BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

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

HELCO
VOLUMINOUS RESPONSES TO
CONSUMER ADVOCATE
INFORMATION REQUESTS

BOOK 14 OF 15

January 12, 2007

CA-IR-425

Ref: HELCO-1401, HELCO-1407, HELCO-WP-1401, HELCO-WP-1407 (p. 6) & HELCO-WP-1409 (Plant Additions).

HELCO-1401 and HELCO-1407 indicate that the $45.318 million of plant additions for the 2006 test year is net of "in-kind' contributions. However, it is unclear from a review of HELCO-1407, HELCO-WP-1401 or HELCO-WP-1407 whether and to what extent the contributions set forth on HELCO-WP-1409 (A through D) were actually deducted from the forecast of gross plant additions to derive the $45.318 million of plant additions. Please provide the following:

a. Does additional documentation exist that provides a breakdown of the 2006 forecast between gross construction expenditures and contributions to arrive at the $45.318 million plant addition?
   1. If so, please provide such information in a spreadsheet file format (by project, if available).
   2. If not, please explain how the Company determined that the $45.318 million was net of contributions?
b. Does additional documentation exist that shows how the CIAC amounts set forth on HELCO-WP-1409(A), (B) and (C) were determined?
   1. If so, please provide a copy of said documentation.
   2. If not, please explain.
c. The specific and blanket project CIAC amounts set forth on HELCO-WP-1409(A) and (B) tie to the amounts set forth on (C). However, it is not clear how the 2006 CIAC forecast of $190,791 determined on HELCO-WP-1409(D) ties or supports the amounts on (A), (B) or (C). Please explain and demonstrate how $190,791 on (D) is included on (A), (B) or (C).
d. Referring to HELCO-WP-1409(D), please provide the following with regard to the $11,593 of CIAC for Project H0000725:
   1. How was this amount determined? Please explain.
   2. Does this amount reflect "In Kind" or "In Cash" CIAC? Please explain.
   3. Please reconcile this amount with the CIAC amounts set forth in response to CA-IR-185, Attachment 1, page 27.

HELCO Response:

a.1.The $45.318 million forecast of plant additions in 2006 per HELCO-WP-1401 is inclusive of "in-kind" contributions, Advances and Contributions in Aid of Construction (CIAC). HELCO-WP-1409(A) through HELCO-WP-1409(F) provided a list of projects and estimated contributions known at the time the workpaper was developed. There is no list that shows the project costs net of the contributions.

a.2.The Company's position has been that the $45.318 million is inclusive of and not net of contributions. See HELCO T-14, page 2, starting from line 16.

b.1.Yes, for specific customer projects, the planner or engineer determines a cost estimate to construct an overhead distribution line to service the project. If a project is to be served via an underground infrastructure, an equivalent overhead design is made and estimated as the overhead equivalent. This overhead equivalent estimate becomes the advance the customer will contribute to HELCO. For the underground project, a second estimate is done. Usually, the cost of the underground project is more costly than the overhead equivalent so the difference becomes the contributions in aid of construction (CIAC). The cost estimates are done by spreadsheets and then inputted into PILLAR in order to generate the overhead costs and the contributions are listed on the Project Initiation Authorization (PIA). PIAs have been provided for test year projects estimated in excess of $500,000 as part of CA-IR-182. Attachment 1 to this response is a sample of the documentation generated to develop the contributions. Documentation for all the projects with CIAC amounts is voluminous and is available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 2202 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the requested information. As exhibited by Attachment 2 of this response, historical percentages were applied to the blanket budgets in order to calculate the estimated amount of aids and advances that are collected. Based on November's PILLAR data as of November 9, 2006 and the Accounting Departments collections through October 31, 2006, HELCO has updated the test year 2006 CIAC and advance estimates. See CA-IR-447, T-14 HELCO-WP-1409(A), (B) and (C). For blanket projects (H1008000, H1003000 and H1017000), the update includes the 2006 CIAC and

Advance collected from January through October 2006 added to a forecast for the remaining months of November and December 2006. The remaining months of November and December 2006 CIAC and Advance forecast was based on the percentages of CIAC and Advance collected from January through October 2006 multiplied by the forecast of expenditures of this blanket in November and December. See Attachment 3 of CA-IR-425 which shows the CIAC and Advance collected in 2006, the determination of the percentages for CIAC and for Advance, and calculation of the forecast for November and December 2006 by multiplying the forecast of expenditures for November and December by the percentages. Using the percentages from the first 10 months of 2006 should provide a better forecast for the remaining months of 2006 as it reflects the current year statistics. The CIAC and Advances for specific projects are represented by actual amounts collected during 2006.

c. HELCO-WP-1409(D) is a list of the known specific projects having in-kind contributions at the time the testimony was developed. The in-kind contributions are not reflected in HELCO-WP-1409(A), (B), (C) as those workpapers were listings of only CIAC and advance, not in-kind contributions.

d.1.HELCO-WP-1409(D) is a list of in-kind contributions. The $11,593 was the planner's estimate of the value of the underground infrastructure at the time the testimony was prepared. As reflected in the response to CA-IR-426 Attachment 1, CA-IR-447, T-14 HELCO-WP-1409(D) and Attachment 4 of this response, the in-kind contribution amount should have been $24,956.

d.2.Refer to d.1.

d.3.The response to CA-IR-182, Attachment 1, page 27 shows an in-kind contribution of $25,000. This is a rounding off of the $24,956 discussed in d.1 above.

H0001436

ADDITIONAL
REQUEST NO. 2

2006 CAPITAL BUDGET
ADDITIONAL REQUEST

PROJECT NAME: Haleili S/D

Grand Parent: OM-350 Overhead Svcs and Extns

LOCATION: Haleili, South Kona

Approval is requested for the attached authorization request in the amount of $44,000 for the installation of a 1-phase, 7.2 KV primary overhead distribution system for Haleili Subdivision located at Haleili, South Kona

$44,000 is being transferred from the following Project(s):

Budgeted Project Number To Transfer From	Budgeted Project Name To Transfer From	Original Approved Budgeted Amount	Balance Before Transfer	To RYamat06	Balance After Transfer
H0007000	Customer Request Projects	1,337,973	1,337,973	44,000	1,293,973
			Total Project	44,000	

Approval is requested.

Clyde H. Nagata, Manager

Warren H.W. Lee, President

Pillar Proj. #: RYamat06
Request #: H0022257
Poles + Conductors

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project Identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Ricky Yamato **Phone/Ext #:** 511

Originator's Name: Ricky Yamato

Responsible Estimator: Ricky Yamato KRW 1-13-06
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Ricky Yamato

Date: 01/13/2006

Required Approvals to Initialize a Project:

[signature] 1/20/06
Responsible Manager **Date**

[signature] 28 JAN 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

[signature] 1/20/06
Responsible Manager **Date**

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

[signature] 1/26/06
HELCO Accounting Manager **Date**

[signature] 28 JAN 2006
HELCO President **Date**

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Haleili S/D

Project Number: RYAMAT06
(Temporary)

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

Plant Addition Date: 2006-01

Commitment Date: 2006-04

Primary Corporate Goal: Cap Exp

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$44	$0	$0	$0	$0	$0	$44

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to provide a 1-ph, 7.2kv primary oh distribution system for Haleili S/D. Project is to be completed under SR H0022257.

Scope Description:

Install one (1) 70 ft pole, three (3) 45 ft poles, three (3) 40 ft poles, five (5) anchors, #1/0 aac primary and #3/0 aa neutral.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:
HWK, HDK, HWX & HWS

Justification:
To provide a 1-ph, 7.2 kv primary oh distribution system for Haleili S/D located at Haleili, S. Kona

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Developer made payment of $43,569 for the installation of a 1-ph, 7.2kv primary oh distribution system.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project Identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** $1,159.00 Non refundable contribution

GET Included

- **In Cash** NONE

Cash Advance $42,410.00 Refundable advance

GET Included

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

NONE

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

NONE

Hawaii Electric Light Company, Inc. • 74-5519 Kaiwi Street • Kailua-Kona, HI 96740-1684

CUST 3-3-1
H-W/G

October 6, 2005

Haleili LLC
P.O. Box 481
Kealakekua, HI 96780

Gentlemen:

Subject: Haleili Subdivision

In our proposal letter dated August 25, 2005, we quoted you a cost of $48,076.00 for the installation of 1-phase, 7.2 KV overhead distribution system for the subject project located at Haleili, South Kona. This cost is no longer valid.

The revised cost and specific requirements are noted as follows:

1. The total charges of the overhead electrical distribution system is as follows:

TOTAL DEVELOPER COST	$43,569.00	
TOTAL PROJECT COST		$46,153.00
Developer Cost (refundable advance) (Includes State GET)		$30,631.00
Hawaii Telcom Joint Pole Shares (refundable advance)		$11,779.00
Total Developer Advance (Includes State GET)		$42,410.00
Developer Cost - Street Lighting Joint Pole Shares (non-refundable contribution - (Includes State GET)		$ 1,159.00

Based on the cost noted above, you are required to pay HELCO a refundable customer advance of $42,410.00, and a non-refundable contribution of $1,159.00, which include State General Excise Tax.

Based on your payment of $4,808.00 on September 22, 2005, we request that the $38,761.00 payment balance be made so we may process our construction work order. Please be informed that it may take four to six weeks to schedule our construction work. Work will require ten (10) to fourteen (14) days to complete once construction has started.

Please signify your acceptance of this proposal by appropriate execution in the space provided below. We are including one extra copy of this proposal and request that the signed original, Customer Data Input Sheet and payment of $38,761.00 be mailed to HELCO in the enclosed self-addressed envelope or delivered directly to HELCO's Customer Service Division located at 74-5519 Kaiwi Street, Kailua-Kona, Hawaii.

Should you have any questions, please write or call me at 327-0511 between the hours of 7:00 a.m. - 3:30 p.m.

Sincerely,

Ricky Yamato
Customer Planner
Customer Engineering Division

RY:abl
Enclosures
Request No. H22257

Approved by Developer: _____
Signature in Ink

Name of Signer: Theresa Haslett
Type or Print

Title: Partner Date: 10/21/05

Name of Company: Haleili, LLC

Approximate date your contractor will be ready for HELCO to begin its construction: 10/21/05

Refunds made to: Haleili, LLC
Type or Print

Mailing Address: PO Box 481
P.O. Box/Street Address

Kealakekua HI 96750
City State Zip Code

DEVELOPER SUMMARY - Overhead Cost Estimate

Project:	Haleili S/D	Date:	10/5/05
Planner:	R.Yamato	Request Number:	H22257

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 2,065.82	
	Direct Labor Cost (NI-includes transportation)	$ 5,847.97	
	Direct Material Cost	$ 7,526.15	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 15,219.00	
	Total Capital	$ 30,657.94	$ 30,657.94
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)		
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 15,495.20	$ 15,495.20
		Sub Total	$ 46,153.14
	Plus HELCO JP Shares (Verizon Installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 46,153.14
	Less Developer Cost		$ 41,826.58
	Less HELCO Betterment	$ 4,326.56	
	Less Salvageable Material Credit	$ -	
	Developer Cost Sub Total		$ 41,826.58
	Advance	$ 40,714	
	State GET (4.166%)	$ 1,696	
	Developer Advance (w/ GET)	$ 30,631	
	Verizon-JP-Advance	$ 11,779	
	Total Advance (w/ GET)	$ 42,410	
	CH St. Lt. JP-Aid	$ 1,113	
	State GET (4.166%)	$ 46	
	Sub Total Aid	$ 1,159	
	Total Developer Advance (includes GET &Verizon JP shares)		$ 42,410
	Total Developer Aid (includes State GET)		$ 1,159
	Total Developer Cost		$43,569
	Refundable Verizon JP Shares (2-way-HELCO installed)	$ 10,666.20	
	Refundable Verizon JP Shares (3-way-HELCO installed)	$ 1,112.86	
	Non-refundable CH Shares- St. Lt. (2-way-HELCO installed)	$ -	
	Non-refundable CH Shares- St. Lt. (3-way-HELCO installed)	$ 1,112.86	

	Man-hour	Crew-hour		
Capital	166.2		10 % Payment	4,357
O & M	0.0		90 % Payment	39,212
Removal	0.0			
TOTAL	166.2	0.0		

Prepared By: R.Yamato Checked by: KRW 10-5-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project: Haleili S/D — Date: 10/5/05

Planner: R.Yamato — Request / Parent WO Number: H22257

Qty.	SMU. No.	Description		Labor M/H Unit	Labor M/H Total
121	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)	0.08	9.68
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)		0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC		0.017	0.000
	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"	0.017	0.000
	1-2040	(7978) #4/3 al tpx (ft)	"	0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"	0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"	0.017	0.000
	1-2040	( ) #336.4 strd al wp	"	0.03	0.00
221	1-2040	(8296) #3/0 strd AAAC - lw	"	0.05	11.05
	1-2040	(8296) #3/0 strd AAAC - 2&3W	"	0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC - 1W	"	0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC -2&3W	"	0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC- 1W	"	0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC -2&3W	"	0.02	0.00
	1-5000	(11) 30FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	0.0
3	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	12.0
3	1-5000	(39) 45FT POLE CL 3 (6.0')	"	4.0	12.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"	4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"	4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"	4.0	0.0
1	1-5000	70FT POLE		6.0	6.0
	2-4030-A	midspan (1 phase)	"	1.0	0.0
1	2-4030-C	midspan (1 phase)	"	1.0	1.0
5	3-4100	3/8" DGS 34'	"	1.0	5.0
2	3-4100	3/8" DGS 41'	"	1.0	2.0
	3-4100	3/8" DGS 47'	"	1.0	0.0
	3-4100	3/8" SWGS 34'	"	2.0	0.0
3	3-4100	3/8" SWGS 41'	"	2.0	6.0
	3-4100	3/8" HGS (")	"	1.5	0.0
	3-4100	1/2" DGS 34'	"	1.0	0.0
	3-4100	1/2" DGS 41'	"	1.0	0.0
	3-4100	1/2" DGS 47'	"	1.0	0.0
	3-4100	1/2" SWGS 34'	"	2.0	0.0
	3-4100	1/2" SWGS 41'	"	2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
5	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10')	"	0.0	0.0
			"		
2	5-1009-F1	Straight & Angle	"	1.0	2.0
	5-1009-F2	Sec. split	"	1.0	0.0
2	5-1009-F3	Single DE	"	1.0	2.0
2	5-1009-F4	Line Guard	"	1.0	2.0
1	5-1009-F5	DDE	"	1.5	1.5
	5-1009-F6	Buck	"	1.0	0.0

			"		
	7-2050-F1		"	1.0	0.0
	7-2050-F2		"	1.5	0.0
3	7-2050-F2A	w/o CO	"	1.0	3.0
	7-2050-F3		"	2.0	0.0
	7-2050-F3A	Transf & Buck	"	2.0	0.0
	7-2050-F4	Angle w/o CO	"	1.0	0.0
1	7-2050-F5		"	1.5	1.5
	7-2050-F5A	w/o CO	"	1.0	0.0
	7-2050-F6		"	2.0	0.0
	7-2050-F7		"	2.0	0.0
	7-2050-F7A	Spl DE	"	1.5	0.0
	7-2050-F7B	S.D.E Jumper	"	2.0	0.0
1	7-2050-F8		"	2.0	2.0
	7-2050-F8A	w/o CO	"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"	1.0	0.0
	7-2050-F9		"	2.0	0.0
1	7-2050-F10	w/LA	"	2.0	2.0
	7-2050-F10A	w/o CO	"	1.5	0.0
	7-2210-1-A	2W	"	3.0	0.0
	7-2210-1-C	2W	"	3.0	0.0
	7-2210-A	2W	"	2.5	0.0
1	7-2210-C	2W	"	2.5	2.5
	7-2210A-A	2W 4pin dbl. x-arm	"	2.5	0.0
	7-2210A-C	2W 4pin dbl. x-arm	"	2.5	0.0
	7-2210-A	3W	"	3.0	0.0
	7-2210-C	3W	"	3.0	0.0
	7-2210A-A	3W 6pin DA	"	3.5	0.0
	7-2210A-C	3W 6pin DA	"	3.5	0.0
1	8-1170			8.0	8.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
7	12-1020-F2	Primary grounding	"	1.0	7.0
	12-5201	Object Marker	"	0.1	0.0
			"		0.0
			"		0.0
2		Traffic Control	"	8.0	16.0
		Tailgate meeting	"		0.0
			$ 7,525.15		
CAPITAL:		Total Direct Material Cost	$ 7,525.15		
				Man-hour Sub Total	114.2
		Non-productive hours per 8 hour shift @ 4 men crew		2.5	51.9
				Total Direct Capital Man-hours	166.2
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		2.5	0.0
				Total Direct O&M Man-hours	0.0
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		2.5	0.0
				Total Direct Removal Man-hours	0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					

Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Outside Materials		$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Pre-Capitalized Materials		$	-
SALVAGEABLE MATERIALS						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Salvageable Materials		$	-

OVERHEAD COST ESTIMATE
(Outside Material and Services and Joint Pole Costing)

	Project:	Halelli S/D				Date:	10/5/05
	Planner:	R.Yamato				Request/Parent WO Number:	H22257

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
1	9	8	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 1,350.00		
3	5.5	8	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 2,475.00		
3	6	8	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 2,700.00		
5	8	8	Dig and Set Anchor	$ 150.00	$ 6,000.00		
	----	8	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	----	8	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	----	8	AC Repair	$ 160.00	$ -		
7	----	8	Ground Rod Installation (2 per)	$ 350.00	$ 2,450.00		
	----	8	Pole Base	$ 125.00	$ -		
16	----	8	Traffic Control	$ 15.25	$ 244.00		
	----	8	Tree Trimming	$ -	$ -		
	----	8	Helicopter	$ 1,750.00	$ -		
	----	8		$ -	$ -		
				Total	$ 15,219.00		$ 15,219.00

2-way Verizon JP SHARES (HELCO Installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25	8	30' Pole	$ -	$ -		
	30/30	8	35' Pole	$ -	$ -		
3	30/35	8	40' Pole	$ 954.82	$ 2,864.46		
3	30/35	8	45' Pole	$ 1,325.58	$ 3,976.74		
5	50/50	8	Anchor Installation	$ 765.00	$ 3,825.00		
	50/50	8	Termi-Mesh	$ -	$ -		
	50/50	8	Pole Base	$ -	$ -		
	50/50	8	Traffic Control	$ -	$ -		
	50/50	8	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	8	AC Repair	$ -	$ -		
	50/50	8	Tree Trimming	$ -	$ -		
	50/50	8	Pole Removal	$ -	$ -		
				Total	$ 10,666.20		$ 10,666.20

3-way JP Shares (HELCO installed)

QTY		TMK	Description	Unit	Verizon Unit Total	Unit	CH Unit Total
0	30/30/30	8	35' Pole	$ -	$ -	$ -	$ -
	30/35/30	8	40' Pole	$ -	$ -	$ -	$ -
1	35/65/35	8	70' Pole	$ 1,112.86	$ 1,112.86	$ 1,112.86	$ 1,112.86
		8	Anchor Installation	$ -	$ -	$ -	
		8	Termi-Mesh	$ 500.00	$ -	$ 500.00	$ -
		8	Pole Base	$ -	$ -	$ -	$ -
		8	Traffic Control	$ -	$ -	$ -	$ -
		8	Sidewalk Repair (Concrete)	$ -	$ -	$ -	$ -
		8	AC Repair	$ -	$ -	$ -	$ -
		8	Tree Trimming	$ -	$ -	$ -	$ -
		8	Pole Removal	$ -	$ -	$ -	$ -
				Total	$ 1,112.86		$ 1,112.86
Transfer Charge:		per JP #	25591				$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			74.8	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	50.1
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	7.5
			WC m/h total	77%	57.6
NI	150	_TCS-CE	Supervisor	2%	1.5
NI	150	W_TT-CE	Transit Tech (JM)	5%	3.7
NI	150	W_RH-CE	Rodman Helper (AT)	5%	3.7
NI	150	_I-CE	Land Surveyor	5%	3.7
			WS m/h total	17%	12.7
NI	150	W_ENG-CE	(MSY)	3%	2.2
NI	150	W_SCD-CE	(EF)	5%	3.7
			WX m/h total	8%	6.0
			Engineering M HTotal	102%	76.3
			Engineering Vehicle Total		12.0
	Capital m/h			166.2	
NI	150	_TCS-CE	labor (sup)	1%	1.7
NI	150	D_Crew	labor (crew)	100%	166.2
NI	201		Direct Material Cost	- - - -	$ 7,525.15
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 15,219.00
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	Haleili S/D	Date	10/5/05

*Project #	*Proj Link	*M-Proj #	*RA #	*Act #	*Loc #	*Ind #	*EE #	Rates Linked To	*LEDG...	Line Item					
RYamat06	RYamat06		*AFUD...	*AFUD...	*AFU...	*AFU...	*AF...	*NIy		Hotell S/D	$0.00	0.0	0.0	0.0	0.0
												$0.00	$0.00	$0.00	$0.00
			*AFUD...	*AFUD...		*AFU...	*AF...				$0.00	0.0	0.0	0.0	0.0
												$0.00	$0.00	$0.00	$0.00
			*AFUD...	*AFUD...		*AFU...					$0.00	0.0	0.0	0.0	0.0
												$0.00	$0.00	$0.00	$0.00
				*AFUD...							$0.00	0.0	0.0	0.0	0.0
												$0.00	$0.00	$0.00	$0.00
RYamat06			-	-	-	-	401	Not In File		Stores OHRYamat06	$1,133.08	5,816.51	0.00	0.00	0.00
												$1,133.08	$0.00	$0.00	$0.00
			-	-		-	401				$1,133.08	5,816.51	0.00	0.00	0.00
												$1,133.08	$0.00	$0.00	$0.00
RYamat06			-	-	-	-	404	Not In File		Energy Delivery OHR...	$5,936.68	51.3	51.3	51.3	0.0
												$1,980.18	1,886.18	...	$0.00
			-	-		-	404				$5,936.68	51.3	51.3	51.3	0.0
												$1,980.18	1,886.18	...	$0.00
RYamat06			-	-	-	-	406	Not In File		Corp Admin OH RYa...	$1,147.58	121.2	51.3	51.3	0.0
												$621.70	$263.17	$262.66	$0.00
			-	-		-	406				$1,147.58	121.2	51.3	51.3	0.0
												$621.70	$263.17	$262.66	$0.00
RYamat06			-	-	-	-	407	Not In File		Cust Install OH RYam...	$4,043.02	69.9	0.0	0.0	0.0
												$4,043.02	$0.00	$0.00	$0.00
			-	-		-	407				$4,043.02	69.9	0.0	0.0	0.0
												$4,043.02	$0.00	$0.00	$0.00
RYamat06			-	-	-	-	421	Not In File		HPW OH RYamat06	$1,015.60	121.2	51.3	51.3	0.0
												$550.25	$232.90	$232.45	$0.00
			-	-		-	421				$1,015.60	121.2	51.3	51.3	0.0
												$550.25	$232.90	$232.45	$0.00
RYamat06			-	-	-	-	422	Not In File		Empl Benefits OH RY...	$1,518.82	121.2	51.3	51.3	0.0
												$822.95	$348.33	$347.85	$0.00
			-	-		-	422				$1,518.82	121.2	51.3	51.3	0.0
												$822.95	$348.33	$347.85	$0.00
RYamat06			-	-	-	-	423	Not In File		Payroll Tax OHRYama...	$410.79	3,772.82	1,836.11	1,836.54	0.00
												$310.21	$150.44	$150.14	$0.00
			-	-		-	423				$410.79	3,772.82	1,836.11	1,836.54	0.00
												$310.21	$150.44	$150.14	$0.00
			-	-		-					$15,405.64	10,076.14	2,003.31	2,031.34	0.00
												$9,461.41	$2,876.01	...	$0.00
				-							$15,405.64	10,076.14	2,003.31	2,031.34	0.00
												$9,461.41	$2,876.01	...	$0.00
RYamat06	RYamat06		HWX	403	HAK	NI	150	W_PA-CE Prod...	W_PA...	Cust Eng-Planner Ab...	$149.04	0.0	0.0	0.0	0.0
												$149.04	$0.00	$0.00	$0.00
RYamat06	RYamat06		HWX	403	HAK	NI	150	W_CP-CE Prod...	W_CP...	Cust Eng-Planner-12	$1,327.80	46.9	0.0	0.0	0.0
												$1,327.80	$0.00	$0.00	$0.00
			HWX	403		NI	150				$1,476.83	53.8	0.0	0.0	0.0
												$1,476.83	$0.00	$0.00	$0.00
			HWX	403		NI					$1,476.83	53.8	0.0	0.0	0.0
												$1,476.83	$0.00	$0.00	$0.00
RYamat06	RYamat06		HWS	403	HAK	NI	150	_TCS-CE Pro...	_TC...	Civil-Sup	$43.98	1.4	0.0	0.0	0.0
												$43.98	$0.00	$0.00	$0.00
RYamat06	RYamat06		HWS	403	HAK	NI	150	W_MAP-CE Pr...	W_M...	Civil-Mapper	$95.10	3.4	0.0	0.0	0.0
												$95.10	$0.00	$0.00	$0.00
RYamat06	RYamat06		HWS	403	HAK	NI	150	W_RH-CE Prod...	W_RH...	Civil-Rodman	$79.25	3.4	0.0	0.0	0.0
												$79.25	$0.00	$0.00	$0.00
RYamat06	RYamat06		HWS	403	HAK	NI	150	W_TT-CE Prod...	W_TT...	Civil-Transit Tech	$110.91	3.4	0.0	0.0	0.0
												$110.91	$0.00	$0.00	$0.00
			HWS	403		NI	150				$318.76	11.6	0.0	0.0	0.0
												$318.76	$0.00	$0.00	$0.00
			HWS	403		NI					$318.76	11.6	0.0	0.0	0.0
												$318.76	$0.00	$0.00	$0.00
RYamat06	RYamat06		HWX	403	HAK	NI	150	W_ENG-CE Pr...	W_EN...	Planning-Engineer	$45.53	3.1	0.0	0.0	0.0
												$45.53	$0.00	$0.00	$0.00
RYamat06	RYamat06		HWX	403	HAK	NI	150	W_SCD-CE Pr...	W_SC...	Planning-Draft	$102.48	3.4	0.0	0.0	0.0
												$102.48	$0.00	$0.00	$0.00
			HWX	403		NI	150				$149.03	5.5	0.0	0.0	0.0
												$149.03	$0.00	$0.00	$0.00
			HWX	403		NI					$149.03	5.5	0.0	0.0	0.0
												$149.03	$0.00	$0.00	$0.00
				403							$1,943.71	69.9	0.0	0.0	0.0
												$1,943.71	$0.00	$0.00	$0.00
RYamat06	RYamat06		HDK	415	HAK	NI	150	_TCS-ED Pro...	_TC...	Crew-Sup	$49.81	0.5	0.5	0.5	0.0
												$15.64	$15.64	$16.54	$0.00
RYamat06	RYamat06		HDK	415	HAK	NI	150	D_CREW Prod ...	D_C...	Crew	$5,440.16	50.8	60.8	60.7	0.0
												$1,814.56	$1,814.56	...	$0.00
			HDK	415		NI	150				$5,488.78	51.3	51.3	51.3	0.0
												$1,830.11	$1,836.11	...	$0.00
RYamat06	RYamat06		HDK	415	HAK	NI	201	_ No Escalation		Stock Material	$5,818.51	5,816.5	0.0	0.0	0.0
												$5,818.51	$0.00	$0.00	$0.00
RYamat06	RYamat06		HDK	415	HAK	NI	201	_ No Escalation		Outside Materials	$0.00	0.0	0.0	0.0	0.0
												$0.00	$0.00	$0.00	$0.00

			HDK	415		NI	201				$5,818.81	5,818.8	0.0	0.0	0.0
												$5,818.81	$0.00	$0.00	$0.00
RYamal06	RYamal06		HDK	415	HAK	NI	605	No Escalation		Outside Construction	$14,694.00	14,694.0	0.0	0.0	0.0
												$14,694.00	$0.00	$0.00	$0.00
			HDK	415		NI	605				$14,694.00	14,694.0	0.0	0.0	0.0
												$14,694.00	$0.00	$0.00	$0.00
			HDK	415		NI					$25,997.27	20,561.8	$1.3	$1.2	0.0
												$22,340.62	$1,830.11	--	$0.00
				415							$25,997.27	20,561.8	$1.3	$1.2	0.0
												$22,340.62	$1,830.11	--	$0.00
											$43,346.62	30,706.85	2,068.81	2,082.64	0.00
												$33,745.75	$4,805.12	--	$0.00

Hawaii Electric Light Company, Inc.
AIDS AND ADVANCES FOR BLANKET PROJECTS

			2006	AIDS		ADVS		
COMP NO	COMPONENT TITLE	DESGR	BUDGET[1]	% OF BUDGET[2]	AMT[1]	% OF BUDGET[2]	AMT[1]	TOTALS[1]
H0007000	Customer Request Projects	MB	624.8	3	18.7	96	599.8	618.6
H1008000	Minor OH Extn Below $20000	MB	1,533.0	2	30.7	26	398.6	429.2
H3521000	SSPP Requests	MB	550.9	0	0.0	30	165.3	165.3
U1-0011	Unforseeable UG Cust Request	KW	1,228.7	52	638.9	48	589.8	1,228.7
H1003000	Minor UG Services	KW	1,172.7	29	340.1	26	304.9	645.0
H1017000	Minor UG Extn Below $20000	KW	1,128.4	47	530.3	13	146.7	677.0

NOTE: 1 - Values are $1000s
2 - Percentages are historical

SOURCE: Blanket Projects from HELCO-WP-1409(C)

Hawaii Electric Light Company, Inc.
2006 CUSTOMER CIAC AND ADVANCES WORKPAPER

CUSTOMER CIAC & ADVANCES (THRU OCT 31, 2006)

A	B	C	D	E	F	G	H	I	J	K	L	M	N
						271 - CIAC				252 - ADVANCES			
			UPDATED FY06 BUDGET[1]	ACTUALS THRU OCT[1]	FORECAST (NOV-DEC) D - E	CIAC - COLLECTED	% (G ÷ E) x 100	FORECAST F x (H ÷ 100)	TOTAL G + I	ADVANCES COLLECTED	% (K ÷ E) x 100	FORECAST F x (L ÷ 100)	TOTAL K + M
		H1003000 - Minor UG Services	$ 1,484,133.10	$ 1,385,945.00	$ 98,188.10	$ 521,510.63	38	$ 36,946.73	$ 558,457.36	$ 17,365.00	1	$ 1,230.23	$ 18,595.23
		H1006000 - Minor OH Extn Below $20000	$ 3,397,032.90	$ 3,152,890.00	$ 244,142.90	$ 81,779.00	3	$ 8,332.53	$ 88,111.53	$ 680,508.10	22	$ 52,694.90	$ 733,203.00
		H1017000 - Minor UG Extn Below $20000	$ 1,249,439.40	$ 992,491.00	$ 256,948.40	$ 172,971.00	17	$ 44,780.88	$ 217,751.88	$ 456,450.00	46	$ 118,171.45	$ 574,621.45

Acct #	Received	Name	Req# H-	Amount	Project #	
271	Aug-06	Moss Engineering Inc: Maureen Prisby Mark Geise Lot 29 Hokulia SC	0012632	564.00	H1003000	E0001064
271	Aug-06	Queen Construction & Masonry: George Marshall Lot 22 hokulia SD I	0015428	3,926.00	H1003000	E0001064
271	Feb-06	Metzler Contracting Co: Artur Levinson Lot 24 Kukio Bay Bch Club SI	0019621	3,263.00	H1003000	E0001064
271	Mar-06	Jeff White: Lot 1965 Kahakai Blvd Hwn Beaches SD	0020147	125.00	H1003000	E0001064
271	Jun-06	John Erlwards Constr Co Inc: LKS LLC Apt Bldg Lono Kona SD	0020317	1,065.00	H1003000	E0001064
271	Jan-06	Moss Engineering Inc: Unit 302/304 Waiulauia @ Mauna Kea	0022130	509.00	H1003000	E0001064
271	Jan-06	Moss Engineering Inc: Unit 401 Waiulauia @ Mauna Kea	0022132	196.00	H1003000	E0001064
271	Oct-06	Dwight/Eileen Geiger: Kukuihaele Hamakua	0022398	1,515.00	H1003000	E0001064
271	May-06	Joseph G Souza: Kalanlai Rd #60A1 Kalopa	0022850	283.00	H1003000	E0001064
271	Jan-06	Randy J Salim: Lot61 Puako Beach Lots	0023104	504.00	H1003000	E0001064
271	Feb-06	Clever Construction Inc: Lot 49, 49 Black Sands SD, S Kohala	0023157	2,718.00	H1003000	E0001064
271	Jul-06	Jeff Hecht: Lot35 Ala Helau Rd Paradise Park SD Puna	0023644	533.00	H1003000	E0001064
271	Jul-06	Queen Construction & Masonry: Lot38F Pauna White Sands SD S Kc	0023663	501.00	H1003000	E0001064
271	Aug-06	John Irish: Puuloa SD N Kona	0023723	773.00	H1003000	E0001064
271	May-06	Maryl Construction: Lot 2 Iolani SD Inc 4 N Kona	0023878	709.00	H1003000	E0001064
271	Mar-06	Peterson Construction: Lot 2 Cape at Mauna Lani S Kohala	0024018	2,077.00	H1003000	E0001064
271	Sep-06	Kohala Creative Const LLC: Lot 8 Kolea Kai Circle S Kohala	0024172	2,761.00	H1003000	E0001064
271	Jan-06	Lloyd Francois: Lot4 Waimea Landmark Est residence	0024218	511.00	H1003000	E0001064
271	Apr-06	Phillip E Knierim: Lot 24 @ Keauhou Est N Kona	0024370	245.00	H1003000	E0001064
271	Jun-06	Kohala-Woodvale Associates LLC: Unit 4A Kaunaoa Mauna Kea	0024576	984.00	H1003000	E0001064
271	Jun-06	Kohala-Woodvale Associates LLC: Unit 4B Kaunaoa Mauna Kea	0024579	952.00	H1003000	E0001064
271	Mar-06	Kohala-Woodvale Associates LLC: Unit 6A Kaunaoa @ Mauna Kea	0024582	953.00	H1003000	E0001064
271	Mar-06	Kohala-Woodvale Associates LLC: Unit 6B Kaunaoa @ Mauna Kea	0024583	914.00	H1003000	E0001064
271	Mar-06	Kohala-Woodvale Associates LLC: Unit 7A Kaunaoa @ Mauna Kea	0024584	893.00	H1003000	E0001064
271	Mar-06	Kohala-Woodvale Associates LLC: Unit 7B Kaunaoa @ Mauna Kea	0024585	842.00	H1003000	E0001064
271	Jun-06	Kohala-Woodvale Associates LLC: Unit 8A Kaunaoa Mauna Kea	0024586	984.00	H1003000	E0001064
271	Jun-06	Kohala-Woodvale Associates LLC: Unit 8B Kaunaoa Mauna Kea	0024587	952.00	H1003000	E0001064
271	Jun-06	Kohala-Woodvale Associates LLC: Unit 9A Kaunaoa Mauna Kea	0024588	1,027.00	H1003000	E0001064
271	Jun-06	Kohala-Woodvale Associates LLC: Unit 9B Kaunaoa Mauna Kea	0024589	952.00	H1003000	E0001064
271	Jul-06	Kohala-Woodvale Assoc LLC: Unit 10A Kaunaoa Mauna Kea Estates	0024590	955.00	H1003000	E0001064
271	Jul-06	Kohala-Woodvale Assoc LLC: Unit 10B Kaunaoa Mauna Kea Estates	0024591	995.00	H1003000	E0001064
271	Feb-06	Keauhou Kona Construction Corp: Lot 14 Hualalai PH2A P2 SD	0024715	3,394.00	H1003000	E0001064
271	May-06	Ainaola Inc: Smith Res Lot 15B-4 Kukio Bay Beach Club SD N Kona	0024821	1,874.00	H1003000	E0001064
271	Apr-06	Metcalf Construction: Lot Terry Metcalf @ Kaloko Mauka SD N Kona	0024864	428.00	H1003000	E0001064
271	Sep-06	Harley M Sellers: Lot 3 Kona Vistas N Kona	0024905	113.00	H1003000	E0001064
271	Jun-06	Moss Engineering Inc: Waiulauia Mauna Kea S Kohala	0025335	153.00	H1003000	E0001064
271	Apr-06	Moss Engineering Inc: Duplex @ Waiulauia @ Mauna Kea S Kohala	0025345	789.00	H1003000	E0001064
271	Apr-06	Moss Engineering Inc: Duplex @ Waiulauia @ Mauna Kea S Kohala	0025346	376.00	H1003000	E0001064
271	Jun-06	Moss Engineering Inc: Waiulauia Mauna Kea S Kohala	0025347	493.00	H1003000	E0001064
271	Jun-06	Moss Engineering Inc: Waiulauia Mauna Kea S Kohala	0025348	472.00	H1003000	E0001064
271	Aug-06	Moss Engineering Inc: Duplex Waiulauia Mauna Kea S Kohala	0025349	842.00	H1003000	E0001064
271	Jan-06	Gildewell Construction: Lot2 Mauna Lani Point	0025479	210.00	H1003000	E0001064
271	Apr-06	ECS Inc: Villa Erickson @ Hualalai Parcel 3 SD N Kona	0025486	990.00	H1003000	E0001064
271	Jan-06	G M Construction: LPJ Kukio LLC Kukio ph3 S/D residence	0025552	1,158.00	H1003000	E0001064
271	Apr-06	Ivan Dewitt: Bayview Est N Kona	0025682	449.00	H1003000	E0001064
271	Feb-06	Towne Realty Inc: Lots 14-16 Alii Hghts Unit 2 PH3, N Kona	0026100	213.00	H1003000	E0001064
271	Feb-06	John C Stefaney: Lot 26 Makalei Estates N Kona residence	0026287	110.00	H1003000	E0001064
271	Sep-06	Keauhou Kona Construction Corp: Lot 13 Hualalai PH2A Parcel 2 SD	0026293	3,570.00	H1003000	E0001064
271	Feb-06	HHB & Associates LLC: Lot 43B Puu Lani Ranch, N Kona	0026601	96.00	H1003000	E0001064
271	Feb-06	Stephen M Schwartz: Lot 33 Makalei Est, N Kona	0026652	110.00	H1003000	E0001064
271	Sep-06	Crisafi Construction: Jeffrey & Diana Reiner Lot 54 Kealakekua Bay E	0026692	431.00	H1003000	E0001064
271	Mar-06	Ainaola Inc: Lot 20,49 Black Sand SD S Kohala	0026701	2,361.00	H1003000	E0001064
271	Jul-06	Andrew Frogley: Anekona Estates S Kohala	0026784	369.00	H1003000	E0001064
271	Mar-06	Reef L Tauati: 1068 Kulamalu Place S Hilo Lot 15	0026800	73.00	H1003000	E0001064
271	Sep-06	Thomas W Pack: Lot 41 Makalei Est N Kona	0026926	369.00	H1003000	E0001064
271	Sep-06	Arterra Custom Homes Hawaii: Lot 11 Maniniowali SD N Kona	0026927	3,465.00	H1003000	E0001064
271	Mar-06	Troy Kelii Fernandez: 27th Ave Hwn Paradise Park SD	0027055	356.00	H1003000	E0001064
271	Aug-06	Stanley I Nakamura: Mana SD S Kohala	0027060	371.00	H1003000	E0001064
271	Feb-06	Leonard M Glon: Kaapahu Homestead Road residence	0027173	483.00	H1003000	E0001064
271	Feb-06	Sean P Landers: Lot 75 Waikoloa Village	0027282	65.00	H1003000	E0001064
271	Jan-06	Roger C Lopossa: Lot13 Kahakai Estates	0027364	57.00	H1003000	E0001064
271	Jan-06	Hina Sewell: Lot3 Kukuinui Subd	0027365	51.00	H1003000	E0001064
271	Aug-06	Katsuji Matsuoka: 28-2846 Kumula Street S Hilo	0027390	421.00	H1003000	E0001064
271	Jul-06	Ryan Simpson: Lot15 Hualalai Hts SD N Kona	0027438	270.00	H1003000	E0001064
271	Mar-06	Paul Lee: 28-1123 Pua Street Honomu S Hilo Lot 18	0027523	856.00	H1003000	E0001064
271	Jul-06	Clarence E Dickenson: Lot 37 Hualalai Colony N Kona	0027536	329.00	H1003000	E0001064
271	Mar-06	Mary V Ogle: Lot 158 Waikoloa Village S Kohala	0027551	82.00	H1003000	E0001064
271	Jan-06	Michael Andrews: Bayview Estates N Kona	0027615	293.00	H1003000	E0001064
271	Mar-06	Kona Scenic Land Inc: Keaiakekua S Kona	0027648	84.00	H1003000	E0001064

CA-IR-425
ATTACHMENT 3
DOCKET NO. 05-0315
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Hawaii Electric Light Company, Inc.
2006 CUSTOMER CIAC AND ADVANCES WORKPAPER

Acct #	Received	Name	Req# H-	Amount	Project #	
271	Oct-06	Edward A Gervais: Lot 18 Kahakai Est SD N Kona	0027713	369.00	H1003000	E0001064
271	Aug-06	Robert L Helstrom: Kahalui Farmlots N Kona	0027864	596.00	H1003000	E0001064
271	Apr-06	Takamine Construction Corp: 28-346 Mao Nana Rd Pepe'ekeo	0027950	476.00	H1003000	E0001064
271	Feb-06	General Construction Pacific: Steven Benson Lot3 Aumoe, Bayview E	0028120	141.00	H1003000	E0001064
271	Apr-06	Modisher Contracting Services: Lot 61 Waikii Ranch S Kohala	0028126	129.00	H1003000	E0001064
271	Jan-06	Peterson Construction; Katherine Bell Hui 2002 S/D residence	0028133	51.00	H1003000	E0001064
271	Mar-06	James Sargent: Lot 126 Hawi N Kohala	0028147	523.00	H1003000	E0001064
271	Sep-06	James Sargent: 55-511 Hawi Rd N Kohala	0028147	564.00	H1003000	E0001064
271	Feb-06	DRH Construction: Lot 15 Bayview Est, N Kona	0028275	102.00	H1003000	E0001064
271	Mar-06	GM Construction: Knudson Luxury Hsing on lot 4 Hualalai Parcel 9 Sl	0028298	2,082.00	H1003000	E0001064
271	Feb-06	Quality Builders Inc: Lot 10C Waimea Homesteads, S Kohala	0028308	591.00	H1003000	E0001064
271	Jan-06	Thomas Duarte Jr: Kalilua View Est	0028325	275.00	H1003000	E0001064
271	Feb-06	Richard S Farias: Lot 6 Lahou St, Sunrise Ridge SD	0028440	155.00	H1003000	E0001064
271	Feb-06	David N Clarke: Lot A103 Kona Highlands SD	0028510	51.00	H1003000	E0001064
271	Jun-06	Tinguely Development Inc: Na Hale Kahikole #1 Hualalai Parcel 17 S	0028542	1,307.00	H1003000	E0001064
271	Apr-06	Tinguely Development Inc: Na Hale Kahikole #3 # Hualalai Parcel 17	0028547	936.00	H1003000	E0001064
271	Apr-06	GM Construction: Holstead-Knudson Res @ Hualalai parcel 3 SD N K	0028559	1,362.00	H1003000	E0001064
271	Mar-06	Michael Rearden: Residence Sea Cliff 49 Black Sand SD S Kohala	0028597	1,040.00	H1003000	E0001064
271	Mar-06	Moss Engineering Inc: Mauka Cottages Lot 2 Kukio PH3 Inc2 SD	0028608	980.00	H1003000	E0001064
271	Mar-06	Moss Engineering Inc: Mauka Cottages Lot 2 Kukio PH3 Inc2 SD	0028613	980.00	H1003000	E0001064
271	Jun-06	James M Engelhard: Lot 87 Kona Acres N Kona	0028684	355.00	H1003000	E0001064
271	Oct-06	Roger W Sweningsen: Lot 1815 Papai Street Hawaiian Shores SD Pu	0028752	555.00	H1003000	E0001064
271	Apr-06	Avalon Hawaii Const LLC: Lots 207, 209, 210 & 215 Lokahi Makai PH	0028889	341.00	H1003000	E0001064
271	Apr-06	Avalon Hawaii Const LLC: Res on lot 208 @ Lokahi Makai PH 2 N Ko	0028890	101.00	H1003000	E0001064
271	Apr-06	Avalon Hawaii Const LLC: Lot 217, 222 & 225 @ Lokahi Makai SD Ph	0028896	241.00	H1003000	E0001064
271	Jan-06	Avalon Hawaii Const LLC: Lot218 Lokahi Makai ph2	0028897	63.00	H1003000	E0001064
271	Apr-06	Avalon Hawaii Const LLC: Lots 219,220,223,224 Lokahi Makai PH2	0028898	395.00	H1003000	E0001064
271	Apr-06	Avalon Hawaii Const LLC: Lot 226, 227 & 229 @ Lokahi Makai SD Ph	0028903	330.00	H1003000	E0001064
271	Apr-06	Avalon Hawaii Const LLC: Lots 230,232,236,237 Lokahi Makai PH2	0028904	305.00	H1003000	E0001064
271	Jan-06	Eileen S Matsumoto: Kahaolino S/D	0028956	1,777.00	H1003000	E0001064
271	Mar-06	Cindy B Metcalf: Lot 95 Waikoloa Village S Kohala	0028988	88.00	H1003000	E0001064
271	May-06	Ellsworth Demattos: 161040 Road 9 Hwn Acres SD Puna	0029038	444.00	H1003000	E0001064
271	Mar-06	Ivan K Kaupiko: Lot 4 Located at Kukuinui SD N Kona	0029047	75.00	H1003000	E0001064
271	Jan-06	Finesse Construction; Kohala Ranch residence	0029106	110.00	H1003000	E0001064
271	Mar-06	James J Bablan: Lot 1A Waikoloa Village S Kohala	0029108	73.00	H1003000	E0001064
271	Mar-06	Palace Construction: Kona Plantation SD N Kona	0029148	93.00	H1003000	E0001064
271	Jul-06	Oscar Passalacqua: Lot2 Makapono Partners SD N Kona	0029164	338.00	H1003000	E0001064
271	Jan-06	Ronald Pacheco: Lot76 Komomala Place komohana Gardens S/D	0029235	68.00	H1003000	E0001064
271	Apr-06	Mark Wyrick: Lot 4 @ Malu Ridge SD N Kohala	0029291	129.00	H1003000	E0001064
271	Mar-06	Byron C Pardau: Iolani III SD N Kona	0029307	184.00	H1003000	E0001064
271	Mar-06	Tom A Baldridge: 77-6453 Ono Rd N Kona	0029329	184.00	H1003000	E0001064
271	Jun-06	Avalon Hawaii Const LLC: Lots 216,221,231,240 Lokahi Makai PH2	0029334	329.00	H1003000	E0001064
271	Aug-06	Avalon Hawaii Const LLC: Lots 233,234,235 Lokahi Makai Phse2 N K	0029342	1,049.00	H1003000	E0001064
271	Jun-06	Avalon Hawaii Const LLC: Lot 239 Lokahi Makai PH2 N Kona	0029346	104.00	H1003000	E0001064
271	Jul-06	Avalon Hawaii Const LLC: Lot 241 Lokahi Makai PH2 N Kona	0029348	313.00	H1003000	E0001064
271	Jul-06	Avalon Hawaii Const LLC: Lots247&248 Lokahi Makai PH2 SD N Kor	0029355	642.00	H1003000	E0001064
271	Sep-06	Avalon Hawaii Const LIC: Lot 249 Lokahi Makai PH2 N Kona	0029357	326.00	H1003000	E0001064
271	Feb-06	Krysta Stylos: Lot 313 Laikoloa Village, S Kohala	0029393	72.00	H1003000	E0001064
271	Mar-06	Larry M Sakamoto; Io View Est N Kona	0029416	260.00	H1003000	E0001064
271	Jan-06	Schuler Homes: Lot67&74 Lualai S/D	0029456	118.00	H1003000	E0001064
271	Sep-06	Dalyn R Grap: 193970 Keonelehua Ave Volcano Puna	0029461	240.00	H1003000	E0001064
271	Feb-06	Rene B Kathe: Lot 63A Keauhou Est, N Kona	0029464	64.00	H1003000	E0001064
271	Jan-06	HHB & Associates LLC: Lot21 Puaiani Est	0029474	63.00	H1003000	E0001064
271	Jan-06	Regan K Matsumura: Lot7 Waikoloa Village	0029491	63.00	H1003000	E0001064
271	Jan-06	Richard S Nakahara: Lot3 Malu Ridge Subd	0029544	48.00	H1003000	E0001064
271	Mar-06	HHB & Associates LLC: Lot 6 Puaiani Estates N Kona	0029551	133.00	H1003000	E0001064
271	Mar-06	HHB & Associates LLC: Lot 7 Puaiani Estates N Kona	0029552	135.00	H1003000	E0001064
271	Mar-06	Towne Realty Inc: Lots 1,2,3,4,5,6,7,9,10,19 Alii Hts Unit 2 Phase 4 E	0029586	1,194.00	H1003000	E0001064
271	Jan-06	Ivan K Kaupiko: Keakee Est	0029596	117.00	H1003000	E0001064
271	Jul-06	Towne Realty Inc: Lot8 Alii Hts Unit2 PH4 N Kona	0029600	328.00	H1003000	E0001064
271	Apr-06	Towne Realty Inc: Lots 11,12 Alii Heights Unit 2 Ph 2 SD N Kona	0029604	159.00	H1003000	E0001064
271	Aug-06	Towne Realty Inc; Lots 13, 23 Alii Hts Unit 2 Ph4 N Kona	0029606	662.00	H1003000	E0001064
271	Jul-06	Towne Realty Inc: Lots14,20,21,22 Alii Hts Unit2 N Kona	0029607	1,313.00	H1003000	E0001064
271	Sep-06	Towne Realty Inc: Lot 18 Alii Hts Unit 2 Ph 4 N Kona	0029611	329.00	H1003000	E0001064
271	Feb-06	Towne Realty Inc: Lot 4,7,8 Sunset Ridge SD PH3 Unit 2 Kohala	0029633	185.00	H1003000	E0001064
271	Jun-06	Maryl Group Inc: Hale Hoomalkai Res Lot 75A Kukio Bay Beach Club	0029644	715.00	H1003000	E0001064
271	Sep-06	Burt Y Tsuchiya: 490 Kipuni Place Hilo	0029683	345.00	H1003000	E0001064
271	Jun-06	Beverly Fuller: Kalwiki Homesteads S Hilo	0029700	130.00	H1003000	E0001064
271	Feb-06	Carol R Ignacio: Lot B Pohakea Mauka Rd, Paulio	0029706	491.00	H1003000	E0001064
271	Feb-06	Donald F Rapoza: Lot 209 Lei Hinahina Pl, Ainaola	0029715	74.00	H1003000	E0001064
271	Feb-06	Maurice L Pinker: 75-5320 Kalamona RD Keopu Mauka Holualoa	0029770	672.00	H1003000	E0001064
271	Mar-06	Chris N Stadlbauer; Lot 63 Kohala by the Sea N Kohala	0029800	129.00	H1003000	E0001064
271	Mar-06	Timothy C Totten: P17-2 Panted Church Rd S Kona	0029807	551.00	H1003000	E0001064
271	Feb-06	Jason J Shurley: Lot 4 Kona Palisades, N Kona	0029817	73.00	H1003000	E0001064
271	Feb-06	Schuler Homes: Lot 63&64 Lualai PH2A, S Kohala	0029818	118.00	H1003000	E0001064
271	Jan-06	Pacific Isle Homes: Lot418 Kohala Ranch	0029826	110.00	H1003000	E0001064
271	Feb-06	Lawrence Peck; Lot 21 Lahou St, Sunrise Ridge SD	0029849	218.00	H1003000	E0001064
271	Feb-06	Michael Monje: Lot 22 Lahou St, Sunrise Ridge SD	0029850	128.00	H1003000	E0001064
271	Mar-06	Don Fediuk: Hualalai Heights SD No Kona	0029859	80.00	H1003000	E0001064

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Acct #	Received	Name	Req# H-	Amount	Project #	
271	Feb-06	Aina Kuai Partners LLC: Lot 24 Kulaimao Pl, Kula Ridge SD	0029930	206.00	H1003000	E0001064
271	Jun-06	Colleen A Sundberg: Kealakekua Bay Est S Kona	0029937	345.00	H1003000	E0001064
271	Feb-06	Thomas P Whittemore: Lot 15 Kukuinui SD, N Kona	0029955	110.00	H1003000	E0001064
271	Mar-06	Robert G Evett: Hawkeswood's 76-766 IO Pl N Kona	0029997	131.00	H1003000	E0001064
271	Feb-06	Kristi J Parker: Lot 7 Kukuinui SD	0030013	48.00	H1003000	E0001064
271	May-06	Richard C Beebe: Lot 22 Waikoloa Village S Kohala	0030014	88.00	H1003000	E0001064
271	Apr-06	Schuler Homes: Lot 29 Lualai SD PH1 S Kohala	0030084	104.00	H1003000	E0001064
271	Feb-06	Bradford T Tom: Lot 5 Kukuinui SD, N Kona	0030088	110.00	H1003000	E0001064
271	Aug-06	Mike Krochina: Susan Senft Makalei Plantations Ph II residence	0030099	651.00	H1003000	E0001064
271	Mar-06	Amy Adkison: Lot 2 Keahole Heights N Kona	0030134	82.00	H1003000	E0001064
271	Mar-06	Ron Jenny: Lot 77 Puako Beach Dr S Kohala	0030151	573.00	H1003000	E0001064
271	Feb-06	Schuler Homes: Lots 58,59,62&L6 Lualai SD PH2A, S Kohala	0030158	315.00	H1003000	E0001064
271	Feb-06	Richard Purdue: Lot 53 Waikoloa Village, S Kohala	0030177	89.00	H1003000	E0001064
271	Apr-06	Ken W Lundy: Lot 21 @ Makalei Est N Kona	0030179	129.00	H1003000	E0001064
271	Mar-06	Terry C Wigzell: Lot 245 Waikoloa Village S Kohala	0030181	89.00	H1003000	E0001064
271	May-06	John Burke: Lot 24 Waikoloa Village S Kohala	0030182	138.00	H1003000	E0001064
271	Aug-06	John W Burke: 68-3521 Malina St S Kohala	0030182	175.00	H1003000	E0001064
271	Apr-06	Magic Sands Corp: Ray Ramos & Bayview Est N Kona	0030202	80.00	H1003000	E0001064
271	Jul-06	Magic Sands Corp: Ray Ramos Bayview Est N Kona	0030202	683.00	H1003000	E0001064
271	Jul-06	Manfred Donner: Lot1910 Uwalo St Hawaiian Beaches SD Puna	0030250	380.00	H1003000	E0001064
271	Feb-06	Scott E Carter: Lot 226 Waikoloa Village S Kohala	0030271	179.00	H1003000	E0001064
271	Feb-06	Towne Realty Inc: Lots 21&29 Sunset Ridge PH3 Unit2 S Kohala	0030282	157.00	H1003000	E0001064
271	Mar-06	Jo-Ann Saruhbi: Meter Pedestal Napoopoo Rd S Kona	0030307	603.00	H1003000	E0001064
271	Apr-06	Sophia M Cabral-Makui: 39-3313 Milo Street O'okala Hawaii	0030363	588.00	H1003000	E0001064
271	May-06	Ed E Kaneshiro: 25-4447 Pakelekla Street Kaumana City	0030377	315.00	H1003000	E0001064
271	Mar-06	David S Fedluk: Hualalai Heights SD N Kona	0030414	131.00	H1003000	E0001064
271	Mar-06	Bradley P Freitas: Lot 19 Kukuinui SD N Kona	0030430	138.00	H1003000	E0001064
271	Mar-06	David Lanning: Makana Aloha Plantation SD N Kona	0030446	97.00	H1003000	E0001064
271	Sep-06	Towne Realty Inc: Lot 6 Alii Heights Unit 2 PH5 N Kona	0030466	311.00	H1003000	E0001064
271	Jun-06	Jeanne M Andrade: Hewa Kau Residence	0030484	517.00	H1003000	E0001064
271	May-06	Ken Kiyosaki: 1133 Akaola Drive S Hilo	0030491	1,209.00	H1003000	E0001064
271	May-06	Bud Patton: Keauhou Est N Kona	0030541	122.00	H1003000	E0001064
271	Sep-06	Shelley A A Ishimoto: 780 Lahou Street Hilo	0030559	126.00	H1003000	E0001064
271	Apr-06	Susan E Macy: Lot 31 Mokuloa SD S Kohala	0030567	110.00	H1003000	E0001064
271	Apr-06	Russell Araujo: Kahalani Street Kahalani Estates S Hilo	0030583	81.00	H1003000	E0001064
271	Jul-06	Nathan M Hendricks: Lot 58 Kona Palisades, N Kona	0030611	78.00	H1003000	E0001064
271	Mar-06	Ryan G Ouitoriano: 1055 Kulamanu Place Kula Ridge SD Lot 12	0030614	82.00	H1003000	E0001064
271	Mar-06	Towne Realty Inc: Lots 24,25,40,41 Sunset Ridge Phase 2 S Kohala	0030632	332.00	H1003000	E0001064
271	Sep-06	Hauoli K Mahoe: 68-3655 Lahilahi St S Kohala	0030637	371.00	H1003000	E0001064
271	Sep-06	Anthony D Vidana: Lot 43 Komohana Kai N Kona	0030645	327.00	H1003000	E0001064
271	Mar-06	Schuler Homes: Lot 30 Lualai SD Phase 1 S Kohala	0030652	88.00	H1003000	E0001064
271	Apr-06	Jane Schat: 27-380 Indian tree Rd Papaikou	0030656	620.00	H1003000	E0001064
271	Apr-06	Peter P Cantor Jr: Lot 4 @ Kohanaiki N Kona	0030735	395.00	H1003000	E0001064
271	Mar-06	Starbird Construction: Maria Garcia Kona Vista SD N Kona	0030736	366.00	H1003000	E0001064
271	Mar-06	Schuler Homes: Lot 68 Lualai SD Phase 1 S Kohala	0030786	82.00	H1003000	E0001064
271	Mar-06	Dehviler Construction Co: Lot 101 @ Kona Highlands	0030866	71.00	H1003000	E0001064
271	Aug-06	Donald Evangelista: 68-1779 Hooko St Waikoloa S Kohala	0030876	369.00	H1003000	E0001064
271	Apr-06	Schuler Homes: Lot 60,61,65 Lualai SD PH2A S Kohala	0030909	256.00	H1003000	E0001064
271	Apr-06	Steve Lain: Lot 21 @ Keahole View SD N Kona	0030911	131.00	H1003000	E0001064
271	May-06	Dave Pettersen: Lot 395 Kohala Ranch N Kohala	0030912	95.00	H1003000	E0001064
271	Apr-06	Dean A Bowman: Lot 587 @ Kohala by the Sea, N Kohala	0030913	140.00	H1003000	E0001064
271	Aug-06	Schilling Construction Inc: Craig Wells Kohala Ranch	0030924	338.00	H1003000	E0001064
271	May-06	Harmen T Verbrugge: Lot 52 Kohala Makai SD N Kohala	0030960	129.00	H1003000	E0001064
271	May-06	Dave Walsh: 48-5530 Waipio Lookout Rd Honokaa	0030971	732.00	H1003000	E0001064
271	May-06	Raymond Garrison: Walter Gossett @ Bayview Est N Kona	0030983	304.00	H1003000	E0001064
271	Apr-06	J E Merk & Assoc: 977 Kumukoa Street S Hilo	0031013	73.00	H1003000	E0001064
271	Jul-06	Edward E Lewiss III: Kohala by the Sea SD N Kohala	0031025	329.00	H1003000	E0001064
271	Apr-06	Ben Viloria: Lot 452 @ Kohala Ranch N Kohala	0031032	129.00	H1003000	E0001064
271	Apr-06	Scott A Vonnordheim: Lot 1-G-3 Hualalai Terrace SD N Kona	0031106	85.00	H1003000	E0001064
271	May-06	Kathryn M Rabang: Lot 286 Waikoloa Village S Kohala	0031107	74.00	H1003000	E0001064
271	Apr-06	Schuler Homes: Lot 79 @ Lualai SD PH 2A S Kohala	0031155	76.00	H1003000	E0001064
271	Apr-06	Lisa Kahakua: Kevin Kahakua @ Kona Plantation Est N Kona	0031164	122.00	H1003000	E0001064
271	May-06	Kevin A Felix: Mellani View Estates N Kona	0031177	96.00	H1003000	E0001064
271	May-06	Eric P Bowman: Lot 470 Kohala Ranch N Kohala	0031189	71.00	H1003000	E0001064
271	Oct-06	Hale Hawaii Development: Pusono Farms Kahana Road Honokaa	0031230	928.00	H1003000	E0001064
271	May-06	Bradley F Bryson: Lot 18 Champion Ridge Mauna Lani S Kohala	0031519	914.00	H1003000	E0001064
271	Jun-06	Craig A Chambers: Hao Kuni Pl Kona Plantations N Kona	0031520	807.00	H1003000	E0001064
271	May-06	Schuler Homes: Lot 93 Lualai SD PH 2 S Kohala	0031522	74.00	H1003000	E0001064
271	Jun-06	Quality Builders Inc: Waimea Homesteads S Kohala	0031527	672.00	H1003000	E0001064
271	May-06	S & R Construction: Lot K Moana Vista SD PH 2 N Kona	0031561	89.00	H1003000	E0001064
271	Jul-06	HHB & Assoc LLC: Lot2 Pualani Est PH1 SD N Kona	0031591	373.00	H1003000	E0001064
271	Jul-06	HHB & Assoc LLC: Lots 3,5,&6 Pualani Est SD N Kona	0031592	1,081.00	H1003000	E0001064
271	Aug-06	HHB & Associates LLC: Lots 7 Pualani Est SD N Kona	0031596	323.00	H1003000	E0001064
271	May-06	Schuler Homes: Lot 78,81,82,83 Lualai SD PH 2A S Kohala	0031622	417.00	H1003000	E0001064
271	May-06	Schuler Homes: Lot 84,91,92,93 Lualai SD PH 2 S Kohala	0031623	324.00	H1003000	E0001064
271	Jul-06	Dayton Kalai: Lot 351 28th Ave Paradise Park SD Puna	0031638	445.00	H1003000	E0001064
271	Jul-06	Roberts L Almeida Jr: Anekona Estates S Kohala	0031640	359.00	H1003000	E0001064
271	Oct-06	Tricia Ann Julian: Lot 979 25th Ave Paradise Park Puna	0031751	403.00	H1003000	E0001064
271	Aug-06	Build-It Hawaii: Samuel & Gelda Adarme 465 Ohukea Street Hilo	0031774	72.00	H1003000	E0001064

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Acct #	Received	Name	Req# H.	Amount	Project #	
271	May-06	Schuler Homes: Lots 87,88,89,90 Lualai PH 2B SD S Kohala	0031848	330.00	H1003000	E0001064
271	Jul-06	Keith J Kimi: Lot6 Kailua View Est N Kona	0031855	644.00	H1003000	E0001064
271	Jul-06	Inge U Juchtzer: Kaloko Mauka SD N Kona	0031863	387.00	H1003000	E0001064
271	Jul-06	William Affonso: 17435 Hale Pule Loop Kurtistown Puna Hawaii	0031874	269.00	H1003000	E0001064
271	Jun-06	William F Yardley: Alice Shingle @ Puu Kakanihia Rdway SD S Koha	0031903	652.00	H1003000	E0001064
271	May-06	Keith S Hayashi: 17-177 Ipuahaha Street Keaau Ag Lots SD Puna	0031908	422.00	H1003000	E0001064
271	Aug-06	Towne Realty Inc: Lots 1,2,10,11,14,15 Sunset Ridge Ph3 Unit3 Waik	0031917	2,317.00	H1003000	E0001064
271	May-06	Towne Realty Inc: Lot 3,4,5,6 Sunset Ridge PH 3 Unit 3 S Kohala	0031919	306.00	H1003000	E0001064
271	Jul-06	Towne Realty Inc: Lots7&12 Sunset Ridge PH3 Unit3 SD S Kohala	0031923	790.00	H1003000	E0001064
271	Jun-06	Towne Realty Inc: Lots 8,9 Sunset Ridge PH3 Unit3 S Kohala	0031924	271.00	H1003000	E0001064
271	Aug-06	Towne Realty Inc: Sunset Ridge Ph3 Unit3 Waikoloa	0031930	326.00	H1003000	E0001064
271	Jun-06	Deborah B Geeseman: Lot 166 Hoolai St Kapohoe Vacation-land Est	0031949	607.00	H1003000	E0001064
271	May-06	Scott E Carter: Lot 49 Waikoloa Village S Kohala	0031982	74.00	H1003000	E0001064
271	Jun-06	Castle & Cooke Waikoloa LLC: Lot 7,8,9,10 Kikaha Wehilani Waikolo	0031999	363.00	H1003000	E0001064
271	Sep-06	Castle & Cooke Waikoloa LLC: Lots 1&2 Kikaha Wehilani S Kohala	0032001	700.00	H1003000	E0001064
271	Aug-06	Castle & Cooke Waikoloa LLC: Lots 3&5 Kikaha Wehilani SD S Koha	0032005	827.00	H1003000	E0001064
271	Oct-06	Castle & Cooke Waikoloa LLC: Lots 6 & 12 Kikaha Wehilani SD S Ko	0032015	867.00	H1003000	E0001064
271	May-06	Christopher T Olearry: Lot 426 Kohala Ranch N Kohala	0032034	129.00	H1003000	E0001064
271	Oct-06	North Hawaii Construction Inc: David Somne Kohala Ranch N Kohala	0032063	1,515.00	H1003000	E0001064
271	Jun-06	Schuler Homes: Lots 80,85,86,94 Kualai SD PH2A S Kohala	0032101	430.00	H1003000	E0001064
271	Jul-06	Gale Sundseth: Lot10 Kona Hills SD N Kona	0032116	367.00	H1003000	E0001064
271	Aug-06	James Frierson: 991902 Pukeawe Circle Volcano Golf & Country Clu	0032118	240.00	H1003000	E0001064
271	Jun-06	Larry J Rivera: Lot 24 Bolton SD S Kohala	0032190	75.00	H1003000	E0001064
271	Jul-06	Stephen Epstein: Lot 8 Kukuinui SD N Kona	0032239	375.00	H1003000	E0001064
271	Jun-06	Towne Realty Inc: Lots 30,32,33 Sunset Ridge PH2 Unit3 S Kohala	0032294	224.00	H1003000	E0001064
271	Aug-06	Alan B Brem: Lot 6 Kukuinui SD N Kona	0032319	329.00	H1003000	E0001064
271	Jun-06	Dennis Boyd: 54-2264 Kynnersley Rd N Kohala	0032333	512.00	H1003000	E0001064
271	Aug-06	Michael L Codle: Waikoloa Village S Kohala	0032373	332.00	H1003000	E0001064
271	Jun-06	Braddock I Hoona: P-8 Hawaii Belt Road Pa'auilo	0032430	595.00	H1003000	E0001064
271	Aug-06	Douglas Ball: 36-2434 Mamalahoa Highway Laupahoehoe	0032432	1,008.00	H1003000	E0001064
271	Aug-06	Bruce W Herren: Lot 18 Makalei Est No Kona residence	0032447	367.00	H1003000	E0001064
271	Jul-06	Kristi J Parker: Lot7 Young SD N Kona	0032449	314.00	H1003000	E0001064
271	Jul-06	Kevin P Lowney: Puu Nani SD S Kohala	0032532	499.00	H1003000	E0001064
271	Jun-06	Towne Realty Inc: Lot 31 Sunset Ridge PH3 Unit2 SD S Kohala	0032569	222.00	H1003000	E0001064
271	Jul-06	Gregory A Wittman: Waikoloa Village S Kohala	0032665	502.00	H1003000	E0001064
271	Aug-06	M & M Economy Building: Christian Pearson Waikoloa Village S Koh	0032671	407.00	H1003000	E0001064
271	Aug-06	Jimmy Ortiz: 722 Kaulele Place S Hilo	0032780	242.00	H1003000	E0001064
271	Aug-06	House-It Custom Homes LLC: Lot 15 Keauhou Est N Kona	0032834	325.00	H1003000	E0001064
271	Aug-06	Terry Vermeire: Lot 13 IO View Estates II N Kona	0032835	323.00	H1003000	E0001064
271	Aug-06	Ron G Bahm: Lot 9 Kona Lani Est N Kona	0032892	371.00	H1003000	E0001064
271	Sep-06	Towne Realty: Lots 6,16,24,26 Sunset Ridge PH3 Unit4 Laikoloa S K	0032939	1,476.00	H1003000	E0001064
271	Aug-06	Towne Realty: Lots 17,19,20 Sunset Ridge Ph3 Unit4 Waikoloa	0032955	954.00	H1003000	E0001064
271	Aug-06	Brandyn C Moniz: 68-3609 Hooko Pl Waikoloa S Kohala	0033055	375.00	H1003000	E0001064
271	Jul-06	Zo LLC: William Zerfuss Kohala by the Sea	0033058	359.00	H1003000	E0001064
271	Sep-06	Schuler Homes: Lots 95,119,120 Lualai PH2B SD Kamuela S Kohala	0033099	938.00	H1003000	E0001064
271	Aug-06	Lois Martin: Lot 14 Kawena St SD N Kona	0033132	340.00	H1003000	E0001064
271	Aug-06	Richard Purdue: Waikoloa Village S Kohala	0033215	310.00	H1003000	E0001064
271	Sep-06	Schuler Homes: Lots 97,117,118 Lualai PH2B Kamuela S Kohala	0033237	932.00	H1003000	E0001064
271	Sep-06	Schuler Homes: Lots 98,99,101,102,114,115,116 Lualai PH2B SD Ko	0033238	2,540.00	H1003000	E0001064
271	Oct-06	Schuler Homes: Lots 100,107,108,109,110,111 Lualai PH2B SD S Ko	0033240	2,136.00	H1003000	E0001064
271	Oct-06	Schuler Homes: Lots 103 & 113 Lualai PH2B SD S Kohala	0033255	626.00	H1003000	E0001064
271	Aug-06	Richard A Feduska: Lot 11 Keopu Heights N Kona	0033272	359.00	H1003000	E0001064
271	Sep-06	Joseph Withers: 332 Luakaha Street Hilo	0033289	257.00	H1003000	E0001064
271	Aug-06	James E Hitzemann: Lot 10 Hualalai Hts N Kona	0033327	421.00	H1003000	E0001064
271	Aug-06	HHB & Associates LLC: Lots 1&4 Pualani Est N Kona	0033330	710.00	H1003000	E0001064
271	Aug-06	HHB & Associates LLC: Lots 22,30,31 Pualani Estates N Kona	0033331	1,065.00	H1003000	E0001064
271	Aug-06	HHB & Associates LLC: Lots 23,24,28,29 Pualani Estates N Kona	0033332	1,498.00	H1003000	E0001064
271	Oct-06	Justin Pittullo: 805 Ponahawai St S Hilo	0033383	448.00	H1003000	E0001064
271	Sep-06	Scott E Carter: Malina St S Kohala	0033409	422.00	H1003000	E0001064
271	Sep-06	Scott E Carter: Ehako St Waikoloa S Kohala	0033410	310.00	H1003000	E0001064
271	Sep-06	Scott E Carter: 68-3785 Mahina St Waikoloa S Kohala	0033411	313.00	H1003000	E0001064
271	Aug-06	Rodney Townes: Lot 3C Keatakehe Homesteads N Kona	0033480	992.00	H1003000	E0001064
271	Oct-06	Robert K Kaopulki Sr: 133456 Hookupu St Lellani Est SD Puna	0033546	537.94	H1003000	E0001064
271	Aug-06	Troy D Asuncion: Lot 10 Kukuinui SD N Kona	0033585	331.00	H1003000	E0001064
271	Oct-06	Skip Dahlen: Lot 8 Gomes Family SD Puapuaanui Waiama N Kona	0033616	338.00	H1003000	E0001064
271	Aug-06	Stephen J Boyl: Lot E-3 Koyanagi SD N Kona	0033623	331.00	H1003000	E0001064
271	Sep-06	HHB & Associates LLC: Lot 12 Pualani Est N Kona	0033700	313.00	H1003000	E0001064
271	Sep-06	HHB & Associates LLC: Lots 13,15,25 Pualani Est PH2 N Kona	0033700	1,123.00	H1003000	E0001064
271	Sep-06	HHB & Associates LLC: Lots 26,27,32 Pualani Est PH2 N Kona	0033701	1,048.00	H1003000	E0001064
271	Sep-06	Maureen Reinke: Lot 44 Bayview Est PH2 N Kona	0033708	340.00	H1003000	E0001064
271	Sep-06	HHB & Associates LLC: Lots 8,17,18 Pualani Est PH2 N Kona	0033709	1,119.00	H1003000	E0001064
271	Sep-06	HHB & Associates LLC: Lots 19,20,21 Pualani Est PH2 N Kona	0033712	1,063.00	H1003000	E0001064
271	Sep-06	HHB & Associates LLC: Lots 14,16 Pualani Est PH2 N Kona	0033714	618.00	H1003000	E0001064
271	Oct-06	Construction Services & Mgt: James Taren Kohala Ranch SD N Koha	0033864	389.00	H1003000	E0001064
271	Sep-06	Grant Kojima: Lot A10 Kona Highlands N Kona	0033872	369.00	H1003000	E0001064
271	Oct-06	Keller Carlisle LLC: 69-1660 Puako Beach Dr S Kohala	0033887	792.00	H1003000	E0001064
271	Oct-06	Jeff G Mehring: Sandalwood SD S Kohala	0033888	325.00	H1003000	E0001064
271	Sep-06	Richard G Bicardo: Lot 12 Bayview Est N Kona	0033898	323.00	H1003000	E0001064
271	Sep-06	Hamman Construction Co Inc: Lot 13 Bayview Est PH2 N Kona	0033937	349.00	H1003000	E0001064

