CA-IR-342

Ref: HECO T-11 Update, page 5 & Attachment 2 (International Financial Reporting).

At update page 5, HECO T-11 refers to actions by the SEC to move U.S. corporations toward International Financial Reporting Standards ("IFRS") by 2014. HECO's update includes an additional $100,000 in the 2009 forecast for consulting services to assist with this process. Please provide the following:

a. When did HECO first become aware of this SEC action?

b. Please provide a copy of the SEC communications relied upon with regard to transition timing and objectives.

c. Please provide a copy of the contract or service quote from the vendor selected to provide these consulting resources. If none, please explain.

d. Should these costs be partially allocable to HELCO and MECO?
   1. If so, please provide and explain the allocation factors that have been or should be applied.
   2. If not, please explain.

e. Please describe HECO's understanding of the extent and complexity of current International Financial Reporting Standards relative to the detailed US GAAP requirements.

f. Please describe HECO's understanding of the process planned and required to revise, integrate and/or conform current International Financial Reporting Standards to the detailed US GAAP requirements.

g. Referring to part (f) of this information request, has the SEC, Financial Accounting Standards Board or any other authoritative U.S. accounting entity initiated any proceedings or reviews or otherwise established any timelines or milestones designed to support the complete migration of U.S. accounting and financial reporting to international standards by 2014? If so, please identify and describe such undertakings or actions and provide a copy of any related documents relied upon by HECO for purposes of assembling the rate case update.

<u>HECO Response:</u>

a. Since 2007, the Company has seen various articles discussing a move towards International Financial Reporting Accounting Standards ("IFRS") for U.S. companies. In early August 2008, the Big 4 accounting firms started to provide more explicit information about the

Securities and Exchange Commission's ("SEC") plan to issue a "road map" to move from U.S. Generally Accepted Accounting Principles ("GAAP") to IFRS. In November 2008, the SEC issued its proposed road map for phasing in mandatory IFRS filings by U.S. public companies beginning in years ending on or after December 15, 2014, which is available on the SEC website at www.sec.gov. The comment period for the proposed road map ends February 19, 2009.

b. The SEC proposed road map is available on the SEC website at www.sec.gov. The document is voluminous. KPMG's "Defining Issues", provided as Attachment 1, is a discussion on the release of the proposal and a summary of the proposal.

c. HECO does not have a contract or a service quote from a vendor for the consulting resources at this time. HECO's update includes $100,000 for consulting services for the conversion to IFRS, based on discussions with HECO's parent company, HEI. Under the Company's initial assessment, HEI and its subsidiaries will need to retain a consultant to assist with the process of conversion to IFRS and the process will need to begin in 2009. HEI determined that an estimate of $100,000 each for HECO, ASB and HEI would be a reasonable estimate for the consulting fees that would be incurred in 2009. Please note that the SEC has estimated the cost for issuers of transitioning to IFRS in the amount of approximately $32 million per company and the cost would relate to the first three years of filings of Form 10-K under IFRS. The SEC expects that the majority of these transition costs would be incurred primarily in the preparation of the filings for the first year in which an issuer reports with the SEC using IFRS. (See page 130-131 of the SEC's proposed road map.) Based on indications from the Big 4 accounting firms, conversion to IFRS will be multiple times more difficult for companies to undertake than the

implementation of SOX 404. Note that HECO's outside consultant costs for SOX 404 implementation amounted to approximately $440,000 during the period from 2003 to 2005. In comparing the SEC's estimate of the cost for implementing IFRS and the implementation of SOX 404, an estimate of consulting costs of $100,000 to begin assessing the conversion to IFRS is reasonable. As HECO gets firm estimates for the consulting fees for the IFRS conversion process, HECO will provide such information to the Consumer Advocate, the Department of Defense and the Commission.

d. HECO did not allocate the estimated consulting costs for HECO for the conversion to IFRS for 2009 to HELCO and MECO, and consulting costs for IFRS were not included in HELCO's and MECO's budgets for 2009. While HELCO and MECO would be required to convert to IFRS and future consulting costs would be allocated to HELCO and MECO, the initial consulting costs would largely be to research the differences between U.S. GAAP and IFRS, and would primarily be focused at HECO. As the IFRS conversion project proceeds, consultant costs would be allocated to HELCO and MECO.

e. IFRS is less detailed in its application guidance than U.S. GAAP, and IFRS has been described as a more principle-based approach to accounting compared to U.S. GAAP's more rule-based approach. Key IFRS conversion accounting issues for utilities relate to the accounting for regulatory assets and regulatory liabilities, componentization of property, plant and equipment, accounting for income taxes, accounting for leases including embedded leases, accounting for financial instruments, accounting for employee benefits and consolidation of special purpose entities/joint ventures.

f. Under the proposed road map for mandatory IFRS filings by U.S, public companies, the SEC would monitor the progress of milestones through 2011. If the conditional

milestones are satisfactorily achieved by 2011, the SEC would then consider rule making to phase in the requirements for U.S. public companies to file financial statements using IFRS beginning for reporting years ending on or after December 31, 2014. Assuming IFRS will be required, HECO will need to gather information from 2012 under IFRS, as three year comparative information will be required in reporting 2014 information. In order to be in a position to gather information for 2012 transactions, HECO must begin a process for converting to IFRS. HECO plans to follow an approach similar to the following for the conversion process to IFRS:

1. Education and Awareness
    - Begin the education and awareness process of understanding IFRS, its accounting and reporting requirements, tax issues, IFRS business process and system requirements, and IFRS regulatory compliance
2. Diagnostic
    - Determine key accounting differences between U.S. GAAP and IFRS that impact the Company, evaluate the potential impact on the business, and prioritize conversion activities
3. Design and Planning
    - Validate conversion recommendations, evaluate solution alternatives and determine future state
4. Solution development
    - Model IFRS accounts and chart of accounts, develop accounting policy manual, and develop process and system change requirements
5. Implementation

- Implement solutions, test and remediate, and parallel accounting/recording under IFRS

6. Post Implementation Review

- Debrief, identify opportunities for improvement, and implement improvements

g. Refer to the SEC website at www.sec.gov for the proposed road map for mandatory IFRS filings by U.S. public companies.

KPMG

Defining Issues®

August 2008, No. 08-30

KPMG LLP

Alert

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SEC to Propose Roadmap for Potential Mandatory IFRS Filings

The SEC will issue a proposed "roadmap" that identifies measures of progress that will be monitored between now and 2011 when the SEC plans to consider requiring U.S. public companies to file their financial statements using International Financial Reporting Standards as issued by the International Accounting Standards Board. The roadmap will be proposed in a release that addresses when and how the requirement to use IFRS might be phased in and includes a proposed rule that would, if adopted, permit certain large U.S. public companies in industries composed mainly of IFRS-reporting entities to use IFRS as soon as in their 2009 financial statements. The proposal is expected to be released in the next few weeks for a 60-day comment period.

The information reported in this newsletter is based solely on listening to the discussions at this week's SEC open meeting.

The Proposed Roadmap

The proposed roadmap would commit the SEC staff to monitor progress in achieving "milestones" and, if there has been adequate progress, to recommend in 2011 that the Commission consider adopting final rules requiring U.S. public companies to use IFRS. The proposed roadmap will include a potential phased transition over three years beginning with large accelerated filers' calendar-2014 financial statements, followed by accelerated filers beginning with calendar-2015 financial statements, and concluding with non-accelerated filers beginning with calendar-2016 financial statements.

When the SEC considers rulemaking in 2011 on mandatory IFRS filings, it could allow companies that do not qualify for the IFRS option described in the next section to adopt IFRS early in any program for mandatory IFRS filings by all U.S. public companies. Companies' decisions on when to adopt IFRS are likely to be affected by the SEC's requirement for three years of audited IFRS financial statements in the year IFRS is adopted for the first time.

The Milestones. The SEC would consider rulemaking in 2011 to require mandatory IFRS filings for all U.S. public companies if the SEC staff is satisfied with progress toward the milestones below. Progress toward the milestones is considered a prerequisite to the required adoption of IFRS by all U.S. public companies.

- IFRS's continued improvement. IFRS would be improved largely through continued efforts by the IASB and FASB to converge IFRS and U.S. GAAP. However, neither a specific level of convergence nor completion of specific projects are expected to be identified in the proposed roadmap.
- Greater IASB accountability and a more stable funding process. The IASB's accountability would be strengthened by establishing a "monitoring group," and its funding process would be made more stable by being based on shared obligations undertaken by jurisdictions using IFRS.
- IFRS XBRL taxonomy. An IFRS XBRL taxonomy would have to be developed that allows companies to submit XBRL-formatted financial information as effectively as does the U.S. GAAP XBRL taxonomy.[1] In other words, the technical capability to communicate financial information in the XBRL computer language based on the coding terms specified in a "taxonomy" would have to be available.
- Education and training. Sufficient progress would have to be made in the education and training of investors, preparers, and auditors. IFRS would need to become more broadly incorporated into college and university curricula and into the CPA and other relevant professional exams.

Progress toward these milestones would help enable the SEC to recognize the IASB's pronouncements as "generally accepted" for purposes of the securities laws in accordance with Sections 108 and 109 of the Sarbanes-Oxley Act, as it would have to do in order to require all U.S. public companies to adopt IFRS. A preparatory step the SEC may have to undertake in order to adopt any requirement for mandatory IFRS filings is to study how SEC rules and regulations apply to financial reports filed using IFRS. Follow-up action may be needed so that redundant and conflicting guidance is rescinded and relevant guidance retained.

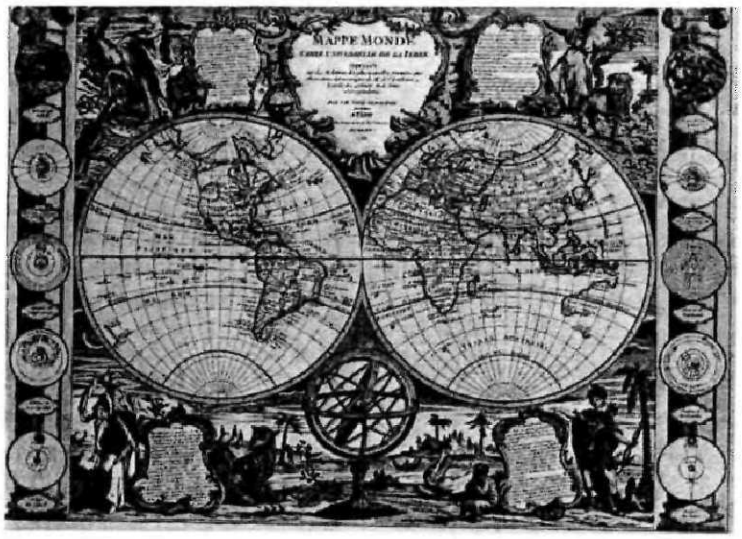
Proposal for Optional IFRS Filings by Some Companies

The SEC also decided to propose to allow U.S. public companies that meet two criteria to begin filing IFRS financial statements as soon as for years ending on or after December 15, 2009. Companies that meet both of these criteria would qualify under the proposal:

- A majority of peer-group companies report financial information using IFRS as issued by the IASB. The peer-group companies would be identified as the 20 largest companies in the industry measured by market capitalization and determined by the SIC code or another common industry-classification scheme.
- The candidate U.S. company is one of the top 20 peer-group companies.

Potentially eligible companies would be required to make submissions to the SEC staff that explain how they met the criteria. No company would be permitted to use IFRS unless it had received a no-objection letter from the staff in response to its submission.

Eligible companies that elected to adopt IFRS would have to disclose in the financial-statement footnotes a one-year reconciliation



[1] XBRL is an abbreviation of "Extensible Business Reporting Language."

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of U.S. GAAP to IFRS amounts in the year of adoption as required by IFRS 1.[2] The release will also ask for comment on a potential additional requirement to disclose in each year's annual financial statements an unaudited reconciliation of IFRS information to U.S. GAAP information for the three years of audited financial statements when the company first adopts IFRS and in future years.

The SEC staff estimates that a minimum of 110 U.S. public companies representing approximately 14 percent of total U.S. market capitalization would meet these requirements and would be eligible to file IFRS financial statements if the proposal is adopted as a final rule.

Comments on the proposed rule will be due 60 days after it is published in the Federal Register.

Registrants should not treat the descriptive and summary statements in this newsletter as a substitute for any accounting requirements, yet-to-be developed rules, or any related rules and proposals. When complying with related filing requirements, registrants should consult the text of all relevant final rules and accounting requirements, consider their particular circumstances, and consult their accounting and legal advisors.

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[2] IFRS 1, First-time Adoption of International Financial Reporting Standards, June 2003.

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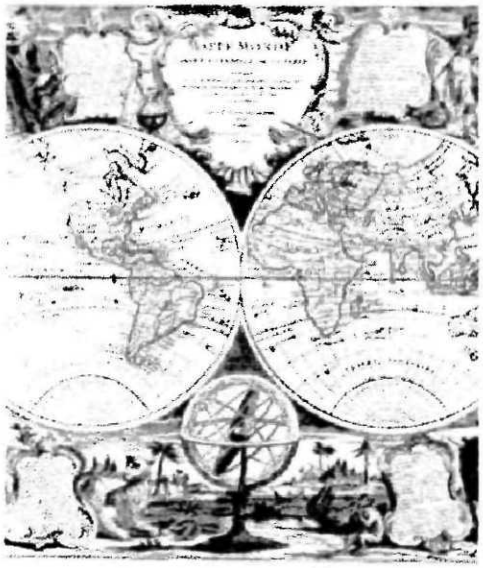
November 2008, No. 08-47

KPMG LLP



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Proposed Roadmap for Mandatory IFRS Filings by U.S. Public Companies

The SEC proposed a "roadmap" for phasing in mandatory IFRS filings by U.S. public companies beginning for years ending on or after December 15, 2014.[1] The roadmap is conditional on progress towards "milestones" that would demonstrate improvements in both the infrastructure of international standard setting and the preparation of the U.S. financial-reporting community. If the conditional milestones are satisfactorily achieved by 2011, the SEC would then consider rulemaking to phase in requirements for U.S. public companies to file financial statements using IFRS as issued by the IASB. However, the proposed roadmap excludes registered investment companies and registered broker-dealers from its consideration. Some U.S. public companies that operate within an "IFRS industry" would be permitted to begin using IFRS as soon as next year's financial statements if the proposal is adopted unchanged. The comment period ends February 19, 2009.

If the proposal is adopted, the final roadmap would next be published in the SEC's Codification of Financial Reporting Policies, a step that would allow the SEC to update or revise the roadmap, including its timeline, as circumstances change.

The Milestones

The proposal would commit the SEC staff to monitor four of seven identified milestones through 2011. If the SEC believes these four are achieved by 2011, it would also consider whether IFRS as issued by the IASB is a globally accepted set of accounting standards and whether it is consistently applied when determining whether to mandate its use by U.S. public companies.

