfoTech	PEC	967	NC	PHE	NPEZZZZZ	150	FS Org Dev Strat 722	$8,435	Labor
InfoTech	PED	730	NC	PHE	NPEZZZZZ	150	TC new tech 730	$18,351	Labor
InfoTech	PED	785	NC	PHE	NPEZZZZZ	150	FS Plan Emp Trng & Dev 785	$8,435	Labor
InfoTech	PED	789	NC	PHE	NPEZZZZZ	150	TC attend training 789	$55,436	Labor
InfoTech	PED	890	NC	PHE	NPEZZZZZ	150	TC develop comp apps-new 890	$221,746	Labor
InfoTech	PED	891	NC	PHE	NPEZZZZZ	150	FS develop comp apps-enh 891	$76,911	Labor
InfoTech	PED	891	NC	PHE	NPEZZZZZ	150	TC develop comp apps-enhanced 891	$1,532,721	Labor
InfoTech	PED	901	NC	PHE	NPEZZZZZ	150	TC Prov IT Cust Assist 901	$18,351	Labor
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	150	FS oper & main mainframe 895	$13,894	Labor
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	150	BUOC oper & main mainframe 895	$216,509	Labor
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	150	TCS oper & main mainframe 895	$63,476	Labor

SEE HOURS/EMPLOYEES ON WORKPAPER

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RptsRA1-Mar04-ITS.CTL

Version: Mar04

12/22/2004

» budget manager: PR300 NPUpd - Exp Category $

9:12AM

Dept	*RA #	*Act #	*Ind #	*Loc #	*Proj #	*EE #	Line Item		FY05 Upd04 RA	Expense Category
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	150	TC oper & main mainframe 895		$242,391	Labor
InfoTech	PEI	896	NC	PHE	NPEZZZZZ	150	FS oper & main LAN 896		$46,147	Labor
InfoTech	PEI	896	NC	PHE	NPEZZZZZ	150	I oper & main LAN 896		$50,561	Labor
InfoTech	PEI	896	NC	PHE	NPEZZZZZ	150	TC oper & main LAN 896		$423,611	Labor
InfoTech	PEI	897	NC	PHE	NPEZZZZZ	150	TC oper & main desktop 897		$116,225	Labor
InfoTech	PEI	897	NC	PHE	NPEZZZZZ	150	I oper & maint desktop 897		$45,239	Labor
InfoTech	PEI	897	NC	PHE	NPEZZZZZ	150	FS oper & main desktop 897		$32,253	Labor
InfoTech	PEI	900	NC	PHE	NPEZZZZZ	150	I op desk top offc telecom 900		$44,056	Labor
InfoTech	PEP	700	NC	PHE	NPEZZZZZ	150	FS dev & adm bus plans 700		$4,466	Labor
InfoTech	PEP	700	NC	PHE	NPEZZZZZ	150	TC dev & adm bus plans 700		$10,323	Labor
InfoTech	PEP	701	NC	PHE	NPEZZZZZ	150	TC dev & mg fcst 701		$51,613	Labor
InfoTech	PEP	722	NC	PHE	NPEZZZZZ	150	TC org dev strat 722		$20,645	Labor
InfoTech	PEP	722	NC	PHE	NPEZZZZZ	150	FS org dev strat 722		$8,932	Labor
InfoTech	PEP	730	NC	PHE	NPEZZZZZ	150	TC research new tech 730		$77,229	Labor
InfoTech	PEP	730	NC	PHE	NPEZZZZZ	150	FS rsrch new technology 730		$57,063	Labor
InfoTech	PEP	765	NC	PHE	NPEZZZZZ	150	FS empl pol prac proc 765		$4,466	Labor
InfoTech	PEP	785	NC	PHE	NPEZZZZZ	150	FS performance appraisals 785		$4,466	Labor
InfoTech	PEP	789	NC	PHE	NPEZZZZZ	150	TC attend training - local 789		$5,352	Labor
InfoTech	PEP	890	NC	PHE	NPEZZZZZ	150	TC develop apps - new 890		$20,645	Labor
InfoTech	PEP	891	NC	PHE	NPEZZZZZ	150	TC maintain apps - enhances 891		$211,041	Labor
InfoTech	PEP	896	NC	PHE	NPEZZZZZ	150	TC op and maintain LAN 896		$51,613	Labor
InfoTech	PEP	906	NC	PHE	NPEZZZZZ	150	TC plan the Sys Telecom 906		$66,906	Labor
InfoTech	PEP	906	NC	PHE	NPEZZZZZ	150	FS telecom-man, engr, design 906		$8,932	Labor
InfoTech									$4,714,393	Labor
InfoTech	PEA	901	NC	PHE	NPEZZZZZ	205	Materials-misc, cells, pagers	<EA>	$42,500	Materials
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	201	Laser forms	<Eo>	$19,404	Materials
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	201	Laser supplies	<Eo>	$4,000	Materials
InfoTech	PEI	895	NC	PHE	NPEZZZZZ	201	Micr toner forms	<Eo>	$7,000	Materials
InfoTech	PEI	896	NC	PHE	NPEZZZZZ	201	Tapes	<ES>	$1,500	Materials
InfoTech	PEI	897	NC	PHE	NPEZZZZZ	201	Cabling	<EI>	$7,200	Materials
InfoTech							PC hdwre purchases		$24,000	Materials
									$105,604	Materials

BASED on HISTORY

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00 NPUpd - Exp Category $ 9:12AM

	FY05 Upd04 RA	Expense Category	
1-2005	$3,200	Other	BASED ON HISTORY
	$6,000	Other	
itain Industry Relations	$9,500	Other	
ieals/ent	$500	Other	
itions dev <ED>	$140,000	Other	
<ED>	$70,000	Other	
	$35,000	Other	
and	$3,800	Other	
cts - New App Devl & Enhance	$45,000	Other	
cation Maint - sybase-power bldr	$1,500	Other	
<EI>	$90,000	Other	
s <ES>	$150,000	Other	
risign @$3K <EC>	$8,500	Other	
Management 2005B Add	$90,000	Other	- NEW 2005 PROJECT MENT
<ES>	$178,800	Other	- BASED ON HISTORY
generator maint <EI>	$349,713	Other	
	$1,181,513	Other	
]	$50,000	Outside Svcs	BASED ON HISTORY
ance	$55,200	Outside Svcs	
mer/ Grp 1 Cd 1 SW Maintenance	$32,900	Outside Svcs	
<Eo>	$1,000	Outside Svcs	
<Eo>	$79,263	Outside Svcs	
maintenance <Eo>	$193,015	Outside Svcs	
intenance <Eo>	$33,600	Outside Svcs	
1) Lease <Eo>	$156,516	Outside Svcs	
r Enterprise Server < Eo>	$65,052	Outside Svcs	
<Eo>	$528,261	Outside Svcs	
<Eo>	$393,384	Outside Svcs	
(2004 contains increm incr only)	$82,706	Outside Svcs	
Big Fish) Filtering Charges	$30,000	Outside Svcs	
ees <EI>	$141,000	Outside Svcs	
Maintenance <EI>	$250,000	Outside Svcs	

Dept	*RA #	*Act #	*Ind #	*Loc #	*Proj #	*EE #	Line Item		FY05 Upd04 RA	Expense Category	
InfoTech	PEI	896	NC	PHE	NPEZZZZZ	501	10 ISDN Phones		$4,800	Outside Svcs	BASED on HISTORY
InfoTech	PEI	897	NC	PHE	NPEZZZZZ	501	MEA for HECO	<EC>	$311,000	Outside Svcs	
InfoTech	PEI	897	NC	PHE	NPEZZZZZ	501	PC maintenance	<EI>	$374,400	Outside Svcs	
InfoTech	PEI	898	NC	PHE	NPEZZZZZ	501	EFMS maint (Intergraph)	<EI>	$275,000	Outside Svcs	
InfoTech	PEI	900	NC	PHE	NPEZZZZZ	501	Generator propane	<EI>	$540	Outside Svcs	
InfoTech	PEI	900	NC	PHE	NPEZZZZZ	501	Moves, adds, chgs	<EI>	$6,000	Outside Svcs	
InfoTech	PEI	900	NC	PHE	NPEZZZZZ	501	Long Distance Charges	<ES>	$20,000	Outside Svcs	
InfoTech	PEI	900	NC	PHE	NPEZZZZZ	501	Directory Listing	<EI>	$7,200	Outside Svcs	
InfoTech									$3,090,837	Outside Svcs	
InfoTech	PEA	901	NC	PHE	NPEZZZZZ	301	Car pools		$1,260	Transportation	BASED on HISTORY
InfoTech									$1,260	Transportation	
									$9,093,607		

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HOURS / EMPLOYEES – "NC" CHARGES

12/22/2004 » budget manager: PR110H NPUpd - Det... 1:06PM

*R...	*Ac...	*Lo...	*In...	*Proj #	*E...	*Lbr Class	Line item	FY05 Upd04 RA (HOURS)	EMPLOYEES
PEA	730	PHE	NC	NPEZZ...	150	__E	E res new tech 730	144	
PEA	890	PHE	NC	NPEZZ...	150	__E	E dev-new 890	600	
PEA	891	PHE	NC	NPEZZ...	150	__E	E dev comp apps enh 891	504	
PEA	895	PHE	NC	NPEZZ...	150	__E	E mainframe 895	192	
PEA	896	PHE	NC	NPEZZ...	150	__E	E LAN 896	384	
PEA	897	PHE	NC	NPEZZ...	150	__E	E desktop-bus 897	216	
PEA	898	PHE	NC	NPEZZ...	150	__E	E desktop-tech 898	168	
PEA	901	PHE	NC	NPEZZ...	150	__E	E provide IT cust asst 901	192	
PEA							ITS CHIEF INFORMATION OFFICER	2,400	1
PEA	777	PHE	NC	NPEZZ...	150	__I	I process payroll 777	96	
PEA	901	PHE	NC	NPEZZ...	150	__I	I provide IT cust asst 901	1,812	
PEA							ITS SECRETARY	1,908	1
PEC	901	PHE	NC	NPEZZ...	150	__FS	FS IT cust asst 901	1,248	
PEC	965	PHE	NC	NPEZZ...	150	__FS	FS dev mng fcst 701	420	
PEC	966	PHE	NC	NPEZZ...	150	__FS	FS maint rel 721	204	
PEC	967	PHE	NC	NPEZZ...	150	__FS	FS Org Dev Strat 722	204	
PEC							DIRECTOR - CUSTOMER CARE	2,076	1
PEC	842	PHE	NC	NPEZZ...	150	__I	I order mat'ls equip-clrg 842	396	
PEC	844	PHE	NC	NPEZZ...	150	__I	I prepare contracts-clrg 844	1,944	
PEC	901	PHE	NC	NPEZZ...	150	__I	I provide IT cust asst-clrg 901	7,464	
PEC							SPECIALISTS	9,804	5
PEC	701	PHE	NC	NPEZZ...	150	__TC	TC Dev Mnge Fcst 701	384	
PEC	721	PHE	NC	NPEZZ...	150	__TC	TC Dev Meas & Anl Perf 721	1,308	
PEC	840	PHE	NC	NPEZZ...	150	__TC	TC Admin Oth Procur Pgm 840	192	
PEC	844	PHE	NC	NPEZZ...	150	__TC	TC prep/mge contracts-clrg 844	768	
PEC	901	PHE	NC	NPEZZ...	150	__TC	TC provide it customer assistance-clrg...	9,276	
PEC							CONSULTANTS / ANALYSTS	11,928	6
PED	785	PHE	NC	NPEZZ...	150	__FS	FS Plan Emp Tmg & Dev 785	204	
PED	891	PHE	NC	NPEZZ...	150	__FS	FS develop comp apps-enh 891	1,860	
PED							DIRECTOR - DEVELOPMENT SERVICES	2,064	1
PED	730	PHE	NC	NPEZZ...	150	__TC	TC new tech 730	576	
PED	789	PHE	NC	NPEZZ...	150	__TC	TC attend training 789	1,740	
PED	890	PHE	NC	NPEZZ...	150	__TC	TC develop comp apps-new 890	6,960	
PED	891	PHE	NC	NPEZZ...	150	__TC	TC develop comp apps-enhanced 891	48,108	
PED	901	PHE	NC	NPEZZ...	150	__TC	TC Prov IT Cust Assist 901	576	
PED							LEAD/ANALYSTS/SPECIALISTS	57,960	30
PEI	895	PHE	NC	NPEZZ...	150	__BUOC	BUOC oper & main mainframe 895	9,120	
PEI							OPERATORS	9,120	5
PEI	895	PHE	NC	NPEZZ...	150	__FS	FS oper & main mainframe 895	336	
PEI	896	PHE	NC	NPEZZ...	150	__FS	FS oper & main LAN 896	1,116	
PEI	897	PHE	NC	NPEZZ...	150	__FS	FS oper & main desktop 897	780	
PEI							DIRECTOR - INFRASTRUCTURE & OPERATIONS	2,232	1
PEI	896	PHE	NC	NPEZZ...	150	__I	I oper & main LAN 896	2,052	

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12/22/2004 » budget manager: PR110H NPUpd - Det... 1:06PM

*R...	*Ac...	*Lo...	*In...	*Proj #	*E...	*Lbr Class	Line item	FY05 Upd04 RA (HOURS)	EMPLOYEE
PEI	897	PHE	NC	NPEZZ...	150	__I	I oper & maint desktop 897	1,836	
PEI	900	PHE	NC	NPEZZ...	150	__I	I op desk top offc telecom 900	1,788	
PEI							SPECIALISTS/COORDINATOR	5,676	3
PEI	895	PHE	NC	NPEZZ...	150	__TC	TC oper & main mainframe 895	7,608	
PEI	896	PHE	NC	NPEZZ...	150	__TC	TC oper & main LAN 896	13,296	
PEI	897	PHE	NC	NPEZZ...	150	__TC	TC oper & main desktop 897	3,648	
PEI							LEAD/ADMINISTRATOR/ANALYSTS	24,552	12
PEI	895	PHE	NC	NPEZZ...	150	__TCS	TCS oper & main mainframe 895	2,028	
PEI							SUPERVISOR	2,028	1
PEP	700	PHE	NC	NPEZZ...	150	__FS	FS dev & adm bus plans 700	108	
PEP	722	PHE	NC	NPEZZ...	150	__FS	FS org dev strat 722	216	
PEP	730	PHE	NC	NPEZZ...	150	__FS	FS rsrch new technology 730	1,380	
PEP	765	PHE	NC	NPEZZ...	150	__FS	FS empl pol prac proc 765	108	
PEP	785	PHE	NC	NPEZZ...	150	__FS	FS performance appraisals 785	108	
PEP	906	PHE	NC	NPEZZ...	150	__FS	FS telecom-man, engr, design 906	216	
PEP							DIRECTOR-PROJECT & BUS MGT	2,136	1
PEP	700	PHE	NC	NPEZZ...	150	__TC	TC dev & adm bus plans 700	324	
PEP	701	PHE	NC	NPEZZ...	150	__TC	TC dev & mg fcst 701	1,620	
PEP	722	PHE	NC	NPEZZ...	150	__TC	TC org dev strat 722	648	
PEP	730	PHE	NC	NPEZZ...	150	__TC	TC research new tech 730	2,424	
PEP	789	PHE	NC	NPEZZ...	150	__TC	TC attend training - local 789	168	
PEP	890	PHE	NC	NPEZZ...	150	__TC	TC develop apps - new 890	648	
PEP	891	PHE	NC	NPEZZ...	150	__TC	TC maintain apps - enhances 891	6,624	
PEP	896	PHE	NC	NPEZZ...	150	__TC	TC op and maintain LAN 896	1,620	
PEP	906	PHE	NC	NPEZZ...	150	__TC	TC plan the Sys Telecom 906	2,100	
PEP							LEAD	16,176	9
								150,060	77

B-4

PROJECT "NC" CHARGES

FROM PROJECT FILE
INDICATOR = NC

4/20/2004

» budget manager: PR9100-P: Summa...

11:34AM

*Project #	Project	*M-Proj #	Curr Upd New Total $	Proj to Date Act $	FY05 UPDATE04
P0000040	EFMS Program	P0000040	$3,780,000	0	$800,000
		R0003012	$25,234	$25,234	0
		R0003621	$79,981	$79,981	0
		R0003624	$65,116	$65,116	0
		R0003625	$168,320	$168,320	0
		R0003627	-$14,583	-$14,583	0
		R0003628	$31,662	$31,662	0
		R0004779	$35,110	$35,110	0
		R0004780	$13,263	$13,263	0
		R0004884	$0	$0	0
		R0004885	$63,305	$63,305	0
		R0004886	$38,964	$38,964	0
		R0004887	$38,964	$38,964	0
		R0004888	$38,964	$38,964	0
		R0005500	$12,188	$12,188	0
		R0005749	$28,100	$28,100	0
		R0006579	$54,938	$54,938	0
		R0006598	$26,880	$26,880	0
		R0009382	$4	$4	0
		R0009383	$7,486	$7,486	0
			$4,493,893	$713,893	$800,000
P0000427	e-Bus HECOcom Proje...		$24,827	0	$18,300
		P0000427	$2,721,233	$50,233	$740,000
			$2,746,060	$50,233	$758,300
P0000868	Middleware Implementa...		$50,311	0	$7,842
		P0000868	$425,727	0	$55,771
			$476,039	0	$63,613
			$7,715,992	$764,126	$1,621,913

C

HECO IT Costing Estimates for 2005-2006 for HELCO

HELCO - IT COSTING SYSTEM DIRECT CHARGE

DIRECT CHARGES

Dist.	Project #	WO #		Account Code					Estimate 2005	Estimate 2006	
HELC			H9P	700	HEL	NE	NHAPRESI	451	1,143	1,143	
HELC			HAA	701	HEL	NE	NHAZZZZZ	451	1,714	1,714	
HELC			HAA	818	HEL	NE	NHAZZZZZ	451	1,714	1,714	
HELC			HAC	818	HEL	NE	NHAZZZZZ	451	3,727	3,727	
HELC			HAK	604	HAK	NE	NHAZZZZZ	451	5,407	5,407	
HELC			HAP	817	HEL	NE	NHAZZZZZ	451	2,285	2,285	
HELC			HDA	965	HED	NC	NHDZZZZZ	451	7,013	7,013	
HELC			HDC	603	HAH	NE	NHDZZZZZ	451	15,328	15,328	
HELC			HDR	455	HED	NC	NHDZZZZZ	451	3,428	3,428	
HELC			HDR	600	HAH	NE	NHDZZZZZ	451	3,428	3,428	
HELC			HGA	211	ANS	NS	NHGZZZZZ	451	3,620	3,620	
HELC			HNA	775	HEL	NE	NHNZZZZZ	451	1,299	1,299	
HELC			HNL	928	HEL	NE	NHNZZZZZ	451	1,517	1,517	
HELC		CS000024	HCS	112	HEL	NE	NHCZZZZZ	451	6,040	6,040	
HELC		CS000101.	HCE	750	HEL	NE	NHCZZZZZ	451	1,143	1,143	
HELC		CS000274	HAW	604	HEL	NE	NHAZZZZZ	451	8,448	8,448	
HELC		CS000317	HAK	604	HAK	NE	NHAZZZZZ	451	17,470	17,470	
HELC		CS000347	HAS	604	HAH	NE	NHAZZZZZ	451	32,863	32,863	
HELC		CS000431	HCB	711	HEL	NE	H0000004	451	3,802	3,802	
HELC		EE000629	HWA	408	HED	NC	NHWZZZZZ	451	49,364	49,364	
HELC		FI000043	HAC	818	HEL	NE	NHAZZZZZ	451	6,186	6,186	
HELC		HR000258	HNP	778	HEL	NE	NHNZZZZZ	451	30,450	30,450	FBF App labor
HELC		HR000259	HNP	779	HEL	NE	NHNZZZZZ	451	1,800	1,800	FBH App labor
HELC		HR000260	HNP	779	HEL	NE	NHNZZZZZ	451	600	600	FBP App labor
HELC		HR000261	HNP	776	HEL	NE	NHNZZZZZ	451	450	450	FBS App labor
HELC		HR000262	?	?	?	?	?	451	7,500	7,500	FCC App labor
HELC		HR000264	?	?	?	?	?	451	600	600	FP App labor
HELC	C0000929		HCI	714	HEL	NE	H0000002	451	5,588	5,588	
HELC	C0000939		HCI	714	HEL	NE	H0000001	451	2,411	2,411	
							TOTAL		226,338	226,338	

XA

INTERCOMPANY BILLABLE (ICB) CHARGES

Dist.	Project #	WO #		Account Code					2005	2006	
HECO		HR000238	PFC	775	HEL	NE	NPFZZZZZ	451	2,574	2,574	PFC Desktop
							TOTAL		2,574	2,574	

D

Murakami, Blane

From: Inouye, Juliane
Sent: Tuesday, April 20, 2004 1:34 PM
To: Murakami, Blane
Subject: FW: 2005-2006 ITCosting Estimates for HELCO

From: Inouye, Juliane
Sent: Tuesday, March 16, 2004 10:16 AM
To: Fujioka, Paul
Cc: Young, Patti; Tobara, Bryce
Subject: 2005-2006 ITCosting Estimates for HELCO

Paul,

Attached are HECO's ITS Costing Estimates for 2005 and 2006. As in the past, all estimates except for those marked "App Labor" are based on last year's actual charges. The App labor estimates are projections. Note that although most Benefits and Compensation charges were App labor charges are now being direct charged, one charge will continue to be processed through intercompany billing.

In addition, completed Inercompany Service Forms for Records Management and Microsoft MEA are being mailed to you today.

Please feel free to call me if you have any questions.

Thank you,

Juliane Inouye
HECO - ITS Dept.
ph. 808-543-7135

HECO IT Costing Estimates for 2005-2006 for MECO

MECO - IT COSTING SYSTEM DIRECT CHARGE

DIRECT CHARGES

Dist.	Project #	WO #		Account Code					Estimate 2005	Estimate 2006	
MECO			M9P	700	MAU	NE	NMAZZZZZ	451	2,439	2,439	
MECO			MAA	612	MAU	NE	NMAZZZZZ	451	1,143	1,143	
MECO			MAA	818	MAU	NE	NMAZZZZZ	451	1,105	1,105	
MECO			MAB	612	MAU	NE	NMAZZZZZ	451	3,428	3,428	
MECO			MAG	612	MAU	NE	NMAZZZZZ	451	1,439	1,439	
MECO			MCT	604	MAM	NE	NMCZZZZZ	451	4,571	4,571	
MECO			MDK	620	MAU	NE	NMDZZZZZ	451	1,615	1,615	
MECO			MDM	603	MAU	NE	NMDZZZZZ	451	8,745	8,745	
MECO			MDR	618	MAU	NE	NMDZZZZZ	451	13,042	13,042	
MECO			MGA	899	NST	NC	NMGZZZZZ	451	2,409	2,409	
MECO			MSP	778	MAU	NE	NMSZZZZZ	451	1,887	1,887	
MECO			MWA	901	MAU	NC	NMWZZZZZ	451	10,847	10,847	
MECO			MWC	600	MAU	NC	NMWZZZZZ	451	2,285	2,285	
MECO			MWP	600	MAU	NC	NMWZZZZZ	451	19,426	19,426	
MECO			MWS	600	MAU	NC	NMWZZZZZ	451	3,428	3,428	
MECO		CS000027	MCN	112	MAU	NE	NMCZZZZZ	451	26,282	26,282	
MECO		CS000096	MCM	610	MAU	NE	NMCZZZZZ	451	3,132	3,132	
MECO		CS000153	MCA	604	MAU	NE	NMCZZZZZ	451	11,085	11,085	
MECO		CS000158	MCR	604	MAU	NE	NMCZZZZZ	451	17,140	17,140	
MECO		HR000132	MSP	779	MAU	NE	NMSZZZZZ	451	620	620	FP App labor
MECO		HR000133	MSP	775	MAU	NE	NMSZZZZZ	451	7,500	7,500	FCC App labor
MECO		HR000135	MSP	778	MAU	NE	NMSZZZZZ	451	31,262	31,262	FBF App labor
MECO		HR000144	MSP	779	MAU	NE	NMSZZZZZ	451	1,856	1,856	FBH App labor
MECO		HR000199	MSP	776	MAU	NE	NMSZZZZZ	451	462	462	FBS App labor
MECO		HR000232	MSP	779	MAU	NE	NMSZZZZZ	451	620	620	FBP App labor
							TOTAL		177,768	177,768	

YA

INTERCOMPANY BILLABLE (ICB) CHARGES

Dist.	Project #	WO #		Account Code					2005	2006	
HECO		HR000240	PFC	775	HEL	NE	NPFZZZZZ	451	2,574	2,574	PFC Desktop
							TOTAL		2,574	2,574	

D-2

Murakami, Blane

From: Inouye, Juliane
Sent: Tuesday, April 20, 2004 1:34 PM
To: Murakami, Blane
Subject: FW: 2005-2006 ITCosting Estimates for MECO

From: Inouye, Juliane
Sent: Tuesday, March 16, 2004 10:24 AM
To: Matsunaga, Lyle
Cc: Matsumura, Joyce; Young, Patti; Tobara, Bryce
Subject: 2005-2006 ITCosting Estimates for MECO

Lyle,

Attached are our ITS Costing Estimates for 2005 and 2006. As in the past, all estimates except for those marked "App Labor" are based on last year's actual charges. The App labor estimates are projections. Note that although most Benefits and Compensation charges were App labor charges are now being direct charged, one charge will continue to be processed through intercompany billing.

Completed Intercompany Service forms for Microsoft MEA and Customer Service (CB) are being mailed to you. We also completed for and sent IS forms to Monica Lynch and Wendy Nathan (they requested that their forms be sent directly to them) One of Wendy's forms is for the ICB charge ($2,574/yr) shown in the attached spreadsheet.

Please feel free to call me if you have any questions.

Thank you,

Juliane Inouye
HECO - ITS Dept.
ph. 808-543-7135

NON-ITS PROJECT - EXPENSE ELEMENT 451 CHARGES FROM LINDA YAMAMOTO

*Project #	Project	*M-Proj #	ProjMgrOrEngr	*RA #	*Ind #	*EE #	FY05	FY05 Adj
P0000318	Project Ellipse	P0000318	Noda, R	PEZ	BE	451	-	
P0000318	Project Ellipse	P0000318	Noda, R	PEZ	NE	451	-	
P0000318							-	-
P0000350	Field Service System Replacement	P0000350	Oda, W	PEZ	NI	451	-	
P0000350							-	-
P0000502	Waiau Minor Gen Addns	P0000502	Nakano, W	PEZ	NI	451	48	
P0000502							48	2,400
P0000503	Ward Ave Minor Addns	P0000503	Nakano, W	PEZ	NI	451	96	
P0000503							96	4,800
P0000504	King St Minor Addns	P0000504	Nakano, W	PEZ	NI	451	48	
P0000504							48	2,400
P0000571	CIS Replacement	P0000571	Hull, Thomas	PEZ	BD	451	78,813	
P0000571	CIS Replacement	P0000571	Hull, Thomas	PEZ	BE	451	23,037	
P0000571	CIS Replacement	P0000571	Hull, Thomas	PEZ	ND	451	172,987	
P0000571	CIS Replacement	P0000571	Hull, Thomas	PEZ	NE	451	50,563	
P0000571							325,400	325,400
P0000825	C&M Renovation	P0000825	Nakano, W	PEZ	NI	451	120	
P0000825							120	6,000
P0000826	ITS Renovation	P0000826	Nakano, W	PEZ	NI	451	-	
P0000826							-	-
P0000851	Purchasing Warehouse Renov	P0000851	Nakano, W	PEZ	NI	451	-	
P0000851							-	-
P0000878	Check Processing Upgrade	P0000878	Ejercito, A	PEZ	NE	451	-	
P0000878							-	-
00896	Finance Plus Replacement		Takamura, J	PEZ	NE	451	-	
J00896							-	-
P0000907	PLC Market Trial		Nordyke, M	PEZ	NE	451	154,800	
P0000907							154,800	154,800
P0000984	Promote e-Customer Service		Ejercito, A	PCA	NE	451	12,000	
P0000984							12,000	12,000
P0000985	Bill Payment System/ATM Proj		Ejercito, A	PCA	NE	451	6,000	
P0000985	Bill Payment System/ATM Proj		Ejercito, A	PCA	NI	451	-	
P0000985							6,000	6,000
P0000986	GPS (Global Posit. Sys.)		Ejercito, A	PCA	NE	451	4,000	
P0000986	GPS (Global Posit. Sys.)		Ejercito, A	PCA	NI	451	-	
P0000986							4,000	4,000
P0000987	3rd Party Pay Solutions		Ejercito, A	PCA	NE	451	-	
P0000987							-	-
P0000988	ACCESS (solutions to issues)		Ejercito, A	PCA	NE	451	10,000	
P0000988	ACCESS (solutions to issues)		Ejercito, A	PCA	NI	451	-	
P0000988							10,000	10,000
P0001010	HR/Benefits/Comp Suite		Price, J	PEZ	BE	451	46,560	
P0001010	HR/Benefits/Comp Suite		Price, J	PEZ	NE	451	100,290	
P0001010							146,850	146,850
Security11	Temp Proj Security11_		Uemura, E	PEZ	NE	451	12,700	
Security11_							12,700	12,700
P0000828	Outage Management System	P0000828	Naito, C	PEZ	ND	451	16,494	
J0828	Outage Management System	P0000828	Naito, C	PEZ	NE	451	-	
P0000828	Outage Management System	P0000828	Naito, C	PEZ	NI	451	5,164	
P0000828	Outage Management System	P0000828					21,658	21,658
							709,008	

Murakami, Blane

From: Yamamoto, Linda
Sent: Thursday, April 15, 2004 12:43 PM
To: Murakami, Blane
Cc: Young, Patti; Shimabukuro, Gail
Subject: RE: ITS cost reports aka EE451 reports

)415 ITS Upd Costs EDProj.ASC)415 ITS Upd Costs NEDProj.ASC...

Attached are your reports for the Update.

-----Original Message-----
From: Murakami, Blane
Sent: Thursday, April 15, 2004 11:08 AM
To: Yamamoto, Linda
Cc: Young, Patti; Shimabukuro, Gail
Subject: RE: ITS cost reports aka EE451 reports

Would you send me an update of the ascii files below (based on Pillar inputs submitted on April 12). I would like to review the current EE451 estimates to determine if changes to ITS's 2005 Budget PEZ estimates are required.

Thanks.

-----Original Message-----
From: Yamamoto, Linda
Sent: Friday, February 13, 2004 9:48 AM
To: Murakami, Blane
Cc: Young, Patti; Takahashi, Cynthia
Subject: RE: ITS cost reports aka EE451 reports

<< File: 0212 ITS Bud Costs EDProj.ASC >> << File: 0212 ITS Bud Costs NEDProj.ASC >> << File: 0212 ITS Upd Costs EDProj.ASC >> << File: 0212 ITS Upd Costs NEDProj.ASC >>

Attached are the reports you requested. Let me know if you have any questions.

Linda

-----Original Message-----
From: Murakami, Blane
Sent: Friday, February 13, 2004 9:16 AM
To: Yamamoto, Linda
Cc: Young, Patti; Takahashi, Cynthia
Subject: FW: ITS cost reports aka EE451 reports

Would you be able to provide the reports below based on the current Pillar inputs (as of Feb 12). We call these the EE451 entries in ITS.

Thanks

-----Original Message-----
From: Yamamoto, Linda
Sent: Wednesday, August 27, 2003 11:34 AM
To: Murakami, Blane; Young, Patti; Takahashi, Cynthia
Subject: ITS cost reports

<< File: 0826 ED ITS Bud Costs 04-05.ASC >> << File: 0826 ED ITS Costs Aug-Dec03.ASC >> << File: 0826 NED ITS Bud Costs 04-05.ASC >> << File: 0826 NED ITS Costs Aug-Dec03.ASC >>

Attached are the ITS cost reports for 2003 Update (Aug-Dec) as well as 2004 and 2005 Budget.

Linda Yamamoto
543-7752

E-1

2005 INTERCOMPANY BILLINGS

INTERCOMPANY BILLABLE PROJECTED FROM 2003 ACTUALS

4/20/2004 *ENTER: Direct RA Cost Feb04 2005 NLab 11:22AM

*RA #	*Act #	*Loc #	*Ind #	*Project #	*EE #	Line item	FY05
PEA	965	HEL	BE	NPEZZZZZ	521	H9P HELCO File Audit Rec ...	$160.00
PEA	965	HEL	BE	NPEZZZZZ	522	H9P HELCO File Audit Rec ...	$560.00
PEA	965	MAU	BE	NPEZZZZZ	521	MSA MECO File Audit Rec ...	$160.00
PEA	965	MAU	BE	NPEZZZZZ	522	MSA MECO File Audit Rec ...	$560.00
PED	711	HEL	BE	NPEZZZZZ	452	HEL billable Dev Sup for HE...	$2,000.00
PEI	895	FCU	BE	NPEZZZZZ	451	HECO Federal Credit Union	$9,600.00
PEI	895	HEI	BE	NPEZZZZZ	451	HEI Stock Transfer Data Ce...	$23,376.00
PEI	897	HEL	BE	NPEZZZZZ	501	HAC MEA for HELCO ...	$60,000.00
PEI	897	MAU	BE	NPEZZZZZ	501	MAA MEA for MECO ...	$49,000.00
PEI	900	HEI	BE	NPEZZZZZ	501	HEI telecomm-HEI ...	$9,000.00
PEZ	700	RHI	BE	NPASVP7Z	451	RHI Billable	$1,070.00
PEZ	775	HEI	BE	NPFZZZZZ	451	PFC HEI Billable - Empl Co...	$2,544.00
PEZ	775	HEL	BE	NPFZZZZZ	451	PFC HEL Billable - Empl Co...	$2,544.00
PEZ	775	MAU	BE	NPFZZZZZ	451	PFC MAU Billable - Empl C...	$2,544.00
PEZ	776	HEI	BE	NPFZZZZZ	451	PFB - HEI Billable - Ben Pla...	$1,995.00
PEZ	776	HPC	BE	NPFZZZZZ	451	PFB HPC Billable - Ben Pla...	$87.00
PEZ	776	PEC	BE	NPFZZZZZ	451	PFB PEC Billable - Ben Pla...	$174.00
PEZ	778	HEI	BE	NPFZZZZZ	451	PFB HEI Billable - Adm Flex...	$1,045.00
PEZ	778	HPC	BE	NPFZZZZZ	451	PFB HPC Billable - Adm Fle...	$45.00
PEZ	778	PEC	BE	NPFZZZZZ	451	PFB PEC Billable - Adm Fle...	$91.00
PEZ	779	HEI	BE	NPFZZZZZ	451	PFB HEI Billable - Adm Reti...	$1,140.00
PEZ	779	HPC	BE	NPFZZZZZ	451	PFB HPC Billable - Adm Re...	$20.00
PEZ	779	PEC	BE	NPFZZZZZ	451	PFB PEC Billable - Adm Ret...	$40.00
PEZ	817	HEL	BE	NPAZZZZZ	451	HEL Billable	$0.00
PEZ	817	MAU	BE	NPAZZZZZ	451	MAU Billable	$0.00
PEZ	825	HEI	BE	NPKZZZZZ	451	PKT HEI Billable - Manage ...	$2,464.00
PEZ	825	HEL	BE	NPKZZZZZ	451	HEL Billable	$189.00
PEZ	825	MAU	BE	NPKZZZZZ	451	MAU Billable	$189.00
PEZ	826	HEL	BE	NPKZZZZZ	451	HEL Billable	$791.00
PEZ	826	MAU	BE	NPKZZZZZ	451	MAU Billable	$931.00
PEZ	891	HEI	BE	NPEZZZZZ	451	HEI Billable	$1,357.00
PEZ	895	HEL	BE	NPAVP2ZZ	451	P2V HEL Billable - Op & Ma...	$123,036.00
PEZ	895	MAU	BE	NPAVP2ZZ	451	P2V MAU Billable - Op & M...	$123,036.00

(HISTORY)

ITS Department
PEZ Actuals Jan-Dec 2003

2003 INTERCOMPANY BILLABLES

[illegible]	Act	Loc	Ind	Proj	EE	Q1	Q2	Q3	Q4	FY 03	Mo Avg
PEZ	775	HEI	BE	NPFZZZZZ	451	670	637	648	588	2,544	212
PEZ	776	HEI	BE	NPFZZZZZ	451	1,357	416	91	134	1,998	167
PEZ	778	HEI	BE	NPFZZZZZ	451	198	264	176	408	1,045	87
PEZ	779	HEI	BE	NPFZZZZZ	451	400	267	169	305	1,140	95
PEZ	825	HEI	BE	NPKZZZZZ	451	641	616	632	574	2,464	205
PEZ	891	HEI	BE	[illegible]	[illegible]						

2003 PEZ ACTUALS
ITS COSTING SYSTEM
ALLOCATIONS

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

	RA	Act	Loc	Ind	Project	EE	Jan-Dec 03	Proportions
	PEZ	100	PHE	NE	NPSZZZZZ	451	67,746	
		100 Total					67,746	0.7%
	PEZ	102	PHE	NE	NPSZZZZZ	451	13,789	
		102 Total					13,789	0.2%
	PEZ	110	PHE	NE	NPSZZZZZ	451	144,316	
	PEZ	110	PHE	NE	NPEZZZZZ	451	0	
		110 Total					144,316	1.6%
	PEZ	112	PHE	NE	NPSZZZZZ	451	75,064	
		112 Total					75,064	0.8%
	PEZ	122	PHE	NE	**NPIZZZZZ**	451	54,438	
		122 Total					54,438	0.6%
	PEZ	201	WST	NE	NPYZZZZZ	451	95,731	
		201 Total					95,731	1.0%
	PEZ	210	WST	NC	NPYZZZZZ	451	0	
		210 Total					0	0.0%
	PEZ	211	WST	NC	NPYZZZZZ	451	165,147	

Hawaiian Electric Company, Inc.									
Information Technology & Services Department									
PEZ Actuals Jan- Dec 2003									
									Proportions
	RA	Act	Loc	Ind	Project	EE		Jan-Dec 03	
	PE7	331	OAH	NE	NPAVP277	451		2,584	

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE	Jan-Dec 03	Proportions
PEZ	614	OAH	NE	**NPCZZZZZ**	451	8,400	
	614 Total					8,400	0.1%
PEZ	616	OAH	NE	**NPCZZZZZ**	451	64,575	
	616 Total					64,575	0.7%
PEZ	700	PHE	NE	NPAVP7ZZ	451	31,586	
PEZ	700	PHE	NE	NPAVP3ZZ	451	31,586	
PEZ	700	PHE	NE	NPAPRESI	451	25,615	
PEZ	700	PHE	NE	NPASVP9Z	451	26,090	
	700 Total					114,877	1.3%
PEZ	701	PHE	NC	NPKZZZZZ	451	17,947	
	701	OAH	NC'	**NPRZZZZZ**	451	38,713	0.6%
PEZ	701	PHE	NE	NPKZZZZZ	451	32,591	0.4%
	701 Total					89,251	
PEZ	710	PHE	NE	NPSZZZZZ	451	31,835	
	710 Total					31,835	0.3%
PEZ	712	PHE	ND	NPYZZZZZ	451	7,594	
PEZ	712	PHE	ND	NPSZZZZZ	451	2,009	
	712 Total					9,603	0.1%

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

	RA	Act	Loc	Ind	Project	EE	Jan-Dec 03	Proportions
	PEZ	767	PHE	NE	**NPFZZZZZ**	451	56,408	
		767 Total					56,408	0.6%
	PEZ	775	PHE	NE	NPFZZZZZ	451	17,807	
		775 Total					17,807	0.2%
	PEZ	776	PHE	NE	NPFZZZZZ	451	108,215	
		776 Total					108,215	1.2%
	PEZ	777	PHE	NE	NPAVP2ZZ	451	233,153	

Hawaiian Electric Company, Inc.
Information Technology & Services Department
PEZ Actuals Jan- Dec 2003

RA	Act	Loc	Ind	Project	EE	Jan-Dec 03		Proportions
PEZ	876	PHE	NE	NPJZZZZZ	451	131,933		
	876 Total					131,933		1.4%
PEZ	896	PHE	NE	NPEZZZZZ	451	37,921		
	896 Total					37,921		0.4%
PEZ	899	PHE	NE	NPKZZZZZ	451	0		
	899 Total					0		0.0%
PEZ	907	OAH	NC	NPBZZZZZ	451	17,425		
PEZ	907	OAH	NC	NPEZZZZZ	451	0		
	907 Total					17,425		0.2%
PEZ	916	PHE	NC	**NPRZZZZZ**	451	31,586		
	916 Total					31,586		0.3%
PEZ	926	PDO	NE	NPWZZZZZ	451	10,125		
PEZ	926	PHE	NE	**NPNLZZZZ**	451	40,454		
	926 Total					50,579		0.6%
PEZ	928	PHE	NE	NPNLZZZZ	451	36,205		
	928 Total					36,205		0.4%
PEZ	931	PHE	NE	**NPHZZZZZ**	451	55,593		
	931 Total					55,593		0.6%
PEZ	932	PHE	NE	**NPVZZZZZ**	451	32,741		
	932 Total					32,741		0.4%
PEZ	933	PHE	NE	**NPHZZZZZ**	451	62,201	Wrong corrected	
	933 Total					62,201		0.7%
PEZ	940	PHE	NC	**NPVZZZZZ**	451	70,645		
PEZ	940	PHE	NC	NPEZZZZZ	451	0		
	940 Total					70,645		0.8%
PEZ	950	PHE	NE	**NPHZZZZZ**	451	69,647		

ITS Department
EFMS and Ebus Allocations

EFMS Allocations		Allocation Basis:	
PEZ 211 WST NC	NPYZZZZZ	62,388	10.8%
PEZ 256 KST NE	NPEZZZZZ	2,964	0.5%
PEZ 256 WST NE	NPEZZZZZ	2,964	0.5%
PEZ 307 OAH NC	NPEZZZZZ	112,644	19.4%
PEZ ## OAH NE	NPEZZZZZ	14,760	2.5%
PEZ 408 OAH NC	NPEZZZZZ	112,644	19.4%
PEZ 455 OAH NC	NPEZZZZZ	34,152	5.9%
PEZ 455 OAH NE	NPEZZZZZ	3,468	0.6%
PEZ 456 OAH NE	NPEZZZZZ	59,076	10.2%
PEZ 600 OAH NE	NPWZZZZZ	129,948	22.4%
PEZ 907 OAH NC	NPBZZZZZ	17,328	3.0%
PEZ ## PHE NE	NPEZZZZZ	9,636	1.7%
PEZ 931 PHE NE	NPEZZZZZ	17,724	3.1%
Total EFMS		579,696	100.0%

EBusiness Allocations		Allocation Basis:	
PEZ ## PHE NE	NPNEZZZZ	1,767	10.4%
PEZ ## OAH NE	NPNEZZZZ	119	0.7%
PEZ ## OAH NE	NPNEZZZZ	3,607	21.2%
PEZ ## PHE NE	NPNEZZZZ	1,531	9.0%
PEZ ## PHE NE	NPNEZZZZ	-	0.0%
PEZ ## PHE NE	NPNEZZZZ	6,259	36.8%
PEZ ## PHE NE	NPNEZZZZ	3,725	21.9%
EFMS Allocations Total		17,008	100.0%

ALLOCATION BASIS ESTABLISH BY EFMS AND EBUS PROGRAM MANAGERS IN PRIOR YEARS.