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Acct #	Received	Name	Req# H-	Amount	Project #	
271	Sep-06	Provision Technologies, Inc: Island Naturals Pahoa 151403 Pahoa Rc	0034166	325.00	H1003000	E0001064
271	Oct-06	General Construction Pacific: Lot 35 Bayview Est PH2 N Kona	0034223	333.00	H1003000	E0001064
271	Aug-06	Hawi Renewable Development LLC: final payment on multiple project	453-456	277,261.00	H1003000	E0001064
271	Feb-06	Anne T Thomas: Holualoa Café Holualoa, N Kona	0019840	4,748.00	H1003000	E0001065
271	Aug-06	Maryl Group Inc: Parrish res Lot 68 Hokulia SD ph1 S Kona	0021803	3,083.00	H1003000	E0001065
271	Aug-06	Hart Howerton: Ouli S Kohala residence	0021893	1,428.00	H1003000	E0001065
271	May-06	Larry A Moen: Mike Ono's Agricultural Bldg Keahakekua N Kona	0023981	453.00	H1003000	E0001065
271	May-06	Tinguely Development Inc: Warehouse Bld Lot 11 Kohanaiki Ind Park	0024364	5,014.00	H1003000	E0001065
271	Jun-06	Moss Engineering Inc: Wakulaula Mauna Kea S Kohala	0025336	455.00	H1003000	E0001065
271	Feb-06	Wallace T Oki PE Inc: Kinnole Senior residence	0027221	6,018.00	H1003000	E0001065
271	Apr-06	AT&T Wireless Services: Cingular facility Pahoa Village Rd Marketpla	0027911	939.00	H1003000	E0001065
271	Apr-06	Aloha Aina Homes: Mcclean SD N Kona	0028360	1,015.00	H1003000	E0001065
271	Jun-06	UH Hilo Dir of Auxiliary Svcs: perm ug svc with rider	0028390	1,841.00	H1003000	E0001065
271	Sep-06	Michael K Bakutski: 519 Lanikaula Street service	0028449	1,510.69	H1003000	E0001065
271	Feb-06	Hawi Renewable Dev LLC: HRD Bk-up pwr @ Hawi, N Kohala	0029380	2,652.00	H1003000	E0001065
271	Sep-06	Paul & Dede Gillespie: Lot 114 Kohala Ranch N Kohala	0030580	608.00	H1003000	E0001065
271	Oct-06	Gina Y Whitney: Whitney SD Gate St Pauls Rd Honalo N Kona	0031000	886.00	H1003000	E0001065
271	Mar-06	West Hawaii Water Co: Waikoloa Deep Well Pump #6	16461 & 20143	48,867.00	H1003000	E0001065
271	Apr-06	Moss Engineering Inc: Duplex @ Wakulaula @ Mauna Kea S Kohala	0025337	562.00	H1003000	E0001066
271	Feb-06	Alan Winters: Mana Ranch Dev SD, S Kohala	0025875	183.00	H1003000	E0001066
271	Feb-06	Skipp Fowler: Lot 53 Malki Ridge, N Kohala	0026434	35.00	H1003000	E0001066
271	Apr-06	Robert L Cross: Puakea Bay N Kohala	0028415	477.00	H1003000	E0001066
271	Mar-06	John L Baldwin: Lot 140 Waikoloa Village S Kohala	0030114	75.00	H1003000	E0001066
271	Mar-06	Lee Zimmerman: Kona Palisades N Kona	0030381	150.00	H1003000	E0001066
271	Jul-06	Moss Engineering Inc: Duplex Wakulaula Mauna Kea S Kohala	0025342	569.00	H1003000	E0001067
		H1003000 TOTAL CIAC COLLECTED		521,510.69		
252	Jun-06	Kohala-Woodvale Associates LLC: Unit 4A Kaunaoa Mauna Kea	0024576	1,129.00	H1003000	E0001064
252	Jun-06	Kohala-Woodvale Associates LLC: Unit 4B Kaunaoa Mauna Kea	0024579	1,115.00	H1003000	E0001064
252	Mar-06	Kohala-Woodvale Associates LLC: Unit 6A Kaunaoa @ Mauna Kea	0024582	993.00	H1003000	E0001064
252	Mar-06	Kohala-Woodvale Associates LLC: Unit 6B Kaunaoa @ Mauna Kea	0024583	993.00	H1003000	E0001064
252	Mar-06	Kohala-Woodvale Associates LLC: Unit 7A Kaunaoa @ Mauna Kea	0024584	1,052.00	H1003000	E0001064
252	Mar-06	Kohala-Woodvale Associates LLC: Unit 7B Kaunaoa @ Mauna Kea	0024585	1,065.00	H1003000	E0001064
252	Jun-06	Kohala-Woodvale Associates LLC: Unit 8A Kaunaoa Mauna Kea	0024586	1,129.00	H1003000	E0001064
252	Jun-06	Kohala-Woodvale Associates LLC: Unit 8B Kaunaoa Mauna Kea	0024587	1,115.00	H1003000	E0001064
252	Jun-06	Kohala-Woodvale Associates LLC: Unit 9A Kaunaoa Mauna Kea	0024588	1,086.00	H1003000	E0001064
252	Jun-06	Kohala-Woodvale Associates LLC: Unit 9B Kaunaoa Mauna Kea	0024589	1,115.00	H1003000	E0001064
252	Jul-06	Kohala-Woodvale Assoc LLC: Unit 10A Kaunaoa Mauna Kea Estates	0024590	1,157.00	H1003000	E0001064
252	Jul-06	Kohala-Woodvale Assoc LLC: Unit 10B Kaunaoa Mauna Kea Estates	0024591	1,072.00	H1003000	E0001064
252	Mar-06	Moss Engineering Inc: Mauka Cottages Lot 2 Kukio PH3 Inc2 SD	0028608	1,004.00	H1003000	E0001064
252	Mar-06	Moss Engineering Inc: Mauka Cottages Lot 2 Kukio PH3 Inc2 SD	0028613	1,004.00	H1003000	E0001064
252	Mar-06	Glen R White Jr: residence 112800 Lehua St Fern Acres SD	0029906	2,336.00	H1003000	E0001064
		H1003000 TOTAL ADVANCES COLLECTED		17,365.00		
271	Sep-06	George J Handgis: Holua Rd Keauhou Bay N Kona	0015378	12,100.00	H1008000	
271	Jul-06	Simstone Realty Partners, LLC: Kona Sea Ranch SD Kukiolopae S Ka	0024173	20,483.00	H1008000	
271	Mar-06	Foster Kern LLC: 12 lots Ulupono Cir phase 3	0024713	4,213.00	H1008000	
271	Feb-06	D R Horton-Schuler Homes LLC: 88 Lots Luafai SD Parker Ranch PH	0025264	11,499.00	H1008000	
271	Mar-06	Pauls Repair Service: Ogasawara Svc Station Kahakai Blvd	0025840	7,418.00	H1008000	
271	Aug-06	Ashford W Alices: Kohanaiki Homesteads N Kona	0026430	654.00	H1008000	
271	Apr-06	Kalline Subdivision: Halhai street	0026920	9,024.00	H1008000	
271	Aug-06	LDS Kilauea-Kaumana Wards: Lot C-2 Ponahawai Street S Hilo	0029498	7,379.00	H1008000	
271	Aug-06	Michael A Willard: 36-2269 Mamalahoa Highway Laupahoehoe	0030529	6,315.00	H1008000	
271	May-06	Tinguely Development Inc: Riser for Waimea Parkside PUD S Kohala	0030819	702.00	H1008000	
271	Oct-06	Emily M Eissner: 184779 Ihope Place Mt View Ranches SD Puna	0031412	1,992.00	H1008000	
		H1008000 TOTAL CIAC COLLECTED		81,779.00		
252	Feb-06	Bridge Aina Lea LLC: Aina Lea Residential Golf Community SD	0016123	106,676.00	H1008000	
252	Mar-06	Bill Mccowatt: Kahana Road, Ahualoa, Hamakua	0017056	723.00	H1008000	
252	Feb-06	Betsy Ramstad: Palm Parkway, Hove, Kau	0017616	716.00	H1008000	
252	May-06	David S Deluz Sr Trust: 10 lots Paauilo Mauka Road Hamakua	0019150	97,081.00	H1008000	
252	Feb-06	Alfred Lerma Jr, Esq: Kuamoo, N Kona residence	0019386	223.00	H1008000	
252	Apr-06	Jeffrey B Martin: Holualoa N Kona	0019780	7,130.00	H1008000	
252	Mar-06	Wallace T Oki PE Inc: Ooma Plantation N Kona	0020877	6,423.00	H1008000	
252	Jan-06	Robert Rossman - Kahalu-Keauhou residence	0022586	2,179.00	H1008000	
252	May-06	Yosoto Egami: Onouli S Kona	0023741	6,091.00	H1008000	
252	Jan-06	Albert Funk - Hawaii Blvd, Hove, Kau residence	0024312	5,185.00	H1008000	
252	Apr-06	Pua Mauka Development LLC: Coconut Dr Hove Kau	0024371	19,733.00	H1008000	
252	Feb-06	Wallace T Oki PE Inc: Hanauia SD, Hawi, N Kohala	0024422	8,234.00	H1008000	
252	Jul-06	Wallace T Oki PE Inc: Royal Kamehameha Gardens Keopu N Kona	0024629	10,405.00	H1008000	
252	Mar-06	Foster Kern LLC: 12 lots Ulupono Cir phase 3	0024713	66,537.00	H1008000	
252	Sep-06	Barbara McDonagh: Kaohe Ranch Estates S Kona	0024762	363.00	H1008000	
252	Aug-06	Anne Losansky: 87-2971 Mamalahoa Hy Kukiopae 2nd S Kona	0025244	629.00	H1008000	
252	Mar-06	Anita Hecht Trust: Line Ext @ Waikoekoe, Hamakua	0025430	4,162.00	H1008000	
252	Aug-06	Anita Hecht Trust: 47-5060 Hawaii Belt Rd Waikoekoe Hamakua	0025430	14,392.00	H1008000	
252	Oct-06	Kristine Myers: Lehua Lane Hove Kau	0025593	3,774.00	H1008000	
252	Jan-06	John Edwards Constr Co Inc - Lks, LLC lot 102 Lono Kona	0025697	701.00	H1008000	
252	Feb-06	John Edwards Constr Co Inc: Lks, LLC on Lot 102 Lono Kona SD	0025697	6,304.00	H1008000	

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252	Jun-06	Edward Paulos: Residence Chong Street Chong SD S Hilo	0026125	1,252.00	H1008000
252	Mar-06	Wallace Oki, PE, Inc: 3 Units Kalulani Est Condo SD	0026723	2,406.00	H1008000
252	Jun-06	Wallace T Oki PE Inc: Williams' Res Keopu Mauka SD N Kona	0026810	6,088.00	H1008000
252	Jan-06	Engineers Surveyors Hawaii Inc - 3 lots Honokpu Subd	0026837	1,475.10	H1008000
252	Apr-06	Kalline Subdivision: Haihai street	0026920	8,343.00	H1008000
252	Feb-06	Sandra C Haiku: Keonelehua Ave, Volcano residence	0026992	2,992.00	H1008000
252	Jul-06	Sandra C Haiku: Keonelehua Avenue Volcano Hawaii	0026992	3,422.00	H1008000
252	Jun-06	Sheila Conant: Alamui Akakani Road Volcano	0027068	2,799.00	H1008000
252	Apr-06	Christian K O Bernadzik-Jacobi: Pohoiki Rd Lanipuna Gardens	0027357	3,694.00	H1008000
252	Jun-06	Douglas D Deponte: 14 Lots Kupuhau Heights Inc1 Kaaniani St S Hilo	0027475	18,376.00	H1008000
252	Mar-06	Robert L Helstrom: Kahaluu Farmlots N Kona	0027863	4,801.00	H1008000
252	Jan-06	Neal H Kadooka - Kealakekua residence	0028108	1,538.00	H1008000
252	Jun-06	Sharon S Welborn: Paradise Pkwy Hove Kau	0028421	2,640.00	H1008000
252	Feb-06	Frank M Lawrence: North Kopua Road residence	0028441	1,955.00	H1008000
252	Jul-06	Frank D Duarte: Road 8 Hawaiian Acres SD Puna	0028739	2,427.00	H1008000
252	Mar-06	Dan Bontecou: Reef Pkwy, Hove, Kau	0028910	16,806.00	H1008000
252	Sep-06	Keopu Aina Association: Keopu Aina Prop SD N Kona	0029075	9,402.00	H1008000
252	Apr-06	Kim Christensen: Warehse & Honaunau S Kona	0029132	1,626.00	H1008000
252	Feb-06	John Pew: Lot 68 Aloha Drive Ainaloa SD, Puna	0029136	9,963.00	H1008000
252	Apr-06	Timothy Ollander: 184741 Ihope Rd Mountain View Ranches SD	0029162	2,309.00	H1008000
252	Feb-06	Bob Davis: Pepeekeo residence	0029238	5,984.00	H1008000
252	Apr-06	Laraine Arian: residence Kaiwiki Homesteads S Hilo	0029239	1,330.00	H1008000
252	Feb-06	Charles L Rapoza: Lauhulu Road residence	0029378	6,493.00	H1008000
252	Mar-06	George N Kamakahi: Residence 69½ Railroad Ave S Hilo	0029382	3,649.00	H1008000
252	Feb-06	Hawi Renewable Dev LLC: HRD Backup pwr @ Hawi	0029395	2,739.00	H1008000
252	Apr-06	Ellsworth Demattos: Road 9 Hwn Acres SD	0029398	7,170.00	H1008000
252	Oct-06	Herbert J Go: St Paul Rd Kealakekua N Kona	0029440	3,040.00	H1008000
252	Feb-06	Michael Breez: Malama Road, Leilani Estates residence	0029533	1,617.00	H1008000
252	Jul-06	Larry D Keen: Hove, Kau	0029576	7,284.00	H1008000
252	Oct-06	Chris Brilhante LLC: 8 lots Kukui Camp SD Ookala Hamakua	0029787	19,817.00	H1008000
252	Sep-06	Ignacio Aguilar: Ignacio / Stephanie res Kaao Homesteads Hamakua	0030209	307.00	H1008000
252	May-06	Francis PN Ke: Milolii Hts S Kona	0030309	704.00	H1008000
252	May-06	Imata & Associates Inc: 7 lots of King SD Kaloko Mauka N Kona	0030507	4,618.00	H1008000
252	Aug-06	Imata & Associates Inc: 7 lots King SD Kaloko Mauka N Kona	0030507	41,560.00	H1008000
252	May-06	John K Simonet: 113308 Lehua Street Fern Acres SD residence	0030527	2,404.00	H1008000
252	Jun-06	Gerald Hollins: Residence Chin Chuck Rd Hakalau S Hilo	0030575	914.00	H1008000
252	Jun-06	Jack A Kuntz: Kiolakaa Naalehu Kau	0030576	10,483.00	H1008000
252	Sep-06	Dan Dixon & Robert Ivancic: 1 lot Hanale Drive Ainaloa SD Puna	0030781	7,838.00	H1008000
252	Aug-06	Stanley K Zakahi: Hohualoa N Kona	0030817	3,499.00	H1008000
252	May-06	Wallace T Oki PE Inc: Waimea Parkside PUD S Kohala	0030819	5,842.00	H1008000
252	May-06	Hawaiian Paradise Park LLC: 18th Ave Hwn Paradise Park SD	0030831	7,911.00	H1008000
252	Mar-06	Bolton Inc: Koyanagi SD @ Hiehaloa, N Kona	0030857	6,608.00	H1008000
252	Jul-06	David A Wensloff: Princess Kaiulani Blvd Hove Kau	0030926	15,282.00	H1008000
252	Sep-06	Stan Schierman: Lot 16 Oneloa Street Leilani Estates SD Puna	0031101	3,779.00	H1008000
252	Jul-06	Kenni Ellison: Gardenia St Fern Acres SD Puna	0031246	8,547.00	H1008000
252	Aug-06	Hawaii Island Comm Dev Corp: Hualalai Elderly PH3 N Kona	0031444	6,473.00	H1008000
252	Oct-06	John R Armstrong: Lot 2634 3rd Ave Paradise Park SD Puna	0031528	2,586.00	H1008000
252	Jun-06	Roland Ignacio: Res 113423 Lehua St Fern Acres SD Puna	0031644	1,984.00	H1008000
252	Sep-06	Camor Sumida: Lot 702 26th Ave Hwn Paradise Park SD Puna	0031696	1,576.00	H1008000
252	Aug-06	Ernest M Tavares: Road8 Orchid Isle Estates SD Puna residence	0031786	3,680.00	H1008000
252	Jul-06	Bill Hostmeyer: Happy Homes Road Kurtistown Puna Hawaii	0031810	585.00	H1008000
252	Aug-06	Tom M Migliori: Lot 261 3rd Street Mauna Loa Estates SD Volcano	0032140	1,341.00	H1008000
252	Sep-06	Michael J Bighaus: Lot 861 10th Ave Hawaiian Paradise Park Puna	0032207	1,440.00	H1008000
252	Sep-06	Larry C Bianchi: Leonaka Road Mountain View	0032377	1,248.00	H1008000
252	Sep-06	Debra Rizzi: Huanani Road Puna	0032698	1,088.00	H1008000
252	Oct-06	Inaba Engineering: 5 lots Keiki Aina SD Haihai Street S Hilo	0033142	(20,634.00)	H1008000
252	Aug-06	Inaba Engineering: 5 lots Keiki Aina SD Haihai Street S Hilo	0033142	20,634.00	H1008000
252	Sep-06	Bartley T Cathoon: 7 Lots Koleas Hualalai Kalaoa 4th N Kona	0033271	3,209.00	H1008000
252	Oct-06	John D Heide: riser pole Heide SD St Paul's Rd N Kona	0034123	5,704.00	H1008000
		H1008000 TOTAL ADVANCES COLLECTED		680,508.10	
271	Feb-06	State of Hawaii DAGS: Keakealani Office Building	0012469	1,253.00	H1017000
271	Apr-06	ECS Inc: Hualalai Mauka Carl Barn @ Hualalai N Kona	0023018	2,864.00	H1017000
271	May-06	Ronald NS Ho & Associates: Uplands 618' Reservoir Mauna Kea Res	0024884	6,256.00	H1017000
271	Apr-06	ECS Inc: Hualalai Mauka Carl Barn @ Hualalai N Kona	0025029	6,023.00	H1017000
271	Mar-06	ECS Inc: Hualalai Mauka Clubhouse N Kona	0025030	5,689.00	H1017000
271	Mar-06	Russell E Roberts: Onouli, S Kona	0025114	2,215.00	H1017000
271	Jun-06	Wallace T Oki PE Inc: 38 Lots Sunset Ridge PH3 Unit4 SD Waikoloa	0025790	13,911.00	H1017000
271	Mar-06	Pauls Repair Service: Ogasawara Svc Station Kahakai Blvd	0025839	9,069.00	H1017000
271	May-06	Wallace T Oki PE Inc: Saalfeld Guest Hales @ Kau N Kohala	0026019	4,656.00	H1017000
271	Apr-06	Bolton Inc: Koyanagi SD @ Holualoa, N Kona	0026198	118.00	H1017000
271	Feb-06	John C Stefaney: Lot 26 Makalei Estates N Kona residence	0026286	3,461.00	H1017000
271	Jul-06	HHB & Assoc LLC: Lot 41A Puu Lani Ranch N Kona	0026602	104.00	H1017000
271	Jan-06	Innovations Public Charter Sch: Puaa 3rd	0026641	2,886.00	H1017000
271	Jan-06	Thomas W Pack: Makalei Est residence	0026925	4,218.00	H1017000
271	May-06	Ainaola Inc: Smith Res Lot 15B-4 Kukio Bay Beach Club SD N Kona	0027023	2,607.00	H1017000
271	Apr-06	Kohala-Woodvale Associates LLC: Recreation bldg Kaunaoa Mauna I	0027172	3.00	H1017000
271	Sep-06	Burke Matsuyama: Lot4 Kohanaiki Bus Park PH1 SD N Kona	0027835	2,975.00	H1017000

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271	Sep-06	Burke Matsuyama: Lot4 KohanaAki Bus Park PH1 SD N Kona	0027638	3,346.00	H1017000
271	Jul-06	Harold H Mikra Inc: Honoli Ridge Inc1 Puakea S Hilo	0028076	4,817.00	H1017000
271	May-06	CH Dept Public Works: Signal Light Hinalani St Mamalahoa (GET Inc	0028081	983.00	H1017000
271	Apr-06	Modisher Contracting Services: Lot 61 Waikii Ranch S Kohala	0028443	3,600.00	H1017000
271	Sep-06	Albert Chong Assoc: Waikoloa Beach Villas PH2 (2/06)	0028680	(5,012.00)	H1017000
271	Sep-06	Albert Chong Assoc: Waikoloa Beach Villas PH2 (11/05)	0028680	(557.00)	H1017000
271	Feb-06	Albert Chong Assoc: Waikoloa Beach Villas PH2	0028680	5,012.00	H1017000
271	Mar-06	Koyo USA Corp: Bld 3 of Koyo USA Corp Development Keahole N Ki	0028691	8,408.00	H1017000
271	Mar-06	Kukio Bay Resorts: Kukio Water Filtration Plant N Kona	0028916	7,714.00	H1017000
271	Feb-06	Kohala Creative Const LLC: Naupaka Kai Circle Waikoloa lot 2 SD	0029577	2,970.00	H1017000
271	May-06	Sun Cablevision of Hawaii: Oceanic Time Warner Lot 16 Kaloko Ligh	0029717	3,229.00	H1017000
271	May-06	Beverly L Fuller: Res Lot 9 Kawiki Homestead S Hilo	0029786	4,113.00	H1017000
271	Mar-06	Fukumaga Electrical: 3/25/06 work	0029922	3,055.00	H1017000
271	May-06	Fukumaga Electrical: 5/20-21/06 scheduled work	0029922	3,929.00	H1017000
271	Apr-06	Puakea Ranch LLC: Puakea Ranch SD	0029956	314.00	H1017000
271	Jul-06	Puakea Ranch LLC: Puakea Ranch S/D N Kohala	0029956	2,829.00	H1017000
271	Apr-06	Ken W Lundy: Res on lot 21 @ Makalei Est N Kona	0030180	4,022.00	H1017000
271	Sep-06	Mike Krochina: Susan Senft Makalei Plantations Ph II residence (8/06	0030531	(3,382.00)	H1017000
271	Sep-06	Mike Krochina: Res Susan Senft Makalei Plantations PH2 N Kona	0030531	3,282.00	H1017000
271	Aug-06	Mike Krochina: Susan Senft Makalei Plantations Ph II residence	0030531	3,382.00	H1017000
271	May-06	Sun Cablevision of Hawaii: Oceanic Time Warner Lot 16 Kaloko Ligh	0030758	10,388.00	H1017000
271	Jun-06	Albert Chong Assoc: Kaunaoa Entry Gate Mauna Kea S Kohala	0030957	2,729.00	H1017000
271	Jul-06	Schilling Construction Inc: Craig Wells Kohala Ranch N Kohala	0031024	5,118.00	H1017000
271	May-06	Nicholson Construction: Lot 20 White Sands Pauoa SD S Kohala	0031210	1,589.00	H1017000
271	Jun-06	Hualalai Investors LLC: Hualalai Parcel 18B Hualalai Resort	0031232	18,888.00	H1017000
271	Jul-06	Robert L Almeida Jr: Anekona Estates S Kohala	0031639	725.00	H1017000
271	Aug-06	Paul & Dede Gillespie: Kohala Ranch N Kohala	0032145	3,478.00	H1017000
271	Aug-06	Bruce W Herren: Lot 18 Makalei Est No Kona residence	0032516	4,041.00	H1017000
271	Oct-06	Henry Roxburgh: Anekona Est S Kohala	0032754	3,453.00	H1017000
		H1017000 TOTAL CIAC COLLECTED		172,971.00	
252	Jun-06	Wallace T Oki PE Inc: 38 Lots Sunset Ridge PH3 Unit4 SD Waikoloa	0025790	87,075.00	H1017000
252	May-06	Wallace T Oki PE Inc: Sagfield Guest Hales @ Kou N Kohala	0026019	7,711.00	H1017000
252	Jun-06	Ronald NS Ho & Associates: Anaehoomalu-Mauna Lani Kings Land	0026075	40,000.00	H1017000
252	Oct-06	Hawaii Island Comm Dev Corp: Hualalai Elderly PH3 N Kona	0026642	8,977.00	H1017000
252	May-06	WB KD Acquisitions, LLC: Kaupulehu Dev Lot 4A N Kona	0026662	124,225.00	H1017000
252	May-06	Wallace T Oki PE Inc: 81 Units Makana Kai Wehilani Inc 2 Waikoloa	0028028	83,744.00	H1017000
252	Sep-06	Albert Chong Assoc: Waikoloa Beach Villas PH2 S Kohala	0028680	557.00	H1017000
252	Sep-06	Albert Chong Assoc: Waikoloa Beach Villas PH2 S Kohala	0028680	5,012.00	H1017000
252	Sep-06	Albert Chong Assoc: Waikoloa Beach Villas PH2 S Kohala	0028680	14,347.00	H1017000
252	Mar-06	WB KD Acquisitions LLC: Kaupulehu Dev Lot P-4A Phase2	0028828	37,780.00	H1017000
252	Apr-06	Puakea Ranch LLC: Puakea Ranch SD	0029956	3,914.00	H1017000
252	Jul-06	Puakea Ranch LLC: Puakea Ranch S/D N Kohala	0029956	35,221.00	H1017000
252	Jul-06	Robert L Almeida Jr: Anekona Estates S Kohala	0031639	4,016.00	H1017000
252	Oct-06	North Hawaii Construction Inc: David Sonne Kohala Ranch	0032528	3,871.00	H1017000
		H1017000 TOTAL ADVANCES COLLECTED		458,450.00	

NOTE 1 November Pillar Data as 11/9/06

SOURCE Accounting Reports thru 10/31/06

CA-IR-425
ATTACHMENT 3
DOCKET NO. 05-0315
PAGE 7 OF 7

Hawaii Electric Light Company, Inc.
IN-KIND CIAC FOR H0000725, QUEEN K WIDENING PROJECT

Queen K Widening Project - Cost for 12KV Underground Distribution Line (SOH Part Only)			
Item	$ per 1000 feet	Source	Comments
Engineering	$0	KRW	Both Consulting Engineering and HELCO internal engineering
PUC Approval	$0	KRW	Preparation of application and follow-up
Permits	$0	KRW	DOT, etc.
Trenching	$40,000	Ed	Trench is 2 feet wide by 5 feet deep. Assume worst possible terrain and soil conditions.
Fluidized Thermal Backfill	$0	KRW	
Concrete encasement	$75,000	Ed	Concrete encasement is 2.5 feet deep
Remaining backfill	$25,000	Ed	Remaining backfill is native soils
Conduit (Materials)	$15,000	KRW	Quantity of 4, 6" Sch. 80 arranged 2X2 in trench
Conduit (Labor)	$14,000	Ed	
Manhole (Materials)	$12,000	Ed	Manholes 6' X 11' (assume one manhole per each 1000 feet)
Manhole (Labor)	$25,500	Ed	
Wire (Materials)	$0	SMU	
HELCO Installation Labor	$0	KRW	
Project/Construction Management	$0	KRW	
Cost per 1000-feet =	$206,500		Excludes the cost of two risers

Added Cost for UG Distribution Line	
Enter number of feet ->	24
Cost Excluding Risers	$4,956
Add Cost of Risers	$20,000
Total =	$24,956

CA-IR-425

VOLUMINOUS MATERIAL

AIDS & ADVANCES DOCUMENTATION FOR SPECIFIC PROJECTS LISTED ON HELCO-WP-1409(C)

INDEX OF PROJECT LISTING

H0001421	Neil Vieth
H0001422	Virn Patton
H0001430	Glenwood Farm Lots
H0001431	Joseph Magaldi
H0001432	Vivian Whitney
H0001434	Peter Aickin
H0001435	Kikala Keokea S/D
H0001436	Haleili S/D
H0001203	Apollo Kamaoa Substation
H0000996	Apollo 69KV Line Drops
H0001204	Apollo Kamaoa to PT MW
H0001205	Apollo SCADA at Kamaoa
H0001207	Apollo Kilauea Relay Upgrade
H0001208	Apollo Kealia Relay Upgrade
H0001429	SSPP 894 - Randall
H0001428	SSPP 833 - Caldwell
H0001426	SSPP 866 - Pua Mauka Dev
H0001427	SSPP 895 - Wolske
H0001423	SSPP 809 – Desouza
H0001424	SSPP 848 - Atkinson
H0001425	SSPP 868 - Berkich
H0001437	SSPP 857 - Alderdyce
H0001417	Hanaula Subd
H0001418	Kikaha @ Wehilani
H0001420	Sunset Ridge PH. 3 Unit 3
H0001329	Waikoloa Beach Marriott
H0001419	Parker Well #1

H0001421 Neil Vieth

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Neil Vieth

Project Number: RYAMAT14
(Temporary)

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

Plant Addition Date: 2006-05

Commitment Date: 2006-02

Primary Corporate Goal: Cap Exp

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$29	$0	$0	$0	$0	$0	$29

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to fulfill a request made by Neil Vieth to install an 1-ph, 7.2kv primary overhead line extension Req no. H0026181.

Scope Description:

Install five (5) 40 ft poles, two (2) anchors and #1/0 aac pri and aerial cable along Walaka Dr, HOVE, Kau.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

HWK, HDK, HWX, & HWS

Justification:

To provide a 1-ph, 7.2kv primary overhead line extension to serve Neil Vieth located on Walaka Dr, HOVE, Kau.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project Identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Neil Vieth made payment for a 1-ph, 7.2kv oh line extension along Walaka Dr, HOVE, Kau.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance $19,072.00 Advance payment of $19072 made by Neil Vieth.

GET Included $763.00

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Ricky Yamato **Phone/Ext #:** 511

Originator's Name: Ricky Yamato

Responsible Estimator: Ricky Yamato KRW 1-25-06 **Resp. Estimator Dept:** Engineering
(Pillar UserID) (Pillar Department Folder)

Project Manager: Ricky Yamato

Date: 01/25/2006

Required Approvals to Initialize a Project:

1/27/06
Responsible Manager **Date**

1 FEB 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

1/27/06
Responsible Manager **Date**

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

1/31/06
HELCO Accounting Manager **Date**

1 FEB 2006
HELCO President **Date**

Hawaii Electric Light Company, Inc. • 74-5519 Kaiwi Street • Kailua-Kona, HI 96740-1684

CUST 3-3-1
H-W/G

RECEIVED

July 28, 2005

5 AM -4

Neil Vieth
73-1174 Ala Kapua St.
Kailua-Kona, HI 96740

Dear Mr. Vieth

Subject: Overhead Line Extension

This proposal letter is in reply to your request concerning the installation of an overhead line extension to serve your residence located at Walaka Drive, HOVE, Kau, Tax Map Key: 9-2-95:42 Lot 34.

HELCO will provide, install, own and maintain an overhead line extension in accordance with our enclosed Drawing No. 05-C-900.

HELCO will install at its expense this proposed line extension in accordance with the Company's Rule No. 13, a copy which is attached, provided the cost of the line required does not exceed thirty-six months' estimated revenue of the applicant. The cost break down of the line extension is as follows:

TOTAL CUSTOMER COST $19,072.00

Total Project Cost	$27,804.00
Verizon Hawaii Inc. Joint Pole Shares (credit)	$4,454.00
Line Extension Cost	$23,350.00
State General Excise Tax	$972.00
Total Line Extension Cost	$24,322.00
Line Extension Allowance (credit) (Based on estimated 36-months revenues + GET)	$5,250.00
Customer Cost (refundable advance) (Includes State GET)	$19,072.00

From the information that you have provided, it is understood and agreed that the following electrical appliances will be installed: refrigerator, range, water heater and dryer plus lighting.

Based on the total project cost and line extension allowance, you are required to pay HELCO a refundable customer advance of $19,072.00, which includes State General Excise Tax.

You are required to make a 10% payment of the advance at the time that you return this proposal letter with your signature to our Company. This amount is $1,907.00. Payment will enable the processing of material orders, easement acquisition, permit approvals and miscellaneous items. These requirements may require approximately 1 to 2 months to obtain and /or complete. In addition, HELCO shall notify you when your payment balance of $17,165.00 is due. Payment shall be required prior to the processing of our construction work orders.

The above total costs do not include the costs of line transformers, meters, and the clearing of land for access, if applicable, and is based on the route determined by the Company. The line transformers, meters will be installed by HELCO at no cost to you. The customer is required to do all necessary land clearing (construction of access roadways).

The applicant shall, at its expense, provide, install, own and maintain the following:

1. Cutting and trimming of trees along proposed pole line.
2. Locating and marking of property pins.

It is understood that the applicant's residence will be completed, County approved and permanently occupied within one year from the date that the line extension is constructed and energized. If the residence is not built and permanently occupied within one year from this date, the amount of the customer advance will be adjusted to include the line extension allowance of $5,250.00, payable to HELCO upon request.

An advance is the amount of money paid to our Company which may be subject to refund in whole or in part in accordance with HELCO's Rule 13. (See attached copy.)

HELCO shall bill the Developer/Individual all additional costs incurred should there be a determination of special findings not available during the development of HELCO's cost estimate. An example would be archeological findings, which would require mitigation by working around or redesigning the proposed project to enable completion.

This proposal is for the line extension only and is exclusive of the permanent service connection cost. Please submit a request to our Company for the service prior to the date service is required.

This proposal is valid for a period of six months from the date of this letter. If HELCO is not permitted to issue its construction work orders by January 28, 2006, this proposal will be invalid. If the starting date, as specified below by you, is later than this date, this proposal will be invalid and a revised proposal will be sent to you. Our Company shall not be held liable for delays caused by material shortages or delays caused by materials being strikebound.

The terms of this proposal are at all times subject to change or modification by the State of Hawaii Public Utilities Commission ("PUC") as the PUC may direct in the exercise of its jurisdiction.

Please signify your acceptance of this proposal by signing in the space provided below. We are including an extra copy of this proposal and request that the signed original, Customer Data Input Sheet and 10% payment of $1,907.00 be mailed to HELCO in the enclosed self-addressed envelope or delivered directly to HELCO's Customer Service Division located at 74-5519 Kaiwi Street, Kailua-Kona, Hawaii.

In addition, please include the approximate date our Company will be permitted to begin its installation so that we may proceed with obtaining the necessary easements. Ordering of the necessary materials and work scheduling will require approximately 2 to 4 weeks advance notice.

Should you have any questions, please write or call me at 327-0511 between the hours of 7:00 a.m. and 3:30 p.m.

Sincerely,

Ricky Yamato
Customer Planner/ Customer Designer
Customer Engineering Division

RY:el
Enclosures
Request No. H26181

Approved: Neil Vieth
Signature in Ink

Name of Signer: NEIL VIETH
Type or Print

Title: Owner Date: 8-2-05

Approximate date HELCO permitted to begin: ASAP

Refunds made to : Neil Vieth
Name
73-1174 ALA Kapua St
Address
K.K Hi 96740
City / State / Zip

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	Neil Vieth	Date:	7/25/05
Planner:	RY	Request Number:	H26181

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 1,411.20	
	Direct Labor Cost (NI-includes transportation)	$ 3,995.31	
	Direct Material Cost	$ 3,708.34	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 8,275.00	
	Total Capital	$ 17,389.85	$ 17,389.85
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 10,413.73	$ 10,413.73
	Sub Total		$ 27,803.58
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 27,804
	Less Total Customer Cost		$ 27,804
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 4,454
	Customer Line Extension Cost		$ 23,349
	State GET (4.166%)		$ 973
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 24,322
$5,250	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$5,250
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$19,072**

	Man-hour	Crew-hour		
Capital	113.6		10 % Payment	1,907
O & M	0.0		90 % Payment	$ 17,165
Removal	0.0			
TOTAL	113.6	0.0		

Prepared By: R. Yamato

Checked by: [illegible] 7-28-05

[illegible] - 7/28/05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project:	Neil Vieth			Date:	7/25/05
Planner:	RY		Request / Parent WO Number:		H26181

Qty.	SMU. No.	Description		Labor M/H Unit	Labor M/H Total
80	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)	0.08	6.40
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)		0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC		0.017	0.000
800	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"	0.017	13.600
	1-2040	(7978) #4/3 al tpx (ft)	"	0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"	0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"	0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	0.0
5	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	20.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"	4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"	4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"	4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"	4.0	0.0
	2-4030-A	midspan (1 phase)	"	1.0	0.0
1	2-4030-C	midspan (1 phase)	"	1.0	1.0
2	3-4100	3/8" DGS 34'	"	1.0	2.0
2	3-4100	3/8" DGS 41'	"	1.0	2
	3-4100	3/8" DGS 47'	"	1.0	0.
	3-4100	3/8" SWGS 34'	"	2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
2	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
			"		
	3-4150-A1	3/4" galv anchor (8')	"	0.0	0.0
	3-4150-A2	1" galv anchor (8')	"	0.0	0.0
	3-4150-A3	1-1/4" galv anchor (10')	"	0.0	0.0
3	5-1009-F1	Straight & Angle	"	1.0	3.0
	5-1009-F2	Sec. split	"	1.0	0.0
1	5-1009-F3	Single DE	"	1.0	1.0
	5-1009-F4	Line Guard	"	1.0	0.0
1	5-1009-F5	DDE	"	1.5	1.5
	5-1009-F6	Buck	"	1.0	0.0
			"		
1	5-3010	Mid Span 1-way	"	1.0	1.0
			"		
	7-2050-F1		"	1.0	0.0
1	7-2050-F2		"	1.5	1.5
2	7-2050-F2A	w/o CO	"	1.0	2.0
	7-2050-F3		"	2.0	0.0
	7-2050-F3A	Transf & Buck	"	2.0	0.0
	7-2050-F4	Angle w/o CO	"	1.0	0.0
	7-2050-F5		"	1.5	0
	7-2050-F5A	w/o CO	"	1.0	0
	7-2050-F6		"	2.0	0.0
	7-2050-F7		"	2.0	0.0
	7-2050-F7A	Sgl DE	"	1.5	0.0

	7-2050-F7B	S.D.E Jumper	"	2.0	0.0
1	7-2050-F8		"	2.0	2.0
	7-2050-F8A	w/o CO	"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"	1.0	0.0
	7-2050-F9		"	2.0	0.0
1	7-2050-F10	w/LA	"	2.0	2.0
	7-2050-F10A	w/o CO	"	1.5	0.0
1	10-2100	1 PH 10-50 KVA	"	8.0	8.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
4	12-1020-F2	Primary grounding	"	1.0	4.0
	12-5201	Object Marker	"	0.1	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0.0
			$ 3,708.34		
CAPITAL:		Total Direct Material Cost	$ 3,708.34		
				Man-hour Sub Total	71.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	42.6
				Total Direct Capital Man-hours	113.6
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct O&M Man-hours	0.0
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct Removal Man-hours	0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Outside Materials	$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Pre-Capitalized Materials	$	-
SALVAGEABLE MATERIALS					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Salvageable Materials	$	-

OVERHEAD COST ESTIMATE
(Outside Material and Services and Joint Pole Costing)

	Project:	Neil Vieth				Date:	7/25/05
	Planner:	RY				Request/Parent WO Number:	H26181

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
5	5.5	9	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 4,125.00		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
2	8	9	Dig and Set Anchor	$ 150.00	$ 2,400.00		
	- - - -	9	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	9	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	9	AC Repair	$ 150.00	$ -		
5	- - - -	9	Ground Rod Installation (2 per)	$ 350.00	$ 1,750.00		
	- - - -	9	Pole Base	$ 125.00	$ -		
	- - - -	9	Traffic Control	$ 15.25	$ -		
	- - - -	9	Tree Trimming	$ -	$ -		
	- - - -	9	Helicopter	$ 1,750.00	$ -		
	- - - -	9		$ -	$ -		
				Total	$ 8,275.00		$ 8,275.00

2-way **Verizon** JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
5	30/35	0	40' Pole	$ 890.85	$ 4,454.25		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 4,454.25		$ 4,454.25

2-way **CofH** JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ -	$ -		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ -		$ -

Transfer Charge:		per JP #					$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			51.1	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	34.3
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	5.1
			WC m/h total	77%	39.4
NI	150	_TCS-CE	Supervisor	2%	1.0
NI	150	W_TT-CE	Transit Tech (JM)	5%	2.6
NI	150	W_RH-CE	Rodman Helper (AT)	5%	2.6
NI	150	_I-CE	Land Surveyor	5%	2.6
			WS m/h total	17%	8.7
NI	150	W_ENG-CE	(MSY)	3%	1.5
NI	150	W_SCD-CE	(EF)	5%	2.6
			WX m/h total	8%	4.1
			Engineering M HTotal	102%	52.1
			Engineering Vehicle Total		8.2
	Capital m/h			**113.6**	
NI	150	_TCS-CE	labor (sup)	1%	1.1
NI	150	D_Crew	labor (crew)	100%	113.6
NI	201		Direct Material Cost	- - - -	$ 3,708.34
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 8,275.00
	O&M M/H			**0.0**	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			**0.0**	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	Neil Vieth	Date	7/25/05

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	Neil Vieth	Date:	1/25/06
Planner:	RY	Request Number:	H26181

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 1,454.92	
	Direct Labor Cost (NI-includes transportation)	$ 4,091.97	
	Direct Material Cost	$ 3,708.34	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 8,275.00	
	Total Capital	$ 17,530.23	$ 17,530.23
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 11,379.61	$ 11,379.61
	Sub Total		$ 28,909.84
	Plus **HELCO** JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 28,910
	Less Total Customer Cost		$ 28,910
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 4,454
	Customer Line Extension Cost		$ 24,456
	State GET (4.166%)		$ 1,019
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 25,474
$5,250	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$5,250
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$20,224**

	Man-hour	Crew-hour		
			10 % Payment	2,022
Capital	113.6		90 % Payment	$ 18,202
O & M	0.0			
Removal	0.0			
TOTAL	113.6	0.0		

Prepared By:	R. Yamato	Checked by:	KRW 1-25-06

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	Neil Vieth			Date:	1/25/06
	Planner:	RY		Request / Parent WO Number:		H26181
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
80	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	6.40
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.08	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
800	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	13.600
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
5	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	20.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	2-4030-A	midspan (1 phase)	"		1.0	0.0
1	2-4030-C	midspan (1 phase)	"		1.0	1.0
	3-4100	3/8" DGS 34'	"		1.0	2.0
	3-4100	3/8" DGS 41'	"		1.0	2.0
	3-4100	3/8" DGS 47'	"		1.0	0.0
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
2	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
			"			
	3-4150-A1	3/4" galv anchor (8')	"		0.0	0.0
	3-4150-A2	1" galv anchor (8')	"		0.0	0.0
	3-4150-A3	1-1/4" galv anchor (10')	"		0.0	0.0
3	5-1009-F1	Straight & Angle	"		1.0	3.0
	5-1009-F2	Sec. split	"		1.0	0.0
1	5-1009-F3	Single DE	"		1.0	1.0
	5-1009-F4	Line Guard	"		1.0	0.0
1	5-1009-F5	DDE	"		1.5	1.5
	5-1009-F6	Buck	"		1.0	0.0
			"			
1	5-3010	Mid Span 1-way	"		1.0	1.0
			"			
	7-2050-F1		"		1.0	0.0
1	7-2050-F2		"		1.5	1.5
2	7-2050-F2A	w/o CO	"		1.0	2.0
	7-2050-F3		"		2.0	0.0
	7-2050-F3A	Transf & Buck	"		2.0	0.0
	7-2050-F4	Angle w/o CO	"		1.0	0.0
	7-2050-F5		"		1.5	0.0
	7-2050-F5A	w/o CO	"		1.0	0.0

	7-2050-F6		"	2.0	0.0
	7-2050-F7		"	2.0	0.0
	7-2050-F7A	Sgl DE	"	1.5	0.0
	7-2050-F7B	S.D.E Jumper	"	2.0	0
1	7-2050-F8		"	2.0	
	7-2050-F8A	w/o CO	"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"	1.0	0.0
	7-2050-F9		"	2.0	0.0
1	7-2050-F10	w/LA	"	2.0	2.0
	7-2050-F10A	w/o CO	"	1.5	0.0
1	10-2100	1 PH 10-50 KVA	"	8.0	8.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
4	12-1020-F2	Primary grounding	"	1.0	4.0
	12-5201	Object Marker	"	0.1	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0
			$ 3,708.34		
CAPITAL:		**Total Direct Material Cost**	$ 3,708.34		
				Man-hour Sub Total	71.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	42.6
				Total Direct Capital Man-hours	113.6
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct O&M Man-hours	0.0
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct Removal Man-hours	0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Outside Materials	$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Pre-Capitalized Materials	$	-

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	Neil Vieth				Date:	1/25/06
	Planner:	RY				Request/Parent WO Number:	H26181

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
5	5.5	9	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 4,125.00		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
2	8	9	Dig and Set Anchor	$ 150.00	$ 2,400.00		
	----	9	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	----	9	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	----	9	AC Repair	$ 150.00	$ -		
5	----	9	Ground Rod Installation (2 per)	$ 350.00	$ 1,750.00		
	----	9	Pole Base	$ 125.00	$ -		
	----	9	Traffic Control	$ 15.25	$ -		
	----	9	Tree Trimming	$ -	$ -		
	----	9	Helicopter	$ 1,750.00	$ -		
	----	9		$ -	$ -		
				Total	$ 8,275.00		$ 8,275.00

2-way **Verizon** JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
5	30/35	0	40' Pole	$ 890.85	$ 4,454.25		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 4,454.25		$ 4,454.25

2-way **CofH** JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ -	$ -		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ -		$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			51.1	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	34.3
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	5.1
			WC m/h total	77%	39.4
NI	150	_TCS-CE	Supervisor	2%	1.0
NI	150	W_TT-CE	Transit Tech (JM)	5%	2.6
NI	150	W_RH-CE	Rodman Helper (AT)	5%	2.6
NI	150	_I-CE	Land Surveyor	5%	2.6
			WS m/h total	17%	8.7
NI	150	W_ENG-CE	(MSY)	3%	1.5
NI	150	W_SCD-CE	(EF)	5%	2.6
			WX m/h total	8%	4.1
			Engineering M HTotal	102%	52.1
			Engineering Vehicle Total		8.2
	Capital m/h			**113.6**	
NI	150	_TCS-CE	labor (sup)	1%	1.1
NI	150	D_Crew	labor (crew)	100%	113.6
NI	201		Direct Material Cost	- - - -	$ 3,708.34
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 8,275.00
	O&M M/H			**0.0**	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			**0.0**	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	Neil Vieth	Date	1/25/06

H0001422 Virn Patton

H0001422

ADDITIONAL
REQUEST NO. 14

2006 CAPITAL BUDGET
ADDITIONAL REQUEST

PROJECT NAME: Virn Patton

Grand Parent: OM-350 Overhead Svcs and Extns

LOCATION: Off Kamaoa Road, Naalehu, Kau

Approval is requested for the attached authorization request in the amount of $44,136 for the installation of a single-phase 7.2KV overhead line extension to serve Virn Patton.

$44,136 is being transferred from the following Project(s):

Budgeted Project Number To Transfer From	Budgeted Project Name To Transfer From	Original Approved Budgeted Amount	Balance Before Transfer	To Gichin09	Balance After Tran:
H0007000	Customer Request Projects	1,337,973	1,293,973	44,136	1,249,837
			Total Project	44,136	

Approval is requested.

Clyde H. Nagata, Manager

Warren H.W. Lee, President

Pillar Proj. #: Gichin09
Request #: H0027119

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Galen Ichinose **Phone/Ext #:** 337

Originator's Name: Galen Ichinose

Responsible Estimator: Galen Ichinose
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Galen Ichinose

Date: 01/25/2006

Required Approvals to Initialize a Project:

1/27/06
Responsible Manager **Date**

1 FEB 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

1/27/06
Responsible Manager **Date**

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

1/31/06
HELCO Accounting Manager **Date**

1 FEB 2006
HELCO President **Date**

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Virn Patton

Project Number: GICHIN09
(Temporary)

Plant Addition Date: 2006-05

Commitment Date: 2006-02

Primary Corporate Goal: Res Cust-Satisf

Stategic Plan Linkage: 2B - Increase Electric Sales
(Primary)

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$44	$0	$0	$0	$0	$0	$44

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to provide a single-phase overhead line extension to (2) proposed homes for Virn Patton & daughter Tammy. Located off Kamaoa Road, Naalehu, Kau, Hawaii.

Scope Description:

Install (8) 40 ft. poles, (5) anchors, 1,608 ckt. ft. of 1W-#1/0 AAC single-phase 7.2 KV primary, 1,608 ckt. ft. of #3/0 AAAC neutral & (2) pole mounted transformers for a single-phase 7.2 KV overhead line extension.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

HWC, HWX, HDH
Outside contractor to excavate pole holes, anchors installation & grounding.

Justification:

To fulfill a request made by Ms. Virn Patton to provide an overhead single-phase line extension to serve both her and daughters proposed residence located off Kamaoa Road, Naalehu, Kau, Hawaii.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Electric service is required for both Ms. Virn Patton and her daughter and possible neighboring properties.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance	$15,568.00	Payment by customer
GET Included	$16,435.00	

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

NONE

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

NONE

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	Virn Patton	Date:	1/16/06
Planner:	Galen Ichinose	Request Number:	H0027119

AR Cost

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 2,419.69	
	Direct Labor Cost (NI-includes transportation)	$ 7,017.29	
	Direct Material Cost	$ 6,796.18	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 8,457.00	
	Total Capital	$ 24,690.16	$ 24,690.16
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 19,446.03	$ 19,446.03
	Sub Total		$ 44,136.19
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$
	Total Project Cost		$ 44,136
	Less Total Customer Cost		$ 44,136
	HELCO Betterment	$ 0	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 8,280
	Customer Line Extension Cost		$ 35,856
	State GET (4.167%)		$ 1,494
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 37,350
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		~~$5,250~~
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		~~$32,100~~

	Man-hour	Crew-hour
Capital	194.8	
O & M	0.0	
Removal	0.0	
TOTAL	194.8	0.0

10 % Payment	3,210
90 % Payment	$ 28,890

Prepared By: [signature] 1/16/06 Checked by:

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	Virn Patton	Date:	1/16/06
Planner:	Galen Ichinose	Request Number:	H0027119

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 2,419.69	
	Direct Labor Cost (NI-includes transportation)	$ 7,017.29	
	Direct Material Cost	$ 6,796.18	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 8,457.00	
	Total Capital	$ 24,690.16	$ 24,690.16
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 19,446.03	$ 19,446.03
	Sub Total		$ 44,136.19
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 44,136
	Less Total Customer Cost		$ 44,136
	HELCO Betterment	$ 0	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 8,280
	Customer Line Extension Cost		$ 35,856
	State GET (4.167%)		$ 1,494
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 37,350
	Line Exln. Allowance (Cost of Line Exln. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$5,250
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		$32,100

	Man-hour	Crew-hour		
Capital	194.8		10 % Payment	3,210
O & M	0.0		90 % Payment	$ 28,890
Removal	0.0			
TOTAL	194.8	0.0		

Prepared By: Checked by:

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	Virn Patton				Date:	1/16/06
	Planner:	Galen Ichinose				Request/Parent WO Number:	H0027119

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
8	5.5	H5	Dig Pole Hole (+1' for pole base)	$ 78.00	$ 3,432.00		
		H5	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		H5	Dig Pole Hole (+1' for pole base)	$ -	$ -		
5	8	H3	Dig and Set Anchor	$ 81.00	$ 3,240.00		
	- - - -	H5	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	H5	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	H5	AC Repair	$ 150.00	$ -		
5	- - - -	H5	Ground Rod Installation (2 per)	$ 357.00	$ 1,785.00		
	- - - -	H5	Pole Base	$ 125.00	$ -		
	- - - -	H5	Traffic Control	$ 15.25	$ -		
	- - - -	H5	Tree Trimming	$ -	$ -		
	- - - -	H5	Helicopter	$ 1,750.00	$ -		
	- - - -	H5		$ -	$ -		
				Total	$ 8,457.00		$ 8,457.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
8	30/35	9-4-2	40' Pole	$ 945.73	$ 7,565.84		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
2	50/50	0	Grounding	$ 714.00	$ 714.00		
				Total	$ 8,279.84		$ 8,279.84

2-way CofH JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
				Total	$ -		$ -

2-way HELCO JP Shares (Verizon installed)

QTY		TMK	Description	Unit	Unit Total		
				Total	$ -		$ -

3-way JP Shares (HELCO installed)

QTY		TMK	Description	Unit	Verizon Unit Total	Unit	CH Unit Total
				Total	$ -		$ -

Transfer Charge:		per JP #					$ -

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project: Virn Patton | Date: 1/16/06

Planner: Galen Ichinose | Request / Parent WO Number: H0027119

AR COST

Qty.	SMU. No.	Description		Labor W/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)	0.08	0.00
177	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)		0.06	10.62
	1-2040	(7980) 2-#1/0 PEIAC		0.017	0.000
327	1-2040	(8296) #3/0 strd AAAC - lw	"	0.05	16.35
	1-5000	(11) 30FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	0.0
8	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	32.0
1	1-7010	(3003) 10 KV LA (1 phase)	"	1.0	1.0
1	2-4030-A	midspan (1 phase)	"	1.0	1.0
	2-4030-C	midspan (1 phase)	"	1.0	0.0
4	3-4100	3/8" DGS 34'	"	1.0	4.0
5	3-4100	3/8" DGS 41'	"	1.0	5.0
	3-4100	3/8" DGS 47'	"	1.0	0.0
1	3-4100	3/8" SWGS 34'	"	2.0	2.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
5	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
			"		
4	5-1009-F1	Straight & Angle	"	1.0	4.0
	5-1009-F2	Sec. split	"	1.0	0.0
2	5-1009-F3	Single DE	"	1.0	2.0
	5-1009-F4	Line Guard	"	1.0	0.0
2	5-1009-F5	DDE	"	1.5	3.0
	5-1009-F6	Buck	"	1.0	0.0
			"		
1	7-2050-F2		"	1.5	1.5
3	7-2050-F2A	w/o CO	"	1.0	3.0
1	7-2050-F7		"	2.0	2.0
1	7-2050-F8		"	2.0	2.0
1	7-2050-F10A	w/o CO	"	1.5	1.5
1	7-2210-A	3W	"	3.0	3.0
4	12-1020-F1	Neutral grounding	"	1.0	4.0
2	12-1020-F2	Primary grounding	"	1.0	2.0
8	12-5201	Object Marker	"	0.1	0.8
1		Secondary Clevis	"	1.0	1.0
			"		0.0
		Switching	"		0.0
1		Tailgate meeting	"		0.5
			$ 6,796.18		
CAPITAL:		Total Direct Material Cost	$ 6,796.18		
				Man-hour Sub Total	102.3
		Non-productive hours per 8 hour shift @ 4 men crew		3.8	92.5
				Total Direct Capital Man-hours	194.8

O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
			Non-productive hours per 8 hour shift @ 4 men crew	3.8	0.0
				Total Direct O&M Man-hours	
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
			Non-productive hours per 8 hour shift @ 4 men crew	3.8	0.0
				Total Direct Removal Man-hours	0.0

OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)

Qty	Description	Unit	Unit Total
		$ -	$ -
		$ -	$ -
		Total Outside Materials	$ -

PRE-CAPITALIZED MATERIALS (padmt. transformer)

Qty	Description	Unit	Unit Total
		$ -	$ -
		$ -	$ -
		Total Pre-Capitalized Materials	$ -

SALVAGEABLE MATERIALS

Qty	Description	Unit	Unit Total
		$ -	$ -
		$ -	$ -
		Total Salvageable Materials	$ -

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	Virn Patton			Date:	12/14/05
Planner:	Galen Ichinose			Request Number:	H0027119
CAPITAL:	Direct Engineering (includes WS/WX & transportation)		$ 1,266.48		
	Direct Labor Cost (NI-includes transportation)		$ 3,256.35		
	Direct Material Cost		$ 6,366.31		
	Direct Outside Materials		$ -		
	Direct Outside Services		$ 7,243.00		
		Total Capital	$ 18,132.14	$	18,132.14
O & M:	Direct Labor (NE-includes transportation)		$ -		
REMOVAL:	Direct Labor (NR/NS-includes transportation)		$ -		
		Total O & M / Removal	$ -	$	-
OVERHEAD:		Total Overhead	$ 9,121.48	$	9,121.48
			Sub Total	$	27,253.62
		Plus HELCO JP Shares (Verizon installed)		$	-
		Plus Verizon Transfer Cost		$	-
			Total Project Cost	$	27,254
		Less Total Customer Cost		$	27,254
		HELCO Betterment	$ (0)		
		Less Verizon JP Shares (2-way-HELCO installed)		$	6,436
		Customer Line Extension Cost		$	20,818
		State GET (4.167%)		$	867
Calculated 36m Rev Credit + tax		Customer Advance - subtotal		$	21,686
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)				$5,250
Total Customer Advance (includes State GET)		(25200000 / 25201000 / 25202000)			~~$16,436~~ $16,435

	Man-hour	Crew-hour		
			10 % Payment	1,644
Capital	163.7		90 % Payment	$ 14,792
O & M	0.0			
Removal	0.0			
TOTAL	163.7	0.0		

Prepared By: [signature] 12/14/05 Checked by:

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

Project: Virn Patton | Date: 12/14/05

Planner: Galen Ichinose | Request/Parent WO Number: H0027119

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
7	5.5	H5	Dig Pole Hole (+1' for pole base)	$ 78.00	$ 3,003.00		
		H5	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		H5	Dig Pole Hole (+1' for pole base)	$ -	$ -		
5	8	H3	Dig and Set Anchor	$ 81.00	$ 3,240.00		
	- - - -	H5	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	H5	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	H5	AC Repair	$ 150.00	$ -		
5	- - - -	H5	Ground Rod Installation (2 per)	$ 200.00	$ 1,000.00		
	- - - -	H5	Pole Base	$ 125.00	$ -		
	- - - -	H5	Traffic Control	$ 15.25	$ -		
	- - - -	H5	Tree Trimming	$ -	$ -		
	- - - -	H5	Helicopter	$ 1,750.00	$ -		
	- - - -	H5		$ -	$ -		
				Total	$ 7,243.00		$ 7,243.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
7	30/35	9-4-2	40' Pole	$ 890.85	$ 6,235.95		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
2	50/50	0	Grounding	$ 200.00	$ 200.00		
				Total	$ 6,435.95		$ 6,435.95

2-way CofH JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
				Total	$ -		$ -

2-way HELCO JP Shares (Verizon installed)

QTY		TMK	Description	Unit	Unit Total		
				Total	$ -		$ -

3-way JP Shares (HELCO installed)

QTY		TMK	Description	Unit	Verizon Unit Total	Unit	CH Unit Total
				Total	$ -		$ -

Transfer Charge: per JP # $ -

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project: Virn Patton — Date: 12/14/05

Planner: Galen Ichinose — Request / Parent WO Number: H0027119

Qty.	SMU. No.	Description		Labor M/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate	0.08	0.00
354	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)	Summary Report" for Material Unit	0.06	21.24
	1-2040	(7980) 2-#1/0 PEIAC	Costs)	0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	0.0
7	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	28.0
1	2-4030-A	midspan (1 phase)	"	1.0	1.0
	2-4030-C	midspan (1 phase)	"	1.0	0.0
4	3-4100	3/8" DGS 34'	"	1.0	4.0
5	3-4100	3/8" DGS 41'	"	1.0	5.0
	3-4100	3/8" DGS 47'	"	1.0	0.0
1	3-4100	3/8" SWGS 34'	"	2.0	2.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
5	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
			"		
4	5-1009-F1	Straight & Angle	"	1.0	4.0
	5-1009-F2	Sec. split	"	1.0	0.0
2	5-1009-F3	Single DE	"	1.0	2.0
	5-1009-F4	Line Guard	"	1.0	0.0
2	5-1009-F5	DDE	"	1.5	3.0
	5-1009-F6	Buck	"	1.0	0.0
			"		
4	7-2050-F2A	w/o CO	"	1.0	4.0
1	7-2050-F7		"	2.0	2.0
1	7-2050-F8		"	2.0	2.0
1	7-2050-F10A	w/o CO	"	1.5	1.5
5	12-1020-F1	Neutral grounding	"	1.0	5.0
7	12-5201	Object Marker	"	0.1	0.7
			"		0.0
			"		0.0
		Switching	"		0.0
1		Tailgate meeting	"		0.5

		$ 6,366.31	
CAPITAL:	Total Direct Material Cost	$ 6,366.31	
	Man-hour Sub Total		85.9
	Non-productive hours per 8 hour shift @ 4 men crew	3.8	77.8
	Total Direct Capital Man-hours		163.7
O & M:	(Capital Man-hours)		0.0
	(O & M m/h = 30% of capital labor m/h)		0.0
	Non-productive hours per 8 hour shift @ 4 men crew	3.8	0.0
	Total Direct O&M Man-hours		0.0
REMOVAL:	(Capital Man-hours)		0.0
	(Removal m/h = 50% of capital labor m/h)		0.0

		Non-productive hours per 8 hour shift @ 4 men crew			3.8	0.0
			Total Direct Removal Man-hours			0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)						
Qty	Description		Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Outside Materials		$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty	Description		Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Pre-Capitalized Materials		$	-
SALVAGEABLE MATERIALS						
Qty	Description		Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Salvageable Materials		$	-

H0001430 Glenwood Farm Lots

ADDITIONAL
REQUEST NO. 20

H0001430

2006 CAPITAL BUDGET
ADDITIONAL REQUEST

PROJECT NAME: Glenwood Farm Lots

Grand Parent: OM-350 Overhead Svcs and Extns

LOCATION: Olaa, Puna

Approval is requested for the attached authorization request in the amount of $155,343 to install 9-45' poles; 27-40' poles; 11-1" ancs.; 8,712 ft. of 1w-#1/0 aac pri. conductor; 8,712 ft. of #1/0 aac neutral conductor for an 1-ph, 7.2kv oh distribution system to serve 12 lots of glenwood farm lots located in Olaa, Puna, Hawaii. Tmk: 1-8-10 & 11.

$155,343 is being transferred from the following Project(s):

Budgeted Project Number To Transfer From	Budgeted Project Name To Transfer From	Original Approved Budgeted Amount	Balance Before Transfer	To BMatsu08	Balance After Tran
H0007000	Customer Request Projects	1,337,973	1,136,370	155,343	981,027
			Total Project	155,343	

Approval is requested.

Clyde H. Nagata, Manager

Warren H.W. Lee, President

Pillar Proj. #: BMatsu08
Request #: H0027770

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

○ Approved, Date of Decision & Order: Docket Number:

○ Awaiting PUC Approval, Application Filed

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Bam Matsubara **Phone/Ext #:** 255

Originator's Name. bmatsubara

Responsible Estimator: bmatsubara
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: bmatsubara

Date: 02/03/2006

Required Approvals to Initialize a Project:

2/6/06
Responsible Manager Date

1 FEB 2006
HELCO President Date

Required Approvals to Authorize a Project:

2/6/06
Responsible Manager Date

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

2/6/06
HELCO Accounting Manager Date

1 FEB 2006
HELCO President Date

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Glenwood Farm Lots

Project Number: BMATSU08
(Temporary)

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

Plant Addition Date: -

Commitment Date: -

Primary Corporate Goal: Res Cust-Satisf

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$155	$0	$0	$0	$0	$0	$155

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	20	0	0	0	62

Purpose/Objectives:

provide an 1-ph, 7.2kv oh distribution system to serve to Glenwood Farm Lots located @ Olaa, Puna, Hawaii (tmk: 1-9-1,3 & 11)

Scope Description:

install 27-40' poles; 9-45' poles; 11-1" ancs.; 8,712 ft. of 1w-#1/0 aac pri. conductor; 8,712 ft. of #1/0 aac neutral conductor for an 1-ph, 7.2kv distribution system to serve glenwood farm lots.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

hwc, hws, hwx & hdh

Justification:

obligated to provide electric service

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

n/a

Issues, Impacts, Considerations:

increase revenue.

total project cost: $149,130.00
Developer cost (refundable advance) (includes state get): $112,033.00
Hawaiian Telcom Joint Pole Shares (refundable advance): $43, 309.00
total developer advance: $155,342.00

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance	$155,342.00 ✓	total developer advance (includes state get) $155,342.00
GET Included	$6,212.00	total project cost $149,130.00

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

NONE

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

NONE

*Project #	*Proj Link	*RA #	*Act #	*Loc #	*Ind #	*EE #	Rates Linked To	*Labo...	Line Item	Total 5 Year Cost	Mar 06	Apr 06	May 06
BMatsu08	BMatsu08	*AFU...	*AFUD...	*AFU...	*AFU...	*AF...	N/A		glenwood farm lots	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		*AFU...	*AFUD...		*AFU...	*AF...				$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		*AFU...	*AFUD...		*AFU...					$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
			*AFUD...							$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
BMatsu08		-	-	-	-	401	Not in File		Stores OHBMatsu08	$2,942.47	0.00	...	0.00
											$0.00	...	$0.00
		-	-		-	401				$2,942.47	0.00	...	0.00
											$0.00	...	$0.00
BMatsu08		-	-	-	-	404	Not in File		Energy Delivery OHB...	$20,718.00	0.0	651.1	0.0
											$0.00	...	$0.00
		-	-		-	404				$20,718.00	0.0	651.1	0.0
											$0.00	...	$0.00
BMatsu08		-	-	-	-	406	Not in File		Corp Admin OH BMat...	$3,769.06	295.9	651.1	0.0
											...	...	$0.00
		-	-		-	406				$3,769.06	295.9	651.1	0.0
											...	...	$0.00
BMatsu08		-	-	-	-	407	Not in File		Cust Install OH BMats...	$15,422.31	295.9	0.0	0.0
											...	$0.00	$0.00
		-	-		-	407				$15,422.31	295.9	0.0	0.0
											...	$0.00	$0.00
BMatsu08		-	-	-	-	421	Not in File		NPW OH BMatsu08	$3,996.34	295.9	651.1	0.0
											...	...	$0.00
					-	421				$3,996.34	295.9	651.1	0.0
												...	$0.00
BMatsu08		-		-	-	422	Not in File		Empl Benefits OH BM...	$9,318.48	295.9	651.1	0.0
											...	...	$0.00
			-			422				$9,318.48	295.9	651.1	0.0
											...	...	$0.00
BMatsu08					-	423	Not in File		Payroll Tax OHBMats...	$2,703.39	...	...	0.00
											$780.85	...	$0.00
		-				423				$2,703.39	...	...	0.00
											$780.85	...	$0.00
		-								$58,870.05	...	...	0.00
											...	...	$0.00
			-							$58,870.05	...	...	0.00
											...	...	$0.00
BMatsu08	BMatsu08	HWC	403	HAH	NI	150	W_SCP-CE Prod Rate (Sr...	W_SC...	Cust Eng-Planner-15	$6,730.13	194.4	0.0	0.0
											...	$0.00	$0.00
BMatsu08	BMatsu08	HWC	403	HAH	NI	150	W_PA-CE Prod Rate (Pla...	W_PA...	Cust Eng-Planner Aid...	$632.78	29.0	0.0	0.0
											$632.78	$0.00	$0.00
		HWC	403		NI	150				$7,362.91	223.4	0.0	0.0
											...	$0.00	$0.00
BMatsu08	BMatsu08	HWC	403	HAH	NI	301	_ VEHLIG Rate (Light Tru...		Light Trucks-Cust Eng	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HWC	403		NI	301				$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HWC	403		NI					$7,362.91	223.4	0.0	0.0
											...	$0.00	$0.00
BMatsu08	BMatsu08	HWS	403	HAH	NI	150	__TCS-CE Prod Rate(Tea...	__TC...	Civil-Sup	$191.92	5.8	0.0	0.0
											$191.92	$0.00	$0.00
BMatsu08	BMatsu08	HWS	403	HAH	NI	150	W_MAP-CE Prod Rate (M...	W_M...	Civil-Mapper	$307.11	14.5	0.0	0.0
											$307.11	$0.00	$0.00
BMatsu08	BMatsu08	HWS	403	HAH	NI	150	W_RH-CE Prod Rate (Rod...	W_RH...	Civil-Roadman	$353.37	14.5	0.0	0.0
											$353.37	$0.00	$0.00
BMatsu08	BMatsu08	HWS	403	HAH	NI	150	W_TT-CE Prod Rate (Tran...	W_TT...	Civil-Transit Tech	$494.31	14.5	0.0	0.0
											$494.31	$0.00	$0.00
		HWS	403		NI	150				$1,346.70	49.3	0.0	0.0
											...	$0.00	$0.00
BMatsu08	BMatsu08	HWS	403	HAH	NI	301	_ VEHLIG Rate (Light Tru...		Light Trucks-Civil	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HWS	403		NI	301				$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HWS	403		NI					$1,346.70	49.3	0.0	0.0
											...	$0.00	$0.00
BMatsu08	BMatsu08	HWX	403	HAH	NI	150	W_ENG-CE Prod Rate (E...	W_EN...	Planning-Engineer	$230.64	8.7	0.0	0.0
											$230.64	$0.00	$0.00
[illegible]	BMatsu08	HWX	403	HAH	NI	150	W_SCD-CE Prod Rate (S...	W_SC...	Planning-Draft	$467.63	14.5	0.0	0.0
											$467.63	$0.00	$0.00
		HWX	403		NI	150				$698.26	23.2	0.0	0.0
											$698.26	$0.00	$0.00

*Project #	*Proj Link	*HA #	*ACI #	LOC #	HIG #	CE #	Notes Linked To		Description				
BMatsu08	BMatsu08	HWX	403	HAH	NI	301	_ VEHLIG Rate (Light Tru...		Light Trucks-Planning	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HWX	403		NI	301				$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HWX	403		NI					$698.26	23.2	0.0	0.0
											$698.26	$0.00	$0.00
			403							$9,407.87	295.0	0.0	0.0
											...	$0.00	$0.00
BMatsu08	BMatsu08	HDH	415	HAH	NI	150	_TCS-ED Prod Rate (Tea...	_TC...	Crew-Sup	$211.78	0.0	6.4	0.0
											$0.00	$211.78	$0.00
BMatsu08	BMatsu08	HDH	415	HAH	NI	150	D_CREW Prod Rate (Crew)	D_C...	Crew	$22,951.32	0.0	644.7	0.0
											$0.00	...	$0.00
		HDH	415		NI	150				$23,163.10	0.0	651.1	0.0
											$0.00	...	$0.00
BMatsu08	BMatsu08	HDH	415	HAH	NI	201	_ No Escalation		Stock Material	$29,632.12	0.0	...	0.0
											$0.00	...	$0.00
BMatsu08	BMatsu08	HDH	415	HAH	NI	201	_ No Escalation		Outside Materials	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HDH	415		NI	201				$29,632.12	0.0	...	0.0
											$0.00	...	$0.00
BMatsu08	BMatsu08	HDH	415	HAH	NI	301	_ VEHLIG Rate (Light Tru...		Light Trucks-Sup-crew	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
BMatsu08	BMatsu08	HDH	415	HAH	NI	301	_ VEHHVY Rate (Heavy T...		Heavy Trucks-Crew	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HDH	415		NI	301				$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
BMatsu08	BMatsu08	HDH	415	HAH	NI	505	_ No Escalation		Outside Construction	$28,057.00	0.0	...	0.0
											$0.00	...	$0.00
		HDH			NI	505				$28,057.00	0.0		0.0
											$0.00		$0.00
		HDH	415		NI					$80,852.22	0.0	...	0.0
											$0.00	...	$0.00
			415							$80,852.22	0.0	...	0.0
											$0.00	...	$0.00
										$149,130.14	...	...	0.00
											...	...	$0.00

Hawaii Electric Light Company, Inc. • PO Box 1027 • Hilo, HI 96721-1027

CUST 3-3-1
H-W/G

January 6, 2006

KN Consulting Services, Inc.
1451 So. King Street, Suite 412
Honolulu, Hawaii 96814

Dear Mr. Kenneth Nagai:

Subject: Glenwood Farm Lots

This proposal letter is in reply to your request concerning the installation of an overhead electrical distribution system to serve 12 lots of the above subject development located at Olaa, Puna, Hawaii (TMK: 1-8-010 & 011).

HELCO will provide, install, own and maintain an overhead electrical distribution system in accordance with our enclosed Drawing No. 05-E-1345 Revision 3 dated January 5, 2006.

HELCO will make this installation in accordance with the Company's Rule No. 13 and "General Requirements for Installation of Overhead Electrical Distribution Systems in Subdivisions or Developments" revised date of November 11, 1985, copies attached.

The cost and specific requirements are noted as follows:

1. The total charges of the overhead electrical distribution system is as follows.

TOTAL DEVELOPER COST $155,342.00

TOTAL PROJECT COST	$149,130.00
Developer Cost (refundable advance) (Includes State GET)	$112,033.00
Hawaiian Telcom Joint Pole Shares (refundable advance)	$43,309.00
Total Developer Advance (Includes State GET)	$155,342.00

Based on the cost noted above, you are required to pay HELCO a refundable customer advance of $155,342.00, which include State General Excise Tax.

The required advance are due and payable upon your acceptance of this proposal. Payment shall be required a minimum of (4) weeks prior to the processing of our construction work orders.

An advance is the amount of money paid to our Company which may be subject to refund in whole or in part in accordance with HELCO's Rule 13. (See attached copy.)

Joint pole shares purchased by Hawaiian Telcom, will be refunded when transactions are completed.

2. This proposal is valid for a period of six months from the date of this letter. If HELCO is not permitted to issue its construction work orders by July 6, 2006, this proposal will be invalid. If the starting date, as specified below by you, is later than this date, this proposal will be invalid and a revised proposal will be sent to you. Our Company shall not be held liable for delays caused by material shortages or delays caused by materials being strikebound.

   The developer is also responsible for the cutting and trimming of trees along the proposed pole line route and providing property corner pins prior to our Company's construction. All tree trimming will be done in accordance to HELCO's Tree Trimming Specifications, a copy of which is enclosed.

3. This proposal is subject to our Company obtaining a satisfactory easement. Occasionally, parties granting easements to us will require survey descriptions and/or document processing fees. If applicable, this cost will be added to the total cost of this project.

4. HELCO shall bill the Developer all additional costs incurred should there be a determination of special findings not available during the development of HELCO's cost estimate. An example would be archeological findings, which would require mitigation by working around or redesigning the proposed project to enable completion.

HELCO's construction work orders will be issued upon receipt and/or completion of all required documentation and necessary payments.

The terms of this proposal are at all times subject to change or modification by the State of Hawaii Public Utilities Commission ("PUC") as the PUC may direct in the exercise of its jurisdiction.

Please signify your acceptance of this proposal by appropriate execution in the space provided below. We are including one extra copy of this proposal and request that the signed original, Customer Data Input Sheet and payment of $155,342.00 is mailed to HELCO in the enclosed self-addressed envelope or delivered directly to HELCO's Customer Service Division located at 1200 Kilauea Avenue, Hilo, Hawaii.

In addition, please include the approximate date our Company will be permitted to begin its installation.

Should you have any questions, please write or call me at (808) 969-0255 between the hours of 7:00 a.m. - 3:30 p.m.

Sincerely,

Bruce A. Matsubara
Senior Customer Planner
Customer Engineering Division

HAWAII ELECTRIC LIGHT COMPANY, INC.

Clyde H. Nagata, Manager
Engineering Department

HAWAII ELECTRIC LIGHT COMPANY, INC.

By Its Assistant Treasurer

HAWAII ELECTRIC LIGHT COMPANY, INC.