These four milestones would be monitored by the SEC staff between now and 2011:

- Improved IFRS. The IASB would have to continue to improve IFRS through its independent standard setting and its convergence work with the FASB. The proposal "urges the [FASB and IASB] to continue working towards the completion of their joint work plan estimated to be completed in 2011," but it does not identify either a specified level of convergence

[1] SEC Release No. 33-8982, Roadmap for the Potential Use of Financial Statements Prepared in Accordance with International Financial Reporting Standards by U.S. Issuers, available at www.sec.gov

or completion of specific projects as conditions of the milestone. The proposal mentions that when the SEC addresses mandating the use of IFRS in 2011, it will also consider whether the standards are high in quality and sufficiently comprehensive, whether the standard-setting process is robust and independent with input and consideration of views from investors and other affected parties, and whether the standards, when implemented, are capable of improving the effectiveness of financial reporting and providing financial information useful to investors.

- Satisfactory accountability and funding of the IASC Foundation. The Trustees of the IASC Foundation appoint members of the IASB, are responsible for its funding, and oversee standard-setting activities. The proposal points out that the SEC will consider the degree to which the Foundation has a secure, stable, and equitable funding mechanism that allows the IASB to function independently of any specific constituent group. The SEC would also consider how effectively regulators oversee the Foundation.
- Improved ability to benefit from IFRS reporting in XBRL.[2] The SEC has proposed rules that would require public companies to provide financial information formatted in the XBRL computer language.[3] The level of detail in the existing IFRS XBRL taxonomy would have to be improved, according to the proposal, in order to realize the benefits of IFRS reporting in XBRL.
- Progress in education and training. The proposal holds that a significant investment in preparing investors, management and financial-statement preparers, auditors, audit committees, specialists (such as actuaries and valuation professionals), and regulators would be needed before IFRS is widely understood in the U.S. College and university curricula would need to incorporate IFRS, and the CPA and other relevant professional exams would need to cover IFRS.

The remaining three milestones are part of the roadmap, but are not among the conditional milestones that are prerequisites for the Commission's rulemaking activity and are as much action steps as milestones.

- Early, limited use of IFRS where it would enhance financial-reporting comparability for U.S. investors. This would coincide with the staff's monitoring activity in connection with the first four milestones already described. It also could provide useful input for the Commission's anticipated decision on whether to mandate the use of IFRS for all U.S. registrants and improve the ability of users of financial information and others to comment on future proposals on the use of IFRS in the U.S.
- Anticipated rulemaking in 2011. Assuming satisfactory achievement of the first four milestones, the SEC will determine whether it is in the interest of U.S. investors to proceed with rules that would require all U.S. public companies to use IFRS.
- Phased-in, mandatory use of IFRS. The proposal says that the SEC is considering an approach that would phase in requirements for the implementation of IFRS over a three-year period, beginning with the largest companies for years ending on or after December 15, 2014, rather than having all U.S. public companies convert to IFRS at one time.

Optional IFRS Filings by Some Companies Operating in "IFRS Industries"

U.S. public companies that meet two criteria would be allowed to begin filing IFRS financial statements as soon as for years ending on or after December 15, 2009. However, the permission would be restricted to reporting in IFRS as issued by the IASB and would have to be approved by the SEC staff. Companies meeting both of these criteria would qualify:

- The candidate U.S. company is in an industry group that reports using IFRS more commonly than any other set of financial-reporting standards. For this purpose, the relevant industry-group companies would be the 20 largest companies in the industry measured by market capitalization.
- The candidate U.S. company is one of the 20 largest companies in the industry.

Candidate companies would be required to use a single, published, "widely-accepted" industry source when determining the industry group and identifying its members. The proposal allows choice in the classification scheme. Potential candidates could use the North American Industry Classification System codes at the three-digit level, the Standard Industrial Classification codes at the two-digit level, or the International Standard Industrial Classification codes at the "Division" level. In addition, candidate companies could use other published and widely accepted industry classification schemes at a similar level of detail, such as the Industry Classification Benchmark at the "Sector" level or the Global Industry Classification Standard at the "Industry" level.

When determining the top 20 companies in the industry, market capitalization would have to be determined on the same day for all companies. Market capitalization refers to the worldwide market value of a company's outstanding voting and nonvoting common equity securities determined from a "widely-accepted" source. The date for the determination would have to be within 180 days of the date that the SEC receives a request for a no-objection letter with respect to the company's determination of its eligibility. Companies would then need

[2] XBRL is an abbreviation of "Extensible Business Reporting Language."
[3] SEC Release No. 33-8924, Interactive Data to Improve Financial Reporting, available at www.sec.gov

to determine the basis of accounting used by each of the 20 identified companies. An industry would be considered an "IFRS industry" only if IFRS is used by more of the 20 members of the industry group than any other basis of accounting. For example, if 8 companies use IFRS, 7 use U.S. GAAP, and 5 use other bases of accounting, the industry would be an IFRS industry. Conversely, if 7 companies use IFRS, 7 use U.S. GAAP, and 6 use other bases of accounting, the industry would not be an IFRS industry.

A U.S. company that concluded it is eligible to elect to use IFRS would then be required to submit a description of its analysis of eligibility to the Division of Corporation Finance. The company would need to obtain a no-objection letter from the staff in order to file using IFRS. However, receipt of a no-objection letter would not commit the company to begin using IFRS. The company would have up to three years from the date of the SEC staff response to begin using IFRS.

Companies electing to adopt IFRS would be required to do so in an annual report on Form 10-K containing three years of audited IFRS financial statements. Initial adoption of IFRS would not be permitted in a Form 10-Q, registration statement, proxy, or other information statement. Audits would continue to be conducted in accordance with PCAOB audit standards.

IFRS 1 provides guidance to companies preparing their first set of IFRS financial statements.[4] It requires each company to disclose in the notes an audited reconciliation from U.S. GAAP to IFRS of its equity at the date of transition and at the end of the latest period presented in its most recent annual financial statements under U.S. GAAP. IFRS 1 also requires each company to provide a reconciliation of its total comprehensive income "for the latest period in the most recent annual financial statements." The objective is to enable users to understand the material adjustments from U.S. GAAP to IFRS. The company must also explain the material adjustments to the statements of cash flows.

The proposal requests comments on whether there should be an ongoing requirement to disclose outside of the financial statements an unaudited reconciliation of IFRS to U.S. GAAP amounts. Under such a requirement, the balance sheet, statement of comprehensive income, statement of cash flows, and statement of equity would be reconciled from IFRS to U.S. GAAP, not just in the year IFRS is first adopted, but also in each subsequent year until the SEC decides whether to require all U.S. public companies to begin using IFRS. This proposal, if adopted, would compel companies that elect to adopt IFRS early to maintain financial records on both a U.S. GAAP and IFRS basis. The prospect of the obligation could affect eligible companies' decisions about whether to adopt IFRS early.

The supplemental U.S. GAAP information would have to be certified by the principal executive and financial officers as required by Sections 302 and 906 of the Sarbanes-Oxley Act and would be subject to the disclosures and certifications relating to disclosure controls and procedures. However, the preparation of the supplemental information, the underlying books and records used to prepare it, and the related internal accounting controls and procedures would not be subject to management's assessment of internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act or the independent auditor's report on the effectiveness of the controls.

Anticipated Rulemaking

The proposed roadmap envisions the SEC considering in 2011 whether to mandate that all U.S. public companies apply IFRS as issued by the IASB in their filed financial statements. The SEC would consider achievement of the first four milestones and the results of a study that would be conducted by the SEC's Office of the Chief Accountant on how the mandatory implementation of IFRS by all U.S. public companies would affect investors and other market participants. Under the proposed roadmap, U.S. public companies adopting IFRS would have to provide three years of audited IFRS financial information in all annual filings with the Commission, including the filing in the year IFRS is initially adopted. Finally, because the roadmap is to be published as a financial reporting release rather than a rule, the timing outlined in the roadmap could more easily be modified depending on progress towards the achievement of the milestones.

Phased-in Mandatory Use of IFRS

Under the proposal, the mandatory use of IFRS would be phased in over three years beginning with large accelerated filers for fiscal years ending on or after December 15, 2014, followed by accelerated filers for fiscal years ending on or after December 15, 2015, and by all other filers for fiscal years ending on or after December 15, 2016.

The proposal does not address the method the SEC would use to mandate IFRS for U.S. public companies. One of the options would be for the FASB to continue to be the designated standard setter for purposes of establishing financial-reporting standards for filings with the SEC. Under this option, the FASB would incorporate all current provisions of IFRS and all future changes to them directly into U.S. GAAP. This type of approach has been used in a number of jurisdictions that have adopted IFRS.

Revisions to Regulations S-X and S-K

Regulation S-X contains the requirements for the form and content of financial statements included in filings with the SEC. The SEC staff has begun a comprehensive review of all SEC rules relating to financial reporting so that it can make recommendations to the Commission on amendments that may be needed to fully implement IFRS reporting. In the mean time, in order to accommodate the limited early use of IFRS the new category "IFRS issuer" would be incorporated into Regulation S-X, and it would allow those

[4] IFRS 1, First-time Adoption of International Financial Reporting Standards.

companies to prepare their financial statements in accordance with IFRS as issued by the IASB. However, the reach of this proposed change would go beyond the limited number of earlier users. It would establish requirements that could affect all future IFRS filings.

The SEC would establish a new Article 13 in Regulation S-X that sets out requirements governing the application of SEC Rules and Regulations that apply to any issuer that prepares financial statements in accordance with IFRS as issued by the IASB for filings with the SEC. New Article 13 would apply to IFRS financial statements filed by a U.S. company, a foreign private issuer, or an issuer with regard to nonissuer financial statements pursuant to Rule 3-05, 3-09, or 3-14 of Regulation S-X.

Under New Article 13, the financial statements would have to contain a note in which the issuer unreservedly and explicitly states compliance with IFRS as issued by the IASB, and the accountant's report would have to include an opinion on whether the financial statements comply with IFRS as issued by the IASB. Issuers using IFRS would generally not be required to comply with other provisions of Regulation S-X that specify financial presentation, disclosure content, or recognition and measurement of amounts within the financial statements. However, in many instances an IFRS issuer might be permitted to follow these types of provisions because they would be acceptable accounting policy choices under IAS 8.[5] In addition, disclosures similar to those specified by Regulation S-X may be necessary in IFRS financial statements to fully comply with the general requirement for fair presentation under IAS 1.[6] The requirements in both Article 11, Pro Forma Financial Information, and Article 12, Form and Content of Schedules, would apply in their entirety to IFRS issuers.

An IFRS issuer that changes the comprehensive set of accounting principles used in preparing its primary financial statements to IFRS would have to prominently disclose the following information outside the financial statements in its first annual report on Form 10-K:

- That the financial statements are prepared using IFRS,
- The reasons for the change,
- The corporate governance process followed in electing to make the change, and
- The date the issuer submitted its request to the SEC demonstrating that it met the criteria to change to IFRS and the date the SEC issued its letter of no objection.

Registrants should not treat the descriptive and summary statements in this newsletter as a substitute for any accounting requirements, yet-to-be developed rules, or any related rules and proposals. When complying with related filing requirements, registrants should consult the text of all relevant final rules and accounting requirements, consider their particular circumstances, and consult their accounting and legal advisors.

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[5] IAS 8, Accounting Policies, Changes in Accounting Estimates and Errors.
[6] IAS 1, Presentation of Financial Statements.

CA-IR-343

Ref: HECO T-11 Update, page 6 & Attachment 2 (Feed-in Tariff Consultants).

HECO T-10 discusses the Company's need for consulting services to research and assist in the design of and develop the pricing methodology for the feed-in tariff. HECO rate case update includes $230,000 for consultant KEMA, Inc. ($123,000), outside engineering ($67,000) and outside legal fees ($40,000). Please provide the following:

a. Would retention of the identified consulting service have been required in the absence of the HCEI Agreement? If so, please explain.

b. Please provide a copy of all documentation supporting the $230,000 forecast estimate.

c. Please explain why the Company believes that the amortization of these costs should be included in base rates.

d. Was any portion of the cost of these consulting services allocated to HELCO and MECO?
   1. If not, please explain why the Company believes that these services are solely beneficial to HECO.
   2. Please provide and explain the allocation factors that have been or should be applied to apportion some cost responsibility to HELCO and MECO.

<u>HECO Response:</u>

a. It is possible that the HECO Companies would have investigated the establishment of feed-in tariffs to support acquisition of renewable energy. However, prior to the development of the HCEI Agreement, the HECO Companies had no independent plans to do so. The consulting services identified are specifically to support the HECO Companies' participation in Docket No. 2008-0273, the Feed-In Tariff ("FIT") Investigative docket. The impetus for opening the docket was the commitment by the parties to the HCEI Agreement – namely the HECO Companies, the Consumer Advocate, the State Department of Business, Economic Development, and Tourism, and the Governor – to request that by March 2009, the Public Utilities Commission will "conclude an investigative proceeding to determine the best design for feed-in tariffs that support the Hawaii Clean Energy Initiative" and that by July 2009, "the Commission will

adopt a set of feed-in tariffs and prices that implement the conclusions of the feed-in tariff investigation."[1]

b. As stated in the Rate Case Update, HECO T-11, HECO retained KEMA, Inc. to research and assist in the design of the tariff and to develop the pricing methodology. On December 23, 2008, in Docket No. 2008-0273 the HECO Companies and the Consumer Advocate filed a joint proposal ("HECO/CA joint proposal") on FITs to the Commission that included an extensive report on the FIT program plan written by KEMA. Refer to Attachment A, Work Authorization No. WA-PNG-08-008, which describes the tasks assigned to KEMA in 2008. This work authorization totaled $123,000.

As Docket No. 2008-0273 progresses, KEMA will continue to serve as HECO's lead FIT consultant. On January 20, 2009, the Commission issued a Procedural Order for the FIT proceeding, establishing the following procedural steps, among others, to take place in 2009: (1) Response to Commission Scoping Paper Appendices A and C (Non-Legal Questions), (2) Responses to Information Requests to HECO/CA Regarding Joint Proposal, (3) All Parties' Opening Statements of Position Including Proposals for Feed-In Tariff Designs, Policies, and Pricing Methods, (4) Information Requests by All Parties to Parties' SOPs and Proposals, (5) Responses to Information Requests, (6) Technical Conference and Settlement Discussions Regarding All Parties' Proposals, (7) All Parties' Final Statements of Position, (8) Panel Hearing, (9) HECO's Proposed Tariffs Implementing Commission's Decision, and (10) Technical Conference on Proposed Tariffs, (11) Replies to Comments by Parties on Proposed Tariffs. KEMA will be providing direct support to HECO in all of these procedural steps, including

[1] HCEI Agreement, Section 7, pages 16-17.

participating in the two technical conferences and as a HECO witness in the Panel Hearing.[2] While the specific work authorization for KEMA's support of the 2009 FIT proceeding activities is still being finalized, the estimated cost of $123,000 was based on the assumption that the amount of work contracted in 2009 to KEMA will be at least as much as in 2008, given the numerous procedural steps.