G-1

Hawaiian Electric Company, Inc.
Information Technology & Services Department
Direct Charges to O&M

ITS Department costs for non-core IT functions, including Records Management, Printing Services and Mailing Services are directly charged to Operations & Maintenance Expenses. Amortizaton of deferred Ebusiness costs are also directly charged to Operations & Maintenance Expenses. These costs not processed through the ITS Costing System.

The attached workpapers H and H-1 show the assumptions for 2005 Estimates for non-core IT functions. These costs are directly charged to functional area code block in the following areas:

Non-Core IT Function Direct O&M Charges:
- A & G Operation
- Customer Operations

Ebusiness Amortization Direct O&M Charges:
- Customer Services
- Distribution Operations
- Customer Accounts
- Customer Services
- Production Operations
- A & G Operations

ger: PR300 NPUpd - Exp Category $ 10:24AM

n		FY05 Upd04 RA	Expense Category	
~~tion List Additions~~		~~$105,000~~	~~Other~~	DELETED 6/3/04
Mgt Supplies & Ref Materials		$1,200	Materials	
		$106,200		
5-150 Provide Records Mgmt Svcs		$43,169	Labor	1752 HRS - 1 EMPL
rovide Records Mgmt Svcs 965		$42,732	Labor	1800 HRS - 1 EMPL
de Records Mgmt Svcs 965		$62,318	Labor	1956 HRS - 1 EMPL
Equip Maintenance		$2,000	Outside Svcs	BASED ON HISTORY
Outside Svcs (ie Storage)	$80,000	$60,000	Outside Svcs	
Outside Svcs (ie Microfilm, Rearch, etc)		$13,000	Outside Svcs	
		$5,000	Outside Svcs	
it Clearinghouse License		$7,600	Outside Svcs	
r Equip Maint		$4,300	Other	
		$240,119		
ide Printing Svcs 967 (PER TCS)	A&G OPERATIONS	$60,024	Labor	1884 HRS - 1 EMPL
Printing Svcs 967 (PER)		$43,465	Labor	1764 HRS - 1 EMPL
Provide Printing Svcs 967 (PER)		$86,034	Labor	3624 HRS - 2 EMPL
Fax, Toner & Misc Supplies	$92,400	$84,000	Materials	BASED ON HISTORY
p Supplies (PER)		$8,400	Materials	
p Supplies (PER)	$107,200	$32,200	Materials	
Fax Paper - Pro Card		$75,000	Materials	
hoes (PER)		$864	Outside Svcs	
ioftware & Software Upgrades	$11,688	$3,300	Outside Svcs	
p Outside Svcs (PER)		$7,524	Outside Svcs	
Fax Equip Maint	$151,512	$144,000	Other	
p Equip Maint (PER)		$7,512	Other	
Prov Word Proc Svcs 968 (PER)		$42,732	Labor	1800 HRS - 1 EMPL
oc Software & Upgrades (PER)		$2,151	Other	
		$597,206		
roc Customer Bills 614	CUSTOMER OPERATIONS	$89,167	Labor	3756 HRS - 2 EMP
landle & Deliver Mail 966	A&G OPERATIONS	$52,473	Labor	1932 HRS - 1 EMP
ndle & Deliver Mail 966		$60,096	Labor	1920 HRS - 1 EMP
landle & Deliver Mail 966		$228,759	Labor	9636 HRS - 5 EMP

17 EMP

12/22/2004 » budget manager: PR300 NPUpd - Exp Category $ 10:24AM

Dept	*RA #	*Act #	*Ind #	*Loc #	*Proj #	*EE #	Line Item	FY05 Upd04 RA	Expense Category	
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	205	Mailroom Supplies	$7,800	Materials	BASED ON HISTORY
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	301	Vehicle (1): Van	$10,890	Transportation	A&G OPERATIONS
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	301	Vehicle (1): Light vehicle	$10,890	Transportation	
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	501	Postal Fees: Postal P. O. Box fees + subscription	$3,493	Outside Svcs	
InfoTech	PEM	966	NE	PHE	NPEZZZZZ	600	EM Mach Maint: Pitney Bowes + B&H + Valenti	$36,780	Other	
InfoTech	PEM							$500,348		NARUC 910
InfoTech	PEP	110	NE	PHE	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$12,062	Other	5-YEAR AMORTIZATION
InfoTech	PEP	110	NE	PHE	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$6,841	Other	CUSTOMER SERVICES 18,903
InfoTech	PEP	600	NE	OAH	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$24,617	Other	
InfoTech	PEP	600	NE	OAH	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$13,962	Other	DISTRIBUTION OPERATIONS 38,579
InfoTech	PEP	611	NE	OAH	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$24,617	Other	
InfoTech	PEP	611	NE	OAH	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$13,962	Other	CUSTOMER ACCOUNTS 38,579
InfoTech	PEP	713	NE	PHE	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$31,017	Other	NARUC 910
InfoTech	PEP	713	NE	PHE	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$17,592	Other	CUSTOMER SERVICES 48,609
InfoTech	PEP	730	NE	PPO	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$6,154	Other	
InfoTech	PEP	730	NE	PPO	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$3,491	Other	PRODUCTION OPERATIONS 9644
InfoTech	PEP	750	NE	PHE	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$12,308	Other	NARUC 910
InfoTech	PEP	750	NE	PHE	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$6,154	Other	
InfoTech	PEP	750	NE	PHE	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$6,981	Other	CUSTOMER SERVICES 28,934
InfoTech	PEP	750	NE	PHE	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$3,491	Other	
InfoTech	PEP	950	NE	PHE	NPNEZZZZ	901	Amort of eBus BTL [ebus platform]	$6,154	Other	A&G OPERATIONS 9645
InfoTech	PEP	950	NE	PHE	NPNEZZZZ	901	Amort of eBus ATL [heco.com]	$3,491	Other	
InfoTech	PEP							$192,896		
								$1,636,769		

Total Naruc 910 = 96,446

I

» budget manager: PR110H NPUpd - Detail Hrs

Ac...	*Lo...	*In...	*Proj #	*E...	*Lbr Class	Line item	FY05 Upd04 RA (HOURS)	EMPLOYEES
65	PHE	NE	NPEZZ...	150	__BUOC	BUOC Provide Records Mgmt Svcs 965	1,800	1
65	PHE	NE	NPEZZ...	150	__I	IMPL 965-150 Provide Records Mgmt Svcs	1,752	1
65	PHE	NE	NPEZZ...	150	__TC	TC Provide Records Mgmt Svcs 965	1,956	1
							5,508	
67	PHE	NE	NPEZZ...	150	__BUOC	BUOC Provide Printing Svcs 967 (PER)	3,624	2
67	PHE	NE	NPEZZ...	150	__I	I Provide Printing Svcs 967 (PER)	1,764	1
67	PHE	NE	NPEZZ...	150	__TC	TC Provide Printing Svcs 967 (PER TCS)	1,884	1
68	PHE	NE	NPEZZ...	150	__BUOC	BUOC Prov Word Proc Svcs 968 (PER)	1,800	1
							9,072	
14	OAH	NE	NPEZZ...	150	__BUOC	BUOC Proc Customer Bills 614	3,756	2
66	PHE	NE	NPEZZ...	150	__BUOC	BUOC Handle & Deliver Mail 966	9,636	5
66	PHE	NE	NPEZZ...	150	__BUTC	BUTC Handle & Deliver Mail 966	1,932	1
66	PHE	NE	NPEZZ...	150	__TCS	TCS Handle & Deliver Mail 966	1,920	1
							17,244	
							31,824	17

Hawaiian Electric Company, Inc.
2005 Test Year Rate Case

Customer Service Expense
O&M Expense Budget

Workpapers

PQC Corporate Communications
("Corp Comm")

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 [illegible]

Corporate Communications
Summary of O&M Nonlabor costs greater than $50,000
2005

NARUC a/c 910	**Act 750**	**Exp Element 501**	
Consumer Lines customer newsletter			$ 109,769.00 *
Audiovisual nonlabor costs (includes production costs for The Electric Kitchen)			$ 28,000.00 *
			$ 137,769.00
		amt per forecast input	$ 137,918.00
		diff = rounding	$ 149.00

** see detailed worksheets for calculations*

Consumer Lines								
Forecast 2004-2005								
		HECO	HELCO	MECO	Total			
Design		2588	620	548	3755.18	3755	includes illustrations & web page	
Printing		4443	1064	941	6447.88	6448		
TIMES 12 ISSUES		12	12	12	12.00			
Total Design/Printing		84374.87	20199.1	17862.75	122436.72			
Paper		23245.08	5564.81	4921.15	33731.03			
							See attached estimate	
							from vendor	
TOTAL		107620	25764	22784	156168			
Rule 16 insert:			1319.81	1167.15				
		say	1320	1160				
Monthly breakdown:		=======	Clines					
						HECO	HELCO	MECO
						Rule 16		
2004:								
Jan		7031	1683	1489				
Feb		7031	1683	1489				
Mar		7031	1683	1489				
Apr		7031	1683	1489		Incl		
May		7031	1683	1489		in adver		
June		7031	1683	1489			660.00	580.00
July		7031	1683	1489				
Aug		7031	1683	1489				
Sept		7031	1683	1489				
Oct		7031	1683	1489				
Nov		30276	7248	6410			660.00	580.00
Dec		7031	1683	1489				
TOTAL		107620	25764	22784	156168		1320	1160
Monthly breakdown:		=======	Clines			HECO	HELCO	MECO
						Rule 16		
2005:								
Jan		7172	1717	1518				
Feb		7172	1717	1518				
Mar		7172	1717	1518				
Apr		7172	1717	1518		Incl		
May		7172	1717	1518		in adver		
June		7172	1717	1518			673.20	591.60
July		7172	1717	1518				
Aug		7172	1717	1518				
Sept		7172	1717	1518				
Oct		7172	1717	1518				
Nov		30882	7393	6538			673.20	591.60
Dec		7172	1717	1518				
TOTAL		109772	26279	23240	159291		1346.4	1183.2
		109769						
		actual input (diff = rounding)						

HECO audiovisual forecast					
Nonlabor					
The Electric Kitchen TV program (TEK):					
Outside Services Cameraman #1	$ 2,750.00	*			
Outside Services Cameraman #2	$ 2,750.00	*			
Floor Director	$ 2,750.00	*			
	$ 8,250.00				
say	$ 9,000.00				
**Based on $250 a day; 22 shows @ 2 shows taped a day or 11 days*					
misc costs:					
alloc of cost of music rights	$ 500.00	488.8	actual in 2002		
possible dubs for closed captioning					
or other materials needed	$ 500.00				
total TEK nonlabor	$ 10,000.00				
Other misc AV costs:					
2002 actual (incl est 2500 for TEK)	$ 6,333.80	materials			
(includes tapes, dubs, news clips,	$ 8,299.84	svcs			
camera supplies, film etc)	$ 14,633.64				
	$ (520.61)	reclass adj			
	$ 14,113.03				
2003 actual	$ 3,421.92	materials			
	$ 9,461.48	svcs			
	$ 592.96	software			
	$ 13,476.36				
2003 TEK	$ 8,995.01				
Estimated for 2004 & 2005 (incl TEK)	**$ 28,000.00**	<=====	14000	2003 actual (rounded)	
			2000	est incr in newsclips costs based on 2004	
		|	12000	TEK est	$4000 times 3 = $12,000
		|			(est higher outside cameraman and other chg
		=>	28000		

Clarence Lee
Design & Associates, Inc.

The Marco Polo
2333 Kapiolani Blvd.
Honolulu, Hawaii 96826

Phone: (808)941.5021
Fax: (808)949.0481
email: clee@lava.net

CLARENCE

June 25, 2003

To: Lynne Unemori, HEI
Fr: Clarence Lee/Elsa Carl
Re: Consumer Lines 2004 Estimate

Dear Lynne,

Thank you for supporting our efforts and those of General Printing on Consumer Lines. The quantity of Consumer Lines has increased for 2004 but we've tried to keep costs competitive.

Same as 2003 **Design and production**.....$2,500.00 per month
(3 issues per month: HECO, MECO, HELCO)

Same as 2003 **Web design and production**.....$ 800.00 per month
(3 pages per month: HECO, MECO, HELCO)

Same as 2003 **Illustration**.....$ 305.00 per month
(Lead article and recipe in b/w and color for web site use)

Printing:
(includes scanning of photographs) **General Printing**

Cost difference from 2003 plus + $215.00 (increased quantity)

Printing 414,000 in 3 lots
per month.....$ 6,190.00

HECO	285,300	68.91	
MECO	68,300	16.50	
HELCO	60,400	14.59	
(Based on current run)		#NIS	

per Elsa, % for HELCO & MECO 5/6 [illegible]

Cost difference from 2003 less - $4,058.00 (increased quantity)

Paper stock for 1 year.....$32,382.00
60# Eureka recycled offset

Prices are plus Hawaii State tax.

We hope we can continue to work with you in 2004. Please call if you have any questions or need further clarification.

Sincerely,

Clarence Lee

cc: Elsa Carl
Ken Slavik, General Printing

Hawaiian Electric Company, Inc.
2005 Test Year Rate Case

Customer Service Expense
O&M Expense Budget

Workpapers

PS0 Energy Services

NONPROJECTS
NARUC 910
ESD NON-LABOR

PCEA Conference Travel: Year 2005

Division	Individuals	# Individuals	Allowance per person**	Division Amount to Forecast	Charge Code to use
PSA	Manager	1	$900.00	$900.00	PSA-102-NE-NPSZZZZZ-522
PSD	Director plus two staff	3	$900.00	$2,700.00	PSD-102-NE-NPSZZZZZ-522
PSF	Director plus two staff	3	$900.00	$2,700.00	PSF-102-NE-NPSZZZZZ-522
PSM	Director plus two staff	3	$900.00	$2,700.00	PSM-102-NE-NPSZZZZZ-522
PSP	Director plus two staff	3	$900.00	$2,700.00	PSP-102-NE-NPSZZZZZ-522
PSR	Director plus two staff	3	$900.00	$2,700.00	PSR-102-NE-NPSZZZZZ-522
PSN*	Director plus ten staff	11	$900.00	$9,900.00	PSN-102-NE-NPSZZZZZ-522
				$24,300.00	

** Based on the following:

Round trip airfare	$200.00	
Three nights hotel $210 night X 3	$630.00	
Allowance for Incidentals/Rental Car	$70.00	&
Allowance per person	$900.00	

& Rental cars will be shared among ESD PCEA attendees. Incidentals are exclusive of meals since these will be picked up as part of the PCEA conference.

* SN count for 2005 was increased to 11 from old 2005 Budget. This is to allow travel for the additional account manager that was added to the 2005 budget.

2004-2005 SA Division

EE # NON-LABOR	2005	Comments	Act. 102	Act. 110	Act. 112
MATERIALS					
(205) Matl 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)

CA-IR-2
DOCKET NO. 04-0113
HECO T-10
ATTACHMENT C
PAGE 4 OF 10

SM2005nonlaborBUD.xls

HECO

ANNUAL NONLABOR BUDGET
2005 EE TYPE DETAIL

ENERGY SERVICES DEPARTMENT -- SM Divisio
NONLABOR CHARGES

Department: HECO SM Division -- Other than PCEA and CLS, cc
since most of non-IRP/DSM work occurs in this area.

Cost Type		2005 Budget -SM
Non-Labor		
MATERIALS		
(205)	Materials-Purchases	2,000
(232)	Stationeries/Supplies	
(640)	Postage and Bulk Mail	
TRANSPORTATION		
(301)	Pool Vehicle	200
(302)	Assigned Vehicle	
(310)	Rental Transportation	
INFORMATION SYSTEM SERVICES		
(451)	IS Expenses-Production	Forecasted by ISD.
	Computer Charges	
	Lease/Purchase PC	
(452)	IS Expenses-Development	
	Program Modifications	
(461)	IS Expenses - Consultant	
(462)	IS Expenses-Software	8,000
CONTRACTS/SERVICES		
(501)	Outside Services-General	
	Market Research	
	Market Studies, Brochures, Etc.	82,015
(501)	Outside Services -- Consultants	
	(CLS)	-
(507)	Outside Services-Training	-
(510)	Utilities	-
(520)	Mainland Travel	4,200
(521)	Meals & Entertainment	200
(522)	Interisland Travel (PCEA)	2,700
Total		99,315
(501)	Billable Nonlabor (Act. 100)	
	RSAT survey, transferred to	
	SM from QC effective Y2002	
	MECO	19,624
	HELCO	19,154
		38,778
(501)	Class Load Study	
	(Project Ohana new initiative)	
	MECO	-
	HELCO	-
		0

increased to $8,750 2/04

2/21/2004 8:30 AM

Year 2005nonIRP assumption

NONLABOR:

M nonlabor: Forecasted by E. Wong under her project. She will forecast for SM Division DSM evaluation and advertising/promotion.

IRP nonlabor: Included under a different forecast.

New Product Development: Nonlabor costs forecasted under SA Division.

BTL Activities: Forecasted by SR Division.

Forecast Activities: No nonlabor forecast made.

Marketing Activities:

Act. 100 (Conduct Market Research)

The assumptions used to derive the nonlabor for these activities are presented below. All of these nonlabor costs (other than PCEA travel) will be forecasted to Act. 100 since this is where the bulk of work will be performed and recorded to.

(Discussed with George Willoughby -- 2/20/04)

erials (EE#205):

Same forecast as Y2004 used.

Pool Vehicle (EE#301):

Same forecast as Y2004 used.

ISD charges (EE#451)

Forecast for this made by ISD based on input from ESD.

IS --Software (EE#462):

Allowance made for SPSS maintenance	$4,000
Allowance made for SAS maintenance	$4,000
	$8,000

- increased to $8,750 2/04

O/S Svcs. -- General (EE#501):

Estimated amount of $82,015 for O/S Svcs. general includes the following:

* Estimated amount for marketing consultant to perform various marketing studies	$62,145
* Estimate for HECO's share of RSAT	$19,870
	$82,015

Year 2005nonIRP assumption

NONLABOR (Contd.):

inland Travel -- (EE#520)

$4,200 provision has been made for mainland travel. Includes airfare and ground accomodations for staff to attend mainland seminars, conferences, and training co related to Marketing Research. The $4,200 amount represents an allowance for 2 trips derived as follows:

Seminar Costs	$600		
Airfare	$800		
Hotels (3 days @ $170/da	$510		
Meals (3 days @ $50/day)	$150		
Misc. (3 days @ $13+/day)	$40		
	$2,100	X2	$4,200

Meals & Entertainment (EE#521):

Same forecast as Y2004 used.

erisland Travel— PCEA (EE#522)

$2,700 represents interisland travel budget to enable the Director and two staff members to attend the PCEA conference. This Conference, held bi-annually, was last planned for in Y2003.

Billable - Market Research

(Based on latest consultant estimates for 2005

— 2/20/04 (GW)

MECO	$19,624
HELCO	$19,154

2005 FC (ITEMS TO CONSIDER)

SN Division:

(1) Labor: Assume Two positions not included in 2004 Current Count.

1 Director
1 Clerical Support
10 Staff --- A/0 Jan.04 8, put in 10 in 2005.
12

(2) No DSM Program contract hire made in 2005. Elaine Wong will not forecast in 2005 for contract hire.

(3) EMS Project: Forecast to be made by Dan Sakamoto. Project to be

2/17/2004 5:25 PM

Nonlabor All.-2005

2005 SN DIVISION

Expense Element #		2005	Act. 102	Act. 112	Act. 140
NON-LABOR					
MATERIALS					
***	(205) Mattl Purchase	8,000	4,000	4,000	
	(232) Stat & Supp-Iss	–			
	(640) Post & Bulk Mail	–			
TRANSPORTATION					
***	(301) Pool Vehicles	13,300	6,650	6,650	
ISD SERVICES					
	(462) IS Expenses -SFTW	325	162	163	
CONTRACT SERVICES					
***	(501) O/S Svc -Gen	19,050	9,525	9,525	
	(507) O/S Svc. - Training	–			
	(510) Utilities	–			
	(515) Company Membership	–			
	(516) Employee Membership	1,500	750	750	
	(520) Mainland Travel	6,900	3,450	3,450	
***	(521) Meals & Entertainment	9,000	4,500	4,500	
	O&M I mpact	**58,075**	**29,037**	**29,038**	
PCEA					
CONTRACT SERVICES (Once every two years) (Interisland Travel	(522)	9,900	9,900		
CONTRACT SERVICES (SPONSORSHIP)	(501)	20,000	20,000		
		29,900	**29,900**		

DSM Program (No forecast for Contract Hire made in 2005)

OTHER	All Electric				
	Ads	(501)	65,000		65,000 (Project)
	Incen.	(501)	225,000		225,000 (Project)
	Total Other		**290,000**		**290,000**

*** Prorated across months.

NOTE: Nonlabor estimates, other than All Electric Program (BTL) and PCEA will be allocated equally between Activity 102 and Activity 112.
Rationale: Activities 102 and 112 represent the major Regulatory (ATL) activities of the Division and

NONLABOR:

Material Purchases: (EE#205)
Based on review of Y2003 actuals and increased to allow for two additional employees in 2005.

Pool Vehicles (EE#301)
Provision derived based on review of 2003 actuals and increased to allow. for two additional employees.

IS Expense - Software (EE#462)
Allowance made for one software package purchase.

O/S Svcs. - General (EE#501)
An allowance of $19,050 in O/S Svcs. - General was forecasted.
Y2002 and Y2004 forecast was used as basis.
Current year forecast takes into consideration the following and includes a budget for a major customer workshop.

Utilities Allowance (cell phone, etc.)	$1,000
Allowance for speakers other workshop expenses	$11,550
Other consultants-brochure development, misc.	$4,100
Misc. items, Fed Ex. Etc.	$2,400
	$19,050

Employee Membership (EE#516)
Y2003 and Y2004 forecast of $1,500 was used. This is an allowance for Account Manager employee membership in such organizations as BIA and other industry organizations serviced by the Account Managers.

Mainland travel (EE#520)
Allowance made for 3 mainland trips at approximately $2,300 each for a total of $6,900.

Seminar costs		$600		
Airfare		$875		
Hotels	(3 days @$190/day)	$570		
Meals	(3 days @ $70/day	$210		
Misc.	(3 days @ $15/day)	$45		
		$2,300	at 3 trips	$6,900

Meals & Entertainment (EE#521):
Allowance of $9,000 made for meals & entertainment for Account Managers to take customers out, provide refreshments at workshops, etc. Amount also includes allowance for Major Customer Dinner. Same forecast as Y2002 and Y2004 was used.

All Electric Sub. Promo: (EE#501)
Same allowance as Y2003 and Y2004 used for advertising and incentives.

Interisland Travel (EE#522)
Includes travel for Director and ten staff.

PCEA Sponsorship (EE#501) of $20,000 forecasted under SN.
Same budget as previous PCEA conferences used.

Hawaiian Electric Company, Inc.
2005 Test Year Rate Case

Customer Service Expense
O&M Expense Budget

Workpapers

PQE Education and Consumer Affairs ("ECA")

CA-IR-2 - Attachment

Th : mic Kitchen

1745 Summarized Job Report - By RA

Facility
guests 22 guest × 4 hrs/guest = 88 hrs
Alism 10 days × 8 hrs = 80 hrs
Parkwood Fit
146 hrs × $3.12/hr = $24.14

Close [illegible] Δ $6,000
Artwork [illegible] 1,000

Report Parameters

District:	HECO	WO Number:	CR000082	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

Alism - Gratuity $200 × 2 = $400

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PFI	750	PHE	NE	NPQEZZZZ	150	0.00	29.50	1104.46
PFI	750	PHE	NE					-58.79
PFI	750	PHE	NE					51.63
PFI	750	PHE	NE					127.33
PFI	750	PHE	NE					-39.44
PFI	750	PHE	NE					79.23
PFI	*Subtotal:*							**1264.44**
PQC	750	PHE	NE					17366.74
PQC	750	PHE	NE					-1097.58
PQC	750	PHE	NE					1335.83
PQC	750	PHE	NE					2713.79
PQC	750	PHE	NE					2239.39
PQC	750	PHE	NE					1326.10
PQC	750	PHE	NE	NPQCZZZZ	501	0.00	0.00	3094.03
PQC	*Subtotal:*					**0.00**	**601.50**	**26978.30**
PQE	750	PHE	NE	NPQEZZZZ	150	0.00	1350.00	37171.84
PQE	750	PHE	NE	NPQEZZZZ	155	0.00	0.00	-4330.62
PQE	750	PHE	NE	NPQEZZZZ	201	0.00	0.00	1620.57
PQE	750	PHE	NE	NPQEZZZZ	205	0.00	0.00	401.97

To calculate Total Non-Labor costs by workorder
July 1, 2002 to June 30, 2003 > DARS 1745
(Since Elliot Liane ~~[illegible]~~ started Nov 2003)

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Th ? mic Kitchen

rt - By RA

Pa...g
guess 22 guest x 4hrs/guest = 88hrs
Admin 10 days x 8hrs = 80hrs Parking app
148hrs x $3.32/hr = $24.14

Close Supervisor Δ $6,000
Artwork Insurance 1,000

CR000082

RA:
ABM:
Loc:
Ind:
Proj:
Sort By: RA

Admin - Graveyard $300 x 2 = 600

Project	Expense Element	Equipment Hours	Labor Hours	Amount
IPQEZZZZ	150	0.00	29.50	1104.48
IPQEZZZZ	155	0.00	0.00	-58.79
IPQEZZZZ	406	0.00	0.00	51.63
PQEZZZZ	421	0.00	0.00	127.33
PQEZZZZ	422	0.00	0.00	-39.44
PQEZZZZ	423	0.00	0.00	79.23
		0.00	**29.50**	**1264.44**
PQEZZZZ	150	0.00	601.50	17366.74
PQEZZZZ	155	0.00	0.00	-1097.58
PQEZZZZ	406	0.00	0.00	1335.83
PQEZZZZ	421	0.00	0.00	2713.79
PQEZZZZ	422	0.00	0.00	2239.39
PQEZZZZ	423	0.00	0.00	1326.10
PQCZZZZ	501	0.00	0.00	3094.03
		0.00	**601.50**	**26978.30**
PQEZZZZ	150	0.00	1350.00	37171.84
PQEZZZZ	155	0.00	0.00	-4330.62
PQEZZZZ	201	0.00	0.00	1620.57
PQEZZZZ	205	0.00	0.00	401.97

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	*WO Number:*	CR000082	*RA:*		*Ind:*	
From Date:	07/01/2002	*Parent WO:*		*ABM:*		*Proj:*	
To Date:	06/30/2003	*Project Number:*		*Loc:*		*Sort By:*	RA

Company: **HECO**

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	750	PHE	NE	NPQEZZZZ	301	0.00	0.00	3.44
PQE	750	PHE	NE	NPQEZZZZ	406	0.00	0.00	3050.97
PQE	750	PHE	NE	NPQEZZZZ	421	0.00	0.00	6087.99
PQE	750	PHE	NE	NPQEZZZZ	422	0.00	0.00	5727.09
PQE	750	PHE	NE	NPQEZZZZ	423	0.00	0.00	2686.64
PQE	750	PHE	NE	NPQEZZZZ	501	0.00	0.00	2291.41
PQE	***Subtotal:***					**0.00**	**1350.00**	**54711.30**
Grand Total:						**0.00**	**1981.00**	**82954.04**

2E Non labor = $4317.39

4317.39
cc 6000.00
Art Insurance ~~1000.00~~
Parking
Gratuity 400.00

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Sen - Preservations - Close - Thru 10/0

5 Summarized Job Report - By RA

Parameters

	HECO	*WO Number:*	CR000079	*RA:*		*Ind:*	
ate:	07/01/2002	*Parent WO:*		*ABM:*		*Proj:*	
	06/30/2003	*Project Number:*		*Loc:*		*Sort By:*	RA

ny: **HECO**

ABM	*Location*	*Indicator*	*Project*	*Expense Element*	*Equipment Hours*	*Labor Hours*	*Amount*
750	PHE	NE	NPQEZZZZ	150	0.00	4.00	86.68
750	PHE	NE	NPQEZZZZ	155	0.00	0.00	5.44
750	PHE	NE	NPQEZZZZ	406	0.00	0.00	8.88
750	PHE	NE	NPQEZZZZ	421	0.00	0.00	18.84
750	PHE	NE	NPQEZZZZ	422	0.00	0.00	-6.60
750	PHE	NE	NPQEZZZZ	423	0.00	0.00	7.68
Subtotal:					**0.00**	**4.00**	**120.92**
Total:					**0.00**	**4.00**	**120.92**

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Ler ing Library

arized Job Report - By RA

	WO Number:	CR000090	RA:	Ind:	
2	Parent WO:		ABM:	Proj:	
3	Project Number:		Loc:	Sort By:	RA

cation	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PHE	NE	NPQEZZZZ	150	0.00	0.00	0.00
PHE	NE	NPQEZZZZ	155	0.00	0.00	2.64
PHE	NE	NPQEZZZZ	406	0.00	0.00	0.00
PHE	NE	NPQEZZZZ	421	0.00	0.00	0.00
PHE	NE	NPQEZZZZ	422	0.00	0.00	0.00
PHE	NE	NPQEZZZZ	423	0.00	0.00	0.22
				0.00	**0.00**	**2.86**
PHE	NE	NPQEZZZZ	150	0.00	124.50	3867.03
PHE	NE	NPQEZZZZ	155	0.00	0.00	-563.67
PHE	NE	NPQEZZZZ	201	0.00	0.00	3310.04
PHE	NE	NPQEZZZZ	406	0.00	0.00	262.13
PHE	NE	NPQEZZZZ	421	0.00	0.00	575.70
PHE	NE	NPQEZZZZ	422	0.00	0.00	371.11
PHE	NE	NPQEZZZZ	423	0.00	0.00	248.85
				0.00	**124.50**	**7871.19**
				0.00	**124.50**	**7874.05**

Edi MAS

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000087	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PIF	221	WST	NE	NPIZZZZZ	521	0.00	0.00	195.28
PIF	Subtotal:					0.00	0.00	195.28
PQE	750	PHE	NE	NPQEZZZZ	150	0.00	286.50	6496.39
PQE	750	PHE	NE	NPQEZZZZ	155	0.00	0.00	-209.07
PQE	750	PHE	NE	NPQEZZZZ	201	0.00	0.00	12446.99
PQE	750	PHE	NE	NPQEZZZZ	301	0.00	0.00	11.30
PQE	750	PHE	NE	NPQEZZZZ	406	0.00	0.00	596.69
PQE	750	PHE	NE	NPQEZZZZ	421	0.00	0.00	1279.02
PQE	750	PHE	NE	NPQEZZZZ	422	0.00	0.00	896.21
PQE	750	PHE	NE	NPQEZZZZ	423	0.00	0.00	502.36
PQE	750	PHE	NE	NPQEZZZZ	501	0.00	0.00	-255.00
PQE	Subtotal:					0.00	286.50	21764.89
Grand Total:						0.00	286.50	21960.17

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Ephi... rs (HIYC) Ask Cynthia a... Capital Budgets?

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	**WO Number:**	CR000078	**RA:**		**Ind:**	
From Date:	07/01/2002	**Parent WO:**		**ABM:**		**Proj:**	
To Date:	06/30/2003	**Project Number:**		**Loc:**		**Sort By:**	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	750	PHE	NE	NPQEZZZZ	150	0.00	782.25	21798.10
PQE	750	PHE	NE	NPQEZZZZ	155	0.00	0.00	-3674.90
PQE	750	PHE	NE	NPQEZZZZ	201	0.00	0.00	26205.35
PQE	750	PHE	NE	NPQEZZZZ	205	0.00	0.00	246.81
PQE	750	PHE	NE	NPQEZZZZ	301	0.00	0.00	64.42
PQE	750	PHE	NE	NPQEZZZZ	406	0.00	0.00	1582.68
PQE	750	PHE	NE	NPQEZZZZ	421	0.00	0.00	3519.36
PQE	750	PHE	NE	NPQEZZZZ	422	0.00	0.00	1924.41
PQE	750	PHE	NE	NPQEZZZZ	423	0.00	0.00	1453.10
PQE	750	PHE	NE	NPQEZZZZ	501	0.00	0.00	8989.43
PQE	750	PHE	NE	NPQEZZZZ	521	0.00	0.00	8.74
PQE	***Subtotal:***					**0.00**	**782.25**	**62117.50**
Grand Total:						**0.00**	**782.25**	**62117.50**

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Ind:
Proj:
Sort By: RA

urs	Labor Hours	Amount
00	260.75	7939.17
00	0.00	-1338.41
00	0.00	-125.00
00	0.00	10.30
00	0.00	514.20
00	0.00	1167.42
00	0.00	561.19
00	0.00	518.04
00	0.00	130.00
00	260.75	9376.91
00	260.75	9376.91

Eng_J Tips & Choices

Reprint 2003 2004 ? yes 2005 ? yes

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	**WO Number:**	CR000089	**RA:**		**Ind:**	
From Date:	07/01/2002	**Parent WO:**		**ABM:**		**Proj:**	
To Date:	06/30/2003	**Project Number:**		**Loc:**		**Sort By:**	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	750	PHE	NE	NPQEZZZZ	150	0.00	4.75	189.02
PQE	750	PHE	NE	NPQEZZZZ	155	0.00	0.00	-40.52
PQE	750	PHE	NE	NPQEZZZZ	406	0.00	0.00	12.46
PQE	750	PHE	NE	NPQEZZZZ	421	0.00	0.00	21.81
PQE	750	PHE	NE	NPQEZZZZ	422	0.00	0.00	34.13
PQE	750	PHE	NE	NPQEZZZZ	423	0.00	0.00	12.62
PQE	750	PHE	NE	NPQEZZZZ	501	0.00	0.00	3378.46
PQE	***Subtotal:***					**0.00**	**4.75**	**3607.98**
Grand Total:						**0.00**	**4.75**	**3607.98**

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Emerg. / Handbook Reprint 2004 2005 ,15

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	**WO Number:**	CR000088	**RA:**		**Ind:**	
From Date:	07/01/2002	**Parent WO:**		**ABM:**		**Proj:**	
To Date:	06/30/2003	**Project Number:**		**Loc:**		**Sort By:**	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	750	PHE	NE	NPQEZZZZ	150	0.00	99.75	2967.11
PQE	750	PHE	NE	NPQEZZZZ	155	0.00	0.00	-532.39
PQE	750	PHE	NE	NPQEZZZZ	406	0.00	0.00	258.66
PQE	750	PHE	NE	NPQEZZZZ	421	0.00	0.00	455.98
PQE	750	PHE	NE	NPQEZZZZ	422	0.00	0.00	750.91
PQE	750	PHE	NE	NPQEZZZZ	423	0.00	0.00	206.34
PQE	750	PHE	NE	NPQEZZZZ	501	0.00	0.00	-3765.00
PQE	*Subtotal:*					0.00	99.75	341.61
Grand Total:						0.00	99.75	341.61

HECO 928.92
MECO 585.04

Handbook 16,447.97 pay 8/26
Postus 221.88 8/23

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General Admin - Cust Educ/Exhibits

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000176	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	843	PHE	NE	NPQEZZZZ	150	0.00	2.00	42.82
PQE	750	PHE	NE	NPQEZZZZ	150	0.00	2064.50	53734.52
PQE	750	PHE	NE	NPQEZZZZ	155	0.00	0.00	-6354.64
PQE	843	PHE	NE	NPQEZZZZ	155	0.00	0.00	1.89
PQE	750	PHE	NE	NPQEZZZZ	201	0.00	0.00	272.18
PQE	750	PHE	NE	NPQEZZZZ	205	0.00	0.00	1931.02
PQE	750	PHE	NE	NPQEZZZZ	301	0.00	0.00	5.42
PQE	843	PHE	NE	NPQEZZZZ	406	0.00	0.00	3.32
PQE	750	PHE	NE	NPQEZZZZ	406	0.00	0.00	4551.98
PQE	843	PHE	NE	NPQEZZZZ	421	0.00	0.00	9.42
PQE	750	PHE	NE	NPQEZZZZ	421	0.00	0.00	9389.10
PQE	843	PHE	NE	NPQEZZZZ	422	0.00	0.00	-0.18
PQE	750	PHE	NE	NPQEZZZZ	422	0.00	0.00	7527.36
PQE	843	PHE	NE	NPQEZZZZ	423	0.00	0.00	3.74
PQE	750	PHE	NE	NPQEZZZZ	423	0.00	0.00	3856.51
PQE	750	PHE	NE	NPQEZZZZ	501	0.00	0.00	-48.00
PQE	750	PHE	NE	NPQEZZZZ	503	0.00	0.00	1600.59
PQE	Subtotal:					0.00	2066.50	76527.05
Grand Total:						0.00	2066.50	76527.05

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Cc phones / pager - customer educ, exhib.