By Its Assistant Secretary

CHN:BAM:fc
Enclosures
Request No. H0027770

Approved by Developer: _____
Signature in Ink

Name of Signer: Stephen Hurwitz
Type or Print

Title: Partner Date: 1/31/06

Name of Company: CH2

Approximate date your contractor will be ready for HELCO to begin its construction: Immediately

Refunds made to: C and H Properties, Inc. Trust Account
Type or Print

Mailing Address: 65-1227-A Opelo Rd. Suite 1
P.O. Box/Street Address

Kamuela HI 96743
City State Zip Code

DEVELOPER SUMMARY - Overhead Cost Estimate

Project:	glenwood farm lots-est	Date:	1/5/06
Planner:	am	Request Number:	H0027770

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 9,407.87	
	Direct Labor Cost (NI-includes transportation)	$ 23,163.10	
	Direct Material Cost	$ 29,632.12	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 28,057.00	
	Total Capital	$ 90,260.09	$ 90,260.09
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)		
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 58,870.05	$ 58,870.05
	Sub Total		$ 149,130.14
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 149,130.14
	Less Developer Cost		$ 149,130.14
	Less HELCO Betterment	$ -	
	Less Salvageable Material Credit	$ -	
	Developer Cost Sub Total		$ 149,130.14
	Advance	$ 149,130	
	State GET (4.166%)	$ 6,213	
	Developer Advance (w/ GET)	$ 112,033	
	Verizon-JP-Advance	$ 43,309	
	Total Advance (w/ GET)	$ 155,34~~3~~2	
	CH St. Lt. JP-Aid	$ -	
	State GET (4.166%)	$ -	
	Sub Total Aid	$ -	
	Total Developer Advance (includes GET & Verizon JP shares)		$ 155,34~~3~~2
	Total Developer Aid (includes State GET)		$ -
	Total Developer Cost		$155,34~~3~~2
	Refundable Verizon JP Shares (2-way-HELCO installed)	$ 43,309.41	
	Refundable Verizon JP Shares (3-way-HELCO installed)	$ -	
	Non-refundable CH Shares- St. Lt. (2-way-HELCO installed)	$ -	
	Non-refundable CH Shares- St. Lt. (3-way-HELCO installed)	$ -	

	Man-hour	Crew-hour		
			10 % Payment	15,534
Capital	644.7		90 % Payment	139,809
O & M	0.0			
Removal	0.0			
TOTAL	644.7	0.0		

Prepared By: [signature] Checked by: [signature] 6/6/2006

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			290.1	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's		0.0
NI	150	W_JCP-CE	10's	67%	194.4
NI	150	W_PA-CE	9's	10%	29.0
			WC m/h total	77%	223.4
NI	150	_TCS-CE	Supervisor	2%	5.8
NI	150	W_TT-CE	Transit Tech (JM)	5%	14.5
NI	150	W_RH-CE	Rodman Helper (AT)	5%	14.5
NI	150	_I-CE	Land Surveyor	5%	14.5
			WS m/h total	17%	49.3
NI	150	W_ENG-CE	(MSY)	3%	8.7
NI	150	W_SCD-CE	(EF)	5%	14.5
			WX m/h total	8%	23.2
			Engineering M HTotal	102%	295.9
			Engineering Vehicle Total		46.4
	Capital m/h			644.7	
NI	150	_TCS-CE	labor (sup)	1%	6.4
NI	150	D_Crew	labor (crew)	100%	644.7
NI	201		Direct Material Cost	- - - -	$ 29,632.12
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 28,057.00
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	glenwood farm lots-est	Date	1/5/06

Date: 01/05/2006
Time: 11:36 AM

Material Estimate Summary

EGI Code: YHR27770 Rev: 0

Design Estimate

Description: Glenwood Farm Lots-est

Work Group: Hilo CID | Owner: Bruce Matsubara | Stage Code: Open | Drawing: 05-E-1345

Total Cost: 29,632.12 | Created: 10/26/2005 | Updated: 01/05/2006 | Last Est Rpt:

Component 1

Drawing Nbr: 05-'E-1345 r3 | WO Reference: est | Description: Glenwood Farm Lots-est

Item	D/Ln	TP	SMU ID	V?	-- New -- Stock #	-- Old -- Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
1	1	I			000115089	07951	LB	CONDUCTOR, BARE, AL, 1/0, SPEC, 1350-H19 CLASS AA,	88	1,920.00	2.29	4,396.80
2	2	I			000100123	00027	EA	POLE, PENTACHLOROPHENOL, 40FT, CLASS 3 PER HECC	67	27.00	520.84	14,062.68
3	3	I			000101063	00524	EA	ANCHOR, DEADMAN, 24", CONCRETE	11	36.00	31.12	1,120.32
4	4	S	02-4030	Y				1 PH MIDSPAN TAP CONNECTION MAX RUN AND-TAP - 5E		2.00	0.00	0.00
5	5	S	03-4100-A3	Y				PREASSM 3/8" ANCHOR GUY STEEL - (DISTR ACCT)		8.00	13.60	108.80
6	6	S	03-4100-A3	Y				PREASSM 3/8" ANCHOR GUY STEEL - (DISTR ACCT)		11.00	16.40	180.40
7	7	S	03-4100-S3	Y				PREASSM 3/8" SIDEWALK GUY STEEL - (DIST ACCT)		3.00	91.56	274.68
8	8	S	03-4120-C3	N				24" CONC DEADMAN 1" GALV ANC ROD-"C" (DIST ACCT)		11.00	54.14	595.54
9	9	S	05-1009-F1	N				PREASSM SEC AERIAL CBL STR LINE & ANG (0-10 DEG M		27.00	0.00	0.00
10	10	S	05-1009-F3	N				PREASSM SEC AERIAL CBL DE CONSTR		2.00	0.00	0.00
11	11	S	05-1009-F4	N				PREASSM SEC AERIAL CBL ANG CONSTR (11-30 DEG MA		1.00	35.15	35.15
12	12	S	05-1009-F5	N				PREASSM SEC AERIAL CBL ANG CONSTR (31-90 DEG MA		6.00	0.00	0.00
13	13	S	05-3010	Y				SEC. AERIAL CABLE WITH SECONDARY-MIDSPAN TAP		2.00	0.00	0.00
14	14	S	07-2050-HC	Y				HELCO STRAIGHT LINE, W/O CUTOUT, 1/C PRIM.		28.00	56.79	1,590.12
15	15	S	07-2050-HI	Y				HELCO DOUBLE DEADEND, 1/C PRIM		2.00	51.10	102.20
16	16	S	07-2050-HL	Y				HELCO DEADEND W/ FUSED BUCK, 1/C PRIM		1.00	76.28	76.28
17	17	S	07-2050-HL	Y				HELCO DEADEND W/ FUSED BUCK, 1/C PRIM		3.00	125.60	376.80
18	18	S	07-2050-HP	Y				HELCO DEADEND W/O TRANSF., 1/C PRIM		2.00	55.84	111.68
19	19	S	12-1020-F1	N				NEUTRAL GROUNDING AERIAL CBL FIG 1-STRAIGHT LINE		31.00	31.18	966.58

Date: 01/05/2006
Time: 11:36 AM

Material Estimate Summary

EGI Code: YHR27770 Rev: 0

Design Estimate

Item	D/Ln	TP	SMU ID	V?	New Stock #	Old Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
20	20	S	12-5201	N				TYPE II OBJECT MARKER FOR UTILITY POLES ON STATE		36.00	0.00	0.00
21	21	I			000606970	00039	EA	POLE, PENTACHLOROPHENOL, 45FT, CLASS 2 PER HEC(	67	9.00	626.01	5,634.09
											Component Total:	29,632.12

H0001431 Joseph Magaldi

H0001431

ADDITIONAL
REQUEST NO. 16

2006 CAPITAL BUDGET
ADDITIONAL REQUEST

PROJECT NAME: Joseph Magaldi

Grand Parent: OM-350 Overhead Svcs and Extns

LOCATION: Amaumau Road, Volcano, Puna

Approval is requested for the attached authorization request in the amount of $35,467 for the installation of a single-phase 7.2 KV overhead line extesion to serve Mr. Magaldi.

$35,467 is being transferred from the following Project(s):

Budgeted Project Number To Transfer From	Budgeted Project Name To Transfer From	Original Approved Budgeted Amount	Balance Before Transfer	To Glchin10	Balance After Transfer
H0007000	Customer Request Projects	1,337,973	1,220,837	35,467	1,185,370
			Total Project	35,467	

Approval is requested.

Clyde H. Nagata, Manager

Warren H.W. Lee, President

Pillar Proj. #: Glchin10
Request #: H0027338

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Galen Ichinose **Phone/Ext #:** 969-0337

Originator's Name: Galen Ichinose

Responsible Estimator: Galen Ichinose
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Galen Ichinose

Date: 01/27/2006

Required Approvals to Initialize a Project:

2/2/06
Responsible Manager **Date**

1 FEB 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

2/2/06
Responsible Manager **Date**

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

2/6/06
HELCO Accounting Manager **Date**

1 FEB 2006
HELCO President **Date**

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Joseph Magaldi

Plant Addition Date: 2006-05

Project Number: GICHIN10
(Temporary)

Commitment Date: 2006-02

Primary Corporate Goal: Cap Exp

Stategic Plan Linkage: 2B - Increase Electric Sales
(Primary)

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$35	$0	$0	$0	$0	$0	$35

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

To provide electric service to Mr. Magaldi off Amaumau Road., Volcano, Puna, Hawaii.

Scope Description:

✓ Install 6-45 ft. poles, 4-anchors, approximately 1,505 ft. of 1W, #1/0 AAC, 1-phase, 7.2 KV primary, approximately 1,505 ft. of #1/0 AAC neutral, (3) pole mounted transformers for a single-phase 7.2 KV overhead line extension.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

Customer Planner (HWC)
Civil section to stake out poles and anchors (HWX)
Distribution to install pole line (HDH)
Contractor to dig pole holes, install anchor and ground rods

Justification:

To fulfill a request made by Mr. Magaldi to provide an overhead single-phase line extension to serve his proposed residence located off Amaumau Road, Volcano, Puna, Hawaii.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Electric service is required for Mr. Magaldi's proposed residence and future second farm dwelling.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance	$16,551.00	Payment by customer
GET Included	$17,459.00	

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

NONE

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

NONE

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	Joseph Magaldi	Date:	1/26/06
Planner:	Galen Ichinose	Request Number:	H0027338

(All cost)

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 1,595.41	
	Direct Labor Cost (NI-includes transportation)	$ 4,569.69	
	Direct Material Cost	$ 6,271.23	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 7,982.00	
	Total Capital	$ 20,418.33	$ 20,418.33
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ 759.91	
	Total O & M / Removal	$ 759.91	$ 759.91
OVERHEAD:	Total Overhead	$ 14,289.08	$ 14,289.08
	Sub Total		$ 35,467.32
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 35,467
	Less Total Customer Cost		$ 35,467
	HELCO Betterment	$ 0	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 7,049
	Customer Line Extension Cost		$ 28,418
	State GET (4.167%)		$ 1,184
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 29,602
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$5,250
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		$24,352

	Man-hour	Crew-hour		
			10 % Payment	2,435
Capital	126.8		90 % Payment	$ 21,917
O & M	0.0			
Removal	21.1			
TOTAL	147.9	0.0		

Prepared By: [signature] 1/27/06 Checked by: [signature] 4/19/2006

OVERHEAD COST ESTIMATE
(Outside Material and Services and Joint Pole Costing)

Project: Joseph Magaldi — Date: 1/26/06
Planner: Galen Ichinose — Request/Parent WO Number: H0027338

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
6	6	H-3	Dig Pole Hole (+1' for pole base)	$ 58.00	$ 2,088.00		
		H-3	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		H-3	Dig Pole Hole (+1' for pole base)	$ -	$ -		
4	8	H3	Dig and Set Anchor	$ 61.00	$ 1,952.00		
	- - - -	H-3	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	H-3	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	H-3	AC Repair	$ 150.00	$ -		
6	- - - -	H-3	Ground Rod Installation (2 per)	$ 357.00	$ 2,142.00		
6	- - - -	H-3	Pole Base	$ 300.00	$ 1,800.00		
	- - - -	H-3	Traffic Control	$ 15.25	$ -		
	- - - -	H-3	Tree Trimming	$ -	$ -		
	- - - -	H-3	Helicopter	$ 1,750.00	$ -		
	- - - -	H-3		$ -	$ -		
				Total	$ 7,982.00		$ 7,982.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ -	$ -		
6	30/35	0	45' Pole	$ 995.11	$ 5,970.66		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
6	50/50	0	Pole Base	$ 300.00	$ 900.00		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
1	50/50	0	Grounding	$ 357.00	$ 178.50		
				Total	$ 7,049.16		$ 7,049.16

2-way CofH JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
				Total	$ -		$ -

2-way HELCO JP Shares (Verizon installed)

QTY		TMK	Description	Unit	Unit Total		
				Total	$ -		$ -

3-way JP Shares (HELCO installed)

QTY		TMK	Description	Unit	Verizon Unit Total	Unit	CH Unit Total
				Total	$ -		$ -

Transfer Charge: per JP # — $ -

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project: Joseph Magaldi | Date: 1/26/06

Planner: Galen Ichinose | Request / Parent WO Number: H0027338

(AR COST)

Qty.	SMU. No.	Description		Labor MH Unit	Labor MH Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate	0.08	0.00
316	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)	Summary Report" for Material Unit	0.06	18.96
	1-2040	(7980) 2-#1/0 PEIAC	Costs)	0.017	0.000
	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"	0.017	0.000
135	1-2040	(7978) #4/3 al tpx (ft)	"	0.017	2.295
	1-5000	(11) 30FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	0.0
6	1-5000	(39) 45FT POLE CL 3 (6.0')	"	4.0	24.0
	3-4100	3/8" DGS 34'	"	1.0	0.0
4	3-4100	3/8" DGS 41'	"	1.0	4.0
2	3-4100	3/8" DGS 47'	"	1.0	2.0
2	3-4100	3/8" SWGS 34'	"	2.0	4.0
	3-4100	1/2" SWGS 41'	"	2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
4	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
			"		
4	5-1009-F1	Straight & Angle	"	1.0	4.0
	5-1009-F2	Sec. split	"	1.0	0.0
2	5-1009-F3	Single DE	"	1.0	2.0
	5-1009-F4	Line Guard	"	1.0	0.0
1	5-1009-F5	DDE	"	1.5	1.5
	5-1009-F6	Buck	"	1.0	0.0
			"		
	7-2040-1-A	Full Tension Buck	"	1.5	0.0
1	7-2040-1-C	Full Tension Buck	"	1.5	1.5
	7-2050-F1		"	1.0	0.0
	7-2050-F2		"	1.5	0.0
4	7-2050-F2A	w/o CO	"	1.0	4.0
1	7-2050-F8		"	2.0	2.0
1	7-2050-F10A	w/o CO	"	1.5	1.5
3	12-1020-F1	Neutral grounding	"	1.0	3.0
3	12-1020-F2	Primary grounding	"	1.0	3.0
6	12-5201	Object Marker	"	0.1	0.6
1		Secondary Clevis	"	1.0	1.0
			"		0.0
1		Switching	"	1.0	1.0
1		Tailgate meeting	"		0.5
			$ 6,271.23		
CAPITAL:		Total Direct Material Cost	$ 6,271.23		
				Man-hour Sub Total	80.9
		Non-productive hours per 8 hour shift @ 4 men crew		2.9	46.0
				Total Direct Capital Man-hours	126.8
O & M:				(Capital Man-hours)	0.0

			(O & M m/h = 30% of capital labor m/h)		0.0
			Non-productive hours per 8 hour shift @ 4 men crew	2.9	0.0
			Total Direct O&M Man-hours		0.0
REMOVAL:			(Capital Man-hours)		
			(Removal m/h = 50% of capital labor m/h)		13.5
			Non-productive hours per 8 hour shift @ 4 men crew	2.9	7.6
			Total Direct Removal Man-hours		21.1
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					
Qty	Description		Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Outside Materials	$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)					
Qty	Description		Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Pre-Capitalized Materials	$	-
SALVAGEABLE MATERIALS					
Qty	Description		Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Salvageable Materials	$	-

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	Joseph Magaldi	Cust Cost	Date:	12/29/05
Planner:	Galen Ichinose		Request Number:	H0027338

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 1,460.33	
	Direct Labor Cost (NI-includes transportation)	$ 4,169.22	
	Direct Material Cost	$ 5,590.76	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 5,790.00	
	Total Capital	$ 17,010.31	$ 17,010.31
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 10,891.01	$ 10,891.01
	Sub Total		$ 27,901.32
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 27,901
	Less Total Customer Cost		$ 27,901
	HELCO Betterment	$ 0	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 6,100
	Customer Line Extension Cost		$ 21,801
	State GET (4.167%)		$ 908
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 22,709
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$5,250
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		$17,459

	Man-hour	Crew-hour
Capital	118.5	
O & M	0.0	
Removal	0.0	
TOTAL	118.5	0.0

		10 % Payment	1,746
		90 % Payment	$ 15,713

Prepared By: [signature] 12/29/05 Checked by: [signature] 4/14/2006

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

Project: Joseph Magaldi — Date: 12/29/05

Planner: Galen Ichinose — Request/Parent WO Number: H0027338

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
6	6	H-3	Dig Pole Hole (+1' for pole base)	$ 58.00	$ 2,088.00		
		H-3	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		H-3	Dig Pole Hole (+1' for pole base)	$ -	$ -		
4	8	H3	Dig and Set Anchor	$ 61.00	$ 1,952.00		
	- - - -	H-3	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	H-3	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	H-3	AC Repair	$ 150.00	$ -		
5	- - - -	H-3	Ground Rod Installation (2 per)	$ 200.00	$ 1,000.00		
6	- - - -	H-3	Pole Base	$ 125.00	$ 750.00		
	- - - -	H-3	Traffic Control	$ 15.25	$ -		
	- - - -	H-3	Tree Trimming	$ -	$ -		
	- - - -	H-3	Helicopter	$ 1,750.00	$ -		
	- - - -	H-3		$ -	$ -		
				Total	$ 5,790.00		$ 5,790.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ -	$ -		
6	30/35	0	45' Pole	$ 937.52	$ 5,625.12		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
6	50/50	0	Pole Base	$ 125.00	$ 375.00		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
1	50/50	0	Grounding	$ 200.00	$ 100.00		
				Total	$ 6,100.12		$ 6,100.12

2-way CofH JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
				Total	$ -		$ -

2-way HELCO JP Shares (Verizon installed)

QTY		TMK	Description	Unit	Unit Total		
				Total	$ -		$ -

3-way JP Shares (HELCO installed)

QTY		TMK	Description	Unit	Verizon Unit Total	Unit	CH Unit Total
				Total	$ -		$ -

Transfer Charge: per JP # — $ -

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project: Joseph Magaldi | Date: 12/29/05

Planner: Galen Ichinose | Request / Parent WO Number: H0027338

Qty.	SMU. No.	Description		Labor M/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)	0.08	0.00
316	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)		0.06	18.96
	1-2040	(7980) 2-#1/0 PEIAC		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	0.0
6	1-5000	(39) 45FT POLE CL 3 (6.0')	"	4.0	24.0
	3-4100	3/8" DGS 34'	"	1.0	0.0
4	3-4100	3/8" DGS 41'	"	1.0	4.0
2	3-4100	3/8" DGS 47'	"	1.0	2.0
2	3-4100	3/8" SWGS 34'	"	2.0	4.0
	3-4100	1/2" SWGS 41'	"	2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
4	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
			"		
4	5-1009-F1	Straight & Angle	"	1.0	4.0
	5-1009-F2	Sec. split	"	1.0	0.0
2	5-1009-F3	Single DE	"	1.0	2.0
	5-1009-F4	Line Guard	"	1.0	0.0
1	5-1009-F5	DDE	"	1.5	1.5
	5-1009-F6	Buck	"	1.0	0.0
			"		
	7-2040-1-A	Full Tension Buck	"	1.5	0.0
1	7-2040-1-C	Full Tension Buck	"	1.5	1.5
	7-2050-F1		"	1.0	0.0
	7-2050-F2		"	1.5	0.0
4	7-2050-F2A	w/o CO	"	1.0	4.0
1	7-2050-F8		"	2.0	2.0
1	7-2050-F10A	w/o CO	"	1.5	1.5
5	12-1020-F1	Neutral grounding	"	1.0	5.0
6	12-5201	Object Marker	"	0.1	0.6
			"		0.0
			"		0.0
		Switching	"		0.0
1		Tailgate meeting	"		0.5

		$ 5,590.76	
CAPITAL:	Total Direct Material Cost	$ 5,590.76	
		Man-hour Sub Total	75.6
	Non-productive hours per 8 hour shift @ 4 men crew	2.9	43.0
		Total Direct Capital Man-hours	118.5
& M:		(Capital Man-hours)	0.0
		(O & M m/h = 30% of capital labor m/h)	0.0
	Non-productive hours per 8 hour shift @ 4 men crew	2.9	0.0
		Total Direct O&M Man-hours	0.0

REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
			Non-productive hours per 8 hour shift @ 4 men crew	2.9	
				Total Direct Removal Man-hours	
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
				Total Outside Materials	$ -
PRE-CAPITALIZED MATERIALS (padmt. transformer)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
				Total Pre-Capitalized Materials	$ -
SALVAGEABLE MATERIALS					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	-
				Total Salvageable Materials	$ -

H0001432 Vivian Whitney

ADDITIONAL
REQUEST NO. 17

H0001432

2006 CAPITAL BUDGET
ADDITIONAL REQUEST

PROJECT NAME: Vivian Whitney

Grand Parent: OM-350 Overhead Svcs and Extns

LOCATION: Lepola Road, Umauma, North Hilo

Approval is requested for the attached authorization request in the amount of $49,000 for the installation of an overhead line extension to serve residence for Vivian Whitney located on TMK: 3-1-3: 34, Lepola Road, Umauma, North Hilo.

$49,000 is being transferred from the following Project(s):

Budgeted Project Number To Transfer From	Budgeted Project Name To Transfer From	Original Approved Budgeted Amount	Balance Before Transfer	To BMaeda14	Balance After Tran
H0007000	Customer Request Projects	1,337,973	1,185,370	49,000	1,136,370
			Total Project	49,000	

Approval is requested.

Clyde H. Nagata, Manager

Warren H.W. Lee, President

Pillar Proj. #: BMaeda14
Request #: H0015104

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: B. Maeda **Phone/Ext #:** 332

Originator's Name: B. Maeda

Responsible Estimator: B. Maeda
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: B. Maeda

Date: 02/02/2006

Required Approvals to Initialize a Project:

2/2/06
Responsible Manager **Date**

7 FEB 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

2/2/06
Responsible Manager **Date**

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

2/6/06
HELCO Accounting Manager **Date**

7 FEB 2006
HELCO President **Date**

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Whitney, Vivian

Plant Addition Date: 2006-05

Project Number: BMAEDA14
(Temporary)

Commitment Date: 2006-04

Primary Corporate Goal: Sig Family

Stategic Plan Linkage: 2B - Increase Electric Sales
(Primary)

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$49	$0	$0	$0	$0	$0	$49

Assessment Factors

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

Purpose/Objectives:

Provide overhead distribution system to customer, Vivian Whitney.

Scope Description:

✓ Install 8- 45 ft. poles, approx. 1674 ft. OF 2w #1/0 AAC 1-phase 2.4kv primary, 1-25kva transformer and other related overhead facilities.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

HWC to do Engineering, HWS to do surveying & HDH to do installation.

Justification:

Provide overhead electrical system to customer.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Not applicable

Issues, Impacts, Considerations:

Customer to pay Advance for Construction of $32,297.00. $12,465.00 is Hawaiian Telcom joint pole shares and $5,250 is the Line Extension Allowance. Once installed other lot owners along the line will be able to hook up to our system.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance	$32,297.00	Customer line extension cost= $36,046.00 + $1,502.00 (GET) =$37,547.00.
GET Included	$1,502.00	$37,547- $5,250.00 (Line Extension Allowance)= $32,297.00

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

NONE

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

GET Included	$12,465.00	Hawaiian Trelcom joint pole shares will be collected once poles are installed.

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	VIVIAN WHITNEY - TOTAL COST	Date:	12/21/05
Planner:	DN	Request Number:	H0015104

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$	2,634.00		
	Direct Labor Cost (NI-includes transportation)	$	7,642.00		
	Direct Material Cost	$	10,060.00		
	Direct Outside Materials	$	-		
	Direct Outside Services	$	10,069.00		
	Total Capital	$	30,405.00	$	30,405.00
O & M:	Direct Labor (NE-includes transportation)	$	-		
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$	125.00		
	Total O & M / Removal	$	125.00	$	125.00
OVERHEAD:	Total Overhead	$	17,980.00	$	17,980.00
	Sub Total			$	48,510.00
	Plus HELCO JP Shares (Verizon installed)			$	-
	Plus Verizon Transfer Cost			$	-
	Total Project Cost			$	48,510
	Less Total Customer Cost			$	48,510
	HELCO Betterment	$	-		
	Less Verizon JP Shares (2-way-HELCO installed)			$	12,465
	Customer Line Extension Cost			$	36,046
	State GET (4.166%)			$	1,502
Calculated 36m Rev Credit + tax	Customer Advance - subtotal			$	37,547
$5,250	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)				$5,250
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)				$32,297

	Man-hour	Crew-hour
Capital	217.2	
O & M	0.0	
Removal	3.6	
TOTAL	220.8	0.0

10 % Payment		3,230
90 % Payment	$	29,067

Prepared By: DN 1/9/06 Checked by: 1/9/06

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project: VIVIAN WHITNEY - TOTAL COST — Date: 12/21/05

Planner: DN — Request / Parent WO Number: H0015104

Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate		0.08	0.00
368	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)	Summary Report" for Material Unit		0.06	22.08
	1-2040	(7980) 2-#1/0 PEIAC	Costs)		0.017	0.000
0	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	0.0
8	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	32.0
8	1-5156	TERMI-MESH (sand and labor)	$ 12.25	$ 98.00	2.9	23.2
2	1-7010	(3001) 3 KV LA (2 phase)	"		2.0	4.0
0	3-4100	3/8" DGS 41'	"		1.0	0.0
3	3-4100	3/8" DGS 47'	"		1.0	3.0
3	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
1	5-1009-F3	Single DE	"		1.0	1.0
5	7-2240-A	2W	"		2.5	12.5
0	7-2240-C	2W	"		2.5	0.0
1	7-2240A-A	2W 4 pin DA	"		2.5	2.5
0	7-2240A-C	2W 4 pin DA	"		2.5	0.0
2	7-2245-A	2W	"		3.0	6.0
0	7-2245-C	2W	"		3.0	0.0
1	7-2245A-A	2W DDE	"		3.0	3.0
0	7-2245A-C	2W DDE	"		3.0	0.0
1	7-2245C-A	2W DE Reduce Tension Buck	"		3.0	3.0
0	7-2245C-C	2W DE Reduce Tension Buck	"		3.0	0.0
1	10-2100	1 PH 10-50 KVA	"		8.0	8.0
1	10-2040	Sec leads 10-25 KVA	"		----	----
1	10-2050	13.8 KV prim leads	"		----	----
0	12-1020-F1	Neutral grounding	"		1.0	0.0
1	12-1020-F2	Primary grounding	"		1.0	1.0
9	12-5201	Object Marker	"		0.1	0.9
			"			0.0

		$ 9,962.00	
CAPITAL:	Total Direct Material Cost	$ 10,060.00	
	Man-hour Sub Total		122.2
	Non-productive hours per 8 hour shift @ 4 men crew	3.5	95.0
	Total Direct Capital Man-hours		217.2
REMOVAL:	(Capital Man-hours)		4.0
	(Removal m/h = 50% of capital labor m/h)		2.0
	Non-productive hours per 8 hour shift @ 4 men crew	3.5	1.6
	Total Direct Removal Man-hours		3.6

OVERHEAD COST ESTIMATE
(Outside Material and Services and Joint Pole Costing)

Project: VIVIAN WHITNEY - TOTAL COST — Date: 12/21/05
Planner: DN — Request/Parent WO Number: H0015104

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
8	7	H-2	Dig Pole Hole (+1' for pole base)	$ 53.00	$ 2,968.00		
		H-2	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		H-2	Dig Pole Hole (+1' for pole base)	$ -	$ -		
3	8	H-2	Dig and Set Anchor	$ 56.00	$ 1,344.00		
	- - - -	H-2	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	H-2	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	H-2	AC Repair	$ 150.00	$ -		
1	- - - -	H-2	Ground Rod Installation (2 per)	$ 357.00	$ 357.00		
8	- - - -	H-2	Pole Base	$ 300.00	$ 2,400.00		
25	- - - -	H-2	Traffic Control	$ 120.00	$ 3,000.00		
	- - - -	H-2	Tree Trimming	$ -	$ -		
	- - - -	H-2	Helicopter	$ 1,750.00	$ -		
	- - - -	H-2		$ -	$ -		
				Total	$ 10,069.00		$ 10,069.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	30/35	3-1-3	40' Pole	$ -	$ -		
7	30/40	3-1-3	45' Pole	$ 995.00	$ 6,965.00		
1	35/40	3-1-3	45' Pole	$ 1,021.00	$ 1,021.00		
	50/50	3-1-3	Anchor Installation	$ -	$ -		
8	50/50	3-1-3	Termi-Mesh	$ 400.00	$ 1,600.00		
8	50/50	3-1-3	Pole Base	$ 300.00	$ 1,200.00		
25	50/50	3-1-3	Traffic Control	$ 120.00	$ 1,500.00		
	50/50	3-1-3	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	3-1-3	AC Repair	$ -	$ -		
	50/50	3-1-3	Tree Trimming	$ -	$ -		
	50/50	3-1-3	Pole Removal	$ -	$ -		
1	50/50	3-1-3	Grounding	$ 357.00	$ 178.50		
				Total	$ 12,464.50		$ 12,464.50

Hawaii Electric Light Company, Inc. • PO Box 1027 • Hilo, HI 96721-1027

CUST 3-3-1
H-W/G

January 5, 2006

Ms. Vivian Chris Whitney
HCR2 Box 6863
Keaau, Hawaii 96749-9314

Dear Ms. Whitney:

Subject: Overhead Line Extension

This proposal letter is in reply to your request concerning the installation of an overhead line extension to serve your proposed residence located off Lepoloa Road, Umauma, North Hilo, Hawaii (Tax Map Key: 3-1-003:034 Lot 34).

HELCO will provide, install, own and maintain an overhead line extension in accordance with our enclosed Drawing No. 05-C-562.

HELCO will install, at its own expense, this proposed line extension in accordance with the Company's Rule No. 13, a copy which is attached, provided the cost of the line required does not exceed thirty-six months' estimated revenue of the applicant. The cost break down of the line extension is as follows:

TOTAL CUSTOMER COST $17,286.00

Total Project Cost	$30,041.00
Hawaiian Telcom Joint Pole Share/s (credit)	$8,406.00
Line Extension Cost	$21,635.00
State General Excise Tax	$901.00
Total Line Extension Cost	$22,536.00
Line Extension Allowance (credit)	$5,250.00
Customer Cost (refundable advance) (Includes State GET)	$17,286.00

From the information that you have provided, it is understood and agreed that the following electrical appliances will be installed: refrigerator, range, water heater and dryer plus lighting.

Based on the total project cost and line extension allowance, you are required to pay HELCO a refundable customer advance of $17,286.00, which include State General Excise Tax.

The required advance is due and payable upon your acceptance of this proposal. Payment shall be required a minimum of (4) four weeks prior to the processing of our construction work orders.

The above total costs do not include the expenses of line transformers, meters, and the clearing of land for access, if applicable, and is based on the route determined by the Company. The line transformers, meters will be installed by HELCO at no cost to you. The customer is required to do all necessary land clearing (construction of access roadways). All tree cutting/trimming shall be in accordance with HELCO's Tree Trimming Specifications, a copy of which is enclosed.

It is understood that the applicant's residence will be completed, County approved and permanently occupied within one year from the date that the line extension is constructed and energized. If the residence is not built and permanently occupied within one year from this date, the amount of the customer advance will be adjusted to include the line extension allowance of $5,250.00, payable to HELCO upon request.

An advance is the amount of money paid to our Company, which may be subject to refund in whole or in part in accordance with HELCO's Rule 13. (See attached copy.)

This proposal is subject to our Company obtaining satisfactory easements. Occasionally, parties granting easements to us will require survey descriptions and/or document processing fees. If applicable, this cost will be added to the cost of this project.

HELCO shall bill the Developer/Individual all additional costs incurred should there be a determination of special findings not available during the development of HELCO's cost estimate. An example would be archeological findings, which would require mitigation by working around or redesigning the proposed project to enable completion.

This proposal is for the line extension only and is exclusive of the permanent service connection cost. Please submit a request to our Company for the service prior to the date service is required.

This proposal is valid for a period of six months from the date of this letter. If HELCO is not permitted to issue its construction work orders by July 3, 2006, this proposal will be invalid. If the starting date, as specified below by you, is later than this date, this proposal will be invalid and a revised proposal will be sent to you. Our Company shall not be held liable for delays caused by material shortages or delays caused by materials being strikebound.

The terms of this proposal are at all times subject to change or modification by the State of Hawaii Public Utilities Commission ("PUC") as the PUC may direct in the exercise of its jurisdiction.

Please signify your acceptance of this proposal by signing in the space provided below. We are including an extra copy of this proposal and request that the signed original, Customer Data Input Sheet and payment of $17,286.00 is mailed to HELCO in the enclosed self-addressed envelope or delivered directly to HELCO's Customer Service Division located at 1200 Kilauea Avenue, Hilo, Hawaii.

In addition, please include the approximate date our Company will be permitted to begin its installation so that we may proceed with ordering of the necessary materials. Ordering of the necessary materials and work scheduling will require approximately eight (8) weeks advance notice.

Should you have any questions, please write or call me at 969-0336 between the hours of 7:00 a.m. and 3:30 p.m.

Sincerely,

David Nakata
Customer Planner
Customer Engineering Division

HAWAII ELECTRIC LIGHT CO., INC.

Clyde H. Nagata, Manager
Engineering Department

CHN:DN:fc
Enclosures
Request No. H0015104

Approved: Vivian C Whitney
Signature in Ink

Name of Signer: Vivian C Whitney
Type or Print

Title: Trustee VCW Trust Date: 1-4-06

Approximate date HELCO permitted to begin: ASAP.

Refunds made to : Vivian C Whitney
Name

HC 2 Box 4863
Address

Keaau, HI 96749
City / State / Zip

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	VIVIAN WHITNEY - CUST COST	Date:	12/21/05
Planner:	DN	Request Number:	H0015104

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 1,724.00	
	Direct Labor Cost (NI-includes transportation)	$ 5,005.00	
	Direct Material Cost	$ 6,655.00	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 4,698.00	
	Total Capital	$ 18,082.00	$ 18,082.00
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ 126.00	
	Total O & M / Removal	$ 126.00	$ 126.00
OVERHEAD:	Total Overhead	$ 11,833.00	$ 11,833.00
	Sub Total		$ 30,041.00
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 30,041
	Less Total Customer Cost		$ 30,041
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 8,406
	Customer Line Extension Cost		$ 21,635
	State GET (4.166%)		$ 901
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 22,536
$5,250	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$5,250
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		$17,286

	Man-hour	Crew-hour
Capital	142.3	
O & M	0.0	
Removal	3.6	
TOTAL	145.8	0.0

10 % Payment	1,729
90 % Payment	$ 15,558

Prepared By: DN 12/22/05 Checked by: 12/22/05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project: VIVIAN WHITNEY - CUST COST | Date: 12/21/05

Planner: DN | Request / Parent WO Number: H0015104

Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate		0.08	0.00
334	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)	Summary Report" for Material Unit		0.06	20.04
	1-2040	(7980) 2-#1/0 PEIAC	Costs)		0.017	0.000
0	1-5000	(27) 40FT POLE CL 3 (5.5')		"	4.0	0.0
8	1-5000	(39) 45FT POLE CL 3 (6.0')		"	4.0	32.0
0	1-5156	TERMI-MESH (sand and labor)	$ -	$ -	0.0	0.0
0	1-7010	(3001) 3 KV LA (2 phase)		"	2.0	0.0
3	3-4100	3/8" DGS 41'		"	1.0	3.0
0	3-4100	3/8" DGS 47'		"	1.0	0.0
3	3-4120-C2	3/4" galv anchor area C (8')		"	0.0	0.0
0	3-4120-C3	1" galv anchor area C (8')		"	0.0	0.0
0	5-1009-F3	Single DE		"	1.0	0.0
0	7-2240-A	2W		"	2.5	0.0
5	7-2240-C	2W		"	2.5	12.5
0	7-2240A-A	2W 4 pin DA		"	2.5	0.0
1	7-2240A-C	2W 4 pin DA		"	2.5	2.5
0	7-2245-A	2W		"	3.0	0.0
1	7-2245-C	2W		"	3.0	3.0
0	7-2245A-A	2W DDE		"	3.0	0.0
1	7-2245A-C	2W DDE		"	3.0	3.0
0	7-2245C-A	2W DE Reduce Tension Buck		"	3.0	0.0
1	7-2245C-C	2W DE Reduce Tension Buck		"	3.0	3.0
0	10-2100	1 PH 10-50 KVA		"	8.0	0.0
0	10-2040	Sec leads 10-25 KVA		"	----	----
0	10-2050	13.8 KV prim leads		"	----	----
1	12-1020-F1	Neutral grounding		"	1.0	1.0
0	12-1020-F2	Primary grounding		"	1.0	0.0
0	12-5201	Object Marker		"	0.1	0.0
				"		0.0
				$ 6,655.00		
CAPITAL:			Total Direct Material Cost	$ 6,655.00		
					Man-hour Sub Total	80.0
			Non-productive hours per 8 hour shift @ 4 men crew		3.5	62.3
					Total Direct Capital Man-hours	142.3
REMOVAL:					(Capital Man-hours)	4.0
					(Removal m/h = 50% of capital labor m/h)	2.0
			Non-productive hours per 8 hour shift @ 4 men crew		3.5	1.6
					Total Direct Removal Man-hours	3.6

OVERHEAD COST ESTIMATE
(Outside Material and Services and Joint Pole Costing)

Project: VIVIAN WHITNEY - CUST COST | Date: 12/21/05
Planner: DN | Request/Parent WO Number: H0015104

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total	
0	5.5	H-2	Dig Pole Hole (+1' for pole base)	$ 53.00	$ -	
8	6	H-2	Dig Pole Hole (+1' for pole base)	$ 53.00	$ 2,544.00	
		H-2	Dig Pole Hole (+1' for pole base)	$ -	$ -	
3	8	H-2	Dig and Set Anchor	$ 56.00	$ 1,344.00	
	- - - -	H-2	Sidewalk Repair < 4 blocks	$ 280.00	$ -	
	- - - -	H-2	Sidewalk Repair 4 or > blocks	$ 260.00	$ -	
	- - - -	H-2	AC Repair	$ 150.00	$ -	
1	- - - -	H-2	Ground Rod Installation (2 per)	$ 200.00	$ 200.00	
0	- - - -	H-2	Pole Base	$ 125.00	$ -	
40	- - - -	H-2	Traffic Control	$ 15.25	$ 610.00	
	- - - -	H-2	Tree Trimming	$ -	$ -	
	- - - -	H-2	Helicopter	$ 1,750.00	$ -	
	- - - -	H-2		$ -	$ -	
				Total	$ 4,698.00	$ 4,698.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total	
0	30/35	3-1-3	40' Pole	$ 950.00	$ -	
7	30/40	3-1-3	45' Pole	$ 995.00	$ 6,965.00	
1	35/40	3-1-3	45' Pole	$ 1,021.00	$ 1,021.00	
	50/50	3-1-3	Anchor Installation	$ -	$ -	
0	50/50	3-1-3	Termi-Mesh	$ 400.00	$ -	
0	50/50	3-1-3	Pole Base	$ 125.00	$ -	
40	50/50	3-1-3	Traffic Control	$ 16.00	$ 320.00	
	50/50	3-1-3	Sidewalk Repair (Concrete)	$ -	$ -	
	50/50	3-1-3	AC Repair	$ -	$ -	
	50/50	3-1-3	Tree Trimming	$ -	$ -	
	50/50	3-1-3	Pole Removal	$ -	$ -	
1	50/50	3-1-3	Grounding	$ 200.00	$ 100.00	
				Total	$ 8,406.00	$ 8,406.00

H0001434 Peter Aickin

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Peter Aickin

Project Number: RYAMAT15
(Temporary)

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

Plant Addition Date: 2006-05

Commitment Date: 2006-02

Primary Corporate Goal: Cap Exp

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$26	$0	$0	$0	$0	$0	$26

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to fulfill a request made by Peter Aickin to install an 1-ph, 7.2kv primary overhead line extension Req no. H0027856.

Scope Description:

Install four (4) 40 ft poles, two (2) anchors and #1/0 aac pri and aerial cable along Ginger Blossom Lane, HOVE, Kau.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

HWK, HDK, HWX, & HWS

Justification:

To provide a 1-ph, 7.2kv primary overhead line extension to serve Peter Aickin located on Ginger Blossom Lane, HOVE, Kau.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Peter Aickin made payment for a 1-ph, 7.2kv oh line extension along Ginger Blossom Lane, HOVE, Kau.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance $16,707.00 Peter Aickin made a cash advance of $16707

GET Included $668.00

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Ricky Yamato **Phone/Ext #:** 511

Originator's Name: Ricky Yamato

Responsible Estimator: Ricky Yamato Kaw 2-6-06
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Ricky Yamato

Date: 02/03/2006

Required Approvals to Initialize a Project:

[illegible] 2/7/06
Responsible Manager **Date**

[illegible] 8 FEB 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

[illegible] 2/7/06
Responsible Manager **Date**

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

[illegible] 2/8/06
HELCO Accounting Manager **Date**

[illegible] 8 FEB 2006
HELCO President **Date**

Hawaii Electric Light Company, Inc. • 74-5519 Kaiwi Street • Kailua-Kona, HI 96740-1684

CUST 3-3-1
H-W/G

December 21, 2005

Peter Aickin
P.O. Box 6163
Oceanview, HI 96737

Dear Mr. Aickin:

Subject: Primary Overhead Line Extension

This proposal letter is in reply to your request concerning the installation of an overhead line extension to serve your residence located at Ginger Blossom Lane, HOVE, Kau, Tax Map Key: 9-2-5:53 Lot 17.

HELCO will provide, install, own and maintain an overhead line extension in accordance with our enclosed Drawing No. 05-B-1425.

HELCO will install, at its own expense, this proposed line extension in accordance with the Company's Rule No. 13, a copy which is attached, provided the cost of the line required does not exceed thirty-six months' estimated revenue of the applicant. The cost break down of the line extension is as follows:

TOTAL CUSTOMER COST $16,707.00

Total Project Cost	$24,659.00
Hawaii Telcom Joint Pole Shares (credit)	$3,581.00
Line Extension Cost	$21,078.00
State General Excise Tax	$879.00
Total Line Extension Cost	$21,957.00
Line Extension Allowance (credit) (Based on estimated 36-months revenues + GET)	$5,250.00
Customer Cost (refundable advance) (Includes State GET)	$16,707.00
Customer Cost (non-refundable contribution) (Includes State GET)	$0.00

From the information that you have provided, it is understood and agreed that the following electrical appliances will be installed: refrigerator, range, water heater and dryer plus lighting.

Based on the total project cost and line extension allowance, you are required to pay HELCO a refundable customer advance of $16,707.00, and a non-refundable contribution of $0.00, which includes State General Excise Tax.

You are required to make a 10% payment of the advance and non-refundable contribution at the time that you return this proposal letter with your signature to our Company. This amount is $1,671.00. Payment will enable the processing of material orders, permit approvals and miscellaneous items. These requirements may require approximately 1 to 3 months to obtain and/or complete. In addition, HELCO shall notify you when your payment balance of $15,036.00 is due. Payment shall be required a minimum of (4) four weeks prior to the processing of our construction work orders.

The above total costs do not include the expenses of line transformers, meters, and the clearing of land for access, if applicable, and is based on the route determined by the Company. The line transformers, meters will be installed by HELCO at no cost to you. The customer is required to do all necessary land clearing (construction of access roadways).

It is understood that the applicant's residence will be completed, County approved and permanently occupied within one year from the date that the line extension is constructed and energized. If the residence is not built and permanently occupied within one year from this date, the amount of the customer advance will be adjusted to include the line extension allowance of $5,250.00, payable to HELCO upon request.

An advance is the amount of money paid to our Company, which may be subject to refund in whole or in part in accordance with HELCO's Rule 13. (See attached copy.)

HELCO shall bill the Developer/Individual all additional costs incurred should there be a determination of special findings not available during the development of HELCO's cost estimate. An example would be archeological findings, which would require mitigation by working around or redesigning the proposed project to enable completion.

This proposal is for the line extension only and is exclusive of the permanent service connection cost. Please submit a request to our Company for the service prior to the date service is required.

This proposal is valid for a period of six months from the date of this letter. If HELCO is not permitted to issue its construction work orders by June 21, 2006, this proposal will be invalid. If the starting date, as specified below by you, is later than this date, this proposal will be invalid and a revised proposal will be sent to you. Our Company shall not be held liable for delays caused by material shortages or delays caused by materials being strikebound.

The terms of this proposal are at all times subject to change or modification by the State of Hawaii Public Utilities Commission ("PUC") as the PUC may direct in the exercise of its jurisdiction.

Please signify your acceptance of this proposal by signing in the space provided below. We are including an extra copy of this proposal and request that the signed original, Customer Data Input Sheet and 10% payment of $1,671.00 is mailed to HELCO in the enclosed self-addressed envelope or delivered directly to HELCO's Customer Service Division located at 74-5519 Kaiwi Street, Kailua-Kona, Hawaii.

In addition, please include the approximate date our Company will be permitted to begin its installation. Ordering of the necessary materials and work scheduling will require approximately 2 to 4 weeks advance notice.

Should you have any questions, please write or call me at 327-0511 between the hours of 7:00 a.m. and 3:30 p.m.

Sincerely,

Ricky Yamato
Customer Planner
Customer Engineering Division

HAWAII ELECTRIC LIGHT COMPANY, INC.

Clyde H. Nagata, P.E.
Manager, Engineering Department

RY:el
Enclosures
Request No. H27886

Approved: _____
Signature in Ink

Name of Signer: PETER M. AICKIN
Type or Print

Title: OWNER / CONTRACTOR Date: Dec. 28th 2005

Approximate date HELCO permitted to begin: Dec. 28th 2005

Refunds made to : AICKIN CONSTRUCTION
Name

P.O. Box 6163
Address

OCEAN VIEW HI. 96737
City / State / Zip

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	Peter Aickin	Date:	12/20/05
Planner:	R. Yamato	Request Number:	H27856

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 1,235.21	
	Direct Labor Cost (NI-includes transportation)	$ 3,504.00	
	Direct Material Cost	$ 3,658.59	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 7,100.00	
	Total Capital	$ 15,497.80	$ 15,497.80
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 9,161.63	$ 9,161.63
	Sub Total		$ 24,659.43
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 24,659
	Less Total Customer Cost		$ 24,659
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 3,581
	Customer Line Extension Cost		$ 21,079
	State GET (4.166%)		$ 878
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 21,957
$5,250	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$5,250
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$16,707**

	Man-hour	Crew-hour		
			10 % Payment	1,671
Capital	99.6		90 % Payment	$ 15,036
O & M	0.0			
Removal	0.0			
TOTAL	99.6	0.0		

Prepared By: Ray H Yamato

Checked by: KRW 12-20-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	Peter Aickin			Date:	12/20/05
	Planner:	R. Yamato		Request / Parent WO Number:		H27856
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
71	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	5.68
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
710	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	12.070
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-2040	( ) #336.4 strd al wp	"		0.03	0.00
	1-2040	(8296) #3/0 strd AAAC - lw	"		0.05	0.00
	1-2040	(8296) #3/0 strd AAAC - 2&3W	"		0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC - 1W	"		0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC -2&3W	"		0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC- 1W	"		0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC -2&3W	"		0.02	0.00
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
4	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	16.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	[illegible]
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.[illegible]
	2-4030-A	midspan (1 phase)	"		1.0	0.0
1	2-4030-C	midspan (1 phase)	"		1.0	1.0
2	3-4100	3/8" DGS 34'	"		1.0	2.0
2	3-4100	3/8" DGS 41'	"		1.0	2.0
	3-4100	3/8" DGS 47'	"		1.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
2	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
			"			
2	5-1009-F1	Straight & Angle	"		1.0	2.0
	5-1009-F2	Sec. split	"		1.0	0.0
1	5-1009-F3	Single DE	"		1.0	1.0
	5-1009-F4	Line Guard	"		1.0	0.0
1	5-1009-F5	DDE	"		1.5	1.5
	5-1009-F6	Buck	"		1.0	0.0
			"			
1	5-3010	Mid Span 1-way	"		1.0	1.0
			"			
	7-2050-F1		"		1.0	0.0
	7-2050-F2		"		1.5	0.0
2	7-2050-F2A	w/o CO	"		1.0	2.0
	7-2050-F3		"		2.0	[illegible]
	7-2050-F3A	Transf & Buck	"		2.0	[illegible]
	7-2050-F4	Angle w/o CO	"		1.0	0.0
	7-2050-F5		"		1.5	0.0

	7-2050-F5A	w/o CO	"		1.0	0.0
	7-2050-F6		"		2.0	0.0
	7-2050-F7		"		2.0	0.0
	7-2050-F7A	Sgl DE	"		1.5	0.0
	7-2050-F7B	S.D.E Jumper	"		2.0	0.0
1	7-2050-F8		"		2.0	2.0
	7-2050-F8A	w/o CO	"		2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"		1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"		1.0	0.0
	7-2050-F9		"		2.0	0.0
1	7-2050-F10	w/LA	"		2.0	2.0
	7-2050-F10A	w/o CO	"		1.5	0.0
1	10-2100	1 PH 10-50 KVA	"		8.0	8.0
	10-2040	Sec leads 10-25 KVA	"		----	----
	10-2040	Sec leads 37.5-50 KVA	"		----	----
	10-2050	13.8 KV prim leads	"		----	----
	10-2060	7.2 KV prim leads	"		----	----
	10-2121	3 PH tsf bank (1200#)	"		12.0	0.0
	12-1020-F1	Neutral grounding	"		1.0	0.0
4	12-1020-F2	Primary grounding	"		1.0	4.0
	12-5201	Object Marker	"		0.1	0.0
			"			0.0
			"			0.0
		Switching	"			0.0
		Tailgate meeting	"			0.0
				$ 3,658.59		
CAPITAL:		**Total Direct Material Cost**		$ 3,658.59		
					Man-hour Sub Total	62.3
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	37.4
					Total Direct Capital Man-hours	99.6
O & M:					(Capital Man-hours)	0.0
					(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	0.0
					Total Direct O&M Man-hours	0.0
REMOVAL:					(Capital Man-hours)	0.0
					(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	0.0
					Total Direct Removal Man-hours	0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Outside Materials		$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Pre-Capitalized Materials		$	-

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	Peter Aickin				Date:	12/20/05
	Planner:	R. Yamato			Request/Parent WO Number:		H27856

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
4	5.5	9	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 3,300.00		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
2	8	9	Dig and Set Anchor	$ 150.00	$ 2,400.00		
	- - - -	9	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	9	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	9	AC Repair	$ 150.00	$ -		
4	- - - -	9	Ground Rod Installation (2 per)	$ 350.00	$ 1,400.00		
	- - - -	9	Pole Base	$ 125.00	$ -		
	- - - -	9	Traffic Control	$ 15.25	$ -		
	- - - -	9	Tree Trimming	$ -	$ -		
	- - - -	9	Helicopter	$ 1,750.00	$ -		
	- - - -	9		$ -	$ -		
				Total	$ 7,100.00		$ 7,100.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
4	30/35	0	40' Pole	$ 895.23	$ 3,580.92		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 3,580.92		$ 3,580.92

Transfer Charge:	per JP #	26624		$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			44.8	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	30.0
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	4.5
			WC m/h total	77%	34.5
NI	150	_TCS-CE	Supervisor	2%	0.9
NI	150	W_TT-CE	Transit Tech (JM)	5%	2.2
NI	150	W_RH-CE	Rodman Helper (AT)	5%	2.2
NI	150	_I-CE	Land Surveyor	5%	2.2
			WS m/h total	17%	7.6
NI	150	W_ENG-CE	(MSY)	3%	1.3
NI	150	W_SCD-CE	(EF)	5%	2.2
			WX m/h total	8%	3.6
			Engineering M HTotal	102%	45.7
			Engineering Vehicle Total		7.2
	Capital m/h			99.6	
NI	150	_TCS-CE	labor (sup)	1%	1.0
NI	150	D_Crew	labor (crew)	100%	99.6
NI	201		Direct Material Cost	- - - -	$ 3,658.59
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 7,100.00
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	Peter Aickin	Date	12/20/05

H0001435 Kikala Keokea S/D

H0001435

ADDITIONAL
REQUEST NO. 23

2006 CAPITAL BUDGET
ADDITIONAL REQUEST

PROJECT NAME: Kikala Keokea S/D

Grand Parent: OM-350 Overhead Svcs and Extns

LOCATION: Kalapana, Puna

Approval is requested for the attached authorization request in the amount of $330,455 for the installation of a 1-phase 7.2KV overhead distribution system to serve 67 lots of the SH DLNR subdivision located at Kalapana, Puna Hawaii.

$330,455 is being transferred from the following Project(s):

Budgeted Project Number To Transfer From	Budgeted Project Name To Transfer From	Original Approved Budgeted Amount	Balance Before Transfer	To EYoshi14	Balance After Transfer
H0007000	Customer Request Projects	1,337,973	955,027	330,455	624,572
			Total Project	330,455	

Approval is requested.

Clyde H. Nagata, Manager

Warren H.W. Lee, President

Pillar Proj. #: EYoshi14
Request #: H0018386

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: _____ **Phone/Ext #:** 334

Originator's Name: Elton Yoshida

Responsible Estimator: Elton Yoshida
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Elton Yoshida

Date: 02/01/2006

Required Approvals to Initialize a Project:

_____ 2/8/06
Responsible Manager **Date**

_____ 13 FEB 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

_____ 2/8/06
Responsible Manager **Date**

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

_____ 2/9/06
HELCO Accounting Manager **Date**

_____ 13 FEB 2006
HELCO President **Date**

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Kikala Keokea Subdivision

Plant Addition Date: 2006-05

Project Number: EYOSHI14
(Temporary)

Commitment Date: 2006-05

Primary Corporate Goal: New Rev

Stategic Plan Linkage: 2B - Increase Electric Sales
(Primary)

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$330	$0	$0	$0	$0	$0	$330

Assessment Factors

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

Purpose/Objectives:

Provide electrical service to SH DLNR's Kikala Keokea Subdivision at Kalapana, Puna, Hawaii.

Scope Description:

Install 39-45 ft. poles; 35-40 ft. poles; 10,012 ckt. ft. of 1w-#3/0 AAAC 7.2KV primary; 7,088 ckt. ft. of 1W-#1/0 AAC 7.2KV primary; 9,472 ckt. ft. of 1W-#3/0 AAAC neutral; 709 ckt. ft. of 1W-#1/0 AAC neutral; 6,919 ckt. ft. of #1/0 aerial cable secondary.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

HWC: Field work, design, prepare cost estimates and work orders.
HWS: Stake out pole and anchor locations, prepare easement drawings.
HWX: Prepare circuiting single line diagram.
HDH: Obtain and issue materials, obtain contractors, construct pole line.

Justification:

Provide electrical service to 67 lots of the Kikaha Keokea Subdivision.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Pole line to be placed on mauka side of Kalapana-Kapoho Road out of SMA area, will not block view of the ocean.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind**	$327,824.00	SH DLNR cost.
GET Included	$9,158.00	
- **In Cash**	$327,824.00	Check in the amount of $327, 824.00 ✓
GET Included	$9,158.00	

Cash Advance	$306,133.00	Refundable payment
GET Included		

Cost Sharing (under HECO Policy UG Lines, October 2000)		
	$21,691.00	Aid payment
GET Included		

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

	$73,784.00	Hawaiian Telcom payment to HELCO for JP shares.
GET Included	$3,075.00	

*Project #	*Proj Link	*RA #	*Act #	*Loc #	*Ind #	*EE #	Rates Linked To	*Labor Class #	Line Item	Total 5 Year Cost	Jan 06	Feb 06	Mar 06
EYoshi14	EYoshi14	*AFU...	*AFU...	*AFU...	*AFU...	*AFUDC_Duration	N/A		Kikaha Keokes Subd.	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		*AFU...	*AFU...		*AFU...	*AFUDC_Duration				$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		*AFU...	*AFU...		*AFU...					$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
			*AFU...							$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
EYoshi14		-	-	-	-	401	Not In File		Stores OHEYoshi14	$12,324.76	21,089.60	21,089.60	21,089.60
											$4,108.25	$4,108.25	$4,108.25
		-	-		-	401				$12,324.76	21,089.60	21,089.60	21,089.60
											$4,108.25	$4,108.25	$4,108.25
EYoshi14		-	-	-	-	404	Not in File		Energy Delivery OHEY...	$65,357.52	564.4	564.4	564.4
											$21,785.84	$21,785.84	$21,785.84
		-	-		-	404				$65,357.52	564.4	564.4	564.4
											$21,785.84	$21,785.84	$21,785.84
EYoshi14		-	-	-	-	406	Not in File		Corp Admin OH EYos...	$10,676.04	790.7	645.2	645.2
											$4,056.29	$3,309.88	$3,309.88
		-	-		-	406				$10,676.04	790.7	645.2	645.2
											$4,056.29	$3,309.88	$3,309.88
EYoshi14		-	-	-	-	407	Not in File		Cust Install OH EYosh...	$22,436.14	226.3	80.8	80.8
											$13,089.19	$4,673.47	$4,673.47
		-	-		-	407				$22,436.14	226.3	80.8	80.8
											$13,089.19	$4,673.47	$4,673.47
EYoshi14		-	-	-	-	421	Not in File		NPW OH EYoshi14	$9,448.19	790.7	645.2	645.2
											$3,589.78	$2,929.21	$2,929.21
		-	-		-	421				$9,448.19	790.7	645.2	645.2
											$3,589.78	$2,929.21	$2,929.21
EYoshi14		-	-	-	-	422	Not In File		Empl Benefits OH EYo...	$14,130.67	790.7	645.2	645.2
											$5,368.85	$4,380.91	$4,380.91
		-	-		-	422				$14,130.67	790.7	645.2	645.2
											$5,368.85	$4,380.91	$4,380.91
EYoshi14		-	-	-	-	423	Not In File		Payroll Tax OHEYoshi14	$5,961.46	26,797.78	22,863.04	22,863.04
											$2,202.78	$1,879.34	$1,879.34
		-	-		-	423				$5,961.46	26,797.78	22,863.04	22,863.04
											$2,202.78	$1,879.34	$1,879.34
			-		-					$140,334.79	51,050.18	46,533.44	46,533.44
											$54,200.99	$43,066.90	$43,066.90
										$140,334.79	51,050.18	46,533.44	46,533.44
											$54,200.99	$43,066.90	$43,066.90
[illegible]i14	EYoshi14	HWC	403	HAH	NI	150	W_PA-CE Prod R...	W_PA-CE	Cust Eng-Planner Aid-9s	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
EYoshi14	EYoshi14	HWC	403	HAH	NI	150	W_SCP-CE Prod ...	W_SCP-CE	Cust Eng-Planner-15	$8,193.12	80.8	80.8	80.8
											$2,731.04	$2,731.04	$2,731.04
		HWC	403		NI	150				$8,193.12	80.8	80.8	80.8
											$2,731.04	$2,731.04	$2,731.04
		HWC	403		NI					$8,193.12	80.8	80.8	80.8
											$2,731.04	$2,731.04	$2,731.04
EYoshi14	EYoshi14	HWS	403	HAH	NI	150	W_MAP-CE Prod ...	W_MAP-CE	Civil-Mapper	$1,011.21	40.4	0.0	0.0
											$1,011.21	$0.00	$0.00
EYoshi14	EYoshi14	HWS	403	HAH	NI	150	W_RH-CE Prod R...	W_RH-CE	Civil-Rodman	$941.72	40.4	0.0	0.0
											$941.72	$0.00	$0.00
EYoshi14	EYoshi14	HWS	403	HAH	NI	150	W_TT-CE Prod Ra...	W_TT-CE	Civil-Transit Tech	$1,317.85	40.4	0.0	0.0
											$1,317.85	$0.00	$0.00
		HWS	403		NI	150				$3,270.78	121.2	0.0	0.0
											$3,270.78	$0.00	$0.00
		HWS	403		NI					$3,270.78	121.2	0.0	0.0
											$3,270.78	$0.00	$0.00
EYoshi14	EYoshi14	HWX	403	HAH	NI	150	W_ENG-CE Prod ...	W_ENG-CE	Planning-Engineer	$175.69	8.1	0.0	0.0
											$175.69	$0.00	$0.00
EYoshi14	EYoshi14	HWX	403	HAH	NI	150	W_SCD-CE Prod ...	W_SCD-CE	Planning-Draft	$488.27	16.2	0.0	0.0
											$488.27	$0.00	$0.00
		HWX	403		NI	150				$663.96	24.3	0.0	0.0
											$663.96	$0.00	$0.00
		HWX	403		NI					$663.96	24.3	0.0	0.0
											$663.96	$0.00	$0.00
			403							$12,127.86	226.3	80.8	80.8
											$6,665.78	$2,731.04	$2,731.04
EYoshi14	EYoshi14	HDH	415	HAH	NI	150	..TCS-ED Prod R...	__TCS-ED	Crew-Sup-NI	$568.58	6.1	6.1	6.1
											$189.53	$189.53	$189.53
EYoshi14	EYoshi14	HDH	415	HAH	NI	150	D_CREW Prod Ra...	D_CREW	Crew	$59,827.43	558.3	558.3	558.3
											$19,942.48	$19,942.48	$19,942.48
		HDH	415		NI	150				$60,395.01	564.4	564.4	564.4
											$20,132.00	$20,132.00	$20,132.00
[illegible]14	EYoshi14	HDH	415	HAH	NI	201	_ No Escalation		Stock Material	$63,268.80	21,089.6	21,089.6	21,089.6
											$21,089.60	$21,089.60	$21,089.60
[illegible]	EYoshi14	HDH	415	HAH	NI	201	_ No Escalation		Outside Materials	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HDH	415		NI	201				$63,268.80	21,089.6	21,089.6	21,089.6
											$21,089.60	$21,089.60	$21,089.60

*Project #	*Proj Link	*RA #	*Act #	*Loc #	*Ind #	*EE #	Rates Linked To	*Labor Class #	Line Item	Total 5 Year Cost	Jan up	Feb up	Mar up
EYoshi14	EYoshi14	HDH	415	HAH	NI	505	No Escalation		Outside Construction	$54,327.70	$4,327.7	0.0	0.0
											$54,327.70	$0.00	$0.00
		HDH	415		NI	505				$54,327.70	$4,327.7	0.0	0.0
											$54,327.70	$0.00	$0.00
		HDH	415		NI					$177,992.51	75,981.7	21,654.0	21,654.0
											$95,549.30	$41,221.60	$41,221.60
EYoshi14	EYoshi14	HDH	415	HAH	NR	150	TCS-ED Prod R...	TCS-ED	Crew-Sup-NR	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
EYoshi14	EYoshi14	HDH	415	HAH	NR	150	D_CREW Prod Ra...	D_CREW	Crew	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HDH	415		NR	150				$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HDH	415		NR					$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
			415							$177,992.51	75,981.7	21,654.0	21,654.0
											$95,549.30	$41,221.60	$41,221.60
										$330,455.16	127,258.18	68,268.24	68,268.24
											...	$87,019.54	$87,019.54

Hawaii Electric Light Company, Inc. • PO Box 1027 • Hilo, HI 96721-1027

CUST 3-3-1
H-W/G

'04 DEC 02 AM 08:53 ENGINEERING

November 17, 2004

GOODS/SERVICES REC'D IN SATISFACTORY CONDITION
DATE: 12/2/04
Signature
Init. Date
Invoice Rec'd 12/2/04
Ck to Fax 12/3/04
Circle PARTIAL FINAL

Ronald N. S. Ho & Associates, Inc.
Attention: Mr. Andy Miyasato
2138 Aigaroba Street
Honolulu, Hawaii 96826-2714

Gentlemen:

Subject: Kikala Keokea Subdivision

This proposal letter is in reply to your request concerning the installation of an overhead electrical distribution system to serve 67 lots of the above subject development located at Kikala Keokea Homesteads, Puna, Hawaii Tax Map Key: 1-2-06, 07, & 18.

HELCO will provide, install, own and maintain an overhead electrical distribution system in accordance with our enclosed Drawing No. 04-E-1400 dated September 8, 2004.

HELCO will make this installation in accordance with the Company's Rule No. 13 and "General Requirements for Installation of Overhead Electrical Distribution Systems in Subdivisions or Developments" revised date of November 11, 1985, copies attached.

The cost and specific requirements are noted as follows:

1. The total charges of the overhead electrical distribution system is as follows:

TOTAL DEVELOPER COST $327,824.00

TOTAL PROJECT COST	$327,824.00
Total Developer Advance (Includes State GET)	$306,133.00
Developer Cost - Street Lighting Joint Pole Share/s (non-refundable contribution - (Includes State GET)	$21,691.00

Based on the cost noted above, you are required to pay HELCO a refundable customer advance of $306,133.00, and a non-refundable contribution of $21,691.00 which includes State General Excise Tax.

In adition to the above, joint pole shares purchased by Verizon Hawaii will be refunded when transactions are completed.

The required advance and contribution are due and payable upon your acceptance of this proposal. Payment shall be required a minimum of (4) weeks prior to the processing of our construction work orders.

Please be informed that HELCO will bill the State upon receipt of the Purchase Order (PO). POs received from the State / Federal is not considered as payment therefore, payment must be received prior to HELCO's processing of construction work orders."

An advance is the amount of money paid to our Company which may be subject to refund in whole or in part in accordance with HELCO's Rule 13. (See attached copy.)

Joint pole shares purchased by Verizon Hawaii Inc., will be refunded when transactions are completed.

2. This proposal is valid for a period of six months from the date of this letter. If HELCO is not permitted to issue its construction work orders by May 17 , 2005, this proposal will be invalid. If the starting date, as specified below by you, is later than this date, this proposal will be invalid and a revised proposal will be sent to you. Our Company shall not be held liable for delays caused by material shortages or delays caused by materials being strikebound.

   The developer is also responsible for the cutting and trimming of trees along the proposed pole line route and providing property corner pins prior to our Company's construction. All tree trimming will be done in accordance to HELCO's Tree Trimming Specifications, a copy of which is enclosed.

3. This proposal is subject to our Company obtaining a satisfactory easement. Occasionally, parties granting easements to us will require survey descriptions and/or document processing fees. If applicable, this cost will be added to the total cost of this project.

4. HELCO shall bill the Developer/Individual all additional costs incurred should there be a determination of special findings not available during the development of HELCO's cost estimate. An example would be archeological findings, which would require mitigation by working around or redesigning the proposed project to enable completion.

This proposal is also subject to receiving any necessary approvals and permits from the State and/or County.

HELCO's construction work orders will be issued upon receipt and/or completion of all required documentation and necessary payments.

The terms of this proposal are at all times subject to change or modification by the State of Hawaii Public Utilities Commission ("PUC") as the PUC may direct in the exercise of its jurisdiction.

Please signify your acceptance of this proposal by appropriate execution in the space provided below. We are including one extra copy of this proposal and request that the signed original, Customer Data Input Sheet and payment of $327,824.00 is mailed to HELCO in the enclosed self-addressed envelope or delivered directly to HELCO's Customer Service Division located at 1200 Kilauea Avenue, Hilo, Hawaii.

In addition, please include the approximate date our Company will be permitted to begin its installation.

Should you have any questions, please write or call me at (808) 969-0334 between the hours of 7:00 a.m. - 3:30 p.m.

Sincerely,

Elton Yoshida
Senior Customer Planner
Customer Engineering Division

HAWAII ELECTRIC LIGHT COMPANY, INC.

Clyde H. Nagata, Manager
Engineering Department

HAWAII ELECTRIC LIGHT COMPANY, INC.

By Its PRESIDENT

HAWAII ELECTRIC LIGHT COMPANY, INC.

By Its Assistant Treasurer

CHN:EY:fc
Enclosures
Request No. H0018386

Approved by Developer: _____
Signature in Ink

Name of Signer: ERIC T. HIRANO
Type or Print

Title: CHIEF ENGINEER Date: _____

Name of Company: DLNR-ENGINEERING DIVISION

Approximate date your contractor will be ready
for HELCO to begin its construction: _____

Refunds made to: DEPARTMENT OF LAND AND NATURAL RESOURCES
Type or Print

Mailing Address: P.O. BOX 373
P.O. Box/Street Address

HONOLULU, HI 96809
City State Zip Code

DEVELOPER SUMMARY - Overhead Cost Estimate

Project:	KIKALA KEOKEA SUBD.	Date:	9/15/04
Planner:	Elton Yoshida	Request Number:	H0018386

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 11,722.88	
	Direct Labor Cost (NI-includes transportation)	$ 58,405.02	
	Direct Material Cost	$ 62,665.74	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 53,811.00	
	Total Capital	$ 186,604.64	$ 186,604.64
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)		
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 128,105.15	$ 128,105.15
		Sub Total	$ 314,709.79
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
		Total Project Cost	$ 314,709.79
		Less Developer Cost	$ 314,709.79
	Less HELCO Betterment	$ -	
	Less Salvageable Material Credit	$ -	
	Developer Cost Sub Total		$ 314,709.79
	Advance	$ 219,771	
	State GET (4.167%)	$ 9,158	
	Sub Total	$ 228,929	
	Verizon-JP-Advance	$ 73,784	
	State GET (4.167%)	$ 3,075	
	Sub Total	$ 76,859	
	CH St. Lt. JP-Aid	$ 21,154	
	State GET (4.167%)	$ 882	
	Sub Total	$ 22,036	
	Total Developer Advance (includes State GET)		$ 305,788
	Total Developer Aid (includes State GET)		$ 22,036
	Total Developer Cost		$ 327,824
	Refundable Verizon JP Shares (2-way-HELCO installed)	$ 52,629.95	
	Refundable Verizon JP Shares (3-way-HELCO installed)	$ 21,154.40	
	Non-refundable CH Shares- St. Lt. (2-way-HELCO installed)	$ -	
	Non-refundable CH Shares- St. Lt. (3-way-HELCO installed)	$ 21,154.40	

	Man-hour	Crew-hour		
Capital	1657.8		10 % Payment	32,782
O & M	0.0		90 % Payment	295,041
Removal	0.0			
TOTAL	1657.8	0.0		

Prepared By: Checked by:

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	KIKALA KEOKEA SUBD.			Date:	9/15/04
	Planner:	Elton Yoshida			Request / Parent WO Number:	H0018386
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
858	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	68.64
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
7,611	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	129.387
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-2040	( ) #336.4 strd al wp	"		0.03	0.00
528	1-2040	(8296) #3/0 strd AAAC - lw	"		0.05	26.40
	1-2040	(8296) #3/0 strd AAAC - 2&3W	"		0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC - 1W	"		0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC -2&3W	"		0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC- 1W	"		0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC -2&3W	"		0.02	0.00
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
35	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	140.0
39	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	156.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	
	1-5156	TERMI-MESH (sand and labor)	$ -	$ -	0.0	0.0
	1-7010	(3001) 3 KV LA (2 phase)	"		2.0	0.0
4	1-7010	(3003) 10 KV LA (1 phase)	"		1.0	4.0
	1-7010	(3960) 15 KV LA (2 phase)	"		2.0	0.0
	1-7010	(3960) 15 KV LA (3 phase)	"		3.0	0.0
	2-4020	2w single pin	"		1.0	0.0
	2-4020	2w single post	"		1.0	0.0
	2-4020	3w single pin	"		1.5	0.0
	2-4020	3w single post	"		1.5	0.0
9	2-4030-A	midspan (1 phase)	"		1.0	9.0
	2-4030-C	midspan (1 phase)	"		1.0	0.0
24	3-4100	3/8" DGS 34'	"		1.0	24.0
24	3-4100	3/8" DGS 41'	"		1.0	24.0
3	3-4100	3/8" DGS 47'	"		1.0	3.0
4	3-4100	3/8" SWGS 34'	"		2.0	8.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
	3-4100	3/8" HGS (')	"		1.5	0.0
	3-4100	1/2" DGS 34'	"		1.0	0.0
	3-4100	1/2" DGS 41'	"		1.0	0.0
	3-4100	1/2" DGS 47'	"		1.0	
	3-4100	1/2" SWGS 34'	"		2.0	
	3-4100	1/2" SWGS 41'	"		2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0

	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
			"		
	3-4150-A1	3/4" galv anchor (8')	"	0.0	0.0
29	3-4150-A2	1" galv anchor (8')	"	0.0	0.0
	3-4150-A3	1-1/4" galv anchor (10')	"	0.0	0.0
50	5-1009-F1	Straight & Angle	"	1.0	50.0
4	5-1009-F2	Sec. split	"	1.0	4.0
6	5-1009-F3	Single DE	"	1.0	6.0
	5-1009-F4	Line Guard	"	1.0	0.0
15	5-1009-F5	DDE	"	1.5	22.5
	5-1009-F6	Buck	"	1.0	0.0
			"		
9	5-3010	Mid Span 1-way	"	1.0	9.0
			"		
	7-2040-1-A	Full Tension Buck	"	1.5	0.0
	7-2040-1-C	Full Tension Buck	"	1.5	0.0
	7-2040-2-A	Full Tension w/bus	"	2.0	0.0
	7-2040-2-C	Full Tension w/bus	"	2.0	0.0
	7-2049-F1		"	1.0	0.0
12	7-2049-F2	w/CO	"	1.5	18.0
46	7-2049-F2A	w/o CO	"	1.0	46.0
	7-2049-F2-1	w/Buck	"	2.0	0.0
	7-2049-F3	Angle	"	1.0	0.0
	7-2049-F4	Transf & Angle	"	1.0	0.0
	7-2049-F5	Angle & Buck	"	2.0	0.0
4	7-2049-F6	DDE	"	2.0	8.0
	7-2049-F6A	S.D.E.	"	1.5	0.0
9	7-2049-F7	DE & Fused Buck	"	2.0	18.0
	7-2049-F8	w/Buck	"	2.0	0.0
	7-2049-F9		"	2.0	0.0
3	7-2049-F9	w/LA Bracket	"	2.5	7.5
2	7-2049-F9A	w/o CO	"	1.5	3.0
	7-2050-F1		"	1.0	0.0
	7-2050-F2		"	1.5	0.0
	7-2050-F2A	w/o CO	"	1.0	0.0
	7-2050-F3		"	2.0	0.0
	7-2050-F3A	Transf & Buck	"	2.0	0.0
	7-2050-F4	Angle w/o CO	"	1.0	0.0
	7-2050-F5		"	1.5	0.0
	7-2050-F5A	w/o CO	"	1.0	0.0
	7-2050-F6		"	2.0	0.0
	7-2050-F7		"	2.0	0.0
	7-2050-F7A	Sgl DE	"	1.5	0.0
	7-2050-F7B	S.D.E Jumper	"	2.0	0.0
	7-2050-F8		"	2.0	0.0
	7-2050-F8A	w/o CO	"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"	1.0	0.0
	7-2050-F9		"	2.0	0.0
	7-2050-F10	w/LA	"	2.0	0.0
	7-2050-F10A	w/o CO	"	1.5	0.0
	7-2210-1-A	2W	"	3.0	0.0
	7-2210-1-C	2W	"	3.0	0.0
	7-2210-A	2W	"	2.5	0.0
	7-2210-C	2W	"	2.5	0.0

	7-2210A-A	2W 4pin dbl. x-arm	"	2.5	0.0
	7-2210A-C	2W 4pin dbl. x-arm	"	2.5	0.0
	7-2210-A	3W	"	3.0	0.0
	7-2210-C	3W	"	3.0	
	7-2210A-A	3W 6pin DA	"	3.5	
	7-2210A-C	3W 6pin DA	"	3.5	0.0
	7-2230-A	3W DE	"	6.0	0.0
	7-2230-C	3W DE	"	6.0	0.0
	7-2230F2-A	3W DDE 170 x-arm	"	6.0	0.0
	7-2230F2-C	3W DDE 170 x-arm	"	6.0	0.0
	7-2235	Unsupported Tap	"	1.0	0.0
	7-2240-A	2W	"	2.5	0.0
	7-2240-C	2W	"	2.5	0.0
	7-2240A-A	2W 4 pin DA	"	2.5	0.0
	7-2240A-C	2W 4 pin DA	"	2.5	0.0
	7-2245-A	2W	"	3.0	0.0
	7-2245-C	2W	"	3.0	0.0
	7-2245A-A	2W DDE	"	3.0	0.0
	7-2245A-C	2W DDE	"	3.0	0.0
	7-2245B-A	2W DE & Buck	"	4.5	0.0
	7-2245B-C	2W DE & Buck	"	4.5	0.0
	7-2245C-A	2W DE Reduce Tension Buck	"	3.0	0.0
	7-2245C-C	2W DE Reduce Tension Buck	"	3.0	0.0
	7-2430-1-A	3W 170 x-arm	"	4.0	0.0
	7-2430-15C	3W 170 x-arm	"	4.5	
	7-2430-16C	3W 195 x-arm	"	4.5	
	7-2430-19C	3W 200 x-arm	"	4.0	0.0
	7-2430-19aC	3W 198 x-arm	"	4.5	0.0
	7-2430-2-A	3W 195 x-arm	"	4.0	0.0
	7-2430-3-A	3W 200 x-arm	"	4.0	0.0
	7-2430-4-A	3W 198 x-arm	"	4.5	0.0
	7-2430A-C	3W 170 x-arm D.E. Reduce Tension Buck	"	4.0	0.0
	7-2430A-A	3W 170 x-arm D.E. Reduce Tension Buck	"	4.5	0.0
	7-2430A-C	3W 195 x-arm D.E. Reduce Tension Buck	"	4.0	0.0
	7-2430A-A	3W 195 x-arm D.E. Reduce Tension Buck	"	4.5	0.0
	7-2430A-C	3W 198 x-arm D.E. Reduce Tension Buck	"	4.0	0.0
	7-2430A-A	3W 198 x-arm D.E. Reduce Tension Buck	"	4.5	0.0
	7-2440A-A	2W DDE	"	4.0	0.0
	7-2440A-C	2W DDE	"	4.0	0.0
	7-2440F1-A	3W DDE	"	5.0	0.0
	7-2440F1-C	3W DDE	"	5.0	0.0
	7-2440F1-C	3W DDE 195 x-arm	"	5.0	0.0
	7-2440F2-A	3W DDE	"	5.0	0.0
	7-2440F2-C	3W DDE	"	5.0	0.0
	7-5010-1-A	3W Tangent	"	3.0	0.0
	7-5010-1-C	3W Tangent	"	3.0	0.0
	7-5010-2-A	3W 1-20 deg ang	"	3.0	0.0
	7-5010-2-C	1-20 deg ang	"	3.0	0.0
	7-5011-1-A	Tangent	"	3.0	
	7-5011-2-A	1-20 deg ang	"	3.0	0.0
15	10-2100	1 PH 10-50 KVA	"	8.0	120.0

	10-2040	Sec leads 10-25 KVA	"		----	----
	10-2040	Sec leads 37.5-50 KVA	"		----	----
	10-2050	13.8 KV prim leads	"		----	----
	10-2060	7.2 KV prim leads	"		----	----
	10-2121	3 PH tsf bank (1200#)	"		12.0	0.0
57	12-1020-F1	Neutral grounding	"		1.0	57.0
17	12-1020-F2	Primary grounding	"		1.0	17.0
74	12-5201	Object Marker	"		0.5	37.0
			"			0.0
			"			0.0
		Switching	"			0.0
		Tailgate meeting	"			0.0
				$ 62,665.74		
CAPITAL:		Total Direct Material Cost		$ 62,665.74		
					Man-hour Sub Total	1015.4
		Non-productive hours per 8 hour shift @ 4 men crew			3.1	642.4
					Total Direct Capital Man-hours	1657.8
O & M:					(Capital Man-hours)	0.0
					(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.1	0.0
					Total Direct O&M Man-hours	0.0
REMOVAL:					(Capital Man-hours)	0.0
					(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.1	0.0
					Total Direct Removal Man-hours	0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Outside Materials	$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Pre-Capitalized Materials	$	-
SALVAGEABLE MATERIALS						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Salvageable Materials	$	-

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	KIKALA KEOKEA SUBD.				Date:	9/15/04
	Planner:	Elton Yoshida				Request/Parent WO Number:	H0018386

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
35	5.5		Dig Pole Hole (+1' for pole base)	$ 58.00	$ 11,165.00		
39	6	0	Dig Pole Hole (+1' for pole base)	$ 58.00	$ 13,572.00		
		0	Dig Pole Hole (+1' for pole base)	$ -	$ -		
28	8	0	Dig and Set Anchor	$ 61.00	$ 13,664.00		
	----	0	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	----	0	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	----	0	AC Repair	$ 150.00	$ -		
74	----	0	Ground Rod Installation (2 per)	$ 200.00	$ 14,800.00		
	----	0	Pole Base	$ 125.00	$ -		
40	----	0	Traffic Control	$ 15.25	$ 610.00		
	----	0	Tree Trimming	$ -	$ -		
	----	0	Helicopter	$ 1,750.00	$ -		
	----	0		$ -	$ -		
				Total	$ 53,811.00		$ 53,811.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ 884.99	$ -		
39	30/35	0	45' Pole	$ 927.05	$ 36,154.95		
28	50/50	0	Anchor Installation	$ 577.50	$ 16,170.00		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
40	50/50	0	Traffic Control	$ 15.25	$ 305.00		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 52,629.95		$ 52,629.95

2-way CofH JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ -	$ -		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ -		$ -

2-way HELCO JP Shares (Verizon installed)

QTY		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ -	$ -		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ 500.00	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ -		$ -
3-way JP Shares (HELCO installed)							
QTY		TMK	Description	Unit	Verizon Unit Total	Unit	CH Unit Total
	30/30/30	0	35' Pole	$ -	$ -	$ -	$ -
25	30/35/30	0	40' Pole	$ 594.96	$ 14,874.00	$ 594.96	$ 14,874.00
10	30/40/30	0	45' Pole	$ 628.04	$ 6,280.40	$ 628.04	$ 6,280.40
		0	Anchor Installation	$ 577.50	$ -	-	
		0	Termi-Mesh	$ 500.00	$ -	$ 500.00	$ -
		0	Pole Base	$ -	$ -	$ -	$ -
		0	Traffic Control	$ 15.25	$ -	$ -	$ -
		0	Sidewalk Repair (Concrete)	$ -	$ -	$ -	$ -
		0	AC Repair	$ -	$ -	$ -	$ -
		0	Tree Trimming	$ -	$ -	$ -	$ -
		0	Pole Removal	$ -	$ -	$ -	$ -
				Total	$ 21,154.40		$ 21,154.40
Transfer Charge:		per JP #					$ -

H0001203	Apollo Kamaoa Substation
H0000996	Apollo 69KV Line Drops
H0001204	Apollo Kamaoa to PT MW
H0001205	Apollo SCADA at Kamaoa
H0001207	Apollo Kilauea Relay Upgrade
H0001208	Apollo Kealia Relay Upgrade

APPENDIX C

INTERCONNECTION FACILITIES OWNED BY COMPANY

1. Description of and Responsibility for Company-Owned Interconnection Facilities

(a) Company will construct (or may allow Seller to construct, as described in subsection 1(b) below), own, operate and maintain all Interconnection Facilities required to interconnect Company's System with Seller's Facility at 69 kilovolts, up to the Point of Interconnection. Seller shall furnish space for those Interconnection Facilities required to be placed at Seller's premises.