The HECO/CA joint FIT proposal recommends establishment of island-specific annual FIT capacity targets, to be based in part on consideration of technical requirements that will be critical to maintain grid stability and manage curtailment of as-available energy.[3] HECO is planning to conduct engineering analyses to further address the technical system integration requirements associated with the development of large amounts of distributed renewable energy resources on each of the islands via a FIT and has been in discussions with KEMA's transmission and distribution engineering group, about such analyses, although no work authorization has yet been issued. KEMA's transmission and distribution engineering group is separate from the KEMA FIT consulting group, which is supporting the procedural steps. The estimate of $67,000 for the technical study was based on the cost of previous system impact studies for distributed generation projects.

The accelerated schedule of the FIT docket and the large number of interveners has necessitated the retention of additional outside legal counsel. In the FIT docket, the HECO Companies are represented by Goodsill, Anderson, Quinn & Stifel as well as Alcantar & Kahl. Based on the legal fees incurred in other investigative regulatory

[2] Docket 2008-0273 Order Approving the HECO Companies Proposed Procedural Order, as Modified, January 20, 2009, pages 11-13.

[3] Docket 2008-0273 Joint Proposal on Feed-in Tariffs on the HECO Companies and Consumer Advocate, December 23, 2008.

proceedings and allowing for the unique circumstances of the FIT docket, it is estimated that legal support of approximately $40,000 would be required to complete the FIT proceeding.

c. The consultant and legal costs that are expected to be expended in the test year are necessary to appropriately design a FIT that will provide customer benefits via acquisition of renewable energy at reasonable, stabilized energy purchase rates, and to support the proposal in responding to various information requests by the parties in the FIT proceeding. The issues in the FIT proceeding include the role FITs play in meeting Hawaii's clean energy and energy independence goals, and the potential benefits and consequences of FITs for the utilities, the ratepayers and the State of Hawaii. The investigation of FITs benefits ratepayers as it will establish a tariff that will affect the company's cost of providing energy. The consultant and legal costs are necessary for the HECO Companies to provide information to assist the Commission in making an informed decision, which ultimately benefits the customers, and hence the recovery through base rates is appropriate.

d. HECO proposes that FIT consulting services and legal costs be allocated based on sales by company – 80% to HECO, 10% to MECO, and 10% to HELCO – similar to the allocation of decoupling consultant services costs described in the response to CA-IR-341. Use of sales as the allocator is reasonable because sales are an appropriate measure of how the utilities' systems compare in terms of size and the potential to acquire renewable energy via the FIT.

Each company's total purchase of renewable energy kilowatt-hours from FIT generators will depend on the amount of installed FIT capacity. According to the

HECO/CA joint FIT proposal, the amount of contracted FIT capacity for each company should be established considering, among other factors, characteristics of the utility systems being interconnected (including the size and robustness of the transmission and distribution grid and differences in customer load among the islands), cumulative amounts of installed variable resources, and impacts on curtailment of as-available energy from existing resources.[4] Therefore, allocating a portion of the costs to HELCO and MECO is appropriate.

In HECO's Rate Case Update, HECO did not reflect allocating a portion of the costs to HELCO and MECO. Based on HECO's estimated cost of $230,000, and its proposal to amortize these costs over two years, HECO included in its update $115,000. HECO is updating its estimate for FIT to $92,000 ($230,000 x 80%=$184,000 ÷ 2 years) for the test year to reflect allocating a portion of the costs to HELCO ($23,000) and MECO ($23,000).

[4] Docket 2008-0273 Joint Proposal on Feed-in Tariffs on the HECO Companies and Consumer Advocate, December 23, 2008, "HECO Feed-In tariff Program Plan", prepared by KEMA for Hawaiian Electric Company, Inc., Maui Electric Company, Limited, and Hawaii Electric Light Company, Inc., December 23, 2008, pages 29-30.

WORK AUTHORIZATION NO. WA-PNG-08-008
Under Purchase Order No. V26152 / Contract No. PBA-02-019

I. Request for Quote

Under the terms and conditions of the Consultant Services Master Agreement, dated August 8, 2002, by and between KEMA Consulting Inc. ("Consultant") and Hawaiian Electric Company, Inc. ("Company"), Company hereby requests a proposal from Consultant to perform the following Work:

Scope of Work for KEMA, Inc.
Project: Proposed Feed-In Tariff
for Hawaiian Electric Company, Inc.

Background
On October 24, 2008, the Hawaii Public Utilities Commission ("PUC") issued an order initiating an investigative docket on feed-in tariffs, Docket No. 2008-0273. By the order, the Hawaiian Electric Company utilities (the "HECO Companies") and the Division of Consumer Advocacy, State of Hawaii Department of Commerce and Consumer Affairs ("CA") must file a joint proposal on feed-in tariffs by December 23, 2008. The joint proposal must address factors pertaining to feed-in tariff design and implementation that were identified in the Hawaii Clean Energy Initiative Agreement, entered into by the HECO Companies, the CA, and the State of Hawaii on October 20, 2008. The joint proposal must also take into account the considerations and criteria set forth in a scoping paper to be issued by the PUC.

By this work authorization, KEMA ("Consultant") is authorized by HECO to develop a proposed Feed-In Tariff. This authorization is only for work associated with development and filing of the proposed HECO Companies Feed-In Tariff to the PUC. Any further work for HECO in Docket No. 2008-0273 will be authorized separately.

Key Deliverables
Consultant shall:

1. Lead a two-day workshop on November 20-21, 2008 with HECO and the CA in Honolulu, Hawaii. Consultant shall provide HECO with a proposed workshop agenda and list of Consultant attendees by November 14, 2008. Hawaii attendees should be limited to key Consultant personnel, with other support personnel participating remotely as necessary. Consultant shall be responsible for designing the workshop, however, the workshop should at minimum cover the following:
    a. Consultant shall discuss (1) experience with feed-in tariffs nationally and internationally, and (2) background to feed-in tariff design and implementation issues. Consultant should cover the key design and implementation issues provided to the California Energy Commission.

b. Consultant shall facilitate discussion with HECO and CA about Hawaii-specific issues and requirements that may impact feed-in tariff design and implementation, including:

   i. Hawaii Clean Energy Initiative Agreement
   ii. Hawaii Renewable Portfolio Standard
   iii. Intragovernmental Wheeling Docket
   iv. HECO IRP-4
   v. Competitive Bidding Framework
   vi. Net energy metering
   vii. Distributed Generation Docket
   viii. Distributed Generation Interconnection Tariff
   ix. HECO Schedule Q Tariff for purchases of energy from Qualifying Facilities 100 kW or less
   x. System integration issues with intermittent renewables on Hawaii grid including grid stability and curtailment
   xi. Firm renewables and their role in utility resource planning
   xii. Development of a utility PV program
   xiii. Development of renewable energy projects in Hawaii including siting, resource, and interconnection issues
   xiv. Characteristics of the utility generation and transmission & distribution systems on each of the islands served by the HECO utilities

   HECO shall provide Consultant with background information and documents pertaining to each of the above no later than one week in advance of the workshop. Consultant may request HECO to provide a summary presentation at the workshop on the above factors.

c. Consultant shall facilitate discussion with HECO and the CA to obtain detailed feedback on feed-in tariff design and implementation issues. Key design and implementation issues shall include those identified by Consultant in its reports to the California Energy Commission, and the following factors identified in the Hawaii Clean Energy Initiative Agreement:
   i. categories of renewables
   ii. size or locational limits for projects
   iii. how to manage and identify project development milestones relative to the queue of projects
   iv. annual limits on amount of renewables allowed to take feed-in tariff terms
   v. factors to incorporate into prices for feed-in tariff payments
   vi. terms, conditions, and duration of the feed-in tariff
   vii. continuing role of the Competitive Bidding Framework.

   In addition, the PUC indicated in its order initiating Docket No. 2008-0273 that it will issue a scoping paper setting forth additional considerations and criteria to be addressed. These shall be added to the list of key issues whenever the PUC scoping paper is made available.

Consultant should have no pre-conceived assumptions for these issues as they pertain to design of the Hawaii Feed-In Tariff going into the workshop, as one of the purposes of the facilitated discussion and overall work effort is to help HECO and the CA develop and justify their position on each.

2. Consultant shall provide by close of business December 3, 2008, a first draft proposed Feed-In Tariff and Report to HECO and the CA. The proposed Feed-In Tariff shall take into account the HECO and CA feedback provided at the November 20-21 workshop and address each of the key design and implementation issues. The proposed Feed-In Tariff should be accompanied by or incorporated within a report detailing the key design and implementation options and issues considered for Hawaii. Specific recommendations on Feed-In Tariff implementation should be provided, for example, on methodologies for determining appropriate Feed-In Tariff pricing rates and on integrating the Feed-In Tariff with other HECO tariffs or programs. Although not a requirement, Consultant is advised to provide an outline of the draft Feed-In Tariff and Report for HECO review in advance of the December 3 submittal. Consultant may opt to provide the first draft in a PowerPoint or similar bulletized format.

3. Consultant shall provide by close of business December 15, 2008, a second draft proposed Feed-In Tariff to HECO and the CA. The second draft shall address all comments from HECO and the CA on the first draft. (HECO and the CA shall provide their comments to the first draft no later than close of business December 8, 2008.)

4. Consultant shall provide by close of business December 22, 2008, the final proposed Feed-In Tariff to HECO and the CA. The final proposed Feed-In Tariff shall address all comments from HECO and the CA on the second draft. (HECO and the CA shall provide their comments to the second draft no later than close of business December 19, 2008.)

5. Consultant shall be available electronically by computer and by phone throughout the day on December 23, 2008, through 3 pm Hawaii Standard Time, to provide any assistance necessary to support filing of the proposed Feed-In Tariff by HECO and the CA.

6. Should the PUC extend the filing date beyond December 23, 2008 for any reason, the due dates for Consultant deliverables will be adjusted accordingly by mutual agreement between HECO and Consultant.

The minimum insurance limits specified in the Consultant Services Master Agreement are not modified for this Work Authorization.

Dated: 11/13/08

Company

II. Consultant's Proposal

Consultant hereby proposes to perform the Work described above in Section I, under said terms and conditions, for the following amount:

Total not-to-exceed cost is $123,000.00

Work will begin immediately and be completed on or before December 31, 2008.

Karin Corfee will act as Consultant's Designated Representative during the performance of this Work.

Dated: 11/13/08 _____ _____
Consultant

III. Work Authorization

Consultant's foregoing Proposal is accepted. Consultant is authorized to perform the Work as proposed. Company's Designated Representative for this Work Authorization shall be Scott Seu.

Dated: _____ _____
Company

CA-IR-344

Ref: HECO T-14 Update, pages 3 to 7 & 12-13 (Rent Update).

The referenced Update identifies $841,000 of additional lease costs included in the rate case forecast associated with four office rentals under negotiation – Waterhouse (Ste. 105 & 106); Waterhouse (Ste. 401, 402 & 403), ASB Tower (Ste. 2970 & 2959), and CPP (Ste. 600, 650 & 680). The spreadsheet supporting Update page 12 shows input rental values for these new leases. Although page 12 contains references to specific pages of Attachments 1 through 4 for additional support, the referenced pages do not show the derivation of the input lease amounts. Please provide the following:

a. Please describe the current status of and planning schedule for completing negotiations and executing lease agreements for each of the identified areas, providing detailed information regarding any material changes subsequent to compilation of the rate case update.
b. Please provide additional quantification support showing the derivation of the lease amounts on page 12, including square footage, lease/CAM rates and GET for each of these areas.

<u>HECO Revised Response:</u>

Attachments 3, 4, and 5 to this revised response contain confidential lease rent terms and conditions information and are being provided subject to the Protective Order filed November 21, 2008 in this proceeding. Disclosure of this information might jeopardize the Company's negotiation position for future leases and/or renewals.

The Company's response to this IR has been revised due its recent organizational changes, as well as the formulation of a preliminary plan to accommodate staffing changes due to the four "needs" identified in the HECO T-14 rate case update, pages 3-7. The response below replaces the Company's original response to this IR filed on February 17, 2009.

a. Prior to the rate case update, the Company had executed the Waterhouse lease for suites 105 and 106. The executed lease was filed as Attachment 1 to HECO T-14's rate case update. Subsequent to the rate case update, the Company had executed the Waterhouse lease for suites 401, 402 and 403. A copy of the executed lease was filed as Attachment 1

to the original response of CA-IR-344 and did not materially change from the proposal filed as Attachment 4 to HECO T-14's rate case update. The Company is no longer reviewing the proposals for ASB Tower (suites 2970 and 2959) and CPP (suites 600, 650 and 680). The rent expenses associated with these two leases have been removed from the revised rent expense exhibit at Attachment 2 to this revised response. These two proposals were originally filed as Attachments 2 and 3, respectively, to HECO T-14's rate case update. The Company is currently reviewing proposals for 445/461 Cooke Street and CPP 21st floor, which have been added to the revised rent expense exhibit at Attachment 2 to this revised response. These two new proposals are filed as Attachments 3 and 4, respectively, to this revised response. Refer to the Company's revised response to CA-IR-345 for the Company's current staffing plans to utilize the office and warehouse space of these new proposals.

The rent expense exhibit has also been revised to reflect the addition of the ASB Tower training rooms #1 and #2. HEI currently leases the entire eighth floor of ASB Tower. Previously, HECO shared the use and lease rental costs of these training rooms, located on the eighth floor of the ASB Tower, equally with HEI and ASB. HEI and ASB will no longer use these training rooms, therefore HECO will have exclusive use of these training rooms. Attachment 2 to this revised response removes HECO's previous one third share of the ASB Tower eighth floor training rooms #1 and #2 rent expenses ($76,000, inclusive of HEI overhead and administration costs), and adds the full cost of the training rooms' pro rata rent expenses ($146,000). These training rooms will allow HECO to continue to accommodate large groups for training classes, new employees orientation

sessions, coordinate internal meetings requiring participants from various departments and divisions, host technical workshops with parties, intervenors, and participants in the Company's dockets, and lastly, to maintain a positive public image with the community by hosting information sessions and seminars.

With the discontinuance of the pro rata lease sharing among HEI, HECO, and ASB for ASB Tower eight floor training rooms #1 and 2, Attachment 2 to this revised response also adds an additional $8,000 as HECO's share of the ASB Tower eighth floor break room. Attachments 5 is the ASB Tower eighth floor lease[1], and Attachment 6 is the ASB Tower's 2009 estimated operating expense memorandum.

b. Refer to Attachment 2 to this revised response for completion of the rent expense exhibit. Based on the revisions noted in part a above, total annual rent expense changes are shown in the table below:

Filing	Date	Annual Lease Payment	Change (Versus Direct Testimony)
Direct testimony	7/3/08	$3,062,000	N/A
HECO T-14 rate case update	12/2/08	3,903,000	$841,000
Original CA-IR-344 response	2/17/09	3,844,000	782,000
Revised CA-IR-344 response	3/30/09	3,765,000	703,000

[1] The ASB eight floor lease expires on March 31, 2011. HECO will evaluate the requirements for the training rooms #1 and #2 prior to lease expiration.

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

Attachment 1 contains confidential information and is provided subject to

the Protective Order filed on November 21, 2008 in this proceeding.