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	**WO Number:**	CR000170	**RA:**		**Ind:**	
From Date:	07/01/2002	**Parent WO:**		**ABM:**		**Proj:**	
To Date:	06/30/2003	**Project Number:**		**Loc:**		**Sort By:**	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	750	PHE	NE	NPQEZZZZ	205	0.00	0.00	220.07
PQE	Subtotal:					0.00	0.00	220.07
Grand Total:						0.00	0.00	220.07

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Curr. Dev. Pgm [illegible]
(Non-labor)

:
l:
t By: RA

Hours	Amount
2.00	80.84
0.00	-23.18
0.00	5.46
0.00	9.12
0.00	18.24
0.00	4.92
2.00	**95.40**
13.50	8145.27
0.00	-1384.55
0.00	50.18
0.00	818.77
0.00	~~1422.07~~
0.00	2580.78
0.00	571.39
0.00	69.39
13.50	**12275.20**
15.50	**12370.60**

See Power for Schools

No data available for selected criteria.

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000097	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company:

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount

. ylar Balloon

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000269	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQC	750	PHE	NE	NPQEZZZZ	150	0.00	7.00	211.40
PQC	750	PHE	NE	NPQEZZZZ	155	0.00	0.00	3.08
PQC	750	PHE	NE	NPQEZZZZ	406	0.00	0.00	19.11
PQC	750	PHE	NE	NPQEZZZZ	421	0.00	0.00	31.92
PQC	750	PHE	NE	NPQEZZZZ	422	0.00	0.00	63.84
PQC	750	PHE	NE	NPQEZZZZ	423	0.00	0.00	18.33
PQC	*Subtotal:*					**0.00**	**7.00**	**347.68**
PQE	750	PHE	NE	NPQEZZZZ	150	0.00	262.00	6709.20
PQE	750	PHE	NE	NPQEZZZZ	155	0.00	0.00	-1111.00
PQE	750	PHE	NE	NPQEZZZZ	201	0.00	0.00	728.10
PQE	750	PHE	NE	NPQEZZZZ	205	0.00	0.00	48.73
PQE	750	PHE	NE	NPQEZZZZ	301	0.00	0.00	349.38
PQE	750	PHE	NE	NPQEZZZZ	406	0.00	0.00	706.13
PQE	750	PHE	NE	NPQEZZZZ	421	0.00	0.00	1192.48
PQE	750	PHE	NE	NPQEZZZZ	422	0.00	0.00	2378.73
PQE	750	PHE	NE	NPQEZZZZ	423	0.00	0.00	477.02
PQE	750	PHE	NE	NPQEZZZZ	501	0.00	0.00	1590.49
PQE	*Subtotal:*					**0.00**	**262.00**	**13069.26**
Grand Total:						**0.00**	**269.00**	**13416.94**

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Energy Lit

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000085	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	750	PHE	NE	NPQEZZZZ	150	0.00	23.50	909.64
PQE	750	PHE	NE	NPQEZZZZ	155	0.00	0.00	-195.99
PQE	750	PHE	NE	NPQEZZZZ	406	0.00	0.00	50.04
PQE	750	PHE	NE	NPQEZZZZ	421	0.00	0.00	110.62
PQE	750	PHE	NE	NPQEZZZZ	422	0.00	0.00	69.06
PQE	750	PHE	NE	NPQEZZZZ	423	0.00	0.00	58.08
PQE	***Subtotal:***					**0.00**	**23.50**	**1001.45**
Grand Total:						**0.00**	**23.50**	**1001.45**

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Ut ;ies /Telephone Charge

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	**WO Number:**	CR000177	**RA:**		**Ind:**	
From Date:	07/01/2002	**Parent WO:**		**ABM:**		**Proj:**	
To Date:	06/30/2003	**Project Number:**		**Loc:**		**Sort By:**	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	750	PHE	NE	NPQEZZZZ	501	0.00	0.00	4.90
PQE	**Subtotal:**					**0.00**	**0.00**	**4.90**
Grand Total:						**0.00**	**0.00**	**4.90**

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Handi Programs

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000081	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	08/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	753	PHE	NE	NPQEZZZZ	205	0.00	0.00	7.28
PQE	Subtotal:					0.00	0.00	7.28
Grand Total:						0.00	0.00	7.28

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W/General

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000099	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	753	PHE	NE	NPQEZZZZ	150	0.00	237.25	8810.36
PQE	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	-1688.33
PQE	753	PHE	NE	NPQEZZZZ	301	0.00	0.00	34.17
PQE	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	531.64
PQE	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	1080.15
PQE	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	924.87
PQE	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	584.76
PQE	Subtotal:					0.00	237.25	10277.62
Grand Total:						0.00	237.25	10277.62

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Acc m Marathon

1745 Summarized Job Report - By RA

Key HP program the same as

Les [illegible] +$500 for Transportation [illegible] (Carrier)

Report Parameters

District:	HECO	WO Number:	CR000091	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PDJ	753	PHE	NE	NPQEZZZZ	150	0.00	4.00	134.64
PDJ	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	-16.80
PDJ	753	PHE	NE	NPQEZZZZ	404	0.00	0.00	100.12
PDJ	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	10.92
PDJ	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	18.24
PDJ	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	38.16
PDJ	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	10.07
PDJ	*Subtotal:*					**0.00**	**4.00**	**295.35**
PHB	753	PHE	NE	NPQEZZZZ	150	0.00	24.00	597.84
PHB	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	-16.40
PHB	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	65.52
PHB	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	109.44
PHB	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	218.88
PHB	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	49.65
PHB	*Subtotal:*					**0.00**	**24.00**	**1024.93**
PQC	753	PHE	NE	NPQEZZZZ	150	0.00	195.75	5832.85
PQC	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	-96.09
PQC	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	501.02
PQC	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	878.54

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000091	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQC	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	1564.27
PQC	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	480.34
PQC	753	PHE	NE	NPQCZZZZ	501	0.00	0.00	541.66
PQC	*Subtotal:*					**0.00**	**195.75**	**9702.59**
PQE	753	PHE	NE	NPQEZZZZ	150	0.00	2344.50	67757.78
PQE	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	-15570.65
PQE	753	PHE	NE	NPQEZZZZ	201	0.00	0.00	42957.56
PQE	753	PHE	NE	NPQEZZZZ	205	0.00	0.00	950.14
PQE	753	PHE	NE	NPQEZZZZ	301	0.00	0.00	169.41
PQE	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	5595.39
PQE	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	10522.80
PQE	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	14180.80
PQE	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	4741.43
PQE	753	PHE	NE	NPQEZZZZ	501	0.00	0.00	-9757.11
PQE	753	PHE	NE	NPQEZZZZ	521	0.00	0.00	774.46
PQE	753	PHE	NE	NPQEZZZZ	640	0.00	0.00	0.00
PQE	*Subtotal:*					**0.00**	**2344.50**	**122322.01**
PVL	753	PHE	NE	NPQEZZZZ	150	0.00	9.00	253.78
PVL	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	9.94
PVL	753	PHE	NE	NPQEZZZZ	404	0.00	0.00	174.88

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000091	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PVL	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	19.65
PVL	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	42.54
PVL	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	22.45
PVL	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	22.05
PVL	Subtotal:					0.00	9.00	545.29
Grand Total:						0.00	2577.25	133890.17

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invention Convention

1745 Summarized Job Report - By RA

Forecast for about 76,000 in 2004, 2005 Should be closer from HPS for 2004 Same as what we received in 2002

Report Parameters

District:	HECO	*WO Number:*	CR000096	*RA:*		*Ind:*	
From Date:	07/01/2002	*Parent WO:*		*ABM:*		*Proj:*	
To Date:	06/30/2003	*Project Number:*		*Loc:*		*Sort By:*	RA

Company: **HECO**

RA	*ABM*	*Location*	*Indicator*	*Project*	*Expense Element*	*Equipment Hours*	*Labor Hours*	*Amount*
PQE	753	PHE	NE	NPQEZZZZ	150	0.00	496.00	15313.47
PQE	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	-1973.08
PQE	753	PHE	NE	NPQEZZZZ	201	0.00	0.00	1370.91
PQE	753	PHE	NE	NPQEZZZZ	205	0.00	0.00	280.21
PQE	753	PHE	NE	NPQEZZZZ	301	0.00	0.00	27.64
PQE	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	1188.92
PQE	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	2253.88
PQE	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	3201.94
PQE	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	1108.47
PQE	753	PHE	NE	NPQEZZZZ	501	0.00	0.00	5411.96
PQE	***Subtotal:***					**0.00**	**496.00**	**28184.32**
PRE	753	PHE	NE	NPQEZZZZ	150	0.00	0.17	4.18
PRE	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	0.62
PRE	753	PHE	NE	NPQEZZZZ	404	0.00	0.00	4.26
PRE	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	0.46
PRE	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	0.78
PRE	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	1.62
PRE	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	0.41
PRE	***Subtotal:***					**0.00**	**0.17**	**12.33**

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1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000096	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
Grand Total:						0.00	496.17	28196.65

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Shift from (Educan Matthews)

d:
roj:
rt By: RA

r Hours	Amount
383.50	11882.25
0.00	-2046.19
0.00	10.00
0.00	33.53
0.00	967.58
0.00	1745.34
0.00	2783.48
0.00	826.36
0.00	260.03
0.00	25.90
383.50	16488.28
383.50	16488.28

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db

E. General (Pro. Awards)

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000100	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	753	PHE	NE	NPQEZZZZ	150	0.00	104.00	3160.13
PQE	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	-426.96
PQE	753	PHE	NE	NPQEZZZZ	201	0.00	0.00	308.36
PQE	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	187.97
PQE	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	437.40
PQE	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	296.10
PQE	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	204.44
PQE	753	PHE	NE	NPQEZZZZ	501	0.00	0.00	2922.97
PQE	**Subtotal:**					**0.00**	**104.00**	**7090.41**
Grand Total:						**0.00**	**104.00**	**7090.41**

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Gen al Admin (Community (Educ. Outreach)

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000178	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	750	PHE	NE	NPQEZZZZ	150	0.00	1.00	27.39
PQE	753	PHE	NE	NPQEZZZZ	150	0.00	497.50	17632.12
PQE	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	-3284.06
PQE	750	PHE	NE	NPQEZZZZ	155	0.00	0.00	-3.35
PQE	753	PHE	NE	NPQEZZZZ	201	0.00	0.00	84.85
PQE	753	PHE	NE	NPQEZZZZ	205	0.00	0.00	50.37
PQE	750	PHE	NE	NPQEZZZZ	406	0.00	0.00	1.23
PQE	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	1139.05
PQE	750	PHE	NE	NPQEZZZZ	421	0.00	0.00	3.88
PQE	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	2266.31
PQE	750	PHE	NE	NPQEZZZZ	422	0.00	0.00	-0.99
PQE	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	2341.29
PQE	750	PHE	NE	NPQEZZZZ	423	0.00	0.00	1.61
PQE	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	1183.56
PQE	753	PHE	NE	NPQEZZZZ	501	0.00	0.00	0.00
PQE	753	PHE	NE	NPQEZZZZ	503	0.00	0.00	14149.59
PQE	Subtotal:					0.00	498.50	35592.85
Grand Total:						0.00	498.50	35592.85

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...rain Memberships

...le for selected criteria.

RA:
ABM:
Loc:

Ind:
Proj:
Sort By: RA

...nse Element | Equipment Hours | Labor Hours | Amount

HE's Charitable Foundation

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000214	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PFB	753	PHE	NE	NPQEZZZZ	150	0.00	3.50	135.37
PFB	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	-16.02
PFB	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	7.95
PFB	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	16.19
PFB	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	18.10
PFB	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	10.05
PFB	Subtotal:					0.00	3.50	171.64
PQE	753	PHE	NE	NPQEZZZZ	150	0.00	61.00	2318.11
PQE	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	-420.43
PQE	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	120.08
PQE	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	281.45
PQE	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	42.20
PQE	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	153.88
PQE	Subtotal:					0.00	61.00	2495.29
Grand Total:						0.00	64.50	2666.93

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Cookbooks

No data available for selected criteria.

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	**WO Number:**	CR000212	**RA:**		**Ind:**	
From Date:	07/01/2002	**Parent WO:**		**ABM:**		**Proj:**	
To Date:	06/30/2003	**Project Number:**		**Loc:**		**Sort By:**	RA

Company:

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount

Conferences Travel

No data available for selected criteria.

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	*WO Number:*	CR000211	*RA:*		*Ind:*	
From Date:	07/01/2002	*Parent WO:*		*ABM:*		*Proj:*	
To Date:	06/30/2003	*Project Number:*		*Loc:*		*Sort By:*	RA

Company:

RA	*ABM*	*Location*	*Indicator*	*Project*	*Expense Element*	*Equipment Hours*	*Labor Hours*	*Amount*

HECO OM

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000210	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	750	PHE	NE	NPQEZZZZ	150	0.00	43.50	1036.53
PQE	750	PHE	NE	NPQEZZZZ	155	0.00	0.00	-139.92
PQE	750	PHE	NE	NPQEZZZZ	406	0.00	0.00	93.99
PQE	750	PHE	NE	NPQEZZZZ	421	0.00	0.00	195.83
PQE	750	PHE	NE	NPQEZZZZ	422	0.00	0.00	117.66
PQE	750	PHE	NE	NPQEZZZZ	423	0.00	0.00	72.77
PQE	Subtotal:					0.00	43.50	1376.86
Grand Total:						0.00	43.50	1376.86

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cell, tne/page - Comm / Educ. Outreach

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	*WO Number:*	CR000171	*RA:*		*Ind:*	
From Date:	07/01/2002	*Parent WO:*		*ABM:*		*Proj:*	
To Date:	06/30/2003	*Project Number:*		*Loc:*		*Sort By:*	RA

Company: HECO

RA	*ABM*	*Location*	*Indicator*	*Project*	*Expense Element*	*Equipment Hours*	*Labor Hours*	*Amount*
PQE	753	PHE	NE	NPQEZZZZ	205	0.00	0.00	173.06
PQE	*Subtotal:*					0.00	0.00	173.06
Grand Total:						0.00	0.00	173.06

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C mer Surveys - Customer Ed / Exhibits

No data available for selected criteria.

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000168	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company:

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount

Cus in Surveys - Comm / Educ Outreach

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000169	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQC	753	PHE	NE	NPQEZZZZ	150	0.00	2.00	60.40
PQC	753	PHE	NE	NPQEZZZZ	155	0.00	0.00	8.01
PQC	753	PHE	NE	NPQEZZZZ	406	0.00	0.00	5.46
PQC	753	PHE	NE	NPQEZZZZ	421	0.00	0.00	9.12
PQC	753	PHE	NE	NPQEZZZZ	422	0.00	0.00	19.08
PQC	753	PHE	NE	NPQEZZZZ	423	0.00	0.00	5.84
PQC	***Subtotal:***					**0.00**	**2.00**	**107.91**
Grand Total:						**0.00**	**2.00**	**107.91**

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Ind:
Proj:
Sort By: RA

Hours	Labor Hours	Amount
0.00	175.00	3775.03
0.00	0.00	159.94
0.00	0.00	400.64
0.00	0.00	791.41
0.00	0.00	816.97
0.00	0.00	323.51
0.00	**175.00**	**6267.50**
0.00	**175.00**	**6267.50**

Cu. mu calls

1745 Summarized Job Report - By RA

Report Parameters

District:	HECO	WO Number:	CR000083	RA:		Ind:	
From Date:	07/01/2002	Parent WO:		ABM:		Proj:	
To Date:	06/30/2003	Project Number:		Loc:		Sort By:	RA

Company: HECO

RA	ABM	Location	Indicator	Project	Expense Element	Equipment Hours	Labor Hours	Amount
PQE	750	PHE	NE	NPQEZZZZ	150	0.00	1121.75	28300.39
PQE	750	PHE	NE	NPQEZZZZ	155	0.00	0.00	-2356.80
PQE	750	PHE	NE	NPQEZZZZ	406	0.00	0.00	2543.36
PQE	750	PHE	NE	NPQEZZZZ	421	0.00	0.00	5066.86
PQE	750	PHE	NE	NPQEZZZZ	422	0.00	0.00	5279.82
PQE	750	PHE	NE	NPQEZZZZ	423	0.00	0.00	2121.37
PQE	Subtotal:					0.00	1121.75	40955.00
Grand Total:						0.00	1121.75	40955.00

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al	2004 & 2005 Inflation factor	Subtotal x 2004 Inflation Factor	2004 Recommended Forecast	2005 Recommended Forecast	2004 Recommend Forecast - 2003
1.55	1.022	11,080.06	12,000.00	12,264.00	7,980.00
0.00		0.00	0.00	0.00	0.00
0.04		3,382.86	3,382.86	3,457.28	382.86
3.29		12,471.76	15,330.00	15,667.26	330.00
4.75		36,296.07	42,351.66	43,283.42	911.68
5.30		15.64	1,042.44	1,065.37	22.44
8.46		3,452.79	8,380.40	8,564.77	180.40
5.89		15,489.32	15,330.00	15,667.26	330.00
1.28		4,068.87	12,725.94	13,005.91	273.94
9.57		122.20	5,110.00	5,222.42	110.00
0.00		0.00	0.00	0.00	0.00
6.86		10,952.63	10,000.00	10,220.00	8,000.00
0.00		0.00	0.00	0.00	0.00
7.46		1,285.12	15,000.00	15,000.00	0.00
5.04		597.91	10,000.00	10,000.00	0.00
4.90		5.01	122.64	125.34	2.64
7.28		7.44	0.00	0.00	0.00
4.17		34.92	0.00	0.00	0.00
5.68		37,523.42	41,296.98	42,205.51	41,296.98
0.72		7,246.72	6,000.00	8,176.00	(8,910.00)
9.46		336.71	357.70	365.57	7.70
1.33		3,302.42	3,474.80	3,551.25	74.80
3.28		315.06	613.20	626.69	13.20
0.00		0.00	0.00	0.00	0.00
0.00		8,176.00	8,000.00	8,000.00	0.00
0.00		6,132.00	6,000.00	6,000.00	0.00
5.00		76.65	204.40	208.90	4.40
.31			216,723.04	222,676.95	51,011.04
			39,000.00	39,000.00	
			177,723.04	183,676.95	
			372,964.00		804.52
			276,223.00		28,951.00
			21,052.91		13,560.14
			$847,962.95		45,918.70

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ıca and Consumer Affairs Budget 2005

Work Order	Activity	Expense Element	Original Forecast Jan-05	Forecast Feb-05	Forecast Mar-05	Forecast Apr-05	Forecast May-05	Forecast Jun-05	Forecast Jul-05	Forecast Aug-05	Forecast Sep-05	Forecast Oct-05	Forecast Nov-05	Forecast Dec-05	Original Forecast Total for each EE
CR000082	750	201	0.00	0.00	0.00	0.00	0.00	1,022.00	0.00	0.00	1,022.00	0.00	0.00	0.00	2,044.00
CR000082	750	205	0.00	0.00	0.00	0.00	0.00	229.95	0.00	0.00	229.95	0.00	0.00	0.00	459.90
CR000082	750	301	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
CR000082	750	452	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
CR000082	750	501	813.34	813.34	813.34	813.34	813.34	813.34	813.34	813.34	813.34	813.34	813.34	813.36	9,760.10
CR000082	750	503	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
CR000082	750	520	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
CR000082	750	521	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
ın Program Total			**813.34**	**813.34**	**813.34**	**813.34**	**813.34**	**2,065.29**	**813.34**	**813.34**	**2,065.29**	**813.34**	**813.34**	**813.36**	**12,264.00**
															12,264.00
CR000079	750	201													0.00
CR000079	750	205													0.00
CR000079	750	301													0.00
CR000079	750	501													0.00
CR000079	750	503													0.00
CR000079	750	520													0.00
CR000079	750	521													0.00
am Total			**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**
															0.00
CR000090	750	201	0.00	0.00	345.73	345.73	345.73	345.73	345.73	345.73	345.73	345.73	345.73	345.73	3,457.32
CR000090	750	205	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
CR000090	750	301	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
CR000090	750	501	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
CR000090	750	503	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
CR000090	750	520	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
CR000090	750	521	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
ry Program Total			**0.00**	**0.00**	**345.73**	**345.73**	**345.73**	**345.73**	**345.73**	**345.73**	**345.73**	**345.73**	**345.73**	**345.73**	**3,457.32**
															3,457.32
CR000087	750	201	0.00	0.00	0.00	0.00	0.00	7,833.63	0.00	0.00	0.00	7,833.63	0.00	0.00	15,667.26
CR000087	750	205	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
CR000087	750	301	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
CR000087	750	501	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
CR000087	750	503	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
CR000087	750	520	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
CR000087	750	521	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
aterials Program Total			**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**7,833.63**	**0.00**	**0.00**	**0.00**	**7,833.63**	**0.00**	**0.00**	**15,667.26**
															15,667.26

ame: 2004-2005_budget_by_workorder.xls
ame: 2005 (prepared 8-23-03)

Educ ı and Consumer Affairs Budget 2005

Program	Work Order	Activity	Expense Element	Original Forecast Jan-05	Forecast Feb-05	Forecast Mar-05	Forecast Apr-05	Forecast May-05	Forecast Jun-05	Forecast Jul-05	Forecast Aug-05	Forecast Sep-05	Forecast Oct-05	Forecast Nov-05	Forecast Dec-05	Original Forecast Total for each EE
Exhibits/HIYC	CR000078	750	201	0.00	0.00	0.00	2,088.97	2,088.97	4,177.94	4,177.94	4,177.94	4,177.94	4,177.94	2,088.97	2,088.97	29,245.55
Exhibits/HIYC	CR000078	750	205	125.34	125.34	125.34	125.34	125.34	125.34	125.34	125.34	125.34	125.34	125.34	125.34	1,504.08
Exhibits/HIYC	CR000078	750	301	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
Exhibits/HIYC	CR000078	750	501	0.00	0.00	0.00	1,044.48	1,044.48	1,044.48	6,266.90	1,044.48	522.24	522.24	522.24	522.24	12,533.81
Exhibits/HIYC	CR000078	750	503	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
Exhibits/HIYC	CR000078	750	520	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
Exhibits/HIYC	CR000078	750	521	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
Exhibit/HIYC Program Total				**125.34**	**125.34**	**125.34**	**3,258.79**	**3,258.79**	**5,347.76**	**10,570.18**	**5,347.76**	**4,825.52**	**4,825.52**	**2,736.55**	**2,736.55**	**43,283.42**
																43,283.42
EMF	CR000084	750	201	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	543.13	0.00	0.00	0.00	543.13
EMF	CR000084	750	205	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
EMF	CR000084	750	301	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
EMF	CR000084	750	501	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	522.24	0.00	0.00	522.24
EMF	CR000084	750	503	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
EMF	CR000084	750	520	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
EMF	CR000084	750	521	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
EMF Program Total				**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**543.13**	**522.24**	**0.00**	**0.00**	**1,065.37**
																1,065.37
Energy Tips & Choices	CR000089	750	201	0.00	0.00	0.00	0.00	0.00	8,564.77	0.00	0.00	0.00	0.00	0.00	0.00	8,564.77
Energy Tips & Choices	CR000089	750	205	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
Energy Tips & Choices	CR000089	750	301	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
Energy Tips & Choices	CR000089	750	501	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
Energy Tips & Choices	CR000089	750	503	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
Energy Tips & Choices	CR000089	750	520	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
Energy Tips & Choices	CR000089	750	521	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
rgy Tips & Choices Program Total				**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**8,564.77**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**8,564.77**
																8,564.77
HEP	CR000088	750	201	0.00	0.00	0.00	0.00	0.00	0.00	15,667.26	0.00	0.00	0.00	0.00	0.00	15,667.26
HEP	CR000088	750	205	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
HEP	CR000088	750	301	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
HEP	CR000088	750	501	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
HEP	CR000088	750	503	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
HEP	CR000088	750	520	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
HEP	CR000088	750	521	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
HEP Program Total				**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**15,667.26**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**15,667.26**
																15,667.26

File name: 2004-2005_budget_by_workorder.xls
Tab name: 2005 (prepared 8-23-03)

Educ: ı and Consumer Affairs Budget 2005

Program	Work Order	Activity	Expense Element	Original Forecast Jan-05	Forecast Feb-05	Forecast Mar-05	Forecast Apr-05	Forecast May-05	Forecast Jun-05	Forecast Jul-05	Forecast Aug-05	Forecast Sep-05	Forecast Oct-05	Forecast Nov-05	Forecast Dec-05	Original Forecast Total for each EE
Admin/Office Supplies	CR000176/170/17	750	201	41.78	41.78	41.78	41.78	41.78	41.78	41.78	41.78	41.78	41.78	41.78	41.78	501.35
Admin/Office Supplies	CR000176/170/17	750	205	189.33	189.33	189.33	189.33	189.33	189.33	189.33	189.33	189.33	189.33	189.33	199.29	2,281.87
Admin/Office Supplies	CR000176/170/17	750	301	840.00	760.00	880.00	840.00	840.00	840.00	800.00	880.00	840.00	800.00	800.00	800.00	9,920.00
Admin/Office Supplies	CR000176/170/17	750	501	10.44	10.44	10.44	10.44	10.44	10.44	10.44	10.44	10.44	10.44	10.44	10.44	125.34
Admin/Office Supplies	CR000176/170/17	750	503	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
Admin/Office Supplies	CR000176/170/17	750	520	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
Admin/Office Supplies	CR000176/170/17	750	521/522	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
Admin/Office Supplies Total				**1,081.55**	**1,001.55**	**1,121.55**	**1,081.55**	**1,081.55**	**1,081.55**	**1,041.55**	**1,121.55**	**1,081.55**	**1,041.55**	**1,041.55**	**1,051.51**	**12,828.56**
																12,828.56
Sun Power for Schools	HP000151	750	201	0.00	0.00	0.00	1,044.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,044.48
Sun Power for Schools	HP000151	750	205	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
Sun Power for Schools	HP000151	750	301	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
Sun Power for Schools	HP000151	750	501	0.00	0.00	0.00	0.00	0.00	4,177.94	0.00	0.00	0.00	0.00	0.00	0.00	4,177.94
Sun Power for Schools	HP000151	750	503	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
Sun Power for Schools	HP000151	750	520	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
Sun Power for Schools	HP000151	750	521/522	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
Sun Power for Schools Program Total				**0.00**	**0.00**	**0.00**	**1,044.48**	**0.00**	**4,177.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5,222.42**
																5,222.42
Temp Hire/Cust Ca	CR000083	750	201	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
Temp Hire/Cust Ca	CR000083	750	205	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
Temp Hire/Cust Ca	CR000083	750	301	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
Temp Hire/Cust Ca	CR000083	750	501	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
Temp Hire/Cust Ca	CR000083	750	503	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
Temp Hire/Cust Ca	CR000083	750	520	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
Temp Hire/Cust Ca	CR000083	750	521	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
nporary Hire/Customer Calls Total				**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**
																0.00
ISD Charges-Custo	CR000166	750	201	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
ISD Charges-Custo	CR000166	750	205	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
ISD Charges-Custo	CR000166	750	301	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
ISD Charges-Custo	CR000166	750	451	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
ISD Charges-Custo	CR000166	750	501	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
ISD Charges-Custo	CR000166	750	503	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
ISD Charges-Custo	CR000166	750	520	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
ISD Charges-Custo	CR000166	750	521	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
ISD Charges-Customer Ed. Total				**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**

File name: 2004-2005_budget_by_workorder.xls
Tab name: 2005 (prepared 8-23-03)

Educa and Consumer Affairs Budget 2005

Program	Work Order	Activity	Expense Element	Original Forecast Jan-05	Forecast Feb-05	Forecast Mar-05	Forecast Apr-05	Forecast May-05	Forecast Jun-05	Forecast Jul-05	Forecast Aug-05	Forecast Sep-05	Forecast Oct-05	Forecast Nov-05	Forecast Dec-05	Original Forecast Total for each EE
Mylar Balloon Camp	CR000269	750	201	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
Mylar Balloon Camp	CR000269	750	205	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
Mylar Balloon Camp	CR000269	750	301	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
Mylar Balloon Camp	CR000269	750	501	0.00	0.00	0.00	0.00	0.00	0.00	5,110.00	0.00	0.00	5,110.00	0.00	0.00	10,220.00
Mylar Balloon Camp	CR000269	750	503	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
Mylar Balloon Camp	CR000269	750	520	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
Mylar Balloon Camp	CR000269	750	521	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
Mylar Balloon Campaign				**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5,110.00**	**0.00**	**0.00**	**5,110.00**	**0.00**	**0.00**	**10,220.00**
Energy Cost/Audit	CR000085	750	201	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
Energy Cost/Audit	CR000085	750	205	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
Energy Cost/Audit	CR000085	750	301	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
Energy Cost/Audit	CR000085	750	501	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
Energy Cost/Audit	CR000085	750	503	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
Energy Cost/Audit	CR000085	750	520	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
Energy Cost/Audit	CR000085	750	521	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
Energy Cost Info/Energy Audit Totals:				**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**
HELCO-Ed Mtls	CR000101	750	201							7,500.00				7,500.00		15,000.00
HELCO-Ed Mtls	CR000101	750	205													0.00
HELCO-Ed Mtls	CR000101	750	301													0.00
HELCO-Ed Mtls	CR000101	750	501													0.00
HELCO-Ed Mtls	CR000101	750	503													0.00
LCO-Ed Mtls	CR000101	750	520													0.00
LCO-Ed Mtls	CR000101	750	521													0.00
HELCO Billables - Educational Materials				**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**7,500.00**	**0.00**	**0.00**	**0.00**	**7,500.00**	**0.00**	**15,000.00**
MECO-Ed Mtls	CR000103	750	201							10,000.00						10,000.00
MECO-Ed Mtls	CR000103	750	205													0.00
MECO-Ed Mtls	CR000103	750	301													0.00
MECO-Ed Mtls	CR000103	750	501													0.00
MECO-Ed Mtls	CR000103	750	503													0.00
MECO-Ed Mtls	CR000103	750	520													0.00
MECO-Ed Mtls	CR000103	750	521													0.00
MECO Billables - Educational Materials				**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**10,000.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**10,000.00**

File name: 2004-2005_budget_by_workorder.xls
Tab name: 2005 (prepared 8-23-03)

Educa and Consumer Affairs Budget 2005

Program	Work Order	Activity	Expense Element	Original Forecast Jan-05	Forecast Feb-05	Forecast Mar-05	Forecast Apr-05	Forecast May-05	Forecast Jun-05	Forecast Jul-05	Forecast Aug-05	Forecast Sep-05	Forecast Oct-05	Forecast Nov-05	Forecast Dec-05	Original Forecast Total for each EE
HEI-Ed Mtls	CR000190	750	201													0.00
HEI-Ed Mtls	CR000190	750	205													0.00
HEI-Ed Mtls	CR000190	750	301													0.00
HEI-Ed Mtls	CR000190	750	501													0.00
HEI-Ed Mtls	CR000190	750	503													0.00
HEI-Ed Mtls	CR000190	750	520													0.00
HEI-Ed Mtls	CR000190	750	521													0.00
HEI Billables - Educational Materials				**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**
Cookbook Deposits	CR000212	750	201													0.00
Cookbook Deposits	CR000212	750	205													0.00
Cookbook Deposits	CR000212	750	301													0.00
Cookbook Deposits	CR000212	750	501													0.00
Cookbook Deposits	CR000212	750	503													0.00
Cookbook Deposits	CR000212	750	520													0.00
Cookbook Deposits	CR000212	750	521													0.00
Cookbook Deposits				**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**
																0.00
Utilities/Telephone	CR000177	750	201	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
Utilities/Telephone	CR000177	750	205	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
Utilities/Telephone	CR000177	750	301	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
Utilities/Telephone	CR000177	750	501	10.44	10.44	10.44	10.44	10.44	10.44	10.44	10.44	10.44	10.44	10.44	10.44	125.34
Utilities/Telephone	CR000177	750	503	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
Utilities/Telephone	CR000177	750	520	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
Utilities/Telephone	CR000177	750	521	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
Utilities/Telephone				**10.44**	**10.44**	**10.44**	**10.44**	**10.44**	**10.44**	**10.44**	**10.44**	**10.44**	**10.44**	**10.44**	**10.44**	**125.34**
																125.34
Activity 750 Maintain Relations with Customers Totals		750	201	41.78	41.78	41.78	3,175.23	2,130.78	21,640.11	22,886.98	4,219.72	6,784.85	12,083.35	3,130.78	2,130.78	77,277.81
		750	205	314.66	314.66	314.66	314.66	314.66	544.61	314.66	314.66	544.61	314.66	314.66	324.63	4,245.83
		750	301	840.00	760.00	880.00	840.00	840.00	840.00	800.00	880.00	840.00	800.00	800.00	800.00	9,920.00
		750	451	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
		750	452	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
		750	501	782.28	782.28	1,128.01	2,172.50	2,172.50	6,350.43	27,004.92	2,172.50	1,650.25	7,282.50	8,150.25	1,660.47	61,308.89
		750	503	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
		750	520	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
		750	521	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
				1,978.72	1,898.72	2,364.46	6,502.39	5,457.91	29,375.16	51,006.56	7,586.88	8,819.71	20,450.51	12,395.67	4,915.85	152,752.52

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ecast Apr-05	Forecast May-05	Forecast Jun-05	Forecast Jul-05	Forecast Aug-05	Forecast Sep-05	Forecast Oct-05	Forecast Nov-05	Forecast Dec-05	Original Forecast Total for each EE
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
									0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
									0.00
3,133.45	0.00	0.00	16,789.42	0.00	16,789.42	0.00	0.00	0.00	39,845.74
574.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	574.36
40.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	163.52
0,444.84	0.00	0.00	0.00	0.00	(25,550.00)	0.00	0.00	0.00	1,355.55
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
208.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	574.36
4,402.02	**0.00**	**0.00**	**16,789.42**	**0.00**	**(8,760.58)**	**0.00**	**0.00**	**0.00**	**42,513.53**
									42,513.53
531.44	531.44	531.44	531.44	531.44	531.44	531.44	0.00	0.00	3,720.08
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.22	10.22	10.22	10.22	10.22	10.22	0.00	0.00	0.00	61.32
715.40	715.40	715.40	715.40	(6,132.00)	715.40	715.40	(2,146.20)	0.00	(3,985.80)
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51.10	51.10	51.10	51.10	0.00	0.00	0.00	0.00	0.00	204.40
1,308.16	**1,308.16**	**1,308.16**	**1,308.16**	**(5,590.34)**	**1,257.06**	**1,246.84**	**(2,146.20)**	**0.00**	**(0.00)**
									0.00

-05	Forecast May-05	Forecast Jun-05	Forecast Jul-05	Forecast Aug-05	Forecast Sep-05	Forecast Oct-05	Forecast Nov-05	Forecast Dec-05	Original Forecast Total for each EE
00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104.45
-00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	208.90
-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	52.22
00	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**365.57**
									365.57
00	0.00	887.81	0.00	0.00	0.00	0.00	0.00	887.81	1,775.62
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	1,775.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,775.62
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	**1,775.62**	**887.81**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**887.81**	**3,551.25**
									3,551.25
00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	41.78	41.78	41.78	41.78	41.78	41.78	41.78	41.78	501.35
00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	10.44	10.44	10.44	10.44	10.44	10.44	10.44	10.44	125.34
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
22	**52.22**	**52.22**	**52.22**	**52.22**	**52.22**	**52.22**	**52.22**	**52.22**	**626.69**
									626.69
									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**
									0.00

Forecast Dec-05	Original Forecast Total for each EE
	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
	8,000.00
	0.00
	0.00
	0.00
0.00	**8,000.00**
	8,000.00
	0.00
	0.00
	0.00
	6,000.00
	0.00
	0.00
	0.00
0.00	**6,000.00**
	6,000.00
	0.00
	0.00
	0.00
	0.00
	0.00
	0.00
	0.00
0.00	**0.00**

rs Budget 2005

recast Feb-05	Forecast Mar-05	Forecast Apr-05	Forecast May-05	Forecast Jun-05	Forecast Jul-05	Forecast Aug-05	Forecast Sep-05	Forecast Oct-05	Forecast Nov-05	Forecast Dec-05	Original Forecast Total for each EE
											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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
0.00	**3,237.90**	**3,664.89**	**531.44**	**1,419.25**	**17,320.86**	**531.44**	**17,320.86**	**531.44**	**0.00**	**887.81**	**45,445.89**
41.78	**250.68**	**616.14**	**41.78**	**41.78**	**41.78**	**41.78**	**41.78**	**41.78**	**41.78**	**41.78**	**1,284.61**
40.88	**40.88**	**51.10**	**10.22**	**10.22**	**10.22**	**10.22**	**10.22**	**0.00**	**0.00**	**0.00**	**224.84**
0.00	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
10,455.28	**10,455.28**	**11,170.68**	**2,501.47**	**725.84**	**725.84**	(6,121.56)	(24,824.16)	**725.84**	(2,135.76)	**10.44**	**13,270.71**
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	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
0.00	**418.10**	**259.59**	**51.10**	**51.10**	**51.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**830.99**
10,537.94	14,402.84	15,762.41	3,136.01	2,248.20	18,149.80	(5,538.12)	(7,451.30)	1,299.06	(2,093.98)	940.04	61,057.04

.005

05	Forecast Apr-05	Forecast May-05	Forecast Jun-05	Forecast Jul-05	Forecast Aug-05	Forecast Sep-05	Forecast Oct-05	Forecast Nov-05	Forecast Dec-05	Original Forecast Total for each EE
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	208.90
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**208.90**
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**208.90**
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	208.90
8	**6,840.12**	**2,662.19**	**23,059.37**	**40,207.83**	**4,751.16**	**23,105.70**	**12,584.79**	**3,130.75**	**3,018.56**	**122,723.70**
4	**930.81**	**356.44**	**586.39**	**356.44**	**356.44**	**586.39**	**356.44**	**356.44**	**366.41**	**5,530.44**
8	**891.10**	**850.22**	**850.22**	**810.22**	**890.22**	**850.22**	**800.00**	**800.00**	**800.00**	**10,144.84**
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
9	**13,343.18**	**4,673.96**	**7,076.28**	**27,730.76**	**(3,949.06)**	**(23,173.90)**	**8,008.34**	**6,014.50**	**1,670.92**	**74,788.49**
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
0	**259.59**	**51.10**	**51.10**	**51.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**830.99**
9	**22,264.80**	**8,593.91**	**31,623.36**	**69,156.36**	**2,048.76**	**1,368.41**	**21,749.57**	**10,301.69**	**5,855.89**	**214,018.46**

INTEROFFICE CORRESPONDENCE

Hawaiian Electric Co., Inc.

February 20, 2004

TO: Officers, Managers and Direct Reports

FROM: Rick Stuller, Manager-ITS and CIO

SUBJECT: Budgeting for IT Non-project/Non-program Items (2005)

A Reminder when preparing your Non-program/Non-project budget of ITS items

DO *NOT* Budget:

Business Desktop Copier, Fax and Printer Paper and Supplies

ITS has assumed the responsibility of budgeting all business desktop copier, fax and printer paper and supplies. (Does not include EFMS hardware)

NEW ITEM: Long-distance telephone costs

ITS will assume the responsibility of budgeting long-distance telephone costs. Please remove those costs from your 2005 budgets.