At Seller's request, the RAC was executed before the IRS for Seller's Facility was completed. If the results of the completed IRS for Seller's Facility require that Company-owned Interconnection Facilities identified in Sections 1(a)(1) and 1(a)(2) of this Appendix C be modified, then Seller shall be responsible for the cost of such modified Company-owned Interconnection Facilities, including the cost to design and construct such modified Company-owned Interconnection Facilities, and the type of costs described in Section 2(a) of this Appendix C associated with such modified Company-owned Interconnection Facilities. Such modifications to the Company-owned Interconnection Facilities would include, but would not be limited to, new, additional, replacement, or otherwise modified Company-owned Interconnection Facilities from those specified in Sections 1(a)(1) and 1(a)(2) of this Appendix C. After the completion of the IRS for Seller's Facility, if necessary, Company shall determine whether Company shall design and construct (and Seller shall pay Company for) or Seller shall design and construct (at Seller's expense) such modified Company-owned Interconnection Facilities. If Seller designs and constructs such modified Company-owned Interconnection Facilities, (a) Seller shall comply with the procedures set forth in Appendix C, Section 1(b)(1) concerning the design and construction of Company-owned Interconnection Facilities, and (b) in the event the modifications to Company-owned Interconnection Facilities, as required by the completed IRS, have not (i) been incorporated into the design within 30 days of being notified in writing by Company that Seller shall design and

construct such modified Company-owned Interconnection Facilities and (ii) been constructed and successfully completed the Acceptance Test by the Initial In-service Date, unless otherwise agreed to in writing by Company, then, notwithstanding any other provisions in this RAC, Company shall not be required to accept or purchase electric energy generated by Seller's Facility until such modified Company-owned Interconnection Facilities have been completed and have successfully completed the Acceptance Test.

(1) Company-owned Interconnection Facilities, and engineering and testing costs for Company-owned Interconnection Facilities, for which Seller has agreed to pay, include:

a) 69kV Line 1 Drop (from Kilauea Switching Station)

Includes the labor and materials to remove the existing metering structure, install one or two transmission poles, insulators, conductors and shield wire, and terminate the 69kV line onto the new deadend structure in the Kamao'a Switching Station.

b) 69kV Line 2 Drop (from Kealia Switching Station)

Includes the labor and materials to install three or four transmission poles, disconnect switches, insulators, conductors and shield wire, and terminate the 69kV line onto the new deadend structure in the Kamao'a Switching Station.

c) Specification Development

Includes the labor to develop the specifications manual that Seller shall use as the design criteria or standard to design and construct the Kamao'a Switching Station. This manual will also include things such as equipment specifications, construction standards, sample design drawings, and drawing numbering standard.

d) Review of Seller's Design Drawings

Includes the labor and expense to review Seller's design drawings to ensure that they comply with Company's Standards (as defined in Section 1(b)(1) of this Appendix C). Also includes review of the manufacturers' approval drawings to ensure that they meet Company's Standards.

e) Construction Inspection

Includes the labor and expense to be on-site to inspect the construction activities at the Kamao'a Switching Station.

f) Review/Inspect Metering

Includes the labor to review and inspect the metering equipment and construction at the new metering structure.

g) Relay Settings

Includes the labor to develop relay settings, time delays, and trip schedule for the relays proposed at the Kamao'a Switching Station and similar review for relay related items at Seller's Facility's site that interface with Company's 69kV System. Also includes coordination of other transmission protective relays at other sites. Also includes the labor to field install the relay settings.

h) Kamao'a to South Point Microwave Link

Includes the labor and expense to conduct the communications study, FCC licensing, design, procurement, installation and testing of the communications equipment to extend a microwave link from the existing South Point microwave repeater site to the Kamao'a Switching Station. Also includes the installation of a tower/foundation, if necessary, and associated equipment at the Kamao'a Switching Station and possible replacement of the existing tower/foundation at the South Point microwave site.

If the FCC communications study which Seller has agreed to have Company perform, concludes that the South Point microwave site is not feasible, Company will investigate alternative microwave paths and, if no such paths are available, possible fiber optics or other cost-effective technologies, and the estimated costs of such alternatives, and include the alternatives in the expanded FCC communications study. Seller will be responsible for the final cost of the communications link.

i) SCADA (Kamao'a Switching Station)

Includes the labor to design, purchase, install and test the remote terminal unit (RTU), 48 volt DC battery system and interface equipment to Company's communications system and to Seller's communications system. Also includes the control and telemetering functions at the Kamao'a Switching Station.

j) SCADA (Company's Kanoelehua Operations Control Center (KOCC))

Includes the labor to program the system operations computer at KOCC for the various control and telemetering points of the Kamao'a Switching Station and Seller's equipment.

k) Kilauea Switching Station Relay Upgrade

Includes the labor to design, procure, install and test the new relays at the Kilauea switching station required to interface with the relaying at the Kamao'a Switching Station.

l) Kealia Switching Station Relay Upgrade

Includes the labor to design, procure, install and test the new relays required at the Kealia switching station to interface with the relaying at the Kamao'a Switching Station.

m) Acceptance Testing of the Kamao'a Switching Station

Including, but not limited to, the labor to do the joint testing and/or witnessing of the Acceptance Test. Acceptance Test procedures are to be developed and proposed by Seller for Company's review and acceptance at least 60 days in advance of performing the tests.

n) Control System Acceptance Testing of Seller's Facility

Including, but not limited to, the labor to do the Control System Acceptance Test.

(2) Company-owned Interconnection Facilities, which Seller (and or its third-party consultants or contractors (collectively referred to as "Contractors")) shall design and construct, at Seller's expense, except to the extent otherwise indicated herein, include:

a) Kamao'a Switching Station

Includes the design, construction and testing of the Kamao'a Switching Station in accordance with Company's Standards (as defined in Section 1(b)(1) of this Appendix C). The Kamao'a Switching Station will include items such as three 69kV outdoor circuit breakers, associated protective relays for each line and bus, station power system, 69kV three-phase disconnecting switches, potential transformers, current transformers, bus tubing and/or conductors, connectors, control house, 125 volt DC system for controls and protective relaying, and control circuits necessary to meet Company's Standards. Company shall be responsible for $782,300 of the costs of the Kamao'a Switching Station. Company's payment shall be made as follows:

Thirty (30) days after the later of Company's receipt of written confirmation from Seller's Contractor that is constructing the Kamao'a Switching Station that (i) Seller has paid for all or part of the cost of the Kamao'a Switching Station, or (ii) Seller's Contractor has begun to pour the foundation of the Kamao'a Switching Station, Company shall remit to Seller $279,300 (which is the difference between $782,300 (the amount of Company's fixed contribution to the cost of the Kamao'a Switching Station) and $503,000 (the Net Total Estimated Interconnection Cost pursuant to section 2(a) of this Appendix C)).

If Seller adds, deletes and/or changes any of its equipment, or changes its design in a manner that would change the characteristics of the equipment and specifications used in the IRS, Seller will be required to seek prior approval from Company. If an analysis to revise parts of the IRS is required, Seller will be responsible for the cost of revising the IRS, and modifying and paying for the cost of the modifications to the Interconnection Facilities based on the revisions to the IRS.

This list of Company-owned Interconnection Facilities, and engineering and testing costs for Company-owned Interconnection Facilities, for which Seller agrees to pay in accordance with Section 2 of this Appendix C, together with the estimated costs identified in this Appendix C, are subject to revision if (a) before approving this RAC, the PUC approves a power purchase contract for another non-Company owned electric generating facility ("Second NUG Contract") to supply energy to Company using the same line to which Seller's Facility is to be connected, or (b) the line to which Seller's Facility is to be connected and/or the related transformer need(s) to be upgraded and/or replaced as a result of this RAC and a Second NUG Contract, and the PUC, in approving this RAC, determines that Seller should pay for all or part of the cost of such upgrade and/or replacement.

(b) (1) Seller (and/or its Contractors) will design and construct, at Seller's expense, except to the extent otherwise indicated herein, the Company-owned Interconnection Facilities, except that Company will design, construct, own, operate and maintain the following: (a) the two new 69 kV line segments that will cut into the existing 69 kV line from Company's Kilauea switching

station to its Kealia switching station, (b) the microwave communication extension to the new 69 kV switching station, (c) the Supervisory Control and Data Acquisition remote terminal unit at the Kamao'a Switching Station, (d) the microwave (or alternative, if necessary) communication extensions to Company's Kilauea and Kealia switching stations, (e) the relay modifications and communication equipment additions at Company's Kilauea and Kealia switching stations and (f) modifications at Company's System Operations Control Center and other locations. (The costs to permit, design, construct, operate and maintain items (a) through (f) listed in this Section 1(b)(1) to Appendix C shall be borne by Seller as set forth in this Appendix C.) Prior to Seller engaging the Contractors, Seller must obtain Company's written approval, which approval shall not be unreasonably withheld, of the Contractors to be engaged by Seller. Prior to Seller and/or its Contractors first starting to work on the design, engineering and construction plans for the Company-owned Interconnection Facilities to be designed and constructed by Seller (and/or its Contractors) (collectively, "Plans"), such as the civil, structural, and electrical design drawings, specifications to vendors, vendor approved final drawings, materials lists, and acceptance test sheets, Seller and/or its Contractors shall meet with Company to discuss the design and construction of such Company-owned Interconnection Facilities, including but not limited to subjects concerning coordination of construction milestone dates, agreement on areas of interface design, and Company's design/drawing layout and symbol standards, equipment specifications and construction specifications and standards. No later than sixty (60) days before Seller and/or its Contractors first start to order materials and equipment for the Company-owned Interconnection Facilities to be constructed by Seller and/or its Contractors, Seller must provide Company with the Plans (including equipment vendor, model and specifications) for review and comment. The Plans for the Company-owned Interconnection Facilities to be designed and constructed by Seller (and/or its Contractors) shall comply with (i) all applicable laws; (ii) Company's design/drawing layout and symbol standards, equipment specifications, and construction specifications and standards; and (iii) Good Engineering and Operating Practices (collectively, "Standards"). Unless otherwise agreed to by the parties, Company shall have thirty (30) days following receipt of the Plans for it to review and comment on the Plans, and

verify in writing to Seller that the Plans comply with the Standards, which verification shall not be unreasonably withheld. If Company reasonably determines that the Plans are not in accordance with the Standards, then it may request in writing a response from Seller to its comments and Seller shall respond in writing within thirty (30) days of such request by providing (i) its justification for why its Plans conform to the Standards or (ii) changes in the Plans responsive to Company's comments and in accordance with the Standards. Construction work will be subject to Company inspections to ensure that construction is done in accordance with the Standards. Company inspectors will be allowed access to the construction sites for inspections and to monitor construction work. The inspector must have the authority to work with the appropriate construction supervisor to stop any work that does not meet the Standards. All equipment and materials used in the Company-owned Interconnection Facilities to be designed and constructed by Seller and/or its Contractors must meet the Standards. Company will be present when the Acceptance Test is conducted, and Seller must timely correct any deficiencies identified during the Acceptance Test. Seller will be responsible for the cost of the Company personnel (and/or Company contractors) performing the duties (such as reviewing the Plans and reviewing the construction) necessary for the Company-owned Interconnection Facilities to be designed and constructed by Seller (and/or its Contractors). If the Company (1) does not make any inspection or test, (2) does not discover defective workmanship, materials or equipment, or (3) accepts the Company-owned Interconnection Facilities (that were designed and constructed by Seller and/or its Contractors), such action or inaction shall not relieve Seller from its obligation to do and complete the work in accordance with the Plans approved by Company.

(2) In addition to the items mentioned in the preceding paragraph, Seller shall be responsible for the following in relation to the Kamao'a Switching Station and associated requirements:

(i) Identifying the location of the Kamao'a Switching Station and providing Company with that information by the Execution Date;

(ii) Providing payment to Company, commencing when Company's payment obligations under the real property interest first commences and continuing for so long as Seller has the right under this

RAC to sell energy to Company, for the appropriate real property interest to be held by Company in a flat parcel that provides Company with access to and use of such parcel, approximately 200 feet by 200 feet, for the Kamao'a Switching Station, provided that Company and Seller shall use their best efforts to obtain such real property interest to be held by Company on terms and conditions satisfactory to Company; and reimbursing Company for its costs incurred in obtaining the real property interest, including attorneys' fees, up to a maximum of $1,000;

(iii) Providing, at Seller's expense, easements to Company to cover the two new 69 kV line segments, an access road from the Mamalahoa Highway to the Kamao'a Switching Station, and the area where the 69 kV metering equipment will be installed so that Company's meter readers and operations/maintenance personnel can access the equipment;

(iv) Providing Company with the information necessary for Company to obtain the FCC license, including longitude, latitude and ground elevation; and

(v) The cost of obtaining the FCC license, including the cost of Company employees (and/or designees) in performing such work.

(3) Seller (and/or its Contractors) will design, install, test and place in service the Kamao'a Switching Station. In accordance with the procedure set forth in Section 1(b)(1) of this Appendix C, Seller must obtain Company's written approval of the complete design of the Kamao'a Switching Station to ensure that it meets the Standards. In accordance with the procedure set forth in Section 1(b)(1) of this Appendix C, Seller must provide Company with (CADDED electronic files compatible with Company's System and two sets of hard copies of final and as-built) all of the design, engineering and construction plans for the Kamao'a Switching Station and associated equipment, such as the civil, structural and electrical design drawings, specifications to vendors, vendor approved final drawings, materials lists, and acceptance test sheets. In accordance with the procedure set forth in Section 1(b)(1) of this Appendix C, Company shall be provided the opportunity to review and comment on the Plans, and verify in writing to Seller that the Plans comply with the Standards, which verification shall not

be unreasonably withheld. Construction work will be subject to Company inspections to ensure that construction is done in accordance with the Standards. Company inspectors will be allowed access to the construction sites for inspections and to monitor construction work. The inspector must have the authority to work with the appropriate construction supervisor to stop any work that does not meet the Standards. All equipment and materials used in the Kamao'a Switching Station must meet the Standards. Company will be present when the Acceptance Test is conducted, and Seller must timely correct any deficiencies identified during the Acceptance Test. Seller will be responsible for the cost of the Company personnel (and/or Company contractors) performing the duties (such as reviewing the Plans and reviewing the construction) necessary when Seller designs and constructs the Kamao'a Switching Station. If the Company (1) does not make any inspection or test, (2) does not discover defective workmanship, materials or equipment, or (3) accepts the Kamao'a Switching Station, such action or inaction shall not relieve Seller from its obligation to do and complete the work in accordance with the Plans approved by Company.

2. <u>Seller Payment to Company for Company-Owned Interconnection Facilities and Review of Seller's Facility</u>

(a) For Company-owned Interconnection Facilities to be designed, engineered and constructed by Company, including those items listed in Section 1(b) of this Appendix C, Seller shall be responsible for the Total Estimated Interconnection Cost which is comprised of (i) the estimated cost of such Company-owned Interconnection Facilities, (ii) the estimated engineering costs associated with a) developing such Company-owned Interconnection Facilities and b) reviewing and specifying those portions of Seller's Facility which allow interconnected operations as such are described in Appendix B, (iii) Acceptance Tests and Control System Acceptance Tests and (iv) an adjustment to decrease the Total Estimated Interconnection Cost (based on Company's contribution to Company-owned Interconnection Facilities identified in Section 1(a)(2) of this Appendix C). Company's fixed cost contribution to Seller for the Kamao'a Switching Station pursuant to Section 1(a)(2)a) of this Appendix C is greater than the Net Total Estimated Interconnection Cost as determined below. Accordingly,

Seller shall not be required to remit to Company the Net Total Estimated Interconnection Cost; rather, Company shall pay to Seller pursuant to Section 1(a)(2)a) of this Appendix C the net difference between those two amounts. Seller and Company shall still comply with the terms of Section 2(c) of this Appendix C, regarding the reconciliation of the Total Estimated Interconnection Cost and Total Actual Interconnection Cost. The following summarizes the Total Estimated Interconnection Cost:

Estimated ($)	Cost
69kV Line 1 Drop (from Kilauea)	$ 22,000
69kV Line 2 Drop (from Kealia)	60,000
Specification Development	16,000
Seller Design Review	9,000
Construction Inspection	26,000
Review/Inspect Metering	8,000
Relay Settings	26,000
Kamao'a to South Point Microwave Link	246,000
SCADA (Kamao'a Switching Station)	66,000
SCADA (KOCC)	11,000
Kilauea Relay Upgrade	44,000
Kealia Relay Upgrade	42,000
Acceptance Testing	25,000
Control System Acceptance Testing	10,000
Company's contribution to the cost of the Company-owned Interconnection Facilities identified in Section 1(a)(2) of Appendix C[1]	(90,000)

1 The amount of Company's contribution approximates the net present value of the estimated depreciated value of the Kamao'a Switching

Total Estimated Interconnection Cost:
$521,000
Less: Paid by Seller for Specification Development
8,000
Less: Paid by Seller for acquiring FCC License (towards Kamao'a to South Point Microwave Link)
10,000
Net Total Esimated Interconnection Cost
$503,000

The estimated cost of the Kamao'a to South Point Microwave Link includes the cost of Company acquiring the necessary FCC license, and the estimated cost of Specification Development includes the cost agreed to in the Design Standards Development Agreement between Seller and Company effective as of July 29, 2003. To the extent such portion of the estimated cost is separately paid by Seller pursuant to Section 1(b)(2)(v) of this Appendix C, such payment shall be reflected in the final accounting.

(b) [Reserved]

(c) Within thirty (30) days of the final accounting, which shall take place within sixty (60) days of completion of construction of Company-owned Interconnection Facilities, Seller shall remit to Company the difference between the Total Estimated Interconnection Cost and the Total Actual Interconnection Cost. The latter is comprised of (i) the total cost of Company-owned Interconnection Facilities to be designed, engineered and constructed by Company, (ii) the total engineering costs associated with a) developing such Company-owned Interconnection Facilities and b) reviewing and specifying those portions of Seller's Facility which allow interconnected operations as such are described in Appendix B, and (iii) Acceptance Tests and Control System Acceptance Tests. If in fact the Total Actual Interconnection Cost is less than

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Station (which reflects Company's fixed cost contribution to the Kamao'a Switching Station pursuant to Section 1(a)(2)a) of this Appendix C) at the time the Minimum Term of the RAC expires.

the Total Estimated Interconnection Cost, Company shall repay the difference to Seller within thirty (30) days of the final accounting.

(d) The "interconnection costs" for which Seller is responsible, which costs shall be reasonable, include the cost of the Kamao'a Switching Station (except for $782,300, which shall be Company's fixed cost contribution toward such cost) and any other Company-owned Interconnection Facilities to be designed, engineered and constructed by Seller pursuant to section 1(b) of this Appendix C, any Company-related expenses attributable to such Company-owned Interconnection Facilities pursuant to section 1(b)(2) and (3) of this Appendix C, the Total Actual Interconnection Cost and the cost of the IRS, payment for which is provided pursuant to the IRS Letter Agreement.

(e) If any Event of Default by Seller occurs such that termination of the RAC pursuant to Appendix E results, or if Seller exercises its right to terminate the RAC under Section 10 of the RAC, Seller shall pay to Company the actual costs reasonably incurred by Company for Company-owned Interconnection Facilities as of the date the RAC is terminated; provided, that if such termination of the RAC occurs before Seller begins to operate Seller's Facility and offers energy to Company in accordance with the terms of this RAC, then Seller shall pay to Company the amount of actual costs reasonably incurred by Company for Company-owned Interconnection Facilities as of the date the RAC is terminated, plus $279,300 (the amount of Company's payment under Section 1(a)(2)a) of this Appendix C). Such payment shall be made within thirty (30) days of receipt of an invoice from Company.

(f) All Company-owned Interconnection Facilities including those portions provided, or provided and constructed, by Seller, shall be the property of Company.

3. <u>Operation and Maintenance Charges</u>

(a) Seller shall operate and maintain, at its cost, the Company-owned Interconnection Facilities (that it and/or its Contractors designed and constructed) prior to the Transfer Date. On and after the Transfer Date, Company shall own, operate and maintain the Company-owned Interconnection Facilities. Company shall bill Seller monthly for two-thirds of any reasonable costs incurred in operating and maintaining Company-owned Interconnection Facilities and Company shall be responsible for the remaining one-third of such costs; provided, however, that with regard to such costs for the first twelve (12) months following the Transfer Date, Seller's share of such costs shall not exceed $3,600. Company's costs will be determined on the basis of, but not limited to, direct payroll, contractor costs, material costs, applicable overheads at the time incurred, consulting fees, and applicable taxes, all as are reasonable. Seller shall, within thirty (30) days after the billing date, reimburse Company for such monthly billed operation and maintenance charges, or provide to Company an itemized statement of its objections to all or any portion of such billed charges and pay any undisputed amount.

(b) Notwithstanding all or any portion of such monthly billed operation and maintenance charges in dispute, any payment not made to Company within thirty (30) days after the billing date shall accrue interest at the average daily prime rate at the Bank of Hawaii for the period until the outstanding interest and monthly billed operation and maintenance charge amounts are paid in full or Seller's objections are resolved in Seller's favor. Partial payments shall be applied first to outstanding interest and then to outstanding monthly billed operation and maintenance charge amounts.

(c) In the event adjustments are required to correct inaccuracies in monthly billed operation and maintenance charge amounts after payment, the party requesting adjustment shall recompute and include in its request the amounts due during the period of the inaccuracy. The difference between the amount paid and that recomputed for the monthly billed operation and maintenance charges shall either be (i) paid to Company, or set-off by Seller against the next monthly billed operation and maintenance charge payment to Company, as appropriate, together with interest from the date that such monthly billed operation and maintenance charge amounts were payable until the date that such recomputed amount is paid at the average daily prime

rate at the Bank of Hawaii for the period, or (ii) objected to by the party responsible for such payment within thirty (30) days following its receipt of such request. All claims for adjustments shall be waived for any operation and maintenance and replacement performed more than thirty-six (36) months preceding the date of any such request. Seller, after giving reasonable advance written notice to Company, shall have the right to review all billing and records covering direct payroll, material costs, applicable overheads at the time incurred, consulting fees, and applicable taxes relevant to the disputed amount of operation and maintenance charges for Company-owned Interconnection Facilities during normal working hours on working days. Company shall maintain such records for a period of not less than thirty-six (36) months.

4. Relocation of Interconnection Facilities

Company shall bill Seller for any costs incurred in relocating Company-owned Interconnection Facilities in the event that Seller's land rights include a relocation clause and such clause is exercised; or if Company-owned Interconnection Facilities must be relocated for another reason not caused by Company. Seller shall, within thirty (30) days after the billing date, reimburse Company for such billed relocation charges.

5. Guarantee for Interconnection Costs and Company's Payment to Seller

To ensure that Company is paid by Seller, under situations including, but not limited to, those identified in Section 2(e) of this Appendix C, for Company-owned Interconnection Facilities to be provided and/or constructed by Company described in Section 2 of this Appendix C and Company's payment to Seller pursuant to Section 1(a)(2)a) of this Appendix C, Seller shall obtain an Irrevocable Standby Letter of Credit with no Documentary Requirement ("Standby Letter of Credit"), wherein Company shall receive payment from the bank upon request by Company. The Standby Letter of Credit shall be (a) at least in the amount of $782,300, (b) issued by a bank in Hawaii which is reasonably acceptable to Company, and (c) in form and substance reasonably acceptable to Company. The Standby Letter of Credit shall be effective from the earlier of (i) thirty (30) days following the PUC Approval Date of the Non-Appealable PUC Approval Order, (ii) the date that Seller

requests Company to order equipment or commence construction on Company-owned Interconnection Facilities or (iii) the date of Company's payment to Seller pursuant to Section 1(a)(2)a) of this Appendix C. The Standby Letter of Credit shall be in effect through the earlier of forty-five (45) days after Seller begins to operate Seller's Facility and offers energy to Company in accordance with the terms of the RAC or seventy-five (75) days after the RAC is terminated. Seller shall provide to Company within fourteen (14) days of the effective date of the Standby Letter of Credit a document from the bank which indicates that such a Standby Letter of Credit has been established.

6. Removal of Designated Interconnected Facilities

When this RAC is terminated, Seller shall, at its expense, remove all (1) Company-owned Interconnection Facilities designated by Company and (2) Seller-owned Interconnection Facilities that are directly connected to the Kamao'a Switching Station that will be owned by Company (such as the electric lines that come from Seller's Facility that terminate in the Kamao'a Switching Station, and Seller's communications tower and associated equipment that are directly connected to the Kamao'a Switching Station) designated by Company. Such removal shall be completed within ninety (90) days of termination of this RAC, or as otherwise agreed to by both parties in writing.

7. Transfer of Ownership/Title

(a) On the Transfer Date, Seller shall transfer to Company all right, title and interest in and to the Company-owned Interconnection Facilities to the extent such facilities were designed and constructed by Seller and/or its Contractors. In connection with the transfer of the Company-owned Interconnection Facilities, Seller shall transfer and assign to Company all applicable manufacturers' or Contractors' warranties which are assignable. Seller shall provide a written list of the manufacturers' and Contractors' warranties which will be assigned to Company and the expiration dates of such warranties no later than thirty (30) days before the Transfer Date.

(b) Company's title to and ownership of the Company-owned Interconnection Facilities that were designed and constructed by Seller and/or its Contractors shall be free and clear of liens and encumbrances.

(c) In connection with the transfer of the Company-owned Interconnection Facilities to Company, Seller shall, grant, transfer or assign to Company, such easements, rights of way, licenses or leases as the case may be necessary to operate and maintain the Company-owned Interconnection Facilities on and after the Transfer Date.

8. Government Approvals

Seller shall obtain all required permits, licenses, approvals and other governmental authorizations (the "Government Approvals") required to construct, own and operate the Company-owned Interconnection Facilities (that Seller and/or its Contractors will design and construct) prior to the Transfer Date. On or before the Transfer Date, Seller shall provide Company with (i) copies of all such permits and approvals obtained by Seller regarding the construction, ownership or operation of the Company-owned Interconnection Facilities (that Seller and/or its Contractors designed and constructed) and (ii) documentation that all such permits and approvals have been closed with the issuing governmental agency.

9. Easements, Rights of Way, Licenses and Leases

Seller shall obtain all easements, rights of way, licenses and leases on the site of Seller's Facility and any other affected property, which are required to construct, maintain and operate Company-owned Interconnection Facilities. With respect to Company-owned Interconnection Facilities, Company and Seller shall use their best efforts to obtain perpetual easements. Such easements, rights of way, licenses and leases shall contain terms and conditions which are acceptable to Company and shall be provided in advance to Company for its review. Pursuant to section 1(b)(2)(ii) of this Appendix C, Company, with Seller's cooperation and assistance, shall obtain directly from the landowner the lease for the parcel upon which the Kamao'a Switching Station shall be situated. Commencing when Company's payment obligations under such easements, rights of way, licenses and leases first commence and for so long as Seller has the right under this RAC to sell energy to Company, Seller shall pay Company for any lease rents and any other payments due under such easements, rights of way, licenses and leases that are associated with Company-owned Interconnection Facilities, including, pursuant to section 1(b)(2)(ii) of this Appendix C, the Kamao'a Switching Station, no later than five (5) days before such lease

payments and any other payments are due under such easements, rights of way, licenses and leases.

H0001429 SSPP 894 - Randall

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: SSPP 894 - Randall

Project Number: RYAMAT12
(Temporary)

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

Plant Addition Date: 2006-05

Commitment Date: 2006-02

Primary Corporate Goal: Cap Exp

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$12	$0	$0	$0	$0	$0	$12

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to fulfill a request made by Margaret Randall to install an 3-ph, 12.47kv primary overhead line extension Req no. H0027379.

Scope Description:

Install one (1) 45 ft pole, one (1) anchor and #336.4 mcm aac pri and aerial cable along King Kam Blvd, HOVE, Kau.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

HWK, HDK, HWX, & HWS

Justification:

To provide a 3-ph, 12.47kv primary overhead line extension to serve Margaret Randall located on King Kam Blvd, HOVE, Kau

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Margaret Randall made payment towards his share for a 3-ph, 12.47kv oh line extension known as SSPP 894.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance $10,217.00 ✓ Total Unit Cost $10,217.00 Share Per Lot $3,406.00

GET Included $0.00

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Ricky Yamato **Phone/Ext #:** 511

Originator's Name: Ricky Yamato

Responsible Estimator: Ricky Yamato KRW 1-23-06 **Resp. Estimator Dept:** Engineering
(Pillar UserID) (Pillar Department Folder)

Project Manager: Ricky Yamato

Date: 01/23/2006

Required Approvals to Initialize a Project:

1/25/06
Responsible Manager **Date**

28 JAN 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

1/25/06
Responsible Manager **Date**

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

1/26/06
HELCO Accounting Manager **Date**

28 JAN 2006
HELCO President **Date**

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 894 - Randall	Date:	1/23/06
Planner:	Ryamato	Request Number:	H27379

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 681.65	
	Direct Labor Cost (NI-includes transportation)	$ 1,926.56	
	Direct Material Cost	$ 1,528.55	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 2,375.00	
	Total Capital	$ 6,511.76	$ 6,511.76
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 5,305.75	$ 5,305.75
	Sub Total		$ 11,817.51
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 11,818
	Less Total Customer Cost		$ 11,818
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 908
	Customer Line Extension Cost		$ 10,909
	State GET (0%)		$ -
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 10,909
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$10,909**

	Man-hour	Crew-hour		
			10 % Payment	1,091
Capital	53.5		90 % Payment	$ 9,818
O & M	0.0			
Removal	0.0			
TOTAL	53.5	0.0		

Prepared By: Ricky Y Yamato Checked by: KRW 1-23-06

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 894 - Randall			Date:	1/23/06
	Planner:	Ryamato			Request / Parent WO Number:	H27379
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	0.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
250	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	4.250
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-2040	( ) #336.4 strd al wp	"		0.03	0.00
	1-2040	(8296) #3/0 strd AAAC - lw	"		0.05	0.00
	1-2040	(8296) #3/0 strd AAAC - 2&3W	"		0.04	0.00
80	1-2040	(8300) #336.4 MCM strd AAC - 1W	"		0.04	3.20
	1-2040	(8300) #336.4 MCM strd AAC -2&3W	"		0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC- 1W	"		0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC -2&3W	"		0.02	0.00
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	0.0
1	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	4.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	2-4030-A	midspan (1 phase)	"		1.0	0.0
	2-4030-C	midspan (1 phase)	"		1.0	0.0
1	3-4100	3/8" DGS 34'	"		1.0	1.0
1	3-4100	3/8" DGS 41'	"		1.0	1.0
	3-4100	3/8" DGS 47'	"		1.0	0.0
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
	3-4100	3/8" HGS (')	"		1.5	0.0
	3-4100	1/2" DGS 34'	"		1.0	0.0
	3-4100	1/2" DGS 41'	"		1.0	0.0
	3-4100	1/2" DGS 47'	"		1.0	0.0
	3-4100	1/2" SWGS 34'	"		2.0	0.0
	3-4100	1/2" SWGS 41'	"		2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
1	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
			"			
	3-4150-A1	3/4" galv anchor (8')	"		0.0	0.0
	3-4150-A2	1" galv anchor (8')	"		0.0	0.0
	3-4150-A3	1-1/4" galv anchor (10')	"		0.0	0.0
	5-1009-F1	Straight & Angle	"		1.0	0.0
	5-1009-F2	Sec. split	"		1.0	0.0
2	5-1009-F3	Single DE	"		1.0	2.0

	5-1009-F4	Line Guard	"	1.0	0.0
	5-1009-F5	DDE	"	1.5	0.0
	5-1009-F6	Buck	"	1.0	0.0
			"		
	7-2430-1-A	3W 170 x-arm	"	4.0	
	7-2430-15C	3W 170 x-arm	"	4.5	0.0
	7-2430-16C	3W 195 x-arm	"	4.5	0.0
	7-2430-19C	3W 200 x-arm	"	4.0	0.0
	7-2430-19aC	3W 198 x-arm	"	4.5	0.0
	7-2430-2-A	3W 195 x-arm	"	4.0	0.0
1	7-2430-3-A	3W 200 x-arm	"	4.0	4.0
	7-2430-4-A	3W 198 x-arm	"	4.5	0.0
	7-2430A-C	3W 170 x-arm D.E. Reduce Tension Buck	"	4.0	0.0
	7-2430A-A	3W 170 x-arm D.E. Reduce Tension Buck	"	4.5	0.0
	7-2430A-C	3W 195 x-arm D.E. Reduce Tension Buck	"	4.0	0.0
	7-2430A-A	3W 195 x-arm D.E. Reduce Tension Buck	"	4.5	0.0
	7-2430A-C	3W 198 x-arm D.E. Reduce Tension Buck	"	4.0	0.0
	7-2430A-A	3W 198 x-arm D.E. Reduce Tension Buck	"	4.5	0.0
	7-2440A-A	2W DDE	"	4.0	0.0
	7-2440A-C	2W DDE	"	4.0	0.0
	7-2440F1-A	3W DDE	"	5.0	0.0
1	7-2440F1-C	3W DDE	"	5.0	5.0
	7-2440F1-C	3W DDE 195 x-arm	"	5.0	0.0
	7-2440F2-A	3W DDE	"	5.0	0.0
	7-2440F2-C	3W DDE	"	5.0	0.0
	7-5010-1-A	3W Tangent	"	3.0	0.0
	7-5010-1-C	3W Tangent	"	3.0	0.0
	7-5010-2-A	3W 1-20 deg ang	"	3.0	0.0
	7-5010-2-C	1-20 deg ang	"	3.0	0
	7-5011-1-A	Tangent	"	3.0	0.0
	7-5011-2-A	1-20 deg ang	"	3.0	0.0
1	10-2100	1 PH 10-50 KVA	"	8.0	8.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
1	12-1020-F2	Primary grounding	"	1.0	1.0
	12-5201	Object Marker	"	0.1	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0.0
			$ 1,528.55		
CAPITAL:		Total Direct Material Cost	$ 1,528.55		
				Man-hour Sub Total	33.
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	20.1
				Total Direct Capital Man-hours	53.5

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 894 - Randall				Date:	1/23/06
	Planner:	Ryamato			Request/Parent WO Number:		H27379

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
1	5.5	9	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 825.00		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
1	8	9	Dig and Set Anchor	$ 150.00	$ 1,200.00		
	- - - -	9	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	9	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	9	AC Repair	$ 150.00	$ -		
1	8	9	Ground Rod Installation (2 per)	$ 350.00	$ 350.00		
	- - - -	9	Pole Base	$ 125.00	$ -		
	- - - -	9	Traffic Control	$ 15.25	$ -		
	- - - -	9	Tree Trimming	$ 2,500.00	$ -		
	- - - -	9	Helicopter	$ 1,750.00	$ -		
	- - - -	9		$ -	$ -		
				Total	$ 2,375.00		$ 2,375.00

2-way **Verizon** JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ 954.82	$ -		
1	30/35	0	45' Pole	$ 908.08	$ 908.08		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 908.08		$ 908.08

Transfer Charge:	per JP #	26506		$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			24.1	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	16.1
NI	150	W_JCP-CE	10's	0%	0.0
NI	150	W_PA-CE	9's	10%	2.4
			WC m/h total	77%	18.5
NI	150	_TCS-CE	Supervisor	2%	0.5
NI	150	W_TT-CE	Transit Tech (JM)	5%	1.2
NI	150	W_RH-CE	Rodman Helper (AT)	5%	1.2
NI	150	_I-CE	Land Surveyor	5%	1.2
			WS m/h total	17%	4.1
NI	150	W_ENG-CE	(MSY)	3%	0.7
NI	150	W_SCD-CE	(EF)	5%	1.2
			WX m/h total	8%	1.9
			Engineering M HTotal	102%	24.6
			Engineering Vehicle Total		3.9
	Capital m/h			**53.5**	
NI	150	_TCS-CE	labor (sup)	1%	0.5
NI	150	D_Crew	labor (crew)	100%	53.5
NI	201		Direct Material Cost	- - - -	$ 1,528.55
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 2,375.00
	O&M M/H			**0.0**	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			**0.0**	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 894 - Randall	Date	1/23/06

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 894 - Randall Primary	Date:	10/17/05
Planner:	RY	Request Number:	H27379

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 320.19	
	Direct Labor Cost (NI-includes transportation)	$ 901.91	
	Direct Material Cost	$ 734.39	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 2,375.00	
	Total Capital	$ 4,331.49	$ 4,331.49
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 2,336.92	$ 2,336.92
	Sub Total		$ 6,668.41
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 6,668
	Less Total Customer Cost		$ 6,668
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 955
	Customer Line Extension Cost		$ 5,714
	State GET (4.166%)		$ -
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 5,714
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$5,714**

	Man-hour	Crew-hour		
			10 % Payment	571
Capital	25.6		90 % Payment	$ 5,142
O & M	0.0			
Removal	0.0			
TOTAL	25.6	0.0		

Prepared By: Ry Y Yamato Checked by: KRW 10-17-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 894 - Randall Primary			Date:	10/17/05
	Planner:	RY		Request / Parent WO Number:		H27379
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
25	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	2.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	0.000
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
1	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	4.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	2-4030-A	midspan (1 phase)	"		1.0	0.0
	2-4030-C	midspan (1 phase)	"		1.0	0.0
	3-4100	3/8" DGS 34'	"		1.0	0
1	3-4100	3/8" DGS 41'	"		1.0	1.
	3-4100	3/8" DGS 47'	"		1.0	0.0
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
	3-4100	3/8" HGS (')	"		1.5	0.0
	3-4100	1/2" DGS 34'	"		1.0	0.0
	3-4100	1/2" DGS 41'	"		1.0	0.0
	3-4100	1/2" DGS 47'	"		1.0	0.0
	3-4100	1/2" SWGS 34'	"		2.0	0.0
	3-4100	1/2" SWGS 41'	"		2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
1	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
			"			
	7-2050-F1		"		1.0	0.0
	7-2050-F2		"		1.5	0.0
	7-2050-F2A	w/o CO	"		1.0	0.0
	7-2050-F3		"		2.0	0.0
	7-2050-F3A	Transf & Buck	"		2.0	0.0
	7-2050-F4	Angle w/o CO	"		1.0	0.0
	7-2050-F5		"		1.5	0.0
	7-2050-F5A	w/o CO	"		1.0	0.0
	7-2050-F6		"		2.0	0.0
	7-2050-F7		"		2.0	0
	7-2050-F7A	Sgl DE	"		1.5	1
1	7-2050-F7B	S.D.E Jumper	"		2.0	2.0
	7-2050-F8		"		2.0	0.0

	7-2050-F8A	w/o CO		"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO		"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO		"	1.0	0.0
	7-2050-F9			"	2.0	0.0
1	7-2050-F10	w/LA		"	2.0	2.0
	7-2050-F10A	w/o CO		"	1.5	0.0
1	10-2100	1 PH 10-50 KVA		"	4.0	4.0
	10-2040	Sec leads 10-25 KVA		"	----	----
	10-2040	Sec leads 37.5-50 KVA		"	----	----
	10-2050	13.8 KV prim leads		"	----	----
	10-2060	7.2 KV prim leads		"	----	----
	10-2121	3 PH tsf bank (1200#)		"	12.0	0.0
	12-1020-F1	Neutral grounding		"	1.0	0.0
1	12-1020-F2	Primary grounding		"	1.0	1.0
	12-5201	Object Marker		"	0.1	0.0
				"		0.0
				"		0.0
		Switching		"		0.0
		Tailgate meeting		"		0.0
				$ 734.39		
CAPITAL:		**Total Direct Material Cost**		$ 734.39		
					Man-hour Sub Total	16.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	9.6
				Total Direct Capital Man-hours		25.6
O & M:				(Capital Man-hours)		0.0
				(O & M m/h = 30% of capital labor m/h)		0.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	0.0
				Total Direct O&M Man-hours		0.0
REMOVAL:				(Capital Man-hours)		0.0
				(Removal m/h = 50% of capital labor m/h)		0.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	0.0
				Total Direct Removal Man-hours		0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Outside Materials		$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Pre-Capitalized Materials		$	-
SALVAGEABLE MATERIALS						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 894 - Randall Primary				Date:	10/17/05
	Planner:	RY			Request/Parent WO Number:		H27379

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
1	5.5	9	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 825.00		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
1	8	9	Dig and Set Anchor	$ 150.00	$ 1,200.00		
	- - - -	9	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	9	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	9	AC Repair	$ 150.00	$ -		
1	8	9	Ground Rod Installation (2 per)	$ 350.00	$ 350.00		
	- - - -	9	Pole Base	$ 125.00	$ -		
	- - - -	9	Traffic Control	$ 15.25	$ -		
	- - - -	9	Tree Trimming	$ 2,500.00	$ -		
	- - - -	9	Helicopter	$ 1,750.00	$ -		
	- - - -	9		$ -	$ -		
				Total	$ 2,375.00		$ 2,375.00

2-way **Verizon** JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
1	30/35	0	40' Pole	$ 954.82	$ 954.82		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 954.82		$ 954.82

Transfer Charge:		per JP #	26506	$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			11.5	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	7.7
NI	150	W_JCP-CE	10's	0%	0.0
NI	150	W_PA-CE	9's	10%	1.2
			WC m/h total	77%	8.9
NI	150	_TCS-CE	Supervisor	2%	0.2
NI	150	W_TT-CE	Transit Tech (JM)	5%	0.6
NI	150	W_RH-CE	Rodman Helper (AT)	5%	0.6
NI	150	_I-CE	Land Surveyor	5%	0.6
			WS m/h total	17%	2.0
NI	150	W_ENG-CE	(MSY)	3%	0.3
NI	150	W_SCD-CE	(EF)	5%	0.6
			WX m/h total	8%	0.9
			Engineering M HTotal	102%	11.8
			Engineering Vehicle Total		1.8
	Capital m/h			**25.6**	
NI	150	_TCS-CE	labor (sup)	1%	0.3
NI	150	D_Crew	labor (crew)	100%	25.6
NI	201		Direct Material Cost	- - - -	$ 734.39
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 2,375.00
	O&M M/H			**0.0**	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			**0.0**	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 894 - Randall Primary	Date	10/17/05

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 894 Randall - Secondary	Date:	10/17/05
Planner:	RY	Request Number:	H27379

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 197.87	
	Direct Labor Cost (NI-includes transportation)	$ 581.02	
	Direct Material Cost	$ 269.74	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ -	
	Total Capital	$ 1,048.63	$ 1,048.63
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 1,456.08	$ 1,456.08
	Sub Total		$ 2,504.71
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 2,505
	Less Total Customer Cost		$ 2,505
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 2,505
	State GET (4.166%)		$ -
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 2,505
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		$2,505

	Man-hour	Crew-hour		
			10 % Payment	250
Capital	16.4		90 % Payment	$ 2,254
O & M	0.0			
Removal	0.0			
TOTAL	16.4	0.0		

Prepared By: [illegible] Checked by: KRW 10-17-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 894 Randall - Secondary			Date:	10/17/05
	Planner:	RY			Request / Parent WO Number:	H27379
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	0.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
250	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	4.250
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	0.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	2-4030-A	midspan (1 phase)	"		1.0	0.0
	2-4030-C	midspan (1 phase)	"		1.0	0.0
1	3-4100	3/8" DGS 34'	"		1.0	1.0
	3-4100	3/8" DGS 41'	"		1.0	0.0
	3-4100	3/8" DGS 47'	"		1.0	0.0
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
	3-4100	3/8" HGS (')	"		1.5	0.0
	3-4100	1/2" DGS 34'	"		1.0	0.0
	3-4100	1/2" DGS 41'	"		1.0	0.0
	3-4100	1/2" DGS 47'	"		1.0	0.0
	3-4100	1/2" SWGS 34'	"		2.0	0.0
	3-4100	1/2" SWGS 41'	"		2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
	5-1009-F1	Straight & Angle	"		1.0	0.0
	5-1009-F2	Sec. split	"		1.0	0.0
1	5-1009-F3	Single DE	"		1.0	1.0
	5-1009-F4	Line Guard	"		1.0	0.0
	5-1009-F5	DDE	"		1.5	0.0
	5-1009-F6	Buck	"		1.0	0.0
			"			
	5-3010	Mid Span 1-way	"		1.0	0.0
			"			
1	10-2100	1 PH 10-50 KVA	"		4.0	4.0
	10-2040	Sec leads 10-25 KVA	"		----	----
	10-2040	Sec leads 37.5-50 KVA	"		----	----

	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0..
	12-1020-F1	Neutral grounding	"	1.0	0.0
	12-1020-F2	Primary grounding	"	1.0	0.0
	12-5201	Object Marker	"	0.1	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0.0
			$ 269.74		
CAPITAL:		**Total Direct Material Cost**	$ 269.74		
				Man-hour Sub Total	10.3
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	6.2
			Total Direct Capital Man-hours		16.4
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
			Total Direct O&M Man-hours		0.0
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
			Total Direct Removal Man-hours		0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Outside Materials		$ -
PRE-CAPITALIZED MATERIALS (padmt. transformer)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Pre-Capitalized Materials		$ -
SALVAGEABLE MATERIALS					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Salvageable Materials		$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Secondary Line Extension
	Engr m/h (C&M m/h x 45%)			7.4	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	4.9
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	0.7
			WC m/h total	77%	5.7
NI	150	_TCS-CE	Supervisor	2%	0.1
NI	150	W_TT-CE	Transit Tech (JM)	5%	0.4
NI	150	W_RH-CE	Rodman Helper (AT)	5%	0.4
NI	150	_I-CE	Land Surveyor	5%	0.4
			WS m/h total	17%	1.3
NI	150	W_ENG-CE	(MSY)	3%	0.2
NI	150	W_SCD-CE	(EF)	3%	0.2
			WX m/h total	6%	0.4
			Engineering M HTotal	100%	7.4
			Engineering Vehicle Total		1.0
	Capital m/h			**16.4**	
NI	150	_TCS-CE	labor (sup)	2%	0.3
NI	150	D_Crew	labor (crew)	100%	16.4
NI	201		Direct Material Cost	- - - -	$ 269.74
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ -
	O&M M/H			**0.0**	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			**0.0**	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 894 Randall - Secondary	Date	10/17/05

H0001428 SSPP 833 - Caldwell

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: SSPP 833 - Caldwell

Project Number: RYAMAT11
(Temporary)

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

Plant Addition Date: 2006-05

Commitment Date: 2006-02

Primary Corporate Goal: Cap Exp

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$33	$0	$0	$0	$0	$0	$33

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to fulfill a request made by Ivan Caldwell to install an 3-ph, 12.47kv primary overhead line extension Req no. H0023383.

Scope Description:

Install four (4) 45 ft poles, one (1) anchor and #336.4 mcm aac pri and aerial cable along Aloha Blvd, HOVE, Kau.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

HWK, HDK, HWX, & HWS

Justification:

To provide a 3-ph, 12.47kv primary overhead line extension to serve Ivan Caldwell located on Aloha Blvd, HOVE, Kau

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Ivan Caldwell made payment towards his share for a 3-ph, 12.47kv oh line extension known as SSPP 833.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance	$34,275.00	Total Unit Cost $34,275.00 Share Per Lot $3,808.00
GET Included	$0.00	

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Ricky Y Yamato **Phone/Ext #:** x 511

Originator's Name: Ricky Yamato

Responsible Estimator: Ricky Yamato KRW 1-20-06 **Resp. Estimator Dept:** Engineering
(Pillar UserID) (Pillar Department Folder)

Project Manager: Ricky Yamato

Date: 01/20/2006

Required Approvals to Initialize a Project:

1/24/06
Responsible Manager **Date**

28 JAN 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

1/24/06
Responsible Manager **Date**

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

1/26/06
HELCO Accounting Manager **Date**

28 JAN 2006
HELCO President **Date**

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 833 Caldwell	Date:	1/20/06
Planner:	R. Yamato	Request Number:	H0023383

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 1,659.14	
	Direct Labor Cost (NI-includes transportation)	$ 4,780.44	
	Direct Material Cost	$ 5,585.07	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 7,400.00	
	Total Capital	$ 19,424.65	$ 19,424.65
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 13,438.48	$ 13,438.48
	Sub Total		$ 32,863.13
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 32,863
	Less Total Customer Cost		$ 32,863
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 4,337
	Customer Line Extension Cost		$ 28,526
	State GET (0%)		$ -
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 28,526
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		$28,526

	Man-hour	Crew-hour		
			10 % Payment	2,853
Capital	132.7		90 % Payment	$ 25,673
O & M	0.0			
Removal	0.0			
TOTAL	132.7	0.0		

Prepared By: Roy H Yamato Checked by: KRW 1-20-06

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 833 Caldwell		Date:	1/20/06
	Planner:	R. Yamato	Request / Parent WO Number:		H0023383

Qty.	SMU. No.	Description		Labor M/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)	0.08	0.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)		0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC		0.017	0.000
780	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"	0.017	13.260
	1-2040	(7978) #4/3 al tpx (ft)	"	0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"	0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"	0.017	0.000
	1-2040	( ) #336.4 strd al wp	"	0.03	0.00
	1-2040	(8296) #3/0 strd AAAC - lw	"	0.05	0.00
	1-2040	(8296) #3/0 strd AAAC - 2&3W	"	0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC - 1W	"	0.04	0.00
740	1-2040	(8300) #336.4 MCM strd AAC -2&3W	"	0.03	22.20
	1-2040	(8306) #556.5 MCM strd AAC- 1W	"	0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC -2&3W	"	0.02	0.00
	1-5000	(11) 30FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	0.0
4	1-5000	(39) 45FT POLE CL 3 (6.0')	"	4.0	16.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"	4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"	4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"	4.0	0.0
	2-4030-A	midspan (1 phase)	"	1.0	0.0
	2-4030-C	midspan (1 phase)	"	1.0	0.0
1	3-4100	3/8" DGS 34'	"	1.0	1.0
	3-4100	3/8" DGS 41'	"	1.0	0.0
	3-4100	3/8" DGS 47'	"	1.0	0.0
	3-4100	3/8" SWGS 34'	"	2.0	0.0
	3-4100	3/8" SWGS 41'	"	2.0	0.0
	3-4100	3/8" HGS (')	"	1.5	0.0
	3-4100	1/2" DGS 34'	"	1.0	0.0
1	3-4100	1/2" DGS 41'	"	1.0	1.0
	3-4100	1/2" DGS 47'	"	1.0	0.0
	3-4100	1/2" SWGS 34'	"	2.0	0.0
	3-4100	1/2" SWGS 41'	"	2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
1	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
			"		
	3-4150-A1	3/4" galv anchor (8')	"	0.0	0.0
	3-4150-A2	1" galv anchor (8')	"	0.0	0.0
	3-4150-A3	1-1/4" galv anchor (10')	"	0.0	0.0
3	5-1009-F1	Straight & Angle	"	1.0	3.0
	5-1009-F2	Sec. split	"	1.0	0.0
	5-1009-F3	Single DE	"	1.0	2.0
	5-1009-F4	Line Guard	"	1.0	0.0
	5-1009-F5	DDE	"	1.5	0.0

	5-1009-F6	Buck	"	1.0	0.0
	7-2210-1-A	2W	"	3.0	0.0
	7-2210-1-C	2W	"	3.0	0.0
	7-2210-A	2W	"	2.5	0
3	7-2210-C	2W	"	2.5	[illegible]
	7-2210A-A	2W 4pin dbl. x-arm	"	2.5	0.0
	7-2210A-C	2W 4pin dbl. x-arm	"	2.5	0.0
	7-2210-A	3W	"	3.0	0.0
	7-2210-C	3W	"	3.0	0.0
	7-2210A-A	3W 6pin DA	"	3.5	0.0
	7-2210A-C	3W 6pin DA	"	3.5	0.0
	7-2430-1-A	3W 170 x-arm	"	4.0	0.0
	7-2430-15C	3W 170 x-arm	"	4.5	0.0
	7-2430-16C	3W 195 x-arm	"	4.5	0.0
	7-2430-19C	3W 200 x-arm	"	4.0	0.0
	7-2430-19aC	3W 198 x-arm	"	4.5	0.0
1	7-2430-2-A	3W 195 x-arm	"	4.0	4.0
	7-2430-3-A	3W 200 x-arm	"	4.0	0.0
	7-2430-4-A	3W 198 x-arm	"	4.5	0.0
	7-2430A-C	3W 170 x-arm D.E. Reduce Tension Buck	"	4.0	0.0
	7-2430A-A	3W 170 x-arm D.E. Reduce Tension Buck	"	4.5	0.0
	7-2430A-C	3W 195 x-arm D.E. Reduce Tension Buck	"	4.0	0.0
	7-2430A-A	3W 195 x-arm D.E. Reduce Tension Buck	"	4.5	0.0
	7-2430A-C	3W 198 x-arm D.E. Reduce Tension Buck	"	4.0	0.0
	7-2430A-A	3W 198 x-arm D.E. Reduce Tension Buck	"	4.5	0.0
	7-2440A-A	2W DDE	"	4.0	0.0
	7-2440A-C	2W DDE	"	4.0	0.0
	7-2440F1-A	3W DDE	"	5.0	0
	7-2440F1-C	3W DDE	"	5.0	5
	7-2440F1-C	3W DDE 195 x-arm	"	5.0	0.0
	7-2440F2-A	3W DDE	"	5.0	0.0
	7-2440F2-C	3W DDE	"	5.0	0.0
	7-5010-1-A	3W Tangent	"	3.0	0.0
	7-5010-1-C	3W Tangent	"	3.0	0.0
	7-5010-2-A	3W 1-20 deg ang	"	3.0	0.0
	7-5010-2-C	1-20 deg ang	"	3.0	0.0
	7-5011-1-A	Tangent	"	3.0	0.0
	7-5011-2-A	1-20 deg ang	"	3.0	0.0
1	10-2100	1 PH 10-50 KVA	"	4.0	4.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
4	12-1020-F2	Primary grounding	"	1.0	4.0
	12-5201	Object Marker	"	0.5	0
			"		0.0
			"		0.0

		Switching		"		0.0
		Tailgate meeting		"		0.0
				$ 5,585.07		
PITAL:			Total Direct Material Cost	$ 5,585.07		
					Man-hour Sub Total	83.0
			Non-productive hours per 8 hour shift @ 4 men crew		3.0	49.8
				Total Direct Capital Man-hours		132.7
O & M:					(Capital Man-hours)	0.0
					(O & M m/h = 30% of capital labor m/h)	0.0
			Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct O&M Man-hours		0.0
REMOVAL:					(Capital Man-hours)	0.0
					(Removal m/h = 50% of capital labor m/h)	0.0
			Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct Removal Man-hours		0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Outside Materials	$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Pre-Capitalized Materials	$	-
ALVAGEABLE MATERIALS						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Salvageable Materials	$	-

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 833 Caldwell				Date:	1/20/06
	Planner:	R. Yamato			Request/Parent WO Number:		H0023383

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
4	6	9	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 3,600.00		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
1	8	9	Dig and Set Anchor	$ 150.00	$ 1,200.00		
	- - - -	9	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	9	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	9	AC Repair	$ 150.00	$ -		
4	- - - -	9	Ground Rod Installation (2 per)	$ 350.00	$ 1,400.00		
	- - - -	9	Pole Base	$ 125.00	$ -		
	- - - -	9	Traffic Control	$ 15.25	$ -		
1	- - - -	9	Tree Trimming	$ 1,200.00	$ 1,200.00		
	- - - -	9	Helicopter	$ 1,750.00	$ -		
	- - - -	9		$ -	$ -		
				Total	$ 7,400.00		$ 7,400.00

2-way **Verizon** JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ -	$ -		
4	30/35	0	45' Pole	$ 995.11	$ 3,980.44		
1	50/50	0	ground	$ 357.00	$ 357.00		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ 1,200.00	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 4,337.44		$ 4,337.44

Transfer Charge:		per JP #	23383				$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			59.7	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	40.0
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	6.0
			WC m/h total	77%	46.0
NI	150	W_TT-CE	Transit Tech (JM)	5%	3.0
NI	150	W_RH-CE	Rodman Helper (AT)	5%	3.0
NI	150	W_PA-CE	Planner Aide (CN)	5%	3.0
			WS m/h total	15%	9.0
NI	150	W_ENG-CE	(MSY)	3%	1.8
NI	150	W_SCD-CE	(EF)	5%	3.0
			WX m/h total	8%	4.8
			Engineering M HTotal	100%	59.7
			Engineering Vehicle Total		9.6
	Capital m/h			132.7	
NI	150	_TCS-CE	labor (sup)	1%	1.3
NI	150	D_Crew	labor (crew)	100%	132.7
NI	201		Direct Material Cost	- - - -	$ 5,585.07
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 7,400.00
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 833 Caldwell	Date	1/20/06

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 833 Caldwell - Pri	Date:	8/17/05
Planner:	R. Yamato	Request Number:	H0023383

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 1,243.08	
	Direct Labor Cost (NI-includes transportation)	$ 3,584.22	
	Direct Material Cost	$ 4,604.53	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 7,400.00	
	Total Capital	$ 16,831.83	$ 16,831.83
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 9,440.08	$ 9,440.08
	Sub Total		$ 26,271.91
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 26,272
	Less Total Customer Cost		$ 26,272
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 3,422
	Customer Line Extension Cost		$ 22,850
	State GET (4.167%)		$ 952
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 23,802
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (Includes State GET)	(25200000 / 25201000 / 25202000)		**$23,802**

	Man-hour	Crew-hour		
Capital	101.9		10 % Payment	2,380
O & M	0.0		90 % Payment	$ 21,422
Removal	0.0			
TOTAL	101.9	0.0		

Prepared By: R. Y. Yamato Checked by: KRW 8-18-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 833 Caldwell - Pri		Date:	8/17/05
	Planner:	R. Yamato	Request / Parent WO Number:		H0023383
Qty.	SMU. No.	Description		Labor w/ Unit	Labor M/U Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate	0.08	0.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)	Summary Report" for Material Unit	0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC	Costs)	0.017	0.000
	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"	0.017	0.000
	1-2040	(7978) #4/3 al tpx (ft)	"	0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"	0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"	0.017	0.000
	1-2040	( ) #336.4 strd al wp	"	0.03	0.00
	1-2040	(8296) #3/0 strd AAAC - lw	"	0.05	0.00
	1-2040	(8296) #3/0 strd AAAC - 2&3W	"	0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC - 1W	"	0.04	0.00
740	1-2040	(8300) #336.4 MCM strd AAC -2&3W	"	0.03	22.20
	1-2040	(8306) #556.5 MCM strd AAC- 1W	"	0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC -2&3W	"	0.02	0.00
	1-5000	(11) 30FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	0.0
4	1-5000	(39) 45FT POLE CL 3 (6.0')	"	4.0	16.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"	4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"	4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"	4.0	0.0
	2-4030-A	midspan (1 phase)	"	1.0	0.0
	2-4030-C	midspan (1 phase)	"	1.0	0.0
	3-4100	3/8" DGS 34'	"	1.0	0.0
	3-4100	3/8" DGS 41'	"	1.0	0.0
	3-4100	3/8" DGS 47'	"	1.0	0.0
	3-4100	3/8" SWGS 34'	"	2.0	0.0
	3-4100	3/8" SWGS 41'	"	2.0	0.0
	3-4100	3/8" HGS (')	"	1.5	0.0
	3-4100	1/2" DGS 34'	"	1.0	0.0
1	3-4100	1/2" DGS 41'	"	1.0	1.0
	3-4100	1/2" DGS 47'	"	1.0	0.0
	3-4100	1/2" SWGS 34'	"	2.0	0.0
	3-4100	1/2" SWGS 41'	"	2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
1	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
			"		
	7-2210-1-A	2W	"	3.0	0.0
	7-2210-1-C	2W	"	3.0	0.0
	7-2210-A	2W	"	2.5	0.0
3	7-2210-C	2W	"	2.5	7.5
	7-2210A-A	2W 4pin dbl. x-arm	"	2.5	0.0
	7-2210A-C	2W 4pin dbl. x-arm	"	2.5	0.0
	7-2210-A	3W	"	3.0	0.0
	7-2210-C	3W	"	3.0	0.0
	7-2210A-A	3W 6pin DA	"	3.5	0.0
	7-2210A-C	3W 6pin DA	"	3.5	0.0
	7-2430-1-A	3W 170 x-arm	"	4.0	0.0

	7-2430-15C	3W 170 x-arm	"	4.5	0.0
	7-2430-16C	3W 195 x-arm	"	4.5	0.0
	7-2430-19C	3W 200 x-arm	"	4.0	0.0
	7-2430-19aC	3W 198 x-arm	"	4.5	0.0
1	7-2430-2-A	3W 195 x-arm	"	4.0	
	7-2430-3-A	3W 200 x-arm	"	4.0	
	7-2430-4-A	3W 198 x-arm	"	4.5	0.0
	7-2430A-C	3W 170 x-arm D.E. Reduce Tension Buck	"	4.0	0.0
	7-2430A-A	3W 170 x-arm D.E. Reduce Tension Buck	"	4.5	0.0
	7-2430A-C	3W 195 x-arm D.E. Reduce Tension Buck	"	4.0	0.0
	7-2430A-A	3W 195 x-arm D.E. Reduce Tension Buck	"	4.5	0.0
	7-2430A-C	3W 198 x-arm D.E. Reduce Tension Buck	"	4.0	0.0
	7-2430A-A	3W 198 x-arm D.E. Reduce Tension Buck	"	4.5	0.0
	7-2440A-A	2W DDE	"	4.0	0.0
	7-2440A-C	2W DDE	"	4.0	0.0
	7-2440F1-A	3W DDE	"	5.0	0.0
1	7-2440F1-C	3W DDE	"	5.0	5.0
	7-2440F1-C	3W DDE 195 x-arm	"	5.0	0.0
	7-2440F2-A	3W DDE	"	5.0	0.0
	7-2440F2-C	3W DDE	"	5.0	0.0
	7-5010-1-A	3W Tangent	"	3.0	0.0
	7-5010-1-C	3W Tangent	"	3.0	0.0
	7-5010-2-A	3W 1-20 deg ang	"	3.0	0.0
	7-5010-2-C	1-20 deg ang	"	3.0	0.0
	7-5011-1-A	Tangent	"	3.0	0.0
	7-5011-2-A	1-20 deg ang	"	3.0	0.0
1	10-2100	1 PH 10-50 KVA	"	4.0	4.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
4	12-1020-F2	Primary grounding	"	1.0	4.0
	12-5201	Object Marker	"	0.5	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0.0
			$ 4,604.53		
CAPITAL:		Total Direct Material Cost	$ 4,604.53		
				Man-hour Sub Total	63.7
			Non-productive hours per 8 hour shift @ 4 men crew	3.0	38.2
				Total Direct Capital Man-hours	101.9
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
			Non-productive hours per 8 hour shift @ 4 men crew	3.0	0
				Total Direct O&M Man-hours	
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0

OVERHEAD COST ESTIMATE
(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 833 Caldwell - Pri				Date:	8/17/05
	Planner:	R. Yamato			Request/Parent WO Number:		H0023383

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
4	6	9	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 3,600.00		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
1	8	9	Dig and Set Anchor	$ 150.00	$ 1,200.00		
	----	9	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	----	9	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	----	9	AC Repair	$ 150.00	$ -		
4	----	9	Ground Rod Installation (2 per)	$ 350.00	$ 1,400.00		
	----	9	Pole Base	$ 125.00	$ -		
	----	9	Traffic Control	$ 15.25	$ -		
1	----	9	Tree Trimming	$ 1,200.00	$ 1,200.00		
	----	9	Helicopter	$ 1,750.00	$ -		
	----	9		$ -	$ -		
				Total	$ 7,400.00		$ 7,400.00

2-way Verizon JP SHARES (HELCO Installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ -	$ -		
4	30/35	0	45' Pole	$ 855.54	$ 3,422.16		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ 1,200.00	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 3,422.16		$ 3,422.16

Transfer Charge:		per JP #	23383				$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			45.9	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	30.7
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	4.6
			WC m/h total	77%	35.3
NI	150	W_TT-CE	Transit Tech (JM)	5%	2.3
NI	150	W_RH-CE	Rodman Helper (AT)	5%	2.3
NI	150	W_PA-CE	Planner Aide (CN)	5%	2.3
			WS m/h total	15%	6.9
NI	150	W_ENG-CE	(MSY)	3%	1.4
NI	150	W_SCD-CE	(EF)	5%	2.3
			WX m/h total	8%	3.7
			Engineering M HTotal	100%	45.9
			Engineering Vehicle Total		7.3
	Capital m/h			101.9	
NI	150	_TCS-CE	labor (sup)	1%	1.0
NI	150	D_Crew	labor (crew)	100%	101.9
NI	201		Direct Material Cost	- - - -	$ 4,604.53
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 7,400.00
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 833 Caldwell - Pri	Date	8/17/05

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 833 Caldwell - Sec	Date:	8/17/05
Planner:	R. Yamato	Request Number:	H0023383

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 449.50	
	Direct Labor Cost (NI-includes transportation)	$ 1,318.50	
	Direct Material Cost	$ 794.44	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ -	
	Total Capital	$ 2,562.44	$ 2,562.44
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 3,331.66	$ 3,331.66
		Sub Total	$ 5,894.10
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
		Total Project Cost	$ 5,894
	Less Total Customer Cost		$ 5,894
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 5,894
	State GET (4.167%)		$ 246
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 6,140
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (Includes State GET)	(25200000 / 25201000 / 25202000)		**$6,140**

	Man-hour	Crew-hour		
			10 % Payment	614
Capital	37.2		90 % Payment	$ 5,526
O & M	0.0			
Removal	0.0			
TOTAL	37.2	0.0		

Prepared By: [illegible] Checked by: KRW 8-18-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project:	SSPP 833 Caldwell - Sec			Date:	8/17/05
Planner:	R. Yamato		Request / Parent WO Number:		H0023383

Qty.	SMU. No.	Description		Labor M/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)	0.08	0.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)		0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC		0.017	0.000
780	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"	0.017	13.260
	1-2040	(7978) #4/3 al tpx (ft)	"	0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"	0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"	0.017	0.000
	1-2040	( ) #336.4 strd al wp	"	0.03	0.00
	1-2040	(8296) #3/0 strd AAAC - lw	"	0.05	0.00
	1-2040	(8296) #3/0 strd AAAC - 2&3W	"	0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC - 1W	"	0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC -2&3W	"	0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC- 1W	"	0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC -2&3W	"	0.02	0.00
1	3-4100	3/8" DGS 34'	"	1.0	1.0
	3-4100	3/8" DGS 41'	"	1.0	0.0
	3-4100	3/8" DGS 47'	"	1.0	0.0
	3-4100	3/8" SWGS 34'	"	2.0	0.0
	3-4100	3/8" SWGS 41'	"	2.0	0.0
	3-4100	3/8" HGS (')	"	1.5	0.0
	3-4100	1/2" DGS 34'	"	1.0	0.0
	3-4100	1/2" DGS 41'	"	1.0	0
	3-4100	1/2" DGS 47'	"	1.0	0
	3-4100	1/2" SWGS 34'	"	2.0	0.0
	3-4100	1/2" SWGS 41'	"	2.0	0.0
3	5-1009-F1	Straight & Angle	"	1.0	3.0
	5-1009-F2	Sec. split	"	1.0	0.0
2	5-1009-F3	Single DE	"	1.0	2.0
	5-1009-F4	Line Guard	"	1.0	0.0
	5-1009-F5	DDE	"	1.5	0.0
	5-1009-F6	Buck	"	1.0	0.0
			"		
	7-5011-1-A	Tangent	"	3.0	0.0
	7-5011-2-A	1-20 deg ang	"	3.0	0.0
1	10-2100	1 PH 10-50 KVA	"	4.0	4.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0
	12-1020-F2	Primary grounding	"	1.0	0
	12-5201	Object Marker	"	0.5	0.0
			"		0.0
			"		0.0

		Switching		"		0.0
		Tailgate meeting		"		0.0
				$ 794.44		
\PITAL:			Total Direct Material Cost	$ 794.44		
				Man-hour Sub Total		23.3
			Non-productive hours per 8 hour shift @ 4 men crew		3.0	14.0
				Total Direct Capital Man-hours		37.2
O & M:				(Capital Man-hours)		0.0
				(O & M m/h = 30% of capital labor m/h)		0.0
			Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct O&M Man-hours		0.0
REMOVAL:				(Capital Man-hours)		0.0
				(Removal m/h = 50% of capital labor m/h)		0.0
			Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct Removal Man-hours		0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Outside Materials	$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Pre-Capitalized Materials	$	-
LVAGEABLE MATERIALS						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Salvageable Materials	$	-

IND #	EE #	LABOR CLASS	Description	m/h	OH Secondary Line Extension
	Engr m/h (C&M m/h x 45%)			16.7	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	11.2
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	1.7
			WC m/h total	77%	12.9
NI	150	W_TT-CE	Transit Tech (JM)	5%	0.8
NI	150	W_RH-CE	Rodman Helper (AT)	5%	0.8
NI	150	W_PA-CE	Planner Aide (CN)	5%	0.8
			WS m/h total	15%	2.5
NI	150	W_ENG-CE	(MSY)	3%	0.5
NI	150	W_SCD-CE	(EF)	5%	0.8
			WX m/h total	8%	1.3
			Engineering M HTotal	100%	16.7
			Engineering Vehicle Total		2.2
	Capital m/h			37.2	
NI	150	_TCS-CE	labor (sup)	2%	0.7
NI	150	D_Crew	labor (crew)	100%	37.2
NI	201		Direct Material Cost	- - - -	$ 794.44
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ -
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 833 Caldwell - Sec	Date	8/17/05

H0001426 SSPP 866 - Pua Mauka Dev

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project Identified below has not been established in MIMS

Project Title: SSPP 866 - Pua Mauka Dev

Plant Addition Date: 2006-05

Project Number: RYAMAT09
(Temporary)

Commitment Date: 2006-02

Primary Corporate Goal: Cap Exp

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

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$27	$0	$0	$0	$0	$0	$27

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to fulfill a request made by Pua Mauka Development to install an 1-ph, 7.2kv primary overhead line extension Req no. H0025392.

Scope Description:

Install four (4) 40 ft poles, two (2) anchors and #1/0 aac pri and aerial cable along Coral Parkway, HOVE, Kau

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

HWK, HDK, HWX, & HWS

Justification:

To provide a 1-ph, 7.2kv primary overhead line extension to serve Pua Mauka Development located on Coral Parkway, HOVE, Kau

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Pua Mauka Development made payment towards its share for a 1-ph, 7.2kv oh line extension known as SSPP 866.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance $27,024.00 Total Unit Cost $27,024. Share per lot $2,574.