Hawaiian Electric Company, Inc.
Account 931 - Rent Expense - REVISED
Test Year 2009 Estimate

EXISTING LEASES	[a] Sq Ft	[b] Monthly Rent per Sq Ft $	[c]=[a]x[b] Annual Base Rent Note (2)	[d]=[a]x CAM rate Est Annual CAM Note (1)	[e]=[c]+[d] Annual Base & CAM Rent	[f]=[a]x RPT rate Est RPT Credit Note (1)	[g]=([e]+[f])x (4.712%) Annual General Excise Tax	[h]=[e]+[f]+[g] Annual Rent TY 2009 ($ 000s)	Reference
Central Pacific Plaza (CPP):									
Suite 700	7,598	$ 1.66	$ 152,223	$ 103,723	$ 255,946	$ (18,157)	$ 11,205	$ 249	See HECO-WP-1410.
Suite 1010	4,509	1.40	75,756	61,554	137,310	(10,775)	5,962	132	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-B
Suite 1020/1025/1075	4,532	1.35	73,418	61,868	135,287	(10,830)	5,864	130	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-C
Suite 1201/1212	2,871	1.65	56,846	39,193	96,039	(6,861)	4,202	93	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-D.
Suite 1250/1270	1,598	1.35	7,141	21,815	28,956	(3,819)	1,184	26	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-E.
Adjustment - CPP 1250/1270								21	
Suite 1300	9,601	1.55	181,118	131,067	312,185	(22,944)	13,629	303	See HECO-WP-1411.
Suite 1425	2,788	1.35	46,838	38,060	84,898	(6,663)	3,686	82	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-G.
Suite 1480	1,242	1.40	20,866	16,955	37,821	(2,968)	1,642	36	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-H.
Suite 1515	732	1.49	13,077	9,993	23,070	(1,749)	1,005	22	2007 TY Rate Case, CA-IR-299(c) HECO T-13, Attachment 3.
Suite 1520/1530	2,451	1.66	49,105	33,460	82,564	(5,857)	3,614	80	See HECO-WP-1412.
Suite 1570	2,969	1.49	53,052	40,531	93,583	(7,095)	4,075	91	2007 TY Rate Case, CA-IR-299(c) HECO T-13, Attachment 4.
Suite 1710/1750/1760	4,316	1.40	72,509	58,919	131,428	(10,314)	5,707	127	2007 TY Rate Case, CA-IR-299(c) HECO T-13, Attachment 6.
Total CPP								1,394	
King Street Building	58,313	1.11	781,456	-	781,456	-	36,822	818	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11
ASB Tower - Training Rooms **Note (3)**								61	See HECO-WP-1413.
Adjustment - ASB Training Rooms								15	
Pauahi Tower	15,892	1.25	238,380	215,496	453,876	-	21,387	475	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-N.
Honolulu Club	2,544	2.87	87,730	-	87,730	-	4,134	92	See HECO-WP-1414.
Waterhouse - Suite 506	3,085	1.25	46,275	35,740	82,015	(2,777)	3,734	83	2007 TY Rate Case, CA-IR-299(c) HECO T-13, Attachment 8.
Waterhouse - Suite 404	1,662	1.25	24,930	19,254	44,184	(1,496)	1,779	44	2007 TY Rate Case, CA-IR-299(c) HECO T-13, Attachment 8.
Waterhouse - Suite 101	1,806	1.10	26,006	20,923	46,929	(1,625)	2,135	47	See HECO-WP-1415.
Waiau Viaduct	Quarterly payments of $7,925 (no GET)							32	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-R.
Total TY 2009 Rent								$ 3,062	
RATE CASE UPDATE (NOVEMBER 2008):									
Waterhouse - Suites 105/106	2,000	1.30	31,200	23,040	54,240	(3,600)	2,386	53	RATE CASE UPDATE HECO T-14 Attachment 1, pg 30.
Waterhouse - Suites 401/402/403	2,193	1.17	30,790	25,263	56,053	(3,947)	2,455	55	RATE CASE UPDATE HECO T-14 Attachment 4, pg 1.
ASB Tower - Suites 2970/2959	12,980	1.55	241,428	207,862	449,290	(31,019)	19,709	438	RATE CASE UPDATE HECO T-14 Attachment 2,pg 1.
CPP - Suites 600/650/680 (**Note 4**)	7,134	1.60	136,973	106,154	243,127	(17,048)	10,653	237	RATE CASE UPDATE HECO T-14 Attachment 3, pg. 1.
Total TY 2009 Rent - REVISED NOVEMBER 2008								$ 3,844	
CA-IR-344 UPDATE (MARCH 2009):									
Remove: ASB Tower - Suites 2970/2959								(438)	
Remove: CPP - Suites 600/650/680								(237)	
445/461 Cooke Street (**Note 5**)	13,485	1.25	202,275	69,583	271,858	(32,364)	11,285	251	REVISED CA-IR-344 Attachment 2
CPP - 21st Floor (**Note 6**)	7,892	1.55	146,791	126,903	273,695	(18,941)	12,004	267	REVISED CA-IR-344 Attachment 3
Remove: ASB Tower - Training Rooms								(61)	
Remove: Adjustment - ASB Training Rooms								(15)	
ASB Tower Training Rooms 1 & 2 (**Note 7**)	4,649	1.33	74,198	78,579	152,777	(13,170)	6,578	146	REVISED CA-IR-344 Attachment 4 & 5
ASB Tower Break Room								8	
Total TY 2009 Rent - REVISED MARCH 2009								$ 3,765	

Note Explanations:

Note: Numbers may not add exactly due to rounding.

(5) 445/461 Cooke Street office and warehouse space estimated annual CAM is $.43/s.f. per Attachment 1 of the Company's REVISED response to CA-IR-344. The estimated RPT credit is based on an estimated $.20/s.f. per Note 1 of original rent exhibit calculation - T-14 HECO-1405.

(6) CPP 21st floor estimated annual CAM is $1.34/s.f. per Attachment 2 of the Company's REVISED response to CA-IR-344. The estimated RPT credit is based on an estimated $.20/s.f. per Note 1 of original rent exhibit calculation - T-14 HECO-1405.

(7) ASB Tower training rooms 1 and 2 estimated annual CAM is $1.38/s.f. based on ASB Tower's estimated 2009 operating expenses. See Attachment 5. The estimated RPT credit is based ASB Tower's estimated 2009 real property tax assessment. See Attachment 5.

Hawaiian Electric Company, Inc.
Account 931 - Rent Expense - REVISED
Test Year 2009 Estimate

Note Explanations - continued:

For Waterhouse leases, CAM costs were estimated based on actual 2007 CAM rate of $.91 per sq ft and escalated 3% anually to 2008 and 2009. For RPT credits, assumed $.15 per sq ft for 6 months (7/09-12/09 for suites 404/506 and 1/09-6/09 for suite 101), based on 2008 RPT credits escalated by 3% and based on the timing of the filing and estimated receipt of the RPT exemption.

For Honolulu Club lease, CAM and RPT credits are included in the base rent.

(2) Annual base rents are based on existing leases, except as adjusted based on lease terms and/or assumptions below:

CPP 1201/1212:
The current lease expires August 31, 2008 and is currently being negotiated. For the purposes of the 2009 budget, assumed a $1.65 base rate per sq. ft., similar to the CPP 700 lease which was recently negotiated and executed in 2007.

CPP 1250/1270:
The calculation of the 2009 lease is incorrect. The total 2009 annual BASE lease expense for these suites should be $26,767 in accordance with the existing lease agreement which expires January 31, 2010. Accordingly, the total annual lease expense including CAM, GET and RPT credit should be $47,000, an increase of $21,000 from the current 2009 budgeted amount. Therefore, total rent expense will be adjusted at the next opportunity to determine revenue requirements.

CPP 1425:
The current lease expires October 31, 2009. For the purposes of the 2009 budget, assumed a $1.65 base rate per sq. ft., similar to the CPP 700 lease which was recently negotiated and executed in 2007, beginning November 2009.

Waterhouse 506 and 404:
The current lease expires November 30, 2008 and is currently being negotiated. For the purposes of the 2009 budget assumed a $1.25 base rate per sq. ft. based on initial renewal discussions.

Waterhouse 101:
The current elase expires April 30, 2009. For the purposes of the 2009 budget, assumed a $1.25 base rate per sq. ft. based on initial renewal discussions of Waterhouse 506 and 404.

(3) Budgeted amount is based on an early calculation which has since been updated. The updated amount is $76,000, approximately $15,000 more than originally budgeted. Updated amount is based on additional shared costs in addition to rent (e.g., insurance and overhead). Therefore, total ASB training room rent will be adjusted at the next opportunity to determine revenue requirements.

(4) CPP 600/650/680's estimated annual CAM is based on $1.24/s.f. per Attachment 3, page 1.

Reference - continued:

See HECO-WP-1418.

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

CA-IR-344
DOCKET NO. 2008-0083
ATTACHMENTS 3-5

Attachments 3 to 5 contain confidential information and are provided subject to the Protective Order filed on November 21, 2008 in this proceeding.

Attachments 3 to 5 are voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the document. Electronic copies of the requested information is being provided.

CA-IR-344 ATTACHMENT #5

BISHOP SQUARE Bishop Square Management
• Pauahi Tower
1003 Bishop Street • Suite 440 • Honolulu, HI 96813 • (808) 545-7500 • Fax (808) 523-6008 • www.bishopsquare.com •

December 22, 2008

Tenants of American Savings Bank Tower
1001 Bishop Street
Honolulu, Hawaii 96813

Re: 2009 Estimated Operating Expenses

Dear Tenants:

Please find enclosed your January rental statement and worksheet, which reflects the 2009 Monthly Building Operating Expense charge. If you should require further detail, please visit our website at www.bishopsquare.com under the "Tenant News" tab to view the recoverable operating expense breakdown appropriate for your building. The projected increase in operating expenses is due primarily to real property taxes, energy and insurance costs. An adjustment to the actual 2008 Operating Expenses will be made upon completion of the audit and will be reflected on the April, 2009 rental statement.

If you have any questions or require further information, please call me at 545-7500.

Your tenancy and continued support is greatly appreciated. Best wishes for a Happy Holiday Season.

Sincerely,

John Coppedge
General Manager

JOC:kks
Enclosures

Bishop Square Associates
Bishop Square - American Savings Bank Tower
2009 Operating Expense Estimate

Suite:	3010-0800	Lease RSF:	15,931	Effective Date:	01/01/09
Tenant:	**Hawaiian Electric Industries**	Pro-Rata Share:	0.03295	Base Year:	N/A

Current Year Expenses:	8,172,108.00	
Base Year Expenses:	0.00	
Difference:	8,172,108.00	
Pro-Rata Share	0.03295	
Tenant's Share	269,270.96	÷ 15,931 s.f. (Total HEI Lease) × 4,649 s.f. (Training rooms only) = $78,579 (TOTAL CAM)
Monthly Amount	22,439.25	
Less HECO's share	(461.12)	
Monthly Operating Exp	21,978.13	

Bishop Square Associates
Bishop Square - American Savings Bank Tower
2009 Operating Expense Estimate

Suite:	3010-0800	Lease RSF:	1,955	Effective Date:	01/01/09
Tenant:	**Hawaiian Electric Industries**	Pro-Rata Share:	0.00404	Base Year:	N/A

RE: Sublessee HECO's Pro-rata share of the RPT

Real Property Tax Current Year Expense:	1,369,668.00	PRO-RATA SHARE HEI Training Rooms x .03295 ÷ 15,931 s.f. x 4,649 s.f. = $13,170 RPT Tax Credit
Base Year Expenses:	0.00	
Difference:	1,369,668.00	
Pro-Rata Share	(0.00404)	
Tenant's Share	(5,533.46)	
Monthly Credit	(461.12)	

CA-IR-344

Ref: HECO T-14 Update, pages 3 to 7 & 12-13 (Rent Update).

The referenced Update identifies $841,000 of additional lease costs included in the rate case forecast associated with four office rentals under negotiation – Waterhouse (Ste. 105 & 106); Waterhouse (Ste. 401, 402 & 403), ASB Tower (Ste. 2970 & 2959), and CPP (Ste. 600, 650 & 680). The spreadsheet supporting Update page 12 shows input rental values for these new leases. Although page 12 contains references to specific pages of Attachments 1 through 4 for additional support, the referenced pages do not show the derivation of the input lease amounts. Please provide the following:

a. Please describe the current status of and planning schedule for completing negotiations and executing lease agreements for each of the identified areas, providing detailed information regarding any material changes subsequent to compilation of the rate case update.
b. Please provide additional quantification support showing the derivation of the lease amounts on page 12, including square footage, lease/CAM rates and GET for each of these areas.

HECO Response:

a. Prior to the rate case update, the Company had executed the Waterhouse lease for suites 105 and 106. The executed lease was filed as Attachment 1 to HECO T-14's rate case update. Subsequent to the rate case update, the Company had executed the Waterhouse lease for suites 401, 402 and 403. A copy of the executed lease is filed as Attachment 1 to this response and did not materially change from the proposal filed as Attachment 4 to HECO T-14's rate case update. The Company is still reviewing the proposals for ASB Tower (suites 2970 and 2959) and CPP (suites 600, 650 and 680). These two proposals were filed as Attachments 2 and 3, respectively, to HECO T-14's rate case update.

b. Refer to Attachment 2 to this response for completion of the rent expense exhibit. In providing the information requested, the annualized real property tax credits were estimated using the CPP and Waterhouse real property tax credit amounts contained in Note 1 on the Attachment for the prospective CPP lease and the two new Waterhouse

leases. For the new ASB Tower prospective lease, it was assumed that the real property tax credit is the same as CPP's as shown in Note 1 of the Attachment. The result of including the annualized real property tax credits for the two new leases and two prospective leases resulted in an annualized credit amount of $55,614, thereby decreasing the net rent expense increase amount by $58,000 (including GET), from $841,000 to $783,000[1]. With this adjustment, the total test year 2009 rent expense is adjusted from $3,062,000 to $3,844,000, a net increase of $782,000.

[1] This figure is not footing to the $782,000 net increase when comparing the direct testimony's annual lease rent expense of $3,062,000 to the adjusted figure of $3,844,000 shown in this response. This is due to rounding.