***Please* INCLUDE in your Department Budget:**

PC Software Purchases

Use expense element 462 for all new or additional PC software purchases that you anticipate in 2005. ITS will continue to procure all new software licenses and charge your department directly. Listed below are some typical software prices. Should you need other prices, please click on the link below.

http://intranet/information_technology_services/desktop/products/prodlist.asp

Microsoft Office - $400	Microsoft Visio Standard - $175
Microsoft Project - $320	Microsoft Visio Professional - $435

Misc. PC Hardware Purchases

Include dollars for any miscellaneous hardware purchases that are less than $300 (i.e. mice, keyboards, surge suppressors, CD-R/W's, etc.) To search for product prices, click on the link below.

http://intranet/information_technology_services/desktop/products/prodlist.asp

PC Training Classes

On an "as-needed" basis, please budget $150 per person/class, which is for software such as Microsoft Excel, Word, Project, and Visio.

NON-ITS PROJECTS

If you are planning to budget ITS labor for non-ITS projects, please use RA PEZ and expense element 451. Do not use expense element 150. ITS labor will allocate to the non-ITS projects through the IT Costing System, which will cost the labor as expense element 451.

Should you have questions, please contact Patti Young at x7864 or your respective IT Business Solutions Consultant.

cc: Irene Harada
Patti Young
Blane Murakami
IT BSCs

Hawaiian Electric Company, Inc.
2005 Test Year Rate Case

Customer Service Expense
O&M Expense Budget

Workpapers

PC0 Customer Service

NonLabor Input Sheet - NonProject
2005

Resp Area (RA) CA

Prepared by D. Yokoi
Date 02/04/04

Dimension tab card									Rates tab card	Units tab card												
Line Item	NARUC	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")																						
CSI Expenses	billable	CA	30	OUT	BE	NPCZZZZZ	905	none	no escalation	0	0	0	8,333	0	0	0	8,333	0	0	0	8,334	25,000
CSI Revenues	billable	CA	30	OUT	BO	NPCZZZZZ	501	none	no escalation	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-72,000
Administrative Expenses	903	CA	600	OAH	NE	NPCZZZZZ	501	none	no escalation	761	311	311	311	311	311	311	311	311	311	311	311	4,182
Administrative Misc	903	CA	600	OAH	NE	NPCZZZZZ	201	none	no escalation	311	311	311	311	311	311	311	311	311	311	311	311	3,732
Stationary-Outside	903	CA	600	OAH	NE	NPCZZZZZ	201	none	no escalation	248	248	248	248	248	248	248	248	248	248	248	248	2,976
Consultant-W. Hull	903	CA	604	OAH	NE	NPCZZZZZ	461	none	no escalation	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	204,000
Admin-Bill Inserts	903	CA	614	OAH	NE	NPCZZZZZ	201	none	no escalation		3,796		3,796		3,796		3,796		3,796		3,796	22,776
Standard Register-HECO	903	CA	614	OAH	NE	NPCZZZZZ	201	none	no escalation	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,336	75,999
Standard Register-HELCO	billable	CA	614	HEL	BE	NPCZZZZZ	201	none	no escalation	1,462	1,462	1,462	1,462	1,462	1,462	1,462	1,462	1,462	1,462	1,462	1,465	17,547
Standard Register-MECO	billable	CA	614	MAU	BE	NPCZZZZZ	201	none	no escalation	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,284	15,353
Outside Serivces-Consulting	903	CA	700	PHE	NE	NPCZZZZZ	201	none	no escalation	1	1	1	33,334	1	1	1	33,334	1	1	1	33,335	100,012
Upgrades for PC Software	903	CA	720	PHE	NS	NPCZZZZZ	462	none	no escalation				4,594				4,594				9,188	18,376
Surveys	903	CA	721	PHE	NE	NPCZZZZZ	501	none	no escalation				11,869				11,869				11,869	35,607
Mainland Travel	903	CA	720	PHE	NE	NPCZZZZZ	520	none	no escalation							2,100						2,100
Meals and Entertainment	903	CA	720	PHE	NE	NPCZZZZZ	521	none	no escalation													0
Registration	903	CA	720	PHE	NE	NPCZZZZZ	501	none	no escalation	1	1	1	1	1	1	1	2,101	1	1	1	1	2,112
Training	912	CA	789	PHE	NE	NPCZZZZZ	501	none	no escalation				7,000				7,000				7,000	21,000
		CA																				0
		CA																				0
		CA																				0
		CA																				0
		CA																				0
		CA																				0
		CA																				0
		CA																				0
		CA																				0
		CA																				0
		CA																				478,772

CA-IR-2
DOCKET NO. 04-0113
HECO T-10
ATTACHMENT E
PAGE 2 OF 2

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.

[redacted]

generated for the 2005 Test Year forecast.

c. For the CEP Division: Director, Commercial & Industrial Program Manager, Residential Program Manager, 2 CEP analysts, 1 CEP clerk, and 10 full-time contract hires (to be converted to full-time HECO employees in the rate case) were the actual work force at the date the budget was prepared. The work force requirements for other departments and divisions are minimal and therefore, their actual force levels are not presented here.

d. The ten temporary contract hire positions which were part of the actual DSM work force referenced in part c. above along with the two new additional Commercial & Industrial Program engineers (positions which were not filled in the past but are now warranted due to the anticipated increase in workload for the three C&I Programs) were justified and approved in Docket Nos. 94-0010, 94-0011, 94-0012 (consolidated), 94-0206, and 94-0216.

The Residential Direct Load Control ("RDLC") Program Manager position was justified and approved in Docket No. 03-0166.

The Commercial & Industrial Direct Load Control ("CIDLC") Program Manager position was justified and approved in Docket No. 03-0415.

The Direct Load Control Engineer position which will be split between the RDLC and CIDLC programs was justified and approved in Docket Nos. 03-0166 and 03-0415.

The Residential Customer Energy Awareness Program Manager position was justified in Docket No. 03-0142.

The two new Commercial DSM program engineer positions, allocated across the CIEE, CINC and CICR programs, are based on workload requirements estimated to meet increased impact goals. 2005 Test Year impacts are approximately 50% greater than 2003 levels. The CIEE, CINC and CICR programs are currently staffed by 5 program engineers (all contract

hires) plus clerical, marketing and management positions. We estimate that the 50% increase in impacts will require an additional 50% in program engineering labor, resulting in 2.5 full time equivalents ("FTE"). Rounding down to account for economies of scale results in two additional FTEs for the three programs. As noted in Docket No. 04-0113, these 2 positions are allocated as follows: CIEE= 0.8 FTE; CINC = 0.4 FTE; CICR = 0.8 FTE.

e. The increase in staffing allows for expansion of the program scope and impacts rather than to meet current unfulfilled labor requirements.

Employee Allocation

	RA	CIEE	CINC	CICR	REWH	RNC	DCIL C&I load control	RDLC RES load control	Energy Awareness
Keith	SD				25%	25%			
Jim	SD	60%	30%	10%					
Ron	SD				72%	13%			
Elaine	SD	14%	14%	14%	14%	14%			
Marsha	SD	42%		42%		11%			
Sam	SD	50%			37%	13%			
Dean	SD	75%		25%					
Derrick	SD		50%	50%					
Tom	SD			100%					
Andrei	SD	33%	33%	34%					
Dragos	SD	75%	25%						
Tracy	SR	50%	20%	30%					
Pam	SM	33%			52%	15%			
Acqua	SM	10%	10%	10%	10%	10%			
Kevin	SP	10%	10%	10%	10%	10%			
Engr1	SD	50%	20%	30%					
Engr2	SD	30%	20%	50%					
Project Mgr	SD						100%		
Project Mgr	SD							100%	
teacher/coach	SD						50%	50%	
Project Mgr	SD								100%

Note: Acqua and Kevin are only 50% because the rest of their time is charged to MECO and HELCO.
Other employees whose percentages do not add up to 100% charge to other non-DSM activities.

2005 DSM Labor Forecast

	CIEE		CINC		CICR		REWH		RNC		DCIL		RDLC		RCEA	
	hrs	$	hrs	$	hrs	$	hrs	$	hrs	$	hrs	$	hrs	$	hrs	$
Keith							466	15,000	466	15,000						
Jim	1,114	35,860	557	17,930	193	6,213										
Ron							1,348	43,392	236	7,597						
Elaine	268	8,627	268	8,627	268	8,617	268	8,627	272	8,756						
Marsha	784	18,008			784	18,008	200	4,594								
Sam	952	30,645					705	22,694	247	7,951						
Dean	1,428	45,967			476	15,322										
Derrick			952	30,645	952	30,645										
Tom					1,904	61,290										
Andrei	635	20,441	635	20,441	634	20,408										
Dragos	1,428	45,967	476	15,322												
Tracy	952	30,645	382	12,297	570	18,348										
Pam	627	20,183					989	31,836	288	9,271						
Kevin	191	6,148	191	6,148	191	6,148	191	6,148	191	6,148						
Egr 1	952	30,645	382	12,297	570	18,348										
Egr2	570	18,348	382	12,297	952	30,645										
DCIL PM											1,904	61,290				
SM											100	3,219	323	10,397		
RR SysOp											100	3,219				
RDLC PM													1,904	61,290		
Engr											952	30,645	952	30,645		
RCEA PM															1,904	61,290
Aqua	191	4,641	191	4,641	191	4,641	191	4,641	191	4,641						
	10,092	316,125	4,416	140,645	7,685	238,633	4,358	136,932	1,891	59,364	3,056	98,373	3,179	102,332	1,904	61,290
Payroll Tax		26,744		11,899		20,188		11,584		5,022		8,322		8,657		5,185
Emplee ben		65,396		28,616		49,799		28,240		12,254		19,803		20,600		12,338
NPW		40,570		17,752		30,894		17,519		7,602		12,285		12,780		7,654
Corp Admin		30,377		13,292		23,132		13,118		5,692		9,199		9,569		5,731
Total		$479,212		$212,204		$362,646		$207,393		$89,934		$147,982		$153,938		$92,198

LABOR INPUT SHEET
2005

Responsibility Areas (RA) _____
Prepared by _____ Date _____

	HOLIDAY					VACATION						
	Activity 098 Location PHE Indicator ND Project/WO NPSZZZZZ EE # 107					Activity 098 Location PHE Indicator ND Project/WO NPSZZZZZ EE # 107		Activity 713 Location REWH Indicator Project/WO C00002084 EE # 150		Activity 713 Location RNC Indicator Project/WO C0000310 EE # 150		HOURS NET TO BE SPREAD
Dollar Amount	Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	HOURS NPW(107)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount		
5,407.92	0	1	0	0.00		0.00	42	1,351.98	42	1,351.98		84
5,150.40	8	1	8	257.52	40	1,287.60	28	901.32	28	901.32		56
5,922.96	8	1	8	257.52	0	0.00	44	1,416.36	44	1,416.36		88
5,407.92	0	1	0	0.00		0.00	42	1,351.98	42	1,351.98		84
5,665.44	8	1	8	257.52	0	0.00	44	1,416.36	44	1,416.36		60
5,665.44	8	1	8	257.52		0.00	42	1,351.98	42	1,351.98		84
5,407.92	8	1	8	257.52		0.00	38	1,223.22	38	1,223.22		84
5,922.96	8	1	8	257.52	40	1,287.60	34	1,094.46	34	1,094.46		68
5,665.44	8	1	8	257.52		0.00	42	1,351.98	42	1,351.98		84
5,407.92	8	1	8	257.52	0	0.00	40	1,287.60	40	1,287.60		80
5,665.44	16	1	16	515.04		0.00	40	1,287.60	40	1,287.60		80
5,665.44	16	1	16	515.04	40	1,287.60	30	965.70	30	965.70		60
68,955.20	96		96	3,090.24	120	3,862.80	466	15,000.54	466	15,000.54		932

	Activity Location Indicator Project/WO EE # 150					Activity Location Indicator Project/WO EE # 150		Activity Location Indicator Project/WO EE # 150		Activity 0 Location Indicator Project/WO EE # 150		HOURS NET TO BE SPREAD be 0)
Dollar Amount	ST(101)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount		**
2,703.96	0			0.00	0	0.00	0	0.00	0	0.00		0
1,802.64	0			0.00	0	0.00	0	0.00	0	0.00		0
2,832.72	0			0.00	0	0.00	0	0.00	0	0.00		0
2,703.96	0			0.00	0	0.00	0	0.00	0	0.00		0
2,575.20	0			0.00	0	0.00	0	0.00	0	0.00		0
2,703.96	0			0.00	0	0.00	0	0.00	0	0.00		0
2,703.96	0			0.00	0	0.00	0	0.00	0	0.00		0
2,188.92	0			0.00	0	0.00	0	0.00	0	0.00		0
2,703.96	0			0.00	0	0.00	0	0.00	0	0.00		0
2,575.20	0			0.00	0	0.00	0	0.00	0	0.00		0
2,575.20	0			0.00	0	0.00	0	0.00	0	0.00		0
1,931.40	0			0.00	0	0.00	0	0.00	0	0.00		0
30,001.08	0			0.00	0	0.00	0	0.00	0	0.00		0

ble hours = Forecast hours)
recheck work.

Sheet 2005K

12/16/2004 3:02 PM

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ATTACHMENT 2
PAGE 1 OF 22

LABOR INPUT SHEET
2005

Responsibility Areas (RA) _____
Prepared by _____ Date _____

ncher/Coach _____
Maskrey _____

)=A*B			HOLIDAY				VACATION						HOURS NET TO BE SPREAD
			Activity 098				Activity 098		Activity 713		Activity 713		
			Location PHE				Location PHE		Location CIEE		Location CINC		
			Indicator ND				Indicator ND		Indicator		Indicator		
			Project/WO NPSZZZZZ				Project/WO NPSZZZZZ		Project/WO C0000220		Project/WO C0000240		
			EE # 107				EE # 107		EE # 150		EE # 150		
Total Avail Hours	ST Rate	Dollar Amount	Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	HOURS NPW(107)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	
168	32.19	5,407.92	0	1	0	0.00	40	1,287.60	77	2,478.63	38	1,223.22	13
160	32.19	5,150.40	8	1	8	257.52	0	0.00	91	2,929.29	45	1,448.55	16
184	32.19	5,922.96	8	1	8	257.52	0	0.00	110	3,540.90	55	1,770.45	11
168	32.19	5,407.92	0	1	0	0.00		0.00	101	3,251.19	51	1,641.69	16
176	32.19	5,665.44	8	1	8	257.52	0	0.00	96	3,090.24	48	1,545.12	24
176	32.19	5,665.44	8	1	8	257.52	40	1,287.60	77	2,478.63	38	1,223.22	13
168	32.19	5,407.92	8	1	8	257.52	0	0.00	101	3,251.19	51	1,641.69	8
184	32.19	5,922.96	8	1	8	257.52	0	0.00	101	3,251.19	51	1,641.69	24
176	32.19	5,665.44	8	1	8	257.52		0.00	101	3,251.19	51	1,641.69	16
168	32.19	5,407.92	8	1	8	257.52	0	0.00	96	3,090.24	48	1,545.12	16
176	32.19	5,665.44	16	1	16	515.04	0	0.00	91	2,929.29	45	1,448.55	24
176	32.19	5,665.44	16	1	16	515.04	40	1,287.60	72	2,317.68	36	1,158.84	12
2080		66,955.20	96		96	3,090.24	120	3,862.80	1114	35,859.66	557	17,929.83	193

3			Activity 711				Activity		Activity		Activity		HOURS NET TO BE SPREAD be 0)
ICR			Location PHE				Location		Location		Location		
E			Indicator NE				Indicator		Indicator		Indicator		
0000266			Project/WO CS000066				Project/WO		Project/WO		Project/WO		
50			EE # 150				EE # 150		EE # 150		EE # 150		
			HECO IRP										
		Dollar Amount	ST(101)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
		418.47	0			0.00	0	0.00	0	0.00	0	0.00	0
		515.04	0			0.00	0	0.00	0	0.00	0	0.00	0
		354.09	0			0.00	0	0.00	0	0.00	0	0.00	0
		515.04	0			0.00	0	0.00	0	0.00	0	0.00	0
		772.56	0			0.00	0	0.00	0	0.00	0	0.00	0
		418.47	0			0.00	0	0.00	0	0.00	0	0.00	0
		257.52	0			0.00	0	0.00	0	0.00	0	0.00	0
		772.56	0			0.00	0	0.00	0	0.00	0	0.00	0
		515.04	0			0.00	0	0.00	0	0.00	0	0.00	0
		515.04	0		0	0.00	0	0.00	0	0.00	0	0.00	0
		772.56	0			0.00	0	0.00	0	0.00	0	0.00	0
		388.28	0			0.00	0	0.00	0	0.00	0	0.00	0
		6,212.67	0			0.00	0	0.00	0	0.00	0	0.00	0

eld
zeros. (Available hours = Forecast hours)
1 zero appear, recheck work.

10	HOURS NET TO BE SPREAD
lar unt	
547.23	42
418.47	42
708.18	42
836.94	42
515.04	42
450.66	10
,062.27	10
,062.27	10
804.75	10
708.18	10
225.33	10
257.52	10
,596.84	280

	HOURS NET TO BE SPREAD be 0)
ollar nount	**
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	0
0.00	0

LABOR INPUT SHEET
2005

Responsibility Areas (RA) _____
Prepared by _____ Date _____

	HOLIDAY				VACATION						
	Activity 098 Location PHE Indicator ND Project/WO NPSZZZZZ EE # 107				Activity 098 Location PHE Indicator ND Project/WO NPSZZZZZ EE # 107		Activity 713 Location CIEE Indicator Project/WO C0000220 EE # 150		Activity 713 Location CICR Indicator Project/WO C0000266 EE # 150		HOURS NET TO BE SPREAD
Dollar Amount	Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	HOURS NPW(107)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	
3,858.96	0	1	0	0.00		0.00	72	1,653.84	72	1,653.84	24
3,675.20	8	1	8	183.76		0.00	64	1,470.08	64	1,470.08	24
4,226.48	8	1	8	183.76	0	0.00	80	1,837.60	80	1,837.60	16
3,858.96	0	1	0	0.00	40	918.80	52	1,194.44	52	1,194.44	24
4,042.72	8	1	8	183.76	0	0.00	68	1,561.96	68	1,561.96	32
4,042.72	8	1	8	183.76	0	0.00	72	1,653.84	72	1,653.84	24
3,858.96	8	1	8	183.76	40	918.80	52	1,194.44	52	1,194.44	16
4,226.48	8	1	8	183.76	0	0.00	72	1,653.84	72	1,653.84	32
4,042.72	8	1	8	183.76		0.00	72	1,653.84	72	1,653.84	24
3,858.96	8	1	8	183.76	0	0.00	68	1,561.96	68	1,561.96	24
4,042.72	16	1	16	367.52		0.00	64	1,470.08	64	1,470.08	32
4,042.72	16	1	16	367.52	40	918.80	48	1,102.56	48	1,102.56	24
47,777.80	96		96	2,205.12	120	2,756.40	784	18,008.48	784	18,008.48	296

	Activity 713 Location REWH Indicator Project/WO C0000310 EE # 150				Activity Location Indicator Project/WO EE # 150		Activity Location Indicator Project/WO EE # 150		Activity 0 Location Indicator Project/WO EE # 150		HOURS NET TO BE SPREAD be 0)
Dollar Amount	ST(101)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
183.76	16			367.52	0	0.00	0	0.00	0	0.00	0
183.76	16			367.52	0	0.00	0	0.00	0	0.00	0
183.76	8			183.76	0	0.00	0	0.00	0	0.00	0
183.76	16			367.52	0	0.00	0	0.00	0	0.00	0
183.76	24			551.28	0	0.00	0	0.00	0	0.00	0
183.76	16			367.52	0	0.00	0	0.00	0	0.00	0
183.76	8			183.76	0	0.00	0	0.00	0	0.00	0
183.76	24			551.28	0	0.00	0	0.00	0	0.00	0
183.76	16			367.52	0	0.00	0	0.00	0	0.00	0
183.76	16		0	367.52	0	0.00	0	0.00	0	0.00	0
183.76	24			551.28	0	0.00	0	0.00	0	0.00	0
183.76	16			367.52	0	0.00	0	0.00	0	0.00	0
2,205.12	200			4,594.00	0	0.00	0	0.00	0	0.00	0

ns = Forecast hours)
: work.

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SHEET

Responsibility Areas (RA)
Prepared by
Date

VACATION

098		Activity	714		Activity			HOURS NET TO BE SPREAD	
PHE		Location	CIEE		Location	REWH			
ND		Indicator			Indicator				
NPSZZZZZ		Project/WO			Project/WO				
107		EE #	150		EE #				
)*	Dollar Amount	ST(101)*	Dollar Amount		ST(101)*	Dollar Amount			
0	0.00	84	2,703.96		62	1,995.78		22	
0	0.00	76	2,446.44		56	1,802.64		20	
0	0.00	88	2,832.72		65	2,092.35		23	
	0.00	84	2,703.96		62	1,995.78		22	
0	0.00	84	2,703.96		62	1,995.78		22	
0	1,287.60	64	2,060.16		47	1,512.93		17	
0	0.00	80	2,575.20		60	1,931.40		20	
0	0.00	88	2,832.72		65	2,092.35		23	
	0.00	84	2,703.96		62	1,995.78		22	
0	0.00	80	2,575.20		60	1,931.40		20	
0	0.00	80	2,575.20		60	1,931.40		20	
0	1,287.60	60	1,931.40		44	1,416.36		16	
0	2,575.20	952	30,644.88		705	22,693.95		247	

		Activity			Activity			HOURS NET TO BE SPREAD be 0)
		Location			Location			
		Indicator			Indicator			
'O		Project/WO			Project/WO			
	150	EE #	150		EE #	150		
)*	Dollar Amount	ST(101)*	Dollar Amount		ST(101)*	Dollar Amount		**
0	0.00	0	0.00		0	0.00		0
0	0.00	0	0.00		0	0.00		0
0	0.00	0	0.00		0	0.00		0
0	0.00	0	0.00		0	0.00		0
0	0.00	0	0.00		0	0.00		0
0	0.00	0	0.00		0	0.00		0
0	0.00	0	0.00		0	0.00		0
0	0.00	0	0.00		0	0.00		0
0	0.00	0	0.00		0	0.00		0
0	0.00	0	0.00		0	0.00		0
0	0.00	0	0.00		0	0.00		0
0	0.00	0	0.00		0	0.00		0
0	0.00	0	0.00		0	0.00		0

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HOURS NET TO BE	SPREAD												
		0	0	0	0	0	0	0	0	0	0	0	0
		98	22	36	98	88	08	60	36	98	60	60	70	44

HOURS NET TO BE	SPREAD be 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

LABOR INPUT SHEET
2005

Responsibility Areas (RA) _____
Prepared by _____ Date _____

HOLIDAY				VACATION							
Activity 098				Activity 098		Activity 714		Activity			
Location PHE				Location PHE		Location CINC		Location CICR			
Indicator ND				Indicator ND		Indicator		Indicator			
Project/WO NPSZZZZZ				Project/WO NPSZZZZZ		Project/WO		Project/WO			
EE # 107				EE # 107		EE # 150		EE #			
Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	HOURS NPW(107)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD	
0	1	0	0.00	0	0.00	84	2,703.96	84	2,703.96	0	
8	1	8	257.52	0	0.00	76	2,446.44	76	2,446.44	0	
8	1	8	257.52	0	0.00	88	2,832.72	88	2,832.72	0	
0	1	0	0.00		0.00	84	2,703.96	84	2,703.96	0	
8	1	8	257.52	0	0.00	84	2,703.96	84	2,703.96	0	
8	1	8	257.52	40	1,287.60	64	2,060.16	64	2,060.16	0	
8	1	8	257.52	0	0.00	80	2,575.20	80	2,575.20	0	
8	1	8	257.52	0	0.00	88	2,832.72	88	2,832.72	0	
8	1	8	257.52		0.00	84	2,703.96	84	2,703.96	0	
8	1	8	257.52	0	0.00	80	2,575.20	80	2,575.20	0	
16	1	16	515.04	0	0.00	80	2,575.20	80	2,575.20	0	
16	1	16	515.04	40	1,287.60	60	1,931.40	60	1,931.40	0	
96		96	3,090.24	80	2,575.20	952	30,644.88	952	30,644.88	0	

Activity				Activity		Activity		Activity		HOURS NET TO BE SPREAD be 0)
Location				Location		Location		Location		
Indicator				Indicator		Indicator		Indicator		
Project/WO				Project/WO		Project/WO		Project/WO		
EE #				EE # 150		EE # 150		EE # 150		
HECO IRP										
ST(101)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
0			0.00	0	0.00	0	0.00	0	0.00	0
0			0.00	0	0.00	0	0.00	0	0.00	0
0			0.00	0	0.00	0	0.00	0	0.00	0
0			0.00	0	0.00	0	0.00	0	0.00	0
0			0.00	0	0.00	0	0.00	0	0.00	0
0			0.00	0	0.00	0	0.00	0	0.00	0
0			0.00	0	0.00	0	0.00	0	0.00	0
0			0.00	0	0.00	0	0.00	0	0.00	0
0			0.00	0	0.00	0	0.00	0	0.00	0
0		0	0.00	0	0.00	0	0.00	0	0.00	0
0			0.00	0	0.00	0	0.00	0	0.00	0
0			0.00	0	0.00	0	0.00	0	0.00	0
0			0.00	0	0.00	0	0.00	0	0.00	0

ast hours)

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sponsibility Areas (RA)

pared by _____ Date _____

ctivity	714		Activity		
ocation	CIEE		Location	CINC	
dicator			Indicator		HOURS
roject/WO			Project/WO		NET
E #	150		EE #		TO BE
					SPREAD
ST(101)*	Dollar Amount		ST(101)*	Dollar Amount	
56	1,802.64		56	1,802.64	56
51	1,641.69		51	1,641.69	50
59	1,899.21		59	1,899.21	58
56	1,802.64		56	1,802.64	56
56	1,802.64		56	1,802.64	56
43	1,384.17		43	1,384.17	42
53	1,706.07		53	1,706.07	54
59	1,899.21		59	1,899.21	58
56	1,802.64		56	1,802.64	56
53	1,706.07		53	1,706.07	54
53	1,706.07		53	1,706.07	54
40	1,287.60		40	1,287.60	40
635	20,440.65		635	20,440.65	634

Activity			Activity		HOURS
Location			Location		NET
Indicator			Indicator		TO BE
Project/WO			Project/WO		SPREAD
EE #	150		EE #	150	be 0)
ST(101)*	Dollar Amount		ST(101)*	Dollar Amount	**
0	0.00		0	0.00	0
0	0.00		0	0.00	0
0	0.00		0	0.00	0
0	0.00		0	0.00	0
0	0.00		0	0.00	0
0	0.00		0	0.00	0
0	0.00		0	0.00	0
0	0.00		0	0.00	0
0	0.00		0	0.00	0
0	0.00		0	0.00	0
0	0.00		0	0.00	0
0	0.00		0	0.00	0
0	0.00		0	0.00	0

LABOR INPUT SHEET
2005

Responsibility Areas (RA) _____
Prepared by _____ Date _____

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		HOLIDAY				VACATION						
		Activity 098 Location PHE Indicator ND Project/WO NPSZZZZZ EE # 107				Activity 098 Location PHE Indicator ND Project/WO NPSZZZZZ EE # 107		Activity 714 Location CIEE Indicator Project/WO EE # 150		Activity Location CINC Indicator Project/WO EE #		HOURS NET TO BE SPREAD
ST Rate	Dollar Amount	Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	HOURS NPW(107)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	
32.19	5,407.92	0	1	0	0.00	0	0.00	126	4,055.94	42	1,351.98	0
32.19	5,150.40	8	1	8	257.52	0	0.00	114	3,669.66	38	1,223.22	0
32.19	5,922.96	8	1	8	257.52	0	0.00	132	4,249.08	44	1,416.36	0
32.19	5,407.92	0	1	0	0.00		0.00	126	4,055.94	42	1,351.98	0
32.19	5,665.44	8	1	8	257.52	0	0.00	126	4,055.94	42	1,351.98	0
32.19	5,665.44	8	1	8	257.52	40	1,287.60	96	3,090.24	32	1,030.08	0
32.19	5,407.92	8	1	8	257.52	0	0.00	120	3,862.80	40	1,287.60	0
32.19	5,922.96	8	1	8	257.52	0	0.00	132	4,249.08	44	1,416.36	0
32.19	5,665.44	8	1	8	257.52		0.00	126	4,055.94	42	1,351.98	0
32.19	5,407.92	8	1	8	257.52	0	0.00	120	3,862.80	40	1,287.60	0
32.19	5,665.44	16	1	16	515.04	0	0.00	120	3,862.80	40	1,287.60	0
32.19	5,665.44	16	1	16	515.04	40	1,287.60	90	2,897.10	30	965.70	0
	66,955.20	96		96	3,090.24	80	2,575.20	1428	45,967.32	476	15,322.44	0

		Activity Location Indicator Project/WO EE # HECO IRP				Activity Location Indicator Project/WO EE # 150		Activity Location Indicator Project/WO EE # 150		Activity Location Indicator Project/WO EE # 150		HOURS NET TO BE SPREAD be 0)
	Dollar Amount	ST(101)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
	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	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	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	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		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	0	0.00	0
	0.00	0			0.00	0	0.00	0	0.00	0	0.00	0

(Available hours = Forecast hours)
ppear, recheck work.

ar int	HOURS NET TO BE SPREAD
47.23	134
82.85	122
79.42	140
47.23	134
47.23	134
18.47	102
82.85	130
79.42	140
47.23	134
15.04	128
15.04	128
86.28	96
48.29	1522

ar int	HOURS NET TO BE SPREAD be 0) **
0.00	83
0.00	77
0.00	86
0.00	83
0.00	83
0.00	63
0.00	85
0.00	86
0.00	83
0.00	80
0.00	80
0.00	60
0.00	949

HEET

Responsibility Areas (RA) SR
Prepared by Date

VACATION

098		Activity	714	Activity				HOURS NET TO BE SPREAD
PHE		Location	CIEE	Location	CINC			
ND		Indicator		Indicator				
NPSZZZZZ		Project/WO		Project/WO				
107		EE #	150	EE #				
*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount			
	0.00	84	2,703.96	34	1,094.46	50		
	0.00	76	2,446.44	30	965.70	46		
	0.00	88	2,832.72	35	1,126.65	53		
	0.00	84	2,703.96	34	1,094.46	50		
0	0.00	84	2,703.96	34	1,094.46	50		
0	1,287.60	64	2,060.16	26	836.94	38		
0	0.00	80	2,575.20	32	1,030.08	48		
0	0.00	88	2,832.72	35	1,126.65	53		
	0.00	84	2,703.96	34	1,094.46	50		
0	0.00	80	2,575.20	32	1,030.08	48		
0	0.00	80	2,575.20	32	1,030.08	48		
0	1,287.60	60	1,931.40	24	772.56	36		
0	2,575.20	952	30,644.88	382	12,296.58	570		

		Activity		Activity		HOURS NET TO BE SPREAD be 0)
		Location		Location		
		Indicator		Indicator		
IO		Project/WO		Project/WO		
150		EE #	150	EE #	150	
*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0
0	0.00	0	0.00	0	0.00	0

:57 PM

LABOR INPUT SHEET
2005

Employee Class..... Teacher/Coach
Description..... Pam Chun

Responsibility Areas (RA) SM
Prepared by
Date

	(A) Avail Hrs in Month	(B) No.* of Emp	(C)=A*B Total Avail Hours	* ST Rate	Dollar Amount	HOLIDAY Activity 098, Location PHE, Indicator ND, Project/WO NPSZZZZZ, EE # 107: Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	VACATION Activity 098, Location PHE, Indicator ND, Project/WO NPSZZZZZ, EE # 107: HOURS NPW(107)*	Dollar Amount	Activity 714, Location CIEE, Indicator, Project/WO, EE # 150: ST(101)*	Dollar Amount	Activity, Location REWH, Indicator, Project/WO, EE # : ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD
J	168	1	168	32.19	5,407.92	0	1	0	0.00	0	0.00	55	1,770.45	87	2,800.53	26
F	160	1	160	32.19	5,150.40	8	1	8	257.52	0	0.00	50	1,609.50	79	2,543.01	23
M	184	1	184	32.19	5,922.96	8	1	8	257.52	0	0.00	58	1,867.02	92	2,961.48	26
A	168	1	168	32.19	5,407.92	0	1	0	0.00		0.00	55	1,770.45	87	2,800.53	26
M	176	1	176	32.19	5,665.44	8	1	8	257.52	0	0.00	55	1,770.45	87	2,800.53	26
J	176	1	176	32.19	5,665.44	8	1	8	257.52	40	1,287.60	42	1,351.98	67	2,156.73	19
J	168	1	168	32.19	5,407.92	8	1	8	257.52	0	0.00	53	1,706.07	83	2,671.77	24
A	184	1	184	32.19	5,922.96	8	1	8	257.52	0	0.00	58	1,867.02	92	2,961.48	26
S	176	1	176	32.19	5,665.44	8	1	8	257.52		0.00	55	1,770.45	87	2,800.53	26
O	168	1	168	32.19	5,407.92	8	1	8	257.52	0	0.00	53	1,706.07	83	2,671.77	24
N	176	1	176	32.19	5,665.44	16	1	16	515.04	0	0.00	53	1,706.07	83	2,671.77	24
D	176	1	176	32.19	5,665.44	16	1	16	515.04	40	1,287.60	40	1,287.60	62	1,995.78	18
TOT	2080		2080		66,955.20	96		96	3,090.24	80	2,575.20	627	20,183.13	989	31,835.91	288

	Total Hours Remaining to be Spread	Activity, Location RNC, Indicator, Project/WO, EE #: ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE #, HECO IRP: ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # 150: ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # 150: ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # 150: ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD be 0) **
J	26	26	836.94	0	0.00	0	0.00	0	0.00	0	0.00	0
F	23	23	740.37	0	0.00	0	0.00	0	0.00	0	0.00	0
M	26	26	836.94	0	0.00	0	0.00	0	0.00	0	0.00	0
A	26	26	836.94	0	0.00	0	0.00	0	0.00	0	0.00	0
M	26	26	836.94	0	0.00	0	0.00	0	0.00	0	0.00	0
J	19	19	611.61	0	0.00	0	0.00	0	0.00	0	0.00	0
J	24	24	772.56	0	0.00	0	0.00	0	0.00	0	0.00	0
A	26	26	836.94	0	0.00	0	0.00	0	0.00	0	0.00	0
S	26	26	836.94	0	0.00	0	0.00	0	0.00	0	0.00	0
O	24	24	772.56	0	0.00	0	0.00	0	0.00	0	0.00	0
N	24	24	772.56	0	0.00	0	0.00	0	0.00	0	0.00	0
D	18	18	579.42	0	0.00	0	0.00	0	0.00	0	0.00	0
TOT	288	288	9,270.72	0	0.00	0	0.00	0	0.00	0	0.00	0

* Required Data Entry Field
** Column should be all zeros. (Available hours = Forecast hours)
If numbers other than zero appear, recheck work.

CA-IR-1
DOCKET NO. 04-0113
HECO T-11
ATTACHMENT 2
PAGE 15 OF 22

CINC	HOURS NET TO BE SPREAD
Dollar Amount	
1,094.46	50
965.70	46
1,126.65	53
1,094.46	50
1,094.46	50
836.94	38
1,030.08	48
1,126.65	53
1,094.46	50
1,030.08	48
1,030.08	48
772.56	36
12,296.58	570

150	HOURS NET TO BE SPREAD be 0)
Dollar Amount	**
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	0

LABOR INPUT SHEET

2005

Responsibility Areas (RA) _____

Prepared by _____ Date _____

eacher/Coach

&I Engineer 2

(C)=A*B			HOLIDAY				VACATION						HOURS NET TO BE SPREAD
			Activity 098				Activity 098		Activity 714		Activity		
			Location PHE				Location PHE		Location CIEE		Location CINC		
			Indicator ND				Indicator ND		Indicator		Indicator		
			Project/WO NPSZZZZZ				Project/WO NPSZZZZZ		Project/WO		Project/WO		
			EE # 107				EE # 107		EE # 150		EE #		
Total Avail Hours	* ST Rate	Dollar Amount	Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	HOURS NPW(107)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	
168	32.19	5,407.92	0	1	0	0.00	0	0.00	50	1,609.50	34	1,094.46	84
160	32.19	5,150.40	8	1	8	257.52	0	0.00	46	1,480.74	30	965.70	76
184	32.19	5,922.96	8	1	8	257.52	0	0.00	53	1,706.07	35	1,126.65	88
168	32.19	5,407.92	0	1	0	0.00		0.00	50	1,609.50	34	1,094.46	84
176	32.19	5,665.44	8	1	8	257.52	0	0.00	50	1,609.50	34	1,094.46	84
176	32.19	5,665.44	8	1	8	257.52	40	1,287.60	38	1,223.22	26	836.94	64
168	32.19	5,407.92	8	1	8	257.52	0	0.00	48	1,545.12	32	1,030.08	80
184	32.19	5,922.96	8	1	8	257.52	0	0.00	53	1,706.07	35	1,126.65	88
176	32.19	5,665.44	8	1	8	257.52		0.00	50	1,609.50	34	1,094.46	84
168	32.19	5,407.92	8	1	8	257.52	0	0.00	48	1,545.12	32	1,030.08	80
176	32.19	5,665.44	16	1	16	515.04	0	0.00	48	1,545.12	32	1,030.08	80
176	32.19	5,665.44	16	1	16	515.04	40	1,287.60	36	1,158.84	24	772.56	60
2080		66,955.20	96		96	3,090.24	80	2,575.20	570	18,348.30	382	12,296.58	952

ICR			Activity				Activity		Activity		Activity		HOURS NET TO BE SPREAD be 0)
			Location				Location		Location		Location		
			Indicator				Indicator		Indicator		Indicator		
			Project/WO				Project/WO		Project/WO		Project/WO		
			EE #				EE # 150		EE # 150		EE # 150		
			HECO IRP										
		Dollar Amount	ST(101)*			Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	ST(101)*	Dollar Amount	**
		2,703.96	0			0.00	0	0.00	0	0.00	0	0.00	0
		2,446.44	0			0.00	0	0.00	0	0.00	0	0.00	0
		2,832.72	0			0.00	0	0.00	0	0.00	0	0.00	0
		2,703.96	0			0.00	0	0.00	0	0.00	0	0.00	0
		2,703.96	0			0.00	0	0.00	0	0.00	0	0.00	0
		2,060.16	0			0.00	0	0.00	0	0.00	0	0.00	0
		2,575.20	0			0.00	0	0.00	0	0.00	0	0.00	0
		2,832.72	0			0.00	0	0.00	0	0.00	0	0.00	0
		2,703.96	0			0.00	0	0.00	0	0.00	0	0.00	0
		2,575.20	0		0	0.00	0	0.00	0	0.00	0	0.00	0
		2,575.20	0			0.00	0	0.00	0	0.00	0	0.00	0
		1,931.40	0			0.00	0	0.00	0	0.00	0	0.00	0
		30,644.88	0			0.00	0	0.00	0	0.00	0	0.00	0

eld

zeros. (Available hours = Forecast hours)

zero appear, recheck work.