GET Included $0.00

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project Identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: [signature] **Phone/Ext #:** 511

Originator's Name: Ricky Yamato

Responsible Estimator: Ricky Yamato KRW 1-13-06 **Resp. Estimator Dept:** Engineering
(Pillar UserID) (Pillar Department Folder)

Project Manager: Ricky Yamato

Date: 01/13/2006

Required Approvals to Initialize a Project:

[signature] 1/20/06
Responsible Manager **Date**

[signature] 28 JAN 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

[signature] 1/20/06
Responsible Manager **Date**

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

[signature] 1/26/06
HELCO Accounting Manager **Date**

[signature] 28 JAN 2006
HELCO President **Date**

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 866 - Pua Mauka	Date:	1/13/06
Planner:	R. Yamato	Request Number:	H25392

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 1,366.20	
	Direct Labor Cost (NI-includes transportation)	$ 3,863.36	
	Direct Material Cost	$ 3,185.84	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 7,100.00	
	Total Capital	$ 15,515.40	$ 15,515.40
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 10,661.60	$ 10,661.60
		Sub Total	$ 26,177.00
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
		Total Project Cost	$ 26,177
	Less Total Customer Cost		$ 26,177
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 3,563
	Customer Line Extension Cost		$ 22,614
		State GET (0%)	$ -
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 22,614
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$22,614**

	Man-hour	Crew-hour		
			10 % Payment	2,261
Capital	107.2		90 % Payment	$ 20,352
O & M	0.0			
Removal	0.0			
TOTAL	107.2	0.0		

Prepared By: [signature] Checked by: KRW 1-13-06

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 866 - Pua Mauka			Date:	1/13/06
	Planner:	R. Yamato		Request / Parent WO Number:		H25392
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
72	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	5.76
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
720	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	12.240
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
3	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	12.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	2-4030-A	midspan (1 phase)	"		1.0	0.0
1	2-4030-C	midspan (1 phase)	"		1.0	1.0
2	3-4100	3/8" DGS 34'	"		1.0	2.0
2	3-4100	3/8" DGS 41'	"		1.0	[illegible]
	3-4100	3/8" DGS 47'	"		1.0	0.0
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
2	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
			"			
	3-4150-A1	3/4" galv anchor (8')	"		0.0	0.0
	3-4150-A2	1" galv anchor (8')	"		0.0	0.0
	3-4150-A3	1-1/4" galv anchor (10')	"		0.0	0.0
2	5-1009-F1	Straight & Angle	"		1.0	2.0
	5-1009-F2	Sec. split	"		1.0	0.0
1	5-1009-F3	Single DE	"		1.0	1.0
	5-1009-F4	Line Guard	"		1.0	0.0
1	5-1009-F5	DDE	"		1.5	1.5
	5-1009-F6	Buck	"		1.0	0.0
			"			
1	5-3010	Mid Span 1-way	"		1.0	1.0
			"			
	7-2050-F1		"		1.0	0.0
1	7-2050-F2		"		1.5	1.5
1	7-2050-F2A	w/o CO	"		1.0	1.0
	7-2050-F3		"		2.0	0.0
	7-2050-F3A	Transf & Buck	"		2.0	[illegible]
	7-2050-F4	Angle w/o CO	"		1.0	0.[illegible]
	7-2050-F5		"		1.5	0.0
	7-2050-F5A	w/o CO	"		1.0	0.0

	7-2050-F6		"	2.0	0.0
	7-2050-F7		"	2.0	0.0
	7-2050-F7A	Sgl DE	"	1.5	0.0
	7-2050-F7B	S.D.E Jumper	"	2.0	0.0
1	7-2050-F8		"	2.0	2.0
	7-2050-F8A	w/o CO	"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"	1.0	0.0
	7-2050-F9		"	2.0	0.0
1	7-2050-F10	w/LA	"	2.0	2.0
	7-2050-F10A	w/o CO	"	1.5	0.0
2	10-2100	1 PH 10-50 KVA	"	8.0	16.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
4	12-1020-F2	Primary grounding	"	1.0	4.0
	12-5201	Object Marker	"	0.1	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0.0
			$ 3,185.84		
CAPITAL:		Total Direct Material Cost	$ 3,185.84		
				Man-hour Sub Total	67.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	40.2
			Total Direct Capital Man-hours		107.2
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
			Total Direct O&M Man-hours		0.0
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
			Total Direct Removal Man-hours		0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Outside Materials	$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Pre-Capitalized Materials	$	-

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 866 - Pua Mauka				Date:	1/13/06
	Planner:	R. Yamato			Request/Parent WO Number:		H25392

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
4	5.5	9	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 3,300.00		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
2	8	9	Dig and Set Anchor	$ 150.00	$ 2,400.00		
	- - - -	9	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	9	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	9	AC Repair	$ 150.00	$ -		
4		9	Ground Rod Installation (2 per)	$ 350.00	$ 1,400.00		
	- - - -	9	Pole Base	$ 125.00	$ -		
	- - - -	9	Traffic Control	$ 15.25	$ -		
	- - - -	9	Tree Trimming	$ -	$ -		
	- - - -	9	Helicopter	$ 1,750.00	$ -		
	- - - -	9		$ -	$ -		
				Total	$ 7,100.00		$ 7,100.00

2-way **Verizon** JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
4	30/35	0	40' Pole	$ 890.85	$ 3,563.40		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 3,563.40		$ 3,563.40

Transfer Charge:	per JP #	26112		$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			48.2	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	32.3
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	4.8
			WC m/h total	77%	37.1
NI	150	_TCS-CE	Supervisor	2%	1.0
NI	150	W_TT-CE	Transit Tech (JM)	5%	2.4
NI	150	W_RH-CE	Rodman Helper (AT)	5%	2.4
NI	150	_I-CE	Land Surveyor	5%	2.4
			WS m/h total	17%	8.2
NI	150	W_ENG-CE	(MSY)	3%	1.4
NI	150	W_SCD-CE	(EF)	5%	2.4
			WX m/h total	8%	3.9
			Engineering M HTotal	102%	49.2
			Engineering Vehicle Total		7.7
	Capital m/h			**107.2**	
NI	150	_TCS-CE	labor (sup)	1%	1.1
NI	150	D_Crew	labor (crew)	100%	107.2
NI	201		Direct Material Cost	- - - -	$ 3,185.84
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 7,100.00
	O&M M/H			**0.0**	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			**0.0**	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 866 - Pua Mauka	Date	1/13/06

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 866 - Pua Mauka Pri	Date:	6/8/05
Planner:	R. Yamato	Request Number:	H25392

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 774.86	
	Direct Labor Cost (NI-includes transportation)	$ 2,208.43	
	Direct Material Cost	$ 2,054.13	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 7,100.00	
	Total Capital	$ 12,137.42	$ 12,137.42
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 5,741.22	$ 5,741.22
	Sub Total		$ 17,878.64
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 17,879
	Less Total Customer Cost		$ 17,879
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 3,563
	Customer Line Extension Cost		$ 14,315
	State GET (4.166%)		$ 596
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 14,912
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		$14,912

	Man-hour	Crew-hour		
			10 % Payment	1,491
Capital	62.8		90 % Payment	$ 13,420
O & M	0.0			
Removal	0.0			
TOTAL	62.8	0.0		

Prepared By: Ryan Y. Yamato Checked by: KRW 6-8-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project:	SSPP 866 - Pua Mauka Pri			Date:	6/8/05
Planner:	R. Yamato		Request / Parent WO Number:		H25392

Qty.	SMU. No.	Description		Labor M/H Unit	Labor M/H Total
72	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)	0.08	5.76
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)		0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC		0.017	0.000
	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"	0.017	0.000
	1-2040	(7978) #4/3 al tpx (ft)	"	0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"	0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"	0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	0.0
3	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	12.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"	4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"	4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"	4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"	4.0	0.0
	2-4030-A	midspan (1 phase)	"	1.0	0.0
1	2-4030-C	midspan (1 phase)	"	1.0	1.0
	3-4100	3/8" DGS 34'	"	1.0	0.0
	3-4100	3/8" DGS 41'	"	1.0	2.0
	3-4100	3/8" DGS 47'	"	1.0	0.0
	3-4100	3/8" SWGS 34'	"	2.0	0.0
	3-4100	3/8" SWGS 41'	"	2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
2	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
			"		
	7-2050-F1		"	1.0	0.0
1	7-2050-F2		"	1.5	1.5
1	7-2050-F2A	w/o CO	"	1.0	1.0
	7-2050-F3		"	2.0	0.0
	7-2050-F3A	Transf & Buck	"	2.0	0.0
	7-2050-F4	Angle w/o CO	"	1.0	0.0
	7-2050-F5		"	1.5	0.0
	7-2050-F5A	w/o CO	"	1.0	0.0
	7-2050-F6		"	2.0	0.0
	7-2050-F7		"	2.0	0.0
	7-2050-F7A	Sgl DE	"	1.5	0.0
	7-2050-F7B	S.D.E Jumper	"	2.0	0.0
1	7-2050-F8		"	2.0	2.0
	7-2050-F8A	w/o CO	"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"	1.0	0.0
	7-2050-F9		"	2.0	0.0
	7-2050-F10	w/LA	"	2.0	2.0
	7-2050-F10A	w/o CO	"	1.5	0.0
2	10-2100	1 PH 10-50 KVA	"	4.0	8.0

	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
4	12-1020-F2	Primary grounding	"	1.0	4.0
	12-5201	Object Marker	"	0.1	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0.0
			$ 2,054.13		
CAPITAL:		Total Direct Material Cost	$ 2,054.13		
				Man-hour Sub Total	39.3
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	23.6
				Total Direct Capital Man-hours	62.8
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct O&M Man-hours	0.0
EMOVAL:				(Capital Man-hours)	
				(Removal m/h = 50% of capital labor m/h)	
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct Removal Man-hours	0.0

OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)

Qty	Description	Unit	Unit Total
		$ -	$ -
		$ -	$ -
		Total Outside Materials	$ -

PRE-CAPITALIZED MATERIALS (padmt. transformer)

Qty	Description	Unit	Unit Total
		$ -	$ -
		$ -	$ -
		Total Pre-Capitalized Materials	$ -

SALVAGEABLE MATERIALS

Qty	Description	Unit	Unit Total
		$ -	$ -
		$ -	$ -
		Total Salvageable Materials	$ -

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 866 - Pua Mauka Pri				Date:	6/8/05
	Planner:	R. Yamato			Request/Parent WO Number:		H25392

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
4	5.5	9	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 3,300.00		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
2	8	9	Dig and Set Anchor	$ 150.00	$ 2,400.00		
	----	9	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	----	9	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	----	9	AC Repair	$ 150.00	$ -		
4		9	Ground Rod Installation (2 per)	$ 350.00	$ 1,400.00		
	----	9	Pole Base	$ 125.00	$ -		
	----	9	Traffic Control	$ 15.25	$ -		
	----	9	Tree Trimming	$ -	$ -		
	----	9	Helicopter	$ 1,750.00	$ -		
	----	9		$ -	$ -		
				Total	$ 7,100.00		$ 7,100.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
4	30/35	0	40' Pole	$ 890.85	$ 3,563.40		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 3,563.40		$ 3,563.40

Transfer Charge:		per JP #	26112				$ -

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 866 - Pua Mauka Sec	Date:	6/8/05
Planner:	R. Yamato	Request Number:	H25392

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 538.62	
	Direct Labor Cost (NI-includes transportation)	$ 1,575.63	
	Direct Material Cost	$ 757.28	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ -	
	Total Capital	$ 2,871.53	$ 2,871.53
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 3,967.66	$ 3,967.66
		Sub Total	$ 6,839.19
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
		Total Project Cost	$ 6,839
	Less Total Customer Cost		$ 6,839
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 6,839
	State GET (4.166%)		$ 285
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 7,124
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$7,124**

	Man-hour	Crew-hour		
			10 % Payment	712
Capital	44.4		90 % Payment	$ 6,412
O & M	0.0			
Removal	0.0			
TOTAL	44.4	0.0		

Prepared By: Roy U Yamato Checked by: KRW 6-8-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 866 - Pua Mauka Sec			Date:	6/8/05
	Planner:	R. Yamato			Request / Parent WO Number:	H25392
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	0.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
720	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	12.240
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	0.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	2-4030-A	midspan (1 phase)	"		1.0	0.0
	2-4030-C	midspan (1 phase)	"		1.0	0.0
2	3-4100	3/8" DGS 34'	"		1.0	2.0
	3-4100	3/8" DGS 41'	"		1.0	0.0
	3-4100	3/8" DGS 47'	"		1.0	0.0
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
2	5-1009-F1	Straight & Angle	"		1.0	2.0
	5-1009-F2	Sec. split	"		1.0	0.0
1	5-1009-F3	Single DE	"		1.0	1.0
	5-1009-F4	Line Guard	"		1.0	0.0
1	5-1009-F5	DDE	"		1.5	1.5
	5-1009-F6	Buck	"		1.0	0.0
			"			
1	5-3010	Mid Span 1-way	"		1.0	1.0
			"			
2	10-2100	1 PH 10-50 KVA	"		4.0	8.0
	10-2040	Sec leads 10-25 KVA	"		----	----
	10-2040	Sec leads 37.5-50 KVA	"		----	----
	10-2050	13.8 KV prim leads	"		----	----
	10-2060	7.2 KV prim leads	"		----	----
	10-2121	3 PH tsf bank (1200#)	"		12.0	0.0
	12-1020-F1	Neutral grounding	"		1.0	0.0
	12-1020-F2	Primary grounding	"		1.0	0.0
	12-5201	Object Marker	"		0.1	0.0
			"			0.0
			"			0.0
		Switching	"			0.0

		Tailgate meeting		"		0.0
				$ 757.28		
CAPITAL:			Total Direct Material Cost	$ 757.28		
				Man-hour Sub Total		27.7
			Non-productive hours per 8 hour shift @ 4 men crew		3.0	16.6
				Total Direct Capital Man-hours		44.4
O & M:				(Capital Man-hours)		0.0
				(O & M m/h = 30% of capital labor m/h)		0.0
			Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct O&M Man-hours		0.0
REMOVAL:				(Capital Man-hours)		0.0
				(Removal m/h = 50% of capital labor m/h)		0.0
			Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct Removal Man-hours		0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Outside Materials	$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Pre-Capitalized Materials	$	-
SALVAGEABLE MATERIALS						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Salvageable Materials	$	-

H0001427 SSPP 895 - Wolske

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: SSPP 895 - Wolske

Plant Addition Date: 2006-05

Project Number: RYAMAT10
(Temporary)

Commitment Date: 2006-02

Primary Corporate Goal: Cap Exp

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

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$10	$0	$0	$0	$0	$0	$10

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to fulfill a request made by Leon Wolske to install an 1-ph, 7.2kv primary overhead line extension Req no. H0027246.

Scope Description:

Install one (1) 40 ft poles, one (1) anchor and #1/0 aac pri and aerial cable along Eha Pl, Milolii, S. Kona

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

HWK, HDK, HWX, & HWS

Justification:

To provide a 1-ph, 7.2kv primary overhead line extension to serve Leon Wolske located on Eha Pl, Milolii, S. Kona

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Leon Wolske made payment towards his share for a 1-ph, 7.2kv oh line extension known as SSPP 895.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance	$15,699.00	Total Unit Cost $15699.00. Share Per Lot $2617.00
GET Included	$0.00	

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Ricky Yamato **Phone/Ext #:** 511

Originator's Name: Ricky Yamato

Responsible Estimator: Ricky Yamato KZW 1-16-06
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Ricky Yamato

Date: 01/16/2006

Required Approvals to Initialize a Project:

1/20/06
Responsible Manager **Date**

28 Jan 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

1/20/06
Responsible Manager **Date**

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

1/26/06
HELCO Accounting Manager **Date**

28 JAN 2006
HELCO President **Date**

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 895 - Wolske	Date:	1/16/06
Planner:	RY	Request Number:	H27246

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 558.73	
	Direct Labor Cost (NI-includes transportation)	$ 1,569.82	
	Direct Material Cost	$ 1,135.89	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 2,375.00	
	Total Capital	$ 5,639.44	$ 5,639.44
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 4,312.31	$ 4,312.31
		Sub Total	$ 9,951.75
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
		Total Project Cost	$ 9,952
	Less Total Customer Cost		$ 9,952
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 9,952
		State GET (0%)	$ -
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 9,952
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		$9,952

	Man-hour	Crew-hour		
			10 % Payment	995
Capital	43.6		90 % Payment	$ 8,957
O & M	0.0			
Removal	0.0			
TOTAL	43.6	0.0		

Prepared By: Ray Y Yamat Checked by: KRW 1-16-06

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 895 - Wolske			Date:	1/16/06
	Planner:	RY			Request / Parent WO Number:	H27246
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
25	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	2.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
250	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	4.250
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
1	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	4.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	2-4030-A	midspan (1 phase)	"		1.0	0.0
	2-4030-C	midspan (1 phase)	"		1.0	0.0
	3-4100	3/8" DGS 34'	"		1.0	1
1	3-4100	3/8" DGS 41'	"		1.0	1
	3-4100	3/8" DGS 47'	"		1.0	0.0
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
	3-4100	3/8" HGS (')	"		1.5	0.0
	3-4100	1/2" DGS 34'	"		1.0	0.0
	3-4100	1/2" DGS 41'	"		1.0	0.0
	3-4100	1/2" DGS 47'	"		1.0	0.0
	3-4100	1/2" SWGS 34'	"		2.0	0.0
	3-4100	1/2" SWGS 41'	"		2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
1	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
			"			
	3-4150-A1	3/4" galv anchor (8')	"		0.0	0.0
	3-4150-A2	1" galv anchor (8')	"		0.0	0.0
	3-4150-A3	1-1/4" galv anchor (10')	"		0.0	0.0
	5-1009-F1	Straight & Angle	"		1.0	0.0
	5-1009-F2	Sec. split	"		1.0	0.0
2	5-1009-F3	Single DE	"		1.0	2.0
	5-1009-F4	Line Guard	"		1.0	0.0
	5-1009-F5	DDE	"		1.5	0.0
	5-1009-F6	Buck	"		1.0	0.0
			"			
	7-2050-F1		"		1.0	0.0
	7-2050-F2		"		1.5	0.0

	7-2050-F2A	w/o CO	"	1.0	0.0
	7-2050-F3		"	2.0	0.0
	7-2050-F3A	Transf & Buck	"	2.0	0.0
	7-2050-F4	Angle w/o CO	"	1.0	0.0
	7-2050-F5		"	1.5	0.0
	7-2050-F5A	w/o CO	"	1.0	0.0
	7-2050-F6		"	2.0	0.0
	7-2050-F7		"	2.0	0.0
	7-2050-F7A	Sgl DE	"	1.5	0.0
1	7-2050-F7B	S.D.E Jumper	"	2.0	2.0
	7-2050-F8		"	2.0	0.0
	7-2050-F8A	w/o CO	"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"	1.0	0.0
	7-2050-F9		"	2.0	0.0
1	7-2050-F10	w/LA	"	2.0	2.0
	7-2050-F10A	w/o CO	"	1.5	0.0
1	10-2100	1 PH 10-50 KVA	"	8.0	8.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
	12-1020-F2	Primary grounding	"	1.0	1.0
	12-5201	Object Marker	"	0.1	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0.0
			$ 1,135.89		
CAPITAL:		Total Direct Material Cost	$ 1,135.89		
				Man-hour Sub Total	27.3
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	16.4
				Total Direct Capital Man-hours	43.6
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct O&M Man-hours	0.0
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct Removal Man-hours	0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					
		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Outside Materials	$	-

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 895 - Wolske				Date:	1/16/06
	Planner:	RY				Request/Parent WO Number:	H27246

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
1	5.5	8	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 825.00		
		8	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		8	Dig Pole Hole (+1' for pole base)	$ -	$ -		
1	8	8	Dig and Set Anchor	$ 150.00	$ 1,200.00		
	- - - -	8	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	8	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	8	AC Repair	$ 150.00	$ -		
1	8	8	Ground Rod Installation (2 per)	$ 350.00	$ 350.00		
	- - - -	8	Pole Base	$ 125.00	$ -		
	- - - -	8	Traffic Control	$ 15.25	$ -		
	- - - -	8	Tree Trimming	$ -	$ -		
	- - - -	8	Helicopter	$ 1,750.00	$ -		
	- - - -	8		$ -	$ -		
				Total	$ 2,375.00		$ 2,375.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ 890.85	$ -		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ -		$ -

Transfer Charge:		per JP #	26477	$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			19.6	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	13.1
NI	150	W_JCP-CE	10's	0%	0.0
NI	150	W_PA-CE	9's	10%	2.0
			WC m/h total	77%	15.1
NI	150	_TCS-CE	Supervisor	2%	0.4
NI	150	W_TT-CE	Transit Tech (JM)	5%	1.0
NI	150	W_RH-CE	Rodman Helper (AT)	5%	1.0
NI	150	_I-CE	Land Surveyor	5%	1.0
			WS m/h total	17%	3.3
NI	150	W_ENG-CE	(MSY)	3%	0.6
NI	150	W_SCD-CE	(EF)	5%	1.0
			WX m/h total	8%	1.6
			Engineering M HTotal	102%	20.0
			Engineering Vehicle Total		3.1
	Capital m/h			**43.6**	
NI	150	_TCS-CE	labor (sup)	1%	0.4
NI	150	D_Crew	labor (crew)	100%	43.6
NI	201		Direct Material Cost	- - - -	$ 1,135.89
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 2,375.00
	O&M M/H			**0.0**	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			**0.0**	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 895 - Wolske	Date	1/16/06

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 895 - Wolske Primary	Date:	10/3/05
Planner:	RY	Request Number:	H27246

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 320.19	
	Direct Labor Cost (NI-includes transportation)	$ 901.91	
	Direct Material Cost	$ 734.39	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 2,375.00	
	Total Capital	$ 4,331.49	$ 4,331.49
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 2,336.92	$ 2,336.92
		Sub Total	$ 6,668.41
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
		Total Project Cost	$ 6,668
	Less Total Customer Cost		$ 6,668
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 6,668
	State GET (4.166%)		$ 278
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 6,946
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$6,946**

	Man-hour	Crew-hour		
			10 % Payment	695
Capital	25.6		90 % Payment	$ 6,252
O & M	0.0			
Removal	0.0			
TOTAL	25.6	0.0		

Prepared By: Ray Y Yamat Checked by: KRW 10-4-05

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 895 - Wolske Primary				Date:	10/3/05
	Planner:	RY			Request/Parent WO Number:		H27246
OUTSIDE SERVICES							
Qty	Depth ea.	Zone	Description	Unit	Unit Total		
1	5.5	8	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 825.00		
		8	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		8	Dig Pole Hole (+1' for pole base)	$ -	$ -		
1	8	8	Dig and Set Anchor	$ 150.00	$ 1,200.00		
	- - - -	8	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	8	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	8	AC Repair	$ 150.00	$ -		
1	8	8	Ground Rod Installation (2 per)	$ 350.00	$ 350.00		
	- - - -	8	Pole Base	$ 125.00	$ -		
	- - - -	8	Traffic Control	$ 15.25	$ -		
	- - - -	8	Tree Trimming	$ -	$ -		
	- - - -	8	Helicopter	$ 1,750.00	$ -		
	- - - -	8		$ -	$ -		
				Total	$ 2,375.00		$ 2,375.00
2-way **Verizon** JP SHARES (HELCO installed):							
Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ 890.85	$ -		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ -		$ -
Transfer Charge:		per JP #	26477				$ -

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 895 - Wolske Primary			Date:	10/3/05
	Planner:	RY		Request / Parent WO Number:		H27246
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
25	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	2.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	0.000
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
1	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	4.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	2-4030-A	midspan (1 phase)	"		1.0	0.0
	2-4030-C	midspan (1 phase)	"		1.0	0.0
	3-4100	3/8" DGS 34'	"		1.0	[illegible]
1	3-4100	3/8" DGS 41'	"		1.0	[illegible]
	3-4100	3/8" DGS 47'	"		1.0	0.0
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
	3-4100	3/8" HGS (')	"		1.5	0.0
	3-4100	1/2" DGS 34'	"		1.0	0.0
	3-4100	1/2" DGS 41'	"		1.0	0.0
	3-4100	1/2" DGS 47'	"		1.0	0.0
	3-4100	1/2" SWGS 34'	"		2.0	0.0
	3-4100	1/2" SWGS 41'	"		2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
1	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
			"			
	7-2050-F1		"		1.0	0.0
	7-2050-F2		"		1.5	0.0
	7-2050-F2A	w/o CO	"		1.0	0.0
	7-2050-F3		"		2.0	0.0
	7-2050-F3A	Transf & Buck	"		2.0	0.0
	7-2050-F4	Angle w/o CO	"		1.0	0.0
	7-2050-F5		"		1.5	0.0
	7-2050-F5A	w/o CO	"		1.0	0.0
	7-2050-F6		"		2.0	0.0
	7-2050-F7		"		2.0	[illegible]
	7-2050-F7A	Sgl DE	"		1.5	[illegible]
1	7-2050-F7B	S.D.E Jumper	"		2.0	2.0
	7-2050-F8		"		2.0	0.0

	7-2050-F8A	w/o CO	"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"	1.0	0.0
	7-2050-F9		"	2.0	0.0
1	7-2050-F10	w/LA	"	2.0	2.0
	7-2050-F10A	w/o CO	"	1.5	0.0
1	10-2100	1 PH 10-50 KVA	"	4.0	4.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
1	12-1020-F2	Primary grounding	"	1.0	1.0
	12-5201	Object Marker	"	0.1	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0.0
			$ 734.39		
CAPITAL:		Total Direct Material Cost	$ 734.39		
				Man-hour Sub Total	16.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	9.6
				Total Direct Capital Man-hours	25.6
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct O&M Man-hours	0.0
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct Removal Man-hours	0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
				Total Outside Materials	$ -
PRE-CAPITALIZED MATERIALS (padmt. transformer)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
				Total Pre-Capitalized Materials	$ -
SALVAGEABLE MATERIALS					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			11.5	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	7.7
NI	150	W_JCP-CE	10's	0%	0.0
NI	150	W_PA-CE	9's	10%	1.2
			WC m/h total	77%	8.9
NI	150	_TCS-CE	Supervisor	2%	0.2
NI	150	W_TT-CE	Transit Tech (JM)	5%	0.6
NI	150	W_RH-CE	Rodman Helper (AT)	5%	0.6
NI	150	_I-CE	Land Surveyor	5%	0.6
			WS m/h total	17%	2.0
NI	150	W_ENG-CE	(MSY)	3%	0.3
NI	150	W_SCD-CE	(EF)	5%	0.6
			WX m/h total	8%	0.9
			Engineering M HTotal	102%	11.8
			Engineering Vehicle Total		1.8
	Capital m/h			**25.6**	
NI	150	_TCS-CE	labor (sup)	1%	0.3
NI	150	D_Crew	labor (crew)	100%	25.6
NI	201		Direct Material Cost	- - - -	$ 734.39
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 2,375.00
	O&M M/H			**0.0**	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			**0.0**	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 895 - Wolske Primary	Date	10/3/05

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 895 - Wolske (Secondary)	Date:	10/3/05
Planner:	RY	Request Number:	~~H27201~~ H27246
CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 230.61	
	Direct Labor Cost (NI-includes transportation)	$ 667.72	
	Direct Material Cost	$ 269.74	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ -	
	Total Capital	$ 1,168.07	$ 1,168.07
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 1,676.57	$ 1,676.57
	Sub Total		$ 2,844.64
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 2,845
	Less Total Customer Cost		$ 2,845
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 2,845
	State GET (4.166%)		$ 119
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 2,963
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		$2,963

	Man-hour	Crew-hour		
Capital	18.8		10 % Payment	296
O & M	0.0		90 % Payment	$ 2,667
Removal	0.0			
TOTAL	18.8	0.0		

Prepared By: [illegible] Checked by: KRW 10-5-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 895 - Wolske (Secondary)			Date:	10/3/05
	Planner:	RY		Request / Parent WO Number:		H27201

Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	0.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
250	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	4.250
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	0.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	2-4030-A	midspan (1 phase)	"		1.0	0.0
	2-4030-C	midspan (1 phase)	"		1.0	0.0
1	3-4100	3/8" DGS 34'	"		1.0	1.0
	3-4100	3/8" DGS 41'	"		1.0	0
	3-4100	3/8" DGS 47'	"		1.0	0.
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
	3-4100	3/8" HGS (")	"		1.5	0.0
	3-4100	1/2" DGS 34'	"		1.0	0.0
	3-4100	1/2" DGS 41'	"		1.0	0.0
	3-4100	1/2" DGS 47'	"		1.0	0.0
	3-4100	1/2" SWGS 34'	"		2.0	0.0
	3-4100	1/2" SWGS 41'	"		2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
	5-1009-F1	Straight & Angle	"		1.0	0.0
	5-1009-F2	Sec. split	"		1.0	0.0
1	5-1009-F3	Single DE	"		1.0	1.0
	5-1009-F4	Line Guard	"		1.0	0.0
1	5-1009-F5	DDE	"		1.5	1.5
	5-1009-F6	Buck	"		1.0	0.0
			"			
	5-3010	Mid Span 1-way	"		1.0	0.0
			"			
1	10-2100	1 PH 10-50 KVA	"		4.0	4
	10-2040	Sec leads 10-25 KVA	"		----	----
	10-2040	Sec leads 37.5-50 KVA	"		----	----

	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
	12-1020-F2	Primary grounding	"	1.0	0.0
	12-5201	Object Marker	"	0.1	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0.0
			$ 269.74		
CAPITAL:		**Total Direct Material Cost**	$ 269.74		
				Man-hour Sub Total	11.8
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	7.1
			Total Direct Capital Man-hours		18.8
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
			Total Direct O&M Man-hours		0.0
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
			Total Direct Removal Man-hours		0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Outside Materials		$ -
PRE-CAPITALIZED MATERIALS (padmt. transformer)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Pre-Capitalized Materials		$ -
SALVAGEABLE MATERIALS					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Salvageable Materials		$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Secondary Line Extension
	Engr m/h (C&M m/h x 45%)			8.5	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	5.7
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	0.8
			WC m/h total	77%	6.5
NI	150	_TCS-CE	Supervisor	2%	0.2
NI	150	W_TT-CE	Transit Tech (JM)	5%	0.4
NI	150	W_RH-CE	Rodman Helper (AT)	5%	0.4
NI	150	_I-CE	Land Surveyor	5%	0.4
			WS m/h total	17%	1.4
NI	150	W_ENG-CE	(MSY)	3%	0.3
NI	150	W_SCD-CE	(EF)	3%	0.3
			WX m/h total	6%	0.5
			Engineering M HTotal	100%	8.5
			Engineering Vehicle Total		1.1
	Capital m/h			**18.8**	
NI	150	_TCS-CE	labor (sup)	2%	0.4
NI	150	D_Crew	labor (crew)	100%	18.8
NI	201		Direct Material Cost	- - - -	$ 269.74
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ -
	O&M M/H			**0.0**	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			**0.0**	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 895 - Wolske (Secondary)	Date	10/3/05

H0001423 SSPP 809 - Desouza

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: SSPP 809 - Desouza

Plant Addition Date: 2006-05

Project Number: RYAMAT13
(Temporary)

Commitment Date: 2006-02

Primary Corporate Goal: Cap Exp

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

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$20	$0	$0	$0	$0	$0	$20

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to fulfill a request made by Tricia Desouza to install an 1-ph, 7.2kv primary overhead line extension Req no. H0021681.

Scope Description:

Install one (1) 40 ft pole, three (3) anchors and #1/0 aac pri and aerial cable along Ehiku Ave, Milolli, S. Kona

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

HWK, HDK, HWX, & HWS

Justification:

To provide a 1-ph, 7.2kv primary overhead line extension to serve Tricia Desouza located on Ehiku Ave, Milolii, S. Kona

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Tricia Desouza made payment towards her share for a 1-ph, 7.2kv oh line extension known as SSPP 809.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance $34,562.00 ✓ Total Unit Cost $34,562.00 Share Per Lot $5,760.00

GET Included $0.00

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project Identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Ricky Y Yamato **Phone/Ext #:** 511

Originator's Name: Ricky Yamato

Responsible Estimator: Ricky Yamato KRW 1-23-06 **Resp. Estimator Dept:** Engineering
(Pillar UserID) (Pillar Department Folder)

Project Manager: Ricky Yamato

Date: 01/23/2006

Required Approvals to Initialize a Project:

1/25/06
Responsible Manager **Date**

28 JAN 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

1/25/06
Responsible Manager **Date**

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

1/26/06
HELCO Accounting Manager **Date**

28 JAN 2006
HELCO President **Date**

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 809 - Desouza Pri	Date:	1/23/06
Planner:	RY	Request Number:	H21681

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 884.78	
	Direct Labor Cost (NI-includes transportation)	$ 2,550.73	
	Direct Material Cost	$ 1,863.63	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 5,475.00	
	Total Capital	$ 10,774.14	$ 10,774.14
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 6,952.39	$ 6,952.39
		Sub Total	$ 17,726.53
	Plus HELCO JP Shares (Verizon installed)		$ 2,243.52
	Plus Verizon Transfer Cost		$ -
		Total Project Cost	$ 19,970
	Less Total Customer Cost		$ 19,970
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 1,013
	Customer Line Extension Cost		$ 18,957
		State GET (0%)	$ -
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 18,957
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		$18,957

	Man-hour	Crew-hour		
			10 % Payment	1,896
Capital	70.8		90 % Payment	$ 17,061
O & M	0.0			
Removal	0.0			
TOTAL	70.8	0.0		

Prepared By: Ray Y Yamat Checked by: KRW 1-23-06

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project:	SSPP 809 - Desouza Pri			Date:	1/23/06
Planner:	RY			Request / Parent WO Number:	H21681

Qty.	SMU. No.	Description		Labor M/H Unit	Labor M/H Total
37	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)	0.08	2.96
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)		0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC		0.017	0.000
370	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"	0.017	6.290
	1-2040	(7978) #4/3 al tpx (ft)	"	0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"	0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"	0.017	0.000
	1-2040	( ) #336.4 strd al wp	"	0.03	0.00
	1-2040	(8296) #3/0 strd AAAC - lw	"	0.05	0.00
	1-2040	(8296) #3/0 strd AAAC - 2&3W	"	0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC - 1W	"	0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC -2&3W	"	0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC- 1W	"	0.03	0.00
	1-2040	(8306) #556.5 MCM strd AAC -2&3W	"	0.02	0.00
	1-5000	(11) 30FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	0.0
1	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	4.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"	4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"	4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"	4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"	4.0	0
	2-4030-A	midspan (1 phase)	"	1.0	0.0
1	2-4030-C	midspan (1 phase)	"	1.0	1.0
2	3-4100	3/8" DGS 34'	"	1.0	2.0
3	3-4100	3/8" DGS 41'	"	1.0	3.0
	3-4100	3/8" DGS 47'	"	1.0	0.0
1	3-4100	3/8" SWGS 34'	"	2.0	2.0
	3-4100	3/8" SWGS 41'	"	2.0	0.0
	3-4100	3/8" HGS (')	"	1.5	0.0
	3-4100	1/2" DGS 34'	"	1.0	0.0
	3-4100	1/2" DGS 41'	"	1.0	0.0
	3-4100	1/2" DGS 47'	"	1.0	0.0
	3-4100	1/2" SWGS 34'	"	2.0	0.0
	3-4100	1/2" SWGS 41'	"	2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
3	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
1	5-1009-F1	Straight & Angle	"	1.0	1.0
	5-1009-F2	Sec. split	"	1.0	0.0
1	5-1009-F3	Single DE	"	1.0	1.0
	5-1009-F4	Line Guard	"	1.0	0.0
1	5-1009-F5	DDE	"	1.5	1.5
	5-1009-F6	Buck	"	1.0	0
			"		
1	5-3010	Mid Span 1-way	"	1.0	1.0
			"		

	7-2050-F1		"	1.0	0.0
1	7-2050-F2		"	1.5	1.5
	7-2050-F2A	w/o CO	"	1.0	0.0
	7-2050-F3		"	2.0	0.0
	7-2050-F3A	Transf & Buck	"	2.0	0.0
	7-2050-F4	Angle w/o CO	"	1.0	0.0
	7-2050-F5		"	1.5	0.0
	7-2050-F5A	w/o CO	"	1.0	0.0
	7-2050-F6		"	2.0	0.0
	7-2050-F7		"	2.0	0.0
	7-2050-F7A	Sgl DE	"	1.5	0.0
	7-2050-F7B	S.D.E Jumper	"	2.0	0.0
1	7-2050-F8		"	2.0	2.0
	7-2050-F8A	w/o CO	"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"	1.0	0.0
	7-2050-F9		"	2.0	0.0
1	7-2050-F10	w/LA	"	2.0	2.0
	7-2050-F10A	w/o CO	"	1.5	0.0
1	10-2100	1 PH 10-50 KVA	"	8.0	8.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	12-1020-F1	Neutral grounding	"	1.0	0.0
3	12-1020-F2	Primary grounding	"	1.0	3.0
	12-5201	Object Marker	"	0.5	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		2.0
			$ 1,863.63		
CAPITAL:		**Total Direct Material Cost**	$ 1,863.63		
				Man-hour Sub Total	44.3
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	26.6
			Total Direct Capital Man-hours		70.8
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
			Total Direct O&M Man-hours		0.0
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
			Total Direct Removal Man-hours		0.0
OUTSIDE MATERIALS *(PME, VS, fault indicator and other special order non-stock material)*					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Outside Materials		$ -

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 809 - Desouza Pri				Date:	1/23/06
	Planner:	RY			Request/Parent WO Number:		H21681

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
1	5.5	8	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 825.00		
		8	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		8	Dig Pole Hole (+1' for pole base)	$ -	$ -		
3	8	8	Dig and Set Anchor	$ 150.00	$ 3,600.00		
	- - - -	8	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	8	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	8	AC Repair	$ 150.00	$ -		
3	- - - -	9	Ground Rod Installation (2 per)	$ 350.00	$ 1,050.00		
	- - - -	8	Pole Base	$ 125.00	$ -		
	- - - -	8	Traffic Control	$ 15.25	$ -		
	- - - -	8	Tree Trimming	$ -	$ -		
	- - - -	8	Helicopter	$ 1,750.00	$ -		
	- - - -	8		$ -	$ -		
				Total	$ 5,475.00		$ 5,475.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
1	30/35	0	40' Pole	$ 1,013.49	$ 1,013.49		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 1,013.49		$ 1,013.49

2-way HELCO JP Shares (Verizon installed)

QTY		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
2	30/35	0	40' Pole	$ 1,121.76	$ 2,243.52		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ 500.00	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 2,243.52		$ 2,243.52

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			31.9	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	21.3
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	3.2
			WC m/h total	77%	24.6
NI	150	W_TT-CE	Transit Tech (JM)	5%	1.6
NI	150	W_RH-CE	Rodman Helper (AT)	5%	1.6
NI	150	W_PA-CE	Planner Aide (CN)	5%	1.6
			WS m/h total	15%	4.8
NI	150	W_ENG-CE	(MSY)	3%	1.0
NI	150	W_SCD-CE	(EF)	5%	1.6
			WX m/h total	8%	2.5
			Engineering M HTotal	100%	31.9
			Engineering Vehicle Total		5.1
	Capital m/h			**70.8**	
NI	150	_TCS-CE	labor (sup)	1%	0.7
NI	150	D_Crew	labor (crew)	100%	70.8
NI	201		Direct Material Cost	- - - -	$ 1,863.63
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 5,475.00
	O&M M/H			**0.0**	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			**0.0**	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 809 - Desouza Pri	Date	1/23/06

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 809 - Desouza Sec	Date:	9/22/05
Planner:	RY	Request Number:	H21681

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 397.11	
	Direct Labor Cost (NI-includes transportation)	$ 1,182.47	
	Direct Material Cost	$ 460.63	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ -	
	Total Capital	$ 2,040.21	$ 2,040.21
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 2,940.19	$ 2,940.19
		Sub Total	$ 4,980.40
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
		Total Project Cost	$ 4,980
	Less Total Customer Cost		$ 4,980
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 4,980
	State GET (4.167%)		$ 208
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 5,188
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$5,188**

	Man-hour	Crew-hour		
			10 % Payment	519
Capital	33.3		90 % Payment	$ 4,669
O & M	0.0			
Removal	0.0			
TOTAL	33.3	0.0		

Prepared By: [signature] Checked by: KRW 9-22-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 809 - Desouza Sec			Date:	9/22/05
	Planner:	RY			Request / Parent WO Number:	H21681
Qty.	SMU. No.	Description			Labor MH Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	0.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
370	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	6.290
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-2040	( ) #336.4 strd al wp	"		0.03	0.00
	2-4030-A	midspan (1 phase)	"		1.0	0.0
	2-4030-C	midspan (1 phase)	"		1.0	0.0
2	3-4100	3/8" DGS 34'	"		1.0	2.0
	3-4100	3/8" DGS 41'	"		1.0	0.0
	3-4100	3/8" DGS 47'	"		1.0	0.0
1	3-4100	3/8" SWGS 34'	"		2.0	2.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
			"			
1	5-1009-F1	*Straight & Angle*	"		1.0	1.0
	5-1009-F2	Sec. split	"		1.0	0.0
1	5-1009-F3	Single DE	"		1.0	1.0
	5-1009-F4	Line Guard	"		1.0	0.0
1	5-1009-F5	DDE	"		1.5	1.5
	5-1009-F6	Buck	"		1.0	0.0
			"			
1	5-3010	Mid Span 1-way	"		1.0	1.0
			"			
	7-2050-F1		"		1.0	0.0
	7-2050-F2		"		1.5	0.0
	7-2050-F2A	w/o CO	"		1.0	0.0
	7-2050-F3		"		2.0	0.0
1	10-2040	sec leads	"		4.0	4.0
			"			0.0
			"			0.0
		Switching	"			0.0
		Tailgate meeting	"			2.0
				$ 460.63		
CAPITAL:		Total Direct Material Cost		$ 460.63		
					Man-hour Sub Total	20.8
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	12.5
					Total Direct Capital Man-hours	33.3
O & M:					(Capital Man-hours)	0.0
					(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	0.0
					Total Direct O&M Man-hours	0.0
REMOVAL:					(Capital Man-hours)	0.0

			(Removal m/h = 50% of capital labor m/h)			0.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	0.0
			Total Direct Removal Man-hours			0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Outside Materials		$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Pre-Capitalized Materials		$	-
SALVAGEABLE MATERIALS						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Salvageable Materials		$	-

IND #	EE #	LABOR CLASS	Description	m/h	OH Secondary Line Extension
	Engr m/h (C&M m/h x 45%)			15.0	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	10.0
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	1.5
			WC m/h total	77%	11.5
NI	150	W_TT-CE	Transit Tech (JM)	5%	0.7
NI	150	W_RH-CE	Rodman Helper (AT)	5%	0.7
NI	150	W_PA-CE	Planner Aide (CN)	5%	0.7
			WS m/h total	15%	2.2
NI	150	W_ENG-CE	(MSY)	3%	0.4
NI	150	W_SCD-CE	(EF)	5%	0.7
			WX m/h total	8%	1.2
			Engineering M HTotal	100%	15.0
			Engineering Vehicle Total		1.9
	Capital m/h			33.3	
NI	150	_TCS-CE	labor (sup)	2%	0.7
NI	150	D_Crew	labor (crew)	100%	33.3
NI	201		Direct Material Cost	- - - -	$ 460.63
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ -
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 809 - Desouza Sec	Date	9/22/05

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 809 - Desouza Pri	Date:	9/22/05
Planner:	RY	Request Number:	H21681

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 421.16	
	Direct Labor Cost (NI-includes transportation)	$ 1,205.37	
	Direct Material Cost	$ 1,089.26	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 5,475.00	
	Total Capital	$ 8,190.79	$ 8,190.79
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 3,124.23	$ 3,124.23
	Sub Total		$ 11,315.02
	Plus HELCO JP Shares (Verizon installed)		$ 1,819.52
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 13,135
	Less Total Customer Cost		$ 13,135
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ 955
	Customer Line Extension Cost		$ 12,180
	State GET (4.167%)		$ 508
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 12,687
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$12,687**

	Man-hour	Crew-hour		
			10 % Payment	1,269
Capital	34.3		90 % Payment	$ 11,419
O & M	0.0			
Removal	0.0			
TOTAL	34.3	0.0		

Prepared By: [illegible] Checked by: KRW 9-22-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project:	SSPP 809 - Desouza Pri			Date:	9/22/05
Planner:	RY		Request / Parent WO Number:		H21681

Qty.	SMU. No.	Description		Labor M/H Unit	Labor M/H Total
37	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)	0.08	2.96
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)		0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC		0.017	0.000
	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"	0.017	0.000
	1-2040	(7978) #4/3 al tpx (ft)	"	0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"	0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"	0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"	0.017	0.000
	1-2040	( ) #336.4 strd al wp	"	0.03	0.00
	2-4030-A	midspan (1 phase)	"	1.0	0.0
1	2-4030-C	midspan (1 phase)	"	1.0	1.0
	3-4100	3/8" DGS 34'	"	1.0	0.0
3	3-4100	3/8" DGS 41'	"	1.0	3.0
	3-4100	3/8" DGS 47'	"	1.0	0.0
	3-4100	3/8" SWGS 34'	"	2.0	0.0
	3-4100	3/8" SWGS 41'	"	2.0	0.0
	3-4100	3/8" HGS (')	"	1.5	0.0
	3-4100	1/2" DGS 34'	"	1.0	0.0
	3-4100	1/2" DGS 41'	"	1.0	0.0
	3-4100	1/2" DGS 47'	"	1.0	0.0
	3-4100	1/2" SWGS 34'	"	2.0	0.0
	3-4100	1/2" SWGS 41'	"	2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
3	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
			"		
	7-2050-F1		"	1.0	0.0
1	7-2050-F2		"	1.5	1.5
	7-2050-F2A	w/o CO	"	1.0	0.0
	7-2050-F3		"	2.0	0.0
	7-2050-F3A	Transf & Buck	"	2.0	0.0
	7-2050-F4	Angle w/o CO	"	1.0	0.0
	7-2050-F5		"	1.5	0.0
	7-2050-F5A	w/o CO	"	1.0	0.0
	7-2050-F6		"	2.0	0.0
	7-2050-F7		"	2.0	0.0
	7-2050-F7A	Sgl DE	"	1.5	0.0
	7-2050-F7B	S.D.E Jumper	"	2.0	0.0
1	7-2050-F8		"	2.0	2.0
	7-2050-F8A	w/o CO	"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"	1.0	0.0
	7-2050-F9		"	2.0	0.0
1	7-2050-F10	w/LA	"	2.0	2.0
	7-2050-F10A	w/o CO	"	1.5	0.0
	10-2100	1 PH 10-50 KVA	"	4.0	4.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----

	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	12-1020-F1	Neutral grounding	"	1.0	0.0
3	12-1020-F2	Primary grounding	"	1.0	3.0
	12-5201	Object Marker	"	0.5	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		2.0
			$ 1,089.26		
CAPITAL:		**Total Direct Material Cost**	$ 1,089.26		
				Man-hour Sub Total	21.5
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	12.9
				Total Direct Capital Man-hours	34.3
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct O&M Man-hours	0.0
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct Removal Man-hours	0.0

OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)

Qty	Description	Unit	Unit Total	
		$ -	$ -	
		$ -	$ -	
		Total Outside Materials		$ -

PRE-CAPITALIZED MATERIALS (padmt. transformer)

Qty	Description	Unit	Unit Total	
		$ -	$ -	
		$ -	$ -	
		Total Pre-Capitalized Materials		$ -

SALVAGEABLE MATERIALS

Qty	Description	Unit	Unit Total	
		$ -	$ -	
		$ -	$ -	
		Total Salvageable Materials		$ -

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 809 - Desouza Pri				Date:	9/22/05
	Planner:	RY			Request/Parent WO Number:		H21681

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
1	5.5	8	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 825.00		
		8	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		8	Dig Pole Hole (+1' for pole base)	$ -	$ -		
3	8	8	Dig and Set Anchor	$ 150.00	$ 3,600.00		
	- - - -	8	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	8	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	8	AC Repair	$ 150.00	$ -		
3	- - - -	9	Ground Rod Installation (2 per)	$ 350.00	$ 1,050.00		
	- - - -	8	Pole Base	$ 125.00	$ -		
	- - - -	8	Traffic Control	$ 15.25	$ -		
	- - - -	8	Tree Trimming	$ -	$ -		
	- - - -	8	Helicopter	$ 1,750.00	$ -		
	- - - -	8		$ -	$ -		
				Total	$ 5,475.00		$ 5,475.00

2-way **Verizon** JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
1	30/35	0	40' Pole	$ 954.82	$ 954.82		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 954.82		$ 954.82

2-way **HELCO** JP Shares (Verizon installed)

QTY		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
2	30/35	0	40' Pole	$ 909.76	$ 1,819.52		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ 500.00	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ 1,819.52		$ 1,819.52

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			15.5	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	10.4
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	1.5
			WC m/h total	77%	11.9
NI	150	W_TT-CE	Transit Tech (JM)	5%	0.8
NI	150	W_RH-CE	Rodman Helper (AT)	5%	0.8
NI	150	W_PA-CE	Planner Aide (CN)	5%	0.8
			WS m/h total	15%	2.3
NI	150	W_ENG-CE	(MSY)	3%	0.5
NI	150	W_SCD-CE	(EF)	5%	0.8
			WX m/h total	8%	1.2
			Engineering M HTotal	100%	15.5
			Engineering Vehicle Total		2.5
	Capital m/h			34.3	
NI	150	_TCS-CE	labor (sup)	1%	0.3
NI	150	D_Crew	labor (crew)	100%	34.3
NI	201		Direct Material Cost	- - - -	$ 1,089.26
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 5,475.00
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 809 - Desouza Pri	Date	9/22/05

H0001424 SSPP 848 - Atkinson

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: SSPP 848 - Atkinson

Plant Addition Date: 2006-05

Project Number: RYAMAT07
(Temporary)

Commitment Date: 2006-02

Primary Corporate Goal: Cap Exp

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

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$15	$0	$0	$0	$0	$0	$15

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to fulfill a request made by Robert Atkinson to install an 1-ph, 7.2kv primary overhead distribution system. Req no. H0024092.

Scope Description:

Install two (2) 40 ft poles, one (1) anchor and #1/0 aac pri and aerial cable along Ehiku Ave, Milolii.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project Identified below has not been established in MIMS

Resource Needs:

HWK, HDK, HWX, & HWS

Justification:

To provide a 1-ph, 7.2kv primary overhead distribution system to serve Robert Atkinson located on Ehiku Ave, Milolii, S. Kona.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Robert Atkinson made payment towards his share for a 1-ph, 7.2kv oh line extension known as SSPP 848.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance $19,126.00 Total Unit Cost $19,126. Share per lot $1,417.00

GET Included $0.00

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Ricky Yamato **Phone/Ext #:** 511

Originator's Name: Ricky Yamato

Responsible Estimator: Ricky Yamato KRW 1-13-06 **Resp. Estimator Dept:** Engineering
(Pillar UserID) (Pillar Department Folder)

Project Manager: Ricky Yamato

Date: 01/13/2006

Required Approvals to Initialize a Project:

1/20/06
Responsible Manager **Date**

28 JAN 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

1/20/06
Responsible Manager **Date**

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

1/26/06
HELCO Accounting Manager **Date**

28 Jan 2006
HELCO President **Date**

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 848 Atkinson	Date:	1/13/05
Planner:	R. Yamato	Request Number:	H24092

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 798.94	
	Direct Labor Cost (NI-includes transportation)	$ 2,319.01	
	Direct Material Cost	$ 1,242.53	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 3,550.00	
	Total Capital	$ 7,910.48	$ 7,910.48
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 6,217.08	$ 6,217.08
		Sub Total	$ 14,127.56
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
		Total Project Cost	$ 14,128
	Less Total Customer Cost		$ 14,128
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 14,128
		State GET (0%)	$ -
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 14,128
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (Includes State GET)	(25200000 / 25201000 / 25202000)		**$14,128**

	Man-hour	Crew-hour		
			10 % Payment	1,413
Capital	64.4		90 % Payment	$ 12,715
O & M	0.0			
Removal	0.0			
TOTAL	64.4	0.0		

Prepared By: Ray U Yamato Checked by: KRW 1-13-06

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project:	SSPP 848 Atkinson			Date:	1/13/05
Planner:	R. Yamato		Request / Parent WO Number:		H24092

Qty.	SMU. No.	Description		Labor M/H Unit	Labor M/H Total
49	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)	0.08	3.92
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)		0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC		0.017	0.000
490	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"	0.017	8.330
	1-2040	(7978) #4/3 al tpx (ft)	"	0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	0.0
2	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	8.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"	4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"	4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"	4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"	4.0	0.0
1	3-4100	3/8" DGS 34'	"	1.0	1.0
1	3-4100	3/8" DGS 41'	"	1.0	1.0
	3-4100	3/8" DGS 47'	"	1.0	0.0
	3-4100	3/8" SWGS 34'	"	2.0	0.0
	3-4100	3/8" SWGS 41'	"	2.0	0.0
	3-4100	3/8" HGS (')	"	1.5	0.0
	3-4100	1/2" DGS 34'	"	1.0	0.0
	3-4100	1/2" DGS 41'	"	1.0	0.0
	3-4100	1/2" DGS 47'	"	1.0	0
	3-4100	1/2" SWGS 34'	"	2.0	0.0
	3-4100	1/2" SWGS 41'	"	2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
1	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
			"		
	3-4150-A1	3/4" galv anchor (8')	"	0.0	0.0
	3-4150-A2	1" galv anchor (8')	"	0.0	0.0
	3-4150-A3	1-1/4" galv anchor (10')	"	0.0	0.0
1	5-1009-F1	Straight & Angle	"	1.0	1.0
	5-1009-F2	Sec. split	"	1.0	0.0
2	5-1009-F3	Single DE	"	1.0	2.0
	5-1009-F4	Line Guard	"	1.0	0.0
	5-1009-F5	DDE	"	1.5	0.0
	5-1009-F6	Buck	"	1.0	0.0
			"		
	7-2050-F1		"	1.0	0.0
1	7-2050-F2		"	1.5	1.5
	7-2050-F2A	w/o CO	"	1.0	0.0
	7-2050-F3		"	2.0	0.0
	7-2050-F3A	Transf & Buck	"	2.0	0.0
	7-2050-F4	Angle w/o CO	"	1.0	0.0
	7-2050-F5		"	1.5	0.0
	7-2050-F5A	w/o CO	"	1.0	0
	7-2050-F6		"	2.0	0.
	7-2050-F7		"	2.0	0.0
	7-2050-F7A	Sgl DE	"	1.5	0.0

1	7-2050-F7B	S.D.E Jumper	"	2.0	2.0
	7-2050-F8		"	2.0	0.0
	7-2050-F8A	w/o CO	"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"	1.0	0.0
	7-2050-F9		"	2.0	0.0
	7-2050-F10	w/LA	"	2.0	0.0
1	7-2050-F10A	w/o CO	"	1.5	1.5
1	10-2100	1 PH 10-50 KVA	"	8.0	8.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
2	12-1020-F2	Primary grounding	"	1.0	2.0
	12-5201	Object Marker	"	0.5	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0.0
			$ 1,242.53		
PITAL:		Total Direct Material Cost	$ 1,242.53		
				Man-hour Sub Total	40.3
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	24.2
				Total Direct Capital Man-hours	64.4
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct O&M Man-hours	0.0
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct Removal Man-hours	0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Outside Materials	$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Pre-Capitalized Materials	$	-
SALVAGEABLE MATERIALS					
Qty		Description	Unit	Unit Total	

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 848 Atkinson				Date:	1/13/05
	Planner:	R. Yamato			Request/Parent WO Number:		H24092
OUTSIDE SERVICES							
Qty	Depth ea.	Zone	Description	Unit	Unit Total		
2	5.5	8	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 1,650.00		
		8	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		8	Dig Pole Hole (+1' for pole base)	$ -	$ -		
1	8	8	Dig and Set Anchor	$ 150.00	$ 1,200.00		
	- - - -	8	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	8	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	8	AC Repair	$ 150.00	$ -		
2	- - - -	8	Ground Rod Installation (2 per)	$ 350.00	$ 700.00		
	- - - -	8	Pole Base	$ 125.00	$ -		
	- - - -	8	Traffic Control	$ 15.25	$ -		
	- - - -	8	Tree Trimming	$ -	$ -		
	- - - -	8	Helicopter	$ 1,750.00	$ -		
	- - - -	8		$ -	$ -		
				Total	$ 3,550.00		$ 3,550.00
2-way **Verizon** JP SHARES (HELCO installed):							
Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ -	$ -		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ -		$ -
Transfer Charge:		per JP #	25889				$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			29.0	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	19.4
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	2.9
			WC m/h total	77%	22.3
NI	150	W_TT-CE	Transit Tech (JM)	5%	1.4
NI	150	W_RH-CE	Rodman Helper (AT)	5%	1.4
NI	150	W_PA-CE	Planner Aide (CN)	5%	1.4
			WS m/h total	15%	4.3
NI	150	W_ENG-CE	(MSY)	3%	0.9
NI	150	W_SCD-CE	(EF)	5%	1.4
			WX m/h total	8%	2.3
			Engineering M HTotal	100%	29.0
			Engineering Vehicle Total		4.6
	Capital m/h			64.4	
NI	150	_TCS-CE	labor (sup)	1%	0.6
NI	150	D_Crew	labor (crew)	100%	64.4
NI	201		Direct Material Cost	- - - -	$ 1,242.53
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 3,550.00
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 848 Atkinson	Date	1/13/05

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 848 Atkinson - Pri	Date:	3/17/05
Planner:	R. Yamato	Request Number:	H24092

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 468.82	
	Direct Labor Cost (NI-includes transportation)	$ 1,347.88	
	Direct Material Cost	$ 1,242.53	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 3,550.00	
	Total Capital	$ 6,609.23	$ 6,609.23
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 3,486.77	$ 3,486.77
	Sub Total		$ 10,096.00
	Plus **HELCO** JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 10,096
	Less Total Customer Cost		$ 10,096
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 10,096
	State GET (4.167%)		$ 421
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 10,517
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$10,517**

	Man-hour	Crew-hour		
			10 % Payment	1,052
Capital	38.3		90 % Payment	$ 9,465
O & M	0.0			
Removal	0.0			
TOTAL	38.3	0.0		

Prepared By: Ray Y Yamato Checked by: KRW 3-18-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 848 Atkinson - Pri			Date:	3/17/05
	Planner:	R. Yamato		Request / Parent WO Number:		H24092
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
49	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	3.92
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	0.000
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
2	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	8.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	3-4100	3/8" DGS 34'	"		1.0	0.0
1	3-4100	3/8" DGS 41'	"		1.0	1.0
	3-4100	3/8" DGS 47'	"		1.0	0.0
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
	3-4100	3/8" HGS (')	"		1.5	0.0
	3-4100	1/2" DGS 34'	"		1.0	0.0
	3-4100	1/2" DGS 41'	"		1.0	0.0
	3-4100	1/2" DGS 47'	"		1.0	0.0
	3-4100	1/2" SWGS 34'	"		2.0	0.0
	3-4100	1/2" SWGS 41'	"		2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
1	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
			"			
	7-2050-F1		"		1.0	0.0
1	7-2050-F2		"		1.5	1.5
	7-2050-F2A	w/o CO	"		1.0	0.0
	7-2050-F3		"		2.0	0.0
	7-2050-F3A	Transf & Buck	"		2.0	0.0
	7-2050-F4	Angle w/o CO	"		1.0	0.0
	7-2050-F5		"		1.5	0.0
	7-2050-F5A	w/o CO	"		1.0	0.0
	7-2050-F6		"		2.0	0.0
	7-2050-F7		"		2.0	0.0
	7-2050-F7A	Sgl DE	"		1.5	0.0
1	7-2050-F7B	S.D.E Jumper	"		2.0	2.0
	7-2050-F8		"		2.0	0.0
	7-2050-F8A	w/o CO	"		2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"		1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"		1.0	0.0
	7-2050-F9		"		2.0	0.0
	7-2050-F10	w/LA	"		2.0	0.0
1	7-2050-F10A	w/o CO	"		1.5	1.5
1	10-2100	1 PH 10-50 KVA	"		4.0	4.0

	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
2	12-1020-F2	Primary grounding	"	1.0	2.0
	12-5201	Object Marker	"	0.5	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0.0
			$ 1,242.53		
CAPITAL:		Total Direct Material Cost	$ 1,242.53		
				Man-hour Sub Total	23.9
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	14.4
				Total Direct Capital Man-hours	38.3
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct O&M Man-hours	0.0
EMOVAL:				(Capital Man-hours)	
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct Removal Man-hours	0.0

OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)

Qty	Description	Unit	Unit Total
		$ -	$ -
		$ -	$ -
		Total Outside Materials	$ -

PRE-CAPITALIZED MATERIALS (padmt. transformer)

Qty	Description	Unit	Unit Total
		$ -	$ -
		$ -	$ -
		Total Pre-Capitalized Materials	$ -

SALVAGEABLE MATERIALS

Qty	Description	Unit	Unit Total
		$ -	$ -
		$ -	$ -
		Total Salvageable Materials	$ -

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 848 Atkinson - Pri				Date:	3/17/05
	Planner:	R. Yamato			Request/Parent WO Number:		H24092

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
2	5.5	8	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 1,650.00		
		8	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		8	Dig Pole Hole (+1' for pole base)	$ -	$ -		
1	8	8	Dig and Set Anchor	$ 150.00	$ 1,200.00		
	- - - -	8	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	8	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	8	AC Repair	$ 150.00	$ -		
2	- - - -	8	Ground Rod Installation (2 per)	$ 350.00	$ 700.00		
	- - - -	8	Pole Base	$ 125.00	$ -		
	- - - -	8	Traffic Control	$ 15.25	$ -		
	- - - -	8	Tree Trimming	$ -	$ -		
	- - - -	8	Helicopter	$ 1,750.00	$ -		
	- - - -	8		$ -	$ -		
				Total	$ 3,550.00		$ 3,550.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ -	$ -		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ -		$ -

Transfer Charge:	per JP #	25889		$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			17.2	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	11.5
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	1.7
			WC m/h total	77%	13.3
NI	150	W_TT-CE	Transit Tech (JM)	5%	0.9
NI	150	W_RH-CE	Rodman Helper (AT)	5%	0.9
NI	150	W_PA-CE	Planner Aide (CN)	5%	0.9
			WS m/h total	15%	2.6
NI	150	W_ENG-CE	(MSY)	3%	0.5
NI	150	W_SCD-CE	(EF)	5%	0.9
			WX m/h total	8%	1.4
			Engineering M HTotal	100%	17.2
			Engineering Vehicle Total		2.8
	Capital m/h			38.3	
NI	150	_TCS-CE	labor (sup)	1%	0.4
NI	150	D_Crew	labor (crew)	100%	38.3
NI	201		Direct Material Cost	- - - -	$ 1,242.53
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 3,550.00
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 848 Atkinson - Pri	Date	3/17/05

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 848 Atkinson - Sec	Date:	3/17/05
Planner:	R. Yamato	Request Number:	H24092

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 321.94	
	Direct Labor Cost (NI-includes transportation)	$ 925.34	
	Direct Material Cost	$ 507.68	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ -	
	Total Capital	$ 1,754.96	$ 1,754.96
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 2,350.12	$ 2,350.12
	Sub Total		$ 4,105.08
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 4,105
	Less Total Customer Cost		$ 4,105
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 4,105
	State GET (4.167%)		$ 171
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 4,276
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$4,276**

	Man-hour	Crew-hour		
			10 % Payment	428
Capital	26.1		90 % Payment	$ 3,849
O & M	0.0			
Removal	0.0			
TOTAL	26.1	0.0		

Prepared By: [illegible] Checked by: KRW 3-18-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project:	SSPP 848 Atkinson - Sec			Date:	3/17/05
Planner:	R. Yamato		Request / Parent WO Number:		H24092

Qty.	SMU. No.	Description		Labor/MH Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)	0.08	0.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)		0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC		0.017	0.000
490	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"	0.017	8.330
	1-2040	(7978) #4/3 al tpx (ft)	"	0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	0.0
	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	0.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"	4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"	4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"	4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"	4.0	0.0
1	3-4100	3/8" DGS 34'	"	1.0	1.0
	3-4100	3/8" DGS 41'	"	1.0	0.0
	3-4100	3/8" DGS 47'	"	1.0	0.0
	3-4100	3/8" SWGS 34'	"	2.0	0.0
	3-4100	3/8" SWGS 41'	"	2.0	0.0
	3-4100	3/8" HGS (')	"	1.5	0.0
	3-4100	1/2" DGS 34'	"	1.0	0.0
	3-4100	1/2" DGS 41'	"	1.0	
	3-4100	1/2" DGS 47'	"	1.0	
	3-4100	1/2" SWGS 34'	"	2.0	0.0
	3-4100	1/2" SWGS 41'	"	2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"	0.0	0.0
	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"	0.0	0.0
			"		
1	5-1009-F1	Straight & Angle	"	1.0	1.0
	5-1009-F2	Sec. split	"	1.0	0.0
2	5-1009-F3	Single DE	"	1.0	2.0
	5-1009-F4	Line Guard	"	1.0	0.0
	5-1009-F5	DDE	"	1.5	0.0
	5-1009-F6	Buck	"	1.0	0.0
			"		
	5-3010	Mid Span 1-way	"	1.0	0.0
			"		
1	10-2100	1 PH 10-50 KVA	"	4.0	4.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0

	12-1020-F1	Neutral grounding		"	1.0	0.0
	12-1020-F2	Primary grounding		"	1.0	0.0
	12-5201	Object Marker		"	0.5	0.0
				"		0.0
				"		0.0
		Switching		"		0.0
		Tailgate meeting		"		0.0
				$ 507.68		
CAPITAL:		**Total Direct Material Cost**		$ 507.68		
				Man-hour Sub Total		16.3
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	9.8
			Total Direct Capital Man-hours			26.1
O & M:				(Capital Man-hours)		0.0
			(O & M m/h = 30% of capital labor m/h)			0.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	0.0
			Total Direct O&M Man-hours			0.0
REMOVAL:				(Capital Man-hours)		0.0
			(Removal m/h = 50% of capital labor m/h)			0.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	0.0
			Total Direct Removal Man-hours			0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Outside Materials		$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Pre-Capitalized Materials		$	-
SALVAGEABLE MATERIALS						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Salvageable Materials		$	-

IND #	EE #	LABOR CLASS	Description	m/h	OH Secondary Line Extension
	Engr m/h (C&M m/h x 45%)			11.8	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	7.9
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	1.2
			WC m/h total	77%	9.1
NI	150	W_TT-CE	Transit Tech (JM)	5%	0.6
NI	150	W_RH-CE	Rodman Helper (AT)	5%	0.6
NI	150	W_PA-CE	Planner Aide (CN)	5%	0.6
			WS m/h total	15%	1.8
NI	150	W_ENG-CE	(MSY)	3%	0.4
NI	150	W_SCD-CE	(EF)	5%	0.6
			WX m/h total	8%	0.9
			Engineering M HTotal	100%	11.8
			Engineering Vehicle Total		1.5
	Capital m/h			26.1	
NI	150	_TCS-CE	labor (sup)	2%	0.5
NI	150	D_Crew	labor (crew)	100%	26.1
NI	201		Direct Material Cost	- - - -	$ 507.68
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ -
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 848 Atkinson - Sec	Date	3/17/05

H0001425 SSPP 868 - Berkich

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project Identified below has not been established in MIMS

Project Title: SSPP 868 - Berkich

Project Number: RYAMAT08
(Temporary)

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

Plant Addition Date: 2006-05

Commitment Date: 2006-02

Primary Corporate Goal: Cap Exp

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$20	$0	$0	$0	$0	$0	$20

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to fulfill a request made by Mark Berkich to install an 1-ph, 7.2kv primary overhead line extension Req no. H0025277.