Hawaiian Electric Company, Inc.
Account 931 - Rent Expense - REVISED
Test Year 2009 Estimate

EXISTING LEASES	[a] Sq Ft	[b] Monthly Rent per Sq Ft $	[c]=[a]x[b] Annual Base Rent Note (2)	[d]=[a]x note(1) Est Annual CAM Note (1)	[e]=[c]+[d] Annual Base & CAM Rent	[f]=[a]x note(1) Est RPT Credit Note (1)	[g]=([e]+[f])x (4.712%) Annual General Excise Tax	[h]=[e]+ [f]+[g] Annual Rent TY 2009 ($ 000s)	Reference
Central Pacific Plaza (CPP)									
Suite 700	7,598	$ 1.66	$ 152,223	$ 103,723	$ 255,946	$ (18,157)	$ 11,205	$ 249	See HECO-WP-1410.
Suite 1010	4,509	1.40	75,756	61,554	137,310	(10,775)	5,962	132	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-B
Suite 1020/1025/1075	4,532	1.35	73,418	61,868	135,287	(10,830)	5,864	130	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-C
Suite 1201/1212	3,871	1.65	56,846	39,193	96,039	(6,861)	4,202	93	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-D.
Suite 1250/1270	1,5[illegible]	1.35	7,141	21,815	28,956	(3,819)	1,184	26	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-E.
Adjustment - CPP 1250/1270								21	**Note (2)**
Suite 1300	9,601	1.55	181,118	131,067	312,185	(22,944)	13,629	303	See HECO-WP-1411.
Suite 1425	2,788	1.35	46,838	38,060	84,898	(6,663)	3,686	82	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-G.
Suite 1480	1,242	1.4[illegible]	20,866	16,955	37,821	(2,968)	1,642	36	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-H.
Suite 1515	732	1.49	13,077	9,993	23,070	(1,749)	1,005	22	2007 TY Rate Case, CA-IR-299(c) HECO T-13, Attachment 3.
Suite 1520/1530	2,451	1.66	49,105	33,460	82,564	(5,857)	3,614	80	See HECO-WP-1412.
Suite 1570	2,969	1.49	53,[illegible]	40,531	93,583	(7,095)	4,075	91	2007 TY Rate Case, CA-IR-299(c) HECO T-13, Attachment 4.
Suite 1710/1750/1760	4,316	1.40	72,509	58,919	131,428	(10,314)	5,707	127	2007 TY Rate Case, CA-IR-299(c) HECO T-13, Attachment 6.
Total CPP								1,394	
King Street Building	58,313	1.11	781,456	-	781,456	-	36,822	818	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11
ASB Tower - Training Rooms **Note (3)**								61	See HECO-WP-1413.
Adjustment - ASB Training Rooms								15	**Note (3)**
Pauahi Tower	15,892	1.25	238,380	215,496	453,87[illegible]	-	21,387	475	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-N.
Honolulu Club	2,544	2.87	87,730	-	87,730	-	4,134	92	See HECO-WP-1414.
Waterhouse - Suite 506	3,085	1.25	46,275	35,740	82,015	([illegible],777)	3,734	83	2007 TY Rate Case, CA-IR-299(c) HECO T-13, Attachment 8.
Waterhouse - Suite 404	1,662	1.25	24,930	19,254	44,184	(1,4[illegible])	1,779	44	2007 TY Rate Case, CA-IR-299(c) HECO T-13, Attachment 8.
Waterhouse - Suite 101	1,806	1.10	26,006	20,923	46,929	(1,625)	2,135	47	See HECO-WP-1415.
Waiau Viaduct	Quarterly payments of $7,925 (no GET)							32	2007 TY Rate Case, CA-IR-2 HECO T-13, Attachment 11-R.
Total TY 2009 Rent								$ 3,062	
RATE CASE UPDATE:									
Waterhouse - Suites 105/106	2,000	1.30	31,200	23,040	54,240	(3,600)	2,386	[illegible]	RATE CASE UPDATE HECO T-14 Attachment 1, pg 30.
Waterhouse - Suites 401/402/403	2,193	1.17	30,790	25,263	56,053	(3,947)	2,455	55	RATE CASE UPDATE HECO T-14 Attachment 4, pg 1.
ASB Tower - Suites 2970/2959	12,980	1.55	241,428	207,862	449,290	(31,019)	19,709	438	RATE CASE UPDATE HECO T-14 Attachment 2,pg 1.
CPP Suites 600/650/680 (**Note 4**)	7,134	1.60	136,973	106,154	243,127	(17,048)	10,653	237	RATE CASE UPDATE HECO T-14 Attachment 3, pg. 1.
Total TY 2009 Rent - REVISED								$ 3,844	

Note Explanations:

Note: Numbers may not add exactly due to rounding.

(1) For CPP leases, estimated common area maintenance (CAM) costs and real property tax (RPT) credits were estimated based on estimated 2008 figures as follows:

	CAM	RPT	
CPP 2008 Estimate	$ 3,087,587	$ 540,495	See HECO-WP-1416.
Estimated Annual Increase (3%)	1.03	1.03	
Estimated CPP 2009 CAM/RPT	$ 3,180,215	$ 556,710	
Total CPP Sq Ft (Common Interest)	232,959	232,959	
/ 12 Months	12	12	
Est Monthly 2009 $ per sq ft	$ 1.14	$ 0.20	

For Pauahi Tower lease, CAM costs were estimated based on an estimated CAM rate of $1.0977 per sq ft and escalated 3%. RPT credit is included in the CAM costs. See HECO-WP-1417.

CA-IR-344
DOCKET NO. 2008-0083
ATTACHMENT 2
PAGE 1 OF 2

HECO-1405
DOCKET NO. 2008-0083
PAGE 1 OF 2
(UPDATED 2/17/09)

CA-IR-345

Ref: HECO T-14 Update, pages 3 to 7 & 12 to 13 (Rent Update).

The referenced documentation indicates that 24,307 square feet of additional lease space has been included in the rate case update to meet four basic needs: additional staffing due to HCEI initiatives; additional staffing or other organizational changes other than HCEI initiatives; relocation of meter engineering from the Ward basement; and space requirements due to growth. Please provide the following:

a. Please provide the Company's best estimate of the portion of the 24,307 s.f. of space related to each of the four identified "needs". If this information is not available, please explain.
b. For each additional office lease rental under consideration, please provide floor diagrams showing anticipated use of the new lease space and indicating the number of employees expected to occupy each area.
c. To the extent that the employees identified in part (b) of this information request are being relocated from existing owned or leased space (e.g., Ward meter engineering), please provide additional floor diagrams showing planned utilization and occupancy of the vacated space.

<u>HECO Revised Response:</u>

The Company's response to this IR has been revised due its recent organizational changes, as well as the formulation of a preliminary plan to accommodate staffing changes due to the four "needs" identified in the HECO T-14 Update, pages 3-7. The response below revises the Company's original response to this IR filed on February 17, 2009.

a. Attachment 3 to this revised response summarizes the staffing changes in relation to the four new leases (two signed and two currently in negotiation) totaling 25,570 square feet, in accordance with the four needs identified in HECO T-14 rate case update, pages 3 to 7. The portion of the new leases space attributable to the four needs are: 1) HCEI initiatives, 9,751 square feet, or 38%, 2) reorganization, 8,507 square feet, or 33%, 3) relocation, 5,312 square feet, or 21%, and 4) growth, 2,000 square feet, or 8%. Below provides

additional discussions on these changes. See also the Company's response to CA-IR-420.

HCEI Initiatives:

As mentioned in HECO T-14 Update, page 4, additional office space is needed for personnel of HCEI-related initiatives, which include the new Renewable Energy Power Purchase Division, new Renewable Energy Planning Division and the new AMI Division.

Renewable Energy Power Purchase Division:

To accommodate the personnel of this new division, HECO currently plans to locate the new Renewable Energy Power Purchase Division (originally planned to be located at Waiau Power Plant administrative building) to the 7,892 s.f. of office space on the CPP 21st floor. HECO plans to relocate the Power Purchase Division (from the Waiau Power Plant administrative building) to make space to accommodate much needed training space. The Energy Solutions Manager (from the Waiau Power Plant administrative building), and the new Corporate Planning Department (from the fourth floors of the Ward I Building and King Street Building), will also move to the CPP 21st floor. A floor diagram is provided in Attachment 4 to this revised response which shows the proposed floor layout of the CPP 21st floor.

Renewable Energy Planning Division:

To accommodate the personnel of this division, HECO currently plans to locate the new Renewable Energy Planning Division to the fourth floor office space of the Ward I Building currently occupied by personnel of the Corporate Planning Department and AMI Division. Refer to below for relocation plans of the Corporate Planning Department and AMI Division.

AMI Division:

To accommodate the staffing and space needs of this division, HECO currently plans to relocate and consolidate the new AMI Division (from the Waterhouse suites 401/402/403 and the 4th floor of the Ward I Building) to the 13,485 s.f. office/warehouse space at 445/461 Cooke Street. A floor diagram is provided in Attachment 5 to this revised response which shows the proposed floor layout of the 445/461 Cooke Street location.

Other Organizational Changes:

As mentioned in HECO T-14 Update, page 4, additional office space is also needed for personnel of other organizational changes, which include the new Asset Management Division and the new Corporate Planning Department.

Asset Management Division:

To accommodate the personnel of this new division, HECO has located the new Asset Management Division to the 2,193 s.f. office space of the Waterhouse suites 401/402/403 location. Currently, this office space is used by the Asset Management Division and AMI Division personnel.

Corporate Planning Department:

To accommodate the personnel of this department, HECO plans to relocate and consolidate the new Corporate Planning Department to the office space on the CPP 21st floor. Currently, Corporate Planning personnel occupy office space on the fourth floors of the Ward I and King Street Buildings. A floor diagram is provided in Attachment 4 to this revised response which shows the proposed floor layout of this department on the CPP 21st floor.

Meter Engineering Division:

As mentioned in HECO T-14 Update, page 5, additional office space is also needed for the Meter personnel and their equipment due to water incursion problems in the Ward I Building basement. In the Company's response to CA-IR-345 and 347, HECO discussed plans to relocate the Meter personnel and some of their equipment (from the Ward I Building basement) to the leased office space at Waterhouse Suite 101 and 105/106. However, HECO has temporarily suspended this plan of utilizing the Waterhouse location for this effort. The Company currently plans to relocate the meter personnel and their equipment to the 13,485 s.f. office and warehouse space at the Cooke Street location. The Meter personnel would be consolidated with the AMI Division at this location to maximize the efficiency and synergy of 1) project planning, design and development; 2) meter, communications, and software testing; 3) meter inventory control; 4) project staging and deployment operations; 5) personnel collaboration and training; and 6) company-vendor interactions. The warehouse space at the 445/461 Cooke Street location will be used to store all of the meter equipment, and also used as a staging area for the smart meters to be purchased for the commercial deployment of the AMI project.[1] A floor diagram is provided in Attachment 5 which shows the proposed floor layout of the 445/461 Cooke Street location.

Growth in Other Divisions:

As mentioned in HECO T-14 rate case update, page 6, additional office space is also needed for the continuous growth of divisions and departments of the Company. To

[1] Out of the 13,485 s.f. at 445/461 Cooke Street, 5,102 s.f. is warehouse space and is needed to house approximately 10,000 meters during deployment. During deployment, we will be installing approximately 8,000 to 10,000 meters a month.

accommodate this growth, HECO plans to use the office space vacated by personnel in the described relocations above and the leased office space at Waterhouse 105/106. Below is a summary of HECO's preliminary staffing plans to accommodate growth in other divisions:

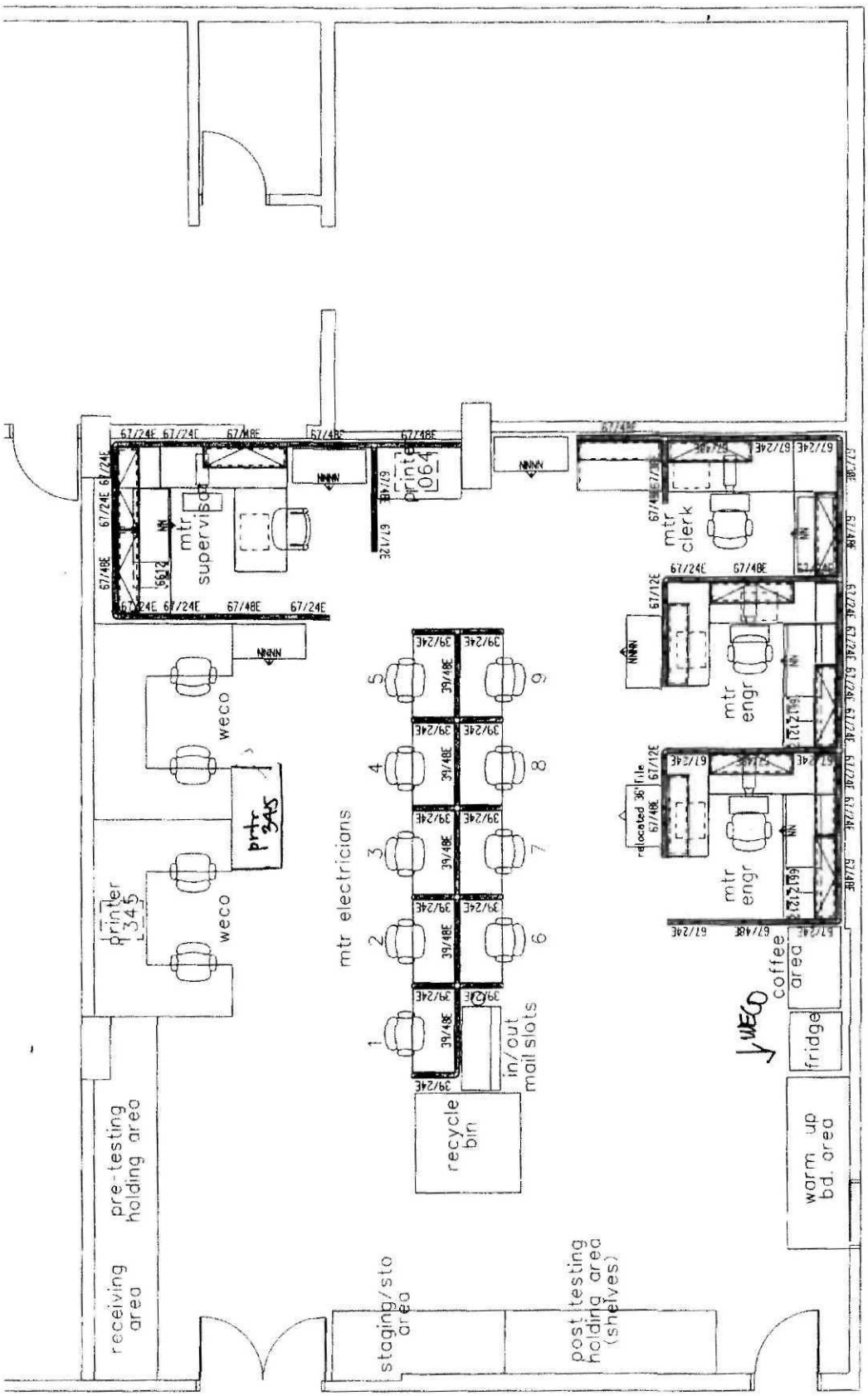
- Waiau Power Plant administrative building – space vacated by the Power Purchase Division and a small area that was "reserved" for Renewable Energy Power Purchase Division (but not enough space for them when fully staffed) will be used for much needed classroom training space at Waiau Power Plant.
- Ward I Building, fourth floor – space vacated by Corporate Planning Department and AMI Division personnel will be used for the Renewable Energy Planning Division and additional office space and/or workstations to alleviate space shortage at the Ward I Building.
- Basement of Ward I Building – space vacated by meter employees and equipment may be used for Safety Division's classrooms. Sections of the basement are not suitable for full-time office staff due to frequent water incursion. It is highly improbable that the water incursion can be completely stopped since we are on top of an underground river, unless extensive and expensive repairs are done.
- King Street Building, fourth floor – space vacated by Corporate Planning Department personnel to be used to alleviate shortage of office space at King Street Building location.
- Waterhouse suites 401/402/403 – space vacated by AMI Division personnel will be used for Asset Management Division personnel and additional office space and/or

workstations to alleviate space shortage at the Ward I Building. Because this area is "isolated" from Ward, the Asset Management Division will require a conferencing area.