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LABOR INPUT SHEET
2005

Employee Class..... Teacher/Coach
Description..... DCIL Program Manager

Responsibility Areas (RA) _____
Prepared by _____ Date _____

	(A) Avail Hrs in Month	(B) No.* of Emp	(C)=A*B Total Avail Hours	* ST Rate	Dollar Amount	HOLIDAY Activity 098, Location PHE, Indicator ND, Project/WO NPSZZZZZ, EE # 107: Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	VACATION Activity 098, Location PHE, Indicator ND, Project/WO NPSZZZZZ, EE # 107: HOURS NPW(107)*	Dollar Amount	Activity 714, Location DCIL, Indicator, Project/WO P0000642, EE # 150: ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE #: ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD
J	168	1	168	32.19	5,407.92	0	1	0	0.00	0	0.00	168	5,407.92	0	0.00	0
F	160	1	160	32.19	5,150.40	8	1	8	257.52	0	0.00	152	4,892.88	0	0.00	0
M	184	1	184	32.19	5,922.96	8	1	8	257.52	0	0.00	176	5,665.44	0	0.00	0
A	168	1	168	32.19	5,407.92	0	1	0	0.00		0.00	168	5,407.92	0	0.00	0
M	176	1	176	32.19	5,665.44	8	1	8	257.52	0	0.00	168	5,407.92	0	0.00	0
J	176	1	176	32.19	5,665.44	8	1	8	257.52	40	1,287.60	128	4,120.32	0	0.00	0
J	168	1	168	32.19	5,407.92	8	1	8	257.52	0	0.00	160	5,150.40	0	0.00	0
A	184	1	184	32.19	5,922.96	8	1	8	257.52	0	0.00	176	5,665.44	0	0.00	0
S	176	1	176	32.19	5,665.44	8	1	8	257.52		0.00	168	5,407.92	0	0.00	0
O	168	1	168	32.19	5,407.92	8	1	8	257.52	0	0.00	160	5,150.40	0	0.00	0
N	176	1	176	32.19	5,665.44	16	1	16	515.04	0	0.00	160	5,150.40	0	0.00	0
D	176	1	176	32.19	5,665.44	16	1	16	515.04	40	1,287.60	120	3,862.80	0	0.00	0
TOT	2080		2080		66,955.20	96		96	3,090.24	80	2,575.20	1904	61,269.76	0	0.00	0

	Total Hours Remaining to be Spread	Activity, Location, Indicator, Project/WC, EE #: ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # HECO IRP: ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # 150: ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # 150: ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # 150: ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD be 0) **
J	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
F	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
M	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
A	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
M	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
J	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
J	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
A	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
S	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
O	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
N	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
D	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
TOT	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0

* Required Data Entry Field
** Column should be all zeros. (Available hours = Forecast hours)
If numbers other than zero appear, recheck work.

LABOR INPUT SHEET
2005

Responsibility Areas (RA) _____
Prepared by _____ Date _____

AY VACATION

			Activity	098		Activity	714		Activity					HOURS NET TO BE SPREAD
			Location	PHE		Location	CIEE		Location					
			Indicator	ND		Indicator			Indicator					
			Project/WO	NPSZZZZZ		Project/WO			Project/WO					
			EE #	107		EE #	150		EE #					
of	NPW (107)*	Dollar Amount	HOURS NPW(107)*	Dollar Amount		ST(101)*	Dollar Amount		ST(101)*	Dollar Amount				
1	0	0.00	0	0.00		168	5,407.92		0	0.00				0
1	8	257.52	0	0.00		152	4,892.88		0	0.00				0
1	8	257.52	0	0.00		176	5,665.44		0	0.00				0
1	0	0.00		0.00		168	5,407.92		0	0.00				0
1	8	257.52	0	0.00		168	5,407.92		0	0.00				0
1	8	257.52	40	1,287.60		128	4,120.32		0	0.00				0
1	8	257.52	0	0.00		160	5,150.40		0	0.00				0
1	8	257.52	0	0.00		176	5,665.44		0	0.00				0
1	8	257.52		0.00		168	5,407.92		0	0.00				0
1	8	257.52	0	0.00		160	5,150.40		0	0.00				0
1	16	515.04	0	0.00		160	5,150.40		0	0.00				0
1	16	515.04	40	1,287.60		120	3,862.80		0	0.00				0
	96	3,090.24	80	2,575.20		1904	61,289.76		0	0.00				0

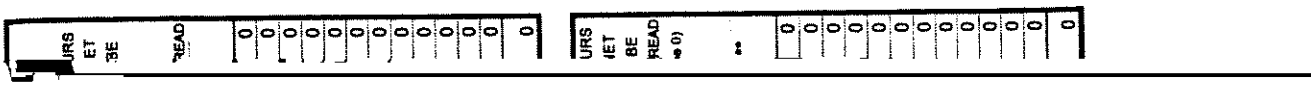
			Activity			Activity			Activity					HOURS NET TO BE SPREAD be 0)
			Location			Location			Location					
			Indicator			Indicator			Indicator					
			Project/WO			Project/WO			Project/WO					
			EE #	150		EE #	150		EE #	150				
		Dollar Amount	ST(101)*	Dollar Amount		ST(101)*	Dollar Amount		ST(101)*	Dollar Amount				
		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	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		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	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	0	0.00		0	0.00		0	0.00				0

12/16/2004 2:56 PM

Date

n r WO	RDLC	HOURS NET TO BE SPREAD
1)*	Dollar Amount	
84	2,703.96	0
76	2,446.44	0
88	2,832.72	0
84	2,703.96	0
84	2,703.96	0
64	2,060.16	0
80	2,575.20	0
88	2,832.72	0
84	2,703.96	0
80	2,575.20	0
80	2,575.20	0
60	1,931.40	0
952	30,644.88	0

n r WO	150	HOURS NET TO BE SPREAD be 0)
01)*	Dollar Amount	**
0	0.00	0
0	0.00	0
0	0.00	0
0	0.00	0
0	0.00	0
0	0.00	0
0	0.00	0
0	0.00	0
0	0.00	0
0	0.00	0
0	0.00	0
0	0.00	0
0	0.00	0



LABOR INPUT SHEET
2005

Employee Class..... Implementor
Description..... Aqua Higa

Responsibility Areas (RA)
Prepared by
Date

	(A) Avail Hrs in Month	(B) No.* of Emp	(C)=A*B Total Avail Hours	* ST Rate	Dollar Amount	HOLIDAY Activity 098, Location PHE, Indicator ND, Project/WO NPSZZZZZ, EE # 107: Holiday Hours	No. of Emp	NPW (107)*	Dollar Amount	VACATION Activity 098, Location PHE, Indicator ND, Project/WO NPSZZZZZ, EE # 107: HOURS NPW(107)*	Dollar Amount	Activity 714, Location CIEE, Indicator, Project/WO, EE # 150: ST(101)*	Dollar Amount	Activity, Location CINC, Indicator, Project/WO, EE # : ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD
J	168	1	168	24.30	4,082.40	0	1	0	0.00	0	0.00	17	413.10	17	413.10	134
F	160	1	160	24.30	3,888.00	8	1	8	194.40	0	0.00	15	364.50	15	364.50	122
M	184	1	184	24.30	4,471.20	8	1	8	194.40	0	0.00	18	437.40	18	437.40	140
A	168	1	168	24.30	4,082.40	0	1	0	0.00		0.00	17	413.10	17	413.10	134
M	176	1	176	24.30	4,276.80	8	1	8	194.40	0	0.00	17	413.10	17	413.10	134
J	176	1	176	24.30	4,276.80	8	1	8	194.40	40	972.00	13	315.90	13	315.90	102
J	168	1	168	24.30	4,082.40	8	1	8	194.40	0	0.00	15	364.50	15	364.50	130
A	184	1	184	24.30	4,471.20	8	1	8	194.40	0	0.00	18	437.40	18	437.40	140
S	176	1	176	24.30	4,276.80	8	1	8	194.40		0.00	17	413.10	17	413.10	134
O	168	1	168	24.30	4,082.40	8	1	8	194.40	0	0.00	16	388.80	16	388.80	128
N	176	1	176	24.30	4,276.80	16	1	16	388.80	0	0.00	16	388.80	16	388.80	128
D	176	1	176	24.30	4,276.80	16	1	16	388.80	40	972.00	12	291.60	12	291.60	96
TOT	2080		2080		50,544.00	96		96	2,332.80	80	1,944.00	191	4,641.30	191	4,641.30	1522

	Total Hours Remainin to be Spread	Activity, Location, Indicator CICR, Project/WC, EE # : ST(101)*	Dollar Amount	Activity, Location, Indicator REWH, Project/WO, EE #, HECO IRP : ST(101)*	Dollar Amount	Activity, Location, Indicator RNC, Project/WO, EE # 150 : ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # 150 : ST(101)*	Dollar Amount	Activity, Location, Indicator, Project/WO, EE # 150 : ST(101)*	Dollar Amount	HOURS NET TO BE SPREAD be 0) **
J	134	17	413.10	17	413.10	17	413.10	0	0.00	0	0.00	83
F	122	15	364.50	15	364.50	15	364.50	0	0.00	0	0.00	77
M	140	18	437.40	18	437.40	18	437.40	0	0.00	0	0.00	86
A	134	17	413.10	17	413.10	17	413.10	0	0.00	0	0.00	83
M	134	17	413.10	17	413.10	17	413.10	0	0.00	0	0.00	83
J	102	13	315.90	13	315.90	13	315.90	0	0.00	0	0.00	63
J	130	15	364.50	15	364.50	15	364.50	0	0.00	0	0.00	85
A	140	18	437.40	18	437.40	18	437.40	0	0.00	0	0.00	86
S	134	17	413.10	17	413.10	17	413.10	0	0.00	0	0.00	83
O	128	16	388.80	16	388.80	16	388.80	0	0.00	0	0.00	80
N	128	16	388.80	16	388.80	16	388.80	0	0.00	0	0.00	80
D	96	12	291.60	12	291.60	12	291.60	0	0.00	0	0.00	60
TOT	1522	191	4,641.30	191	4,641.30	191	4,641.30	0	0.00	0	0.00	949

* Required Data Entry Field
** Column should be all zeros. (Available hours = Forecast hours)
If numbers other than zero appear, recheck work.

Print Date: 2/17/2004

NARUC ACCOUNTS 920/921
DSM Labor and Overheads

	CIEE		REWH		CIDLC		Total
Department	Hours		Hours		Hours		
Regulatory Affairs	75	$2,231	75	$2,231			
Corporate Comm.	10	$475	10	$475			
Systems Op					100	$7,999	
Total	85	$2,706	85	$2,706	100	$7,999	$13,596

NARUC ACCOUNTS 920/921
DSM Non-Labor

	CIEE	REWH	Total
Department			
Regulatory Affairs	$200	$200	$400

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:

The following workpapers support the test year estimates of non-labor costs for the DSM programs. Exhibits HECO-100 and HECO-105 identify the difference between the O&M Expense budget and the 2005 test year estimate.

a. Alan Hee, Norris Creveston, Keith Block, Arthur Maskrey, Elaine Wong, Greg Wikler.

b. For "Shortfall Recovery" and "Return on Cost" calculations, please refer to HECO-1014 through HECO-1023. All other costs are supported in electronic spreadsheets that will be transmitted under separate correspondence. Hard copy print outs of these electronic spreadsheets are attached.

In general HECO started out with rough estimates of program expenses based on actual historical costs, program experience and HECO implementation knowledge for pilot programs of a similar nature. These estimates were further refined in the Integrated Resources Planning ("IRP") process. This process included reviews of the programs features, expenses and cost-effectiveness by the Demand Side Management Technical Committee. HECO also retained the services of a DSM consultant, Global Energy Partners, who brought significant experience with DSM programs in other utility jurisdictions into the

RNC) – "Incentives" were estimated using a per unit incentive multiplied by the expected participation. "Outside Services Implementation", "Advertising/Marketing" and "Materials, Travel, Misc." were all calculated using historical cost escalation.

For the newly proposed energy efficiency programs (e.g., ESH, RLI) and for the enhancements to the existing program – "Incentives" were estimated using a per unit incentive level multiplied by the expected participation. "Outside Services Implementation", and "Advertising/Marketing" were all calculated using program experience and HECO implementation knowledge for pilot programs of a similar nature.

RCEA – The budget for the RCEA Program was developed and supported in Docket No. 03-0142.

RDLC – The budget for the RDLC Program was developed and supported in Docket No. 03-0166.

CIDLC – The budget for the CIDLC Program was developed and supported in Docket No. 03-0415.

d. CIEE – The "Incentives" budget item was calculated by taking 25% of the incremental cost of each individual measure and multiplying that amount by the estimated number of participants for each individual measure in the program, as specified in Exhibit HECO-1106. The estimated number of participants was based on a combination of industry experience and HECO implementation experience with this program in prior years. Marketing expenses for the program were estimated based on HECO's past experience in marketing and promoting this program.

CINC – The "Incentives" budget item was calculated by taking 25% of the incremental cost of each individual measure and multiplying that amount by the estimated number of

participants for each individual measure in the program, as specified in Exhibit HECO-1106. The estimated number of participants was based on a combination of industry experience and HECO implementation experience with this program in prior years. Marketing expenses for the program were estimated based on HECO's past experience in marketing and promoting this program.

CICR – The "Incentives" budget item was calculated by taking 25% of the incremental cost of each individual measure and multiplying that amount by the estimated number of participants for each individual measure in the program, as specified in Exhibit HECO-1106. The estimated number of participants was based on a combination of industry experience and HECO implementation experience with this program in prior years. Marketing expenses for the program were estimated based on HECO's past experience in marketing

and promoting this program.

REWH – The "Incentives" budget item was calculated using expected participation levels multiplied by the appropriate approved incentive level, as specified in Exhibit HECO-1106. Participation levels were based on past participation in the program. Since participation levels in the program have been fairly flat over the past few years, no escalation or degradation was forecasted.

RNC – The "Incentives" budget item was calculated using expected participation levels multiplied by the appropriate incentive level, as specified in Exhibit HECO-1106. Participation levels for DSM measures that are currently in the RNC Program, (i.e. solar, high efficiency electric resistance, and tank and timer) were based on past participation. For new measures, (i.e. Bronze, Silver and Gold levels of activity using the Building Industry Association's Hawaii BuiltGreen Checklist) participation was based on estimates using a

benchmarking approach from similar programs elsewhere combined with HECO's past program implementation experience with programs of a similar nature. Marketing expenses for the program were estimated based on HECO's past experience in marketing and promoting the water heater portion of this program over the years, with expanded levels to accommodate the new BuiltGreen component of this program.

RCEA – All budget items for the RCEA Program were developed and supported in Docket No. 03-0142.

RLI – The "Incentives" budget item was calculated by taking 100% of the incremental cost of each individual measure and multiplying that amount by the estimated number of participants for each individual measure in the program, as specified in Exhibit HECO-1106. The estimated program participation was based on a review of US census data to determine the number low income customers in Honolulu County combined with industry experience and HECO's program implementation experience with past pilot programs of a similar nature. The costs associated with retaining a community action program ("CAP") agency to assist in the program implementation were estimated based on industry experience.

ESH – The "Incentives" budget item was calculated by taking 25% of the incremental cost of each individual measure and multiplying that amount by the estimated number of participants for each individual measure in the program, as specified in Exhibit HECO-1106. The estimated number of participants was based on a combination of industry experience and HECO implementation experience with past pilot programs of a similar nature. Marketing expenses for the program were estimated based on HECO's experience in marketing its other residential programs.

[redacted]

No. 03-0166.

CIDLC – All budget items for the CIDLC Program were developed and supported in Docket No. 03-0415.

e. Historical costs by program and cost type for each of the existing DSM programs can be viewed in the annual Accomplishments and Surcharge Reports filed with the Commission in March of each successive year since program inception in 1996.

f. Not applicable.

DSM PROGRAMS EXPENSE SUMMARY

	2003 Actuals	2005 Operating Budget	Adjustment	2005 Test Year Estimate	Difference Bet. 2005 Test Year Est. and 2003 Actual:
INCENTIVES					
Customer	3,815,910	8,138,189		10,793,732	6,977,822
Vendor		98,428		69,553	69,553
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DIRECT LABOR					
Base Labor (910)	247,029	235,032	4,041	239,073	(7,956)
Base Labor (920)	9,072	13,411	0	13,411	4,339
Base Non-Labor (910)	95,515	114,105	1,485	115,590	20,075
Base Subtotal	351,616	362,548	5,526	368,074	16,458
Incremental Labor (910)	53,103	1,020,005	39,959	1,059,964	1,006,861
Incremental Non-Labor (910)	20,765	389,164	(13,811)	375,353	354,588
Incremental Subtotal	73,868	1,409,169	26,148	1,435,317	1,361,449
Total Labor	425,484	1,771,717	31,674	1,803,391	1,377,907
OUTSIDE SERVICES					
Implementation					
(201) Equip & Install				2,178,713	2,178,713
(201) Materials	98,544	92,495			(98,544)
(501) O/S	587,829	1,306,308		1,283,226	695,397
(503) Temps	664,994	100,000		633,831	(31,163)
Total Implementation	1,351,367	1,498,803	2,596,967	4,095,770	2,744,403
Tracking					
(501) O/S	5,326	27,072	7,928	35,000	29,674
Evaluation					
(201) Materials	18,901			0	(18,901)
(501) Rebates	5,375				(5,375)
(501) O/S	236,654	181,950		175,501	(61,153)
Total Evaluation	260,930	181,950	(6,449)	175,501	(85,429)
PEA, Feasibility Studies	109,950	325,000	100,000	425,000	315,050
Advertising					
(201) Materials	17,438	142,837		97,915	80,477
(301) Car Pool	16			13	(3)
(462) IS software pur.		1,155		375	
(501) O/S	442,745	2,774,585		3,095,694	2,652,949
(503) Temps	38,868			0	(38,868)
(520) Mainland travel		5,001		5,001	
(521) Meals & Enter.	6,801	4,501		17,006	10,205
(522) Interisland Travel	2,116			4,232	2,116
(640) Postage	446	51,996		1,605	1,159
Total Advertising	508,430	2,980,075	241,766	3,221,841	2,713,411
Admin./Miscellaneous					
(201) Materials	2,485	2,484		11,721	9,236
(205) Procard	13,335	12,950		10,871	(2,464)
(301) Car Pool	857	2,223		1,960	1,103
(451) IS Prod.	275,749	252,958		204,348	(71,401)
(462) IS software pur.	396	679		991	595
(501) O/S	61,506	312,087		518,532	457,026
(502) O/S legal	3,485			5,373	1,888
(520) Mainland Travel		7,350		7,350	7,350
(521) Meals	1,013	8,274		10,054	9,041
(522) Interisland travel	272				(272)
(570) Rents	59,253			61,130	1,877
(640) Postage	1,005			2,513	1,508

HECO Commercial and Industrial Energy Efficiency Program

	2003 Actuals	2005 Operating Budget	Adjustment	2005 Test Year Estimate	Difference Bet. 2005 Test Year Est. and 2003 Actuals
INCENTIVES					
Customer	949,244	1,914,452		2,139,539	1,190,295
Vendor		49,214		49,214	49,214
Total Incentives	949,244	1,963,666	225,087	2,188,753	1,239,509
DIRECT LABOR					
Base	95,923	108,157		108,246	12,323
Incremental	(775)	367,501		367,501	368,276
Total Labor	95,148	475,658	89	475,747	380,599
OUTSIDE SERVICES					
Implementation					
(201) Materials	4,781	0			(4,781)
(501) O/S	52,941	137,363		137,363	84,422
(503) Temps	232,369	0		92,404	(139,965)
Total Implementation	290,091	137,363	92,404	229,767	(60,324)
Tracking					
(501) O/S	206	3,500	0	3,500	3,294
Evaluation					
(201) Materials	11,341	0		0	(11,341)
(501) O/S	95,267	48,750		35,632	(59,635)
Total Evaluation	106,608	48,750	(13,118)	35,632	(70,976)
Prelim Energy Assessment	85,181	100,000	100,000	200,000	114,819
Advertising					
(201) Materials	8,702	10,247		21,755	13,053
(250) Postage	228	10,362		570	342
(301) Car Pool	5	0		13	8
(462) IS software pur.		370			
(501) O/S	80,218	160,436		217,196	136,978
(503) Temps	28,380	0		0	(28,380)
(520) Mainland travel		1,667		1,667	
(521) Meals & Enter.	6,801	2,201		13,602	6,801
(522) Interisland Travel	2,116			4,232	2,116
Total Advertising	126,450	185,283	73,752	259,035	132,585
Admin./Miscellaneous					
(201) Materials	1,579	0		3,948	2,369
(205) Procard	2,467	3,948		6,168	3,701
(301) Car Pool	282	560		705	423
(451) IS Prod.	91,189	83,729		67,639	(23,550)
(462) IS software pur.	198	371		495	297
(501) O/S	28,696	98,208		125,478	96,782
(502) O/S legal	1,096	0		2,740	1,644
(520) Mainland Travel	0	3,350		3,350	3,350
(521) Meals	2,387	3,913		5,968	3,581
(570) Rents	19,998	0		20,663	665
(640) Postage	1,005			2,513	1,508
Total Admin/Misc.	148,897	194,079	45,588	239,667	90,770
SUBTOTAL	$1,801,825	$3,108,299	$523,802	$3,632,101	$1,830,276
SHORTFALL RECOVERY	0	0	1,838,893	1,838,893	1,838,893
RETURN ON COSTS	0	0	544,815	544,815	544,815
TOTAL	**$1,801,825** [1]	**$3,108,299** [2]	**$2,907,510**	**$6,015,809** [2]	**$4,213,984**

[1] Includes $2,916 of account 920/921 expenses

[2] Includes $2,905 of account 920/921 expenses

HECO Commercial and Industrial New Construction Program

	2003 Actuals	2005 Operating Budget	Adjustment	2005 Test Year Estimate	Difference Bet. 2005 Test Year Est. and 2003 Actuals
INCENTIVES					
Customer	362,145	607,128		778,387	
Vendor		34,450		34,450	
Total Incentives	362,145	641,578	171,259	812,837	450,692
DIRECT LABOR					
Base	33,860	48,165		48,165	14,305
Incremental	0	166,087		166,087	166,087
Total Labor	33,860	214,252	0	214,252	180,392
OUTSIDE SERVICES					
Implementation					
(201) Materials	1,745	0			(1,745)
(501) O/S	13,369	160,890		141,167	127,798
(503) Temps	81,794	0		30,743	(51,051)
Total Implementation	96,908	160,890	11,020	171,910	75,002
Tracking					
(501) O/S	92	3,500	0	3,500	3,408
Evaluation					
(201) Materials	3,780	0		0	(3,780)
(501) O/S	26,421	13,500		14,495	(11,926)
Total Evaluation	30,201	13,500	995	14,495	(15,706)
Design Assistance	0	100,000	0	100,000	100,000
Advertising					
(201) Materials	2,876	9,446		7,190	4,314
(250) Postage	22	44		55	33
(462) IS software purc.		410		0	
(501) O/S	28,128	56,256		69,366	41,238
(503) Temps	5,244	0		0	(5,244)
(520) Mainland travel		1,667		1,667	
(521) Meals & Enter.	0	904		904	904
Total Advertising	36,270	68,727	10,455	79,182	42,912
Admin./Miscellaneous					
(201) Materials	1,398	0		3,495	2,097
(205) Procard	705	2,248		1,763	1,058
(301) Car Pool	60	85		150	90
(451) IS Prod.	25,402	23,272		18,800	(6,602)
(462) IS software pur.	99	100		248	149
(501) O/S	9,533	36,783		35,432	25,899
(502) O/S legal	408	0		1,020	612
(520) Mainland Travel	0	2,000		2,000	2,000
(521) Meals	(1,590)	1,606		1,605	3,195
(570) Rents	7,407	0		7,641	234
Total Admin/Misc.	43,422	66,094	6,060	72,154	28,732
SUBTOTAL	602,898	1,268,541	199,789	1,468,330	865,432
SHORTFALL RECOVERY	0	0	612,965	612,965	612,965
RETURN ON COSTS	0	0	220,250	220,250	220,250
TOTAL	**$602,898**	**$1,268,541**	**$1,033,004**	**$2,301,545**	**$1,698,647**

HECO Commercial and Industrial Customized Rebate Program

	2003 Actuals	2005 Operating Budget	Adjustment	2005 Test Year Estimate	Difference Bet. 2005 Test Year Est. and 2003 Actuals
INCENTIVES					
Customer	613,705	1,036,739		1,809,951	1,196,246
Vendor		14,764		14,764	
Total Incentives	613,705	1,051,503	773,212	1,824,715	1,211,010
DIRECT LABOR					
Base	130,549	61,661		61,661	(68,888)
Incremental	0	299,864		299,864	299,864
Total Labor	130,549	361,525	0	361,525	230,976
OUTSIDE SERVICES					
Implementation					
(201) Materials	2,217	0			(2,217)
(501) O/S	17,648	186,473		186,473	168,825
(503) Temps	251,872	0		123,009	(128,863)
Total Implementation	271,737	186,473	123,009	309,482	37,745
Tracking					
(501) O/S	92	3,500	0	3,500	3,408
Evaluation					
(201) Materials	3,780	0		0	(3,780)
(501) O/S	24,261	12,750		29,147	4,886
Total Evaluation	28,041	12,750	16,397	29,147	1,106
Feasibility Studies	24,769	125,000	0	125,000	100,231
Advertising					
(201) Materials	3,588	8,076		8,970	5,382
(250) Postage	196	390		980	784
(462) IS software pur.		375		375	
(501) O/S	47,267	94,534		131,278	84,011
(503) Temps	5,244	0		0	(5,244)
(520) Mainland travel		1,667		1,667	
(521) Meals & Enter.	0	1,396		2,500	2,500
Total Advertising	56,295	106,438	39,332	145,770	89,475
Admin./Miscellaneous					
(201) Materials	1,711	0		4,278	2,567
(205) Procard	1,176	2,024		2,940	1,764
(301) Car Pool	442	648		1,105	663
(451) IS Prod.	42,217	38,703		31,266	(10,951)
(462) IS software pur.	99	208		248	149
(501) O/S	17,655	64,318		83,305	65,650
(502) O/S legal	645	0		1,613	968
(520) Mainland Travel	0	2,000		2,000	2,000
(521) Meals	0	2,481		2,481	2,481
(570) Rents	17,035	0		17,605	570
Total Admin/Misc.	80,980	110,382	36,459	146,841	65,861

HECO Residential Efficient Water Heating Program

	2003 Actuals	2005 Operating Budget	Adjustment	2005 Test Year Estimate	Difference Bet. 2005 Test Year Est. and 2003 Actuals
INCENTIVES	1,112,210	2,020,000	(900,000)	1,120,000	7,790
DIRECT LABOR					
Base	56,463	58,790		58,790	2,327
Incremental	55,892	161,040		161,040	105,148
Total Labor	112,355	219,830	0	219,830	107,475
OUTSIDE SERVICES					
Implementation					
(201) Materials		0			
(501) O/S	370,583	505,300		399,282	28,699
(503) Temps	70,211	0			(70,211)
Total Implementation	440,794	505,300	(106,018)	399,282	(41,512)
Tracking					
(501) O/S	4,089	16,572	(12,572)	4,000	(89)
Evaluation					
(501) Evaluation Rebates	2,980	0		0	(2,980)
(501) O/S	64,942	94,950		21,949	(42,993)
Total Evaluation	67,922	94,950	(73,001)	21,949	(45,973)
Advertising					
(201) Materials		53,663			
(301) Car Pool	3	0		0	(3)
(501) O/S	250,418	554,037		391,263	140,845
(640) Postage	0	41,200			
Total Advertising	250,421	648,900	(257,637)	391,263	140,842
Admin./Miscellaneous					
(201) Materials	(2,206)	1,633			2,206
(205) Procard	2,140	4,730			(2,140)
(301) Car Pool	43	930			(43)
(451) IS Prod.	85,752	78,670		63,552	(22,200)
(501) O/S	5,622	86,175		27,100	21,478
(502) O/S legal	1,029	0			(1,029)
(521) Meals	166	274			(166)
(522) Interisland Travel	272	0			(272)
(570) Rents	11,110	0		11,431	321
Total Admin/Misc.	103,928	172,412	(70,329)	102,083	(1,845)
SUBTOTAL	2,091,719	3,677,964	(1,419,557)	2,258,407	166,688
SHORTFALL RECOVERY	0	0	367,779	367,779	367,779
RETURN ON COSTS	0	0	338,761	338,761	338,761
TOTAL	**$2,091,719** [1]	**$3,677,964** [2]	**($713,017)**	**$2,964,947** [2]	**$873,228**

[1] Includes $6,155 of account 920/921 expenses

[2] Includes $2,905 of account 920/921 expenses

HECO Residential New Construction Program

	2003 Actuals	2005 Operating Budget	Adjustment	2005 Test Year Estimate	Difference Bet. 2005 Test Year Est. and 2003 Actuals
INCENTIVES	778,606	840,500	186,500	1,027,000	248,394
DIRECT LABOR					
Base	34,822	52,074		52,074	17,252
Incremental	18,751	53,274		53,274	34,523
Total Labor	53,573	105,348	0	105,348	51,775
OUTSIDE SERVICES					
Implementation					
(201) Materials	89,801	92,495			(89,801)
(501) O/S	133,288	143,782		302,691	169,403
(503) Temps	28,748	0		37,675	8,927
Total Implementation	251,837	236,277	104,089	340,366	88,529
Tracking					
(501) O/S	847	0	5,000	5,000	4,153
Evaluation					
(501) Evaluation Rebates	2,395	0		0	(2,395)
(501) O/S	25,763	12,000		16,044	(9,719)
Total Evaluation	28,158	12,000	4,044	16,044	(12,114)
Advertising					
(201) Materials	2,272	1,405		0	(2,272)
(301) Car Pool	8	0		0	(8)
(501) O/S	36,714	22,812		92,945	56,231
Total Advertising	38,994	24,217	68,728	92,945	53,951
Admin./Miscellaneous					
(201) Materials	3	851			(3)
(205) Procard	6,847	0			(6,847)
(301) Car Pool	30	0			(30)
(451) IS Prod.	31,189	28,584	(5,493)	23,091	(8,098)
(501) O/S	0	14,145		13,930	13,930
(502) O/S legal	307	0			(307)
(521) Meals	50	0			(50)
(570) Rents	3,703	0		3,790	87
Total Admin/Misc.	42,129	43,580	(2,769)	40,811	(1,318)
SUBTOTAL	1,194,144	1,261,922	365,592	1,627,514	433,370
SHORTFALL RECOVERY	0	0	490,371	490,371	490,371
RETURN ON COSTS	0	0	244,127	244,127	244,127
TOTAL	**$1,194,144**	**$1,261,922**	**$1,100,090**	**$2,362,012**	**$1,167,868**

HECO Residential Customer Energy Awareness Program

	2005 Operating Budget	Adjustment	2005 Test Year Estimate
Incremental Labor	90,351	0	90,351
Base Overheads (401)	5,628		5,628
Temporary Hire (503)	100,000	0	100,000
Outside Consultant (501)	60,000	0	60,000
Customer Surveys (501)	25,000	0	25,000
Advertising (501)	1,724,510	(20,364)	1,704,146
Community Events (501)	72,000	0	72,000
Exhibits/Displays (201)	5,000	0	5,000
Program Materials (201)	55,000	0	55,000
Evaluation (501)	0	21,385	21,385
SUBTOTAL	2,137,489	1,021	2,138,510
Return on Costs	0	320,775	320,775
TOTAL	**$2,137,489**	**$321,796**	**$2,459,285**

	2005 Test Year Estimate
INCENTIVES	730,798
DIRECT LABOR	
Base	0
Incremental	0
Total Labor	0
OUTSIDE SERVICES	
Implementation	
(503) Temps	50,000
Tracking	
(501) O/S	3,500
Evaluation	
(501) O/S	9,562
Advertising	0
Admin./Miscellaneous	
(501) O/S	171,937
SUBTOTAL	965,797
SHORTFALL RECOVERY	245,186
RETURN ON COSTS	144,870
TOTAL	**$1,355,853**

HECO Energy $olutions for the Home Program

	2005 Test Year Estimate
INCENTIVES	2,137,857
DIRECT LABOR	0
OUTSIDE SERVICES	
Implementation (503) Temps	200,000
Tracking (501) O/S	12,000
Evaluation (501) O/S	27,287
Advertising (501) O/S	330,000
Admin./Miscellaneous (501) O/S	48,892
SUBTOTAL	2,756,036
SHORTFALL RECOVERY	1,287,226
RETURN ON COSTS	413,406
TOTAL	**$4,456,668**

HECO Commercial and Industrial Direct Load Control Program

	2005 Operating Budget	Adjustment	2005 Test Year Estimate
INCENTIVES			
Dispatchable Demand Incentive	1,050,000		525,000
Energy Reduction Incentive	96,250		48,125
Total Incentives	1,146,250	(573,125)	573,125
DIRECT LABOR			
Base	12,746 [1]		12,746
Incremental	135,526		106,697
Total Labor	148,272	(28,829)	119,443
OUTSIDE SERVICES			
Implementation	112,500		56,250
Equipment & Installation			25,950
Miscellaneous	6,229		6,228
Total Outside Services	118,729	(30,301)	88,428
TOTAL	**1,413,251**	**(632,255)**	**780,996**
CAPITAL EQUIPMENT[2]	56,648	(56,648)	0
TOTAL PROGRAM BUDGET	**$1,469,899** [1]	**($688,903)**	**$780,996** [1]

[1] Includes $3,512 from Account 920 and $4,489 from Account 921

HECO Residential Direct Load Control Program

	2005 Operating Budget	Adjustment	2005 Test Year Estimate
CUSTOMER INCENTIVES	573,120	(124,920)	448,200
DIRECT LABOR			
Base Labor	11,140	3,952	15,092
Base Non-Labor	4,187	1,485	5,672
Base Subtotal	15,327	5,437	20,764
Incremental Labor	98,504	39,959	138,463
Incremental Non-Labor	37,022	15,018	52,040
Incremental Subtotal	135,526	54,977	190,503
Total Labor	150,853	60,414	211,267
OUTSIDE SERVICES			
Equipment & Installation			2,152,763
Tracking	0		0
Evaluation	0		0
Advertising	65,000		62,500
Miscellaneous	6,229		6,229
Total Outside Services	71,229	2,150,263	2,221,492
TOTAL	**795,202**	**2,085,757**	**2,880,959**
CAPITAL EQUIPMENT[1]	2,527,280	(2,527,280)	0
TOTAL PROGRAM BUDGET	**$3,322,482**	**($441,523)**	**$2,880,959**

[1] Included for informational purposes.