Scope Description:

Install three (3) 40 ft poles, one (1) anchors and #1/0 aac pri and aerial cable along Cocoanut Dr, HOVE, Kau

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project Identified below has not been established in MIMS

Resource Needs:

HWK, HDK, HWX, & HWS

Justification:

To provide a 1-ph, 7.2kv primary overhead line extension to serve Mark Berkich located on Cocoanut Dr, HOVE, Kau

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Mark Berkich made payment towards his share for a 1-ph, 7.2kv oh line extension known as SSPP 868.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance	$20,406.00	Total Unit Cost $20,406.00. Share per lot $6,803.00
GET Included	$0.00	

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: [signature] **Phone/Ext #:** 511

Originator's Name: Ricky Yamato

Responsible Estimator: Ricky Yamato KRW 1-13-06
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Ricky Yamato

Date: 01/13/2006

Required Approvals to Initialize a Project:

[signature] 1/20/06
Responsible Manager **Date**

[signature] 28 JAN 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

[signature] 1/20/06
Responsible Manager **Date**

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

[signature] 1/26/06
HELCO Accounting Manager **Date**

[signature] 28 JAN 2006
HELCO President **Date**

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 868 - Berkich	Date:	1/13/05
Planner:	R. Yamato	Request Number:	H25277

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 1,014.78	
	Direct Labor Cost (NI-includes transportation)	$ 2,853.88	
	Direct Material Cost	$ 2,175.31	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 5,925.00	
	Total Capital	$ 11,968.97	$ 11,968.97
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 7,858.50	$ 7,858.50
	Sub Total		$ 19,827.47
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 19,827
	Less Total Customer Cost		$ 19,827
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 19,827
	State GET (0%)		$ -
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 19,827
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$19,827**

	Man-hour	Crew-hour		
			10 % Payment	1,983
Capital	79.2		90 % Payment	$ 17,845
O & M	0.0			
Removal	0.0			
TOTAL	79.2	0.0		

Prepared By: Roy U. Yamato Checked by: KRW 1-13-06

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 868 - Berkich			Date:	1/13/05
	Planner:	R. Yamato		Request / Parent WO Number:		H25277
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
48	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	3.84
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
480	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	8.160
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
3	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	12.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	2-4030-A	midspan (1 phase)	"		1.0	0.0
1	2-4030-C	midspan (1 phase)	"		1.0	1.0
2	3-4100	3/8" DGS 34'	"		1.0	2.0
[illegible]	3-4100	3/8" DGS 41'	"		1.0	2.
	3-4100	3/8" DGS 47'	"		1.0	0.0
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
2	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
			"			
	3-4150-A1	3/4" galv anchor (8')	"		0.0	0.0
	3-4150-A2	1" galv anchor (8')	"		0.0	0.0
	3-4150-A3	1-1/4" galv anchor (10')	"		0.0	0.0
1	5-1009-F1	Straight & Angle	"		1.0	1.0
	5-1009-F2	Sec. split	"		1.0	0.0
1	5-1009-F3	Single DE	"		1.0	1.0
	5-1009-F4	Line Guard	"		1.0	0.0
1	5-1009-F5	DDE	"		1.5	1.5
	5-1009-F6	Buck	"		1.0	0.0
			"			
1	5-3010	Mid Span 1-way	"		1.0	1.0
			"			
	7-2050-F1		"		1.0	0.0
1	7-2050-F2		"		1.5	1.5
	7-2050-F2A	w/o CO	"		1.0	0.0
	7-2050-F3		"		2.0	0.
	7-2050-F3A	Transf & Buck	"		2.0	0.0
	7-2050-F4	Angle w/o CO	"		1.0	0.0
	7-2050-F5		"		1.5	0.0

	7-2050-F5A	w/o CO	"	1.0	0.0
	7-2050-F6		"	2.0	0.0
	7-2050-F7		"	2.0	0.0
	7-2050-F7A	Sgl DE	"	1.5	0.0
	7-2050-F7B	S.D.E Jumper	"	2.0	0.0
1	7-2050-F8		"	2.0	2.0
	7-2050-F8A	w/o CO	"	2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"	1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"	1.0	0.0
	7-2050-F9		"	2.0	0.0
	7-2050-F10	w/LA	"	2.0	0.0
1	7-2050-F10A	w/o CO	"	1.5	1.5
1	10-2100	1 PH 10-50 KVA	"	8.0	8.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
	10-2121	3 PH tsf bank (1200#)	"	12.0	0.0
	12-1020-F1	Neutral grounding	"	1.0	0.0
3	12-1020-F2	Primary grounding	"	1.0	3.0
	12-5201	Object Marker	"	0.1	0.0
			"		0.0
			"		0.0
		Switching	"		0.0
		Tailgate meeting	"		0.0
			$ 2,175.31		
CAPITAL:		**Total Direct Material Cost**	$ 2,175.31		
				Man-hour Sub Total	49.5
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	29.7
			Total Direct Capital Man-hours		79.2
O & M:				(Capital Man-hours)	0.0
				(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
			Total Direct O&M Man-hours		0.0
REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
			Total Direct Removal Man-hours		0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
			Total Outside Materials	$	-
E-CAPITALIZED MATERIALS (padmt. transformer)					
y		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 868 - Berkich				Date:	1/13/05
	Planner:	R. Yamato			Request/Parent WO Number:		H25277

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total
3	5.5	9	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 2,475.00
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -
2	8	9	Dig and Set Anchor	$ 150.00	$ 2,400.00
	- - - -	9	Sidewalk Repair < 4 blocks	$ 280.00	$ -
	- - - -	9	Sidewalk Repair 4 or > blocks	$ 260.00	$ -
	- - - -	9	AC Repair	$ 150.00	$ -
3		9	Ground Rod Installation (2 per)	$ 350.00	$ 1,050.00
	- - - -	9	Pole Base	$ 125.00	$ -
	- - - -	9	Traffic Control	$ 15.25	$ -
	- - - -	9	Tree Trimming	$ -	$ -
	- - - -	9	Helicopter	$ 1,750.00	$ -
	- - - -	9		$ -	$ -
				Total	$ 5,925.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total
	25/25		30' Pole	$ -	$ -
	30/30	0	35' Pole	$ -	$ -
	30/35	0	40' Pole	$ 890.85	$ -
	30/35	0	45' Pole	$ -	$ -
	50/50	0	Anchor Installation	$ -	$ -
	50/50	0	Termi-Mesh	$ -	$ -
	50/50	0	Pole Base	$ -	$ -
	50/50	0	Traffic Control	$ -	$ -
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -
	50/50	0	AC Repair	$ -	$ -
	50/50	0	Tree Trimming	$ -	$ -
	50/50	0	Pole Removal	$ -	$ -
				Total	$ -

Transfer Charge:	per JP #	26141	$ -

IND #	EE #	LABOR CLASS	Description	m/h	OH Primary Line Extension
	Engr m/h (C&M m/h x 45%)			35.6	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's		0.0
NI	150	W_CP-CE	12's	67%	23.9
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	10%	3.6
			WC m/h total	77%	27.4
NI	150	_TCS-CE	Supervisor	2%	0.7
NI	150	W_TT-CE	Transit Tech (JM)	5%	1.8
NI	150	W_RH-CE	Rodman Helper (AT)	5%	1.8
NI	150	_I-CE	Land Surveyor	5%	1.8
			WS m/h total	17%	6.1
NI	150	W_ENG-CE	(MSY)	3%	1.1
NI	150	W_SCD-CE	(EF)	5%	1.8
			WX m/h total	8%	2.9
			Engineering M HTotal	102%	36.4
			Engineering Vehicle Total		5.7
	Capital m/h			79.2	
NI	150	_TCS-CE	labor (sup)	1%	0.8
NI	150	D_Crew	labor (crew)	100%	79.2
NI	201		Direct Material Cost	- - - -	$ 2,175.31
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	505		Direct Outside Services	- - - -	$ 5,925.00
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
		Project:	SSPP 868 - Berkich	Date	1/13/05

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 868 - Berkich Sec	Date:	6/13/05
Planner:	R. Yamato	Request Number:	H25277

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 363.78	
	Direct Labor Cost (NI-includes transportation)	$ 1,060.88	
	Direct Material Cost	$ 511.04	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ -	
	Total Capital	$ 1,935.70	$ 1,935.70
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 2,674.11	$ 2,674.11
	Sub Total		$ 4,609.81
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 4,610
	Less Total Customer Cost		$ 4,610
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 4,610
	State GET (4.166%)		$ 192
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 4,802
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$4,802**

	Man-hour	Crew-hour		
			10 % Payment	480
Capital	29.9		90 % Payment	$ 4,322
O & M	0.0			
Removal	0.0			
TOTAL	29.9	0.0		

Prepared By: R. H. Yamato Checked by: KRW 6-14-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 868 - Berkich Sec			Date:	6/13/05
	Planner:	R. Yamato			Request / Parent WO Number:	H25277
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	0.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
480	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	8.160
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	0.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	2-4030-A	midspan (1 phase)	"		1.0	0.0
	2-4030-C	midspan (1 phase)	"		1.0	0.0
2	3-4100	3/8" DGS 34'	"		1.0	2.0
	3-4100	3/8" DGS 41'	"		1.0	0.0
	3-4100	3/8" DGS 47'	"		1.0	0.0
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4100	3/8" SWGS 41'	"		2.0	0.0
1	5-1009-F1	Straight & Angle	"		1.0	1.0
	5-1009-F2	Sec. split	"		1.0	0.0
1	5-1009-F3	Single DE	"		1.0	1.0
	5-1009-F4	Line Guard	"		1.0	0.0
1	5-1009-F5	DDE	"		1.5	1.5
	5-1009-F6	Buck	"		1.0	0.0
			"			
1	5-3010	Mid Span 1-way	"		1.0	1.0
			"			
1	10-2100	1 PH 10-50 KVA	"		4.0	4.0
	10-2040	Sec leads 10-25 KVA	"		----	----
	10-2040	Sec leads 37.5-50 KVA	"		----	----
	10-2050	13.8 KV prim leads	"		----	----
	10-2060	7.2 KV prim leads	"		----	----
	10-2121	3 PH tsf bank (1200#)	"		12.0	0.0
	12-1020-F1	Neutral grounding	"		1.0	0.0
	12-1020-F2	Primary grounding	"		1.0	0.0
	12-5201	Object Marker	"		0.1	0.0
			"			0.0
			"			0.0
		Switching	"			0.0
		Tailgate meeting	"			0.0

				$ 511.04		
CAPITAL:			Total Direct Material Cost	$ 511.04		
					Man-hour Sub Total	18.7
			Non-productive hours per 8 hour shift @ 4 men crew		3.0	1
				Total Direct Capital Man-hours		26.[illegible]
O & M:				(Capital Man-hours)		0.0
				(O & M m/h = 30% of capital labor m/h)		0.0
			Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct O&M Man-hours		0.0
REMOVAL:				(Capital Man-hours)		0.0
				(Removal m/h = 50% of capital labor m/h)		0.0
			Non-productive hours per 8 hour shift @ 4 men crew		3.0	0.0
				Total Direct Removal Man-hours		0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Outside Materials	$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Pre-Capitalized Materials	$	-
SALVAGEABLE MATERIALS						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Salvageable Materials	$	-

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP 868 - Berkich Pri	Date:	6/13/05
Planner:	R. Yamato	Request Number:	H25277

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 609.59	
	Direct Labor Cost (NI-includes transportation)	$ 1,734.56	
	Direct Material Cost	$ 1,882.36	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 5,925.00	
	Total Capital	$ 10,151.51	$ 10,151.51
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 4,550.30	$ 4,550.30
		Sub Total	$ 14,701.81
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
		Total Project Cost	$ 14,702
	Less Total Customer Cost		$ 14,702
	HELCO Betterment	$ -	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 14,702
	State GET (4.166%)		$ 612
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 15,314
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$15,314**

	Man-hour	Crew-hour		
			10 % Payment	1,531
Capital	49.3		90 % Payment	$ 13,783
O & M	0.0			
Removal	0.0			
TOTAL	49.3	0.0		

Prepared By: [signature] Checked by: KRW 6-14-05

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP 868 - Berkich Pri			Date:	6/13/05
	Planner:	R. Yamato			Request / Parent WO Number:	H25277
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
48	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	3.84
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC			0.017	0.000
	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	0.000
	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	0.000
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7986) #4/0 al tpx (ft)	"		0.017	0.000
	1-2040	(7988) #1/0 Quad (ft)	"		0.017	0.000
	1-2040	(7989) #4/0 Quad (ft)	"		0.017	0.000
	1-5000	(11) 30FT POLE CL 5 (5.0')	"		4.0	0.0
	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	0.0
3	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	12.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
	1-5000	(64) 55FT POLE CL 3 (7.0')	"		4.0	0.0
	1-5000	(74) 60FT POLE CL 1 (7.0')	"		4.0	0.0
	2-4030-A	midspan (1 phase)	"		1.0	0.0
1	2-4030-C	midspan (1 phase)	"		1.0	1.0
	3-4100	3/8" DGS 34'	"		1.0	0.0
2	3-4100	3/8" DGS 41'	"		1.0	2.0
	3-4100	3/8" DGS 47'	"		1.0	0
	3-4100	3/8" SWGS 34'	"		2.0	0.
	3-4100	3/8" SWGS 41'	"		2.0	0.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
2	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
			"			
	7-2050-F1		"		1.0	0.0
1	7-2050-F2		"		1.5	1.5
	7-2050-F2A	w/o CO	"		1.0	0.0
	7-2050-F3		"		2.0	0.0
	7-2050-F3A	Transf & Buck	"		2.0	0.0
	7-2050-F4	Angle w/o CO	"		1.0	0.0
	7-2050-F5		"		1.5	0.0
	7-2050-F5A	w/o CO	"		1.0	0.0
	7-2050-F6		"		2.0	0.0
	7-2050-F7		"		2.0	0.0
	7-2050-F7A	Sgl DE	"		1.5	0.0
	7-2050-F7B	S.D.E Jumper	"		2.0	0.0
1	7-2050-F8		"		2.0	2.0
	7-2050-F8A	w/o CO	"		2.0	0.0
	7-2050-F8B	Reduce Tension w/CO	"		1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"		1.0	0.0
	7-2050-F9		"		2.0	0.0
	7-2050-F10	w/LA	"		2.0	0.0
1	7-2050-F10A	w/o CO	"		1.5	1.5
1	10-2100	1 PH 10-50 KVA	"		4.0	4.0
	10-2040	Sec leads 10-25 KVA	"		----	----
	10-2040	Sec leads 37.5-50 KVA	"		----	----

	10-2050	13.8 KV prim leads	"		----	----
	10-2060	7.2 KV prim leads	"		----	----
	10-2121	3 PH tsf bank (1200#)	"		12.0	0.0
	12-1020-F1	Neutral grounding	"		1.0	0.0
3	12-1020-F2	Primary grounding	"		1.0	3.0
	12-5201	Object Marker	"		0.1	0.0
			"			0.0
			"			0.0
		Switching	"			0.0
		Tailgate meeting	"			0.0
				$ 1,882.36		
CAPITAL:		**Total Direct Material Cost**		$ 1,882.36		
					Man-hour Sub Total	30.8
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	18.5
					Total Direct Capital Man-hours	49.3
O & M:					(Capital Man-hours)	0.0
					(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	0.0
					Total Direct O&M Man-hours	0.0
REMOVAL:					(Capital Man-hours)	0.0
					(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew			3.0	0.0
					Total Direct Removal Man-hours	0.0
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Outside Materials	$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Pre-Capitalized Materials	$	-
SALVAGEABLE MATERIALS						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
				Total Salvageable Materials	$	-

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP 868 - Berkich Pri				Date:	6/13/05
	Planner:	R. Yamato			Request/Parent WO Number:		H25277

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
3	5.5	9	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 2,475.00		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		9	Dig Pole Hole (+1' for pole base)	$ -	$ -		
2	8	9	Dig and Set Anchor	$ 150.00	$ 2,400.00		
	----	9	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	----	9	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	----	9	AC Repair	$ 150.00	$ -		
3		9	Ground Rod Installation (2 per)	$ 350.00	$ 1,050.00		
	----	9	Pole Base	$ 125.00	$ -		
	----	9	Traffic Control	$ 15.25	$ -		
	----	9	Tree Trimming	$ -	$ -		
	----	9	Helicopter	$ 1,750.00	$ -		
	----	9		$ -	$ -		
				Total	$ 5,925.00		$ 5,925.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ 890.85	$ -		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ -		$ -

Transfer Charge:		per JP #	26141				$ -

H0001437 SSPP 857 - Alderdyce

H0001437

ADDITIONAL
REQUEST NO. 1

2006 CAPITAL BUDGET
ADDITIONAL REQUEST

PROJECT NAME: SSPP Unit 857-Alderdyce

Grand Parent: OM-350 Overhead Svcs and Extns

LOCATION: Makaleka Road, Mark Twain Estates Subdivision, Kau, Hawaii (TMK: 9-4-7:19)

Approval is requested for the attached authorization request in the amount of $15,379 for the installation of a 1-phase distribution system to serve 6-lots of SSPP Unit #857 located at Makaleka Road, Mark Twain Estates Subdivision, Kau, Hawaii.

$15,379 is being transferred from the following Project(s):

Budgeted Project Number To Transfer From	Budgeted Project Name To Transfer From	Original Approved Budgeted Amount	Balance Before Transfer	To Glchin06	Balance After Transfer
H3521000	SSPP Requests	703,277	703,277	15,379	687,898
			Total Project	15,379	

Approval is requested.

Clyde H. Nagata, Manager

Warren H.W. Lee, President

Pillar Proj. #: Glchin06
Request #: H0024151
POLES & CONDUCTOR

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Galen Ichinose **Phone/Ext #:** 337

Originator's Name: Galen Ichinose

Responsible Estimator: Galen Ichinose
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Galen Ichinose

Date: 12/27/2005

Required Approvals to Initialize a Project:

1/20/06
Responsible Manager **Date**

28 JAN 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

1/20/06
Responsible Manager **Date**

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

1/26/06
HELCO Accounting Manager **Date**

28 JAN 2006
HELCO President **Date**

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: SSPP Unit 857 - Alderdyce

Plant Addition Date: 2006-05

Project Number: GICHIN06
(Temporary)

Commitment Date: 2006-02

Primary Corporate Goal: Cap Exp

Stategic Plan Linkage: 2B - Increase Electric Sales
(Primary)

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$15	$0	$0	$0	$0	$0	$15

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

To provide electric service to 6-lots on Makaleka Road, Mark Twain Estates Subdivision, Kau, Hawaii.

Scope Description:

Install 2-40 ft. poles; 2-anchors; approximately 335 ft. of #1/0 AAC 1-phase, 7.2 KV primary; approximately 90 ft. of #1/0 AAC neutral; approximately 245 ft. of #1/0 aerial cable secondary; and 1-37.5 KVA single phase transformer.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

HWC, HWX & HDH

Justification:

Customer have paid their shared cost to have pole line installed.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Immediate revenue from 1-residence under construction & future revenues from 2-lots within SSPP Unit.

Issues, Impacts, Considerations:

Immediate revenue from SSPP representative and future revenues from 5-lots within new pole line.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance $9,692.00 SSPP Unit advance - paid by original subscriber.

GET Included

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

NONE

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

NONE

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP Unit #857 - Alderdyce	Date:	12/27/05
Planner:	GGI (AR COST)	Request Number:	H0024151

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 1,112.07	
	Direct Labor Cost (NI-includes transportation)	$ 2,834.81	
	Direct Material Cost	$ 1,921.13	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 2,276.00	
	Total Capital	$ 8,144.01	$ 8,144.01
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 7,235.46	$ 7,235.46
	Sub Total		$ 15,379.47
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 15,379
	Less Total Customer Cost		$ 15,379
	HELCO Betterment	$ 0	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 15,379
	AR Cost		$ 15,379

	Man-hour	Crew-hour
Capital	78.7	
O & M	0.0	
Removal	0.0	
TOTAL	78.7	0.0

Prepared By: [signature] 12/27/05 Checked by: [signature] 7/21/2006

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

Project: SSPP Unit #857 - Alderdyce | Date: 12/27/05

Planner: GGI (AR COST) | Request / Parent WO Number: H0024151

Qty.	SMU. No.	Description		Labor M/H Unit	Labor M/H Total
47	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)	0.08	3.76
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)		0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC		0.017	0.000
270	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"	0.017	4.590
2	1-5000	(27) 40FT POLE CL 3 (5.5')	"	4.0	8.0
1	2-4030-A	midspan (1 phase)	"	1.0	1.0
	2-4030-C	midspan (1 phase)	"	1.0	0.0
2	3-4100	3/8" DGS 34'	"	1.0	2.0
2	3-4100	3/8" DGS 41'	"	1.0	2.0
	3-4150-A1	3/4" galv anchor (8')	"	0.0	0.0
2	3-4150-A2	1" galv anchor (8')	"	0.0	0.0
	3-4150-A3	1-1/4" galv anchor (10')	"	0.0	0.0
1	5-1009-F3	Single DE	"	1.0	1.0
1	5-1009-F5	DDE	"	1.5	1.5
			"		
1	5-3010	Mid Span 1-way	"	1.0	1.0
			"		
1	7-2050-F8		"	2.0	2.0
1	7-2050-F10	w/LA	"	2.0	2.0
1	10-2100	1 PH 10-50 KVA	"	8.0	8.0
1	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
	10-2050	13.8 KV prim leads	"	----	----
	10-2060	7.2 KV prim leads	"	----	----
1	12-1020-F2	Primary grounding	"	1.0	1.0
2	12-5201	Object Marker	"	0.5	1.0
			"		0.0
			"		0.0
		Switching	"		0.0
1		Tailgate meeting	"		0.5

		$ 1,921.13	
CAPITAL:	Total Direct Material Cost	$ 1,921.13	
	Man-hour Sub Total		39.4
	Non-productive hours per 8 hour shift @ 4 men crew	4.0	39.4
	Total Direct Capital Man-hours		78.7
O & M:	(Capital Man-hours)		0.0
	(O & M m/h = 30% of capital labor m/h)		0.0
	Non-productive hours per 8 hour shift @ 4 men crew	4.0	0.0
	Total Direct O&M Man-hours		0.0

REMOVAL:				(Capital Man-hours)	0.0
				(Removal m/h = 50% of capital labor m/h)	0.0
			Non-productive hours per 8 hour shift @ 4 men crew	4.0	
				Total Direct Removal Man-hours	
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
				Total Outside Materials	$ -
PRE-CAPITALIZED MATERIALS (padmt. transformer)					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
				Total Pre-Capitalized Materials	$ -
SALVAGEABLE MATERIALS					
Qty		Description	Unit	Unit Total	
			$ -	$ -	
			$ -	$ -	
				Total Salvageable Materials	$ -

OVERHEAD COST ESTIMATE
(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP Unit #857 - Alderdyce				Date:	12/27/05
	Planner:	GGI (AR COST)				Request/Parent WO Number:	H0024151

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
2	5	H-5	Dig Pole Hole (+1' for pole base)	$ 78.00	$ 780.00		
		H-5	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		H-5	Dig Pole Hole (+1' for pole base)	$ -	$ -		
2	8	H-5	Dig and Set Anchor	$ 81.00	$ 1,296.00		
	- - - -	H-5	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	H-5	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	H-5	AC Repair	$ 150.00	$ -		
1	- - - -	H-5	Ground Rod Installation (2 per)	$ 200.00	$ 200.00		
	- - - -	H-5	Pole Base	$ 125.00	$ -		
	- - - -	H-5	Traffic Control	$ 15.25	$ -		
	- - - -	H-5	Tree Trimming	$ -	$ -		
	- - - -	H-5	Helicopter	$ 1,750.00	$ -		
	- - - -	H-5		$ -	$ -		
				Total	$ 2,276.00		$ 2,276.00

2-way Verizon JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
				Total	$ -		$ -

-way CofH JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
				Total	$ -		$ -

2-way HELCO JP Shares (Verizon installed)

QTY		TMK	Description	Unit	Unit Total		
				Total	$ -		$ -

3-way JP Shares (HELCO installed)

QTY		TMK	Description	Unit	Verizon Unit Total	Unit	CH Unit Total
				Total	$ -		$ -

Transfer Charge:		per JP #					$ -

SSPP COST ESTIMATE SUMMARY

Project: Teresa Alderdyce Unit Number: 857

Location: Mark Twain Est. S/D, Kau

Total Lots: 6 Request Number: H0024151

TOTAL COST OF POLES, ANCHORS AND PRIMARY: $ 7,764.00

Total amount of new poles: 2

Average primary cost per pole: $ 3,882.00

TOTAL COST OF SECONDARY: $ 3,376.00

SUBTOTAL: $ 11,140.00

Proportionate Share of Main Line Cost of previous SSPP Unit Number: 451

$ 2,832.00 (cost/pole)	x	4 (poles)	=	$ 11,328.00 main line cost
6 (new lots)	÷	20 (total lots)	=	30.00% proportion
$ 11,328.00 (main line)	x	30.00% (proportion)	=	$ 3,398.40 proportionate share

PROPORTIONATE SHARE: $3,398

TOTAL UNIT COST: $14,538
LESS 1/3 SUBSIDY: $4,846

UNIT ADVANCE: $9,692

Estimate by: GGI Date: 5/16/06

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP Unit #857 - Alderdyce	Date:	5/13/05
Planner:	Galen Ichinose	Request Number:	H0024151
	SSPP PRIMARY		
CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 630.25	
	Direct Labor Cost (NI-includes transportation)	$ 1,299.05	
	Direct Material Cost	$ 1,294.55	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 638.00	
	Total Capital	$ 3,861.85	$ 3,861.85
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 3,590.74	$ 3,590.74
	Sub Total		$ 7,452.59
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 7,453
	Less Total Customer Cost		$ 7,453
	HELCO Betterment	$ (0)	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 7,453
	State GET (4.167%)		$ 311
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 7,764
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		$7,764

	Man-hour	Crew-hour		
Capital	36.9		10 % Payment	776
O & M	0.0		90 % Payment	$ 6,987
Removal	0.0			
TOTAL	36.9	0.0		

Prepared By: [illegible] 5/13/05 Checked by: [illegible]

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP Unit #857 - Alderdyce				Date:	5/13/05
	Planner:	Galen Ichinose			Request/Parent WO Number:		H0024151
			SSPP PRIMARY				
OUTSIDE SERVICES							
Qty	Depth ea.	Zone	Description	Unit	Unit Total		
2	5.5	H3	Dig Pole Hole (+1' for pole base)	$ 58.00	$ 638.00		
		H3	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		H3	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		H3	Dig and Set Anchor	$ -	$ -		
	- - - -	H3	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	- - - -	H3	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	- - - -	H3	AC Repair	$ 150.00	$ -		
	- - - -	H3	Pole Base	$ 125.00	$ -		
	- - - -	H3	Traffic Control	$ 15.25	$ -		
	- - - -	H3	Tree Trimming	$ -	$ -		
	- - - -	H3	Helicopter	$ 1,750.00	$ -		
	- - - -	H3		$ -	$ -		
				Total	$ 638.00		
							$ 638.00
2-way Verizon JP SHARES (HELCO installed):							
Qty		TMK	Description	Unit	Unit Total		
	25/25		30' Pole	$ -	$ -		
	30/30	0	35' Pole	$ -	$ -		
	30/35	0	40' Pole	$ -	$ -		
	30/35	0	45' Pole	$ -	$ -		
	50/50	0	Anchor Installation	$ -	$ -		
	50/50	0	Termi-Mesh	$ -	$ -		
	50/50	0	Pole Base	$ -	$ -		
	50/50	0	Traffic Control	$ -	$ -		
	50/50	0	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	0	AC Repair	$ -	$ -		
	50/50	0	Tree Trimming	$ -	$ -		
	50/50	0	Pole Removal	$ -	$ -		
				Total	$ -		
							$ -

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP Unit #857 - Alderdyce			Date:	5/13/05
	Planner:	Galen Ichinose			Request / Parent WO Number:	H0024151
		SSPP PRIMARY				
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
47	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate Summary Report" for Material Unit Costs)		0.08	3.76
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)			0.06	0.00
	1-2040	(8296) #3/0 strd AAAC - lw	"		0.05	0.00
	1-2040	(8296) #3/0 strd AAAC - 2&3W	"		0.04	0.00
	1-2040	(8300) #336.4 MCM strd AAC - 1W	"		0.04	0.00
2	1-5000	(27) 40FT POLE CL 3 (5.5')	"		4.0	8.0
	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	0.0
	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	0.0
1	2-4030-A	midspan (1 phase)	"		1.0	1.0
	2-4030-C	midspan (1 phase)	"		1.0	0.0
2	3-4100	3/8" DGS 41'	"		1.0	2.0
	3-4120-C2	3/4" galv anchor area C (8')	"		0.0	0.0
2	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
			"			
1	7-2050-F8A	w/o CO	"		1.5	1.5
	7-2050-F8B	Reduce Tension w/CO	"		1.5	0.0
	7-2050-F8B1	Reduce Tension w/o CO	"		1.0	0.0
	7-2050-F9		"		2.0	0.0
	7-2050-F10	w/LA	"		2.0	0.0
1	7-2050-F10A	w/o CO	"		1.5	1.5
2	12-5201	Object Marker	"		0.1	0.2
			"			0.0
			"			0.0
		Switching	"			0.0
1		Tailgate meeting	"			0.5
				$ 1,294.55		
CAPITAL:		Total Direct Material Cost		$ 1,294.55		
					Man-hour Sub Total	18.5
		Non-productive hours per 8 hour shift @ 4 men crew			4.0	18.5
					Total Direct Capital Man-hours	36.9
O & M:					(Capital Man-hours)	0.0
					(O & M m/h = 30% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew			4.0	0.0
					Total Direct O&M Man-hours	0.0
REMOVAL:					(Capital Man-hours)	0.0
					(Removal m/h = 50% of capital labor m/h)	0.0
		Non-productive hours per 8 hour shift @ 4 men crew			4.0	0.0
					Total Direct Removal Man-hours	0.0

TSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)

Qty	Description	Unit	Unit Total
		$ -	$ -
		$ -	$ -

			Total Outside Materials		$	-
PRE-CAPITALIZED MATERIALS (padmt. transformer)						
Qty	Description		Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Pre-Capitalized Materials		$	-
SALVAGEABLE MATERIALS						
Qty	Description		Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Salvageable Materials		$	-

INDIVIDUAL SUMMARY - Overhead Cost Estimate

Project:	SSPP Unit #857 - Alderdyce	Date:	5/16/05
Planner:	Galen Ichinose	Request Number:	H0024151
	SSPP SECONDARY		
CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 231.35	
	Direct Labor Cost (NI-includes transportation)	$ 786.32	
	Direct Material Cost	$ 337.18	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 200.00	
	Total Capital	$ 1,554.85	$ 1,554.85
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$ -	
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 1,686.37	$ 1,686.37
	Sub Total		$ 3,241.22
	Plus HELCO JP Shares (Verizon installed)		$ -
	Plus Verizon Transfer Cost		$ -
	Total Project Cost		$ 3,241
	Less Total Customer Cost		$ 3,241
	HELCO Betterment	$ 0	
	Less Verizon JP Shares (2-way-HELCO installed)		$ -
	Customer Line Extension Cost		$ 3,241
	State GET (4.167%)		$ 135
Calculated 36m Rev Credit + tax	Customer Advance - subtotal		$ 3,376
	Line Extn. Allowance (Cost of Line Extn. but not more than 36 months revenue plus tax, (ie $3562 w/o electric WH, or $5250 w/ electric WH, which ever applies)		$0
Total Customer Advance (includes State GET)	(25200000 / 25201000 / 25202000)		**$3,376**

	Man-hour	Crew-hour		
			10 % Payment	338
Capital	22.2		90 % Payment	$ 3,038
O & M	0.0			
Removal	0.0			
TOTAL	22.2	0.0		

Prepared By: [illegible] 5/16/05 Checked by: [illegible] 7/21/2005

OVERHEAD COST ESTIMATE

(Outside Material and Services and Joint Pole Costing)

	Project:	SSPP Unit #857 - Alderdyce				Date:	5/16/05
	Planner:	Galen Ichinose			Request/Parent WO Number:		H0024151
			SSPP SECONDARY				
OUTSIDE SERVICES							
Qty	Depth ea.	Zone	Description	Unit	Unit Total		
1	- - - -	0	Ground Rod Installation (2 per)	$ 200.00	$ 200.00		
				Total	$ 200.00		$ 200.00

OVERHEAD COST ESTIMATE

(SMU and Labor Costing)

	Project:	SSPP Unit #857 - Alderdyce			Date:	5/16/05
	Planner:	Galen Ichinose		Request / Parent WO Number:		H0024151
		SSPP SECONDARY				
Qty.	SMU. No.	Description			Labor M/H Unit	Labor M/H Total
	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	(Refer to "SMU Material Estimate		0.08	0.00
	1-2040	(7951) #1/0 strd AAC - 2&3W (lb.)	Summary Report" for Material Unit		0.06	0.00
	1-2040	(7980) 2-#1/0 PEIAC	Costs)		0.017	0.000
270	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	4.590
	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	0.000
	1-2040	(8296) #3/0 strd AAAC - lw	"		0.05	0.00
2	3-4100	3/8" DGS 34'	"		1.0	2.0
	3-4100	3/8" SWGS 34'	"		2.0	0.0
	3-4100	1/2" DGS 34'	"		1.0	0.0
	3-4100	1/2" SWGS 34'	"		2.0	0.0
	5-1009-F1	Straight & Angle	"		1.0	0.0
	5-1009-F2	Sec. split	"		1.0	0.0
1	5-1009-F3	Single DE	"		1.0	1.0
	5-1009-F4	Line Guard	"		1.0	0.0
1	5-1009-F5	DDE	"		1.5	1.5
	5-1009-F6	Buck	"		1.0	0.0
			"			
1	5-3010	Mid Span 1-way	"		1.0	1.0
			"			
1	12-1020-F1	Neutral grounding	"		1.0	1.0
			"			0.0
			"			0.0
		Switching	"			0.0
		Tailgate meeting	"			0.0
				$ 337.18		
CAPITAL:		Total Direct Material Cost		$ 337.18		
					Man-hour Sub Total	11.1
		Non-productive hours per 8 hour shift @ 4 men crew			4.0	11.1
				Total Direct Capital Man-hours		22.2
O & M:				(Capital Man-hours)		0.0
				(O & M m/h = 30% of capital labor m/h)		0.0
		Non-productive hours per 8 hour shift @ 4 men crew			4.0	0.0
				Total Direct O&M Man-hours		0.0
REMOVAL:				(Capital Man-hours)		0.0
				(Removal m/h = 50% of capital labor m/h)		0.0
		Non-productive hours per 8 hour shift @ 4 men crew			4.0	0.0
				Total Direct Removal Man-hours		0.0
SALVAGEABLE MATERIALS						
Qty		Description	Unit	Unit Total		
			$ -	$ -		
			$ -	$ -		
			Total Salvageable Materials		$	-

H0001417 Hanaula Subd

H0001417

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Hanaula Subd

Project Number: MMATHE08
(Temporary)

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

Plant Addition Date: 2006-03

Commitment Date: 2005-10

Primary Corporate Goal: Cap Exp

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2005	2006	2007	2008	2009	Future Years	Total
$0	$7	$52	$0	$0	$0	$0	$59

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to satify and complete the processing of a service request made by a developer to extend our lines underground to accommodate their 34 lot subdivision. The service request No. is H0023257.

Scope Description:

1530 ft. of 1/C #2 AL.PEICN underground distribution cable.
975 ft. of #350 MCM AL. TRIPLEX secondary underground cables.
(4) 37.5 KVA, 1-PH., 4160GY/2400V - 240/120V pad-mounted transformers.

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

HWW, HDW

Justification:

To provide service to a 34 lot subdivision located at Hanaula, North Kohala.

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

This project will grow the business and generate revenue as the single family homes and built and energized.

Issues, Impacts, Considerations:

The developer is to make a refundable advance of $59,000.00 towards this project.

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance	$58,022.00	Developer to make a refundable cash advance for the above amount.
GET Included	$2,323.00	

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ◯ Approval Required ● Not Required

◯ Approved, Date of Decision & Order: - - Docket Number:

◯ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Initialize project

Submitted by: Matthew Mather **Phone/Ext #:** 611

Originator's Name: Matthew Mather

Responsible Estimator: Matthew Mather KRW 12-8-05 **Resp. Estimator Dept:** Engineering
(Pillar UserID) (Pillar Department Folder)

Project Manager: Matthew Mather

Date: 12/06/2005

Required Approvals to Initialize a Project:

1/4/06
Responsible Manager **Date**

28 JAN 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

Responsible Manager **Date**

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

HELCO Accounting Manager **Date**

HELCO President **Date**

Hawaii Electric Light Company, Inc. • PO Box 325 • Kamuela, HI 96743-0325

CUST 3-3-1
H-W/G

April 4, 2006

Wallace T. Oki, P.E., Inc.
P.O. Box 4070
Hilo, HI 96720

Attention: Wallace T. Oki, P.E.

Gentlemen:

Subject: Hanaula Subdivision

This proposal letter is in reply to your request concerning the installation of an underground electrical distribution system to serve 34 lots of the above subject development located at Akoni Pule Highway, North Kohala Tax Map Key: 5-4-6:21.

HELCO will provide, install, own and maintain an underground electrical distribution system in accordance with our enclosed Drawing No. 04-E-1895 dated April 27, 2005.

HELCO will make this installation in accordance with the Company's Rule No. 13 and "General Requirements for Installation of Underground Electrical Distribution Systems in Subdivisions or Developments" revised date of November 11, 1985, copies attached.

The cost and specific requirements are noted as follows:

1. The total charges of the underground electrical distribution system is as follows:

TOTAL DEVELOPER COST	**$69,203.00**	
TOTAL PROJECT COST		$69,203.00
Total Developer Advance (Includes State GET)		$69,203.00
Developer Cost (non-refundable contribution) (Includes State GET)		$0.00

Based on the cost noted above, you are required to pay HELCO a refundable customer advance of $69,203.00, which include State General Excise Tax.

The required advance is due and payable upon your acceptance of this proposal. Payment shall be required a minimum of four (4) weeks prior to the processing of our construction work orders.

An advance is the amount of money paid to our Company which may be subject to refund in whole or in part in accordance with HELCO's Rule 13. (See attached copy.)

2. This proposal is valid for a period of six months from the date of this letter. If HELCO is not permitted to issue its construction work orders by October 4, 2006, this proposal will be invalid. If the starting date, as specified below by you, is later than this date, this proposal will be invalid and a revised proposal will be sent to you. Our Company shall not be held liable for delays caused by material shortages or delays caused by materials being strikebound.

3. This proposal is subject to our Company obtaining a satisfactory easement. Occasionally, parties granting easements to us will require survey descriptions and/or document processing fees. If applicable, this cost will be added to the total cost of this project.

4. HELCO shall bill the Developer/Individual all additional costs incurred should there be a determination of special findings not available during the development of HELCO's cost estimate. An example would be archeological findings, which would require mitigation by working around or redesigning the proposed project to enable completion.

HELCO's construction work orders will be issued upon receipt and/or completion of all required documentation and necessary payments.

The terms of this proposal are at all times subject to change or modification by the State of Hawaii Public Utilities Commission ("PUC") as the PUC may direct in the exercise of its jurisdiction.

Please signify your acceptance of this proposal by appropriate execution in the space provided below. We are including one extra copy of this proposal and request that the signed original, Customer Data Input Sheet and payment of $69,203.00 is mailed to HELCO in the enclosed self-addressed envelope or delivered directly to HELCO's Customer Service Division located at 74-5519 Kaiwi Street, Kailua-Kona, Hawaii.

In addition, please include the approximate date our Company will be permitted to begin its installation.

Should you have any questions, please write or call me at 327-0611 between the hours of 7:00 a.m. - 3:30 p.m.

Sincerely,

Matthew Mather
Senior Customer Planner
Customer Engineering Division

HAWAII ELECTRIC LIGHT COMPANY, INC.

Clyde H. Nagata, P.E.
Manager, Engineering Department

MM:el
Enclosures
Request No. H23257

Approved by Developer: _____
Signature in Ink

Name of Signer: PHIL TINGHELLY
Type or Print

Title: Manager Date: April 14, 2006

Name of Company: Hanaula Village Partners LLC

Approximate date your contractor will be ready for HELCO to begin its construction: May 8, 2006

Refunds made to: Hanaula Village Partners LLC
Type or Print

Mailing Address: PO Box 9013
P.O. Box/Street Address

Kailua-Kona HI 96745
City State Zip Code

UNDERGROUND COST ESTIMATE
- Material and Labor -

Project: Hanaula Subdivision — Date: 28-Mar-06
Planner: Matthew Mather — Request / Parent WO Number: H23257

Qty.	SMU. No.	Description - includes Std and Materials that make up SMU	Mat'l Unit Cost from "SMU Mat'l. Estimate Summary Report"	Units	MH Units	MH Units	Labor MH Unit	Labor MH Total
1530	21-1000	1/C # 2 PEICN Al XLPE INS SHIELDED	"				0.020	30.60
975	21-1000	COND, AL TPX 2- 1/C 350 1- 4/0 600V	"				0.011	10.73
6	21-1042	Cable Training, Racking and Grounding 3X5 HH	"				4.0	24.00
	21-1043	grounding for racks	"			2		
	21-1046	hand hole grounding	"			2		
3	23-1022	1-Ph Pad Mt. Transf. (mini-pad) #2/#4/0	"				5.2	15.63
	23-1000	anchoring	"			1		
	23-1022	grounding	"			0.46		
	23-5001	fault indicator	"			0.25		
		bushing plug (6)	"			1		
	26-3030	loadbreak elbow (2)	"			2		
	26-3032	stand-off plug for LB	"			0.25		
	26-3034	insulating receptacle for LB	"			0.25		
1	23-1022	1-Ph Pad Mt. Transf. (mini-pad-w/ open point) #2/#4/0	"				5.0	4.96
	23-1000	anchoring	"			1		
	23-1022	grounding	"			0.46		
		bushing plug (6)	"			1		
	26-3030	loadbreak elbow (2)	"			2		
	26-3032	stand-off plug for LB	"			0.25		
	26-3034	insulating receptacle for LB	"			0.25		
3	23-5001	Fault Indicator	"				0.3	0.75
9	24-1007	Insulator Secondary Bus - 4 Terminal # 2-350	"				1.0	9.00
3	24-1007	Insulator Secondary Bus - 6 Terminal # 2-350	"				1.0	3.00
4	24-1008	Multi-Cable Terminal (1Ph 25-75KVA-1set w/ 3ea.)	"				3.0	12.00
	26-2003	200a Prefab Disc. Tee (w/ bailing assembly)-#2/#4/0	"				4.0	16.00
	26-1068	plug connector (1)	"					
	26-3035	non-load break elbows (2)	"					
1	29-2001	1-Ph Primary Double Riser - 2" duct	"				6.0	6.00
		grounding	"			1		
		double riser - 2" duct	"			4		
	26-3024	termination (terminator - #2/#4/0)	"			1		
			"					0.00
1		Tailgate Meeting	"				1.0	1.00
1		Switching	"				1.0	1.00

CAPITAL: Total Direct Stock Material Cost $ 6,552.90

Man-hour Sub Total		134.67
Non-productive hours per 8 hour shift @ 4 men crew	1.75	37.71
	Total	172.37
Inspection Man-hours (30% of Labor)		40.40
Non-productive hours per 8 hour shift @ 1 inspector	1.75	11.31
	Total	51.71
Total Direct Capital Man-hours		224.08

PRE-CAPITALIZED MATERIALS(cost as of 6-16-00)

Qty		Description	Unit	Unit Total
4	25 KVA (1PH)	Transformer	$ 1,772	$ 7,088.00
		Pre-Capitalized Materials		$ 7,088.00

SUMMARY
Equivalent OH Cost Estimate

Project:	Hanaula Subdivision	Date:	28-Mar-06
Planner:	Matthew Mather	Request Number:	H23257

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 3,100.65	
	Direct Labor Cost (NI-includes transportation)	$ 7,780.33	
	Direct Material Cost	$ 10,495.71	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 31,941.00	
	Total Capital	$ 53,317.69	$ 53,317.69
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)		
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 21,378.13	$ 21,378.13
		Total Project Cost	$ 74,695.82
	Less GTE JP Shares (2-way-HELCO installed)		$ 8,260.92
	Less GTE JP Shares (3-way-HELCO installed- using 3 way chart but excluding CH St. Lt. share)		---- $ -
		Total Equivalent OH	$ 66,434.90

	Man-hour	Crew-hour
Capital	219.2	
O & M	0.0	
Removal	0.0	
TOTAL	219.2	0.0

Prepared By: Matthew Mather Checked by: KRW 3-29-06

EQUIVALENT OVERHEAD COST ESTIMATE

Material and Labor

	Project:	Hanaula Subdivision			Date:	28-Mar-06
	Planner:	Matthew Mather		Request / Parent WO Number:		H23257
Qty.	SMU. No.	Description	Mat'l Unit Cost from "SMU Mat'l. Estimate Summary Report"		Labor M/H Unit	Labor M/H Total
146	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	"		0.08	11.68
1475	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	25.075
9	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	36.0
3	2-4030-A	midspan (1 phase)	"		1.0	3.0
9	3-4100	3/8" DGS 34'	"		1.0	9.0
9	3-4100	3/8" DGS 47'	"		1.0	9.0
9	3-4120-C3	1" galv anchor area C (8')	"		0.0	0.0
2	5-1009-F1	Straight & Angle	"		1.0	2.0
1	5-1009-F2	Sec. split	"		1.0	1.0
3	5-1009-F3	Single DE	"		1.0	3.0
3	5-1009-F5	DDE	"		1.5	4.5
			"			
3	5-3010	Mid Span 1-way	"		1.0	3.0
			"			
2	7-2050-F2		"		1.5	3.0
1	7-2050-F2A	w/o CO	"		1.0	1.0
3	7-2050-F7A	Sgl DE	"		1.5	4.5
2	7-2050-F7B	S.D.E Jumper	"		2.0	4.0
2	7-2050-F10	w/LA	"		2.0	4.0
4	10-2100	1 PH 10-50 KVA	"		8.0	32.0
	10-2040	Sec leads 10-25 KVA	"		----	----
	10-2040	Sec leads 37.5-50 KVA	"		----	----
4	10-2060	7.2 KV prim leads	"		----	----
9	12-1020-F1	Neutral grounding	"		1.0	9.0
9	12-5201	Object Marker	"		0.5	4.5
			"			0.0
1		Switching	"		1.0	1.0
1		Tailgate meeting	"		1.0	1.0
				$ 10,495.71		
CAPITAL:		Total Direct Material Cost		$ 10,495.71		
					Man-hour Sub Total	171.3
		Non-productive hours per 8 hour shift @ 4 men crew			1.8	48.0
				Total Direct Capital Man-hours		219.2

PRE-CAPITALIZED MATERIALS (cost as of 6-16-00)

Qty		Description	Unit	Unit Total
3	25 KVA	Transformer	$ 1,095	$ 3,285.00
1	37.5 KVA	Transformer	$ 1,257	$ 1,257.00
			Total Pre-Capitalized Materials	$ 4,542.00

EQUIVALENT OVERHEAD COST ESTIMATE

Outside Material - Services - Pole Costing

	Project:	Hanaula Subdivision				Date:	28-Mar-06
	Planner:	Matthew Mather			Request/Parent WO Number:		H23257

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
9	6	5	Dig Pole Hole (+1' for pole base)	$ 210.00	$ 11,340.00		
		5	Dig Pole Hole (+1' for pole base)	$ -	$ -		
		5	Dig Pole Hole (+1' for pole base)	$ -	$ -		
9	7.5	5	Dig and Set Anchor	$ 210.00	$ 14,175.00		
	----	5	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	----	5	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	----	5	AC Repair	$ 150.00	$ -		
9	----	5	Ground Rod Installation (2 per)	$ 714.00	$ 6,426.00		
	----	5	Pole Base	$ 125.00	$ -		
	----	5	Traffic Control	$ 15.25	$ -		
	----	5	Tree Trimming	$ -	$ -		
	----	5	Helicopter	$ 1,750.00	$ -		
	----	5		$ -	$ -		
				Total	$ 31,941.00		$ 31,941.00

GTE JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25	5	30' Pole	$ -	$ -		
	30/30	5	35' Pole	$ -	$ -		
	30/35	5	40' Pole	$ -	$ -		
9	30/35	5	45' Pole	$ 917.88	$ 8,260.92		
	50/50	5	Anchor Installation	$ -	$ -		
	50/50	5	Termi-Mesh	$ 500.00	$ -		
	50/50	5	Pole Base	$ -	$ -		
	50/50	5	Traffic Control	$ -	$ -		
	50/50	5	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	5	AC Repair	$ -	$ -		
	50/50	5	Tree Trimming	$ -	$ -		
	50/50	5	Pole Removal	$ -	$ -		
				Total	$ 8,260.92		$ 8,260.92

H0001418 Kikaha @ Wehilani

H0001418 2/6

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Kikaha @ Wehilani

Project Number: MMATHE09
(Temporary)

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

Plant Addition Date: 2006-06

Commitment Date: 2005-10

Primary Corporate Goal: Cap Exp

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2005	2006	2007	2008	2009	Future Years	Total
$0	$12	$491	$0	$0	$0	$0	$503

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to satisfy and complete the processing of (2) service request made by a developer to extend our lines underground. The service request No's. are H17219 & H28027.

Scope Description:

Install 3072 ckt ft. of 3-1/C #1000 MCM AL. PEIJ 15KV cables; 1948 ckt. ft. of 3-1/C #4/0 AL. PEICN cables; 5233 ckt. ft. of 1/C #2 AL. PEICN 15KV cables; 2550 ft. of #350 MCM AL. Triplex secondary underground cables with 1-PME 9 switchgear, 1-5 way Vacuum switch and 1-50KVA & 10-25KVA, 1-PH., 12470 GRD y/7200V-240/120V pad mounted transformers for a 12.47KV and 7.2KV underground distribution system.

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project Identified below has not been established in MIMS

Resource Needs:

HWW, HDW

Justification:

To provide a 12.47KV and 7.2KV underground distribution system to serve 54 lots of a residential subdivision located at Waikoloa Village, South Kohala.

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

This project will grow the business and generate revenue as the residential customers build and energize their homes.

Issues, Impacts, Considerations:

Developer to make an in-kind contribution in the amount of $240,603.00

Developer to make a cash contribution in the amount of $149,251.00

Developer to make a cash advance in the amount of $141,915.00

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind**	$240,603.00	Developer to make an in-kind contribution of the above amount for ductline, handholes/manholes and transformer/switch pads.
GET Included		
- **In Cash**	$149,251.00	Developer to make a cash contribution in the above amount.
GET Included	$5,972.00	
Cash Advance	$141,915.00	Developer to make a cash advance in the above amount for this project.
GET Included	$5,678.00	

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Initialize project

Submitted by: Matthew Mather **Phone/Ext #:** 611

Originator's Name: Matthew Mather

Responsible Estimator: Matthew Mather KRW 12-14-05 **Resp. Estimator Dept:** Engineering
(Pillar UserID) (Pillar Department Folder)

Project Manager: Matthew Mather

Date: 12/13/2005

Required Approvals to Initialize a Project:

1/4/06
Responsible Manager **Date**

28 JAN 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

Responsible Manager **Date**

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

HELCO Accounting Manager **Date**

HELCO President **Date**

Hawaii Electric Light Company, Inc. • PO Box 325 • Kamuela, HI 96743-0325

MAR 1 0 2006

CUST 3-3-1
H-W/G

February 28, 2006

Wallace T. Oki, P.E., Inc.
P.O. Box 4070
Hilo, HI 96720

Gentlemen:

Subject: Kikaha at Wehilani Inc. 1

This proposal letter is in reply to your request concerning the installation of an underground electrical distribution system to serve 15 lots of the above subject development located at Waikoloa Road, South Kohala Tax Map Key: 6-8-2:27.

HELCO will provide, install, own and maintain an underground electrical distribution system in accordance with our enclosed Drawing No. 05-E-559 dated July 5, 2005.

HELCO will make this installation in accordance with the Company's Rule No. 13 and "General Requirements for Installation of Underground Electrical Distribution Systems in Subdivisions or Developments" revised date of November 11, 1985, copies attached.

The cost and specific requirements are noted as follows:

1. The total charges of the underground electrical distribution system is as follows:

TOTAL DEVELOPER COST	**$168,327.00**	
TOTAL PROJECT COST		$168,327.00
Total Developer Advance (Includes $2,546.00 State GET)		$ 63,642.00
Developer Cost (non-refundable contribution) (Includes $4,188.00 State GET)		$104,685.00

Based on the cost noted above, you are required to pay HELCO a refundable customer advance of $63,642.00 and a non-refundable contribution of $104,685.00, which includes State General Excise Tax.

The required advance and contribution are due and payable upon your acceptance of this proposal. Payment shall be required a minimum of four (4) weeks prior to the processing of our construction work orders.

An advance is the amount of money paid to our Company which may be subject to refund in whole or in part in accordance with HELCO's Rule 13. (See attached copy.)

2. This proposal is valid for a period of six months from the date of this letter. If HELCO is not permitted to issue its construction work orders by August 28, 2006, this proposal will be invalid. If the starting date, as specified below by you, is later than this date, this proposal will be invalid and a revised proposal will be sent to you. Our Company shall not be held liable for delays caused by material shortages or delays caused by materials being strikebound.

3. This proposal is subject to our Company obtaining a satisfactory easement. Occasionally, parties granting easements to us will require survey descriptions and/or document processing fees. If applicable, this cost will be added to the total cost of this project.

4. HELCO shall bill the Developer/Individual all additional costs incurred should there be a determination of special findings not available during the development of HELCO's cost estimate. An example would be archeological findings, which would require mitigation by working around or redesigning the proposed project to enable completion.

HELCO's construction work orders will be issued upon receipt and/or completion of all required documentation and necessary payments.

The terms of this proposal are at all times subject to change or modification by the State of Hawaii Public Utilities Commission ("PUC") as the PUC may direct in the exercise of its jurisdiction.

Please signify your acceptance of this proposal by appropriate execution in the space provided below. We are including one extra copy of this proposal and request that the signed original, Customer Data Input Sheet and payment of $168,327.00 is mailed to HELCO in the enclosed self-addressed envelope or delivered directly to HELCO's Customer Service Division located at 74-5519 Kaiwi Street, Kailua-Kona, Hawaii.

In addition, please include the approximate date our Company will be permitted to begin its installation.

Should you have any questions, please write or call me at 327-0611 between the hours of 7:00 a.m. - 3:30 p.m.

Sincerely,

Matthew Mather
Senior Customer Planner
Customer Engineering Division

HAWAII ELECTRIC LIGHT COMPANY, INC.

Clyde H. Nagata, P.E.
Manager, Engineering Department

HAWAII ELECTRIC LIGHT COMPANY, INC.

By its Asst. secretary

MM:el
Enclosures
Request No. H17219

Approved by Developer: _____ , _____
Signature in Ink

Name of Signer: John Uchiyama , Richard R. Anzai
Type or Print

Title: Sr Vice Pres / Asst Controller Date: 3/10/06

Name of Company: Castle & Cooke Waikoloa, LLC

Approximate date your contractor will be ready for HELCO to begin its construction: APR 1 0 2006

Refunds made to: Castle & Cooke Waikoloa, LLC
Type or Print

Mailing Address: P.O. Box 898900
P.O. Box/Street Address

Mililani, HI 96789-8900
City State Zip Code

UNDERGROUND COST ESTIMATE
- Material and Labor -

Project: Kikaha @ Wehilani Inc. 1 — Date: 23-Feb-06

Planner: Matthew Mather — Request / Parent WO Number: H0017219

Qty.	SMU. No.	Description - includes Std and Materials that make up SMU	Mat'l Unit Cost from "SMU Mat'l. Estimate Summary Report"	Units	MH Units	MH Units	Labor MH Unit	Labor MH Total
1271	21-1000	1/C # 2 PEICN Al XLPE INS SHIELDED	"				0.020	25.42
980	21-1000	3-1/C # 4/0 PEICN Al XLPE INS SHIELDED	"				0.024	23.52
2144	21-1000	3-1/C # 1000 KCMIL XLPE Al INS SHIELDED	"				0.032	68.61
697	21-1000	COND, 1/C 350MCM AL XLPE 600V	"				0.007	4.88
3	21-1042	Cable Training, Racking and Grounding 6X11 HH	"				8.0	24.00
	21-1043	racking	"			5		
	21-1046	hand hole grounding	"			3		
3	21-1042	Cable Training, Racking and Grounding 3X5 HH	"				4.0	12.00
	21-1043	grounding for racks	"			2		
	21-1046	hand hole grounding	"			2		
2	23-1022	1-Ph Pad Mt. Transf. (mini-pad) #2/#4/0	"				5.2	10.42
	23-1000	anchoring	"			1		
	23-1022	grounding	"			0.46		
	23-5001	fault indicator	"			0.25		
		bushing plug (6)	"			1		
	26-3030	loadbreak elbow (2)	"			2		
	26-3032	stand-off plug for LB	"			0.25		
	26-3034	insulating receptacle for LB	"			0.25		
1	23-1022	1-Ph Pad Mt. Transf. (mini-pad-w/ open point) #2/#4/0	"				5.0	4.96
	23-1000	anchoring	"			1		
	23-1022	grounding	"			0.46		
		bushing plug (6)	"			1		
	26-3030	loadbreak elbow (2)	"			2		
	26-3032	stand-off plug for LB	"			0.25		
	26-3034	insulating receptacle for LB	"			0.25		
1	23-3006	PME-9	"				26.5	26.50
	23-3006	anchoring	"			4		
	23-3006	grounding	"			5.5		
		bushing plug (12)	"			2		
	26-3030	loadbreak elbow (12)	"			12		
	26-3032	stand-off plug for LB	"			1.5		
	26-3034	insulating receptacle for LB	"			1.5		
1	VS - 5	Vacuum Switch-5 way	"				22.5	22.50
		anchoring	"			4		
		grounding	"			5.5		
	26-3034	insulating receptacle for LB	"			1		
	26-5009	600a prefab splice assembly	"			12		
2	23-5001	Fault Indicator	"				0.3	0.50
9	24-1007	Insulator Secondary Bus - 4 Terminal # 2-350	"				1.0	9.00
3	24-1008	Multi-Cable Terminal (1Ph 25-75KVA-1set w/ 3ea.)	"				3.0	9.00
4	26-1069	200a Prefab Disc. Receptacle (w/ grounding)- #2/#4/0	"				1.0	4.00
	26-3045	dead end plug	"					
8	26-2003	200a Prefab Disc. Tee (w/ bailing assembly)-#2/#4/0	"				4.0	32.00
	26-1068	plug connector (1)	"					
	26-3035	non-load break elbows (2)	"					
12	26-2009	600a Prefab Splices w/ground bushing	"				3.7	43.80
		Tee connectors (2)	"	2	1	2		
		bushing plug (1)	"	1	0.25	0.25		
		connector plug (1)	"	1	0.25	0.25		
		reducing tap well (1)	"	1	0.25	0.25		
		insulating receptacle for LB (1)	"	1	0.25	0.25		
		grounding	"	1	0.5	0.5		
		dead end plug w/cap (1)	"	1	0.15	0.15		
7	30-1025	Duct Seal (# per duct)	"				0.2	1.05
			"					0.
			"					0.
1		Tailgate Meeting	"				1.0	1.00
1		Switching	"				1.0	1.00

CAPITAL:			Total Direct Stock Material Cost		$ 43,780.84					
								Man-hour Sub Total		324.16
					Non-productive hours per 8 hour shift				1.50	74.81
									Total	398.96
					Inspection Man-hours (30% of Labor)					97.25
				Non-productive hours per 8 hour shift @ 1 inspector					1.50	22.44
									Total	119.69
						Total Direct Capital Man-hours				518.65
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)										
Qty		Description		Unit	Unit Total					
1	PME-9 OT 692-4000			$ 14,072.00	$ 14,072.00					
1	5-Way Vacuum Switch w/VB			$ 26,140.00	$ 26,140.00					
				$ -	$ -					
					Total Outside Materials	$ 40,212.00				
PRE-CAPITALIZED MATERIALS (cost as of 6-16-00)										
Qty		Description		Unit	Unit Total					
2	25 KVA (1PH)	Transformer		$ 1,866	$ 3,732.00					
1	50 KVA (1PH)	Transformer		$ 2,196	$ 2,196.00					
					Pre-Capitalized Materials	$ 5,928.00				

SUMMARY
Equivalent OH Cost Estimate

Project:	Kikaha @ Wehilani Inc. 1	Date:	23-Feb-06
Planner:	Matthew Mather	Request Number:	H0017219

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 3,101.96	
	Direct Labor Cost (NI-includes transportation)	$ 7,863.93	
	Direct Material Cost	$ 11,779.05	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 29,442.00	
	Total Capital	$ 52,186.94	$ 52,186.94
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)		
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 19,970.51	$ 19,970.51
		Total Project Cost	$ 72,157.45
	Less GTE JP Shares (2-way-HELCO installed)		$ 11,061.78
	Less GTE JP Shares (3-way-HELCO installed- using 3 way chart but excluding CH St. Lt. share)		---- $ -
		Total Equivalent OH	$ 61,095.67

	Man-hour	Crew-hour
Capital	216.9	
O & M	0.0	
Removal	0.0	
TOTAL	216.9	0.0

Prepared By: Matthew Mather Matthew Mather Checked by: KRW 2-27-06

EQUIVALENT OVERHEAD COST ESTIMATE

Material and Labor

Project:	Kikaha @ Wehilani Inc. 1			Date:	23-Feb-06
Planner:	Matthew Mather			Request / Parent WO Number:	H0017219

Qty.	SMU. No.	Description	Mat'l Unit Cost from "SMU Mat'l. Estimate Summary Report"	Labor M/H Unit	Labor M/H Total
125	1-2040	(7951) #1/0 strd AAC - 1W (lb.)	"	0.08	10.00
992	1-2040	(8300) #336.4 mcm strd AAC -2&3W	"	0.03	29.76
1	1-5000	(19) 35FT POLE CL 5 (5.0')	"	4.0	4.0
8	1-5000	(39) 45FT POLE CL 3 (6.0')	"	4.0	32.0
1	2-4030-A	midspan (1 phase)	"	1.0	1.0
8	3-4100	3/8" DGS 34'	"	1.0	8.0
7	3-4100	3/8" DGS 47'	"	1.0	7.0
8	3-4120-C3	1" galv anchor area C (8')	"	0.0	0.0
4	5-1009-F3	Single DE	"	1.0	4.0
2	5-1009-F4	Line Guard	"	1.0	2.0
3	5-1009-F5	DDE	"	1.5	4.5
			"		
1	5-3010	Mid Span 1-way	"	1.0	1.0
			"		
1	7-2050-F2A	w/o CO	"	1.0	1.0
1	7-2050-F7A	Sgl DE	"	1.5	1.5
1	7-2050-F7B	S.D.E Jumper	"	2.0	2.0
2	7-2050-F10	w/LA	"	2.0	4.0
	7-2210A-A	3W 6pin DA	"	3.5	10.5
2	7-2230-A	3W DE	"	6.0	12.0
2	7-4140-H	12.47KV KPF Switch	"	6.0	12.0
2	10-2100	1 PH 10-50 KVA	"	8.0	16.0
	10-2040	Sec leads 10-25 KVA	"	----	----
	10-2040	Sec leads 37.5-50 KVA	"	----	----
2	10-2060	7.2 KV prim leads	"	----	----
8	12-1020-F2	Primary grounding	"	1.0	8.0
8	12-5201	Object Marker	"	0.5	4.0
			"		0.0
1		Switching	"	1.0	1.0
1		Tailgate meeting	"	1.0	1.0

		$ 11,779.05	
CAPITAL:	Total Direct Material Cost	$ 11,779.05	
		Man-hour Sub Total	176.3
	Non-productive hours per 8 hour shift @ 4 men crew	1.5	40.7
		Total Direct Capital Man-hours	216.9

PE-CAPITALIZED MATERIALS (cost as of 6-16-00)

		Description	Unit	Unit Total
	25 KVA	Transformer	$ 1,207	$ 1,207.00
1	37.5 KVA	Transformer	$ 1,549	$ 1,549.00

			Total Pre-Capitalized Materials		$	2,756.00

EQUIVALENT OVERHEAD COST ESTIMATE

Outside Material - Services - Pole Costing

	Project:	Kikaha @ Wehilani Inc. 1				Date:	23-Feb-06
	Planner:	Matthew Mather			Request/Parent WO Number:		H0017219

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
8	6	6	Dig Pole Hole (+1' for pole base)	$ 210.00	$ 10,080.00		
1	5	6	Dig Pole Hole (+1' for pole base)	$ 210.00	$ 1,050.00		
		6	Dig Pole Hole (+1' for pole base)	$ -	$ -		
8	7.5	6	Dig and Set Anchor	$ 210.00	$ 12,600.00		
	- - - -	6	Sidewalk Repair < 4 blocks	$ 300.00	$ -		
	- - - -	6	Sidewalk Repair 4 or > blocks	$ 300.00	$ -		
	- - - -	6	AC Repair	$ 150.00	$ -		
8	- - - -	6	Ground Rod Installation (2 each)	$ 714.00	$ 5,712.00		
	- - - -	6	Pole Base	$ 300.00	$ -		
	- - - -	6	Traffic Control	$ 120.00	$ -		
	- - - -	6	Tree Trimming	$ -	$ -		
	- - - -	6	Helicopter	$ 1,750.00	$ -		
	- - - -	6		$ -	$ -		
				Total	$ 29,442.00		$ 29,442.00

GTE JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25	6	30' Pole	$ -	$ -		
1	30/30	6	35' Pole	$ 998.50	$ 998.50		
	30/35	6	40' Pole	$ -	$ -		
8	30/35	6	45' Pole	$ 893.66	$ 7,149.28		
8	50/50	6	Anchor Installation	$ 728.50	$ 2,914.00		
	50/50	6	Termi-Mesh	$ 788.00	$ -		
	50/50	6	Pole Base	$ -	$ -		
	50/50	6	Traffic Control	$ -	$ -		
	50/50	6	Sidewalk Repair (Concrete)	$ -	$ -		
	50/50	6	AC Repair	$ -	$ -		
	50/50	6	Tree Trimming	$ -	$ -		
	50/50	6	Pole Removal	$ -	$ -		
				Total	$ 11,061.78		$ 11,061.78

H0001420 Sunset Ridge PH. 3 Unit 3

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: Sunset Ridge PH. 3 Unit 3

Plant Addition Date: 2006-02

Project Number: H0001420
(Permanent)

Commitment Date: 2005-10

Primary Corporate Goal: Cap Exp

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

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2005	2006	2007	2008	2009	Future Years	Total
$0	$8	$43	$0	$0	$0	$0	$51

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The pupose of this project is to satisfy and complete the processing of a service request made by a developer to extend our facilities underground to serve 15 lots of their proposed subdivision. The service request no. for this is H0023528.

Scope Description:

3295 ft. of 1/C #2 AL. PEICN UG distribution conductor and 785 ft. of #350 MCM AL. Triplex underground secondary conductors along with (3) 1-PH., 12470 GRD Y/7200V - 240/120V pad-mounted transformers.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Resource Needs:

HWW, HDW

Justification:

Extend our underground facilities to accommodate 15 lots of the Sunset Ridge PH. 3 Unit 3 Subdivision, located at Waikoloa Village, South Kohala.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Developer is to make a refundable advance in the amount of $50,544.00. towards this project.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind**	$128,500.00	Developer to make an In-Kind contribution of the above amount the necessary ductlines and handholes/manholes and tranformer pads.
GET Included		
- **In Cash**	NONE	

Cash Advance	$50,544.00	Developer to make a cash advance for the above amount.
GET Included	$2,022.00	

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

PUC Approved: ◯ Approval Required ● Not Required

◯ Approved, Date of Decision & Order: - - Docket Number:

◯ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Matthew Mather **Phone/Ext #:** 611

Originator's Name: Matthew Mather

Responsible Estimator: Matthew Mather KRW 3-9-06 **Resp. Estimator Dept:** Engineering
(Pillar UserID) (Pillar Department Folder)

Project Manager: Matthew Mather

Date: 03/09/2006

Required Approvals to Initialize a Project:

3/13/06
Responsible Manager **Date**

17 MAR 2006
HELCO President **Date**

Required Approvals to Authorize a Project:

3/13/06
Responsible Manager **Date**

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

3/14/06
HELCO Accounting Manager **Date**

17 MAR 2006
HELCO President **Date**

Hawaii Electric Light Company, Inc. • PO Box 325 • Kamuela, HI 96743-0325

CUST 3-3-1
H-W/G

October 28, 2005

Wallace T. Oki, P.E., Inc.
P.O. Box 4070
Hilo, HI 96720

Gentlemen:

Subject: Sunset Ridge Phase 3 Unit 3

This proposal letter is in reply to your request concerning the installation of an underground electrical distribution system to serve fifteen (15) lots of the above subject development located at Waikoloa, South Kohala Tax Map Key: 6-8-31:30.

HELCO will provide, install, own and maintain an underground electrical distribution system in accordance with our enclosed Drawing No. 05-E-19 dated March 24, 2005.

HELCO will make this installation in accordance with the Company's Rule No. 13 and "General Requirements for Installation of Underground Electrical Distribution Systems in Subdivisions or Developments" revised date of November 11, 1985, copies attached.

The cost and specific requirements are noted as follows:

1. The total charges of the underground electrical distribution system is as follows:

TOTAL DEVELOPER COST	**$50,544.00**	
TOTAL PROJECT COST		$50,544.00
Developer Cost (refundable advance) (Includes State GET)		$50,544.00
Total Developer Advance (Includes State GET)		$50,544.00
Developer Cost (non-refundable contribution) (Includes State GET)		$ 0.00

Based on the cost noted above, you are required to pay HELCO a refundable customer advance of $50,544.00, which includes State General Excise Tax.

The required advance is due and payable upon your acceptance of this proposal. Payment shall be required a minimum of four (4) weeks prior to the processing of our construction work orders.

An advance is the amount of money paid to our Company which may be subject to refund in whole or in part in accordance with HELCO's Rule 13. (See attached copy.)

2. This proposal is valid for a period of six months from the date of this letter. If HELCO is not permitted to issue its construction work orders by April 28, 2006, this proposal will be invalid. If the starting date, as specified below by you, is later than this date, this proposal will be invalid and a revised proposal will be sent to you. Our Company shall not be held liable for delays caused by material shortages or delays caused by materials being strikebound.

3. This proposal is subject to our Company obtaining a satisfactory easement. Occasionally, parties granting easements to us will require survey descriptions and/or document processing fees. If applicable, this cost will be added to the total cost of this project.

4. HELCO shall bill the Developer/Individual all additional costs incurred should there be a determination of special findings not available during the development of HELCO's cost estimate. An example would be archeological findings, which would require mitigation by working around or redesigning the proposed project to enable completion.

HELCO's construction work orders will be issued upon receipt and/or completion of all required documentation and necessary payments.

The terms of this proposal are at all times subject to change or modification by the State of Hawaii Public Utilities Commission ("PUC") as the PUC may direct in the exercise of its jurisdiction.

Please signify your acceptance of this proposal by appropriate execution in the space provided below. We are including one extra copy of this proposal and request that the signed original, Customer Data Input Sheet and payment of $50,544.00 is mailed to HELCO in the enclosed self-addressed envelope or delivered directly to HELCO's Customer Service Division located at 74-5519 Kaiwi Street, Kailua-Kona, Hawaii.

In addition, please include the approximate date our Company will be permitted to begin its installation.

Should you have any questions, please write or call me at 327-0611 between the hours of 7:00 a.m. - 3:30 p.m.

Sincerely,

Matthew Mather
Senior Customer Planner
Customer Engineering Division

HAWAII ELECTRIC LIGHT COMPANY, INC.

Clyde H. Nagata, P.E.
Manager, Engineering Department

MM:el
Enclosures
Request No. H23528

Approved by Developer: _____
Signature in Ink

Name of Signer: Douglas M. Tonokawa
Type or Print

Title: Authorized Agent Date: 11/4/05

Name of Company: Sunset Ridge Joint Venture

Approximate date your contractor will be ready for HELCO to begin its construction: _____

Refunds made to: Sunset Ridge Joint Venture
Type or Print

Mailing Address: 220 South King Street, Suite 2170
P.O. Box/Street Address

Honolulu	HI	96813
City	State	Zip Code

UNDERGROUND COST ESTIMATE
- Material and Labor -

Project: Sunset Ridge PH. 3 Unit 3 — Date: 28-Oct-05
Planner: Matthew Mather — Request / Parent WO Number: H23528

Qty.	SMU. No.	Description - includes Std and Materials that make up SMU	Mat'l Unit Cost from "SMU Mat'l. Estimate Summary Report"	Units	MH Units	MH Units	Labor MH Unit	Labor MH Total
3295	21-1000	1/C # 2 PEICN Al XLPE INS SHIELDED	"				0.020	65.90
785	21-1000	COND, AL TPX 2- 1/C 350 1- 4/0 600V	"				0.011	8.64
2	21-1042	Cable Training, Racking and Grounding 6X11 HH	"				8.0	16.00
		21-1043 racking	"			5		
		21-1046 hand hole grounding	"			3		
1	21-1042	Cable Training, Racking and Grounding 5X7 HH	"				6.0	6.00
		21-1043 racking	"			4		
		21-1046 hand hole grounding	"			2		
1	21-1042	Cable Training, Racking and Grounding 3X5 HH	"				4.0	4.00
		21-1043 grounding for racks	"			2		
		21-1046 hand hole grounding	"			2		
1	23-1022	1-Ph Pad Mt. Transf. (mini-pad) #2/#4/0	"				5.2	5.21
		23-1000 anchoring	"			1		
		23-1022 grounding	"			0.46		
		23-5001 fault indicator	"			0.25		
		bushing plug (6)	"			1		
		26-3030 loadbreak elbow (2)	"			2		
		26-3032 stand-off plug for LB	"			0.25		
		26-3034 insulating receptacle for LB	"			0.25		
2	23-1022	1-Ph Pad Mt. Transf. (mini-pad-w/ open point) #2/#4/0	"				5.0	9.92
		23-1000 anchoring	"			1		
		23-1022 grounding	"			0.46		
		bushing plug (6)	"			1		
		26-3030 loadbreak elbow (2)	"			2		
		26-3032 stand-off plug for LB	"			0.25		
		26-3034 insulating receptacle for LB	"			0.25		
[illegible]	23-5001	Fault Indicator	"				0.3	0.25
[illegible]	24-1007	Insulator Secondary Bus - 4 Terminal # 2-350	"				1.0	9.00
3	24-1008	Multi-Cable Terminal (1Ph 25-75KVA-1set w/ 3ea.)	"				3.0	9.00
8	26-2003	200a Prefab Disc. Tee (w/ bailing assembly)-#2/#4/0	"				4.0	32.00
		26-1068 plug connector (1)	"					
		26-3035 non-load break elbows (2)	"					
1		Tailgate Meeting	"				1.0	1.00
1		Switching	"				1.0	1.00

CAPITAL: Total Direct Stock Material Cost $ 7,279.98

Man-hour Sub Total		167.92
Non-productive hours per 8 hour shift @ 4 men crew	1.50	38.75
	Total	206.66
Inspection Man-hours (30% of Labor)		50.37
Non-productive hours per 8 hour shift @ 1 inspector	1.50	11.62
	Total	62.00
Total Direct Capital Man-hours		268.66

PRE-CAPITALIZED MATERIALS(cost as of 6-16-00)

Qty	Description	Unit	Unit Total
3	25 KVA (1PH) Transformer	$ 1,772	$ 5,316.00
	Pre-Capitalized Materials		$ 5,316.00

SUMMARY
Equivalent OH Cost Estimate

Project:	Sunset Ridge PH. 3 Unit 3	Date:	28-Oct-05
Planner:	Matthew Mather	Request Number:	H23528

CAPITAL:	Direct Engineering (includes WS/WX & transportation)	$ 2,722.98	
	Direct Labor Cost (NI-includes transportation)	$ 7,151.61	
	Direct Material Cost	$ 9,569.58	
	Direct Outside Materials	$ -	
	Direct Outside Services	$ 18,375.00	
	Total Capital	$ 37,819.17	$ 37,819.17
O & M:	Direct Labor (NE-includes transportation)	$ -	
REMOVAL:	Direct Labor (NR/NS-includes transportation)		
	Total O & M / Removal	$ -	$ -
OVERHEAD:	Total Overhead	$ 20,087.65	$ 20,087.65
		Total Project Cost	$ 57,906.82
	Less GTE JP Shares (2-way-HELCO installed)		$ 9,384.36
	Less GTE JP Shares (3-way-HELCO installed- using 3 way chart but excluding CH St. Lt. share)		---- $ -
		Total Equivalent OH	$ 48,522.46

	Man-hour	Crew-hour
Capital	201.6	
O & M	0.0	
Removal	0.0	
TOTAL	201.6	0.0

Prepared By: Matthew Mather Checked by: KRW 10-27-05

EQUIVALENT OVERHEAD COST ESTIMATE

Material and Labor

	Project:	Sunset Ridge PH. 3 Unit 3			Date:	28-Oct-05
	Planner:	Matthew Mather		Request / Parent WO Number:		H23528
Qty.	SMU. No.	Description	Mat'l Unit Cost from "SMU Mat'l. Estimate Summary Report"		Labor M/H Unit	Labor M/H Total
1075	1-2040	(7981) 2-#1/0 PEIAC & 1-#3/0 AAAC	"		0.017	18.275
120	1-2040	(7978) #4/3 al tpx (ft)	"		0.017	2.040
200	1-2040	(7985) #1/0 al tpx (ft)	"		0.017	3.400
214	1-2040	(8300) #336.4 mcm strd AAC -2&3W	"		0.03	6.42
1034	1-2040	(8306) #556.5 mcm strd AAC -2&3W	"		0.02	20.68
3	1-5000	(19) 35FT POLE CL 5 (5.0')	"		4.0	12.0
5	1-5000	(39) 45FT POLE CL 3 (6.0')	"		4.0	20.0
1	1-5000	(51) 50FT POLE CL 3 (6.5')	"		4.0	4.0
1	2-4030-A	midspan (1 phase)	"		1.0	1.0
6	3-4100	3/8" DGS 34'	"		1.0	6.0
6	3-4100	3/8" DGS 47'	"		1.0	6.0
6	3-4120-C4	1-1/4" galv anchor area c (10")	"		0.0	0.0
			"			
1	5-1009-F1	Straight & Angle	"		1.0	1.0
1	5-1009-F2	Sec. split	"		1.0	1.0
3	5-1009-F3	Single DE	"		1.0	3.0
2	5-1009-F5	DDE	"		1.5	3.0
			"			
1	5-3010	Mid Span 1-way	"		1.0	1.0
			"			
	7-2050-F7A	Sgl DE	"		1.5	1.5
1	7-2050-F7B	S.D.E Jumper	"		2.0	2.0
1	7-2050-F10A	w/o CO	"		1.5	1.5
2	7-2210A-A	3W 6pin DA	"		3.5	7.0
3	7-2230-A	3W DE	"		6.0	18.0
2	10-2100	1 PH 10-50 KVA	"		8.0	16.0
	10-2040	Sec leads 10-25 KVA	"		----	----
2	10-2060	7.2 KV prim leads	"		----	----
6	12-1020-F2	Primary grounding	"		1.0	6.0
6	12-5201	Object Marker	"		0.5	3.0
			"			0.0
				$ 9,569.58		
CAPITAL:		Total Direct Material Cost		$ 9,569.58		
					Man-hour Sub Total	163.8
		Non-productive hours per 8 hour shift @ 4 men crew			1.5	37.8
					Total Direct Capital Man-hours	201.6

PRE-CAPITALIZED MATERIALS (cost as of 6-16-00)

Qty		Description	Unit	Unit Total		
	25 KVA	Transformer	$ 1,095	$ 2,190.00		
			Total Pre-Capitalized Materials		$	2,190.00

EQUIVALENT OVERHEAD COST ESTIMATE

Outside Material - Services - Pole Costing

	Project:	Sunset Ridge PH. 3 Unit 3				Date:	28-Oct-05
	Planner:	Matthew Mather			Request/Parent WO Number:		H23528

OUTSIDE SERVICES

Qty	Depth ea.	Zone	Description	Unit	Unit Total		
1	6.5	6	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 975.00		
5	6	6	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 4,500.00		
3	5	6	Dig Pole Hole (+1' for pole base)	$ 150.00	$ 2,250.00		
6	9.5	6	Dig and Set Anchor	$ 150.00	$ 8,550.00		
	----	6	Sidewalk Repair < 4 blocks	$ 280.00	$ -		
	----	6	Sidewalk Repair 4 or > blocks	$ 260.00	$ -		
	----	6	AC Repair	$ 150.00	$ -		
6	----	6	Ground Rod Installation (2 per)	$ 350.00	$ 2,100.00		
	----	6	Pole Base	$ 125.00	$ -		
	----	6	Traffic Control	$ 15.25	$ -		
	----	6	Tree Trimming	$ -	$ -		
	----	6	Helicopter	$ 1,750.00	$ -		
	----	6		$ -	$ -		
				Total	$ 18,375.00		$ 18,375.00

GTE JP SHARES (HELCO installed):

Qty		TMK	Description	Unit	Unit Total		
	25/25	6	30' Pole	$ -	$ -		
3	30/30	6	35' Pole	$ 690.52	$ 2,071.56		
5	30/35	6	45' Pole	$ 864.69	$ 4,323.45		
1	30/35	6	50' Pole	$ 929.85	$ 929.85		
6	50/50	6	Anchor Installation	$ 686.50	$ 2,059.50		
				Total	$ 9,384.36		$ 9,384.36

H0001329 Waikoloa Beach Marriott

H0001329

ADDITIONAL
REQUEST NO. 21

2006 CAPITAL BUDGET
ADDITIONAL REQUEST

COPY

PROJECT NAME: Waikoloa Beach Marriott

Grand Parent: UM-430 UG Svcs and Extns

LOCATION: Waikoloa, South Kohala, HI

Approval is requested for the attached authorization request in the amount of $35,540 for the relocation of existing 3-phase, 12.47 KV primary underground service in way of construction of their new ball room at Waikoloa Beach Marriott Hotel.

$35,540 is being transferred from the following Project(s):

Budgeted Project Number To Transfer From	Budgeted Project Name To Transfer From	Original Approved Budgeted Amount	Balance Before Transfer	To H0001329	Balance After Transfer
H0011000	Unforseeable UG Cust Req	1,907,232	1,907,232	35,540	1,871,6
			Total Project	35,540	

Approval is requested.