- Waterhouse suite 105/106 – space will be used as additional office space and/or workstations to alleviate space shortage at the Ward I Building for temporary growth, consultants and satellite work areas.

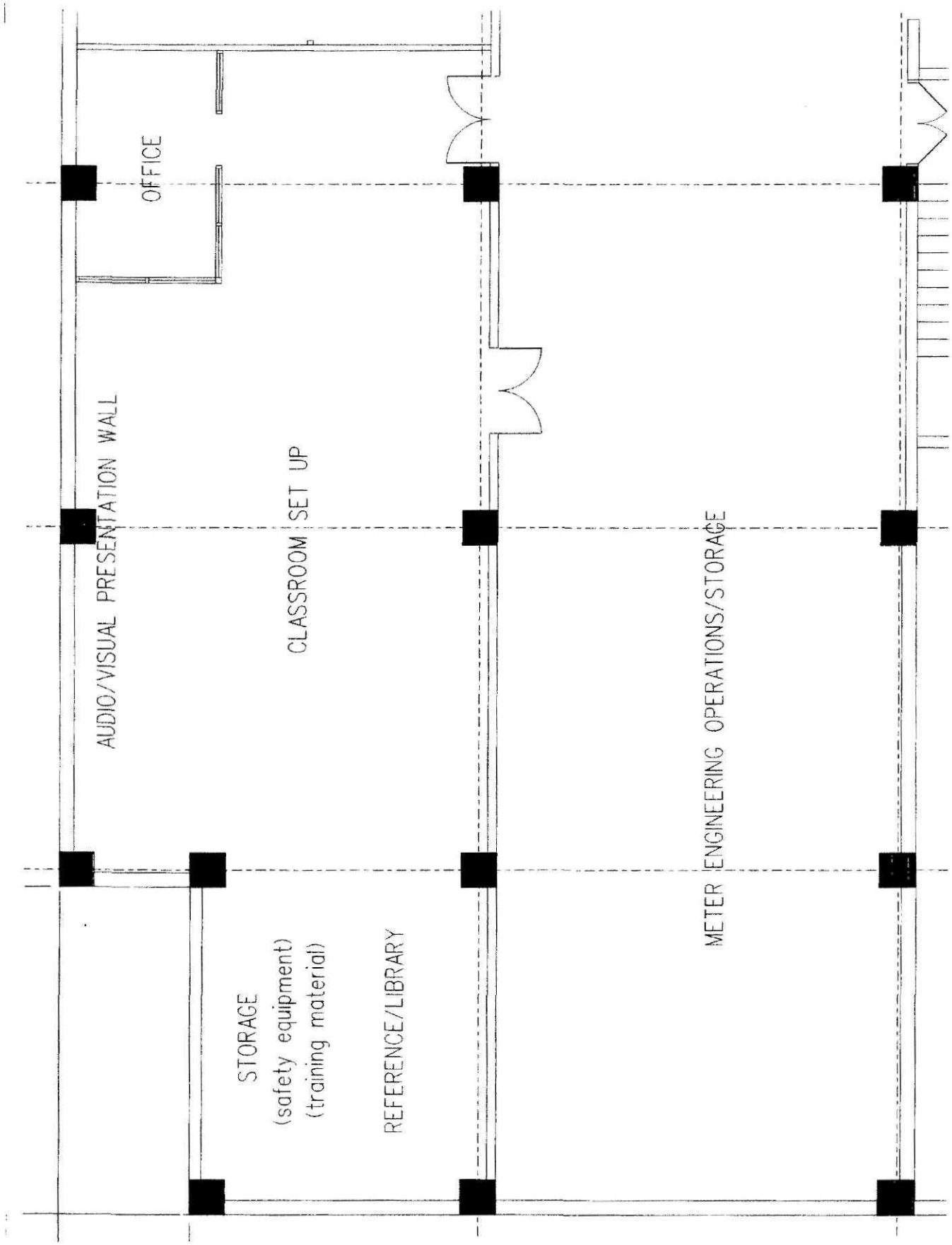
b. Refer to Attachments 4 and 5 to this revised response for floor diagrams showing the proposed floor layout of the CPP 21st floor and 445/461 Cooke Street location, respectively.

c. Refer to Attachment 2 of the Company's original response to CA-IR-345 for the proposed floor layout of the Ward I Building basement. This proposed floor layout is preliminary only. Floor plans for the use of vacated spaces in other locations noted in part b above are not practical and are not available as most are individual offices/work stations which will be absorbed by the existing departments/divisions to alleviate their existing shortage and/or to be reconfigured to accommodate further growth and reorganizational changes.



proposed meter shop

scale: 1/4" = 1'-0"



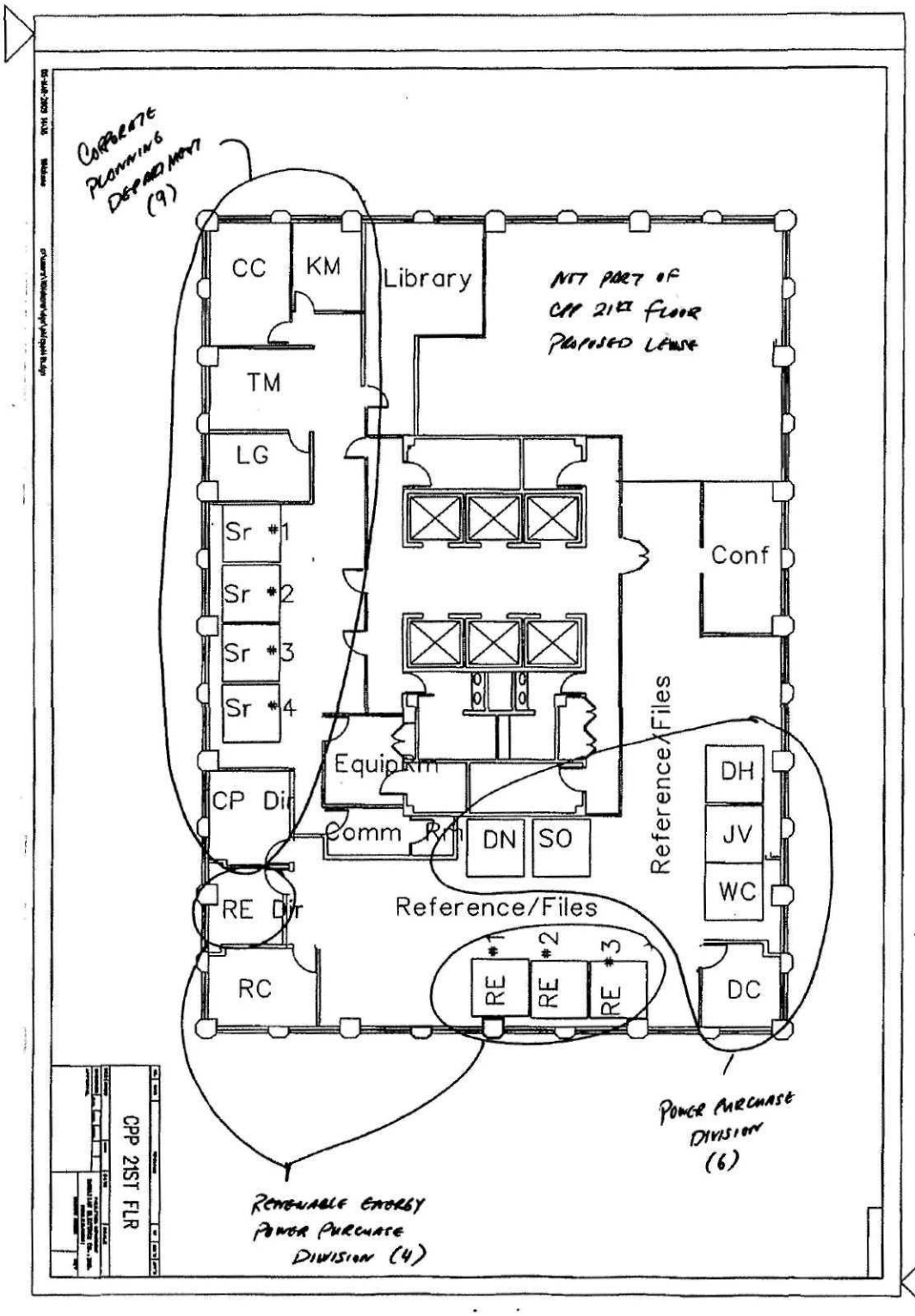
Ward Basement

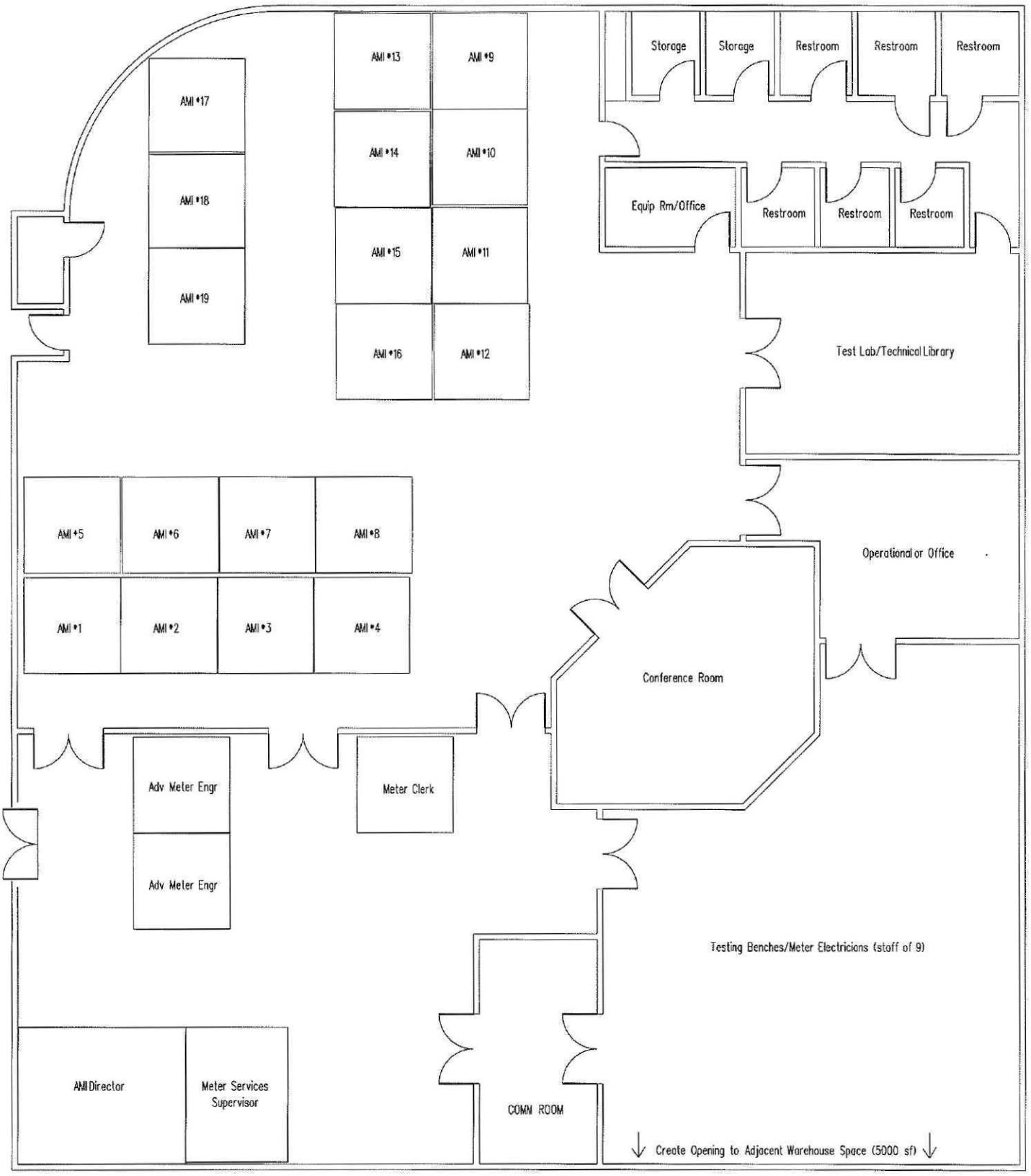
Summary of Uses for New Leased Office Spaces

			1. HCEI			2. Reorganization		3. Relocation	4. Growth
			Renewable Energy Power Purchase Div	Renewal Energy Planning Div	AMI Div	Corporate Planning	Asset Mgmt	Meter Engineering	Growth & Overflow
Existing/original planned location			Waiau Power Plant Admin Bldg	TBD	Waterhouse 401/402/403	Ward 4th Floor, KS Bldg	TBD	Ward Basement	N/A
New use for vacated space			Training	Will use space vacated by Corporate Planning	Asset Mgmt	Renewable Energy Planning Div, & Growth	N/A	Training	N/A
Current plan for new leases									
Waterhouse 105/106		2,000							X
Waterhouse 401/402/403		2,193					X		
445/461 Cooke Street	(1)	13,485			X			X	
CPP 21st Floor	(2)	7,892	X			X			
Total		25,570	1,578		8,173	6,314	2,193	5,312	2,000

		1. HCEI	2. Reorganization	3. Relocation	4. Growth
Summary	Allocation by the four needs (1)	9,751	8,507	5,312	2,000
	% by the four needs	38%	33%	21%	8%

Notes:
1. Meter Engineering personnel will be co-located with the AMI Division for increased synergy. Allocation based on 13 offices/work stations for Meter Engineering and 20 for AMI Division.
2. Allocated based on 4 offices/work stations for Renewable Energy Power Purchase Division and 16 for Corporate Planning, Purchased Power, and the Energy Solution Manager.


CORPORATE PLANNING DEPARTMENT (9)
CC
KM
Library
NOT PART OF CPP 21ST FLOOR PROPOSED LEASE
TM
LG
Sr #1
Sr #2
Sr #3
Sr #4
Conf
EquipRm
CP Dir
Comm Rm
DN
SO
Reference/Files
DH
JV
WC
RE Dir
Reference/Files
RE #1
RE #2
RE #3
RC
DC
POWER PURCHASE DIVISION (6)
RENEWABLE ENERGY POWER PURCHASE DIVISION (4)
CPP 21ST FLR


AMI #13
AMI #9
AMI #17
AMI #14
AMI #10
AMI #18
AMI #15
AMI #11
AMI #19
AMI #16
AMI #12
Storage
Storage
Restroom
Restroom
Restroom
Equip Rm/Office
Restroom
Restroom
Restroom
Test Lab/Technical Library
AMI #5
AMI #6
AMI #7
AMI #8
AMI #1
AMI #2
AMI #3
AMI #4
Operational or Office
Conference Room
Adv Meter Engr
Meter Clerk
Adv Meter Engr
Testing Benches/Meter Electricians (staff of 9)
AMI Director
Meter Services Supervisor
COMN ROOM
Create Opening to Adjacent Warehouse Space (5000 sf)

CA-IR-345

Ref: HECO T-14 Update, pages 3 to 7 & 12 to 13 (Rent Update).