Budget and Impact Forecast Summary

	2005			2010			2015			2020			2025		
Program	kW Impact	kWh Impact	Total Budget ($)	kW Impact	kWh Impact	Total Budget ($)	kW Impact	kWh Impact	Total Budget ($)	kW Impact	kWh Impact	Total Budget ($)	kW Impact	kWh Impact	Total Budget ($)
1: RESIDENTIAL EFFICIENT WATER HEATING	1,257	4,830,000	$1,120,000	1,257	4,830,000	$2,801,253	1,257	4,830,000	$3,575,188	1,257	4,830,000	$3,575,188	0	0	$3,575,188
2: RESIDENTIAL NEW CONSTRUCTION	1,180	2,525,800	$1,604,423	1,180	2,525,800	$2,047,695	halysis (05	0	$2,613,436	0	0	$2,613,436	0	0	$2,613,436
3: ENERGY $OLUTIONS FOR THE HOME	2,700	14,951,490	$2,756,037	2,700	14,951,490	$3,517,480	2,700	14,951,490	$4,489,294	2,700	14,951,490	$4,489,294	0	0	$4,489,294
4: RESINDENTIAL LOW INCOME	680	2,519,097	$965,798	680	2,519,097	$1,232,831	680	2,519,097	$1,573,184	680	2,519,097	$1,573,184	0	0	$1,573,184
5: RESIDENTIAL DIRECT LOAD CONTROL	8,840	0	$2,252,557	0	0	$2,874,897	0	0	$3,669,177	0	0	$4,682,903	0	0	$4,682,903
6: RESIDENTIAL CUSTOMER ENERGY AWARENESS	0	0	$2,138,510	0	0	$2,729,341	0	0	$3,483,407	0	0	$4,445,809	0	0	$4,445,809
7: COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY	2,702	18,956,000	$3,563,217	2,702	18,956,000	$4,547,668	2,702	18,956,000	$5,804,105	2,702	18,956,000	$7,407,672	0	0	$7,407,672
8: COMMERCIAL AND INDUSTRIAL NEW CONTRUCTION	812	5,682,000	$1,449,530	812	5,682,000	$1,850,008	812	5,682,000	$2,361,132	812	5,682,000	$3,013,469	0	0	$3,013,469
9: COMMERCIAL AND INDUSTRIAL CUSTOM REBATES	2,201	15,803,000	$2,914,715	2,201	15,803,000	$3,719,997	2,201	15,803,000	$4,747,764	2,201	15,803,000	$6,059,483	0	0	$6,059,483
10: COMMERCIAL AND INDUSTRIAL LOAD MANAGEMENT	7,000	0	$596,000	22,750	0	$760,664	22,750	0	$970,821	22,750	0	$1,239,041	0	0	$1,581,365
TOTAL	27,372	65,267,388	19,360,787	34,282	65,267,388	26,081,634	33,102	62,741,588	33,287,508	33,102	62,741,588	39,099,479	0	0	39,441,804

HISTORICAL AND FIRST YEAR PROJECTED TOTAL BUDGET

	Historical (2003)			IRP3 Plan Base Year (2005)						
Program	Total Program Budget 2003	2003 Historical kW Impact	2003 Historical kWh Impact	Total Program Budget	Projected kW Impact (gross)	Projected kWh Impact (gross)	2005 Projected kW Impact (net)	2005 Projected kWh Impact (net)	Net to Gross Ratio (kW)	Net to Gross Ratio (kWh)
1: RESIDENTIAL EFFICIENT WATER HEATING	1,968,673	1,006	4,172,132	2,194,855	1,257	4,830,000	918	3,525,900	0.73	0.73
2: RESIDENTIAL NEW CONSTRUCTION	1,136,702	1,049	1,877,599	1,604,423	862	1,833,000	629	1,338,090	0.73	0.73
3: ENERGY $OLUTIONS FOR THE HOME	NA	NA	NA	2,756,037	3,934	14,951,490	2,872	10,914,586	0.73	0.73
4: RESIDENTIAL LOW INCOME	NA	NA	NA	965,798	680	2,519,097	680	2,519,097	1.00	1.00
5: RESIDENTIAL DIRECT LOAD CONTROL	NA	NA	NA	2,262,557	4,186	0	3,056	0	0.73	0.73
6: RESIDENTIAL CUSTOMER ENERGY AWARENESS	NA	NA	NA	2,138,510	0	0	0	0	N/A	N/A
7: COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY	1,716,909	1,904	15,038,779	3,563,217	2,702	18,956,000	2,027	14,219,631	0.75	0.75
8: COMMERCIAL AND INDUSTRIAL NEW CONTRUCTION	585,513	811	4,944,692	1,449,530	812	5,682,000	609	4,262,289	0.75	0.75
9: COMMERCIAL AND INDUSTRIAL CUSTOM REBATES	1,174,495	1,111	11,003,242	2,914,716	2,201	15,803,000	1,651	11,854,444	0.75	0.75
10: COMMERCIAL AND INDUSTRIAL LOAD MANAGEMENT	NA	NA	NA	596,000	3,500	0	2,625	0	0.75	0.75
TOTAL	6,582,292	5,881	37,036,444	20,435,642	20,134	64,574,588	15,086	48,634,039		

Residential total	3,105,375	2,055	6,049,731	7,521,114	6,733	24,133,588	5,099	18,297,675
Non-residential total	3,476,917	3,826	30,986,713	8,523,462	9,215	40,441,000	6,912	30,336,364

IRP3 Program Expansion

Program	Measures Added	Per Participant kW Impact	Per Participant kWh Impact	Incremental Cost	Target # of Participants	Total kW Impact	Total kWh Impact	Total Expanded Budget
Energy $olutions for the Home	CFL	0.0	131	0.08	20000	400	2614000	$ 209,120
	HE Room A/C	0.1	243	0.97	1000	124	243200	$ 235,904
	HE Central A/C	0.4	620	0.7	1000	417	620000	$ 434,000
	EnergyStar Appliances	0.2	945	0.55	500	97	472250	$ 259,738
	Eq Svcing	0.4	620	0.28	500	197	310040	$ 86,811
ESH Total	Combined			-		1234	4259490	$ 1,016,453
3 - Residential Direct Load Control	A/C Cycling	0.8	0	100	1000	786	0	$ 100,000
C/I Load Management	EMS	116.8	627428	2.19	1	0	0	$ -

Notes and Assumptions

1 - Residential net-gross impact ratio assmued .73, except low income assumed to be 1 C/I net-gross ratios from budget details	

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Program-Level Forecasted Budget and Impacts

kWh Impact (Incremental)

Program	2003 (Actual)	IRP3								
		2005	2006	2007	2008	2009	2010	2014 Year 10	2019 Year 15	2024 Year 20
1. RESIDENTIAL EFFICIENT WATER HEATING	4,172,132	4,830,000	4,830,000	4,830,000	4,830,000	4,830,000	4,830,000	4,830,000	4,830,000	0
2. RESIDENTIAL NEW CONSTRUCTION	1,877,599	2,525,800	2,525,800	2,525,800	2,525,800	2,525,800	2,525,800	0	0	0
3. ENERGY SOLUTIONS FOR THE HOME	NA	14,951,490	14,951,490	14,951,490	14,951,490	14,951,490	14,951,490	14,951,490	14,951,490	0
4. RESIDENTIAL LOW INCOME	NA	2,519,097	2,519,097	2,519,097	2,519,097	2,519,097	2,519,097	2,519,097	2,519,097	0
5. RESIDENTIAL DIRECT LOAD CONTROL	NA	0	0	0	0	0	0	0	0	0
6. RESIDENTIAL CUSTOMER ENERGY AWARENESS	NA	0	0	0	0	0	0	0	0	0
7. COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY	15,038,779	18,956,000	18,956,000	18,956,000	18,956,000	18,956,000	18,956,000	18,956,000	18,956,000	0
8. COMMERCIAL AND INDUSTRIAL NEW CONTRUCTION	4,944,692	5,682,000	5,682,000	5,682,000	5,682,000	5,682,000	5,682,000	5,682,000	5,682,000	0
9. COMMERCIAL AND INDUSTRIAL CUSTOM REBATES	11,003,242	15,803,000	15,803,000	15,803,000	15,803,000	15,803,000	15,803,000	15,803,000	15,803,000	0
10. COMMERCIAL AND INDUSTRIAL LOAD MANAGEMENT	NA	0	0	0	0	0	0	0	0	0
TOTAL	37,036,444	65,267,388	65,267,388	65,267,388	65,267,388	65,267,388	65,267,388	62,741,588	62,741,588	0

kWh Impact (Cumulative)

Program	2003 (Actual)	IRP3								
		2005	2006	2007	2008	2009	2010	2014 Year 10	2019 Year 15	2024 Year 20
1. RESIDENTIAL EFFICIENT WATER HEATING	4,172,132	4,830,000	9,660,000	14,490,000	19,320,000	24,150,000	28,980,000	48,300,000	72,450,000	48,300,000
2. RESIDENTIAL NEW CONSTRUCTION	1,877,599	2,525,800	5,051,600	7,577,400	10,103,200	12,629,000	15,154,800	15,154,800	15,154,800	2,525,800
3. ENERGY SOLUTIONS FOR THE HOME	NA	14,951,490	29,902,981	44,854,471	59,805,961	74,757,452	89,708,942	149,514,903	149,514,903	74,757,452
4. RESIDENTIAL LOW INCOME	NA	2,519,097	5,038,195	7,557,292	10,076,389	12,595,486	15,114,584	25,190,973	25,190,973	12,595,486
5. RESIDENTIAL DIRECT LOAD CONTROL	NA	0	0	0	0	0	0	0	0	0
6. RESIDENTIAL CUSTOMER ENERGY AWARENESS	NA	0	0	0	0	0	0	0	0	0
7. COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY	15,038,779	18,956,000	37,912,000	56,868,000	75,824,000	94,780,000	113,736,000	189,560,000	284,340,000	189,560,000
8. COMMERCIAL AND INDUSTRIAL NEW CONTRUCTION	4,944,692	5,682,000	11,364,000	17,046,000	22,728,000	28,410,000	34,092,000	56,820,000	85,230,000	56,820,000
9. COMMERCIAL AND INDUSTRIAL CUSTOM REBATES	11,003,242	15,803,000	31,606,000	47,409,000	63,212,000	79,015,000	94,818,000	158,030,000	237,045,000	158,030,000
10. COMMERCIAL AND INDUSTRIAL LOAD MANAGEMENT	NA	0	0	0	0	0	0	0	0	0
TOTAL	37,036,444	65,267,388	130,534,776	195,802,163	261,069,550	326,336,938	391,604,326	642,570,676	868,925,676	542,588,738

Program-Level Forecasted Budget and Impacts

kW Impact (Incremental)

Program	2003 (Actual)	IRP3 2005	2006	2007	2008	2009	2010	2014 Year 10	2019 Year 15	2024 Year 20
1: RESIDENTIAL EFFICIENT WATER HEATING	1,006	1257.0	1257.0	1257.0	1257.0	1257.0	1257.0	1257.0	1257.0	0.0
2. RESIDENTIAL NEW CONSTRUCTION	1,049	1179.5	1179.5	1179.5	1179.5	1179.5	1179.5	see C/E Analysis (06-10-04).xls		
3: ENERGY $OLUTIONS FOR THE HOME	NA	2700.0	2700.0	2700.0	2700.0	2700.0	2700.0	2700.0	2700.0	0.0
4: RESIDENTIAL LOW INCOME	NA	680.2	680.2	680.2	680.2	680.2	680.2	680.2	680.2	0.0
5: RESIDENTIAL DIRECT LOAD CONTROL	NA	8840.1	14756.7	19118.3	20579.0	20385.0	0.0	0.0	0.0	0.0
6: RESIDENTIAL CUSTOMER ENERGY AWARENESS	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7: COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY	1,904	2702.0	2702.0	2702.0	2702.0	2702.0	2702.0	2702.0	2702.0	0.0
8: COMMERCIAL AND INDUSTRIAL NEW CONTRUCTION	811	812.0	812.0	812.0	812.0	812.0	812.0	812.0	812.0	0.0
9. COMMERCIAL AND INDUSTRIAL CUSTOM REBATES	1,111	2201.0	2201.0	2201.0	2201.0	2201.0	2201.0	2201.0	2201.0	0.0
10: COMMERCIAL AND INDUSTRIAL LOAD MANAGEMENT	NA	7000.0	17500.0	19250.0	21000.0	22750.0	22750.0	22750.0	22750.0	0.0
TOTAL	5,881	27371.8	43788.4	49900.0	53110.7	54668.8	34281.7	33102.2	33102.2	0.0

kW Impact (Cumulative)

Program	2003 (Actual)	IRP3 2005	2006	2007	2008	2009	2010	2014 Year 10	2019 Year 15	2024 Year 20
1: RESIDENTIAL EFFICIENT WATER HEATING	1,006	1257.0	2514.0	3771.0	5028.0	6285.0	7542.0	12570.0	18855.0	12570.0
2. RESIDENTIAL NEW CONSTRUCTION	1,049	1179.5	2359.0	3538.5	4718.0	5897.5	7077.0	7077.0	7077.0	1179.5
3: ENERGY $OLUTIONS FOR THE HOME	NA	2700.0	5400.0	8100.0	10800.0	13500.0	16200.0	27000.0	27000.0	13500.0
4: RESIDENTIAL LOW INCOME	NA	680.2	1360.3	2040.5	2720.8	3400.8	4081.0	6801.8	6801.8	3400.8
5: RESIDENTIAL DIRECT LOAD CONTROL	NA	8840.1	14756.7	19118.3	20579.0	20385.0	0.0	22826.3	21902.7	0.0
6: RESIDENTIAL CUSTOMER ENERGY AWARENESS	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7: COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY	1,904	2702.0	5404.0	8106.0	10808.0	13510.0	16212.0	27020.0	40630.0	27020.0
8: COMMERCIAL AND INDUSTRIAL NEW CONTRUCTION	811	812.0	1624.0	2436.0	3248.0	4060.0	4872.0	8120.0	12180.0	8120.0
9. COMMERCIAL AND INDUSTRIAL CUSTOM REBATES	1,111	2201.0	4402.0	6603.0	8804.0	11005.0	13206.0	22010.0	33015.0	22010.0
10: COMMERCIAL AND INDUSTRIAL LOAD MANAGEMENT	NA	7000.0	17500.0	19250.0	21000.0	22750.0	22750.0	24500.0	24500.0	0.0
TOTAL	5,881	27371.8	56320.1	72963.3	87706.7	100793.3	91940.0	158024.9	191781.3	87800.3

Total Budget

Program	2003 (Actual)	IRP3 2005	2006	2007	2008	2009	2010	2015	2020	2025
1: RESIDENTIAL EFFICIENT WATER HEATING	$1,968,673	$2,194,855	$2,304,598	$2,419,828	$2,540,819	$2,667,860	$2,801,253	$3,575,188	$3,575,188	$3,575,188
2. RESIDENTIAL NEW CONSTRUCTION	$1,136,702	$1,604,423	$1,684,644	$1,768,878	$1,857,320	$1,950,186	$2,047,695	$2,813,436	$2,813,436	$2,813,436
3: ENERGY $OLUTIONS FOR THE HOME	NA	$2,756,037	$2,893,839	$3,038,531	$3,190,458	$3,349,981	$3,517,480	$4,489,294	$4,489,294	$4,489,294
4: RESIDENTIAL LOW INCOME	NA	$965,798	$1,014,088	$1,064,793	$1,118,032	$1,173,934	$1,232,631	$1,573,184	$1,573,184	$1,573,184
5: RESIDENTIAL DIRECT LOAD CONTROL	NA	$2,252,657	$2,365,184	$2,483,444	$2,607,616	$2,737,997	$2,874,897	$3,869,177	$4,682,903	$4,682,903
6: RESIDENTIAL CUSTOMER ENERGY AWARENESS	NA	$2,138,510	$2,245,436	$2,357,707	$2,475,593	$2,599,372	$2,729,341	$3,483,407	$4,445,809	$4,445,809
7: COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY	$1,718,909	$3,563,217	$3,741,378	$3,928,447	$4,124,869	$4,331,113	$4,547,668	$5,804,105	$7,407,672	$7,407,672
8: COMMERCIAL AND INDUSTRIAL NEW CONTRUCTION	$585,613	$1,449,630	$1,522,007	$1,598,107	$1,678,012	$1,761,913	$1,850,008	$2,361,132	$3,013,469	$3,013,469
9. COMMERCIAL AND INDUSTRIAL CUSTOM REBATES	$1,174,495	$2,914,715	$3,060,451	$3,213,473	$3,374,147	$3,542,854	$3,719,997	$4,747,784	$6,059,463	$6,059,463
10: COMMERCIAL AND INDUSTRIAL LOAD MANAGEMENT	NA	$596,000	$625,800	$657,090	$689,945	$724,442	$760,664	$970,821	$1,239,041	$1,581,385
TOTAL	$8,582,292	$20,435,642	$21,457,425	$22,530,296	$23,656,811	$24,839,851	$26,081,634	$33,287,508	$39,099,479	$39,441,804

Program-Level Forecasted Budget and Impacts

% of Total Market Segment MAP (kWh)

Program	2005	2006	2007	2008	2009	2010	2015	2020	2025
1: RESIDENTIAL EFFICIENT WATER HEATING	2.1%	1.6%	1.2%	1.0%	0.9%	0.8%	0.7%	0.6%	0.0%
2: RESIDENTIAL NEW CONSTRUCTION	1.1%	0.8%	0.7%	0.6%	0.5%	0.4%	0.0%	0.0%	0.0%
3: ENERGY $OLUTIONS FOR THE HOME	6.6%	4.9%	3.9%	3.2%	2.7%	2.6%	2.0%	1.7%	0.0%
4: RESIDENTIAL LOW INCOME	1.1%	0.8%	0.7%	0.6%	0.5%	0.4%	0.3%	0.3%	0.0%
5: RESIDENTIAL DIRECT LOAD CONTROL*	0.02%	0.02%	0.02%	0.02%	0.02%	0.00%	0.00%	0.00%	0.00%
6: RESIDENTIAL CUSTOMER ENERGY AWARENESS	NA	NA	NA	NA	NA	NA	NA	NA	NA
7: COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY	61.4%	32.6%	20.9%	14.6%	10.6%	8.1%	3.2%	2.3%	0.0%
8: COMMERCIAL AND INDUSTRIAL NEW CONTRUCTION	18.4%	9.8%	6.3%	4.4%	3.2%	2.4%	1.0%	0.7%	0.0%
9: COMMERCIAL AND INDUSTRIAL CUSTOM REBATES	51.2%	27.3%	17.4%	12.1%	8.9%	6.8%	2.7%	1.9%	0.0%
10: COMMERCIAL AND INDUSTRIAL LOAD MANAGEMENT	NA	NA	NA	NA	NA	NA	NA	NA	NA

*RDLC % of MAP is kW

MAP by Market segment	2005	2006	2007	2008	2009	2010	2015	2020	2025
Residential MAP (GWh)	225.73	306.61	387.30	468.09	548.88	561.57	740.78	871.84	957.91
Commercial/Industrial MAP (GWh)	30.86	57.82	90.91	130.28	178.13	233.25	588.45	817.87	843.77

source - GEP Phase I HECO DSM Potential Study

Escalation Rates

Program	Energy	Budget	New Participant Impact Custom
1: RESIDENTIAL EFFICIENT WATER HEATING	0%	5%	10
2: RESIDENTIAL NEW CONSTRUCTION	0%	5%	10
3: ENERGY $OLUTIONS FOR THE HOME	0%	5%	10
4: RESIDENTIAL LOW INCOME	0%	5%	10
5: RESIDENTIAL DIRECT LOAD CONTROL	0%	5%	15
6: RESIDENTIAL CUSTOMER ENERGY AWARENESS	0%	5%	15
7: COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY	0%	5%	15
8: COMMERCIAL AND INDUSTRIAL NEW CONTRUCTION	0%	5%	15
9: COMMERCIAL AND INDUSTRIAL CUSTOM REBATES	0%	5%	15
10: COMMERCIAL AND INDUSTRIAL LOAD MANAGEMENT	0%	5%	25

							Impact/Measure		
sentative otype	Weight of Prototype in Measure	Base Case	Efficiency Case	Measure Life	Target # of Participants	Market Saturation Period	kW	kWh	Units
-Existing	100%	Electric WH; EF=0.83	Solar Water Heater	15			0.461	2040	per house
-Existing	100%	Electric WH; EF=0.90	Electric WH; EF=0.92	9			0.016	172	per WH
				12.00	5270		0.24	1106.0	
M-New	100%	Electric WH; EF=0.88	Solar Water Heater	15			0.453	1924	per house
M-New	100%	Electric WH; EF=0.90	Electric WH; EF=0.92	9			0.003	65	per WH
				11.40	6452		0.18	802.8	
-Existing	40%	EER=9.8	EER=11.0	12			0.150	338	per AC
-Existing	60%	EER=9.8	EER=11.0	12			0.108	180	per AC
-Existing	80%	SEER=12.0	SEER=14.0	14			0.461	709	per AC
-Existing	20%	SEER=12.0	SEER=14.0	14			0.159	264	per AC
-Existing	50%	No Fan	Install Ceiling Fan	10			0.005	391	per fan
-Existing	50%	No Fan	Install Ceiling Fan	10			0.005	398	per fan
-Existing	50%	60W Incandescent	20W CFL	5			0.008	64	per lamp
-Existing	50%	60W Incandescent	20W CFL	5			0.018	67	per lamp
-Existing	50%	Std. clothes washers, refrigerators, dishwashers	Energy Star clothes washers, refrigerators, dishwashers	12			0.200	939	per house
-Existing	50%	Std. clothes washers, refrigerators, dishwashers	Energy Star clothes washers, refrigerators, dishwashers	12			0.188	950	per house
-Existing	80%	No CAC Maintenance	CAC Maintenance	2			0.442	709	per AC
-Existing	20%	No CAC Maintenance	CAC Maintenance	2			0.197	264	per AC
				7.55	18232		0.18	70.9	
-Existing	30%	60W Incandescent	20W CFL	5			0.008	64	per lamp
-Existing	70%	60W Incandescent	20W CFL	5			0.018	67	per lamp
-Existing	60%	No measures installed	Install faucet aerators, low flow showerheads, WH blanket, WH t-stat setback	15			0.172	935	per house
-Existing	20%	No measures installed	Install faucet aerators, low flow showerheads, WH blanket, WH t-stat setback	15			0.152	639	per house
-Existing	80%	No CAC Maintenance	CAC Maintenance	2			0.442	709	per AC
-Existing	20%	No CAC Maintenance	CAC Maintenance	2			0.197	264	per AC
				8.70	5857		0.12	70.9	
ed w/ DOE-2	100%	No WH load control	Install WH load control	15			0.517	0	per WH
ed w/ DOE-2	100%	No AC load control	Install AC load control	15			0.786	0	per house
				15.00	14790		0.60	0.0	
pplicable	100%	Not applicable	Not applicable	NA			0.000	0	N/A
pplicable	100%	Not applicable	Not applicable	NA			0.000	0	N/A
				NA	NA		0.00	0.0	
-Existing	35%	EER=8.9	EER=11.0	15			0.11900	575.000	per ton
-Existing	15%	EER=8.9	EER=11.0	15			0.16200	643.000	per ton
-Existing	20%	EER=8.9	EER=11.0	15			0.19000	776.000	per ton
-Existing	30%	EER=8.9	EER=11.0	15			0.00000	377.000	per ton
-Existing	40%	75W Incandescent	23W CFL	5			0.00002	0.148	per total bldg ft2
-Existing	40%	75W Incandescent	23W CFL	5			0.00002	0.124	per total bldg ft2
-Existing	20%	75W Incandescent	23W CFL	5			0.00004	0.206	per total bldg ft2
-Existing	40%	4 ft. T12 + exist. 2-lamp fixture	4 ft. T8 + new 2-lamp fixture	10			0.00003	0.199	per total bldg ft2
-Existing	30%	4 ft. T12 + exist. 2-lamp fixture	4 ft. T8 + new 2-lamp fixture	10			0.00008	0.297	per total bldg ft2
-Existing	30%	4 ft. T12 + exist. 2-lamp fixture	4 ft. T8 + new 2-lamp fixture	10			0.00000	0.177	per total bldg ft2
-Existing	70%	4 ft. T12 + exist. 1-lamp fixture	4 ft. T5 + new 1-lamp fixture	10			0.00006	0.315	per total bldg ft2
-Existing	30%	4 ft. T12 + exist. 1-lamp fixture	4 ft. T5 + new 1-lamp fixture	10			0.00004	0.192	per total bldg ft2
ed w/ DOE-2	100%	2 incand. Bulbs (40 W)	LED Sign (5 W)	25			0.03500	307.000	per sign
-Existing	30%	75W Incandescent	23W Induction Lamp	5			0.00002	0.148	per total bldg ft2
-Existing	40%	75W Incandescent	23W Induction Lamp	5			0.00002	0.124	per total bldg ft2
-Existing	30%	75W Incandescent	23W Induction Lamp	5			0.00004	0.206	per total bldg ft2
-Existing	40%	Standard Fan Motors	Premium-Efficiency Fan Motors	15			0.05029	240.618	per HP
-Existing	30%	Standard Fan Motors	Premium-Efficiency Fan Motors	15			0.08245	505.828	per HP
-Existing	30%	Standard Fan Motors	Premium-Efficiency Fan Motors	15			0.04674	347.393	per HP
-Existing	60%	No window film	Install window tint film	20			0.00090	8.802	ft2 of window area

	Measure Life	Target # of Participants	Market Saturation / Period	Impact/Measure kW	kWh	Units
m	20			0.00000	4.220	ft2 of window area
mp	20					per pump
	14.50	717		3.77	0.0	
	15			0.10700	558.000	per ton
	15			0.16500	685.000	per ton
	15			0.20000	830.000	per ton
	15			0.00000	358.000	per ton
	5			0.00002	0.106	per total bldg ft2
	5			0.00001	0.092	per total bldg ft2
	5			0.00004	0.145	per total bldg ft2
ip	10			0.00000	0.172	per total bldg ft2
ip	10			0.00002	0.130	per total bldg ft2
ip	10			0.00000	0.140	per total bldg ft2
ip	10			0.00005	0.246	per total bldg ft2
ip	10			0.00003	0.155	per total bldg ft2
	25			0.03500	307.000	per sign
p	5			0.00002	0.106	per total bldg ft2
p	5			0.00001	0.092	per total bldg ft2
p	5			0.00004	0.145	per total bldg ft2
an	15			0.04024	170.179	per HP
an	15			0.07027	393.710	per HP
an	15			0.03525	231.870	per HP
n	20			0.00074	7.852	ft2 of window area
n	20			0.00000	3.672	ft2 of window area
np	20					per pump
	13.00	331		2.46	0.0	
gal)	20			0.02744	150.657	per ton
gal)	20			0.04149	255.806	per ton
gal)	20			0.03849	222.428	per ton
	15			0.34000	992.000	per ton of refrigeration
	25			0.00033	2.528	per total bldg ft2
	25			0.00051	1.437	per total bldg ft2
	25			0.00043	1.337	per total bldg ft2
ncy ied	20			0.20000	673.000	per motor
ged	1			0.10233	502.890	per ton
ged	1			0.13350	561.857	per ton
ged	1			0.16582	678.255	per ton
ged	1			0.02816	112.816	per ton
ged	1			0.00000	329.682	per ton
	10			0.08166	424.246	per ton
	10			0.11095	734.676	per ton
	10			0.10492	661.187	per ton
	14.25	76		28.79	0.0	
	N/A			0	0	N/A
	25			0.00273	0	per total bldg ft2
	17.75	513		13.65	0.0	

	Incentive Cost				
ment	% Incentive Level	Weighted Incremental Incentive	Total Program Level Utility-Paid Incentive	% of Total Equipment Cost	
	20%	0.3			
	20%	0.3			
10,000		0.28	$ 1,120,000	31%	
	25%	0.5			
	25%	0.3			
18,650		0.39	$ 840,500	57%	
	25%	0.24			
	25%	0.17			
	25%	0.10			
	75%	0.11			
	25%	0.14			
	25%	0.07			
4,667		0.14	$ 2,137,857	31%	0.466456
	100%	0.27			
	100%	0.31			
	100%	0.26			
0,798		0.28	$ 730,798	100%	0.290103
	50%	N/A	180,000.00		
	50%	N/A	100,000.00		
0,000		N/A	$ 280,000	280%	
	50%	N/A			
	50%	N/A			
$0		N/A	N/A	N/A	
4,135					
	25%	0.09			
	25%	0.03			
	25%	0.93			
	25%	0.66			
	25%	0.02			
	25%	0.07			
	25%	0.18			
	25%	0.00			

Comments	Unit Value	Weighted Measure kW	Weighted Measure kWh	Cost / kWh	$/kWh	Weighted Measure Incremental Cost	Program Level Impact kW	Program Level Impact kWh	Program Level Impact Total Equipment Cost	Incentive Cost % Incentive Level	Incentive Cost Weighted Incremental Incentive	Total Program Level Utility-Paid Incentive	% of Total Equipment Cost	
There are 2219.92 ft2 of window area in SCHO-existing building.	2219.92	0.00	[illegible]		$ 0.90									
	1	0.00	0.0		$ 0.20	0.20				25%	0.05			
		3.77	26622.4		$ 0.69	0.91	2,702	18,956,000	$7,004,008		0.23	$ 1,751,002	25%	0.369488
There are 27.96 tons of cooling in SOFF-new.	28	4.22	40196.0		$ 0.35	0.38				25%	0.10			
There are 12.6 tons of cooling in REST-New.	13				$ 0.29									
There are 71.6 tons of cooling in LRET-New.	72				$ 0.24									
There are 200.7 tons of cooling in SCHO-New.	201				$ 0.55									
There are 200,000 ft2 of total floor area in a SHOT-new.	200000	3.79	24478.4		$ 0.09	0.09				25%	0.02			
There are 430,000 ft2 of total floor area in a LHOT-New.	430000				$ 0.08									
There are 2,300 ft2 of total floor area in a REST-New.	2300				$ 0.12									
There are 330,000 ft2 of total floor area in LOFF-new.	330000	0.09	26203.6		$ 0.61	0.47				25%	0.12			
There are 10,000 ft2 of total floor area in SOFF-new.	10000				$ 0.40									
There are 50,000 ft2 of total floor area in SCHO-new.	50000				$ 0.49									
This measure did not pass the economic screen. There are 50,000 ft2 of total floor area in L	50000	1.90	9703.2		$ 1.71	1.88				25%	0.41			
This measure did not pass the economic screen. There are 23,500 ft2 of total floor area in (	23500				$ 1.54									
	10	0.35	3070.0		$ 0.07	0.00				25%	0.00			
There are 200,000 ft2 of total floor area in a Hotel-new.	200000	3.44	22347.1		$ 0.18	0.19				25%	0.05			
There are 430,000 ft2 of total floor area in a LHOT-New.	430000				$ 0.16									
There are 2,300 ft2 of total floor area in a REST-New.	2300				$ 0.23									
There are 330 HP of supply fans in LOFF-New.	330	6.77	31532.6		$ 0.06	0.06				25%	0.01			
There are 25 HP of supply fans in SHOT-New.	25				$ 0.03									
There are 88 HP of supply fans in LHOT-New.	88				$ 0.05									
There are 1223.52 ft2 of window area per SOFF-new building.	1223.52	0.54	8878.2		$ 0.50					25%	0.00			
There are 2219.92 ft2 of window area in SCHO-new building.	2219.92				$ 1.03									
	1	0.00	0.0		$ 0.20	0.20				25%	0.05			
		2.46	24441.3		$ 0.32	0.34	812	5,882,000	$2,599,640		0.08	$ 649,910	25%	0.457522
There are 970 tons of cooling in LOFF-existing.	970	19.78	112178.0		$ 0.48	0.38				25%	0.09			
There are 206 tons of cooling in SHOT-existing.	206				$ 0.27									
There are 587 tons of cooling in LHOT-existing.	587				$ 0.31									
There are typically 100 tons of refrigeration in a typical 27,000 ft2 store.	100	34.00	99200.0		$ 0.17	0.17				25%	0.04			
There are 300,000 ft2 of total floor area in LOFF-existing.	300000	116.79	827428.2		$ 1.65	2.19				25%	0.55			
This measure did not pass the economic screen. There are 200,000 ft2 of total floor area in	200000				$ 2.90									
This measure did not pass the economic screen. There are 430,000 ft2 of total floor area in	430000				$ 3.11									
One motor per participant	1	0.20	673.0		$ 0.19	0.19				25%	0.05			
There are 30.96 tons of cooling in SOFF-existing.	31	4.55	32704.6		$ 0.03	0.05				25%	0.01			
There are 13.5 tons of cooling in REST-existing.	14				$ 0.02									
There are 89.9 tons of cooling in LRET-existing.	90				$ 0.02									
There are 77.4 tons of cooling in GROC-existing.	77				$ 0.12									
There are 202.1 tons of cooling in SCHO-existing.	202				$ 0.04									
There are 970 tons of cooling in LOFF-existing.	970	58.39	322478.2		$ 0.16	0.12				25%	0.03			
There are 206 tons of cooling in SHOT-existing.	206				$ 0.09									
There are 587 tons of cooling in LHOT-existing.	587				$ 0.10									
		28.79	152415.7		$ 0.40	0.40	2,201	15,803,000	$5,839,088		0.10	$ 1,459,772	25%	0.369492
					N/A									
There are 10,000 ft2 of total floor area in SOFF-existing.	10000	13.65	0.00		N/A	N/A								
		13.65			N/A		7,000	0	$210,000			$ 210,000	100%	
							12,715	40,441,000						

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FIRST YEAR PROGRAM BUDGETS BY FUNCTION

Program	First Year Budget Administration	Incentives	Total
1: RESIDENTIAL EFFICIENT WATER	1,074,855	1,120,000	2,194,855
2: RESIDENTIAL NEW CONSTRUCT	577,423	1,027,000	1,604,423
3: ENERGY $OLUTIONS FOR THE H	618,180	2,137,857	2,756,037
4: RESIDENTIAL LOW INCOME	235,000	730,798	965,798
5: RESIDENTIAL DIRECT LOAD CON	2,065,357	187,200	2,252,557
6: RESIDENTIAL CUSTOMER ENER	2,138,510	0	2,138,510
7: COMMERCIAL AND INDUSTRIAL	1,812,215	1,751,002	3,563,217
8: COMMERCIAL AND INDUSTRIAL	799,620	649,910	1,449,530
9: COMMERCIAL AND INDUSTRIAL	1,454,943	1,459,772	2,914,715
10: COMMERCIAL AND INDUSTRIAL	386,000	210,000	596,000
TOTAL	11,162,103	9,273,540	20,435,642

ADD: BIA component ($150K for joint marketing) plus another 50K for HECO program admin component) 200,000

2005 kW saved	33,332
Cost in 2005	22,121,696
Cost/kW saved	$613
2003 kW saved	5,881
Cost in 2003	6,582,292
Cost/kW saved	$1,119
2002 kW saved	6,304
Cost in 2002	5,918,429
Cost/kW saved	$939

Existing and Enhanced Programs:

Program	Energy Savings (MWh)	Peak Demand (MW)	Total Expenditures (Million $)
1. Residential Water Heating	4,830	1.26	$2.19
2. Residential New Construction	2,526	1.18	$1.60
3. Commercial and Industrial Energy Efficiency	18,956	2.70	$3.56
4. Commercial and Industrial New Construction	5,682	0.81	$1.45
5. Commercial and Industrial Custom Rebates	15,603	2.20	$2.91
TOTAL	47,797	8.15	$11.73

24,150,000	48,300,000	72,450,000
12,629,000	15,154,800	15,154,800
94,780,000	189,560,000	284,340,000
28,410,000	56,820,000	85,230,000
79,015,000	158,030,000	237,045,000
238,984,000	467,864,800	694,219,800

6,285	12,570	18,855
5,898	7,077	7,077
13,510	27,020	40,530
4,060	8,120	12,180
11,005	22,010	33,015
40,758	76,797	111,657

2003 cum -- From Tri Company DSM Stats.xls (fromKeith

1. Residential Water Hea	4.172132	1.006	2.026223
2. Residential New Cons	2	1.049	1.171525
3 Commercial and Indu	15	1.904	1.716909
4. Commercial and Indu	5	0.611	0.585513
5. Commercial and Indu	11.003242	1.111	1.174495
	37.036444	5.881	6.674665

Enhancements to Existing Programs -- NOT WORKING NEED TO DISCUSS

Program	Energy Savings (MWh)	Peak Demand (MW)	Total Expenditures (Million $)
1. Residential Water Heating			
2. Residential New Construction			
3. Commercial and Industrial Energy Efficiency			
4. Commercial and Industrial New Construction			
5. Commercial and Industrial Custom Rebates			
TOTAL	0	0.00	$0.00

New programs

Program	Energy Savings (MWh)	Peak Demand (MW)	Total Expenditures (Million $)
1. Energy$olutions for the Home	14,951	2.70	$2.78
2. Low Income Assistance	2,519	0.68	$0.97
3. Residential Direct Load Control	0	14.80	$2.25
4. Customer Energy Awareness	NA	NA	$2.14
5. Commerical and Industrial Load Management	0	7.00	$0.60
TOTAL	17,471	25.18	$8.71

74,757,452	149,514,903	149,514,903
12,595,486	25,190,973	25,190,973
0	0	0
0	0	0
0	0	0
87,352,938	174,705,876	174,705,876

13,500	27,000	27,000
3,401	6,802	6,802
20,385	22,926	21,803
0	0	0
22,750	24,500	24,500
60,036	81,228	80,104

Program	Energy Savings (MWh)	Peak Demand (MW)	Total Expenditures (Million $)

Existing Programs	37,036	5.66	$6.67
Enhancements to Existing Programs	10,760	2.27	$5.05
New Programs	17,471	25.18	$8.71
TOTAL	**65,267**	**33.33**	**$20.44**

Program	Energy Savings (MWh)			
	Year 1 (2005)	Year 5 (2009)	Year 10 (2014)	Year 15 (2019)
Existing and Enhanced Programs	47,797	238,984	467,865	694,220
New Programs	17,471	87,353	174,706	174,706
TOTAL	**65,267**	**326,337**	**642,571**	**868,926**

Program	Peak Demand (MW)			
	Year 1 (2005)	Year 5 (2009)	Year 10 (2014)	Year 15 (2019)
Existing and Enhanced Programs	8.15	40.76	76.80	111.66
New Programs	25.18	60.04	81.23	80.10
TOTAL	**33.33**	**100.79**	**158.02**	**191.76**

	Previous Accomplishments		Projected
	2002	2003	Year 1 IRP3
Program Cost (million $)	$5.9	$6.6	$22.1
Peak Demand Saved (MW)	6.3	5.9	33.3
Cost per kW Saved	$939	$1,119	$613

	Year 5 Projected Savings			
	Energy (MWh)	% of MAP	Peak Demand (MW)	% of MAP
Existing and Enhanced Programs	238,984	55%	40.76	20%
New Programs	87,353	20%	60.04	29%
Remaining Potential	110,663	25%	104.21	51%
TOTAL MAP	437,000	100%	205.00	100%

Note: MAP is defined as Maximum Achievable Potential, which was estimated during the Phase II Joint Utility Study.

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AM -- BACKUP WORKSHEETS

	#	%
	14,477	7

	207,147	100
	8,742	4.2
	6,117	3
	14,859	7.2
	286,731	100
	20,886	7.3
	11,769	4.1
	28,346	9.9

ar

	61,001

	Per Participant Impact						Total IRP3 Additional Impact	
	kW	kWh		eq. cost ($/kWh)	Total Incentive Cost		kW	kWh
	6100	0.03	132	0.27	$	217,408	183.003	805213.2
	1525	0.17	875.8	0.31	$	414,041	259.25425	1335616.895
ants	610	0.39	620.1	0.28	$	105,915	237.9039	378267.201
					$	737,364	680.16115	2,519,097

$737,364

$150,000
$ 35,000
$ 50,000
$235,000

torical utility experience
d on industry experience

Building Shell Measures
Energy Solutions for the Home

Prototype: Single Family Home, Existing Vintage
Electricity Price: $ 0.15 per kWh

Measure	Basecase	Efficiency Case	kWh Savings	$ Value of Savings	Cost per house		Simple Payback
Wall Insulation	No Insulation	R-11	-125	$ (18.75)	n/a	n/a	No payback
Roof Insulation	R-11	R-19	104	$ 15.60	$ 413.97	Full	26.5
	R-19	R-25	40	$ 5.93	$ 61.58	Incremental	22.1
	R-25	R-49	69	$ 10.28	$ 181.33	Incremental	20.7
Windows	Single Pane, Clear	Double Pane - Clear	21	$ 3.08	$ 5,524.70	Full	1796.7
	Double Pane - Clear	Double Pane - Tint	234	$ 35.10	$ 166.61	Incremental	149.1
	Double Pane - Tint	Double Pane - LowE	122	$ 18.30	$ 1,895.99	Incremental	134.3

TABLE D-3: RNC PROGRAM BUILTGREEN COMPONENT - BACKUP WORKSHEETS

BEST RUNS:	kWh	kW	Partic	Cost
1. Bronze Packag	883	0.5	100	1000
2. Silver Package	1772	0.7	75	2254
3. Gold Package	3146	1.3	50	3345
4. Gold Plus Pack	6286	3	50	3097
			275	

Aggregate Gross Impacts

kWh	kW	Customer Cost	Incentive %	Incentives
88300	50	100000	0.25	25000
132900	52.5	169050	0.25	42262.5
157300	65	167250	0.25	41812.5
314300	150	154850	0.5	77425
692800	317.5	591150		186500

TABLE D4: RESIDENTIAL DIRECT LOAD CONTROL PROGRAM -- BACKUP WORKSHEETS

	2004	2005	2006	2007	2008	2009
WATER HEATER DLC						
New Part	4000	8000	8000	6000	2000	0
Dropouts	0	40	120	198	256	274
Cum Part	4000	11960	19840	25642	27386	27112
Impact/Part	0.68	0.68	0.68	0.68	0.68	0.68
kW Impact	2720	8133	13491	17437	18622	18436
Incentives						
Credit/participant	36	36	36	36	36	36
Total Incentive	144000	430560	714254.4	923111.86	985880.74	976021.93
Budget						
Admin	71950	74684	77522	80468	83526	86700
M&E	10000	10000	25000	10000	10000	10000
Database	50000	51900	53872	55919	58044	60250
TOTAL LABOR	131950	136584	156394	146387	151570	156950
Equipment						
Central (1-time)	47145	0	0	0	0	0
Distributed equip (@ $150/participant)	600000	1200000	1200000	900000	300000	0
Communications	20000	59800	99202	128209.98	136927.88	135558.6
TOTAL EQUIP	667145	1259800	1299202	1028210	436927.88	135558.6
Outside Services						
Equipment Installation (@ 125/particip	500000	1000000	1000000	750000	250000	0
Equipment maintenance/removal	20000	35820	53462	57427	61353	50000
TOTAL OUTSIDE SERVICES	520000	1035820	1053462	807427	311353	50000
Advertising/marketing						
Fixed	25000	25000	25000	25000	25000	25000
Variable (@ $5/participant)	20000	40000	40000	30000	10000	0
TOTAL ADVERTISING/MARKETING	45000	65000	65000	55000	35000	25000
Other						
Training	7500	0	0	0	0	0
Materials/Misc	6000	6228	6465	6710	6965	7230
Storage Overhead (10.7% of capital ec	0	0	0	0	0	0
TOTAL OTHER	13500	6228	6465	6710	6965	7230
TOTAL Admin	180450	197812.1	202858.96	198097.6	183535.31	179180
TOTAL M&E	10000	10000	25000	10000	10000	10000
TOTAL Equipment	1187145	2295620	2352664	1835637	748280.88	185558.6

TOTAL Incentive	144000	430560	714254.4	923111.86	985880.74	976021.93

TABLE D4: RESIDENTIAL DIRECT LOAD CONTROL PROGRAM -- BACKUP WORKSHEETS

	2004	2005	2006	2007	2008	2009
AIR CONDITIONER DLC						
New Part	0	900	720	540	360	0
Dropouts	0	0	10	10	10	10
Cum Part	0	900	1610	2140	2490	2480
Impact/Part	0	0.78588	0.78588	0.78588	0.78588	0.78588
kW Impact	0	707	1265	1682	1957	1949
	0					
Incentives	0					
Credit/participant ($4/month)	0	48	48	48	48	48
Total Incentive	0	43200	77280	102720	119520	119040
	0					
Budget	0					
Admin	0	18709	19420	20158	20924	21720
M&E	0	5000	5000	12500	5000	5000
Database	0	12500	12975	13468	13980	14511
TOTAL LABOR	0	36209	37395	46126	39904	41231
	0					
Equipment	0					
Central (1-time)	0	11786	0	0	0	0
Distributed equip (@ $150/participant)	0	135000	108000	81000	54000	0
Communications	0	5000	14950	24801	32052	34232
TOTAL EQUIP	0	151786	122950	105801	86052	34232
	0					
Outside Services	0					
Equipment Installation (@ 125/particip	0	112500	90000	67500	45000	0
Equipment maintenance/removal	0	5201	5573	6664	6445	6421
TOTAL OUTSIDE SERVICES	0	117701	95573	74164	51445	6421
	0					
Advertising/marketing	0					
Fixed	0	6250	6250	6250	6250	6250
Variable (@ $5/participant)	0	4500	3600	2700	1800	0
TOTAL ADVERTISING/MARKETING	0	10750	9850	8950	8050	6250
	0					
Other	0					
Training	0	7500	0	0	0	0
Materials/Misc	0	6000	6228	6465	6710	6965
Storage Overhead (10.7% of capital ec	0	0	0	0	0	0
TOTAL OTHER	0	13500	6228	6465	6710	6965
TOTAL Admin	0	55459	48473	49041	49665	49446
TOTAL M&E	0	5000	5000	12500	5000	5000
TOTAL Equipment	0	269487	218523	179965	137497	40653
TOTAL Incentive	0	43200	77280	102720	119520	119040
TOTAL PROGRAM	0	373146	349276	344226	311682	214139