Clyde H. Nagata, Manager

Warren H.W. Lee, President

Pillar Proj. #: H0001329
Request #: H0025580

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: _____ **Phone/Ext #:** 333

Originator's Name: Ralph Ratific

Responsible Estimator: Ralph Ratific
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Ralph Ratific

Date: 02/06/2006

Required Approvals to Initialize a Project:

_____
Responsible Manager **Date**

_____
HELCO President **Date**

Required Approvals to Authorize a Project:

_____ 2/6/06
Responsible Manager **Date**

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

_____ 2/7/06
HELCO Accounting Manager **Date**

_____ 7 FEB 2006
HELCO President **Date**

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: Waikoloa Beach Marriott

Plant Addition Date: 2006-05

Project Number: H0001329
(Permanent)

Commitment Date: 2006-02

Primary Corporate Goal: New Rev

Stategic Plan Linkage: 2B - Increase Electric Sales
(Primary)

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$35	$0	$0	$0	$0	$0	$35

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
0	20	30	27	9	86

Purpose/Objectives:

The purpose of this project is to satisfy and complete the processing of a service request made by the developer to *relocate the existing primary underground service which is in way of new construction.*

Scope Description:

Install 478 ckt. ft. of 3-#4/0 AL. PEICN 15 kV underground cable and S&C PMH-9 with Auto Transfer switchgear for a three phase underground service.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Resource Needs:

HWC-Design and Project Management
HWX-Distribution Single Line
HWA-Clerical
HDW-Construction
HDR-Inspection

Justification:

To provide a new three phase 12.47/7.2kV underground service to the customer's equipment. Customer elects to own and maintain their PME-5 and 2000KVA padmount transformer.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

This project will increase revenue sales due to the added Ballroom for the Hotel.
Developer to pay full relocation cost of $80,379.00. This relocation cost is classified as non-refundable payment.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- ***In Kind*** *NONE*

- **In Cash** $80,379.00 Developer to pay a non refundable contribution of $80,379.00 due to the relocation of existing primary ductline which in way of future construction of the new ballroom

GET Included

Cash Advance NONE

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

NONE

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

NONE

Project #	*Proj Link	*RA #	*Act #	*Loc #	*Inc #	*Est #	Notes Linked To	Labor Class #	Line Item	Total Item Cost	[illegible]	[illegible]	[illegible]
001329	H0001329	*AF...	*AF...	*AF...	*AFU...	*AF...	N/A		Waikoloa Beach Marriott	$0.00	[illegible]	0.0	0.0
											$	$0.00	$0.00
		*AF...	*AF...		*AFU...	*AF...				$0.00	[illegible]	0.0	0.0
											$0.00	$0.00	$0.00
		*AF...	*AF...		*AFU...					$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
			*AF...							$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
001329		-	-	-	-	401	Not in File		Stores OHH0001329	$1,614.50	0.00	16,258.80	0.00
											$0.00	$1,614.50	$0.00
		-	-		-	401				$1,614.50	0.00	16,258.80	0.00
											$0.00	$1,614.50	$0.00
001329		-	-	-	-	404	Not in File		Energy Delivery OHH0...	$3,703.85	13.2	63.9	39.3
											$420.02	$2,033.30	$1,250.53
		-	-		-	404				$3,703.85	13.2	63.9	39.3
											$420.02	$2,033.30	$1,250.53
001329		-	-	-	-	406	Not in File		Corp Admin OH H000...	$773.71	49.6	101.1	43.7
											$197.41	$402.38	$173.83
		-	-		-	406				$773.71	49.6	101.1	43.7
											$197.41	$402.38	$173.03
001329		-	-	-	-	407	Not in File		Cust Install OH H0001...	$4,065.36	36.4	37.2	4.4
											$1,897.17	$1,938.86	$220.33
		-	-		-	407				$4,065.36	36.4	37.2	4.4
											$1,897.17	$1,938.86	$220.33
001329		-	-	-	-	421	Not in File		NPW OH H0001329	$820.37	49.6	101.1	43.7
											$209.31	$426.64	$184.41
		-	-		-	421				$820.37	49.6	101.1	43.7
											$209.31	$426.64	$184.41
001329		-	-	-	-	422	Not in File		Empl Benefits OH H0...	$1,912.90	49.6	101.1	43.7
											$488.08	$994.82	$430.01
		-	-		-	422				$1,912.90	49.6	101.1	43.7
											$488.08	$994.82	$430.01
001329		-	-		-	423	Not in File		Payroll Tax OHH0001...	$489.84	1,293.53	3,117.50	1,490.81
											$107.36	$258.75	$123.72
		-	-			423				$489.84	1,293.53	3,117.50	1,490.81
											$107.36	$258.75	$123.72
										$13,380.52	1,491.93	10,780.70	1,665.41
											$3,319.34	$7,609.26	$2,391.92
										$13,380.52	1,491.93	19,780.70	1,665.41
											$3,319.34	$7,660.26	$2,391.82
[illegible]	H0001329	HWC	404	HAH	NI	150	W_CD-CE Prod...	W_CD-CE	Cust Eng-Designer 42	$1,318.53	32.0	24.0	4.4
											$698.56	$523.02	$96.05
001329	H0001329	HWC	404	HAH	NI	150	W_PA-CE Prod...	W_PA-CE	Cust Eng-Planner Aide	$192.02	0.0	8.8	0.0
											$0.00	$192.02	$0.00
		HWC	404		NI	150				$1,510.55	32.0	32.8	4.4
											$698.56	$715.94	$96.05
		HWC	404		NI					$1,510.55	32.0	32.8	4.4
											$698.56	$715.94	$96.05
001329	H0001329	HWX	404	HAH	NI	150	W_ENG-CE Pr...	W_ENG-CE	Planning-Engineer	$116.64	2.2	2.2	0.0
											$58.32	$58.32	$0.00
001329	H0001329	HWX	404	HAH	NI	150	W_SCD-CE Pr...	W_SCD-CE	Planning-Draft	$141.90	2.2	2.2	0.0
											$70.95	$70.95	$0.00
		HWX	404		NI	150				$258.54	4.4	4.4	0.0
											$129.27	$129.27	$0.00
		HWX	404		NI					$258.54	4.4	4.4	0.0
											$129.27	$129.27	$0.00
			404							$1,769.09	36.4	37.2	4.4
											$827.83	$845.21	$98.05
001329	H0001329	HDH	416	HAH	NI	150	_TCS-ED Pro...	_TCS-ED	Crew-Sup-NI	$119.12	0.0	1.8	1.8
											$0.00	$59.56	$59.56
001329	H0001329	HDH	416	HAH	NI	150	D_CREW Prod ...	D_CREW	Crew-NI	$2,004.96	0.0	44.1	37.5
											$0.00	$1,569.96	$1,335.00
		HDH	416		NI	150				$3,024.08	0.0	45.9	39.3
											$0.00	$1,629.52	$1,394.56
001329	H0001329	HDH	416	HAH	NI	201	_ No Escalation		Outside Materials	$13,428.90	0.0	13,428.8	0.0
											$0.00	$13,428.90	$0.00
001329	H0001329	HDH	416	HAH	NI	201	_ No Escalation		Stock Material	$2,829.90	0.0	2,829.9	0.0
											$0.00	$2,829.90	$0.00
		HDH	416		NI	201				$16,258.80	0.0	16,258.8	0.0
											$0.00	$16,258.80	$0.00
001329	H0001329	HDH	416	HAH	NI	505	_ No Escalation		Outside Construction	$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HDH	416		NI	505				$0.00	0.0	0.0	0.0
											$0.00	$0.00	$0.00
		HDH	416		NI					$19,282.88	0.0	16,304.7	39.3
											$0.00	$17,888.32	$1,394.56
[illegible]	H0001329	HDR	416	HAH	NI	150	_FS-ED Prod ...	_FS-ED	Inspection -Sup	$177.07	0.0	4.8	0.0
											$0.00	$177.07	$0.00
001329	H0001329	HDR	416	HAH	NI	150	D_INSPE Prod ...	D_INSPE	Inspection-Inspector	$931.39	13.2	13.2	0.0
											$465.70	$465.70	$0.00

Proj #	*Proj Link	*RA #	*Act #	*Loc #	*Ind #	*EE #	Rates Linking to	*Labor Class #	Line Item				
		HDR	416		NI	150				$1,108.46	13.[illegible]	18.0	0.0
											$465	$642.77	$0.00
		HDR	416		NI					$1,108.46	13.[illegible]	18.0	0.0
											$465.70	$642.77	$0.00
			416							*$20,391.35*	*13.2*	*16,322.7*	*39.2*
											$465.70	$16,531.09	$1,394.56
										$35,540.96	1,541.53	35,140.60	1,709.11
											$4,612.87	$27,045.56	$3,882.54

Hawaii Electric Light Company, Inc. • PO Box 1027 • Hilo, HI 96721-1027

CUST 3-3-1
H-W/G

May 27, 2005

COPY

Moss Engineering Inc.
1357 Kapiolani Blvd Suite #1001
Honolulu, Hawaii 96814

Gentlemen:

Subject: Waikoloa Beach Marriott 3 Phase Primary U.G. Service Relocation

In compliance with your request, the cost for the above subject relocation is $80,379.00 which includes the State General Excise Tax. This cost is based on HELCO furnishing all labor and material necessary to complete the work. This cost does not include the Hawaiian Telecom's cost.

The customer is to purchase, install and maintain the PME-5 switchgear and the 3 Phase 2000KVA Padmount Transformers. HELCO will make the final termination at the line side of the PME-5 switchgear.

HELCO will perform the relocation in accordance with our Drawing No. 05-E-708, copy enclosed.

The payment on a relocation of this nature is not refundable and is classed as a "Contribution in Aid of Construction."

Commencement of HELCO's work is contingent upon completion of customer's CSA work and acquisition of any easements.

We shall be able to commence with the work approximately four (4) months after receiving your acceptance and payment of our quotation, acquiring easement, and material purchases.

HELCO shall bill the Developer/Individual all additional costs incurred should there be a determination of special findings not available during the development of HELCO's cost estimate. An example would be archeological findings, which would require mitigation by working around or redesigning the proposed project to enable completion.

The above cost will be in effect for a six-month period effective the date of this letter.

The terms of this proposal are at all times subject to change or modification by the State of Hawaii Public Utilities Commission ("PUC") as the PUC may direct in the exercise of its jurisdiction.

Please signify acceptance of this proposal by signing in the space provided below. We are including one (1) extra copy of this proposal and request that the signed original, Customer Data Input Sheet and payment of $80,379.00 be mailed to HELCO in the enclosed self-addressed

envelope or deliver directly to HELCO's Customer Service Division located at 1200 Kilauea Avenue, Hilo, Hawaii. In addition, please include the approximate date our Company will be permitted to begin its installation so that we may proceed with obtaining the necessary easements and ordering the necessary materials. Should you have any questions, please write or call me at 969-0333 .

Very truly yours,

Ralph Ratific, Jr.
Customer Designer
Customer Engineering Division

HAWAII ELECTRIC LIGHT CO., INC.

Clyde H. Nagata, Manager
Engineering Department

CHN:RRjr:fc
Enclosure
Request No. H0025580

Approved: _____
Signature in Ink

Name of Signer: DAVID HIRSH
Type or Print

Title: VP & MANAGING DIRECTOR Date: 6/2/05

Approximate date HELCO permitted to begin: _____

ENGINEERING DEPT
'05 JUN -3 P2:26
RECEIVED

SUMMARY
Underground Cost Estimate
DEVELOPER

Project: Waikoloa Beach Marriott — Date: 13-May-05
Planner: Ralph Ratific, Jr. — Request Number: H0025580

CAPITAL:	Direct Engineering (includes WX & transportation)	$	1,903.33		
	Direct Labor Cost (NI-includes transportation)	$	8,597.96		
	Direct Material Cost	$	10,509.00		
	Direct Outside Materials	$	30,433.00		
	Direct Outside Services	$	-		
	Total Capital	$	51,443.29	$	51,443.29
O & M:	Direct Labor (NE-includes transportation)	$	-		
REMOVAL:	Direct Labor (NR/NS-includes transportation)	$	792.38		
	Total O & M / Removal	$	792.38	$	792.38
OVERHEAD:	Total Overhead	$	25,888.73	$	25,888.73
	Total Project Cost			$	78,124.40
	Less Developer Cost			$	~~79,124.40~~ 78124.40
	HELCO Betterment			$	~~(1,000.00)~~
	Less Salvageable Material Credit			$	-
	Total UG Cost			$	~~79,124.40~~ 78124.40

	Man-hour	Crew-hour
Capital	239.5	
O & M	0.0	
Removal	0.0	
TOTAL	239.5	0.0

Prepared By: Ralph Ratific, Jr.

Checked by: M J Bartlett 5/20/2005

UNDER GROUND COST ESTIMATE
Material and Labor -

Project: Waikoloa Beach Marriott — Date: 13-May-05
Planner: Ralph Ratific, Jr. — Request / Parent WO Number: H0025580

Qty.	SMU. No.	Description - Includes Std and Materials that make up SMU		Mat'l Unit Cost from "SMU Mat'l. Estimate Summary Report"	Units	MH Units	MH Units	Labor MH Unit	Labor MH Total
1700	21-1000	3-1/C # 4/0 PEICN Al XLPE INS SHIELDED		•				0.024	40.80
3	21-1042	Cable Training, Racking and Grounding 5X7 HH		•				6.0	18.00
		21-1043	racking	•			4		
		21-1046	hand hole grounding	•			2		
1	23-3006	PME-6		•				18.5	18.50
		23-3006	anchoring	•			4		
		23-3006	grounding	•			2		
			bushing plug (9)	•			1.5		
		26-3030	loadbreak elbow (9)	•			9		
		26-3032	stand-off plug for LB	•			1		
		26-3034	insulating receptacle for LB	•			1		
1	23-3006	PME-9		•				26.5	26.50
		23-3006	anchoring	•			4		
		23-3006	grounding	•			5.5		
			bushing plug (12)	•			2		
		26-3030	loadbreak elbow (12)	•			12		
		26-3032	stand-off plug for LB	•			1.5		
		26-3034	insulating receptacle for LB	•			1.5		
6	26-1028	Cable Sealing						0.0	0.12
3	26-2009	600a Prefab Splices w/ground bushing		•				4.3	12.75
			Tee connectors (2)	•	2	1	2		
			bushing plug (1)	•	1	0.25	0.25		
			connector plug (1)	•	1	0.25	0.25		
			reducing tap well (1)	•	1	0.25	0.25		
			insulating receptacle for LB (1)	•	0	0.25	0		
			grounding	•	1	0.5	0.5		
			Elbow Non Load Break	•	1	1	1		
3	26-2009	600a Prefab Splices w/ground bushing		•				2.0	6.00
			Tee connectors (2)	•	0	1	0		
			bushing plug (1)	•	1	0.25	0.25		
			connector plug (1)	•	0	0.25	0		
			reducing tap well (1)	•	1	0.25	0.25		
			insulating receptacle for LB (1)	•	0	0.25	0		
			grounding	•	1	0.5	0.5		
			Elbow Non Load Break	•	1	1	1		
1		Tailgate Meeting		•				4.0	4.00
		Switching		•					0.00

CAPITAL:	Total Direct Stock Material Cost $ 10,509.00	
	Man-hour Sub Total	126.67
	Non-productive hours per 8 hour shift @ 4 men crew 2.50	57.58
	Total	184.25
	Inspection Man-hours (30% of Labor)	38.00
	Non-productive hours per 8 hour shift @ 1 inspector 2.50	17.27
	Total	55.27
	Total Direct Capital Man-hours	239.52
O & M:	(Capital Man-hours)	
	(O & M m/h = (rule of thumb) 30% of capital labor m/h)	0.00
	Non-productive hours per 8 hour shift @ 4 men crew ur shift @ 4 men crew 2.50	0.00
	Total Direct O&M Man-hours	0.00
REMOVAL:	(Capital Man-hours)	
	(Removal m/h = (rule of thumb) 50% of capital labor m/h)	0.00

				Non-productive hours per 8 hour shift @ 4 men crew				2.50	0.00
					Tot	ect Removal Man-hours			0.00
OUTSIDE MATERIALS (PME, VS, fault indicator and other special order non-stock material)									
Qty	Description			Unit	Unit Total				
0	PME-6 OT 691-2000			$ 10,527.00	$ -				
1	PMH-9 ATS			$ 30,433.00	$ 30,433.00				
0	5-Way Vacuum Switch			$ 18,902.00	$ -				
				$ -	$ -				
				Total Outside Materials		$ 30,433.00			
OUTSIDE SERVICES									
Qty	Description			Unit	Unit Total				
				$ -	$ -				
				$ -	$ -				
				Total Outside Services		$ -			
PRE-CAPITALIZED MATERIALS (cost as of 6-16-00)									
Qty	Description			Unit	Unit Total				
	25 KVA (1PH)	Transformer		$ 1,772	$ -				
	37.5 KVA (1PH)	Transformer		$ 1,852	$ -				
	50 KVA (1PH)	Transformer		$ 1,979	$ -				
	75 KVA (1PH)	Transformer		$ 2,594	$ -				
	100 KVA (1PH)	Transformer		$ 3,176	$ -				
	167 KVA (1PH)	Transformer		$ 3,847	$ -				
	75 KVA (3PH)	Transformer		$ 5,858	$ -				
	112.5 KVA (3PH)	Transformer		$ 7,776	$ -				
	150 KVA (3PH)	Transformer		$ 6,338	$ -				
	225 KVA (3PH)	Transformer		$ 9,067	$ -				
	300 KVA (3PH)	Transformer		$ 8,667	$ -				
	750 KVA (3PH)	Transformer		$ 14,946	$ -				
	1000 KVA (3PH)	Transformer		$ 17,415	$ -				
	1500 KVA (3PH)	Transformer		$ 17,360	$ -				
				Pre-Capitalized Materials		$ -			
SALVAGEABLE MATERIALS									
Qty	Description			Unit	Unit Total				
				$ -	$ -				
				$ -	$ -				
				Salvageable Materials		$ -			

File name:	Project 2005-2009-Apr-RRatific.PLN
Data Set ID:	Project 2005-2009
Version:	Apr

Search criteria:

*Project # = RRatif06

							Labor Cla...	Line Item	al 5 Year Cost	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05
		*AFU...	*AFUD...	*AFU...	*AFU...	*AFUDC_...		Waikoloa Beach Mark	$0.00	0.0	0.0	0.0	0.0	0.0
		*AFU...	*AFUD...		*AFU...	*AFUDC_...			$0.00	0.0	0.0	0.0	0.0	0.0
										$0.00	$0.00	$0.00	$0.00	$0.00
		*AFU...	*AFUD...		*AFU...				$0.00	0.0	0.0	0.0	0.0	0.0
										$0.00	$0.00	$0.00	$0.00	$0.00
			*AFUD...						$0.00	0.0	0.0	0.0	0.0	0.0
										$0.00	$0.00	$0.00	$0.00	$0.00
RRatl06		_	_	_	_	401		Stores OHRRatl06	$5,555.83	0.00	40,942.00	0.00	0.00	0.00
		_	_		_	401			$5,555.83	0.00	40,942.00	0.00	0.00	0.00
										$0.00	$5,555.83	$0.00	$0.00	$0.00
RRatl06		_	_	_	_	404		Energy Delivery OHR...	$9,027.68	0.0	30.0	30.0	104.0	108.0
		_	_		_	404			$9,027.68	0.0	30.0	30.0	104.0	108.0
										$0.00	$995.70	$995.70	$3,451.76	$3,584.52
RRatl06		_	_	_	_	406		Corp Admin OH RRat...	$1,546.98	42.0	50.0	40.0	114.0	108.0
		_	_		_	406			$1,546.98	42.0	50.0	40.0	114.0	108.0
										$183.54	$218.50	$174.80	$498.18	$471.96
RRatl06		_	_	_	_	407		Cust Install OH RRatl06	$4,599.38	42.0	20.0	10.0	10.0	0.0
		_	_		_	407			$4,599.38	42.0	20.0	10.0	10.0	0.0
										$2,355.78	$1,121.80	$560.90	$560.90	$0.00
RRatl06		_	_	_	_	421		NPW OH RRatl06	$1,454.94	42.0	50.0	40.0	114.0	108.0
		_	_		_	421			$1,454.94	42.0	50.0	40.0	114.0	108.0
										$172.62	$205.50	$164.40	$468.54	$443.88
RRatl06		_	_	_	_	422		Empl Benefits OH RR...	$2,754.12	42.0	50.0	40.0	114.0	108.0
		_	_		_	422			$2,754.12	42.0	50.0	40.0	114.0	108.0
										$326.76	$389.00	$311.20	$886.92	$840.24
RRatl06		_	_	_	_	423		Payroll Tax OHRRatl06	$949.80	970.93	1,467.30	1,257.36	3,840.90	3,757.18
		_	_		_	423			$949.80	970.93	1,467.30	1,257.36	3,840.90	3,757.18
										$81.66	$123.40	$105.74	$323.02	$315.98
		_	_		_				$25,888.73	1,138.93	42,609.30	1,417.36	4,296.90	4,189.18
										$3,120.36	$8,609.73	$2,312.74	$6,189.32	$5,656.58
			_						$25,888.73	1,138.93	42,609.30	1,417.38	4,296.90	4,189.18
										$3,120.36	$8,609.73	$2,312.74	$6,189.32	$5,656.58
RRatl06	RRatl06	HWC	404	HAH	NI	150	W_PA-CE	Cust Eng-Planner Ald	$253.08	12.0	0.0	0.0	0.0	0.0
RR[illegible]	RRatl06	HWC	404	HAH	NI	150	W_CD-CE	Cust Eng-Designer 42	$1,398.60	20.0	20.0	10.0	10.0	0.0
		HWC	404		NI	150			$1,651.68	32.0	20.0	10.0	10.0	0.0
										$719.28	$466.20	$233.10	$233.10	$0.00
		HWC	404		NI				$1,651.68	32.0	20.0	10.0	10.0	0.0
										$719.28	$466.20	$233.10	$233.10	$0.00
[illegible]atl06	RRatl06	HWX	404	HAH	NI	150	W_ENG-CE	Planning-Engineer	$104.50	5.0	0.0	0.0	0.0	0.0
[illegible]atl06	RRatl06	HWX	404	HAH	NI	150	W_SCD-CE	Planning-Draft	$147.15	5.0	0.0	0.0	0.0	0.0
		HWX	404		NI	150			$251.65	10.0	0.0	0.0	0.0	0.0
										$251.65	$0.00	$0.00	$0.00	$0.00
		HWX	404		NI				$251.65	10.0	0.0	0.0	0.0	0.0
										$251.65	$0.00	$0.00	$0.00	$0.00
			404						$1,903.33	42.0	20.0	10.0	10.0	0.0
										$970.93	$466.20	$233.10	$233.10	$0.00
[illegible]06	RRatl06	HDH	416	HAH	NI	150	D_CREW	Crew-NI	$8,452.80	0.0	0.0	0.0	100.0	85.0
[illegible]06	RRatl06	HDH	416	HAH	NI	150	__TCS-ED	Crew-Sup-NI	$119.80	0.0	0.0	0.0	4.0	0.0

Date: 05/19/2005
Time: 02:49 PM

Material Estimate with SMU Detail

EGI Code: YHR25580 Rev: 1

Design Estimate

Description: Waikoloa Beach Marriott

Work Group: Hilo CID | Owner: Ralph Ratific | Stage Code: Open

Drawing: 05-E-708 | Created: 05/19/2005 | Updated: 05/19/2005 | Total Cost: 10,509.12

Component 1

Drawing Nbr: 05-E708 | WO Reference: EE071433 | Description: Waikoloa Beach Marriott

Item	D/Ln	TP	SMU ID	V?	New Stock #	Old Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
1	1	I			000114843	07621	FT	CONDUCTOR, 15KV, 4/0 AL PEICN, 3-1/C XLPE INS SHIELI	5	2,000.00	3.99	7,980.00
2	2	S	21-1046-2H	N				RACKING AND GROUND BUS DETAILS-FOR 5X7 MH OR HI		4.00	55.12	220.48

SMU:

Item	D/Ln	TP	Table	Row	Stock #	Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
1	2	I			000116707	11353	EA	RACK, UNDERGROUND CBL, 30", 18 HOLE CHANNEL	11	12.00	0	0.00
2	2	I			000146126	22527	EA	STUD, 3/8 X 3, W10-30-32-P10	11	24.00	0.89	21.36
3	2	I			000128744	22404	EA	CHARGE, BOOSTER, RED, HEAVY, .27 CALIBER	14	24.00	0	0.00
4	2	I			000104406	02282	EA	NUT, SQUARE HEAD, GALV, 3/8"	11	24.00	0	0.00
5	2	I			000104521	02307	EA	WASHER, ROUND, GALV, 3/8", 1" OD	11	24.00	0	0.00
6	2	I			000144543	08024	LB	CONDUCTOR BARE, COPPER, 4/0, 19 STRANDS, SOFT	11	16.00	2.11	33.76
7	2	I			000101568	00623	EA	CLAMP, GROUND ROD, 3/4", COPPER CLAD STEEL, 3/4" R	11	3.00	0	0.00
8	2	I			000116749	11356	EA	HOOK, CABLE RACK, 10", UNDERGROUND, COATED	11	12.00	0	0.00

Material Estima vith SMU Detail

EGI Code: YHR25580 Rev: 1

Design Estimate

Item	D/Ln	TP	SMU ID	V?	New Stock #	Old Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
3	3	S	23-3015-1	N				PMH 9 PADMT SW AND FUSE ENCL WITH-AUTO TRANSFE		1.00	300.22	300.22

SMU:

Item	D/Ln	TP	Table	Row	Stock #	Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
1	3	I			000118141	11618	EA	TERMINATOR, STRESS CONE, 15KV FOR #2 AL, PEICN C/	11	6.00	7.18	43.08
2	3	I			000118042	11613	EA	TERMINATOR, CABLE, INDOOR FOR 4/0 AWG AL 15KV PE	11	6.00	9.04	54.24
3	3	I			000117267	11447	EA	TERMINAL, COMPR, AL, #2, 1-HOLE, CONNECTOR, PREFII	18	6.00	0	0.00
4	3	I			000117200	11444	EA	TERMINAL, COMPR, AL, 4/0, 15KV, 1-HOLE	18	6.00	5.76	34.56
5	3	I			000103226	02067	EA	BOLT, MACH, GALV, 3/8 X 1-1/4", WITH NUT MINIMUM THR	0	6.00	0	0.00
6	3	I			000103382	02086	EA	BOLT, MACH, GALV, 1/2 X 1", WITH NUT	0	6.00	0	0.00
7	3	I			000104521	02307	EA	WASHER, ROUND, GALV, 3/8", 1" OD	11	12.00	0	0.00
8	3	I			000104547	02308	EA	WASHER, ROUND, GALV, 1/2", 1-3/8 OD	11	12.00	0	0.00
9	3	I			000144527	08021	LB	CONDUCTOR, BARE, COPPER, 1/0, 19 STRD 1000' OR 325	11	6.00	2.11	12.66
10	3	I			000115287	08008	LB	CONDUCTOR, BARE, COPPER, SOLID, #4 SOFT DRAWN, :	11	3.50	2.17	7.60
11	3	I			000122986	12418	EA	CONNECTOR, TAP, COMPR, CU, "H" TYPE - RUN #2 STR -	11	12.00	0	0.00
12	3	I			000122903	12410	EA	CONNECTOR, TAP, COMPR, CU, RUN #6SOL-#4 STRD, TA	11	12.00	0	0.00
13	3	I			000121368	12117	EA	CONNECTOR, SPLIT BOLT, 2-1/0 STR, 2-2/0 SOLID, DUAL	18	4.00	6.48	25.92
14	3	I			000105783	02533	EA	NUT, HEX HEAD, 1/2", SILICON BRONZE	34	4.00	0	0.00
15	3	I			000105882	02548	EA	WASHER, LOCK, SPLIT, 1/2", SILICON BRONZ	25	4.00	0	0.00
16	3	I			000101543	00622	EA	CLAMP, GROUND ROD, 5/8", WITH HEX HEAD BOLT COPF	11	1.00	0	0.00

Material Estimate with SMU Detail

EGI Code: YHR25580 Rev: 1

Design Estimate

Item	D/Ln	TP	SMU ID	V?	-- New -- Stock #	-- Old -- Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost

SMU:	Item	D/Ln	TP	Table	Row	Stock #	Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
	17	3	I			000124248	14319	RL	TAPE, ELECTRICAL, SILICONE, RUBBER 1" X 30'	11	6.00	20.36	122.16
	18	3	I			000124321	14343	RL	TAPE, SPLICING, HIGH VOLTAGE, 3/4" X 30' LINERLESS R	11	3.00	0	0.00
	19	3	I			000124347	14344	RL	TAPE, SEMI-COND, RUBBER, 3/4" X 15' MARKED ALONG V	11	3.00	0	0.00
4	4	S	23-3006-2H		N				(HELCO) PME-6 TERMINATION (#4/0-#4/0)		1.00	483.10	483.10

SMU:	Item	D/Ln	TP	Table	Row	Stock #	Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
	1	4	I			000119909	11776	EA	WELL, TAP, REDUCING, 600/200A, 25KV TERMINATION CC	116	3.00	52.22	156.66
	2	4	I			000119883	11775	EA	BUSHING EXTENSION, 25KV FOR 600AMP APPARATUS TE	88	3.00	41.90	125.70
	3	4	I			000118240	11624	EA	BUSHING, PLUG, STANDOFF, 15KV FOR #2 AL PEICN	11	3.00	28.73	86.19
	4	4	I			000118265	11625	EA	TERMINAL, CABLE, ELBOW, 15KV FOR 4/0 1/C AL PEICN	11	3.00	21.46	64.38
	7	4	I			000146381	60505	EA	PADLOCK, WITH B1 KEY WAY, PATENTED CORE 1-1 (COF	67	1.00	37.33	37.33
	12	4	I			000101568	00623	EA	CLAMP, GROUND ROD, 3/4", COPPER CLAD STEEL, 3/4" R	11	1.00	0	0.00
	13	4	I			000107185	02719	EA	CLAMP, PARALLEL GROOVE, AL, #6-2/O RUN AND TAP, W	18	2.00	0	0.00
	14	4	I			000122903	12410	EA	CONNECTOR, TAP, COMPR, CU, RUN #6SOL-#4 STRD, TA	11	3.00	0	0.00
	15	4	I			000145623	12416	EA	CONNECTOR, TAP, COMPR, CU, #4 SOL - #2 SOL	11	3.00	0	0.00
	16	4	I			000124263	14323	RL	TAPE, ELECTRICAL, VINYL, BLACK, 3/4" x 66'	11	1.00	0	0.00
	17	4	I			000115287	08008	LB	CONDUCTOR, BARE, COPPER, SOLID, #4 SOFT DRAWN, 2	11	3.00	2.17	6.51
	18	4	I			000144543	08024	LB	CONDUCTOR BARE, COPPER, 4/0, 19 STRANDS, SOFT	11	3.00	2.11	6.33

Material Estim: ith SMU Detail

EGI Code: YHR25580 Rev: 1

Design Estimate

Item	D/Ln	TP	SMU ID	V?	Stock # (New)	Stock # (Old)	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
6	6	S	26-1028-H	N				(HELCO) SEALING OF JACKETED PEICN CABLES		6.00	0.00	0.00

SMU:

Item	D/Ln	TP	Table	Row	Stock #	Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
1	6	I			000124123	14181	EA	TAPE, PUTTY, ELEC INS, 1.5 X .125 X 60"	11	0.25	0	0.00
2	6	I			000124263	14323	RL	TAPE, ELECTRICAL, VINYL, BLACK, 3/4" x 66'	11	0.25	0	0.00
3	6	I			000124347	14344	RL	TAPE, SEMI-COND, RUBBER, 3/4" X 15' MARKED ALONG W	11	0.25	0	0.00
7	7	S	26-2009-9	N				600A PREFAB SPLICE-1000 KCMIL AL PEIJ-RUN TO #4/0 A		3.00	335.66	1,006.98

SMU:

Item	D/Ln	TP	Table	Row	Stock #	Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
1	7	I			000119602	11731	EA	ADAPTER, 15KV OR 25KV 1000KCMIL PEICN AL CABLE, 6(	11	2.00	9.93	19.86
2	7	I			000119388	11718	EA	PLUG, CONN, 25KV 600A SPLICE COMPONENT	11	1.00	40.86	40.86
3	7	I			000119545	11727	EA	TEE HOUSING, 25KV, 600A SPLICE COMPONENT	11	2.00	42.97	85.94
4	7	I			000119347	11716	EA	PLUG & CAP, END, FEMALE, 25KV, 600A SPLICE COMPON	11	1.00	27.70	27.70
5	7	I			000119404	11720	EA	PLUG, ELBOW, FEMALE, 25KV, 600AMP SPLICE COMPONI	11	1.00	67.86	67.86
6	7	I			000118869	11671	EA	TERMINAL, CABLE, ELBOW, NON-LOADBREAK 15KV, FOR	11	1.00	44.20	44.20
8	7	I			000115287	08008	LB	CONDUCTOR, BARE, COPPER, SOLID, #4 SOFT DRAWN, :	11	2.00	2.17	4.34
9	7	I			000121301	12111	EA	CONNECTOR, SPLIT BOLT, 350MCM, COPPER	18	1.00	0	0.00
10	7	I			000122846	12403	EA	CONNECTOR, TAP, COMPR, CU, "H" TYPE - RUN & TAP #2	11	3.00	0	0.00
11	7	I			000124461	14393	RL	TAPE, ARC & FIREPROOFING, 3" X 20'	11	1.00	7.48	7.48
12	7	I			000119768	11743	EA	TERMINAL, COMPR, 1000KCMIL, AL PEICN CABLE, 600A T	11	2.00	18.71	37.42

Material Estimate with SMU Detail

EGI Code: YHR25580 Rev: 1

Design Estimate

Item	D/Ln	TP	SMU ID	V?	New Stock #	Old Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
8	8	S	26-2009-9	N				600A PREFAB SPLICE-1000 KCMIL AL PEIJ-RUN TO #4/0 A		3.00	157.26	471.78

SMU:

Item	D/Ln	TP	Table	Row	Stock #	Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
2	8	I			000119388	11718	EA	PLUG, CONN, 25KV 600A SPLICE COMPONENT	11	1.00	40.86	40.86
5	8	I			000119404	11720	EA	PLUG, ELBOW, FEMALE, 25KV, 600AMP SPLICE COMPONI	11	1.00	67.86	67.86
6	8	I			000118869	11671	EA	TERMINAL, CABLE, ELBOW, NON-LOADBREAK 15KV, FOR	11	1.00	44.20	44.20
8	8	I			000115287	08008	LB	CONDUCTOR, BARE, COPPER, SOLID, #4 SOFT DRAWN, :	11	2.00	2.17	4.34
9	8	I			000121301	12111	EA	CONNECTOR, SPLIT BOLT, 350MCM, COPPER	18	1.00	0	0.00
10		I			000122903	12410	EA	CONNECTOR, TAP, COMPR, CU, RUN #6SOL-#4 STRD, TA	11	1.00	0	0.00

Total Component Cost: 10,462.56

Component 2

Drawing Nbr: 05-E-708 WO Reference: EE071433 Description: Cont.Intall Mat'l Waikoloa Beach Marriott

Item	D/Ln	TP	SMU ID	V?	New Stock #	Old Stock #	UOI	Description	Ld Day	Quantity	Unit Cost	Total Cost
1		I			000101527	00620	EA	ROD, GROUND, 5/8" X 8', COPPER CLAD STEEL, COPPER\	11	6.00	7.76	46.56

Total Component Cost: 46.56

		..A #	*Act #	*Loc #	*Ind #	*EE #	*Labor Cla...	Line Item	Total 5 Year Cost	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05
		HDH	416		NI	150			$8,572.60	0.0	0.0	0.0	104.0	85.0
										$0.00	$0.00	$0.00	$3,607.80	$2,964.80
		HDH	416		NI				$8,572.60	0.0	0.0	0.0	104.0	85.0
										$0.00	$0.00	$0.00	$3,607.80	$2,964.80
RRatif06	RRatif06	HDH	416	HDM	NS	150	__TCS-ED	Crew-sup-NS	$0.00	0.0	0.0	0.0	0.0	0.0
		HDH	416		NS	150			$0.00	0.0	0.0	0.0	0.0	0.0
										$0.00	$0.00	$0.00	$0.00	$0.00
		HDH	416		NS				$0.00	0.0	0.0	0.0	0.0	0.0
										$0.00	$0.00	$0.00	$0.00	$0.00
RRatif06	RRatif06	HDR	416	HAH	NI	150	__FS-ED	Inspection-sup	$156.64	0.0	0.0	4.0	0.0	0.0
		HDR	416		NI	150			$156.64	0.0	0.0	4.0	0.0	0.0
										$0.00	$0.00	$156.64	$0.00	$0.00
		HDR	416		NI				$156.64	0.0	0.0	4.0	0.0	0.0
										$0.00	$0.00	$156.64	$0.00	$0.00
RRatif06	RRatif06	HDW	416	HAH	NE	150	D_CREW	Crew-NE	$0.00	0.0	0.0	0.0	0.0	0.0
		HDW	416		NE	150			$0.00	0.0	0.0	0.0	0.0	0.0
										$0.00	$0.00	$0.00	$0.00	$0.00
		HDW	416		NE				$0.00	0.0	0.0	0.0	0.0	0.0
										$0.00	$0.00	$0.00	$0.00	$0.00
RRatif06	RRatif06	HDW	416	HAH	NI	150	D_INSPE	Inspection-Inspector	$1,868.72	0.0	30.0	26.0	0.0	0.0
		HDW	416		NI	150			$1,868.72	0.0	30.0	26.0	0.0	0.0
										$0.00	$1,001.10	$867.62	$0.00	$0.00
RRatif06	RRatif06	HDW	416	HAH	NI	201		Stock Material	$10,509.00	0.0	10,509.0	0.0	0.0	0.0
RRatif06	RRatif06	HDW	416	HAH	NI	201		Outside Material	$30,433.00	0.0	30,433.0	0.0	0.0	0.0
		HDW	416		NI	201			$40,942.00	0.0	40,942.0	0.0	0.0	0.0
										$0.00	$40,942.00	$0.00	$0.00	$0.00
		HDW	416		NI				$42,810.72	0.0	40,972.0	26.0	0.0	0.0
										$0.00	$41,943.10	$867.62	$0.00	$0.00
RRatif06	RRatif06	HDW	416	HAH	NR	150	__TCS-ED	Crew-Sup-NR	$59.90	0.0	0.0	0.0	0.0	2.0
RRatif06	RRatif06	HDW	416	HAH	NR	150	D_CREW	Crew-NR	$732.48	0.0	0.0	0.0	0.0	21.0
		HDW	416		NR	150			$792.38	0.0	0.0	0.0	0.0	23.0
										$0.00	$0.00	$0.00	$0.00	$792.38
		HDW	416		NR				$792.38	0.0	0.0	0.0	0.0	23.0
										$0.00	$0.00	$0.00	$0.00	$792.38
			416						$50,332.34	0.0	40,972.0	30.0	104.0	108.0
										$0.00	$41,943.10	$1,024.26	$3,607.80	$3,757.18
									$78,124.40	$4,091.29	$51,019.03	$3,570.10	$10,030.22	$9,413.78

H0001419 Parker Well #1

2/22/06

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: Parker Well #1

Project Number: H0001419
(Permanent)

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

Plant Addition Date: 2006-01

Commitment Date: 2005-10

Primary Corporate Goal: Cap Exp

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2005	2006	2007	2008	2009	Future Years	Total
$8	$0	$22	$0	$0	$0	$0	$30

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
42	0	0	0	0	42

Purpose/Objectives:

The purpose of this project is to satisfy and complete the processing of a service request made by adeveloper to relocate our facilities UG to accommodate the installation of a muti-family condo complex. The service request No. is H0026598.

Scope Description:

Install 1490 ft. of 3-1/C #4/0 AL. PEICN underground distribution cables and replace an existing ME Switch with a new PME 6.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Resource Needs:

HWW, HDW

Justification:

Relocate existing OH facilities to UG to accommodate a 173 unit muti-family development located at Waikoloa Village, South Kohala.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Developer to make a CIAC of $29,770.00 towards this project.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind**	NONE	
- **In Cash**	$29,770.00	Developer to make a cash contribution in the amount of $29,770.00 towards this project.
GET Included	$29,770.00	

Cash Advance NONE

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - - .

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: _____ **Phone/Ext #:** _____

Originator's Name: Matthew Mather

Responsible Estimator: Matthew Mather
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Matthew Mather

Date: 02/27/2006

Required Approvals to Initialize a Project:

_____
Responsible Manager **Date**

_____
HELCO President **Date**

Required Approvals to Authorize a Project:

_____
Responsible Manager **Date**

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

_____
HELCO Accounting Manager **Date**

_____
HELCO President **Date**

Hawaii Electric Light Company, Inc. • PO Box 325 • Kamuela, HI 96743-0325

SEP - 8 2005

CUST 3-3-1
H-W/G

August 29, 2005

Castle & Cooke Homes Hawaii
P.O. Box 898900
Mililani, HI 96789-8900

RECEIVED
Hawaii Electric Light Co. Inc.
By: MM Date: 9/27/05

Gentlemen:

Subject: Parker Well #1

In compliance with your request, the cost for the above subject relocation is $29,770.00 which includes the State General Excise Tax. This cost is based on HELCO furnishing all labor and material necessary to complete the work. This cost does not include the Hawaiian Telephone Company's cost.

HELCO will perform the relocation in accordance with our Drawing No. 05-E-982, copy enclosed.

The payment on a relocation of this nature is not refundable and is classed as a "Contribution in Aid of Construction."

We shall be able to commence with the work approximately one (1) month after receiving your acceptance and payment of our quotation, acquiring easement, and material purchases. Payment shall be required a minimum of (4) four weeks prior to the processing of our construction work orders.

HELCO shall bill the Developer/Individual all additional costs incurred should there be a determination of special findings not available during the development of HELCO's cost estimate. An example would be archeological findings, which would require mitigation by working around or redesigning the proposed project to enable completion.

The above cost will be in effect for a six-month period effective the date of this letter.

The terms of this proposal are at all times subject to change or modification by the State of Hawaii Public Utilities Commission ("PUC") as the PUC may direct in the exercise of its jurisdiction.

Please signify acceptance of this proposal by signing in the space provided below. We are including one (1) extra copy of this proposal and request that the signed original, Customer Data Input Sheet and payment of $29,770.00 be mailed to HELCO in the enclosed self-addressed envelope or deliver directly to HELCO's Customer Service Division located at 74-5519 Kaiwi Street, Kailua-Kona, Hawaii. In addition, please include the approximate date our Company will be permitted to begin its installation so that we may proceed with ordering the necessary materials. Should you have any questions, please write or call me at (808) 327-0611.

Very truly yours,

Matthew Mather
Senior Customer Planner
Customer Engineering Division

Hawaii Electric Light Co., Inc.

Clyde H. Nagata, P.E.
Manager, Engineering Department

MM:abl
Request No. H 26598
Enclosures

Approved: _____
Signature in Ink

Name of Signer: ALAN K. ARAKAWA
Type or Print

Title: SENIOR VICE PRESIDENT Date: SEP 20 2005

Approximate date HELCO permitted to begin: SEP 23 2005

UNDERGROUND COST ESTIMATE
- Material and Labor -

Project: Parker Well #1 | Date: 25-Aug-05
Planner: Matthew Mather | Request / Parent WO Number: H26598

Qty.	SMU. No.	Description - Includes Std and Materials that make up SMU		Mat'l Unit Cost from "SMU Mat'l. Estimate Summary Report"	Units	MH Units	MH Units	Labor MH Unit	Labor MH Total
1490	21-1000	3-1/C # 2 PEICN Al XLPE INS SHIELDED		"				0.024	35.76
2	21-1042	Cable Training, Racking and Grounding 4X6 HH		"				5.0	10.00
		21-1043	racking	"			3		
		21-1046	hand hole grounding	"			2		
1	23-3006	PME-6		"				18.5	18.50
		23-3006	anchoring	"			4		
		23-3006	grounding	"			2		
			bushing plug (9)	"			1.5		
		26-3030	loadbreak elbow (9)	"			9		
		26-3032	stand-off plug for LB	"			1		
		26-3034	insulating receptacle for LB	"			1		
6	26-1068	200a Prefab Plug Connector (w/ grounding)-#2/#4/0		"				1.0	6.00
		26-3048	dead end receptacles	"					
6	26-2003	200a Prefab Disc. Tee (w/ bailing assembly)-#2/#4/0		"				4.0	24.00
		26-1068	plug connector (1)	"					
		26-3035	non-load break elbows (2)	"					
				"					0.00
1		Tailgate Meeting		"				1.0	1.00
1		Switching		"				1.0	1.00
CAPITAL:			Total Direct Stock Material Cost	$ 8,064.21					
							Man-hour Sub Total		96.26
				Non-productive hours per 8 hour shift @ 4 men crew				1.50	22.21
								Total	118.47
				Inspection Man-hours (30% of Labor)					28.88
				Non-productive hours per 8 hour shift @ 1 inspector				1.50	6.66
								Total	35.54
				Total Direct Capital Man-hours					154.02

IND #	EE #	LABOR CLASS	Description	m/h	UG Primary Line Extension
	Engr m/h (C&M m/h x 45%)			53.3	
NI	150	W_CD-CE	42		0.0
NI	150	W_SCP-CE	15's	74%	39.5
NI	150	W_CP-CE	12's		0.0
NI	150	W_JCP-CE	10's		0.0
NI	150	W_PA-CE	9's	14%	7.5
			WC sub total	88%	
NI	150	W_TT-CE	Transit Tech (JM)	0%	0.0
NI	150	W_RH-CE	Rodman Helper (AT)	0%	0.0
NI	150	W_PA-CE	Planner Aide (CN)	0%	0.0
			WS sub total	0%	
NI	150	W_ENG-CE	(MSY)	6%	3.2
NI	150	W_SCD-CE	(EF)	6%	3.2
			WX sub total	12%	
			TOTAL	100%	60.2
	Capital m/h			118.5	
NI	150	_TCS-CE	labor (sup)	2%	2.4
NI	150	D_Crew	labor (crew)	100%	118.5
NI	201		Direct Material Cost	- - - -	$ 8,064.21
NI	201		Direct Outside Material Cost	- - - -	$ -
NI	150	_FS-ED	labor (DR sup)	2%	2.4
NI	150	D-INSPE	labor (DR inspector)	30%	35.5
NI	505		Direct Outside Services	- - - -	$ -
	O&M M/H			0.0	
NS	150	_TCS-ED	labor (sup)	1%	0.0
NE	150	D_CREW	labor (crew)	100%	0.0
				100%	
	Removal			0.0	
NR	150	_TCS-ED	labor (sup)	1%	0.0
NR	150	D_CREW	labor (crew)	100%	0.0
				100%	
		Project:	Parker Well #1	Date	8/25/2005

CA-IR-451

Ref: HELCO WP-545, Pages 5 through 12, PGV and HELCO.

HELCO WP-545, Pages 5 through 12, is The Performance Agreement with Puna Geothermal Venture. Please provide all pages of this agreement, including all amendments, attachments and exhibits.

HELCO Response:

Attachment 1 to this response provides the Performance Agreement. The requested information is voluminous and is available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the requested information.

The requested information is voluminous and is available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the requested information.

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Petition of HAWAII ELECTRIC LIGHT COMPANY, INC. For Approval Of Performance Agreement With Puna Geothermal Venture And For Approval To Recover Firm Capacity Costs Through Its Firm Capacity Surcharge And For Approval To Recover Purchased Energy Costs Through Its Energy Cost Adjustment Clause.	)	DOCKET NO. 96-0042

FEB 14 3 39 PM '96

APPLICATION

EXHIBIT "A"

and

CERTIFICATE OF SERVICE

GOODSILL ANDERSON QUINN & STIFEL
THOMAS W. WILLIAMS, JR.
CRAIG I. NAKANISHI
1800 Alii Place
1099 Alakea Street
Honolulu, Hawaii 96813
Telephone: 547-5600

Attorneys for
HAWAII ELECTRIC LIGHT
COMPANY, INC.

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Petition of	)	
	)	
HAWAII ELECTRIC LIGHT COMPANY, INC.	)	**DOCKET NO. _____**
	)	
For Approval Of Performance Agreement With Puna Geothermal Venture And For Approval To Recover Firm Capacity Costs Through Its Firm Capacity Surcharge And For Approval To Recover Purchased Energy Costs Through Its Energy Cost Adjustment Clause.	)	

APPLICATION

TO THE HONORABLE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII:

The Application of HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO" or the "Company") respectfully shows unto this Honorable Commission as follows:

I. INTRODUCTION

HELCO respectfully requests approval of the Performance Agreement And Fourth Amendment To The Purchase Power Contract Dated March 24, 1986 ("Performance Agreement"), dated February 12, 1996, by and between HELCO and Puna Geothermal Venture ("PGV"). A copy of the Performance Agreement is attached hereto as Exhibit "A".

HELCO also respectfully requests authorization to include purchased energy costs (and related revenue taxes) and

firm capacity payments to PGV (and related revenue taxes) that HELCO incurs under the Performance Agreement in HELCO's Energy Cost Adjustment Clause ("ECAC") and Firm Capacity Surcharge, respectively.

II.

HELCO, whose principal office is located at 1200 Kilauea Avenue, Hilo, Hawaii 96720, is a corporation duly organized under laws of the Republic of Hawaii on or about December 5, 1894, and is now existing under and by virtue of the laws of the State of Hawaii. HELCO is an operating public utility engaged in the production, purchase, transmission, distribution, and sale of electricity on the Island of Hawaii.

III.

Correspondence and communications in regard to this Petition should be addressed to:

Warren H.W. Lee
President
Hawaii Electric Light Company, Inc.
P. O. Box 1027
Hilo, Hawaii 96721-1027

Copies of such correspondence and communications should be sent to:

Edward Y. Hirata
Vice President, Regulatory Affairs
Hawaiian Electric Company, Inc.
P. O. Box 2750
Honolulu, Hawaii 96840

and

Thomas W. Williams, Jr., Esq.
Craig I. Nakanishi, Esq.
Goodsill Anderson Quinn & Stifel
Alii Place, Suite 1800
1099 Alakea Street
Honolulu, Hawaii 96813

IV. EXISTING PURCHASE POWER AGREEMENT

1. PGV presently provides to HELCO, and HELCO presently purchases from PGV, 25 megawatts ("MW") of firm capacity from PGV's Facility pursuant to a purchased power agreement ("PPA"). The PPA is the result of a number of amendments to the Purchase Power Contract for Unscheduled Energy Made Available From a Qualifying Facility (the "Unscheduled Energy Contract"), dated March 24, 1986, by and between HELCO and Thermal Power Company ("Thermal Power")[1], which was approved by the Commission by Decision and Order No. 8692, dated March 25, 1986, in Docket No. 5525. On July 28, 1989, HELCO and PGV entered into the Firm Capacity Amendment to Purchase Power Contract ("Firm Capacity Amendment"), which amended the Unscheduled Energy Contract, and which was approved by the Commission by Decision and Order No. 10519, dated February 14, 1990, in Docket No. 6498. By Amendment to Purchase Power Contract, As Amended ("Second Amendment"), HELCO and PGV amended the Unscheduled Energy Contract and Firm Capacity Amendment to

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1 Thermal Power assigned the Unscheduled Energy Contract to AMOR VIII Corporation, a Delaware corporation ("AMOR VIII") on July 19, 1988. AMOR VIII assigned the Unscheduled Energy Contract to PGV.

provide that the PGV facility shall be either a qualifying facility or a nonfossil fuel producer. Copies of the Unscheduled Energy Contract and the Firm Capacity Amendment were attached as Attachments I and II, respectively, to HELCO's Application filed July 28, 1989 in Docket No. 6498, and are incorporated as exhibits hereto by reference. The Unscheduled Energy Contract as amended by the Firm Capacity Amendment and the Second Amendment is referred to as the "Original PPA"

2. Under the Original PPA, PGV is paid for firm capacity and for energy delivered. With respect to energy, the energy charge is the higher of HELCO's on-peak and off-peak filed avoided energy costs or the on-peak and off-peak Minimum Purchase Rates (which are equal to HELCO's filed avoided energy costs at the time the Unscheduled Energy Contract became effective) for both on-peak (6.56¢/kilowatthour ("kwh")) and off-peak (5.43¢/kwh) energy, respectively. For emergency energy, PGV is paid a rate of 300% of HELCO's on-peak or off-peak avoided energy costs at the time the emergency energy is delivered.

3. Subsequent to the execution of the Original PPA, a number of issues arose between the HELCO and PGV which they settled in a Settlement Agreement dated March 7, 1995 ("Settlement Agreement"). As part of the Settlement Agreement, the Company and Seller agreed to a third amendment ("Third Amendment") to the Original PPA.[2] The Third Amendment was

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2 HELCO and PGV also entered into a letter agreement dated November 29, 1994 (the "Letter Agreement") which expired
(footnote continued on next page)

approved on an interim basis by the Commission by Interim Decision and Order No. 13876, dated May 5, 1995, in Docket No. 95-0074. A copy of the Third Amendment is attached to HELCO's Petition in Docket No. 95-0074 and is incorporated herein by reference. The Original PPA as amended by the Third Amendment is referred to as the "Existing PPA".

4. The Third Amendment amended the Original PPA by temporarily lowering (a) the purchased energy rate paid to PGV for off-peak energy in excess of 22 MW, and (b) the emergency energy rate. The Third Amendment did not change the firm capacity payments paid to PGV or the energy rate for on-peak energy. After the satisfaction of PGV's obligations under the Settlement Agreement, the energy rates revert back to the same terms as the Original PPA (i.e. the energy rate impact of the Third Amendment will no longer exist.) The Third Amendment was approved on an interim basis in Interim Decision and Order No. 13876 (May 5, 1995) in Docket No. 95-0074 and is pending a final decision and order of the Commission.

(footnote continued from previous page)
on March 5, 1995, by which PGV agreed to HELCO's withholding of payments for as-available energy beyond the firm capacity amounts specified in the then existing purchased power contract pending the settlement. HELCO and PGV entered into an additional letter agreement dated March 7, 1995 (the "2nd Letter Agreement"), which continued the arrangement set up under the Letter Agreement until the effective date of the Settlement Agreement. A copy of the Letter Agreement is attached as Exhibit H to the Settlement Agreement and a copy of the 2nd Letter Agreement is attached as Exhibit "C" to HELCO's Petition filed March 31, 1995 in Docket No. 95-0074 and are incorporated herein by reference.

V. PERFORMANCE AGREEMENT

General

1. On February 12, 1996, HELCO and PGV entered into the Performance Agreement ("Performance Agreement") whereby PGV agreed to enhance its present facility to enable the production of an additional 5 MW of firm capacity above the 25 MW of firm capacity presently supplied under the Existing PPA (for a total of 30 MW of firm capacity). In addition, the Performance Agreement amends the Existing PPA and resets the price for purchases of energy above PGV's off-peak Legally Enforceable Obligation 22 MW below the price in the Existing PPA. Further, the Performance Agreements deletes the emergency energy provision (whereby HELCO paid 300% of avoided cost for emergency energy) in the Existing PPA.

2. In general, the Performance Agreement is structured into two parts. The first part obligates PGV to enhance its present facility in order to produce a total of 30 MW of firm capacity. PGV's obligation to enhance its facility will not become effective until HELCO obtains Commission approval, as requested herein, and the lender which is financing PGV's facility consents to the Performance Agreement. The second part of the Performance Agreement amends the Existing PPA by obligating PGV to provide 5 MW of firm capacity in addition to the present 25 MW of firm capacity. The second part of the Performance Agreement does not take effect until PGV successfully completes a 100 hour continuous

acceptance test and PGV fulfills all of its In-Kind Obligations under the Settlement Agreement.

On-Peak Energy Rates

3. Under the Existing PPA, the on-peak energy rate is the higher of HELCO's on-peak avoided energy cost in the month the energy is delivered or $0.0656/kwh. HELCO's filed on-peak avoided energy cost for the 1st quarter of 1996 is $0.0588/kwh. The Performance Agreement does not change the calculation of the on-peak energy rate for the first 25 MW of on-peak energy delivered.

4. However, for on-peak energy provided above 25 MW, the Performance Agreement amends the Existing PPA and resets the on-peak energy rate equal to the higher of (1) the formula rate, periodically adjusted for certain factors, or (2) the formula rate on the date that the Commission approves the Performance Agreement.

5. The formula rate is comprised of two components -- a fuel component (currently $0.038/kwh) and a variable operations and maintenance ("O&M") component (currently $0.0029/kwh). As of January 1, 1996, the formula rate was $0.0409/kwh.

6. The fuel component of the formula rate will be adjusted monthly by an index based on diesel fuel prices. Specifically, the index is the ratio of the average of each of the Thursday high and low Pacific Northwest Spot 0.5% No. 2 prices for Diesel Fuel as reported by the Oil Price Information

Service ("PNW No. 2 prices") from the 21st day of the second preceding month to the 20th day of the month preceding the month Energy is delivered to HELCO, divided by the average of each of the Thursday high and low PNW No. 2 prices from the 21st day of November 1995 to the 20th day of December 1995.

7. The variable O&M component of the formula rate will be adjusted on an annual basis by an index based on the Gross Domestic Product Implicit Price Deflator ("GDPIPD") as published by the United States Department of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis ("Department of Commerce"). Specifically, the index is the ratio of the final GDPIPD for the third quarter of the calendar year preceding the calendar year in which the Energy is delivered, divided by the final GDPIPD for the third quarter of 1995.

Off-Peak Energy Rates

8. Under the Existing PPA, PGV is paid for off-peak energy at the higher of HELCO's filed off-peak avoided energy cost or the Minimum Purchase Rate of $0.0543/kwh. HELCO's filed off-peak avoided energy cost for the 1st quarter of 1996 is $0.0488/kwh. (In general, the Minimum Purchase Rates have been greater than HELCO's filed avoided energy costs.) The Performance Agreement does not change the energy rate for off-peak energy provided under PGV's Legally Enforceable Obligation (22 MW off-peak).

9. However, the Performance Agreement modifies the rate for off-peak energy delivered above 22 MW. Instead of the

off-peak energy rate being the higher of HELCO's off-peak avoided cost or the off-peak Minimum Purchase Rate,[3] the off-peak rate for off-peak energy delivered above 22 MW is set at the higher of (1) the on-peak energy rate (currently at $0.0409/kwh) under the Performance Agreement less $0.01/kwh, or (2) $0.02/kwh (which is substantially lower than the $0.0543/kwh Minimum Purchase Rate under the Existing PPA). With the Commission's approval to recover the purchase energy costs through HELCO's ECAC, as requested herein, the benefit of the reduction in the price for off-peak energy purchases from PGV above 22 MW will be passed on to HELCO's customers.

Emergency Energy

10. Under the Existing PPA, PGV is paid for emergency energy at a rate of 300 percent of HELCO's filed on-peak or off-peak avoided energy cost in effect at the time the emergency energy is delivered.

11. The Performance Agreement eliminates this provision from the Existing PPA. The benefit of this reduction in emergency energy cost will be passed to HELCO's customers through its ECAC.

25 MW Limitation

12. The Existing PPA appears to limit the rate at which PGV can deliver energy to 25 MW an hour. See Firm

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3 During the effective period of the Third Amendment, the off-peak energy rate is temporarily set at HELCO's avoided cost.

Capacity Amendment, Appendix D, ¶A.1 and Appendix A, fn. ***; but see Appendix B, ¶3(c). The Performance Agreement removes this ambiguity and allows PGV to deliver energy in excess of 25 MW an hour.

13. Under the Performance Agreement HELCO continues to agree to purchase a minimum of 178,000,000 kwh each year from PGV, and to accept up to 25,000 kw during the on-peak hours (7:00 a.m. to 9:00 p.m.) and 22,000 kw during the off-peak hours. In addition, HELCO agrees to accept as much of the power made available from PGV as possible, given the limitations resulting from the HELCO's obligations to purchase minimum amounts of firm capacity from other firm capacity sellers, HELCO's existing obligations to purchase As-Available Energy, HELCO's need to keep a minimum number of its own generating units on-line at a reasonable minimum loading, the HELCO's load during certain times of the day and other operating reasons.

PGV's Firm Capacity Commitment

14. PGV's Firm Capacity Commitment is presently 25 MW under the Existing PPA and will be increased to 30 MW under the Performance Agreement. The firm capacity will be supplied for at least 48 operating weeks under the Performance Agreement, as is the case in the Existing PPA.

Capacity Payment Rates

15. The Capacity Payment Rate for the additional 5 MW provided under the Performance Agreement will be $100.95/kw-yr. Performance Agreement at Attachment D at 5. The annual payment

for capacity would be $504,750 for the additional 5 MW of firm capacity. The Capacity Payment Rate for the existing 25 MW provided for under the Existing PPA will remain the same at $4,000,000 for 25 MW of firm capacity or approximately $160/kw-yr.

Additional Purchases Of Off-Peak Energy

16. HELCO has agreed that it will take additional off-peak Energy from PGV before it enters into any new contracts with independent power producers or amends any existing contracts with independent power producers that would obligate HELCO to take any more off-peak As-Available Energy than HELCO is presently obligated to take under an existing agreement. This provision does not apply to the purchase, either in a new or existing contract with an independent power producer, of any additional amount of off-peak energy required in such contract because of the reasonable minimum operating requirements of an independent power producer.

Term Of The Fourth Amendment

17. The term of the Performance Agreement coincides with the term of the Existing PPA.

Benefits

18. Briefly stated, the potential benefits to HELCO and its customers are that HELCO will receive additional firm capacity and energy from PGV at a cost equal to or less than avoided cost, and at a cost less than the cost under the current contract rates. HELCO pays PGV firm capacity payments of

$160/kw-yr for the 25 MW PGV is providing HELCO under the Existing PPA. HELCO will pay PGV 100.95/kw-yr for an additional 5 MW of firm capacity -- more than one-third less than the price per kw/yr under the Existing PPA. The purchased energy rates based on present fuel oil prices under the Performance Agreement for off-peak Energy above 22 MW an hour and for on-peak Energy above 25 MW an hour are currently less than the current contract rates. For emergency energy, the rate will be approximately one-third (1/3) of the current contract rate. Further, the Performance Agreement provides additional power to HELCO at a time when HELCO has been delayed in its efforts to add needed new generation to its system. In addition, HELCO's purchase of additional firm capacity and energy from PGV will promote the use of a nonfossil fuel source of electrical energy in furtherance of the State's energy objective of increased energy self-sufficiency.

VI. ENERGY COSTS ADJUSTMENT CLAUSE

1. In general, the payment rates for energy under the Existing PPA are equal to the greater of (a) 100% of HELCO's filed on-peak and off-peak avoided energy costs, or (b) the minimum on-peak and off-peak rates. The minimum on-peak and off-peak rates are $0.0656/kwh and $0.0543/kwh, respectfully, which were HELCO's filed on-peak and off-peak avoided costs as of the effective date of the Existing PPA.

2. Under the Existing PPA as amended by the Performance Agreement, the energy payment rates will be the same

for the first 25 MW of off-peak energy and the first 22 MW of off-peak energy. However, for on-peak energy provided above 25 MW, the Performance Agreement amends the Existing PPA and resets the on-peak energy rate above 25 MW equal to the higher of (1) the formula rate periodically adjusted for certain factors (as of January, 1996, the on-peak energy rate would have been $0.0409/kwh), or (2) the formula rate on the date the Commission approves the Performance Agreement. (The current on-peak energy rate under the Existing PPA is $0.0656/kwh.) In addition, the provision related to the payment rates for emergency energy have been deleted.

3. The off-peak energy rate for off-peak energy is the same rate as the Existing PPA for the first 22 MW of off-peak energy (currently $0.0543/kwh). For off-peak energy provided above 22 MW, the Performance Agreement resets the off-peak energy rate to the higher of (1) the on-peak energy rate under the Performance Agreement less $0.01/kwh (currently $0.0304/kwh) or (2) $0.02/kwh (as compared to the current rate of $0.0543/kwh).

4. In essence, HELCO will be able to purchase additional energy above 25 MW on-peak and above 22 MW off-peak at rates substantially lower than under the Existing PPA.

5. Commission approval is sought pursuant to H.A.R. Section 6-60-6 (Standards For Electric And Gas Utilities Service In The State Of Hawaii). Section 6-60-6(2) provides that:

> No changes in fuel and purchase energy cost may be included in the fuel adjustment clause unless the contracts or prices for the purchase of such fuel or energy have been previously approved or filed with the Commission.

VII. FIRM CAPACITY SURCHARGE

1. HELCO is requesting the recovery of additional firm capacity payments of $504,750 (and related revenue taxes of $49,213 per year) beginning on the effective date of the Performance Agreement for the additional 5 MW of firm capacity. These firm capacity payments are in addition to the amount that HELCO is presently paying PGV for 25 MW of firm capacity in the amount of $4,000,000 and related revenue taxes of $390,000 per year.

2. HELCO proposes to recover the firm capacity payments to PGV (and related revenue taxes) through its Firm Capacity Surcharge until the cost is included in base rates, in a manner similar to the previous recovery of HELCO's firm capacity payments to PGV as approved in Decision and Order No. 10519 (February 14, 1990) in Docket No. 6498 and in a manner similar to the Hilo Coast Processing Company capacity cost recovery mechanism approved by the Commission in Decision and Order No. 9854 dated July 29, 1988 in Docket No. 6193. Firm capacity payments to Hamakua Sugar Company were also previously recovered through HELCO's Firm Capacity Surcharge as approved by the Commission in Decision and Order No. 10182 dated April 19, 1989, in Docket No. 6390.

3. The recovery of payments to PGV for firm capacity (and related revenue taxes) totaling $553,963 as a Firm Capacity Surcharge would increase HELCO's rates by approximately 0.4% based on 1995 electric sales revenues of $135 million. The bill for a residential customer using 500 kilowatthours per month would increase by approximately $0.36 per month, based on February 1996 rates. The revenues collected through the Firm Capacity Surcharge will be reconciled to the actual firm capacity payments quarterly.

4. Commission approval of HELCO's recovery of the firm capacity payments made to PGV and related revenue taxes is requested pursuant to H.R.S. Section 269-27.2 which authorizes the Commission to:

> . . . allow payments made by the public utility to nonfossil fuel producers for firm capacity and related revenue taxes to be recovered by the public utility through an interim increase in rates until the effective date of the rate change approved by the commission's final decision in the public utility's next general rate proceeding under section 269-16, notwithstanding any requirements to the contrary of any other provision in this chapter or in the commission's rules or practices; provided the amount recovered by the utility and the amount of increase in rates due to the payments for firm capacity and related revenue taxes to be charged to the consumers of the electricity are found by the commission to be:
>
> (1) Just and reasonable;
>
> (2) Not unduly prejudicial to the customers of the public utility;
>
> (3) Promotional of Hawaii's long-term objective of energy self-sufficiency;

(4) Encouraging to the maintenance or development of nonfossil fueled sources of electrical energy; and

(5) In the overall best interest of the general public.

The evidentiary hearing provided for in this subsection shall be conducted expeditiously and shall be limited to evidence related to the above findings. Notwithstanding section 269-16, no public hearing shall be required, except as the commission in its discretion may require.

VIII.

WHEREFORE, HELCO requests that this Honorable Commission:

1. Approve the Performance Agreement;

2. Authorize HELCO to include the purchased energy costs (and related revenue taxes) that HELCO incurs under the Existing PPA as amended by the Performance Agreement in HELCO's ECAC to the extent that the costs are not included in HELCO's base rates;

3. Approve recovery of HELCO's payments made to PGV for the additional 5 MW of firm capacity (and related revenue taxes) through its Firm Capacity Surcharge on an interim basis until HELCO's permanent rates are adjusted to include these costs in its next general rate proceeding;

4. Hold the evidentiary hearing that is specified by H.R.S. Section 269-27.2;

5. Hold public hearings on this matter as it finds appropriate; and

6. Grant HELCO such other and further relief as may be just and equitable in the premises.

DATED: Honolulu, Hawaii, February-13, 1996.

HAWAII ELECTRIC LIGHT COMPANY, INC.

By Warren H.W. Lee
Warren H.W. Lee
President

STATE OF HAWAII)
) SS.
CITY AND COUNTY OF HONOLULU)

WARREN H.W. LEE, being first duly sworn, on oath, deposes and says: That he is the President of Hawaii Electric Light Company, Inc., the within-named applicant; that he makes this verification for and on behalf of said applicant and is authorized so to do; that he has read the foregoing Application, knows the content thereof, and that the same are true.

By: Warren H.W. Lee
WARREN H.W. LEE
Its President

Subscribed and sworn to before me this
13th day of February, 1996

Ann Q Okuno
Notary Public, State of Hawaii
LS
My commission expires: 3/22/98

CERTIFICATE OF SERVICE

I hereby certify that I served a copy of the foregoing Application and Exhibit "A", together with this Certificate of Service, by hand-delivery and/or by mailing a copy by United States mail, postage prepaid, to the following:

CHARLES W. TOTTO
EXECUTIVE DIRECTOR
DIVISION OF CONSUMER ADVOCACY
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
250 SOUTH KING STREET, ROOM 825
HONOLULU, HAWAII 96813

DATED: Honolulu, Hawaii, February 14, 1996.

THOMAS W. WILLIAMS, JR.
CRAIG I. NAKANISHI

Attorneys for
HAWAII ELECTRIC LIGHT COMPANY, INC.

EXHIBIT "A"

PERFORMANCE AGREEMENT AND FOURTH AMENDMENT TO THE PURCHASE POWER CONTRACT DATED MARCH 24, 1986 AS AMENDED

THIS PERFORMANCE AGREEMENT AND FOURTH AMENDMENT ("Performance Agreement" or "Fourth Amendment") is made as of this 12th day of February 1996 ("Execution Date"), by and between HAWAII ELECTRIC LIGHT COMPANY, INC. (the "Company" or "HELCO"), and PUNA GEOTHERMAL VENTURE (the "Seller" or "PGV").

WHEREAS, the Company is an operating electric public utility on the Island of Hawaii subject to the Hawaii Public Utilities Law (Hawaii Revised Statutes, Chapter 269) and the rules and regulations of the Hawaii Public Utilities Commission (the "PUC" or "Commission");

WHEREAS, the Company has entered into a Purchase Power Contract for Unscheduled Energy Made Available From a Qualifying Facility (the "Unscheduled Energy Contract"), dated March 24, 1986, with Thermal Power Company ("Thermal Power") which was approved by the PUC by Decision and Order No. 8692, dated March 25, 1986, in Docket No. 5525;

WHEREAS, Thermal Power assigned the Unscheduled Energy Contract to AMOR VIII and AMOR VIII assigned the Unscheduled Energy Contract to PGV;

WHEREAS, HELCO and PGV have entered into that certain Firm Capacity Amendment to Purchase Power Contract, dated July 28, 1989 ("Firm Capacity Amendment"), which amended the Unscheduled Energy Contract, and was approved by the PUC by Decision and Order No. 10519, dated February 14, 1990, in Docket No. 6498;

WHEREAS, by Amendment to Purchase Power Contract, As Amended ("Second Amendment"), HELCO and PGV amended the Unscheduled Energy Contract and Firm Capacity Amendment;

WHEREAS, a number of issues arose between the Company and Seller which they settled in a Settlement Agreement dated March 7, 1995 ("Settlement Agreement");

WHEREAS, as part of the Settlement Agreement, the Company and Seller agreed to a third amendment ("Third Amendment") to the Unscheduled Energy Contract, Firm Capacity Amendment, and the Second Amendment (the Unscheduled Energy Contract as amended by the Firm Capacity Amendment, the Second Amendment, and the Third Amendment and as may be amended from time to time, is referred to as the "Amended PPC") (The Third Amendment was approved on an interim basis by the PUC by Interim Decision and Order No. 13876, dated May 5, 1995, in Docket No. 95-0074);

WHEREAS, Seller presently provides to the Company, and the Company presently purchases from Seller, twenty-five (25) megawatts ("MW") of firm capacity from Seller's Facility pursuant to the Amended PPC;

WHEREAS, the Seller desires to sell to the Company an additional five (5) MW of firm capacity generated by the Facility above the twenty-five (25) MW of firm capacity presently supplied, and the Company wishes to purchase such Energy from the Seller, upon the terms and conditions set forth herein;

WHEREAS, the Seller's Facility will continue to be throughout the term of this Performance Agreement either (1) a qualifying, small power production facility under Subchapter 2 of the PUC's Standards for Small Power Production and Cogeneration in the State of Hawaii, Chapter 74 of Title 6 of the State's Administrative Rules, or (2) a "non-fossil fuel producer" within the meaning of Section 269-27.2, Hawaii Revised Statutes;

NOW, THEREFORE, in consideration of the premises and the respective promises herein, the Company and the Seller hereby agree as follows:

I. THE PROJECT

A. Enhancement and Operation of Seller's Facility

1. Seller agrees to provide the Company with five (5) megawatts of firm capacity in addition to the twenty-five (25) megawatts of firm capacity currently being provided pursuant to the Amended PPC (for a total of thirty megawatts of firm capacity) and 18,600 kvar of reactive under this Agreement. The reactive shall be in proportion to power in the range of 0.85 lagging to 1.0 unity power factor and shall be dispatched by the Company to keep the Seller's generator within the limits of plus or minus 5% of the generator voltage.

2. Attached as Exhibit A, is a description of the proposed enhancements (the "Project") to Seller's Facility to enable Seller to provide an additional five (5) MW of firm capacity (a total of thirty megawatts of firm capacity) and 18,600 kvar of reactive. Seller's Facility as modified by the Project is referred to hereinafter as "Seller's Facility".

3. Seller shall be responsible for all costs associated in any way with Seller's Facility and/or the Project.

4. Seller shall be responsible for obtaining all permits, licenses, approvals and any other requirements

reasonably required for Seller to provide the additional five (5) megawatts of firm capacity pursuant to this Performance Agreement.

5. Within sixty (60) days of the Execution Date, a final (1) a single-line diagram of Seller's Facility, (2) relay list, and (3) trip scheme, all as may be modified by the Project, shall be prepared and, subject to the review and acceptance thereof by both parties, signed and attached to Attachment B To The Fourth Amendment as Exhibit 1 to Appendix B and made a part thereof. Such single line diagram shall expressly identify the final location on the Point of Interconnection.

6. Within sixty (60) days of the Execution Date, the design and specifications for protective equipment to protect HELCO's system, as may be modified by the Project, shall be prepared and, subject to the review and acceptance thereof by both parties, signed and attached to Amended PPC and made a part thereof.

7. Attached hereto as Exhibit B is a project schedule relating to the Project.

8. Prior to the Commercial Operation Date (as defined below) of the Seller's Facility to produce the additional five (5) megawatts of firm capacity (for a total of thirty (30) megawatts of firm capacity), Seller shall inform HELCO on the third business day of every month of the status of the Seller's Project as of the last day of the prior month, including but not limited to, any revisions to the date of installation, the date of operation in parallel with the Company's System, and the anticipated Commercial Operation Date (as defined below) of the Seller's Facility for the additional five (5) megawatts of Firm Capacity.

B. Acceptance Tests. The Company shall conduct acceptance tests as part of the determination of when Firm Capacity payments related to the additional five (5) megawatts of firm capacity should begin.

1. Upon completion and testing of Seller's Facility as modified by the Project by Seller for the additional five (5) megawatts of firm capacity, Seller shall give HELCO seven (7) days prior notice of the time and date when Seller will be ready to begin the 100 continuous hours acceptance test for the additional five (5) megawatts of firm capacity.

2. Upon the agreed upon time and date, the Company shall conduct the 100 continuous hours acceptance test for the additional five (5) megawatts of firm capacity ("Acceptance Test"). At a minimum, Seller must be able to deliver to the

Company 100% of the Seller's Firm Capacity Obligation (30,000 kw of capacity and 18,600 kvar of reactive) for 100 consecutive hours under Company's Dispatch (as defined in Attachment E to the Fourth Amendment). The Acceptance Test may be started and/or completed prior to the Effective Date (as defined below) of this Performance Agreement.

3. As the last step of the Acceptance Test, Seller shall ramp Seller's Facility down to simulate a sudden loss of system load. Seller shall decrease power output from thirty (30) megawatts to ten (10) megawatts at an average ramp rate of one (1) megawatt per minute. Seller shall ramp Seller's Facility up in power output to simulate an increase in demand on the Facility. Seller shall increase power output from eighteen and one-half (18.5) megawatts to thirty (30) megawatts at an average ramp rate of one (1) MW/minute. In addition, during the Acceptance Test, the Seller shall demonstrate the ability to adjust kvars from 1,500 to 18,600.

4. The Seller's performance throughout the Acceptance Test shall be monitored remotely through the SCADA system and recorded. In addition, the Seller shall also allow HELCO representatives to be stationed at Seller's Facility to verify all data and ensure that all operational changes made at the request of HELCO were done within the bounds of good engineering and operating practices.

5. Upon successful completion of the Acceptance Test, HELCO will notify Seller in writing of the acceptance of the additional 5 MW of firm capacity and Seller will immediately acknowledge in writing such acceptance by HELCO. The date on which Seller's Facility is deemed to be capable of reliable delivery of the additional five (5) megawatts of firm capacity pursuant to this Performance Agreement after the successful completion of the Acceptance Test is referred to herein as the "Commercial Operation Date".

II. PROJECT COMPLETION

A. Commercial Operation Date. The Commercial Operation Date shall occur prior to or within six (6) months after the later of PUC Approval (as defined below in Section IV.A) or Bank's Consent (as defined in Section IV.B. below).

B. Penalties For Not Meeting Commercial Operation Date Deadline. If the Commercial Operation Date for the additional five (5) megawatts does not occur within nine (9) months of the later of the date of PUC Approval or Bank's Consent (the "Commercial Operation Date Deadline"), then:

1. Seller shall pay HELCO one cent ($0.01) per on-peak hour for each kilowatt deficiency until Seller

satisfies the Acceptance Test. Kilowatt deficiency is the difference in kilowatts at any given time between the 5,000 kilowatts PGV is required to produce hereunder and the actual amount produced by PGV pursuant to this Performance Agreement.