The referenced documentation indicates that 24,307 square feet of additional lease space has been included in the rate case update to meet four basic needs: additional staffing due to HCEI initiatives; additional staffing or other organizational changes other than HCEI initiatives; relocation of meter engineering from the Ward basement; and space requirements due to growth. Please provide the following:

a. Please provide the Company's best estimate of the portion of the 24,307 s.f. of space related to each of the four identified "needs". If this information is not available, please explain.
b. For each additional office lease rental under consideration, please provide floor diagrams showing anticipated use of the new lease space and indicating the number of employees expected to occupy each area.
c. To the extent that the employees identified in part (b) of this information request are being relocated from existing owned or leased space (e.g., Ward meter engineering), please provide additional floor diagrams showing planned utilization and occupancy of the vacated space.

<u>HECO Response:</u>

a. The Waterhouse lease for suites 105 and 106 (2,000 s.f.) will be used for relocation of Meter Engineering personnel and equipment from the Company's Ward I Building basement. Refer to the Company's response to CA-IR-347 for additional discussion on this relocation. For the remaining 22,307 s.f. of office space related to the Waterhouse lease for suites 401/402/403, ASB Tower lease for suites 2970/2959 and CPP lease for suites 600/650/680, this 22,307 s.f. of office space will be utilized for additional staffings as a result of the referenced reasons above, and also for the consolidation of currently dispersed departments/divisions and the realignment of existing spaces to meet operational and future growth requirements, as referenced on page 7 of HECO T-14 Rate Case Update. Refer to the Company's response to CA-IR-346 for additional discussion on the utilization of the leased space.

b. For the 2,000 s.f. Waterhouse suites 105 and 106 lease, the space will be used to hold some of the relocated Meter Engineering Division's operations and storage equipment. The relocated Meter Engineering personnel from the Ward I Building basement will be relocated to the 1,806 s.f. Waterhouse suite 101. Attachment 1 of this response is a floor diagram showing the anticipated use of the Waterhouse suite 101 space. Refer to the Company's response to CA-IR-347 for more discussion on this planned relocation.

For the remaining 22,307 s.f. of office space related to the Waterhouse lease for suites 401/402/403, ASB Tower lease for suites 2970/2959 and CPP lease for suites 600/650/680, the Company is in the process of conducting its space planning and analyses to determine optimal movements of groups and realignment of existing spaces to meet operational and future growth requirements so that this 22,307 s.f. space can be used efficiently. As such, this information is not available at this time.

c. With the relocation of Meter Engineering personnel and some equipment currently at the Ward I Building basement to Waterhouse suite 101 and suites 105/106, respectively, the vacated Ward I Building basement will be used as a classroom. Attachment 2 of this response is a floor diagram showing the anticipated use of the Ward I Building basement. As discussed in the Company's response to CA-IR-347, subpart d., the anticipated use of the Ward I Building basement is to replace the Safety Division's classroom previously located at Waterhouse suite 101.

CA-IR-346

Ref: HECO T-14 Update & HECO T-15 Update (Rent & Employee Count Update).

As of October 2008, the rate case update of HECO T-15 (Attachment 6, page 7) shows 1,077 non-power supply employees. Page 17 of the HECO T-15 update also shows non-power supply employee count at EOY 2009 at 1,142 – an increase of 65 employees. Absent the relocation of the Meter Engineering, the additional lease space under consideration would equate to about 374 s.f. per employee (24,307 s.f. divided by 65 employees). Please explain how HECO determined the need for the additional 24,307 s.f. of lease space included in the rate case update and how such space needs relate to accommodating the employee levels included in the rate case forecast.

HECO Revised Response:

The Company's response to this IR has been revised due its recent organizational changes, as well as the formulation of a preliminary plan to accommodate staffing changes due to the four "needs" identified in the HECO T-14 Update, pages 3-7. The response below revises the Company's original response to this IR filed on February 17, 2009

Depending on where an employee is located and the needs of the employee/department, the actual square footage of office space per employee varies from 175 s.f. per person to 350 s.f. per person. The requirement depends primarily on the following factors:

1) number of enclosed offices required,
2) density and size of the open office workstation environment,
3) need to maintain extensive administrative files, electrical and cable maps, architectural drawings, supplies, equipment, printers, communication closets, etc.,
4) need for conference, training, and/or break rooms,
5) need for work/drafting tables, and operational area to assemble and test equipment,
6) need for executive and reception areas,

7) layout of the leased space and flexibility/cost of tearing down non-weight bearing walls, existing offices, and reconfiguring the leased space, and

8) need for common area walkway and hallway space to be in compliance with building safety and fire hazard codes and requirements.

Based on our current leases at CPP, the total lease space of 45,207 s.f. houses an estimated 195 workstations/offices. This averages to 232 s.f. per person. The King Street Building lease has 58,313 s.f. and accommodates an estimated 166 workstations/offices. This averages to 351 s.f. per person.[1]

For general planning purposes, the Company normally uses a benchmark of 250 s.f. per person to estimate of the amount of office space needed. Applying the 250 s.f per person to the 65 employees as stated in this informational request would yield a space requirement of 16,250 s.f.. However, for the 2009 test year, additional factors were taken into account in determining the amount of space needed. These additional considerations included:

1. the number of new employees (and number of consultants who will still be needed until the new employees are fully trained),
2. the existing office space of the new employees' divisions or departments,
3. the on-going organizational changes of the Company, including addition of new departments and divisions, and location of these new departments and divisions,
4. current dispersion of personnel in existing divisions/departments, and future growth of these existing divisions/departments (Recently, due to the Company's lack of available

[1] The King Street Building houses the Company's executive offices. It is expected that the average square footage per person be higher.

in-house office space, it has become difficult to keep department personnel physically located together),

5. the need to acquire office space prior to filling the staffing needs of the departments since there are potential long lead times in acquiring office space and time may also be needed to ensure the space is ready for occupancy,
6. preference to have the new leased space be at buildings where existing HECO offices are located at to minimize telecommunications, data, and LAN fiber optic cabling requirements and/or eliminate digging up the streets to lay new fiber optic cablings to extend the Company's internal data network to locations currently not on the network, and
7. to accommodate overall Company growth for the next few years.[2]

The Company has suspended plans to pursue the proposed office spaces at CPP suites 600/650/680 and ASB Tower suites 2970/2959. The Company is currently pursuing leases at 445/461 Cooke Street (13,485 s.f. of office and warehouse space) and CPP 21st floor (7,892 s.f. of office space). Refer to the Company's revised responses to CA-IR-344 and 345 for more information. The leased office spaces at Waterhouse suites 105/106 and 401/402/403, the proposed warehouse/office space at 445/461 Cooke Street, and the proposed office space at CPP 21st floor, collectively 12,085 s.f. or 186 s.f. per person (based on 65 additional employees in the 2009 test year as referenced in this information request), including some vacated space at the fourth floors of Ward I and King Street Buildings, will provide the Company with some flexibility to efficiently plan and accommodate these current on-going organizational changes

[2] Attachment 1 of this response shows the historical trend of actual HECO non-Power Supply employees growth from March 2005 to December 2008.

and growth in future years. The 13,485 s.f. leased warehouse and office space at 445/461 Cooke Street will be used for Meter Engineering personnel and equipment, including a staging area for AMI smart meters, as discussed in the Company's revised responses to CA-IR-345 and CA-IR-347.

HECO Non-Power Supply Employees

Period		Non-PS Employees	Source:
2005	Mar	1035	Response to DOD-IR-114
	Jun	1072	Response to DOD-IR-114
	Sep	1060	Response to DOD-IR-114
	Dec	1059	Response to CA-IR-354
2006	Mar	1051	Response to CA-IR-354
	Jun	1046	Response to CA-IR-354
	Sep	1032	HECO T-15 update, Att. 6, p. 7
	Dec	1041	HECO T-15 update, Att. 6, p. 7
2007	Mar	1033	HECO T-15 update, Att. 6, p. 7
	Jun	1058	HECO T-15 update, Att. 6, p. 7
	Sep	1053	HECO T-15 update, Att. 6, p. 7
	Dec	1056	HECO T-15 update, Att. 6, p. 7
2008	Mar	1063	HECO T-15 update, Att. 6, p. 7
	Jun	1079	HECO T-15 update, Att. 6, p. 7
	Jul	1078	HECO T-15 update, Att. 6, p. 7
	Sep	1066	HECO T-15 update, Att. 6, p. 7
	Oct	1077	HECO T-15 update, Att. 6, p. 7
	Nov	1066	Response to CA-IR-354
	Dec	1096	Response to CA-IR-354

CA-IR-346

Ref: HECO T-14 Update & HECO T-15 Update (Rent & Employee Count Update).

As of October 2008, the rate case update of HECO T-15 (Attachment 6, page 7) shows 1,077 non-power supply employees. Page 17 of the HECO T-15 update also shows non-power supply employee count at EOY 2009 at 1,142 – an increase of 65 employees. Absent the relocation of the Meter Engineering, the additional lease space under consideration would equate to about 374 s.f. per employee (24,307 s.f. divided by 65 employees). Please explain how HECO determined the need for the additional 24,307 s.f. of lease space included in the rate case update and how such space needs relate to accommodating the employee levels included in the rate case forecast.

HECO Response:

Depending on where an employee is located and the needs of the employee/department, the actual square footage of office space per employee varies from 175 s.f. per person to 350 s.f. per person. The requirement depends primarily on the following factors:

1) number of enclosed offices required,

2) density and size of the open office workstation environment,

3) need to maintain extensive administrative files, electrical and cable maps, architectural drawings, supplies, equipment, printers, communication closets, etc.,

4) need for conference, training, and/or break rooms,

5) need for work/drafting tables, and operational area to assemble and test equipment,

6) need for executive and reception areas,

7) layout of the leased space and flexibility/cost of tearing down non-weight bearing walls, existing offices, and reconfiguring the leased space, and

8) need for common area walkway and hallway space to be in compliance with building safety and fire hazard codes and requirements.

Based on our current leases at CPP, the total lease space of 45,207 s.f. houses an estimated 195 workstations/offices. This averages to 232 s.f. per person. The King Street Building lease

has 58,313 s.f. and accommodates an estimated 166 workstations/offices. This averages to 351 s.f. per person.[1]

For general planning purposes, the Company normally uses a benchmark of 250 s.f. per person to estimate of the amount of office space needed. Applying the 250 s.f. per person to the 65 employees as stated in this informational request would yield a space requirement of 16,250 s.f.. However, for the 2009 test year, additional factors were taken into account in determining the amount of space needed. These additional considerations included:

1. the number of new employees (and number of consultants who will still be needed until the new employees are fully trained),

2. the existing office space of the new employees' divisions or departments,

3. the on-going organizational changes of the Company, including addition of new departments and divisions, and location of these new departments and divisions,

4. current dispersion of personnel in existing divisions/departments, and future growth of these existing divisions/departments (Recently, due to the Company's lack of available in-house office space, it has become difficult to keep department personnel physically located together),

5. the need to acquire office space prior to filling the staffing needs of the departments since there are potential long lead times in acquiring office space and time may also be needed to ensure the space is ready for occupancy,

6. preference to have the new leased space be at buildings where existing HECO offices are located at to minimize telecommunications, data, and LAN fiber optic cabling requirements and/or eliminate digging up the streets to lay new fiber optic cablings to extend the Company's internal data network to locations currently not on the network, and

7. to accommodate overall Company growth for the next few years.[2]

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[1] The King Street Building houses the Company's executive offices. It is expected that the average square footage per person be higher.

[2] Attachment 1 of this response shows the historical trend of actual HECO non-Power Supply employees growth from March 2005 to December 2008.

The leased office space at Waterhouse suites 401/402/403, the proposed office space at CPP suites 600/650/680, and the proposed office space at ASB Tower suites 2970/2989, collectively 22,307 s.f. or 343 s.f. per person (based on 65 additional employees in the 2009 test year as referenced in this information request), will provide the Company with the flexibility to efficiently plan and accommodate these current on-going organizational changes and growth in future years. The 2,000 s.f. leased office space at Waterhouse suites 105 and 106 will be used for Meter Engineernig personnel and equipment as discussed in the Company's response to CA-IR-347.

CA-IR-347

Ref: HECO T-14 Update, pages 3 to 7 & 12 to 13 (Rent Update).

With regard to the basement of the Ward I Building that is experiencing water incursion, Update page 5 indicates that once Meter Engineering Division personnel are relocated, HECO plans to convert the vacated space into training classrooms. Please provide the following:

a. Please describe the job duties of the Meter Engineering Division and explain how and whether those duties will be affected by AMI deployment.
b. Please provide the number of Meter Engineering employees (and related workstation count) that are planned to be moved from the Ward basement.
c. Please provide the area (i.e., square feet) occupied by the Meter Engineering employees that are planned to be moved from the Ward basement.
d. Please describe the specific future training activities planned for the Ward basement, indicating whether existing lease space used for training purposes (e.g., ASB training rooms) can be vacated as a result.

HECO Revised Response:

The Company's response to this IR has been revised due its recent organizational changes, as well as the formulation of a preliminary plan to accommodate staffing changes due to the four "needs" identified in the HECO T-14 Update, pages 3-7. The response below revises the Company's original response to this IR filed on February 17, 2009

a. To clarify, the employees occupying the basement of the Ward I Building are meter employees (meter electricians clerk, and supervisor). The job duties of the meter electricians include installation and maintenance of AMI and non-AMI meters, power transformers (PT), and current transformers (CT). The workload for the meter employees will not be reduced by the deployment of AMI. And as discussed in the Company's revised responses to CA-IR-345, there is a synergy between Metering and AMI and the need to consolidate the two operations for maximum efficiency.

b. Currently, there are 11 meter employees (9 meter electricians, 1 clerk, 1 supervisor) occupying space in the Ward I Building basement which the company plans to relocate to 445/461 Cooke Street location. The 445/461 Cooke Street location includes office and ample warehouse space for meter testing and equipment. Refer to the Company's revised response to part a of CA-IR-345 for more information.

c. The 11 Meter Engineering Division employees occupy approximately 1,400 s.f. of the Ward I Building basement for office space. The Meter Engineering Division's operations and storage area occupies an additional approximately 3,400 s.f. The Company plans to relocate all of the Meter Engineering Division's operations and storage equipment to the proposed Cooke Street location. Refer to the Company's revised response to part a of CA-IR-345 for more information.

d. The Ward I Building basement will be used as the Safety Division's classroom where contractor and employee safety orientations, safety classes (such as CPR courses, fall protection, asbestos and lead training, hazard and universal waste disposal, bucket rescue, ladder safety, manhole rescue, etc.), monthly trades and craft safety training, safety kick-off meetings and other corporate/departmental meetings will be held. This area will also be used as a staging area in the event of a major emergency (i.e., earthquake, outages, etc.). The Company has no plans to vacate other leased spaces used for training purposes as a result of this move.