TABLE D-5: C&I LOAD MANAGEMENT PROGRAM -- BACKUP WORKSHEETS

	2004	2005	2006	2007	2008	2009	2010
New Part	20	30	5	5	5		
Dropouts	0	0	0	0	0	0	
Cum Part	20	50	55	60	65	65	
Impact/Part	350	350	350	350	350	350	
kW Impact	7000	17500	19250	21000	22750	22750	
BUDGET:							
Incentive ($60/kW-yr)	420000	1089900	1198890	1307880	1416870	1416870	
Energy Reduction Inc	38500	96250	105875	115500	125125	125125	
Labor	113600	128443	134440	140596	146918	663997	
Equipment	250000	51900	53872	55919	58044	60250	
Outside Services	75000	112500	18750	18750	18750	19463	
Storage Overhead	26750	5553	5764	5983	6211	6447	
Misc	13500	6228	6465	6711	6966	7231	
TOTAL Non-Incentive	478850	304624.3	219291.3	227959.3	236888.7	757386.6	786167
TOTAL Incentive	420000	1089900	1198890	1307880	1416870	1416870	1470711
TOTAL PROGRAM	898850	1394524	1418181	1535839	1653759	2174257	
Customer Costs:							
Relay Equipment ($7,!	150000	225000	37500	37500	37500	0	
Escalated at 3.8%/yr	150000	233550	38925	38925	38925	0	

OG 10	15
	1.000
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	386,000
	210,000
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2023	2024
,108	9,189
770	35,210,700
,770	35,210,700
0.00	$0.00
1130	$0.1130

2023	2024
,541	$2,265,237
,365	$3,467,265
,906	$5,732,502
,541	$2,265,237
,365	$3,467,265
,906	$5,732,502
$0	$0
,208	$3,977,189
,908	$3,977,189
$0	$0
$0	$0
$0	$0
$0	$0
908	$3,977,189
$0	$0
$0	$0

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Adjusted Impact										
351	8,873	9,395	9,917	10,439	10,961	9,917	8,873	7,829	6,785	5,741
582	18,055,681	19,117,780	20,179,879	21,241,978	22,304,077	20,179,879	18,055,681	15,931,484	13,807,286	11,683,088
9,582	18,055,681	19,117,780	20,179,879	21,241,978	22,304,077	20,179,879	18,055,681	15,931,484	13,807,286	11,683,088
0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130
2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
,812	$1,563,670	$1,718,565	$1,882,974	$2,057,397	$2,242,357	$2,105,894	$1,955,821	$1,791,302	$1,611,455	$1,415,354
,454	$1,271,013	$1,396,918	$1,530,557	$1,672,335	$1,822,677	$1,711,754	$1,589,769	$1,456,042	$1,309,855	$1,150,456
,267	$2,834,683	$3,115,483	$3,413,531	$3,729,732	$4,065,035	$3,817,648	$3,545,591	$3,247,344	$2,921,311	$2,565,810
,812	$1,563,670	$1,718,565	$1,882,974	$2,057,397	$2,242,357	$2,105,894	$1,955,821	$1,791,302	$1,611,455	$1,415,354
,454	$1,271,013	$1,396,918	$1,530,557	$1,672,335	$1,822,677	$1,711,754	$1,589,769	$1,456,042	$1,309,855	$1,150,456
,267	$2,834,683	$3,115,483	$3,413,531	$3,729,732	$4,065,035	$3,817,648	$3,545,591	$3,247,344	$2,921,311	$2,565,810
$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
493	$2,039,461	$2,159,430	$2,279,398	$2,399,366	$2,519,335	$2,279,398	$2,039,461	$1,799,525	$1,559,588	$1,319,652
493	$2,039,461	$2,159,430	$2,279,398	$2,399,366	$2,519,335	$2,279,398	$2,039,461	$1,799,525	$1,559,588	$1,319,652
869	$419,216	$435,146	$451,682	$468,845	$486,662	$0	$0	$0	$0	$0
318	$745,614	$773,947	$803,357	$833,885	$865,572	$0	$0	$0	$0	$0
622	$1,257,664	$1,305,455	$1,355,062	$1,406,555	$1,460,004	$0	$0	$0	$0	$0
622	$1,257,664	$1,305,455	$1,355,062	$1,406,555	$1,460,004	$0	$0	$0	$0	$0
680	$3,204,291	$3,368,523	$3,534,437	$3,702,097	$3,871,569	$2,279,398	$2,039,461	$1,799,525	$1,559,588	$1,319,652
187	$1,164,830	$1,209,093	$1,255,039	$1,302,730	$1,352,234	$0	$0	$0	$0	$0
491	$1,676,880	$1,740,601	$1,806,744	$1,875,400	$1,946,665	$0	$0	$0	$0	$0

t 2005 START YEAR -- HECO IRP3 SCENARIO SUMMARY
STRIAL NEW CONTRUCTION

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2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
								Adjusted Impact									
,486	1,981	2,477	2,972	3,467	3,963	4,458	4,953	5,449	5,944	6,439	6,934	7,430	6,934	6,439	5,944	5,449	4,953
,416	13,545,888	16,932,360	20,318,832	23,705,304	27,091,776	30,478,248	33,864,720	37,251,192	40,637,664	44,024,136	47,410,608	50,797,080	47,410,608	44,024,136	40,637,664	37,251,192	33,864,720
,416	13,545,888	16,932,360	20,318,832	23,705,304	27,091,776	30,478,248	33,864,720	37,251,192	40,637,664	44,024,136	47,410,608	50,797,080	47,410,608	44,024,136	40,637,664	37,251,192	33,864,720
46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00
0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
,318	$268,936	$348,945	$434,646	$526,356	$624,408	$729,153	$840,956	$960,204	$1,087,300	$1,222,669	$1,366,756	$1,520,027	$1,472,603	$1,419,379	$1,359,983	$1,294,024	$1,221,088
,672	$734,450	$952,949	$1,186,993	$1,437,448	$1,705,224	$1,991,276	$2,296,605	$2,622,263	$2,969,356	$3,339,041	$3,732,534	$4,151,111	$4,021,596	$3,876,244	$3,714,038	$3,533,907	$3,334,723
,990	$1,003,386	$1,301,893	$1,621,638	$1,963,804	$2,329,633	$2,720,429	$3,137,561	$3,582,467	$4,056,656	$4,561,709	$5,099,289	$5,671,138	$5,494,199	$5,295,623	$5,074,021	$4,827,931	$4,555,811
,318	$268,936	$348,945	$434,646	$526,356	$624,408	$729,153	$840,956	$960,204	$1,087,300	$1,222,669	$1,366,756	$1,520,027	$1,472,603	$1,419,379	$1,359,983	$1,294,024	$1,221,088
,672	$734,450	$952,949	$1,186,993	$1,437,448	$1,705,224	$1,991,276	$2,296,605	$2,622,263	$2,969,356	$3,339,041	$3,732,534	$4,151,111	$4,021,596	$3,876,244	$3,714,038	$3,533,907	$3,334,723
,990	$1,003,386	$1,301,893	$1,621,638	$1,963,804	$2,329,633	$2,720,429	$3,137,561	$3,582,467	$4,056,656	$4,561,709	$5,099,289	$5,671,138	$5,494,199	$5,295,623	$5,074,021	$4,827,931	$4,555,811
,354	$91,139	$113,924	$136,708	$159,493	$182,278	$205,062	$227,847	$250,632	$273,417	$296,201	$318,986	$341,771	$318,986	$296,201	$273,417	$250,632	$227,847
,293	$1,097,724	$1,372,155	$1,646,586	$1,921,017	$2,195,449	$2,469,880	$2,744,311	$3,018,742	$3,293,173	$3,567,604	$3,842,035	$4,116,466	$3,842,035	$3,567,604	$3,293,173	$3,018,742	$2,744,311
,647	$1,188,863	$1,486,079	$1,783,295	$2,080,511	$2,377,726	$2,674,942	$2,972,158	$3,269,374	$3,566,589	$3,863,805	$4,161,021	$4,458,237	$4,161,021	$3,863,805	$3,566,589	$3,269,374	$2,972,158
,486	$712,572	$739,650	$767,757	$796,932	$827,215	$858,649	$891,278	$925,146	$960,302	$996,793	$1,034,672	$1,073,989	$0	$0	$0	$0	$0
,301	$908,563	$943,088	$978,926	$1,016,125	$1,054,738	$1,094,818	$1,136,421	$1,179,605	$1,224,430	$1,270,958	$1,319,254	$1,369,386	$0	$0	$0	$0	$0
,376	$1,732,812	$1,798,659	$1,867,008	$1,937,955	$2,011,597	$2,088,038	$2,167,383	$2,249,743	$2,335,234	$2,423,973	$2,516,084	$2,611,695	$0	$0	$0	$0	$0
376	$1,732,812	$1,798,659	$1,867,008	$1,937,955	$2,011,597	$2,088,038	$2,167,383	$2,249,743	$2,335,234	$2,423,973	$2,516,084	$2,611,695	$0	$0	$0	$0	$0
435	$2,809,998	$3,168,817	$3,529,977	$3,893,567	$4,259,679	$4,628,409	$4,999,856	$5,374,125	$5,751,321	$6,131,557	$6,514,947	$6,901,612	$4,161,021	$3,863,805	$3,566,589	$3,269,374	$2,972,158
787	$1,621,135	$1,682,738	$1,746,683	$1,813,056	$1,881,953	$1,953,467	$2,027,699	$2,104,751	$2,184,732	$2,267,751	$2,353,926	$2,443,375	$0	$0	$0	$0	$0
862	$2,445,385	$2,538,309	$2,634,765	$2,734,886	$2,838,812	$2,946,687	$3,058,661	$3,174,890	$3,295,536	$3,420,766	$3,550,755	$3,685,684	$0	$0	$0	$0	$0

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SNARIO SUMMARY

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
				Adjusted Impact									
11,632	13,294	14,956	16,618	18,279	19,941	21,603	23,265	24,926	23,265	21,603	19,941	18,279	16,618
3,961,339	95,955,816	107,950,293	119,944,770	131,939,247	143,933,724	155,928,201	167,922,678	179,917,155	167,922,678	155,928,201	143,933,724	131,939,247	119,944,770
3,961,339	95,955,816	107,950,293	119,944,770	131,939,247	143,933,724	155,928,201	167,922,678	179,917,155	167,922,678	155,928,201	143,933,724	131,939,247	119,944,770

$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00
$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
$1,765,877	$2,094,835	$2,446,243	$2,821,334	$3,221,399	$3,647,795	$4,101,946	$4,585,345	$5,099,558	$4,940,452	$4,761,890	$4,562,623	$4,341,336	$4,096,642
15,091,270	$6,039,700	$7,052,860	$8,134,299	$9,287,742	$10,517,101	$11,826,481	$13,220,186	$14,702,735	$14,244,010	$13,729,191	$13,154,677	$12,516,675	$11,811,190
16,857,147	$8,134,535	$9,499,104	$10,955,633	$12,509,141	$14,164,897	$15,928,427	$17,805,530	$19,802,293	$19,184,462	$18,491,081	$17,717,300	$16,858,011	$15,907,832
$1,765,877	$2,094,835	$2,446,243	$2,821,334	$3,221,399	$3,647,795	$4,101,946	$4,585,345	$5,099,558	$4,940,452	$4,761,890	$4,562,623	$4,341,336	$4,096,642
15,091,270	$6,039,700	$7,052,860	$8,134,299	$9,287,742	$10,517,101	$11,826,481	$13,220,186	$14,702,735	$14,244,010	$13,729,191	$13,154,677	$12,516,675	$11,811,190
16,857,147	$8,134,535	$9,499,104	$10,955,633	$12,509,141	$14,164,897	$15,928,427	$17,805,530	$19,802,293	$19,184,462	$18,491,081	$17,717,300	$16,858,011	$15,907,832
$535,085	$611,526	$687,967	$764,407	$840,848	$917,289	$993,729	$1,070,170	$1,146,611	$1,070,170	$993,729	$917,289	$840,848	$764,407
16,804,013	$7,776,015	$8,748,017	$9,720,019	$10,692,021	$11,664,022	$12,636,024	$13,608,026	$14,580,028	$13,608,026	$12,636,024	$11,664,022	$10,692,021	$9,720,019
17,339,098	$8,387,541	$9,435,983	$10,484,426	$11,532,869	$12,581,311	$13,629,754	$14,678,196	$15,726,639	$14,678,196	$13,629,754	$12,581,311	$11,532,869	$10,484,426
1,363,360	$1,415,168	$1,468,944	$1,524,764	$1,582,705	$1,642,848	$1,705,276	$1,770,077	$1,837,340	$0	$0	$0	$0	$0
2,282,334	$2,369,062	$2,459,087	$2,552,532	$2,649,528	$2,750,210	$2,854,718	$2,963,198	$3,075,799	$0	$0	$0	$0	$0
5,543,332	$5,753,979	$5,972,630	$6,199,590	$6,435,175	$6,679,711	$6,933,540	$7,197,015	$7,470,501	$0	$0	$0	$0	$0
5,543,332	$5,753,979	$5,972,630	$6,199,590	$6,435,175	$6,679,711	$6,933,540	$7,197,015	$7,470,501	$0	$0	$0	$0	$0
0,984,792	$12,171,771	$13,364,015	$14,561,722	$15,765,102	$16,974,370	$18,189,749	$19,411,471	$20,639,778	$14,678,196	$13,629,754	$12,581,311	$11,532,869	$10,484,426
3,645,694	$3,784,230	$3,928,031	$4,077,296	$4,232,234	$4,393,058	$4,559,995	$4,733,275	$4,913,139	$0	$0	$0	$0	$0
6,906,693	$7,169,147	$7,441,574	$7,724,354	$8,017,880	$8,322,559	$8,638,816	$8,967,091	$9,307,841	$0	$0	$0	$0	$0

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Adjusted Impact										
22,950	22,950	22,950	22,950	22,950	22,950	20,655	18,360	16,065	13,770	11,475
27,087,668	127,087,668	127,087,668	127,087,668	127,087,668	127,087,668	114,378,901	101,670,134	88,961,367	76,252,601	63,543,834
27,087,668	127,087,668	127,087,668	127,087,668	127,087,668	127,087,668	114,378,901	101,670,134	88,961,367	76,252,601	63,543,834
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130
2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
$3,896,460	$4,044,525	$4,198,217	$4,357,750	$4,523,344	$4,695,231	$4,386,285	$4,047,079	$3,675,760	$3,270,376	$2,828,875
$8,618,709	$8,946,220	$9,286,176	$9,639,051	$10,005,335	$10,385,537	$9,702,169	$8,951,868	$8,130,534	$7,233,852	$6,257,282
12,515,169	$12,990,745	$13,484,393	$13,996,800	$14,528,679	$15,080,769	$14,088,454	$12,998,947	$11,806,294	$10,504,228	$9,086,157
$3,896,460	$4,044,525	$4,198,217	$4,357,750	$4,523,344	$4,695,231	$4,386,285	$4,047,079	$3,675,760	$3,270,376	$2,828,875
$8,618,709	$8,946,220	$9,286,176	$9,639,051	$10,005,335	$10,385,537	$9,702,169	$8,951,868	$8,130,534	$7,233,852	$6,257,282
12,515,169	$12,990,745	$13,484,393	$13,996,800	$14,528,679	$15,080,769	$14,088,454	$12,998,947	$11,806,294	$10,504,228	$9,086,157
$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14,355,060	$14,355,060	$14,355,060	$14,355,060	$14,355,060	$14,355,060	$12,919,554	$11,484,048	$10,048,542	$8,613,036	$7,177,530
14,355,060	$14,355,060	$14,355,060	$14,355,060	$14,355,060	$14,355,060	$12,919,554	$11,484,048	$10,048,542	$8,613,036	$7,177,530
$864,751	$897,612	$931,721	$967,126	$1,003,877	$1,042,024	$0	$0	$0	$0	$0
$2,990,576	$3,104,218	$3,222,179	$3,344,621	$3,471,717	$3,603,642	$0	$0	$0	$0	$0
$8,293,155	$8,608,295	$8,935,411	$9,274,956	$9,627,404	$9,993,246	$0	$0	$0	$0	$0
$8,293,155	$8,608,295	$8,935,411	$9,274,956	$9,627,404	$9,993,246	$0	$0	$0	$0	$0
$8,210,388	$18,356,890	$18,508,960	$18,666,808	$18,830,654	$19,000,727	$12,919,554	$11,484,048	$10,048,542	$8,613,036	$7,177,530
$3,855,327	$4,001,830	$4,153,899	$4,311,748	$4,475,594	$4,645,667	$0	$0	$0	$0	$0
$9,157,907	$9,505,907	$9,867,131	$10,242,082	$10,631,282	$11,035,270	$0	$0	$0	$0	$0

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2017	2018	2019	2020	2021	2022	2023	2024
6,802	6,802	6,802	6,121	5,441	4,761	4,081	3,401
25,190,973	25,190,973	25,190,973	22,671,876	20,152,778	17,633,681	15,114,584	12,595,486
25,190,973	25,190,973	25,190,973	22,671,876	20,152,778	17,633,681	15,114,584	12,595,486
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130
2017	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
$1,291,491	$1,340,568	$1,391,509	$1,299,948	$1,199,419	$1,089,372	$969,230	$838,384
$1,910,626	$1,983,230	$2,058,593	$1,923,138	$1,774,415	$1,611,612	$1,433,875	$1,240,302
$3,202,118	$3,323,798	$3,450,102	$3,223,086	$2,973,834	$2,700,984	$2,403,104	$2,078,685
$1,291,491	$1,340,568	$1,391,509	$1,299,948	$1,199,419	$1,089,372	$969,230	$838,384
$1,910,626	$1,983,230	$2,058,593	$1,923,138	$1,774,415	$1,611,612	$1,433,875	$1,240,302
$3,202,118	$3,323,798	$3,450,102	$3,223,086	$2,973,834	$2,700,984	$2,403,104	$2,078,685
$0	$0	$0	$0	$0	$0	$0	$0
$2,845,421	$2,845,421	$2,845,421	$2,560,879	$2,276,337	$1,991,795	$1,707,253	$1,422,711
$2,845,421	$2,845,421	$2,845,421	$2,560,879	$2,276,337	$1,991,795	$1,707,253	$1,422,711
$367,651	$381,622	$396,124	$0	$0	$0	$0	$0
$1,143,315	$1,186,761	$1,231,858	$0	$0	$0	$0	$0
$1,143,315	$1,186,761	$1,231,858	$0	$0	$0	$0	$0
$1,143,315	$1,186,761	$1,231,858	$0	$0	$0	$0	$0
4,356,387	$4,413,804	$4,473,403	$2,560,879	$2,276,337	$1,991,795	$1,707,253	$1,422,711
1,510,966	$1,568,383	$1,627,981	$0	$0	$0	$0	$0
1,510,966	$1,568,383	$1,627,981	$0	$0	$0	$0	$0

15	2016	2017	2018	2019	2020	2021	2022	2023	2024
ct									
0	18,810	18,622	18,436	18,251	-	-	-	-	-
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
00	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130

15	2016	2017	2018	2019	2020	2021	2022	2023	2024
28	$3,440,911	$3,535,949	$3,633,612	$3,733,973	$0	$0	$0	$0	$0
10	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	$3,440,911	$3,535,949	$3,633,612	$3,733,973	$0	$0	$0	$0	$0
28	$3,440,911	$3,535,949	$3,633,612	$3,733,973	$0	$0	$0	$0	$0
10	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	$3,440,911	$3,535,949	$3,633,612	$3,733,973	$0	$0	$0	$0	$0
10	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	$1,253,083	$1,300,700	$1,350,127	$1,401,431	$0	$0	$0	$0	$0
1	$1,029,858	$1,019,560	$1,009,364	$999,271	$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	$2,282,941	$2,320,260	$2,359,491	$2,400,702	$0	$0	$0	$0	$0
0	$2,282,941	$2,320,260	$2,359,491	$2,400,702	$0	$0	$0	$0	$0
9	$1,253,083	$1,300,700	$1,350,127	$1,401,431	$0	$0	$0	$0	$0

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Adjusted Impact										
-	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
$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130	$0.1130
2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
$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	$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	$0	$0	$0
991,489	$3,105,166	$3,223,162	$3,345,642	$3,472,777	$3,604,742	$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
991,489	$3,105,166	$3,223,162	$3,345,642	$3,472,777	$3,604,742	$0	$0	$0	$0	$0
991,489	$3,105,166	$3,223,162	$3,345,642	$3,472,777	$3,604,742	$0	$0	$0	$0	$0
991,489	$3,105,166	$3,223,162	$3,345,642	$3,472,777	$3,604,742	$0	$0	$0	$0	$0

.ED SUMMARY FOR 2005 START YEAR -- HECO IRP3 SCENARIO SUMMARY
ERCIAL AND INDUSTRIAL LOAD MANAGEMENT

	Net Benefits	B/C Ratio
8	$6,212,536	3.79
58	$17,669,799	2.62
38	$17,669,799	2.62
2	$23,882,335	6.10

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
								Adjusted Impact											
000	17,500	19,250	21,000	22,750	22,750	22,750	22,750	22,750	22,750	22,750	22,750	22,750	22,750	22,750	-	-	-	-	-
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
5.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00	$46.00
810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810	$0.0810
2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
590	$2,204,686	$2,517,311	$2,850,511	$3,205,400	$3,327,205	$3,453,638	$3,584,877	$3,721,102	$3,862,504	$4,009,279	$4,161,632	$4,319,774	$4,483,925	$4,654,314	$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
590	$2,204,686	$2,517,311	$2,850,511	$3,205,400	$3,327,205	$3,453,638	$3,584,877	$3,721,102	$3,862,504	$4,009,279	$4,161,632	$4,319,774	$4,483,925	$4,654,314	$0	$0	$0	$0	$0
590	$2,204,686	$2,517,311	$2,850,511	$3,205,400	$3,327,205	$3,453,638	$3,584,877	$3,721,102	$3,862,504	$4,009,279	$4,161,632	$4,319,774	$4,483,925	$4,654,314	$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
590	$2,204,686	$2,517,311	$2,850,511	$3,205,400	$3,327,205	$3,453,638	$3,584,877	$3,721,102	$3,862,504	$4,009,279	$4,161,632	$4,319,774	$4,483,925	$4,654,314	$0	$0	$0	$0	$0
000	$805,000	$885,500	$966,000	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$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
000	$805,000	$885,500	$966,000	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$1,046,500	$0	$0	$0	$0	$0
370	$267,370	$267,370	$267,370	$267,370	$267,370	$267,370	$267,370	$267,370	$267,370	$267,370	$267,370	$267,370	$267,370	$267,370	$0	$0	$0	$0	$0
000	$917,000	$917,000	$917,000	$917,000	$917,000	$917,000	$917,000	$917,000	$917,000	$917,000	$917,000	$917,000	$917,000	$917,000	$0	$0	$0	$0	$0
550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$242,425	$0	$0	$0	$0
550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$233,550	$242,425	$0	$0	$0	$0
370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$0	$0	$0	$0	$0
370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$1,184,370	$0	$0	$0	$0	$0
920	$500,920	$500,920	$500,920	$500,920	$500,920	$500,920	$500,920	$500,920	$500,920	$500,920	$500,920	$500,920	$500,920	$500,920	$242,425	$0	$0	$0	$0

Avoided Capacity and Energy Costs

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Electric Avoided Cost																
Demand ($/kW)	$121.37	$125.98	$130.77	$135.74	$140.90	$146.25	$151.81	$157.58	$163.56	$169.78	$176.23	$182.93	$189.88	$197.10	$204.59	$212.36
Average Energy-($/kWH)	$0.05	$0.05	$0.05	$0.05	$0.06	$0.06	$0.06	$0.06	$0.07	$0.07	$0.07	$0.07	$0.08	$0.08	$0.08	$0.08

	Residential			C&I			
	2002 GWh	Weight	Rate (cent:	2002 GWh	Weight	Energy	Demand
HECO	2901.3	0.783585	0.112954	4492.9	0.782027		
MECO	440.8	0.119051	0.134221	648.3	0.112842		
HELCO	360.5	0.097364	0.19137	604	0.105131		
Weighted F	3702.6		0.123121	5745.2			

Weights based on 2002 GWH by Building Type
Global work table dated 9/12/03

		Energy		Demand ($/kW-yr)	
HECO	Schedule "	0.11157	0.333333	0	
	Schedule "	0.065771	0.666667	69	
		0.081037		46	46
MECO	Schedule "	0.145656	0.333333	0	
	Schedule "	0.085791	0.666667	69	
		0.105746		46	46
HELCO	Schedule "	0.213604	0.333333	0	
	Schedule "	0.133241	0.666667	84	
		0.160029		56	56
		0		0	

Cost Effectiveness Results -- 2005 Start Year
HECO IRP3 SCENARIO SUMMARY

Program	Dollars			B/C Ratio
	Lifetime Benefits	Lifetime Costs	Net Benefits	
Total Resource Cost Test Results:				
RESIDENTIAL WATER HEATER PROGRAM	$32,038,193	$42,763,749	($10,725,556)	0.75
RESIDENTIAL NEW CONSTRUCTION PROGR	$20,195,024	$19,522,507	$672,517	1.03
Energy$olutions for the Home	$82,268,843	$75,088,175	$7,180,668	1.10
RESIDENTIAL LOW INCOME	$18,821,052	$11,077,405	$7,743,647	1.70

RESIDENTIAL WATER HEATER PROGRAM

Year	2005	2006	2007	2008	2009	2010	Year 10 2014	Year 15 2019	Year 20 2024
Peak Demand (MW)	1.3	2.5	3.8	5.0	6.3	7.5	12.6	18.9	12.6
Energy Savings (MWh)	4,830	9,660	14,490	19,320	24,150	28,980	48,300	72,450	48,300
Expenditures ($000):									
Administration	$1,075	$1,116	$1,158	$1,202	$1,248	$1,295	$1,504	$1,812	$0
Incentives	$1,120	$1,163	$1,207	$1,253	$1,300	$1,350	$1,567	$1,888	$0
Total	$2,195	$2,278	$2,365	$2,455	$2,548	$2,645	$3,070	$3,700	$0

RESIDENTIAL NEW CONSTRUCTION PROGRAM

Year	2005	2006	2007	2008	2009	2010	Year 10	Year 15	Year 20

Year	2005	2006	2007	2008	2009	2010	Year 10 2014	Year 15 2019	Year 20 2024
Peak Demand (MW)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Energy Savings (MWh)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Expenditures ($000):									
Administration	$2,139	$2,220	$2,304	$2,392	$2,483	$2,577	$2,991	$3,605	$0
Incentives	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	$2,139	$2,220	$2,304	$2,392	$2,483	$2,577	$2,991	$3,605	$0

COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY

Year	2005	2006	2007	2008	2009	2010	Year 10	Year 15	Year 20

Existing and Enhanced Programs

Year	2005	2006	2007	2008	2009	2010	Year 10 2014	Year 15 2019	Year 20 2024
1. Residential Water Heating									
Peak Demand (MW)	1.3	2.5	3.8	5.0	6.3	7.5	12.6	18.9	12.6
Energy Savings (MWh)	4,830	9,660	14,490	19,320	24,150	28,980	48,300	72,450	48,300
Expenditures ($000):									
Administration	$1,075	$1,116	$1,158	$1,202	$1,248	$1,295	$1,504	$1,812	$0
Incentives	$1,120	$1,163	$1,207	$1,253	$1,300	$1,350	$1,567	$1,888	$0
Total	$2,195	$2,278	$2,365	$2,455	$2,548	$2,645	$3,070	$3,700	$0
2. Residential New Construction									
Peak Demand (MW)	1.2	2.4	3.5	4.7	5.9	7.1	9.4	12.4	6.5
Energy Savings (MWh)	2,526	5,052	7,577	10,103	12,629	15,155	20,206	26,521	13,892
Expenditures ($000):									
Administration	$577	$599	$622	$646	$670	$696	$404	$487	$0
Incentives	$1,027	$1,066	$1,107	$1,149	$1,192	$1,238	$718	$866	$0
Total	$1,604	$1,665	$1,729	$1,794	$1,863	$1,933	$1,122	$1,352	$0
3. Commercial and Industrial Energy Efficiency									
Peak Demand (MW)	2.7	5.4	8.1	10.8	13.5	16.2	27.0	40.5	27.0
Energy Savings (MWh)	18,956	37,912	56,868	75,824	94,780	113,736	189,560	284,340	189,560
Expenditures ($000):									
Administration	$1,374	$1,427	$1,481	$1,537	$1,596	$1,656	$1,923	$2,317	$0
Incentives	$2,189	$2,272	$2,358	$2,448	$2,541	$2,637	$3,062	$3,689	$0
Total	$3,563	$3,699	$3,839	$3,985	$4,136	$4,294	$4,984	$6,006	$0
4. Commercial and Industrial New Construction									
Peak Demand (MW)	0.8	1.6	2.4	3.2	4.1	4.9	8.1	12.2	8.1
Energy Savings (MWh)	5,682	11,364	17,046	22,728	28,410	34,092	56,820	85,230	56,820
Expenditures ($000):									
Administration	$637	$661	$686	$713	$740	$768	$891	$1,074	$0
Incentives	$812	$843	$875	$909	$943	$979	$1,136	$1,369	$0
Total	$1,450	$1,505	$1,562	$1,621	$1,683	$1,747	$2,028	$2,443	$0
5. Commercial and Industrial Custom Rebates									
Peak Demand (MW)	2.2	4.4	6.6	8.8	11.0	13.2	22.0	33.0	22.0
Energy Savings (MWh)	15,803	31,606	47,409	63,212	79,015	94,818	158,030	237,045	158,030
Expenditures ($000):									
Administration	$1,090	$1,131	$1,174	$1,219	$1,265	$1,313	$1,525	$1,837	$0
Incentives	$1,825	$1,894	$1,966	$2,041	$2,118	$2,199	$2,553	$3,076	$0
Total	$2,915	$3,025	$3,140	$3,260	$3,384	$3,512	$4,077	$4,913	$0

New Programs

Year	2005	2006	2007	2008	2009	2010	Year 10 2014	Year 15 2019	Year 20 2024
1. Energy$olutions for the Home									
Peak Demand (MW)	2.7	5.4	8.1	10.8	13.5	16.2	27.0	27.0	13.5
Energy Savings (MWh)	14,951	29,903	44,854	59,806	74,757	89,709	149,515	149,515	74,757
Expenditures ($000):									
Administration	$618	$642	$666	$691	$718	$745	$865	$1,042	$0
Incentives	$2,138	$2,219	$2,303	$2,391	$2,482	$2,576	$2,991	$3,604	$0
Total	$2,756	$2,861	$2,969	$3,082	$3,199	$3,321	$3,855	$4,646	$0
2. Low Income Assistance									
Peak Demand (MW)	0.7	1.4	2.0	2.7	3.4	4.1	6.8	6.8	3.4
Energy Savings (MWh)	2,519	5,038	7,557	10,076	12,595	15,115	25,191	25,191	12,595
Expenditures ($000):									
Administration	$235	$244	$253	$263	$273	$283	$329	$396	$0
Incentives	$731	$759	$787	$817	$848	$881	$1,022	$1,232	$0
Total	$966	$1,002	$1,041	$1,080	$1,121	$1,164	$1,351	$1,628	$0
3. Residential Direct Load Control									
Peak Demand (MW)	14.8	19.1	20.6	20.4	20.2	20.0	19.2	18.3	0.0
Energy Savings (MWh)	0	0	0	0	0	0	0	0	0
Expenditures ($000):									
Administration	$2,876	$3,138	$2,513	$1,352	$1,287	$1,002	$1,163	$1,401	$0
Incentives	$474	$792	$1,026	$1,105	$1,105	$1,094	$1,051	$999	$0
Total	$3,350	$3,930	$3,539	$2,458	$2,392	$2,096	$2,214	$2,401	$0

4. Customer Energy Awareness									
Peak Demand (MW)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Energy Savings (MWh)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Expenditures ($000):									
Administration	$2,139	$2,220	$2,304	$2,392	$2,483	$2,577	$2,991	$3,605	$0
Incentives	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	$2,139	$2,220	$2,304	$2,392	$2,483	$2,577	$2,991	$3,605	$0
5. Commerical and Industrial Load Management									
Peak Demand (MW)	7.0	17.5	19.3	21.0	22.8	22.8	24.5	24.5	0.0
Energy Savings (MWh)	0	0	0	0	0	0	0	0	0
Expenditures ($000):									
Administration	$267	$267	$267	$267	$267	$267	$267	$267	$0
Incentives	$917	$917	$917	$917	$917	$917	$917	$917	$0
Total	$1,184	$1,184	$1,184	$1,184	$1,184	$1,184	$1,184	$1,184	$0

TABLE 1: HECO IRP3 BUDGET DETAIL -- 5-YEAR SUMMARY (2005-2005)

Program	2005 (Year 1)	2006 (Year 2)	2007 (Year 3)	2008 (Year 4)	2009 (Year 5)	TOTAL	Percent of Total Cost
Existing and Enhanced Programs:							
1. Residential Water Heating	$2,194,855	$2,435,915	$2,458,244	$2,624,562	$2,648,621	$12,362,197	10%
2. Residential New Construction							
a. Water heating component	$1,217,923	$1,351,687	$1,364,077	$1,456,367	$1,469,717	$6,859,772	6%
b. Hawaii BuiltGreen component	$386,500	$428,949	$432,881	$462,169	$466,405	$2,176,904	2%
3. Commercial and Industrial Energy Efficiency	$3,563,217	$3,954,564	$3,990,814	$4,260,821	$4,299,878	$20,069,294	16%
4. Commercial and Industrial New Construction	$1,449,530	$1,608,731	$1,623,478	$1,733,318	$1,749,207	$8,164,264	7%
5. Commercial and Industrial Custom Rebates	$2,914,715	$3,234,837	$3,264,490	$3,485,356	$3,517,305	$16,416,702	13%
New Programs:							
1. Energy$olutions for the Home	$2,756,037	$3,059,037	$3,087,078	$3,295,941	$3,326,154	$15,524,247	13%
2. Low Income Assistance	$965,798	$1,071,978	$1,081,805	$1,154,996	$1,165,584	$5,440,161	4%
3. Residential Direct Load Control							
a. Water heating component	$2,974,955	$3,567,370	$3,195,617	$2,133,047	$2,173,695	$14,044,684	11%
b. Central air conditioner component	$375,286	$362,198	$343,232	$324,548	$218,102	$1,623,367	1%
4. Customer Energy Awareness	$2,138,510	$2,219,551	$2,303,894	$2,391,442	$2,482,317	$11,535,715	9%
5. Commerical and Industrial Load Management	$1,184,370	$1,749,333	$1,759,680	$1,872,695	$1,831,242	$8,397,320	7%
TOTAL Existing and Enhanced Programs	$11,726,740	$13,014,683	$13,133,984	$14,022,592	$14,151,133	$66,049,133	54%
TOTAL New Programs	$10,394,956	$12,029,468	$11,771,306	$11,172,670	$11,197,095	$56,565,494	46%
TOTAL ALL PROGRAMS	**$22,121,696**	**$25,044,151**	**$24,905,291**	**$25,195,262**	**$25,348,228**	**$122,614,627**	
Percent of Total Program Cost	**18%**	**20%**	**20%**	**21%**	**21%**		

TABLE B1: HECO IRP3 BUDGET DETAIL -- YEAR 1 (2005)

Program	Incentives	Implementation Labor (150 and 503)	Program Tracking	Marketing and Advertising	Other(1)	Capital	Evaluation(2)	TOTAL	Percent of Total Cost
Existing and Enhanced Programs:									
1. Residential Water Heating	$1,120,000	$207,393	$4,000	$309,000	$532,513	$0	$21,949	$2,194,855	10%
2. Residential New Construction									
a. Water heating component	$840,500	$89,934	$0	$24,217	$251,093	$0	$12,179	$1,217,923	6%
b. Hawaii BuiltGreen component	$186,500	$50,000	$0	$130,000	$16,135	$0	$3,865	$386,500	2%
3. Commercial and Industrial Energy Efficiency	$2,188,753	$555,825	$3,500	$237,029	$542,478	$0	$35,632	$3,563,217	16%
4. Commercial and Industrial New Construction	$812,387	$242,947	$3,500	$48,735	$327,465	$0	$14,495	$1,449,530	7%
5. Commercial and Industrial Custom Rebates	$1,824,715	$408,516	$3,500	$112,476	$536,360	$0	$29,147	$2,914,715	13%
New Programs:									
1. Energy$olutions for the Home	$2,137,857	$200,000	$12,000	$330,000	$48,892	$0	$27,287	$2,756,037	12%
2. Low Income Assistance	$730,798	$50,000	$3,500	$0	$171,937	$0	$9,562	$965,798	4%
3. Residential Direct Load Control									
a. Water heating component	$430,560	$176,457	$2,000	$65,000	$7,414	$2,286,710	$6,814	$2,974,955	13%
b. Central air conditioner component	$43,200	$31,209	$200	$10,750	$135,927	$151,786	$2,213	$375,286	2%
4. Customer Energy Awareness	$0	$257,000	$0	$0	$1,860,125	$0	$21,385	$2,138,510	10%
5. Commerical and Industrial Load Management	$917,000	$114,692	$8,000	$0	$107,259	$25,950	$11,470	$1,184,370	5%
TOTAL Existing and Enhanced Programs	$6,972,855	$1,554,615	$14,500	$861,457	$2,206,045	$0	$117,267	$11,726,740	53%
TOTAL New Programs	$4,259,416	$829,358	$25,700	$405,750	$2,331,554	$2,464,446	$78,732	$10,394,956	47%
TOTAL ALL PROGRAMS	**$11,232,271**	**$2,383,973**	**$40,200**	**$1,267,207**	**$4,537,599**	**$2,464,446**	**$195,999**	**$22,121,696**	
Percent of Total Program Cost	**51%**	**11%**	**0%**	**6%**	**21%**	**11%**	**1%**		

Notes:

(1) Other includes materials, meals, inter-island travel, engineering support and site assessment studies.

(2) Evaluation expenditures represent percentage of total program costs as defined below: 1% of year 1 costs for evaluation plan development, 8% of years 2 and 4 costs for data collection, 5% of years 3 and 5 costs for impact and process evaluation studies.