2. Seller shall pay to HELCO late charges in the amount of $1,380.00 per day for each day commencing on the Commercial Operation Date Deadline until the Commercial Operation Date.

3. Any penalties incurred under this Section II.B. shall cease to accrue one year after the Commercial Operation Date Deadline.

III. INTERCONNECTION FACILITIES

A. The parties believe that there are no additional interconnection facilities required for HELCO's system to accept the additional five (5) megawatts of Energy to be provided by Seller pursuant to this Performance Agreement.

B. If it is later determined that additional interconnection facilities are needed, then Seller shall be responsible for cost and construction of all interconnection facilities required to deliver the additional 5 MW of firm capacity from Seller's Facility to the Company's System.

C. Seller shall be responsible for one hundred percent (100%) of the maintenance costs associated with any upgrade of existing interconnection facilities.

IV. APPROVALS REQUIRED PRIOR TO EFFECTIVE DATE

A. Public Utilities Commission Approval.

1. The parties will use their best efforts, including without limitation, participation in any PUC proceeding at the request of the other party, to obtain an appropriate decision and order satisfactory to the Company ("PUC Approval") that approves this Agreement and authorizes the Company to include payments made to the Seller hereunder in the Company's Energy Cost Adjustment Clause pursuant to Rule 6-60-6, Standards For Electric and Gas Utility Service, Title 6, Chapter 60, of the Hawaii Administrative Rules, and in the Company's Firm Capacity Surcharge pursuant to Section 269-27.2(d), Hawaii Revised Statutes, or in the Company's base rates pursuant to Section 269-16(b), Hawaii Revised Statutes, whichever occurs first.

2. The Company shall be responsible for submitting the application for PUC Approval and for all of the Company's costs associated thereto. Seller shall cooperate with the

Company in any reasonable manner to assist the Company in the application for PUC Approval and Seller shall be responsible for its costs in providing such cooperation and assistance.

3. Notwithstanding anything in this Performance Agreement to the contrary, in the event that the Commission denies the Company's application to include all payments to Seller hereunder in the Company's Energy Cost Adjustment Clause pursuant to Rule 6-60-6, Standards For Electric and Gas Utility Service, Title 6, Chapter 60, of the Hawaii Administrative Rules, and the Company's Firm Capacity Surcharge pursuant to Section 269-27.2(d), Hawaii Revised Statutes, or in the Company's base rates pursuant to Section 269-16(b), Hawaii Revised Statutes, then this Fourth Amendment, at HELCO's option and in HELCO's sole discretion, shall be null and void and of no further force and effect. HELCO shall have thirty (30) days from the date the PUC decision and order denying the Company's application becomes final and non-appealable to terminate this Agreement pursuant to this Section IV.A.

B. Consent of Bank

1. Seller, at its own expense, shall use its best efforts to obtain from Credit Suisse, a bank organized and existing under the laws of Switzerland, as Agent and Collateral Agent for the benefit of its own account and such other financial institutions as may participate in the funding and other risks associated with the Facility (the "Bank"), a Consent of the Bank to this Fourth Amendment, related documents, and the transactions and obligations of Seller herein, substantially in the form attached hereto as Exhibit C ("Bank's Consent").

2. Notwithstanding anything in this Performance Agreement to the contrary, in the event that the Bank does not execute the Bank's Consent, then this Fourth Amendment shall be null and void and of no further force and effect.

V. EFFECTIVE DATE/CONDITIONS PRECEDENT

A. Effective Date. The obligations of the parties under Section IV and Section VI of this Performance Agreement shall become effective on the Execution Date. The remaining provisions of this Performance Agreement (excluding Section IV and Section VI) shall not become effective until the later of (1) the date of obtaining PUC Approval, or (2) the date of obtaining the Bank's Consent (the "Effective Date").

B. Conditions Precedent. In addition to Section V.A., except for the obligations of the parties under Section IV and Section VI of this Performance Agreement, in no event shall the

Company be obligated under this Performance Agreement until the fulfillment of the following conditions:

1. The Company obtains PUC Approval as specified in Section IV.A. above;

2. Seller shall obtain and deliver to HELCO Bank's Consent, substantially in the form attached hereto as Exhibit C;

3. Seller successfully completes to HELCO's satisfaction the Acceptance Test described in Section I.B.;

4. Seller fulfills all of its In-Kind Obligations (as defined in the Settlement Agreement) under the Settlement Agreement; and

5. Each party shall have delivered or cause to be delivered to the other party, such documents which may be reasonably required pursuant to this Performance Agreement.

C. Term. This Performance Agreement shall remain in effect for the same period of time as the Amended PPC, unless otherwise provided in this Performance Agreement.

VI. TERMINATION/DEFAULT

A. This Performance Agreement will terminate:

1. if the Bank's Consent is not received prior to June 1, 1996;

2. at HELCO's option, to be exercised by written notice to Seller by June 15, 1997, if PUC Approval satisfactory to HELCO is not received prior to May 1, 1997;

3. at HELCO's option, to be exercised by written notice to Seller, pursuant to Section IV.A.3.;

4. at the option of a non-defaulting party to be exercised by written notice to the other party if the other party commits any Event of Default and fails to cure such default in accordance with Sections VI.D. or VI.E. below; or

5. upon the termination of the Amended PPC.

B. The occurrence of any of the following events at anytime during this Agreement shall constitute an "Event of Default" under this Performance Agreement by the Company:

1. in the event of nonperformance by the Company of any material obligation under this Performance Agreement;

2. failure of the Company to pay any amounts due and payable under this Performance Agreement within sixty (60) days after receipt of invoice;

3. the Company shall (1) be dissolved, be adjudicated as bankrupt, or become subject to an order for relief under any bankruptcy law; (2) fail to pay, or admit in writing its inability to pay, its debts generally as they become due; (3) make an assignment for the benefit of creditors; (4) apply for, seek, consent to, or acquiesce in the appointment of a receiver, custodian, trustee, examiner, liquidator or similar official for itself or any substantial part of its property; (5) institute any proceedings seeking an order for relief or to adjudicate it as bankrupt or insolvent, or seeking dissolution, winding up, liquidation, reorganization, arrangement, adjustment or composition of it or its debts under any law relating to bankruptcy, insolvency, reorganization, or relief of debtors; or (6) take any action to authorize or effect any of the foregoing actions;

4. without the application, approval, or consent of the Company, a receiver, trustee, examiner, liquidator or similar official shall be appointed for the Company or any part of its property, or a proceeding described in Section VI.B.3. above shall be instituted against the Company and such appointment shall continue undischarged or such proceeding shall continue undismissed or unstayed for a period of 60 consecutive days or the Company shall fail to file timely and answer or other pleading denying the material allegations filed against it in any such proceeding;

5. as provided for in Appendix E of the Amended PPC.

C. The occurrence of any one of the following events at anytime during this Performance Agreement shall constitute an "Event of Default" under this Performance Agreement by Seller:

1. if Seller has failed to (a) have the injection pumps (as defined in Exhibit A attached hereto) on-site within twenty-three (23) weeks after the later of PUC Approval or the Bank's Consent or (b) have the injection pumps installed within twenty-six (26) weeks after the later of PUC Approval or the Bank's Consent.

2. if Seller cannot satisfactorily complete the Acceptance Test described in Section I.B within twenty-one (21) months after the later of PUC Approval or the Bank's Consent;

3. if Seller cannot satisfactorily fulfill its In-Kind Obligations under the Settlement Agreement and related documents within twenty-one (21) months after the later of PUC Approval or the Bank's Consent, provided that, in the event that HELCO declines to take Energy from PGV pursuant to Section II.B.2.c. of the Settlement Agreement from the Effective Date of this Performance Agreement, then the twenty-one (21) month period shall be extended by adding one day to the twenty-one (21) month period for each one hundred (100) megawatthours ("mwh") (rounded to the nearest increment of 100 mwh) of Energy HELCO declines to accept under Section II.B.2.c. of the Settlement Agreement, provided further that, notwithstanding anything to the contrary, any Energy offered to HELCO by PGV above 30 MW per hour during on-peak periods and/or above 25 MW per hour during off-peak periods, and declined by HELCO, shall not be included in calculating any extension of the twenty-one (21) month period;

4. in the event of nonperformance by Seller of any material obligation in this Performance Agreement;

5. failure of Seller to pay any amounts due and payable under this Performance Agreement within sixty (60) days after receipt of invoice;

6. abandonment of the Project or the discontinuance by the Seller of services covered under this Performance Agreement for a period of twelve (12) consecutive months unless such discontinuance is caused by Force Majeure under Section VIII below or an Event of Default by the Company;

7. if Seller shall (1) be dissolved, be adjudicated as bankrupt, or become subject to an order for relief under any bankruptcy law; (2) fail to pay, or admit in writing its inability to pay, its debts generally as they become due; (3) make an assignment for the benefit of creditors other than the Bank; (4) apply for, seek, consent to, or acquiesce in the appointment of a receiver, custodian, trustee, examiner, liquidator or similar official for itself or any substantial part of its property; (5) institute any proceedings seeking an order for relief or to adjudicate it as bankrupt or insolvent, or seeking dissolution, winding up, liquidation, reorganization, arrangement, adjustment or composition of it or its debts under any law relating to bankruptcy, insolvency, reorganization, or relief of debtors; or (6) take any action to authorize or effect any of the foregoing actions;

8. without the application, approval, or consent of Seller, a receiver, trustee, examiner, liquidator or similar official shall be appointed for Seller or any part of its property, or a proceeding described in Section VI.C.7. above shall be instituted against Seller and such appointment shall

continue undischarged or such proceeding shall continue undismissed or unstayed for a period of 60 consecutive days or Seller shall fail to file timely and answer or other pleading denying the material allegations filed against it in any such proceeding;

9. the failure to keep in force and effect all permits, approvals, licenses, permits and the like, reasonably required for Seller to provide the additional five (5) megawatts of firm capacity under this Performance Agreement;

10. the failure to maintain qualification of Seller's Facility pursuant to Section IX.E; or

11. as provided for in Appendix E of the Amended PPC.

D. If an Event of Default, other than failure to make any payment due and payable within sixty (60) days after receipt of invoice, by either party shall extend for a period of sixty days after receipt of written notice of such Event of Default from the non-defaulting party, then the non-defaulting party may, at its option, terminate this Performance Agreement by delivering written notice of such termination to the party in default and/or may institute such legal action or proceedings or resort to such other remedies as it deems necessary; provided, however, that the party not in default shall not terminate this Performance Agreement at the end of such sixty day period if the party in default has corrected or commenced appropriate steps to correct such default and is diligently prosecuting same to completion. Such termination shall be effective on the date of written notice of termination to the party in default and shall not prejudice any rights of the non-defaulting party.

E. If the Event of Default is based on a party's failure to make any payment that is due and payable under this Performance Agreement, the party claiming such Event of Default shall give written notice to the non-paying party stating that such payment is deemed payable. The non-paying party shall have ten (10) days from the receipt of such notice to make the required payment and if payment is not made within such ten (10 day period, the non-defaulting party may terminate this Performance Agreement pursuant to written notice provided in accordance with Section VI.D. above.

F. <u>Rights And Obligations Of The Parties Upon Default</u>. If this Performance Agreement is terminated pursuant to this Section VI, the parties shall have no further obligations to each other hereunder except for such obligations as have been incurred hereunder prior to such termination.

Notwithstanding the foregoing, in the event of default, the non-defaulting party may exercise whatever legal or equitable remedies may be available to it against the defaulting party. However, the parties further agree that in no event shall either party be liable to the other for lost profits.

G. Interpretation of Amended PPC. In the event this Performance Agreement is terminated, but the Amended PPC is still in effect, then the Amended PPC shall be interpreted as if the amendments to the Amended PPC described in Section VII below were never effective.

H. No Cross Default. A breach of or default under this Performance Agreement shall not constitute a breach of or default under the Amended PPC. No Event of Default under this Performance Agreement shall constitute an Event of Default under the Amended PPC unless such event is specifically enumerated as an Event of Default under the Amended PPC.

VII. AMENDMENT OF THE AMENDED PPC

A. Upon the fulfillment of the conditions precedent set forth in Sections V.A. and V.B. above, the Amended PPC shall be amended as follows:

1. Appendix A, Description Of Seller's Generation And Conversion Facilities, of the Amended PPC is deleted in its entirety and replaced by Attachment A, which is attached hereto and made a part hereof.

2. Appendix B, Facilities Owned By The Seller, of the Amended PPC is deleted in its entirety and replaced by Attachment B, which is attached hereto and made a part hereof.

3. Appendix C, Interconnection Facilities Owned By The Company, of the Amended PPC is deleted in its entirety and replaced by Attachment C, which is attached hereto and made a part hereof.

4. Appendix D, Power Purchases By Company, of the Amended PPC is deleted in its entirety and replaced by Attachment D, which is attached hereto and made a part hereof.

5. Appendix F, Definitions, of the Amended PPC is deleted in its entirety and replaced by Attachment E, which is attached hereto and made a part hereof.

6. Section 15, Force Majeure, of the Amended PPC is deleted in its entirety and replaced by Attachment F, which is attached hereto and made a part hereof.

B. Upon the fulfillment of the conditions precedent set forth in Section V.B. above and the amendment of the Amended PPC as specified in Section VII.A. above, HELCO shall begin to make Firm Capacity payments pursuant to Paragraph 3(d) of Appendix B and Paragraph B.2. of Appendix D of the Amended PPC as amended by this Performance Agreement.

VIII. FORCE MAJEURE

A. If either party shall be wholly or partially prevented from performing any of its obligations under this Performance Agreement by reason of an event of force majeure reasonably beyond its control and not attributable to its neglect, then and in any such event, such party shall be excused from whatever performance is prevented by such event to the extent so prevented, and such party shall not be liable for any damage or loss resulting therefrom. Events of force majeure shall include accidents, lightning, rain, earthquake, wind, wind-blown water, riots, fire, flood, invasion, insurrection, lava flow or volcanic activity, tidal wave, civil commotion, the order of any court, judge or civil authority, war, and any act of God or the public enemy or any other cause beyond the reasonable control of the party relying on such cause to excuse its performance hereunder to the extent to which the party cannot remedy the problem by exercise of due diligence, including, but not limited to, the expenditure of all reasonable sums of money; provided that inadequate or extreme reservoir pressures, temperature, or the presence of foreign substances therein shall not be considered to be an event of force majeure except as provided in Section VIII.C. below.

Notwithstanding the foregoing, however, force majeure does not include any labor dispute, any failure of Seller to obtain and/or maintain any permit or any full or partial curtailment of the electric output of the Facility that is caused by or arises from a mechanical or equipment breakdown, even if the breakdown occurs without the fault or negligence of Seller, unless such breakdown is caused by any of the specific force majeure events listed above and could not have been reasonably prevented.

B. The party claiming an event of force majeure shall give prompt written notice of such event to the other party within 30 days of the date such party claiming force majeure knew or should have known of the event of force majeure. In addition, such party shall use reasonable diligence, to the extent practicable, to limit the impact of such event on the performance of its obligations under this Performance Agreement. Notwithstanding the foregoing, this Section VIII.B. shall not excuse any payment obligation that has theretofore accrued under this Performance Agreement.

C. Inadequate or extreme reservoir pressures, temperatures, or the presence of foreign substances therein,

shall not be an event of force majeure unless the Seller has taken reasonable actions to avoid or mitigate any adverse impact on the Seller's ability to meet its obligations under this Performance Agreement including the expenditure of all reasonable sums of money.

D. Any obligation of either party under this Performance Agreement shall be excused only to the extent and for the period that the party's inability to perform is caused by a force majeure event. The party so excused shall make all reasonable efforts including all reasonable expenditures of necessary funds to cure, mitigate or remedy a force majeure event. Any payments due as compensation for the obligation so excused shall also be excused for so long as the obligation is not performed due to force majeure.

E. In the event that the Commercial Operation Date of the additional five (5) megawatts is delayed because of an event or events of force majeure, the time periods specified in Sections II.A and II.B shall be extended on a day-for-day basis to match the duration of the event of force majeure.

F. Notwithstanding any other provision of this Performance Agreement, if a party is prevented from substantially performing its obligations under this Performance Agreement by an event of force majeure that continues for a period of twelve (12) consecutive months, the other party may terminate the Performance Agreement without further liability of either party to the other hereunder. Such termination shall be effective upon 90 days written notice given any time after the twelve month period has expired but prior to the resumption of substantial performance; provided, however, that if substantial performance is resumed during that 90 day period, such termination shall not be effective.

IX. MISCELLANEOUS PROVISIONS

A. Transmission Line Agreement. If, upon fulfillment of the conditions precedent of Section V.B. of this Performance Agreement, Seller is or thereafter becomes obligated to supply HELCO an amount of Energy equal to the remaining Transmission Line Obligation (as defined in the Settlement Agreement) pursuant to Section II.C.5 of the Settlement Agreement, then HELCO and PGV agree that the remaining Transmission Line Obligation shall be paid by offsetting any amounts owed by HELCO to PGV for energy payments for Energy provided to HELCO above 25 MW during on-peak periods and above 22 MW during off-peak periods. Presently, the remaining Transmission Line Obligation is Two Million Nine Hundred Eighteen Thousand Seven Hundred And No/100 Dollars ($2,918,700.00).

B. Entire Agreement. Subject to Section VI.G. herein, this Performance Agreement, the Amended PPC and the Settlement

Agreement, including any and all attachments, exhibits and related documents (including, without limitation, the Transmission Line Agreement) constitute the entire understanding between the parties, supersedes any and all previous understandings between the parties, and binds and inures to the benefit of the parties, their successors and assigns. The parties have entered into this Performance Agreement in reliance upon the representations and mutual undertakings contained herein and not in reliance upon any oral or written representation or information provided to one party by any representative of the other party. No modification, amendment or waiver of all or any part of this Performance Agreement shall be valid unless it is in writing and signed by both parties.

C. Continuing Effect. To the extent not amended by this Performance Agreement, the Amended PPC shall remain in full force and effect.

D. Authority. All action on the part of the parties to authorize the execution, delivery and performance of this Performance Agreement and the consummation of the transactions contemplated herein, shall have been duly and validly taken by each party and that this Performance Agreement constitutes a valid and binding obligation of each party.

E. Further Performance. Each party hereto shall and does hereby agree to make, execute, deliver and cooperate with each other, as the case may be, any and all agreements, instruments, documents, records and/or funds, as the case may be, whatsoever required, necessary and/or convenient to effect and consummate this Performance Agreement and to permit performance of all acts required hereunder.

F. Defined Terms. Capitalized terms not otherwise defined in this Performance Agreement shall have the meaning ascribed to them in the Amended PPC.

G. Electric Service Supplied By HELCO. This Performance Agreement and the Amended PPC do not provide for any electric services by HELCO to Seller. If Seller requires any electric services from HELCO, Seller shall receive such service in accordance with HELCO's tariff.

H. Affiliated Interest. The Seller shall not sell or transfer more than a 10% equity interest to any person or entity, or enter into any other transaction that would make the Seller an Affiliated Interest with the Company as defined by Section 269-19.5, Hawaii Revised Statutes, without first notifying the Company and receiving appropriate PUC approval, if any is required. If the PUC (or any other entity which has the authority to do so) finds that the Seller is an Affiliated Interest with the Company, the Seller shall have 60 days to take whatever action may be appropriate to render the

relationship not to be an Affiliated Interest. The Company shall have the right to terminate the Amended PPC, including this Fourth Amendment and any future amendments, if the PUC prohibits the Company from recovering any payments made to the Seller under this Amended PPC, as amended herein and from time to time, due to the effect of Section 269-19.5, Hawaii Revised Statutes, relating to affiliated interests.

I. Qualification Of Seller's Facility. Seller's Facility will continue to be throughout the term of this Performance Agreement either (1) a qualifying, small power production facility under Subchapter 2 of the PUC's Standards for Small Power Production and Cogeneration in the State of Hawaii, Chapter 74 of Title 6 of the State's Administrative Rules, or (2) a "non-fossil fuel producer" within the meaning of Section 269-27.2, Hawaii Revised Statutes.

J. Governing Law. This Performance Agreement shall be subject to, governed by, construed and enforced in accordance with the laws of the State of Hawaii, without regard to choice of law principles, and each of the parties hereto shall and does hereby agree to submit to the personal jurisdiction and venue of the Circuit Court of the Third Circuit of the State of Hawaii or the United States District Court for the District of Hawaii, as the case may be.

K. Headings. The headings herein are inserted only for convenience and reference, and shall in no way define, limit or describe the scope or intent of any provision of this Performance Agreement.

L. No Party Deemed Drafter. This Performance Agreement reflects the results of negotiations between the parties hereto and, therefore, no party shall be deemed to be the drafter of this Performance Agreement. This Performance Agreement or any provision hereof shall not be construed or interpreted by any Circuit or Federal Court or other authority of competent jurisdiction before which this Performance Agreement is properly presented against any party as drafter.

M. Severability. If any term or provision of this Performance Agreement or the application thereof to any person, entity or circumstance shall to any extent be invalid or unenforceable, the remainder of this Performance Agreement, or the application of such term or provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Performance Agreement shall be valid and enforceable to the fullest extent permitted by law.

N. Waiver. The failure of either party to enforce at any time any of the provisions of this Performance Agreement, or to require at any time performance by the other party of any of the provisions hereof, shall in no way be construed to be a

waiver of such provisions, nor in any way to affect the validity of this Performance Agreement or any part hereof, or the right of such party thereafter to enforce every such provision.

O. Notice. Unless otherwise provided, all notices, requests, demands and other communications hereunder shall be in writing and shall be deemed given if (1) delivered personally, or (2) by facsimile transmission (followed with a hard copy by first class mail, postage prepaid), or (3) three (3) Business Days after being mailed by certified or registered mail, postage prepaid, return receipt requested, to the parties at the following addresses or at such other addresses as the parties shall have specified by notice hereunder:

If to HELCO:

HAWAII ELECTRIC LIGHT COMPANY, INC.
1200 Kilauea Avenue
Hilo, Hawaii 96720-4295

ATTN: President

FAX No.: (808) 969-0100

If to PGV:

PUNA GEOTHERMAL VENTURE
14-3860 Kapoho Pahoa Road
Pahoa, Hawaii 96778

or

P. O. Box 30
Pahoa, Hawaii 96778

ATTN: General Manager

FAX No.: (808) 965-7254

P. Counterparts/Facsimile Signatures. This Performance Agreement may be executed and delivered by the parties hereto in any number of counterparts, each of which shall be delivered an original or duplicate original, and all of which together shall constitute one and the same instrument or agreement. Counterparts may be exchanged by facsimile, which facsimile signatures shall be effective for all purposes and treated in the same manner as physical signatures. Notwithstanding the foregoing, the party using facsimile signatures agrees that it will promptly forward physically signed copies of this Performance Agreement to the other party.

FEB 22 1990

IN WITNESS WHEREOF, the Company and the Seller have executed this Performance Agreement as of the day and year first above written.

HAWAII ELECTRIC LIGHT COMPANY, INC.

By: _____

Name: Warren H. W. Lee

Title: President

By: _____

Name: Edward Y. Hirata

Title: Vice President

PUNA GEOTHERMAL VENTURE

By AMOR VIII CORPORATION,
a Delaware corporation,
Its General Partner

By: _____

Name: _____

Title: _____

By CE PUNA L.P.,
a Maryland limited partnership,
Its General Partner

By CE PUNA I, INC.,
a Maryland corporation,
Its General Partner

By: _____

Name: _____

Title: _____

IN WITNESS WHEREOF, the Company and the Seller have executed this Performance Agreement as of the day and year first above written.

HAWAII ELECTRIC LIGHT COMPANY, INC.

By: _____

Name: _____

Title: _____

By: _____

Name: _____

Title: _____

PUNA GEOTHERMAL VENTURE

By AMOR VIII CORPORATION,
a Delaware corporation,
Its General Partner

By: _____

Name: _____

Title: _____

By CE PUNA L.P.,
a Maryland limited partnership,
Its General Partner

By CE PUNA I, INC.,
a Maryland corporation,
Its General Partner

By: _____

Name: _____

Title: _____

STATE OF HAWAII)
) ss.
CITY AND COUNTY OF HONOLUL)

On this 8th day of February, 1996, before me personally appeared WARREN H. W. LEE, to me personally known, who, being by me duly sworn, did say that he is the PRESIDENT, of HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation, and that foregoing Performance Agreement was signed on behalf of HAWAII ELECTRIC LIGHT COMPANY, INC. by authority of its Board of Directors, and said officer acknowledged said Performance Agreement to be the free act and deed of HAWAII ELECTRIC LIGHT COMPANY, INC.

LS

Ann A. Okuna
Notary Public, State of Hawaii
My Commission Expires: 3/22/98

STATE OF HAWAII)
) SS.
CITY AND COUNTY OF HONOLULU)

On this 5th day of February, 1996, before me personally appeared Edward Y. Hirata to me personally known, who, being by me duly sworn, did say that he/she is the Vice President, of HAWAII ELECTRIC LIGHT COMPANY, INC., a Hawaii corporation, and that foregoing Performance Agreement was signed on behalf of HAWAII ELECTRIC LIGHT COMPANY, INC. by authority of its Board of Directors, and said officers acknowledged said Performance Agreement to be the free act and deed of HAWAII ELECTRIC LIGHT COMPANY, INC.

Anita G. Flocker
Notary Public State of Hawaii

L.S.

My Commission expires: 6-7-97

STATE OF OREGON)
) SS.
COUNTY OF CLACKAMAS)

On this 12th day of FEBRUARY, 1996, before me personally appeared JOSEPH B. FAHRENDORF to me personally known, who, being by me duly sworn, did say that he/she is the PRESIDENT of AMOR VIII CORPORATION, a Delaware corporation; that said corporation is a general partner of Puna Geothermal Venture, a Hawaii general partnership, named in the foregoing Performance Agreement; that said Performance Agreement was executed by said corporation as the duly authorized general partner of and on behalf of Puna Geothermal Venture, and acknowledged that the seal affixed to the foregoing Performance Agreement is the corporate seal of said corporation, and that said Performance Agreement was signed and sealed on behalf of said corporation by authority of its Board of Directors and in the name of and on behalf of Puna Geothermal Venture, and said officer and acknowledged said Performance Agreement to be the free act and deed of AMOR VIII Corporation as general partner of PUNA GEOTHERMAL VENTURE.

Penny J. Brower
Notary Public State of OREGON
My Commission expires: 10/16/99

OFFICIAL SEAL
PENNY J BROWER
NOTARY PUBLIC - OREGON
COMMISSION NO. 047943
MY COMMISSION EXPIRES OCT. 16, 1999

STATE OF Maryland)
) SS.
COUNTY OF Harford)

On this 9th day of February, 1996, before me appeared John B. Farrell, to me personally known, who, being by me duly sworn, did say that he/she is the Vice President of CE PUNA I, INC., a Maryland corporation; that said corporation is a general partner of CE Puna Limited Partnership, a Maryland limited partnership; that said CE Puna Limited Partnership is a general partner of Puna Geothermal Venture, a Hawaii general partnership named in the foregoing Performance Agreement; that said Performance Agreement was executed by said corporation as the duly authorized general partner of and on behalf of CE Puna Limited Partnership, as the duly authorized general partner of and on behalf of Puna Geothermal Venture, and acknowledged that the seal affixed to the foregoing Performance Agreement is the corporate seal of said corporation, and that said Performance Agreement was signed and sealed on behalf of said corporation by authority of its Board of Directors and in the name of and on behalf of CE Puna Limited Partnership and in the name of and on behalf of Puna Geothermal Venture, and said officer acknowledged said Performance Agreement to be the free act and deed of said corporation and as said general partner of CE Puna Limited Partnership as the general partner of Puna Geothermal Venture.

Notary Public State of Maryland
My Commission expires: [illegible]

JANET R. CUNNINGHAM
NOTARY PUBLIC
HARFORD COUNTY, MD.

**ATTACHMENT A
TO THE
FOURTH AMENDMENT**

APPENDIX A

DESCRIPTION OF SELLER'S GENERATION AND CONVERSION FACILITIES

1. Name of facility: Puna Geothermal Venture

   (a) Location: Honuaula, Puna, County of Hawaii, State of Hawaii

   (b) Telephone number (for system emergencies)
   System Emergencies:
   (808) 965-7485
   Switch Board
   (808) 965-6233

   (c) Company billing account number:
   06 686 520 01

2. Owner: Puna Geothermal Venture

3. Operator[1]: Puna Geothermal Venture

4. Name of person to whom payments are to be made:

   (a) Mailing address: Puna Geothermal Venture
   P. O. Box 30
   Pahoa, Hawaii 96778

   (b) Hawaii Gross Excise Tax License Number: 30067799

5. Equipment:

   (a) Type of facility and conversion equipment: Back pressure steam turbines integrated with air-cooled organic rankine cycle Ormat Energy Converters.

   (b) Design capacity:[2] Total 30 MW

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1 Attach a letter signed by an officer of the Seller warranting that the Seller is in good standing with the Hawaii Department of Commerce and Consumer Affairs.

2 The "Design Capacity" may exceed 30 MW to the extent necessary for Seller to furnish up to 30 MW of "Allowed Capacity" as defined in Appendix F, provided that the "Allowed Capacity" of this Contract shall be 30 MW.

**ATTACHMENT A
TO THE
FOURTH AMENDMENT**

(c) Single or 3 phase: 3 phase

(d) Name of manufacturer: Ormat or equivalent

(e) Date of interconnection: December 31, 1989

6. Projected date of operation in parallel to company's System ("Operational Date"): First 25 MW - July 1, 1990
Next 5 MW - Nine (9) months after the later of PUC Approval or Bank's Consent

7. Date Firm Capacity Begins: First 25 MW - June 26, 1993
Next 5 MW - Upon the fulfillment of the conditions precedent set forth in Sections V.A. and V.B. of the Performance Agreement

8. Insurance carrier: Attached hereto as Exhibit 1 to Appendix A

9. If the owner is not the operator, a copy of the agreement between the owner and the operator which allows the operator to use the facility and which establishes the scope of operations by the operator and the respective rights of the owner and the operator with respect to the sale of electric energy from the Seller's facility shall be provided to HELCO.

10. If the land on which the facilities are located is not owned by the facility's owner, a copy of the agreement with the owner of the land which establishes the right of the facility's owner to put the facility on the land and the existence of required rights of way and easements shall be provided to HELCO.

ATTACHMENT A
TO THE
FOURTH AMENDMENT

Exhibit 1 To Appendix A

COSI PUNA, INC.
&
PUNA GEOTHERMAL VENTURE

Addendum to Executive Summary

LIABILITY

1. Commercial General Liability - Provides protection for those sums you become legally obligated to pay as damages because of Bodily Injury or Property Damage to a third party, caused by an occurrence, and arising out of the insured premises and/or those operations necessary or incidental to your business. Coverage also includes products and completed operations, contractual liability, independent contractors coverage, personal and advertising injury, fire legal liability and medical payments.

Named Insured:	Puna Geothermal Venture; COSI Puna, Inc.
Insurance Company:	Lexington Insurance Company
Policy Number:	CGL 553 55 81
Limits of Liability:	$1,000,000 Each Occurrence $1,000,000 Personal and Advertising Injury $ 10,000 Medical Payments per Person $ 100,000 Fire Legal Liability $1,000,000 Products/Completed Operations Aggregate $2,000,000 General Aggregate
Deductible:	$ 25,000 each occurrence BI & PD Liability
Policy Term:	March 31, 1995 to March 31, 1996

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Exhibit 1 To Appendix A

LIABILITY

2. **Business Automobile Liability and Physical Damage** - Provides protection for those sums you become legally obligated to pay as damages because of Bodily Injury or Property Damage to a third party, arising from the ownership, maintenance, or use of any owned, hired, or non-owned automobile, as outlined in the policy. Other coverages include uninsured motorists, medical payments and physical damage (Comprehensive and Collision for owned and hired vehicles).

Insurance Company:	Gulf Insurance Company
Policy Number:	BA 543 69 52
Limits of Liability:	$1,000,000 Bodily Injury $1,000,000 Property Damage $1,000,000 Uninsured Motorists $ 20,000 Personal Injury Protection $1,000,000 Hired and Non-Owned Automobile
Deductible:	$ 1,000 Comprehensive $ 1,000 Collision
Policy Term:	8/1/95 - 8/1/96
Note:	Schedule of vehicles on file with Company.

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3. Workers Compensation and Employers Liability - Provides protection to your employees for any injury, death, or disease arising out of and in the course of employment, as outlined in the policy. Benefits are paid according to the Workers Compensation Law and Occupational Disease Law of each State or Territory.

Insurance Company:	The Travelers Insurance Company
Policy Number:	6UB588K454294
Limits of Liability:	
Coverage A:	Workers Compensation - Statutory
Coverage B:	Employers Liability - $1,000,000 BI by Accident $1,000,000 BI by Disease Policy Limit $1,000,000 BI by Disease Each Employee
Policy Term:	11/22/94 - 11/22/95

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4. Umbrella Liability - Protects against catastrophic third party liability losses by providing excess limits of liability over and above the following: General Liability, Automobile Liability, and the Employers Liability portion of the Worker's Compensation policy. Coverage is subject to terms, conditions and exclusions of the following policy:

Named Insured:	Puna Geothermal Venture; COSI Puna, Inc.
Insurance Company:	Lexington Insurance Company
Policy Number:	8667359
Limit of Liability:	$25,000,000 Each Occurrence $25,000,000 General Aggregate
Self Insured Retention:	$25,000
Policy Term:	March 31, 1995 to March 31, 1996

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Control of Well - Provides protection for cost to gain control of well; the expense to redrill and/or restore the well to the condition prior to the blowout; and cleanup and pollution expenses resulting from a blowout. A separate endorsement extends the policy to cover contractor's equipment (not rigs) in the insured's care, custody or control.

Named Insured:	Puna Geothermal Venture; COSI Puna, Inc.
Insurance Company:	Underwriter's at Lloyd's London and Certain Insurance Companies (through GSR)
Policy Number:	62741
Limits:	$20,000,000 Ea. Occurrence, OEE (100%) $ 1,000,000 Care, Custody & Control (100%)
Deductible:	$ 25,000 Each Occurrence, per Section OEE (100%) $ 25,000 Care, Custody & Control (100%)
Policy Term:	March 31, 1995 to March 31, 1996
Note:	Premium Subject to Audit

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Exhibit 1 To Appendix A

PROPERTY

Property Damage - Provides repair or replacement cost coverage for damage to all real and personal property, including Business Interruption resulting from a covered peril. Provides coverage for fire and extended coverages, flood, earthquake, and transit, all subject to policy terms, conditions and exclusions.

Boiler & Machinery - Provides repair or replacement cost coverage, including Business Interruption, resulting from sudden and accidental damage to objects, or parts thereof, subject to policy exclusions. Objects include, but are not limited to, pressure, mechanical, and electrical apparatus, including turbine generators.

Insurance Company:	Insurance Company of North America (INA)
Policy Number:	EUTF0835821-7
Policy Term:	8/1/95 - 8/1/96

Highlights of Limits:

Combined Property Damage and Boiler & Machinery including: Business Interruption, Flood, Pollution Cleanup & Removal, Errors & Omissions, and Debris Removal

Combined Limit	$102,916,000 per occurrence

Sub-Limits applicable to Property Damage:

Earthquake	$40,000,000
Accounts Receivable	$ 5,000,000
Valuable Papers	$ 5,000,000
Demolition/Increased Cost of Construction	$ 5,000,000
Extra Expense	$ 5,000,000

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Exhibit 1 To Appendix A

Property in Transit	$ 5,000,000
Newly Acquired Property (90 days)	$ 5,000,000
Transmission/ Distribution Lines	$ 1,500,000

Sub-limits applicable to Boiler & Machinery:

Business Interruption	$13,514,000
Service Interruption	$ 5,000,000
Extra Expense	$ 5,000,000
Expediting Expense	$ 1,000,000
Hazardous Substance	$ 1,000,000
Ammonia Contamination	$ 1,000,000
Water Damage	$ 1,000,000

Deductibles:

Property Damage	$ 50,000 except
Transmission/ Distribution Lines	$ 250,000
Named Windstorms	$ 250,000
Earthquake	$ 100,000 or 2% whichever is greater
Business Interruption	30 day waiting period except
Service Interruption	48 hour waiting period

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APPENDIX B

FACILITIES OWNED BY THE SELLER

1. Seller's Facility

(a) A final (1) a single-line diagram of Seller's Facility, (2) relay list, and (3) trip scheme shall be prepared and, subject to the review and acceptance thereof by both parties, signed and attached hereto as Exhibit 1 to Appendix B and made a part hereof. Such single-line diagram expressly identifies the final location of the Point of Interconnection.

Material changes or additions to the Seller's Facility reflected in the single-line diagram, relay list, and trip scheme shall not be made without the prior written consent of the Company pursuant to Section 3 of the Contract. If any changes in or additions to such Facility, records, and operating procedures are required by the Company, the Company shall specify such changes to the Seller in writing, and except in the case of an emergency, Seller shall have the opportunity to review any such change or addition in advance.

(b) The Seller shall furnish, install, operate and maintain facilities such as breakers, relay, switches, synchronizing equipment, monitoring equipment and control and protective devices acceptable to the Company as suitable for parallel operation with the Company's System. Such facilities shall be accessible at all times to authorized Company personnel.

(c) The Seller shall furnish, install and maintain in accordance with the Company's requirements all conductors, service switches, fuses, meter sockets, meter and instrument transformer housing and mounting, switchboard meter test buses, meter panels and similar devices required for service connections and meter installations on the Seller's premises.

(d) Seller shall install transducers, metering, AC and DC sources, telephone lines, and provide interconnecting wiring for supervisory and communications equipment.

(e) The Company has reviewed and accepted the design drawings and Bill of Material for the Seller's electrical equipment required to interconnect with

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the Company's System. The type of electrical equipment, the type of protective relaying equipment (which equipment shall be mutually agreeable to the parties) and the settings that affect the reliability and safety of operation of the Company's and Seller's interconnected system shall be acceptable to the Company. The Company, at its option, may request to witness operation of control, synchronizing, and protection schemes.

(f) The Seller shall provide a manual disconnect device which provides a visible break to separate the Seller's Facility from the Company's System. Such disconnect device shall be lockable in the OPEN position and be readily accessible to Company personnel at all times.

(g) In order to allow Seller's Facility to remain on-line and to assist in restart of parallel operation thereof with the Company's System, Seller may provide automatic equipment to isolate Seller's Facility from the Company's System during large system disturbances; provided that such automatic equipment has been approved by the Company prior to installation for compatibility with Company's System.

2. Operating Procedures

(a) The Company may require periodic reviews of the Seller's Facility, maintenance records, available operating procedures and policies, and relay settings, and may request changes it deems necessary to protect the Company's System from damages resulting from the Seller's parallel operation.

(b) Logs shall be kept by the Seller for information on unit availability, including reasons for planned and forced outages; circuit breaker trip operations; relay operations, including target initiation; and other unusual events. The Company shall have the right to review these logs, especially in analyzing system disturbances. The Seller will provide the Company with subsequent written confirmation any time the Seller experiences a unit trip. Such confirmation will include the date and time of the occurrence as well as the cause of the unit trip.

(c) Seller shall limit its Facility's ramp rate to less than 2 MW/min.

(d) The Company's Load Dispatcher shall specify the power factor at which energy is delivered by the Seller to

the Company. Typical power factor requirements will normally operate in a range of 0.85 lagging to 1.0.

(e) If Seller is separated from the Company's System for any reason, the Seller, under no circumstances, shall reclose into the Company's system without first obtaining specific approval to do so from the Company's Load Dispatcher. Such approval shall be withheld only when such reclosing is not in accordance with Section 17(a) of this Contract and the Company's standard practices, policies and procedures.

(f) The Company's Load Dispatcher will notify the Seller whenever the Seller must be separated from the Company's System pursuant to Sections 6 and 7 of this Contract. When possible, reasonable advance notice will be given to the Seller by the Company's Load Dispatcher, provided this provision does not limit the Company's obligation to give notice under Section 6(b) of this Contract.

(g) The Seller shall submit the next five-year maintenance requirement in writing to the Company each year no later than June 30 of the previous year. The Company shall specify the maintenance schedule for the five-year period and inform the Seller in writing no later than September 30 of the same year. The Company shall not unreasonably delay maintenance of the Seller's Facility and will cooperate with Seller in establishing a reasonable schedule for the Seller's maintenance requirements.

(h) The Seller shall notify the Company's Load Dispatcher prior to synchronizing a generator onto or taking a generator off the system. Such notification should be as far in advance as reasonably possible under the circumstances causing the action.

(i) Company Dispatch - The Company shall have the sole and absolute right, through supervisory equipment or otherwise, to control, from moment to moment, within the limits of sound engineering practices, the rate of delivery of energy and capacity subject to a Legally Enforceable Obligation to a maximum of the Seller's Firm Capacity Obligation.

3. Seller's Firm Capacity Obligation

(a) Firm Capacity Obligation. The Seller shall furnish the Company 30,000 kw of capacity and 18,600 kvar of reactive from the Effective Date of the Fourth

Amendment until the end of the contract term pursuant to a Legally Enforceable Obligation, under the Company's Dispatch during the entire term hereof except for the "annual overhaul period" set forth in Paragraph 3(b) of this Appendix B. The reactive shall be in proportion to power in the range of 0.85 lagging to 1.0 unity power factor and shall be dispatched by the Company to keep the Seller's generator within the limits of plus or minus 5% of the generator voltage.

(b) Plant Shutdown Period. The Seller may shut its facility down and shall have no obligation to furnish the Company the capacity described in Paragraph 3(a) of this Appendix B during the "Annual Overhaul Period." During each contract year the Annual Overhaul Period shall not be longer than 28 days and shall be taken during the period beginning May 15 and ending September 30, the specific days to be determined each contract year with the Company's approval, which approval shall not be unreasonably withheld, and shall not be in conflict with the schedule established for the Company's other firm capacity contracts.

(c) Minimum Delivery Guarantee By The Company. The Company shall accept as much of the power made available from the Seller as possible, given the limitations resulting from the Company's obligations to purchase minimum amounts of firm capacity from other firm capacity sellers, the Company's existing obligations to purchase As-Available Energy, the Company's need to keep a minimum number of its own generating units on-line at least at a reasonable minimum loading, the Company's load during certain times of the day and other operating reasons, provided that the Company shall accept 25,000 kw during the on-peak hours (7:00 a.m. to 9:00 p.m.), and 20,000 kw in 1990 and 22,000 kw after 1990 during the off-peak hours. The Company shall purchase a minimum of 178,000,000 kwh each year from the Seller under the Company's Dispatch subject to the provisions of Section 6 and 7 of the Contract. The 178,000,000 kwh amount shall be reduced by the Energy (kwh) that the Seller should have delivered to the Company but could not due to reasons other than the Annual Overhaul Period and force majeure.

(d) Capacity Payments. The Company shall pay the Seller for the Firm Capacity under Company Dispatch subject to a Legally Enforceable Obligation that the Seller is obligated to deliver to the Company pursuant to

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Paragraph 3 of this Appendix B as provided for by Paragraph B of Appendix D of this Contract.

(e) Sanctions for Non-Performance. The Seller shall pay the sanctions provided for by Paragraph D of Appendix D of this Contract if it fails to satisfy its firm capacity obligations under this Contract.

4. Access to Facility

(a) Seller hereby grants HELCO the right, but not the obligation, for the term of this Contract to enter upon the Facility with such prior notice as is reasonable under the circumstances to take such action as may be necessary in the reasonable opinion of HELCO (i) to maintain, inspect, read and test meters and other HELCO equipment, and (ii) to interconnect, interrupt, monitor or measure electrical generation produced at Seller's Facility.

(b) PGV shall provide in the first month of every year on an annual basis throughout the term of this Contract, information and geothermal data in substantially the form attached hereto as Exhibit 2 to Appendix B. In addition, at HELCO's request, PGV shall meet with HELCO and provide such data, information and access to PGV's Facility reasonably required to update the December 12, 1995 "Geothermal Resource Assessment, Puna Geothermal Venture Expansion, Kilauea East Rift, Hawaii" by Gerald Niimi of Therma Source, Inc. and the January 15, 1996 "Analysis of Fluid Compositions at the Puna Geothermal Venture 30 mWe Geothermal Facility" by Donald Thomas of G-Tech Services, and/or provide a similar analysis to these reports.

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Exhibit 1 To Appendix B

[To Be Attached -- Attach hereto a copy of a single-line diagram of the Seller's Facility, relay list, and trip scheme within sixty (60) days of the Execution Date (as defined in the Performance Agreement) pursuant to the Performance Agreement.]

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Exhibit 2 To Appendix B

PUNA GEOTHERMAL VENTURE

KS10 PRODUCTION WELL DATA

Mo. Total	HOURS ON PROD	STEAM	BRINE	TOTAL	AVERAGE WELLHEAD PRESSURE (PSIG)	AVERAGE WELLHEAD TEMP (DEG F)
Jan						
Feb						
Mar						
Apr						
May						
Jun						
Jul						
Aug						
Sep						
Oct						
Nov						
Dec						

KS09 PRODUCTION WELL DATA

Mo. Total	HOURS ON PROD	STEAM	BRINE	TOTAL	AVERAGE WELLHEAD PRESSURE (PSIG)	AVERAGE WELLHEAD TEMP (DEG F)
Jan						
Feb						
Mar						
Apr						
May						
Jun						
Jul						
Aug						
Sep						
Oct						
Nov						
Dec						

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Exhibit 2 To Appendix B

PUNA GEOTHERMAL VENTURE

COMBINED INJECTION DATA
QUANTITIES OF FLUID INJECTED (K POUNDS)

Mo. Total	GEOFLUID
JAN	
FEB	
MAR	
APR	
MAY	
JUN	
JUL	
AUG	
SEP	
OCT	
NOV	
DEC	

**ATTACHMENT C
TO THE
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APPENDIX C

Interconnection Facilities Owned By The Company

1. The Company will design, construct, own, operate and maintain all facilities on the Company's side of the Point of Interconnection required to interconnect the Company's System with the Seller's Facility at 69 kv, including, without limitation, the following equipment at the Seller's Facility:

   (a) Necessary instrument transformers, test facilities (except switchboard meter test buses), meters, and protective line relays.

   (b) Supervisory and communication equipment for remote control and metering (a Remote Terminal Unit) at the Seller's Facility.

   (c) Provided, however, that PGV will construct the permanent switching station at the Point of Interconnection.

   (d) The Seller shall be responsible for the costs to design, permit, construct, and install the interconnection facilities owned by the Company.

2. The terms relating to the design, permitting, construction and operation of certain Interconnection Facilities, including power transmission lines, required to be installed in order to accept Energy from Seller's Facility have been determined by separate agreements between the parties. This Contract is subject in all respects to the parties' conclusion of satisfactory terms regarding the construction, installation and operation of such Interconnection Facilities and the payment therefor. To the extent a portion of such costs is to be paid by Seller, an allocation shall be agreed to by the parties that reflects benefits to Buyer's System of constructing or upgrading such Interconnection Facilities or portions thereof that are not required solely to interconnect Seller's Facility. Such cost allocation shall be subject to review and approval by the PUC.

   Presently, the Company and Seller's have entered into a Transmission Line Agreement, dated March 7, 1995, which is pending before the PUC for approval. The Transmission Line Agreement is incorporated herein by reference.

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3. The Seller shall reimburse the Company for any costs incurred in operating, maintaining, replacing, or relocating Company-owned Interconnection Facilities to the extent that such costs exceed Company's cost if the Seller were not interconnected to the Company's System.

4. The Company shall maintain full and complete information logs and records of (i) all meter readings; (ii) the calculation of amounts due to Seller; (iii) the operation and maintenance of the Interconnection Facilities; and (iv) information to verify events described in Section 6 (a), 6(b), and 7 of this Contract, including but not limited to, unit availability (including reasons for planned and forced outages), circuit breaker trip operations, and relay operations (including target initiation).

5. The Seller shall be allowed to review the information logs and records maintained by the Company pursuant to Section 4 of this Appendix C, above, during the Company's normal business hours in accordance with the Company's rules for service to its customers.

**ATTACHMENT D
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APPENDIX D

POWER PURCHASES BY COMPANY
(For 30 MW)

A. ENERGY PURCHASES BY THE COMPANY

1. Subject to the other provisions of this Contract, including but not limited to Sections 6 and 7 of this Contract:

   a. The Company shall accept and pay for the first twenty-five (25) megawatts of on-peak Energy and the first twenty-two (22) megawatts of off-peak Energy generated by the Seller's Facility and delivered by the Seller to the Company at the higher of: (a) the respective on-peak and off-peak energy rates set forth in Paragraph A.3.a. of this APPENDIX D, or (b) $0.0656/kilowatthour ("kwh") on-peak or $0.0543/kwh off-peak; provided, however, that the rate of delivery of such Energy under this Paragraph A.1.a shall not exceed twenty-five (25) megawatts on-peak and twenty-two (22) megawatts off-peak at any given time.

   b. The Company shall accept and pay for an additional five (5) megawatts of on-peak Energy (above the twenty-five (25) megawatts delivered pursuant to Paragraph A.1.a above) generated by the Seller's Facility and delivered by the Seller to the Company at the higher of: (a) the on-peak energy rate set forth in Paragraph A.3.b. of this APPENDIX D, or (b) the Minimum Purchase Rate set forth in Paragraph A.4. of this APPENDIX D; provided, however, that the rate of delivery of such Energy under this Paragraph A.1.b shall not exceed five (5) megawatts at any given time.

   c. At the Company's sole discretion, the Company may accept and pay for any additional on-peak Energy provided above the thirty (30) megawatts of on-peak Energy (delivered pursuant to Paragraphs A.1.a. and A.1.b. above) at the higher of: (a) the on-peak energy rate set forth in Paragraph A.3.b. of this APPENDIX D, or (b) the Minimum Purchase Rate set forth in Paragraph A.4. of this APPENDIX D.

d. At the Company's sole discretion, the Company may accept and pay for any additional off-peak Energy above the twenty-two (22) megawatts of off-peak Energy (delivered pursuant to Paragraph A.1.a. above) generated by the Seller's Facility and delivered by the Seller to the Company at the higher of: (a) the Energy Rate/kwh calculated for on-peak energy set forth in Paragraph A.3.b. of this APPENDIX D less $0.01/kwh, or (b) $0.02/kwh.

e. The Company agrees that it will not enter into any new contracts with independent power producers or amend any existing contracts with independent power producers that would obligate the Company to take any more off-peak As-Available Energy than the Company is presently obligated to take under an existing agreement without first agreeing to take an additional 5 megawatts of off-peak Energy from Seller. This provision shall not apply to the purchase, either in a new or existing contract with an independent power producer, of any additional amount of off-peak energy required in such contract because of the reasonable minimum operating requirements of an independent power producer.

2. Energy furnished by Seller to the Company shall be metered by a time-of-day meter that measures Energy delivery on at least one hour intervals. The Company shall not pay for any Energy that may be delivered by the Seller prior to installation and operation of the Company's meters. The on-peak hours shall be those between 7:00 a.m. and 9:00 p.m. daily, and the off-peak hours shall be those between 9:00 p.m. on one day and 7:00 a.m. on the following day.

3. Energy Rates

a. The on-peak energy rate for the first 25 MW of on-peak Energy and the off-peak energy rate for the first 22 MW of off-peak Energy delivered pursuant to Paragraph A.1.a. above shall be one hundred percent (100%) of the Company's respective on-peak and off-peak Avoided Energy Costs (including avoided costs of fuel and operation and maintenance) in cents per kilowatthour, calculated in accordance with the provisions of the PUC's Standards, on file with the PUC and in effect for the month in which such Energy is delivered.

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b. The on-peak energy rate for the next 5 MW of on-peak Energy (above 25 MW) delivered pursuant to Paragraph A.1.b. above shall be:

On-Peak Energy
Rate/kwh = [Fuel Rate (Base Charge) x A] + [Variable O & M Rate (Base Charge) x (GDPIPD (current)/GDPIPD (base))]

The terms in the above formula shall have the following meanings as stated:

Fuel Rate (Base Charge): $0.038/kwh

A = Fuel Actual (Diesel)/Fuel Base (Diesel) where:

Fuel Actual (Diesel) is the average of each of the Thursday high and low Pacific Northwest Spot 0.5% No. 2 prices for Diesel Fuel ("PNW No. 2 prices"), as reported by Oil Price Information Service ("OPIS") from the 21st day of the second preceding month to the 20th day of the month preceding the month Energy is delivered to HELCO (Computation Month), expressed in dollars per gallon, rounded to the fourth decimal place; and

Fuel Base (Diesel) is the average of each of the Thursday high and low PNW No. 2 prices as reported by OPIS from the 21st day of November 1995 to the 20th day of December 1995, expressed in dollars per gallon, rounded to the fourth decimal place and which the parties agreed is $0.5444/gallon.

If OPIS is not published or does not publish a high and low price for a particular Thursday during the relevant one month period, the high and low prices for the closest preceding day for which OPIS publishes a price report will be used.

In the event that PNW No. 2 prices are not published by OPIS then the parties agree to use another publication that publishes PNW No. 2 prices. In the event that PNW No. 2 prices are not published or otherwise available, the parties agree to adjust the

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Fuel Rate (Base Charge) by a new index, which, to the extent practicable, shall be applied in the same fashion as the index represented by the term "A" in the above formula.

Variable O & M Rate (Base Charge) = $0.0029/kwh

GDPIPD (current) = the final Gross Domestic Product Implicit Price Deflator ("GDPIPD") (there are four categories of GDPIPD -- advance, preliminary, final and revised final) as published by the United States Department of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis ("Department of Commerce") for the third quarter of the calendar year preceding the calendar year in which the Energy is delivered.

GDPIPD (base) = the final GDPIPD as published by the Department of Commerce for the third quarter of 1995.

In the event that GDPIPD is not published by Department of Commerce, the parties agree to adjust the Variable O & M Rate (Base Charge) by another index mutually agreed upon by the parties.

When adjusting the Variable O&M Rate (Base Charge), the adjustment shall apply to the energy delivered by Seller to HELCO in the month of the adjustment date (January 1) and then invoiced for payment in the following month. In other words, the annual adjustment factor will be first applied to the energy delivered in January to be invoiced in February.

An example of the On-Peak Energy calculation is attached hereto as Exhibit 1 to Appendix D.

4. The Minimum Purchase Rate, as defined in APPENDIX F of this Contract, shall apply to the five (5) megawatts of Energy delivered by Seller under

**ATTACHMENT D
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Paragraph A.1.b. above to the Company during the term of this Contract.

5. During each payment period Seller shall be credited at the rate of $0.002 per kilovarhour for each kilovarhour furnished by the Seller to the Company in excess of .62 x kwh. The kvarh meters shall be adjusted to prevent reversal in the event the power factor is leading.

6. This paragraph intentionally left blank.

7. The Seller shall deliver Energy under Company Dispatch pursuant to a Legally Enforceable Obligation as follows:

   a. On-Peak Period. During the 14 hour period from 7:00 a.m. to 9:00 p.m. each day, the Seller shall be obligated to deliver Energy under the Company's Dispatch at a rate equal to the Seller's Firm Capacity Obligation described in Paragraph 3.(a) of APPENDIX B of this Contract.

   b. Off-Peak Period. During the 10 hour period from midnight to 7:00 a.m. and 9:00 p.m. to midnight each day, the Seller shall be obligated to deliver energy under the Company's Dispatch at a rate not greater than the Seller's Firm Capacity Obligation described in Paragraph 3.(a) of APPENDIX B of this Contract and not less than the Minimum Delivery Guarantee.

B. CAPACITY PURCHASES BY THE COMPANY

1. As compensation for providing the Firm Capacity under Company Dispatch as described in Paragraph 3(a) of APPENDIX B, the Company will pay the Seller a capacity payment, payable monthly within 20 days after the last day of the calendar month in which the firm capacity was provided, of 1/12 of the Annual Capacity Payment Rate.

2. The Capacity Payment Rate shall be:

   a. $4,000,000 per year for the first twenty-five (25) megawatts of firm capacity under Company Dispatch as described in Paragraph 3 of APPENDIX B beginning on June 26, 1993; and subject to the sanction provision of Paragraph D.1. of APPENDIX D; and

b. $504,750 per year for the next five (5) megawatts of firm capacity under Company Dispatch above the first twenty-five (25) megawatts of firm capacity in Subsection B.2.a. as described in Paragraph 3 of APPENDIX B beginning on the date of the fulfillment of the conditions precedent set forth in Sections V.A. and V.B. of the Fourth Amendment; provided that the Seller has satisfied the Acceptance Test requirement of Section I.B. of the Fourth Amendment; and subject to the sanction provision of Paragraph D.1. of APPENDIX D. If the first year of operation for the additional 5 MW of firm capacity is a partial calendar year then the amount of the Capacity Payment ($504,750) shall be prorated on a daily basis ($1,380 per day) from the date of the fulfillment of the conditions precedent set forth in Sections V.A. and V.B. of the Fourth Amendment through December 31 of that year.

3. The Company shall not be required to pay any additional capacity payment for any additional power supplied by the Seller, either at the Company's or the Seller's request.

4. A failure by the Seller to provide the required Firm Capacity to the Company shall result in the reduction in the capacity payment due to the Seller from the Company in accordance with Paragraph D of APPENDIX D of this Contract. The Company shall not have any obligation to pay capacity payments to the Seller for periods in excess of twenty-four hours in which the Seller is unable to fulfill its obligations under the Contract, including but not limited to (i) circumstances which are subject to Paragraph 15 of this Contract relating to Force Majeure without fault, or (ii) for periods in which the Seller does not fulfill its obligations under Paragraph 3 of APPENDIX B of this Contract due to the Seller's "default," as such term is defined in APPENDIX E of this Contract.

5. If the Seller does not satisfy its firm capacity obligations as described in Paragraph 3 of APPENDIX B and Paragraph C of this APPENDIX D of this Contract, it shall pay sanctions as described in Paragraph D of this APPENDIX D.

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C. PERFORMANCE STANDARDS

1. The Seller acknowledges and agrees that the Seller's generating facility is expected to meet the following minimum standards for satisfactory day-to-day performance during each contract year: (i) an On-peak Availability (excluding the four-week annual maintenance period and downtime due to a catastrophic equipment failure) of 95 percent or better; (ii) not more than 6 Plant Trips per year; and (iii) a forced outage rate of 5 percent or less.

2. The "On-peak Availability" of the Seller's Facility (in percent) is to be computed by adding the total on-peak Energy under Company's Dispatch subject to a Legally Enforceable Obligation available from the Seller's Facility during the contract year, and dividing by the product of 4,718 on-peak hours per 48 week year (4,732 for leap years) times the Firm Capacity Obligation (prorated on a daily basis, if necessary) and multiplying the total by 100 percent.

3. "Catastrophic Equipment Failure" means a sudden, unexpected failure of a major piece of equipment which (i) substantially reduces or eliminates the capability of the Seller's Facility to produce power, (ii) is beyond the reasonable control of the Seller and could not have been prevented by the exercise of due diligence by the Seller, and (iii) despite the exercise of all reasonable efforts, requires more than sixty (60) days to repair.

4. "Plant Trip" means the sudden and immediate removal of the Seller's Facility from service as a result of an immediate mechanical/electrical/hydraulic control system trip or operator initiated trip/shutdown which requires the Company to take immediate steps to place an unscheduled generator on line to make up for the loss of output of the Seller's Facility; provided, however, that a Plant Trip shall not include: (i) any such removal which occurs within forty-eight (48) hours of the time at which the Seller's Facility is restarted following an outage; (ii) trips caused or initiated by the Company; or (iii) trips occurring during periods when the Seller has continued to furnish capacity to the Company at the request of the Company's Production Manager after the Seller has notified the Company's Production Manager that the Seller's Facility is likely to trip.

5. The "Forced Outage Rate" of the Seller's Facility during a contract year is to be computed by totaling the average megawatts unavailable for service due to forced outages or deratings on an hourly basis, multiplying the total by 100, and dividing by the product of 8,760 hours per year times the weighted average of the Seller's firm capacity obligation (prorated on a daily basis, if necessary).

D. SANCTIONS

1. The capacity payment is to be made on the basis of the full availability of the Seller's Firm Capacity Obligation. When the Seller's full Firm Capacity Obligation is not available, the Seller shall pay the Company $0.0214 per on-peak hour for each kilowatt of deficiency based on annual capacity payments of $504,750 and 4,718 on-peak hours in a year for the first five (5) megawatts of deficiency and the Seller shall pay the Company $0.0339 per on-peak hour for each kilowatt of deficiency in excess of five (5) megawatts of deficiency based on annual capacity payments of $4 million and 4,718 on-peak hours in a year.

2. For each contract year in which the On-peak Availability of the Seller's Facility is less than 95 percent, unless the shortfall is due to a catastrophic equipment failure, the Seller shall pay $7,992 to the Company for each full percentage point of the shortfall less than 95 percent to and including 80 percent, and the Seller will pay $11,875 to the Company for each full percentage point of the shortfall less than 80 percent.

3. For each Plant Trip in excess of 6 per contract year, the Seller shall pay $10,000 to the Company.

4. The Company shall have the right to offset any payment due from the Seller under this Paragraph against any payments due to the Seller.

5. This paragraph intentionally left blank.

6. Each party may exercise whatever legal or equitable remedies may be available to enforce the obligations of this Contract in the event of a default by the other party.

**ATTACHMENT D
TO THE
FOURTH AMENDMENT**

Exhibit 1 To Appendix D

Illustration of
On-Peak Energy Payment Rate

On-Peak Energy Payment Rate	=	Fuel Component + Variable O&M Component
Where:		
Fuel Component	=	Fuel Rate (Base Charge) x Fuel Index
Variable O&M Component	=	Variable O&M Rate (Base Charge) x Variable O&M Index
Fuel Rate (Base Charge)	=	$0.038/kwh
Fuel Index	=	$\frac{\text{PNW (current)}}{\text{PNW (base)}}$
Variable O&M Rate (Base Charge)	=	$0.0029/kwh
Variable O&M Index	=	$\frac{\text{GDP IPD (current)}}{\text{GDP IPD (base)}}$
On-Peak Energy Payment Rate	=	$[\$0.038/\text{kwh} \times \frac{\text{PNW (current)}}{\text{PNW (base)}}] + [\$0.0029 \times \frac{\text{GDP IPD (current)}}{\text{GDP IPD (base)}}]$
Where:		
PNW (current)	=	the average of each of the Thursday high and low Pacific Northwest Spot 0.5% No. 2 prices for Diesel Fuel ("PNW"), as reported by Oil Price Information Service ("OPIS") from the 21st day of the second preceding month to the 20th day of the month energy is delivered by PGV to HELCO, expressed in $/gallon
PNW (base)	=	$0.5444/gallon, the average of the Thursday high and low Pacific Northwest Spot 0.5% No. 2 prices for Diesel Fuel, as reported by OPIS from the 21st day of November 1995 to the 20th day of December 1995, expressed in $/gallon
GDP IPD (current)	=	final GDP IPD for the 3rd Quarter of the year preceding the year that the Variable O&M Index will be used
GDP IPD (base)	=	the final GDP IPD for the third quarter of 1995 (Note: 107.9 is the "preliminary" estimate used only for this illustration - the "final" shall be used in the actual calculation)
On-Peak Energy Payment Rate	=	$[\$0.038/\text{kwh} \times \frac{\text{PNW (current)}}{\$0.5444/\text{gal}}] + [\$0.0029 \times \frac{\text{GDP IPD (current)}}{107.9}]$

ATTACHMENT D
TO THE
FOURTH AMENDMENT

Exhibit 1 To Appendix D

PRICE FOR MONTH OF	DATE	OPIS PACIFIC NORTHWEST DIESEL PRICE			CUSA/HECO WEEKLY PRICE	CUSA/HECO MONTHLY AVERAGE
		LOW	HIGH	AVG		
DEC 1995	10/26/95	0.5800	0.5850	0.5825	0.5825	
	11/02/95	0.5775	0.5850	0.5813	0.5813	
	11/09/95	0.5900	0.5950	0.5925	0.5925	
	11/16/95	0.5625	0.5700	0.5663	0.5663	0.5806
JAN 1996	11/22/95	0.5550	0.5650	0.5600	0.5600	
	11/30/95	0.5400	0.5500	0.5450	0.5450	
	12/07/95	0.5350	0.5450	0.5400	0.5400	
	12/14/95	0.5300	0.5350	0.5325	0.5325	0.5444

**ATTACHMENT E
TO THE
FOURTH AMENDMENT**

APPENDIX F

DEFINITIONS

1. Allowed Capacity: The maximum Capacity agreed upon between Company and Seller that may be delivered to Company at any one time by the Seller, unless Company requests otherwise, which shall be thirty megawatts (30 MW).

2. As-Available Energy: Energy provided to Company on an unscheduled basis as it becomes available, rather than at prearranged times and in prearranged amounts, and which is not subject to a Legally Enforceable Obligation.

3. Avoided Energy Costs: The energy costs that the Company avoids by purchasing Energy from Seller, as defined in and calculated in accordance with the PUC's Standards.

4. Capacity: Electric power expressed in kilowatts or megawatts.

5. Company's Dispatch: Company's sole and absolute right to control, from moment to moment, through supervisory equipment, or otherwise, and in accordance with good engineering practice in the electric utility industry, the rate of delivery of Energy offered by Seller to Company.

6. Company's Fuel Adjustment Clause: The provision in the Company's rate schedules that allows Company to pass through to its customers the Company's costs of fuel and purchased power.

7. Company's System: The electric system owned and operated by the Company on the Island of Hawaii consisting of power plants, transmission and distribution lines, and related equipment for the production and delivery of electric power to the public.

8. Company's System Load Dispatcher: The authorized representative of Company who is responsible for carrying out Company's Dispatch.

9. Commercial Operation: For the first twenty-five (25) megawatts of Capacity, Commercial Operation is the date (June 26, 1993) on which Seller's Facility was deemed by Seller to be capable of reliable delivery of firm capacity. For the additional five (5) megawatts of capacity delivered under the Fourth Amendment, Commercial Operation is the date on which Seller's Facility is deemed by Seller to be capable of reliable delivery of an additional five (5) megawatts of firm capacity after the successful completion of the 100 hour Acceptance Test as stated in the Fourth Amendment.

10. Energy: Electric power expressed in kilowatthours.

**ATTACHMENT E
TO THE
FOURTH AMENDMENT**

11. Energy Cost Adjustment Clause: Same as Company's Fuel Adjustment Clause.

12. Firm Capacity: Thirty megawatts (30 MW) of reliable electrical Capacity and 18,600 kvar of reactive which the Seller has agreed to make available to HELCO from Seller's Facility at the Point of Interconnection under the Company's Dispatch.

13. Firm Capacity Obligation: Seller's Legally Enforceable Obligation to provide Firm Capacity as described in Section 3(a) of APPENDIX B of this Contract.

14. Fourth Amendment: That certain PERFORMANCE AGREEMENT AND FOURTH AMENDMENT TO THE PURCHASE POWER CONTRACT DATED MARCH 24, 1986 AS AMENDED dated February __, 1996, by and between Hawaii Electric Light Company, Inc. and Puna Geothermal Venture.

15. Interconnection Facilities: The equipment and devices required to permit Seller's power plant to operate in parallel with and deliver electric power to Company's System, such as, but not limited to, transmission lines, transformers, switches, and circuit breakers.

16. Legally Enforceable Obligation: A binding commitment to supply Energy or Capacity at prearranged times and in prearranged amounts under Company's Dispatch, with sanctions for noncompliance.

17. Minimum Purchase Rate: The minimum rate payable by Company to Seller for on-peak Energy delivered by Seller to Company under this Contract shall be equal to the on-peak Energy Rate calculated pursuant to Paragraph A.3.b. of APPENDIX D on the date of PUC Approval (as defined in the Fourth Amendment).

18. Operational Date: The date(s) on which the respective generating units of Seller's Facility are projected for planning purposes to begin parallel operation with Company's System.

19. Point of Interconnection: The point of delivery of Energy and/or Capacity supplied by Seller to Company where Seller's Facility interconnects with Company's System.

20. PUC's Standards: Standards for Small Power Production and Cogeneration in the State of Hawaii, issued by the Hawaii Public Utilities Commission, Chapter 74 of Title 6, Hawaii Administrative Rules, currently in effect and as may be amended from time to time.

**ATTACHMENT E
TO THE
FOURTH AMENDMENT**

21. "Seller's Facility" or the "Facility": All real estate, fixtures and property owned, controlled, operated or managed by Seller in connection with, or to facilitate, the production, generation, transmission, delivery or furnishing of electricity by Seller to Company and required to interconnect with Company's System, except Seller's geothermal wellfield, pipelines, and other equipment located upstream from Seller's power plant.

**ATTACHMENT F
TO THE
FOURTH AMENDMENT**

15. Force Majeure

(a) If either party shall be wholly or partially prevented from performing any of its obligations under this Contract by reason of an event of force majeure reasonably beyond its exclusive control and not attributable to its neglect, then and in any such event, such party shall be excused from whatever performance is prevented by such event to the extent so prevented, and such party shall not be liable for any damage or loss resulting therefrom. Events of force majeure shall include but not be limited to the following: accidents, action or inaction of any governmental agency (including the inability to obtain permits or authorization), lightning, rain, earthquake, wind, wind-blown water, riots, fire, flood, invasion, insurrection, lava flow or volcanic activity, tidal wave, civil commotion, the order of any court, judge or civil authority, war, and any act of God or the public enemy; provided that inadequate or extreme reservoir pressures, temperature, or the presence of foreign substances therein shall not be considered to be an event of force majeure except as provided in Subsection (c) of this paragraph.

(b) The party claiming an event of force majeure shall give prompt written notice of such event to the other party within 30 days of the date such party claiming force majeure knew or should have known of the event of force majeure. In addition, such party shall use reasonable diligence, to the extent practicable, to limit the impact of such event on the performance of its obligations under this Contract. Notwithstanding the foregoing, this Subsection 15(b) shall not excuse any payment obligation that has theretofore accrued under this Contract.

(c) Inadequate or extreme reservoir pressures, temperatures, or the presence of foreign substances therein, shall not be an event of force majeure unless the Seller has taken reasonable actions to avoid or mitigate any adverse impact on the Seller's ability to meet its obligations under this Contract.

**EXHIBIT A
TO THE
PERFORMANCE AGREEMENT**

DESCRIPTION OF ENHANCEMENTS

The enhancements will increase the site electrical generating output by increasing the flow to the three existing injection wells. This will be accomplished mainly by the installation of three injection pumps ("injection pumps"). These injection pumps will increase injection pressure, thus increasing system flow and electric generation output. In addition, it is contemplated that condensate flows will be redirected from 4" and 6" lines currently in use to an existing 14" line. This change is intended to enhance process efficiency.

**EXHIBIT B
TO THE
PERFORMANCE AGREEMENT**

PROJECT SCHEDULE

The timetable for completion of the project activities are expressed in weeks from the date of the later of PUC Approval or Bank's Consent of the Performance Agreement. The first number is the week in which the activity is expected to begin and the second number is the week in which the activity is expected to be completed.

Description of Activity	Timetable
Engineering	Week 0 to Week 12
Procurement	Week 0 to Week 21
Installation	Week 10 to Week 26
Power Output	Week 26

Major Milestone

PGV expects to have its injection pumps on site no later than 23 weeks after the later of PUC Approval or Bank's Consent of the Performance Agreement.

**EXHIBIT C
TO THE
PERFORMANCE AGREEMENT**

_____, 1996

Hawaii Electric Light
Company, Inc.
1200 Kilauea Avenue
Hilo, Hawaii 96720-4295

RE: Consent To Performance Agreement

Gentlemen:

We refer to that certain Performance Agreement And Fourth Amendment To The Purchase Power Contract Dated March 24, 1986 as Amended ("Performance Agreement"), dated as of _____, 1996, by and between Hawaii Electric Light Company, Inc. ("HELCO"), incorporated under the laws of the Republic of Hawaii, and Puna Geothermal Venture ("PGV"), a Hawaii general partnership. Capitalized terms used herein and not otherwise defined shall have the meaning set forth in the Performance Agreement and, if none, then as set forth in the Confirmation Agreement (as defined below).

CREDIT SUISSE, a bank organized and existing under the laws of Switzerland, as Agent and Collateral Agent for the benefit of its own account and such other financial institutions as may participate in the funding and other risks associated with the Loan as defined below (hereinafter collectively referred to as "Credit Suisse"), the Lenders (as defined in the Confirmation Agreement) and PGV have entered into (i) a Credit Agreement-Construction Loan and Term Loan Facility, and (ii) an Assignment and Security Agreement ("Assignment"), pursuant to which Credit Suisse has agreed to make a loan ("Loan") to PGV for the purpose of constructing the PGV facility.

Pursuant to the Assignment, PGV has granted to Credit Suisse a security interest in the HELCO-PGV Agreements, for the benefit of the Lenders, as security for the payment of all sums to become due and payable to Credit Suisse and the Lenders.

**EXHIBIT C
TO THE
PERFORMANCE AGREEMENT**

The Assignment requires PGV to obtain Credit Suisse's written consent prior to amending, canceling or terminating the HELCO-PGV Agreements. Pursuant to the Confirmation of Purchase Power Contract and Agreement ("Confirmation Agreement"), dated June 29, 1990, by and between HELCO, PGV and Credit Suisse, HELCO is also required to obtain the written consent of Credit Suisse prior to amending, canceling or terminating the HELCO-PGV Agreements.

Under the Performance Agreement, PGV has agreed to provide, and HELCO has agreed to accept and pay for, an additional five (5) megawatts of firm capacity. In order to provide the additional firm capacity, the Performance Agreement requires amending certain of the HELCO-PGV Agreements, which in turn, requires the consent of Credit Suisse and Banque Nationale de Paris, a bank organized and existing under the laws of the Republic of France ("BNP").

Consent

Credit Suisse and BNP have each reviewed the Performance Agreement and each hereby consent to PGV's and HELCO's execution of the Performance Agreement and the performance of the terms, conditions and obligations of the parties thereunder.

This Consent shall be subject to, governed by, construed and enforced in accordance with the laws of the State of Hawaii, without regard to principles of choice of law.

The individuals executing this Consent represent and warrant that they are duly authorized to do so on behalf of Credit Suisse and BNP, as the case maybe, and that this Consent, once executed, shall be fully binding upon Credit Suisse and BNP, as the case maybe, and their respective

**EXHIBIT C
TO THE
PERFORMANCE AGREEMENT**

successors, agents, representatives, administrators, trustees and assigns.

Consented to and agreed
to as the date first
above written:

CREDIT SUISSE

By: _____

Name: _____

Title: _____

By _____

Name: _____

Title: _____

BANQUE NATIONALE de PARIS

By: _____

Name: _____

Title: _____

By: _____

Name: _____

Title: _____

**EXHIBIT C
TO THE
PERFORMANCE AGREEMENT**

STATE OF _____)
) SS.
COUNTY OF _____)

On this _____ day of _____, 199___, before me appeared _____ and _____, to me personally known, who, being by me duly sworn, did say that they are _____ and _____, respectively, of CREDIT SUISSE, a bank organized and existing under the laws of Switzerland, as Agent and Collateral Agent; that the seal affixed to the foregoing instrument is the corporate seal of said bank; that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors; and said _____ and _____ acknowledged said instrument to be the free act and deed of said bank.

_____
Notary Public, State of _____
My Commission expires: _____

**EXHIBIT C
TO THE
PERFORMANCE AGREEMENT**

STATE OF _____)
) SS.
COUNTY OF _____)

On this _____ day of _____, 199___, before me appeared _____ and _____, to me personally known, who, being by me duly sworn, did say that they are _____ and _____, respectively, of BANQUE NATIONALE de PARIS, a bank organized and existing under the laws of the Republic of France; that the seal affixed to the foregoing instrument is the corporate seal of said bank; that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors; and said _____ and _____ acknowledged said instrument to be the free act and deed of said bank.

_____
Notary Public, State of _____
My Commission expires: _____