TABLE B2: HECO IRP3 BUDGET DETAIL -- YEAR 2 (2006)

Program	Incentives	Implementation Labor (150 and 503)	Program Tracking	Marketing and Advertising	Other(1)	Capital	Evaluation(2)	TOTAL	Percent of Total Cost
Existing and Enhanced Programs:									
1. Residential Water Heating	$1,162,560	$215,274	$4,152	$320,742	$552,749	$0	$180,438	$2,435,915	10%
2. Residential New Construction									
a. Water heating component	$872,439	$93,351	$0	$25,137	$260,634	$0	$100,125	$1,351,687	5%
b. Hawaii BuiltGreen component	$193,587	$51,900	$0	$134,940	$16,748	$0	$31,774	$428,949	2%
3. Commercial and Industrial Energy Efficiency	$2,271,925	$576,946	$3,633	$246,036	$563,093	$0	$292,931	$3,954,564	16%
4. Commercial and Industrial New Construction	$843,258	$252,179	$3,633	$50,587	$339,909	$0	$119,165	$1,608,731	6%
5. Commercial and Industrial Custom Rebates	$1,894,054	$424,040	$3,633	$116,751	$556,742	$0	$239,618	$3,234,837	13%
New Programs:									
1. Energy$olutions for the Home	$2,219,096	$207,600	$12,456	$342,540	$50,750	$0	$226,595	$3,059,037	12%
2. Low Income Assistance	$758,569	$51,900	$3,633	$0	$178,471	$0	$79,406	$1,071,978	4%
3. Residential Direct Load Control									
a. Water heating component	$714,254	$183,162	$2,000	$65,000	$168,479	$2,343,843	$90,632	$3,567,370	14%
b. Central air conditioner component	$77,280	$32,395	$200	$9,850	$101,801	$122,950	$17,722	$362,198	1%
4. Customer Energy Awareness	$0	$266,766	$0	$0	$1,930,810	$0	$21,976	$2,219,551	9%
5. Commerical and Industrial Load Management	$1,260,875	$121,207	$11,000	$0	$201,730	$26,936	$127,585	$1,749,333	7%
TOTAL Existing and Enhanced Programs	$7,237,823	$1,613,690	$15,051	$894,193	$2,289,875	$0	$964,051	$13,014,683	52%
TOTAL New Programs	$5,030,074	$863,030	$29,289	$417,390	$2,632,040	$2,493,729	$563,916	$12,029,468	48%
TOTAL ALL PROGRAMS	**$12,267,898**	**$2,476,721**	**$44,340**	**$1,311,583**	**$4,921,915**	**$2,493,729**	**$1,527,966**	**$25,044,151**	
Percent of Total Program Cost	**49%**	**10%**	**0%**	**5%**	**20%**	**10%**	**6%**		

Notes:

(1) Other includes materials, meals, inter-island travel, engineering support and site assessment studies.

(2) Evaluation expenditures represent percentage of total program costs as defined below: 1% of year 1 costs for evaluation plan development, 8% of years 2 and 4 costs for data collection, 5% of years 3 and 5 costs for impact and process evaluation studies.

TABLE B3: HECO IRP3 BUDGET DETAIL -- YEAR 3 (2007)

Program	Incentives	Implementation Labor (150 and 503)	Program Tracking	Marketing and Advertising	Other(1)	Capital	Evaluation(2)	TOTAL	Percent of Total Cost
Existing and Enhanced Programs:									
1. Residential Water Heating	$1,206,737	$223,454	$4,310	$332,930	$573,753	$0	$117,059	$2,458,244	10%
2. Residential New Construction									
a. Water heating component	$905,592	$96,899	$0	$26,092	$270,538	$0	$64,956	$1,364,077	5%
b. Hawaii BuiltGreen component	$200,943	$53,872	$0	$140,068	$17,385	$0	$20,613	$432,881	2%
3. Commercial and Industrial Energy Efficiency	$2,358,258	$598,870	$3,771	$255,385	$584,490	$0	$190,039	$3,990,814	16%
4. Commercial and Industrial New Construction	$875,302	$261,762	$3,771	$52,509	$352,826	$0	$77,308	$1,623,478	7%
5. Commercial and Industrial Custom Rebates	$1,966,028	$440,153	$3,771	$121,187	$577,898	$0	$155,452	$3,264,490	13%
New Programs:									
1. Energy$olutions for the Home	$2,303,421	$215,489	$12,929	$355,557	$52,678	$0	$147,004	$3,087,078	12%
2. Low Income Assistance	$787,394	$53,872	$3,771	$0	$185,252	$0	$51,515	$1,081,805	4%
3. Residential Direct Load Control									
a. Water heating component	$923,112	$190,123	$2,000	$55,000	$124,729	$1,835,904	$64,748	$3,195,617	13%
b. Central air conditioner component	$102,720	$33,626	$200	$8,950	$80,629	$105,801	$11,306	$343,232	1%
4. Customer Energy Awareness	$0	$276,903	$0	$0	$2,004,180	$0	$22,811	$2,303,894	9%
5. Commerical and Industrial Load Management	$1,375,500	$126,278	$12,000	$0	$135,479	$27,960	$82,463	$1,759,680	7%
TOTAL Existing and Enhanced Programs	$7,512,861	$1,675,011	$15,623	$928,172	$2,376,890	$0	$625,428	$13,133,984	53%
TOTAL New Programs	$5,492,148	$896,291	$30,900	$419,507	$2,582,949	$1,969,665	$379,846	$11,771,306	47%
TOTAL ALL PROGRAMS	**$13,005,009**	**$2,571,302**	**$46,523**	**$1,347,678**	**$4,959,840**	**$1,969,665**	**$1,005,274**	**$24,905,291**	
Percent of Total Program Cost	**52%**	**10%**	**0%**	**5%**	**20%**	**8%**	**4%**		

Notes:

(1) Other includes materials, meals, inter-island travel, engineering support and site assessment studies.

(2) Evaluation expenditures represent percentage of total program costs as defined below: 1% of year 1 costs for evaluation plan development, 8% of years 2 and 4 costs for data collection, 5% of years 3 and 5 costs for impact and process evaluation studies.

s	Implementation Labor (150 and 503)	Program Tracking	Marketing and Advertising	Other(1)	Capital	Evaluation(2)	TOTAL	Percent of Total Cost
,593	$231,946	$4,474	$345,582	$595,556	$0	$194,412	$2,624,562	10%
,004	$100,581	$0	$27,084	$280,819	$0	$107,879	$1,456,367	6%
,579	$55,919	$0	$145,390	$18,045	$0	$34,235	$462,169	2%
,872	$621,627	$3,914	$265,090	$606,701	$0	$315,616	$4,260,821	17%
,563	$271,709	$3,914	$54,504	$366,233	$0	$128,394	$1,733,318	7%
,737	$456,879	$3,914	$125,792	$599,858	$0	$258,174	$3,485,356	14%
,952	$223,677	$13,421	$369,068	$54,680	$0	$244,144	$3,295,941	13%
,315	$55,919	$3,914	$0	$192,292	$0	$85,555	$1,154,996	5%
,881	$197,347	$2,000	$35,000	$61,717	$748,545	$102,556	$2,133,047	8%
,520	$34,904	$200	$8,050	$58,155	$86,052	$17,666	$324,548	1%
$0	$287,425	$0	$0	$2,080,339	$0	$23,678	$2,391,442	9%
,125	$131,512	$13,000	$0	$72,467	$29,022	$136,568	$1,872,695	7%
,349	$1,738,661	$16,217	$963,442	$2,467,212	$0	$1,038,711	$14,022,592	56%
,793	$930,786	$32,535	$412,118	$2,519,651	$863,620	$610,167	$11,172,670	44%
,142	**$2,669,447**	**$48,752**	**$1,375,561**	**$4,986,863**	**$863,620**	**$1,648,878**	**$25,195,262**	
	11%	**0%**	**5%**	**20%**	**3%**	**7%**		

support and site assessment studies.

costs as defined below: 1% of year 1 costs for evaluation plan development, 8% of years 2 and 4 costs for data collection, 5% of

TABLE B5: HECO IRP3 BUDGET DETAIL -- YEAR 5 (2009)

Program	Incentives	Implementation Labor (150 and 503)	Program Tracking	Marketing and Advertising	Other(1)	Capital	Evaluation(2)	TOTAL	Percent of Total Cost
Existing and Enhanced Programs:									
1. Residential Water Heating	$1,300,192	$240,760	$4,644	$358,714	$618,187	$0	$126,125	$2,648,621	10%
2. Residential New Construction									
a. Water heating component	$975,724	$104,403	$0	$28,113	$291,490	$0	$69,987	$1,469,717	6%
b. Hawaii BuiltGreen component	$216,505	$58,044	$0	$150,915	$18,731	$0	$22,210	$466,405	2%
3. Commercial and Industrial Energy Efficiency	$2,540,891	$645,249	$4,063	$275,163	$629,755	$0	$204,756	$4,299,878	17%
4. Commercial and Industrial New Construction	$943,089	$282,034	$4,063	$56,576	$380,150	$0	$83,296	$1,749,207	7%
5. Commercial and Industrial Custom Rebates	$2,118,285	$474,240	$4,063	$130,572	$622,653	$0	$167,491	$3,517,305	14%
New Programs:									
1. Energy$olutions for the Home	$2,481,808	$232,177	$13,931	$383,092	$56,758	$0	$158,388	$3,326,154	13%
2. Low Income Assistance	$848,373	$58,044	$4,063	$0	$199,599	$0	$55,504	$1,165,584	5%
3. Residential Direct Load Control									
a. Water heating component	$985,881	$204,846	$2,076	$36,330	$64,063	$776,990	$103,509	$2,173,695	9%
b. Central air conditioner component	$119,040	$36,231	$208	$6,250	$13,386	$34,232	$8,756	$218,102	1%
4. Customer Energy Awareness	$0	$298,348	$0	$0	$2,159,392	$0	$24,577	$2,482,317	10%
5. Commerical and Industrial Load Management	$1,490,125	$136,509	$13,494	$0	$75,221	$30,125	$85,767	$1,831,242	7%
TOTAL Existing and Enhanced Programs	$8,094,687	$1,804,730	$16,833	$1,000,053	$2,560,966	$0	$673,863	$14,151,133	56%
TOTAL New Programs	$5,925,227	$966,155	$33,771	$425,673	$2,568,419	$841,347	$436,502	$11,197,095	44%
TOTAL ALL PROGRAMS	**$14,019,914**	**$2,770,885**	**$50,604**	**$1,425,726**	**$5,129,386**	**$841,347**	**$1,110,366**	**$25,348,228**	
Percent of Total Program Cost	**55%**	**11%**	**0%**	**6%**	**20%**	**3%**	**4%**		

Notes:

(1) Other includes materials, meals, inter-island travel, engineering support and site assessment studies.

(2) Evaluation expenditures represent percentage of total program costs as defined below: 1% of year 1 costs for evaluation plan development, 8% of years 2 and 4 costs for data collection, 5% of years 3 and 5 costs for impact and process evaluation studies.

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	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
3. Residential Direct Load Control															
Program Administration	2876481	3138034	2513017	1352194	1286677	1001834	1039904	1079420	1120438	1163014	1207209	1253083	1300700	1350127	1401431
Incentives	473760	791534	1025832	1105401	1104921	1093872	1082933	1072103	1061382	1050769	1040261	1029858	1019560	1009364	999271
Participant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Commerical and Industrial Load Management															
Program Administration	267370	488458	384180	382570	341117	354079	367534	381501	395998	411046	426665	442879	459708	477177	495310
Incentives	917000	1260875	1375500	1490125	1490125	1490125	1490125	1490125	1490125	1490125	1490125	1490125	1490125	1490125	1490125
Participant	233550	38925	38925	38925	0	0	0	0	0	0	0	0	0	0	0

SUMMARY TABLE FOR EXECTIVE SUMMARY

Program	Expenditure Type	Expenditures (Million $)				
		2005	2006	2007	2008	2009
Existing and Enhanced Programs	Administration	$4.8	$5.8	$5.6	$6.2	$6.1
	Incentives	$7.0	$7.2	$7.5	$7.8	$8.1
New Programs	Administration	$6.1	$7.0	$6.3	$5.4	$5.3
	Incentives	$4.3	$5.0	$5.5	$5.8	$5.9
TOTAL		**$22.1**	**$25.0**	**$24.9**	**$25.2**	**$25.3**

REWH

	2003 Actual	2004 Forecast	2005 Test Year
INCENTIVES	1,112,210 [1]	1,120,000 [2]	1,120,000 [3]
DIRECT LABOR			
Base	57,550	76,385	207,393
Incremental	55,892	50,923	
Total Labor	113,442	127,308	207,393
OUTSIDE SERVICES			
Implementation			
(201) Materials	1,265		1,633
(501) O/S	342,247		456,310
(503) Temps	70,211		
(640) Frt & Bulk Mail	0		
Total Implementation	413,723	447,112	457,943 [4]
Tracking			
(501) O/S	3,877	0	4,000
Evaluation			
(201) Materials	0		
(501) O/S	64,842		28,000
(600) Rebates	2,980		
Total Evaluation	67,822	150,000	28,000 [5]
Advertising			
(201) Materials	1,931		2,163
(301) Car Pool	3		
(501) O/S	250,418		306,837
(503) Temp Solar Fst	0		
(521) Meals & Enter.	0		
(640) Postage	0		
Total Advertising	252,352	300,000	309,000 [6]
Admin./Miscellaneous			
(201) Materials	(3,262) *		3,700
(250) Postage	0		
(301) Car Pool	42		
(451) IS Prod.	22,959		
(462) IS PC software	0		
(501) O/S	1,736		64,134
(502) Legal	1,029		
(516) Empl membshp	0		
(520) Mainland	0		
(521) Meals	166		274
(522) Interisland trvl	272		411
(570) Rents	11,110		
Total Admin/Misc.	34,052	66,523	68,519 [7]
TOTAL	**1,997,478**	**2,210,943**	**2,194,855**

* Showerheads charged to HELCO

Notes:

1 1,443 Solar @ $750 and 935 High Efficiency Electric @ $50
2 1,400 Solar @ $750 and 1,400 High Efficiiency Electric @ $50
3 1,400 Solar @ $750 and 1,400 High Efficiency Electric @ $50
(Assumes 16% increase in participation as result of increase incentive)
4 Implementation inflated by 3% per year and increase by 16% to account for the additional solar participation. Temp labor rollled into direct labor.
5 Evaluation cost of $40,000 allocated 70% REWH, 30% RNC.
6 Advertising escalated by 3% per year.
7 Admin/Misc escalated by 3% per year.

RNC

	2003 Actual	2004 Forecast	2005 Test Year
INCENTIVES	778,606 [1]	742,972 [2]	840,500 [3]
DIRECT LABOR			
Base	34,823	24,720	89,934
Incremental	18,751	16,480	
Total Labor	53,574	41,200	89,934
OUTSIDE SERVICES			
Implementation			
(201) Materials	89,801		92,495
(501) O/S	139,594		143,782
(503) Temps	28,748		
Total Implementation	258,143	230,611	236,277 [4]
Tracking			
(501) O/S	847		
Evaluation			
(201) Materials	0		
(501) O/S	25,763		12,000
(503) Temps	0		
(600) Rebates	2,395		
Field Test Incentives	0		
Total Evaluation	28,158	50,000	12,000 [5]
Advertising			
(201) Materials	2,272		1,405
(301) Carpool	8		
(501) O/S	36,714		22,812
(521) Meals & Enter	0		
(522) Interisland Trvl	0		
Total Advertising	38,994	23,512	24,217 [6]
Admin./Miscellaneous			
(201) Materials	826		851
(250) Postage	0		
(301) Car Pool	30		
(451) IS Prod.	8,374		
(462) PC software	0		
(501) O/S	155		14,144
(502) Legal	307		
(521) Meals	50		
(570) Rents	3,703		
Total Admin/Misc.	13,445	14,501	14,995 [7]
TOTAL	**1,171,767**	**1,102,796**	**1,217,923**

Notes:

1 390 Solar @ $750, 1,159 Tank and Timer @ $270 and 880 High Efficiency Electric @ $80. Plus 1,800 monthly $5 T&T bill credits

2 550 Solar @ $750, 800 Tank and Timer @ $270 and 700 High Efficiency Electric @ $80. Plus 1,800 monthly $5 T&T bill credits

3 550 Solar @ $750, 800 Tank and Timer @ $270 and 700 High Efficiency Electric @ $80. Plus 2,600 monthly $5 T&T bill credits

4 Implementation inflated by 3%. Temp labor rolled into direct labor.

5 Evaluation cost of $40,000 allocated REWH 70%, RNC 30%.

6 Advertising escalated by 3% per year.

7 Admin/Misc escalated by 3% per year.

Energy $olutions for the Home Program

	Year 1	Year 2	Year 3	3-Year Average	Year 4	Year 5	5-Year Average
INCENTIVES	900,000	900,000	900,000	**900,000**	150,000	150,000	**600,000**
DIRECT LABOR							
Base	50,000	51,500	53,045	**51,515**	20,000	20,600	**39,029**
Incremental							
Total Labor	50,000	51,500	53,045	**51,515**	20,000	20,600	**39,029**
OUTSIDE SERVICES							
Implementation							
(201) Materials							
(501) O/S	120,000	123,600	127,308	**123,636**	40,000	41,200	**90,422**
(503) Temps							
(640) Frt & Bulk Mail							
Total Implementation	120,000	123,600	127,308	**123,636**	40,000	41,200	**90,422**
Tracking							
(501) O/S	12,000	12,360	12,731	**12,364**	1,000	1,030	**7,824**
Evaluation							
(201) Materials	0						
(501) O/S	65,000	66,950	68,959	**66,970**		0	**40,182**
(600) Rebates	-						
Total Evaluation	65,000	66,950	68,959	**66,970**	0	0	**40,182**
Advertising							
(201) Materials	50,000	51,500	53,045	**51,515**	1,000	1,030	**31,315**
(301) Car Pool							
(501) O/S	240,000	247,200	254,616	**247,272**	10,000	10,300	**152,423**
(503) Temp Solar Fst							
(521) Meals & Enter.							
(640) Postage	40,000	41,200	42,436	**41,212**	400	412	**24,890**
Total Advertising	330,000	339,900	350,097	**339,999**	11,400	11,742	**208,628**
Admin./Miscellaneous							
(201) Materials	1,000	1,030	1,061	**1,030**	500	515	**821**
(250) Postage							
(301) Car Pool	1,000	1,030	1,061	**1,030**	100	103	**659**
(451) IS Prod.							
(462) IS PC software							
(501) O/S	21,000	21,630	22,279	**21,636**	7,000	7,210	**15,824**
(502) Legal							
(516) Empl membshp							
(520) Mainland							
(521) Meals							
(522) Interisland trvl							
(570) Rents							
Total Admin/Misc.	23,000	23,690	24,401	**23,697**	7,600	7,828	**17,304**
TOTAL	**1,500,000**	**1,518,000**	**1,536,540**	**1,518,180**	**230,000**	**232,400**	**1,003,388**

Units-E. _t REWH

Solar Pgm. Year	Systems	Gross System Savings (Impact Eval.) Energy (MWh)	Demand (kW)	Rebate	Rebate Total	Inspect.	SOLAR PGM BUDGET Insp/. Total	Ad/Mkt/Syste	Admin&Mkt	PGM total
1	1,275	3,568	933	$ 750	$ 956,250	$ 35.00	$ 44,625	$ 300	$ 382,500	$ 1,383,375
2	1,400	3,918	1,025	$ 750	$ 1,050,000	$ 36.08	$ 50,515	$ 309	$ 432,990	$ 1,533,505
3	1,624	4,545	1,189	$ 1,000	$ 1,624,000	$ 37.20	$ 60,410	$ 319	$ 517,802	$ 2,202,212
4	1,400	3,918	1,025	$ 750	$ 1,050,000	$ 38.35	$ 53,688	$ 329	$ 460,187	$ 1,563,875
5	1,400	3,918	1,025	$ 750	$ 1,050,000	$ 39.53	$ 55,349	$ 339	$ 474,419	$ 1,579,768
6	1,000	2,798	732		$ -	$ 40.76	$ 40,758	$ 349	$ 349,351	$ 390,109
7	1,000	2,798	732		0	$ 42.02	$ 42,018	$ 360	$ 360,156	$ 402,174
8	1,000	2,798	732		0	$ 43.32	$ 43,318	$ 371	$ 371,295	$ 414,613
9	1,000	2,798	732		0	$ 44.66	$ 44,657	$ 383	$ 382,778	$ 427,436
10	1,000	2,798	732		0	$ 46.04	$ 46,039	$ 395	$ 394,617	$ 440,656
11	1,000	2,798	732		0	$ 47.46	$ 47,463	$ 407	$ 406,822	$ 454,284
12	1,000	2,798	732		0	$ 48.93	$ 48,930	$ 419	$ 419,404	$ 468,334
13	1,000	2,798	732		0	$ 50.44	$ 50,444	$ 432	$ 432,375	$ 482,819
14	1,000	2,798	732		0	$ 52.00	$ 52,004	$ 446	$ 445,747	$ 497,751
15	1,000	2,798	732		0	$ 53.61	$ 53,612	$ 460	$ 459,533	$ 513,146
16	1,000	2,798	732		0	$ 55.27	$ 55,270	$ 474	$ 473,746	$ 529,016
17	1,000	2,798	732		0	$ 56.98	$ 56,980	$ 488	$ 488,398	$ 545,377
18	1,000	2,798	732		0	$ 58.74	$ 58,742	$ 504	$ 503,503	$ 562,245
19	1,000	2,798	732		0	$ 60.56	$ 60,559	$ 519	$ 519,075	$ 579,634
20	1,000	2,798	732		0	$ 62.43	$ 62,432	$ 535	$ 535,129	$ 597,560
	22,099	61,842	16,176				$ 1,027,813		$ 8,809,826	$ 15,567,889

Solar Per Unit Savings	
2.798423423	0.731981982

Note: Impacts from the Residential Impact Evaluation.

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Units-[illegible]t REWH

ncy Electric Systems	Gross System Savings (Impact Eval.) Energy (MWh)	Demand (kW)	Rebate	Rebate Total	HIGH EFFICIENCY ELECTRIC PGM BUDGET Inspect.	Insp/. Total	Ad/Mkt/Syste	Admin&Mkt	PGM total
1,400	285	68	$ 50	$ 70,000	$ 3.50	$ 4,900	$ 2	$ 2,800	$ 77,700
1,400	285	68	$ 50	$ 70,000	$ 3.61	$ 5,052	$ 2	$ 2,887	$ 77,938
1,400	285	68	$ 50	$ 70,000	$ 3.72	$ 5,208	$ 2	$ 2,976	$ 78,184
1,400	285	68	$ 50	$ 70,000	$ 3.83	$ 5,369	$ 2	$ 3,068	$ 78,437
1,400	285	68	$ 50	$ 70,000	$ 3.95	$ 5,535	$ 2	$ 3,163	$ 78,698
1,300	265	63	$ 50	$ 65,000	$ 4.08	$ 5,298	$ 2	$ 3,028	$ 73,326
1,200	245	58	$ 50	$ 60,000	$ 4.20	$ 5,042	$ 2	$ 2,881	$ 67,923
1,100	224	53	$ 50	$ 55,000	$ 4.33	$ 4,765	$ 2	$ 2,723	$ 62,488
1,000	204	48	$ 50	$ 50,000	$ 4.47	$ 4,466	$ 3	$ 2,552	$ 57,018
1,000	204	48	$ 50	$ 50,000	$ 4.60	$ 4,604	$ 3	$ 2,631	$ 57,235
1,000	204	48	$ 50	$ 50,000	$ 4.75	$ 4,746	$ 3	$ 2,712	$ 57,458
1,000	204	48	$ 50	$ 50,000	$ 4.89	$ 4,893	$ 3	$ 2,796	$ 57,689
1,000	204	48	$ 50	$ 50,000	$ 5.04	$ 5,044	$ 3	$ 2,882	$ 57,927
1,000	204	48	$ 50	$ 50,000	$ 5.20	$ 5,200	$ 3	$ 2,972	$ 58,172
1,000	204	48	$ 50	$ 50,000	$ 5.36	$ 5,361	$ 3	$ 3,064	$ 58,425
1,000	204	48	$ 50	$ 50,000	$ 5.53	$ 5,527	$ 3	$ 3,158	$ 58,685
1,000	204	48	$ 50	$ 50,000	$ 5.70	$ 5,698	$ 3	$ 3,256	$ 58,954
1,000	204	48	$ 50	$ 50,000	$ 5.87	$ 5,874	$ 3	$ 3,357	$ 59,231
1,000	204	48	$ 50	$ 50,000	$ 6.06	$ 6,056	$ 3	$ 3,460	$ 59,516
1,000	204	48	$ 50	$ 50,000	$ 6.24	$ 6,243	$ 4	$ 3,568	$ 59,811
22,600	4,607	1,094				$ 104,882		$ 59,932	$ 1,294,814

High Efficiency Electric Per Unit Savings	
0.203828829	0.048423423

Note:
Impacts from the Residential Impact Evaluation.
Per unit gross impact 181 kWh, system loss factor 11.2 %
Per unit gross impact .043 kW, system loss factor 11.2 %

Shower Head Pgm.		Gross System Savings (Impact Eval.)					SHOWER HEAD PGM BUDGET					
Year	Systems	Energy (MWh)	Demand (kW)	Rebate[1]	Rebate Total	monthly in	Mon. Incent.	Tot	Ad/Mkt/Syste	Admin&Mkt	PGM total	
1	30,000	4,470	1,485.14	$ 4	$ 120,000	$0	$ -	$	3	$ 90,000	$	210,000
2	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
3	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
4	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
5	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
6	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
7	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
8	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
9	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
10	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
11	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
12	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
13	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
14	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
15	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
16	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
17	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
18	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
19	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
20	-	-	-	$ -	$ -	$0	$ -	$	-	$ -	$	-
	30,000	4,470	1,485				$ -			$ 90,000	$	210,000

Showerhead Per Unit Savings	
0.149008663	0.049504539

Note: Showerhead impacts estimated from the Showerhead impact evaluation filed with the 1998 A&S Report.
Takes into consideration that not all distributed showerheads get installed
66,151 showerheads distributed, 29,080 installed, Net-to-Gross ratio is 73%, system loss factor is 11.2%
Gross anual per unit savings is 301kWh, 0.1kW

Total Program		Gross System Savings (Impact Eval.)				Total PGM BUDGET					
Year	Systems	Energy (MWh)	Demand (kW)	Rebate[1]	Rebate Total	monthly in	Mon. Incent. Tot	Inspect.	Insp/. Total	Ad/Mkt/System	
1	N/A	8,324	2,486	N/A	1,146,250	$ -	$ -	$ 305	$ 475,300	$	305
2	-	4,203	1,093	$ -	1,120,000	$ -	$ -	$ 311	$ 435,876	$	311
3	-	4,830	1,257	$ -	1,694,000	$ -	$ -	$ 321	$ 520,778	$	321
4	-	4,203	1,093	$ -	1,120,000	$ -	$ -	$ 331	$ 463,255	$	331
5	-	4,203	1,093	$ -	1,120,000	$ -	$ -	$ 341	$ 477,582	$	341
6	-	3,063	795	$ -	65,000	$ -	$ -	$ 352	$ 352,379	$	352
7	-	3,043	790	$ -	60,000	$ -	$ -	$ 363	$ 363,037	$	363
8	-	3,023	785	$ -	55,000	$ -	$ -	$ 374	$ 374,018	$	374
9	-	3,002	780	$ -	50,000	$ -	$ -	$ 385	$ 385,330	$	385
10	-	3,002	780	$ -	50,000	$ -	$ -	$ 397	$ 397,248	$	397
11	-	3,002	780	$ -	50,000	$ -	$ -	$ 410	$ 409,534	$	410
12	-	3,002	780	$ -	50,000	$ -	$ -	$ 422	$ 422,200	$	422
13	-	3,002	780	$ -	50,000	$ -	$ -	$ 435	$ 435,257	$	435
14	-	3,002	780	$ -	50,000	$ -	$ -	$ 449	$ 448,719	$	449
15	-	3,002	780	$ -	50,000	$ -	$ -	$ 463	$ 462,597	$	463
16	-	3,002	780	$ -	50,000	$ -	$ -	$ 477	$ 476,904	$	477
17	-	3,002	780	$ -	50,000	$ -	$ -	$ 492	$ 491,654	$	492
18	-	3,002	780	$ -	50,000	$ -	$ -	$ 507	$ 506,859	$	507
19	-	3,002	780	$ -	50,000	$ -	$ -	$ 523	$ 522,535	$	523
20	-	3,002	780	$ -	50,000	$ -	$ -	$ 539	$ 538,696	$	539
	-	70,919	18,756				$ -		$ 8,959,758		

Solar Pgm.

SOLAR PGM BUDGET

Year	Systems	Gross System Savings (Impact Eval.) Energy (MWh)	Demand (kW)	Rebate	Rebate Total	Inspect.	Insp/. Total	Ad/Mkt/Syste	Admin&Mkt	PGM total
1	550	1,379	350	$ 750	$ 412,500	$ 35.00	$ 19,250	$ 300	$ 165,000	$ 596,750

Solar Per Unit Savings	
2.507	0.636

Note: Impacts from the Residential Impact Evaluation.

High Efficiency Electric

HIGH EFFICIENCY ELECTRIC PGM BUDGET

Year	Systems	Gross System Savings (Impact Eval.) Energy (MWh)	Demand (kW)	Rebate	Rebate Total	Inspect.	Insp/. Total	Ad/Mkt/Syste	Admin&Mkt	PGM total
1	700	135	30	$ 50	$ 35,000	$ 3.50	$ 2,450	$ 2	$ 1,400	$ 38,850

High Efficiency Electric Per Unit Savings	
0.1925	0.043

Note:
Impacts from the Residential Impact Evaluation.

Load Control Pgm. (80

LOAD CONTROL (80 GALLON) PGM BUDGET

Year	Systems	Gross System Savings (Impact Eval.) Energy (MWh)	Demand (kW)	Rebate[1]	Rebate Total	monthly in	Mon. Incent. Tot	Ad/Mkt/Syste	Admin&Mkt	PGM total
1	800	320	482	$ 270	$ 216,000	$36	$ 28,800	$ 10	$ 8,000	#REF!

Load Control Per Unit Savings	
0.3996	0.603

Note: Load Control energy impacts from original engineering calculation from original Residential Docket.
Demand impact assume 100% of the base case demand from the Residential impact evaluation.

CFL Pgm.

CFL PGM BUDGET

Year	Systems	Gross System Savings (Impact Eval.) Energy (MWh)	Demand (kW)	Rebate[1]	Rebate Total	monthly in	Mon. Incent. Tot	Ad/Mkt/Syste	Admin&Mkt	PGM total
1	-	-	-		$ -	$0	$ -	$ 1	$ -	$ -

CFL Per Unit Savings	
0.059475885	0.014567696

Note: CFL impacts estimated from Residential Lighting Pilot Program Evaluation.
Takes into consideration that not all lamps get installed and some get installed on fixtures with low usage
Five CFL given to new homeowners who participate in the load control program
From Pilot Evaluation per unit savings = average annual energy savings/number of lamps sold (2290/38,503)
From Pilot Evaluation per unit savings = average annual Demand savings/number of lamps sold (560.9/38,503)

Total Program

Total PGM BUDGET

Year	Systems	Gross System Savings (Impact Eval.) Energy (MWh)	Demand (kW)	Rebate[1]	Rebate Total	monthly in	Mon. Incent. Tot	Inspect.	Insp/. Total	Ad/Mkt/System	Admin&Mkt	PGM total
1	N/A	1,833	862	N/A	663,500	$ 36	$ 28,800	$ 303	$ 166,400	$ 313	$ 174,400	$ 1,033,100

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HECO 2005 Budget Comparison
CIEE Energy Efficiency

	2003	2005			
	2003 Actual	2005 Base Case	Contingency Budget (in Pillar)	IRP III Budget	
INCENTIVES	949,244	**875,501**	**1,963,666**	**2,188,753**	2.5 x base
Customer			1,914,452		
Vendor			49,214		
DIRECT LABOR					
Base	96,056	104,036	479,212	479,212	5.8 FTE
Incremental	0	0	0	-	
Total Labor	96,056	**104,036**	**479,212**	**479,212**	
OUTSIDE SERVICES					
Implementation					
(201) Materials	4,781				
(501) O/S	52,941	60,000	137,363	137,363	
(503) Temps	237,211	392,911	0	76,613	Temp 1.25 FTE
Total Implementation	294,933	**452,911**	**137,363**	**213,976**	
Tracking					
(501) O/S	206	**4,244**	**3,500**	**3,500**	
Evaluation					
(201) Materials	11,341				
(451) IS Production	0				
(501) O/S	95,267		48,750	72,658	200-2003 average
(503) Temps	0				
Total Evaluation	106,608	**0**	**48,750**	**72,658**	
Prelim Energy Assessment	85,181	**109,273**	**100,000**	**187,343**	
				-	
Advertising					
(201) Materials	8,702	10,609	10,247	19,349	
(250) Postage	228	10,362	10,362	18,898	
(301) Car Pool	5	0	0	-	
(452) ISD Development	0	0	0	-	
(462) IS software pur.			346	-	
(501) O/S	80,218	101,352	160,436	172,896	
(503) Temps	24,224		0	-	
(520) Mainland Travel		6,365	1,667	11,609	
(521) Meals & Enter.	6,801		2,201	-	
(522) Interisland Travel	2,116	1,273	0	2,322	
Total Advertising	122,294	**129,961**	**185,259**	**225,075**	
Admin./Miscellaneous					
(201) Materials	1,874	3,819	3,748	6,966	
(205) Purchasing Card	2,441			-	
(250) Postage				-	
(301) Car Pool	282	2,546	564	5,029	
(408) Corp. Admin.	0			-	
(451) IS Prod.	24,358	25,841	25,841	51,042	
(462) IS software pur.	198		336	-	
(501) O/S	28,696	56,652	57,392	99,027	
(502) O/S legal	1,096			-	
(503) Temps Lighting Prog.				-	
(507) Training		12,731	14,966	23,219	
(520) Mainland Travel	0	3,090	3,350	5,636	
(521) Meals	2,437	1,273	3,913	2,322	
(522) Interisland Travel	0			-	
(570) Rents				-	
(640) Postage	1,005			-	
(900) PSC taxes	0			-	
(905) Lighting Prg Reven	0			-	
Total Admin/Misc.	62,387	**105,953**	**110,110**	**193,241**	
				-	
TOTAL	**1,716,909**	**1,781,879**	**3,027,859**	**3,563,757**	

Notes: 1) IRP III Budget is 2x 2005 base case budget
2) Incentives are increased 250%.
3) Admin costs increase 152%
4) Value submitted to Pilar; subsequently adjusted for overhead adjustments to this number

HECO 2005 Budget Comparison
CINC New Construction

	2003	2005			
	2003 Actual	Base Case Budget	Contingency Budget (in Pillar)	IRP III Budget	
INCENTIVES	362,145	324,955	641,578	812,387	2.5x base
Customer			607,128	-	
Vendor			34,450	-	
				-	
DIRECT LABOR				-	
Base	33,914	42,205	212,204	212,204	
Incremental	0	0	0	-	
Total Labor	33,914	42,205	212,204	212,204	2.3 FTE
				-	
OUTSIDE SERVICES				-	
Implementation				-	
(201) Materials	1,745			-	
(501) O/S	13,369	$18,587	160,890	160,890	
(503) Temps	90,017	171,259	0	30,743	Temp 0.5 FTE
Total Implementation	105,131	189,846	160,890	191,633	
				-	
Tracking				-	
(501) O/S	92	3,183	3,500	3,500	
Evaluation					
(201) Materials	3,780				
(451) IS Production	0				
(501) O/S	26,421		13,500	34,739	200-2003 aver
(503) Temps	0				
Total Evaluation	30,201	0	13,500	34,739	
Design Assistance	0	81,955	100,000	107,715	
				-	
Advertising				-	
(201) Materials	2,876	0	9,446	-	
(250) Postage	22	0	44	-	
(301) Car Pool	0	0		-	
(452) ISD Development		0		-	
(462) PC software			382	-	
(501) O/S	28,128	37,080	56,256	38,116	
(503) Temps				-	
(520) Mainland Travel		0	1,667	-	
(521) Meals	1,921	0	904	-	
(522) Interisland Travel				-	
Total Advertising	32,947	37,080	68,698	38,116	
				-	
Admin./Miscellaneous				-	
(201) Materials	1,124	1,273	2,248	1,673	
(205) Purchasing Card	845			-	
(250) Postage	0			-	
(301) Car Pool	60	318	90	418	
(408) Corp. Admin.				-	
(451) IS Prod.	6,827	7,242	7,243	9,519	
(462) PC software	99		87	-	
(501) O/S	11,696	28,963	23,392	27,447	
(501) O/S Lighting Prg				-	
(502) O/S legal	408			-	
(503) Temps	0			-	
(507) Training		$6,365	$6,145	8,366	
(520) Mainland Travel		$1,061	$2,000	1,394	
(521) Meals	24	318	$1,606	418	
(522) Interisland Travel				-	
(570) Rents				-	
(900) PSC taxes				-	
(905) Lighting Prg Revenues				-	
Total Admin/Misc.	21,083	45,541	42,811	49,236	
				-	
TOTAL	585,513	724,765	1,243,181	1,449,530	
				1,449,530	-

Notes: 1) IRP III Budget is 2x 2005 base case budget
2) Incentives are increased 250%.
3) Admin costs increase 56%

HECO 2005 Budget Comparison
CICR Customized Rebates

	2003		2005		
	2003 Actual	Base Case Budget	Contingency Budget (in Pillar)	IRP III Budget	
INCENTIVES	613,705	729,886	1,051,503	1,824,715	2.5x base
Customer			1,036,739	-	
Vendor			14,764	-	
				-	
DIRECT LABOR				-	
Base	130,616	121,758	362,646	362,646	4.0 FTE
Incremental	0	26,100	0		
Total Labor	130,616	147,858	362,646	362,646	
OUTSIDE SERVICES					
Implementation					
(201) Materials	2,217				
(501) O/S	17,648	$103,000	186,473	186,473	
(503) Temps	266,757	315,598	0	45,870	Temp 0.75 FTE
Total Implementation	286,622	418,598	186,473	232,343	
Tracking					
(501) O/S	92	3,183	3,500	3,500	
				-	
Evaluation				-	
(201) Materials	3,780			-	
(451) IS Production				-	
(501) O/S	24,261		12,750	42,655	2000-2003 avera
(503) Temps	0			-	
Total Evaluation	28,041	0	12,750	42,655	
Feasibility Studies	24,769	54,636	125,000	135,825	
Advertising					
(201) Materials	3,588	0	8,076	-	
(250) Postage	195	0	390	-	
(301) Car Pool				-	
(452) ISD Development		$0		-	
(462) IS software			$364	-	
(501) O/S	47,267	37,080	94,534	112,476	
(503) Temps				-	
(520) Mainland Travel			$1,667	-	
(521) Meals	2,854		$1,396	-	
(522) Interisland Travel				-	
Total Advertising	53,904	37,080	106,426	112,476	
Admin./Miscellaneous					
(201) Materials	1,012	1,273	2,024	3,862	
(205) Purchasing Card	1,390			-	
(250) Postage	0			-	
(301) Car Pool	432	318	648	965	
(408) Corp. Admin.				-	
(451) IS Prod.	11,325	12,014	12,015	36,444	
(462) IS software	99		172	-	
(501) O/S	21,405	44,767	42,810	135,794	
(501) O/S Lighting Prg				-	
(502) Legal	645			-	
(503) Temp Hire	0			-	
(507) Training		$6,365	$9,490	19,308	
(520) Mainland		1,061	$2,000	3,218	
(521) Meals	438	317	$2,481	963	
(522) Interisland Travel				-	
(570) Rents				-	
(900) PSC taxes				-	
(905) Lighting Prg Revenues	0			-	
Total Admin/Misc.	36,746	66,117	71,639	200,555	
TOTAL	1,174,495	1,457,358	1,919,937	2,914,715	
				2,914,715	

Notes: 1) IRP III Budget is 2x 2005 base case budget
2) Incentives are increased 250%.
3) Admin costs increase 150%

Evaluation Expenses

4 year Average:

		2000	2001	2002	2003	4 Yr Average
(501) O/S						
	CIEE	183,980	6,764	4,621	95,267	72,658
	CINC	60,911	45,299	6,323	26,421	34,739
	CICR	141,309	2,529	2,521	24,261	42,655