CA-IR-347

Ref: HECO T-14 Update, pages 3 to 7 & 12 to 13 (Rent Update).

With regard to the basement of the Ward I Building that is experiencing water incursion, Update page 5 indicates that once Meter Engineering Division personnel are relocated, HECO plans to convert the vacated space into training classrooms. Please provide the following:

a. Please describe the job duties of the Meter Engineering Division and explain how and whether those duties will be affected by AMI deployment.
b. Please provide the number of Meter Engineering employees (and related workstation count) that are planned to be moved from the Ward basement.
c. Please provide the area (i.e., square feet) occupied by the Meter Engineering employees that are planned to be moved from the Ward basement.
d. Please describe the specific future training activities planned for the Ward basement, indicating whether existing lease space used for training purposes (e.g., ASB training rooms) can be vacated as a result.

<u>HECO Response:</u>

a. To clarify, the employees occupying the basement of the Ward I Building are meter employees (meter electricians clerk, and supervisor), who ultimately report to the AMI Director. The job duties of the meter electricians include installation and maintenance of AMI and non-AMI meters, power transformers (PT), and current transformers (CT). The workload for the meter employees will not be reduced by the deployment of AMI.

b. Currently, there are 11 meter employees (9 meter electricians, 1 clerk, 1 supervisor) occupying space in the Ward I Building basement which the company plans to relocate to its existing leased office space at Waterhouse suite 101. Waterhouse suite 101 is currently used as a classroom for training, testing and meetings.

c. The 11 Meter Engineering Division employees occupy approximately 1,400 s.f. of the Ward I Building basement for office space. The Meter Engineering Division's operations and storage area occupies an additional approximately 3,400 s.f.. The Company plans to

relocate some of the Meter Engineering Division's operations and storage equipment to the new leased office space at Waterhouse suites 105 and 106.

d. The Ward I Building basement will be used as the Safety Division's classroom where contractor and employee safety orientations, safety classes (such as CPR courses, fall protection, asbestos and lead training, hazard and universal waste disposal, bucket rescue, ladder safety, manhole rescue, etc.), monthly trades and craft safety training, safety kick-off meetings and other corporate/departmental meetings will be held. Prior to this move, the leased office space at Waterhouse suite 101 served as Safety Division's classroom. The Company has no plans to vacate other leased spaces used for training purposes as a result of this move.

CA-IR-348

Ref: HECO T-14 Update, pages 8 & Attachment 6 (Ward Base Yard).

Update page 8 generally describes the "significant amount of concrete asphalt" damage and the repair design needed to structurally support the weight of Company trucks using the area. Page 4 of Attachment 6 provides a breakdown of the $525,000 estimated repair cost included in Account 932, including: conduit/duct installation work; replacement of existing pole, transformer and equipment; as well as the removal of overhead communications cabling and installation of new replacement cabling underground. Please provide the following:

a. Please explain why the Company believes that the entire cost of this project should be charged to Account 932, maintenance of general plant, in the 2009 rate case test year.
b. In order to improve the structural integrity of the concrete asphalt area to support the weight of the Company trucks using this area, does the 7,200 s.f. of concrete asphalt being removed and replaced represent a substantial portion of the total concrete asphalt at the Ward base yard? Please explain.
c. Please explain how and whether the conduit/duct installation work and undergrounding of communications cabling work is associated with capital Project P0001705 (Wrd undgd security cabling) of $367,338 sponsored in the rate case update of HECO T-17.
d. Assuming that there are no units of property being removed from service, please explain why HECO considers none of the work described in Attachment 6 to represent a substantial betterment (i.e., makes the property more useful, more efficient, of greater durability or of greater capacity) over the existing facilities.
e. Please explain whether and why the Company believes that the $525,000 estimated repair cost included in Account 932 is annually recurring.

<u>HECO Response:</u>

a. After further discussion with the Facilities Division, approximately $145,000 of the total $525,000 project costs would be capitalized. The capital-related work includes:

Duct installation work	$ 60,000
Additional related duct work	10,000
Communications cabling	25,000
Electrician labor and materials	20,000
Pole, transformer and equipment replacement	30,000
Total capital-related work	$ 145,000

The remaining costs of $380,000 would be charged to expense.

b. No. The 7,200 square feet of concrete asphalt to be removed and replaced represents approximately 2.5% (7,200 s.f. divided by 287,000 s.f.) of the Ward base yard open area

that is covered with concrete asphalt. The 287,000 s.f. of open area is based on the entire Ward base yard property (approximately 478,000 s.f.) less the estimated square footage of buildings (approximately 191,000 s.f.).

c. Capital project P0001705 (Wrd undgd security cabling) is not associated with this project. P0001705 is the installation of new security cabling related to the Ward ramp repair project, and is currently 90% completed.

d. The primary purpose of this project is to repair the concrete asphalt around the vicinity of the Company's Archer Lane guard shack located at the Ward base yard, where there are significant amounts of cracking and damage. The Company plans to replace the broken concrete with new like-kind concrete in its repair. An analysis to determine whether a substantial betterment of the Ward base yard will result from replacing this concrete was not performed since: 1) only approximately 2.5% of the Ward base yard's concrete asphalt will be replaced, and 2) the project costs eligible for capitalization, if substantial betterment existed, appear to be minimal since like-kind concrete is planned to be installed.

Under betterment accounting, replacement of minor items of property (less than a property unit) should be expensed, unless the replacement results in a substantial betterment of which only the portion of costs above the estimated cost of replacing a minor item without betterment should be capitalized (Utility Plant Instructions – Section 10.C.(3), NARUC Uniform System of Accounts for Classes A and B Electric Utilities).

e. As referenced on pages 7 and 19 of the Rate Case Update (HECO T-14), the Company considers the Ward base yard project a non-recurring maintenance project for 2009. The total 2009 rate case update adjustment to non-recurring maintenance projects was inadvertently calculated as an increase of $85,000. This is the net difference of advancing

the Ward parking structure ramp repairs-Diamond Head end project from 2009 to 2008 (-$440,000), offset by the Ward base yard project to be completed in 2009 (Archer Lane concrete asphalt repair, $525,000). In direct testimony, 2009 non-recurring maintenance projects were normalized together with non-recurring projects for 2008 and 2010, to determine an average 2009 non-recurring maintenance project expense amount. This calculation was inadvertently not updated. A consistent application of the same normalization methodology for the 2009 rate case update would have increased the non-recurring maintenance project expense by $175,000 instead of $85,000. These calculations are shown in the table below. However, the Company does not plan to update the calculation for non-recurring maintenance project expenses for the 2009 rate case at this time to correct the shortfall of $90,000 ($175,000 less $85,000).

(Figures below in $1,000's)

	Year 2008	Year 2009	Year 2010	TY 2009[1]
Direct Testimony (HECO-1412)	$880	$1,072	$700	$884
Rate Case Update (Original Updated HECO-1412)		$1,157		$969[2]
Rate Case Update (With Corrected Normalization)	$1,320[3]	$1,157	$700	$1,059[4]

[1] Normalized TY 2009 non-recurring maintenance project expenses = (sum of 2008, 2009, 2010 expenses)/3 years.
[2] The original rate case update inadvertently omitted the normalization calculation referenced in footnote 1 above. The original rate case update's TY 2009 figure was calculated as follows: original testimony's TY 2009 normalized amount of $884,000 plus $525,000 for the Archer Lane concrete asphalt repair project, less $440,000 for the advancement of the Ward parking structure ramp repairs-Diamond Head project to 2008. This resulted in the understated TY 2009 figure of $969,000, an increase of $85,000 over the $884,000 in direct testimony.
[3] If the rate case update had gone through the same normalization process, year 2008 figure would change from $880,000 to $1,320,000 with the inclusion of $440,000 from the Ward parking structure ramp repairs-Diamond Head project.
[4] The corrected rate case update normalized TY 2009 non-recurring maintenance project expense amount would have been $1,059,000 (an increase of $175,000 over the original direct testimony's $884,000), versus the understated rate case update's $969,000 (an increase of $85,000 over the original direct testimony's $884,000).

CA-IR-349

Ref: HECO T-14 Update, pages 2 & 3, & CA-IR-161 (Oahu ESA).

At page 2 of the HECO T-14 Update, the Company states that General Electric ("GE") provided a rough order-of-magnitude ("ROM") estimate of $950,000 for the Oahu Electric System Analysis study. A copy of the confidential GE ROM was provided as Attachment 1 to the response to CA-IR-161. In response to part (b) of CA-IR-161, the Company links the work product from Phase 1 of the GE study of large scale wind efforts at HECO to HCEI. Please provide the following:

a. Please confirm that GE's confidential ROM was prepared and submitted prior to execution of the HCEI agreement. If this cannot be confirmed, please explain.
b. Has the execution of the HCEI agreement resulted in any material revision to the scope of work, time line or overall project cost envisioned by GE when the ROM was prepared? If so, please identify and describe any major revisions to project scope, cost or timeline, including copies of any subsequent proposals submitted by GE.
c. Has HECO requested that GE provide a formal proposal with a revised scope of work, time line and/or overall project cost to replace the GE ROM?
    1. If so, please identify and describe any major revisions to project scope, cost or timeline, including submission timetable and copies of any subsequent proposals submitted by GE.
    2. If not, please explain why HECO has not requested a formal proposal from GE.

<u>HECO Response:</u>

a. HECO received GE's original ROM in July 2008, which was prior to execution of the HCEI agreement in October 2008. GE's original ROM, filed at CA-IR-161 Attachment 1 (Confidential), is dated July 9, 2008. The HCEI agreement was signed on October 20, 2008.

b. The revisions of the GE proposal were not caused by the execution of the HCEI agreement. Rather, the revisions were the result of HECO's continuing negotiations with GE (since receiving the ROM in July 2008) on the study's costs, timing and scope. The revised GE proposal was incorporated in the executed agreement between HECO and the University of Hawaii, filed as Attachment 5 in B. Tamashiro's HECO T-14 Update, which was filed in December 2008. Although the revisions did not result in material changes in the

statement of work, the total cost of the study was reduced from $950,000 to $925,000 and the Phase 1 completion date was moved from October 2009 to June 2009

c. The purpose of this study has not changed as a result of the execution of the HCEI agreement. As noted in HECO's response to CA-IR-161, page 3, the results of this study will be applied to analytical work activities and real applications related to a large scale wind effort at HECO which supports the objectives of the HCEI agreement. Because of this, and since a revised GE proposal has been incorporated in the executed agreement between HECO and the University of Hawaii (as noted in item b to this response), HECO does not plan to seek any further revised proposals from GE regarding this study.

CA-IR-350

Ref: HECO T-14 Update, pages 2 & 3, & CA-IR-161 (Oahu ESA).

At page 2 of the HECO T-14 Update, the Company attributes $72,000 of the Oahu Wind Study Phase 1 costs to calendar year 2008. This amount does not agree with the GE ROM estimate for 2008, as summarized on confidential Attachment 1, page 10, of the response to CA-IR-161. Please provide the following:

a. Did GE provide a revised cost estimate breakdown superseding the GE ROM? Please explain.
b. Does the $72,000 amount represent the actual amount HECO expensed in 2008 for this study? Please explain and provide the 2008 actual amount.
c. HECO T-14 Update, page 3, and CA-IR-161 confidential Attachment 1, page 10, show completion of the GE ROM work by year-end 2009. Is 2009 completion still probable? Please explain.

<u>HECO Response:</u>

a. Page 3 of the HECO T-14 Update refers to $72,000 of the Oahu Wind Study Phase 1 costs for calendar year 2008. HECO's response to CA-IR-161, page 2, also refers to $72,000 of HECO funds for GE's Oahu study for 2008. This estimate was based on the expected timing of finalizing an agreement with GE in the fourth quarter of 2008 and commencing the project shortly thereafter. GE's proposal for the Oahu Electrical System Analysis as of July 15, 2008 contained a rough order of magnitude cost breakdown for Task 1, to be completed in 2008, in the amount of $151,076 (See CA-IR-161, Attachment 1, page 10). This estimate does not allocate the cost between HECO and USDOE. A revised GE cost estimate was incorporated in the executed Consultant Services Agreement between HECO and the University of Hawaii, dated September 30, 2008 (signed by the University of Hawaii on November 21, 2008). A copy of that Agreement was provided as Attachment 5 in B. Tamashiro's HECO T-14 Update, which was filed in December 2008. GE's revised

cost estimate, broken down by task, appears at page 15 of HECO T-14 Update, Attachment 5. The revised estimate of HECO's cost for Task 1 is $47,841.

b. No. The actual amount expensed in 2008 was $47,841 in December 2008 (See CA-IR-287 response, part e. at 7). As stated in HECO's response to CA-IR-161, page 2, the $72,000 assumed to be incurred in 2008 was based on the expected timing of finalizing an agreement with GE in the fourth quarter of 2008) and commencing the project shortly thereafter. The lesser amount actually incurred in 2008 is the result of the GE revised cost estimate and the USDOE cost-share.

c. As previously mentioned in part b of HECO's response to CA-IR-349, the completion date was moved to June 2009. HECO and GE are working to meet this completion date. (See also CA-IR-287 response, part f, at 8, which shows the estimated $97,668 for Task 5 being spent in June 2009. Task 5 is the last task in Oahu ESA Phase 1 study.)

CA-IR-351

Ref: HECO T-14 Update, pages 2 & 3, & CA-IR-161 (Oahu ESA).

At page 3 of the HECO T-14 Update, the Company states that $75,000 originally budgeted for the Maui Wind Study Phase 2 in 2009 was reallocated to the "Oahu Wind Study Phase 1." In response to parts (c) and (d) of CA-IR-161, the Company indicates that HELCO and MECO will be participating in the Oahu ESA study by contributing "in-kind labor" through the participation of their engineers "as internal utility study team members." Please provide the following:

a. Is the "Oahu Wind Study Phase 1" synonymous with the GE ROM of $950,000 for the Oahu ESA study? Please explain.
b. Separately for HECO, HELCO and MECO, please provide the 2009 labor hour forecast for their respective personnel to participate as internal study team members in the Oahu ESA, indicating whether the related labor costs will be charged to O&M accounts.

<u>HECO Response:</u>

a. The Oahu Wind Study Phase 1 is the same study as the GE ROM for Oahu ESA.

b. HECO did not specifically forecast labor hours for Phase 1 of the Oahu ESA study for 2009. However, HECO is willing to commit 1,000 hours (400 hours for System Planning, 300 hours for Power Supply O&M, and 300 hours for System Operation) to evaluate and analyze the results from the study. The committed labor hours for these areas were not specifically budgeted for the Oahu ESA study; rather, these hours were budgeted at a general, higher level in each respective area. Similarly, the estimated committed labor hours for HELCO and MECO are 30 hours each, primarily for participation during Tasks 3 and 4 when work products are developed for review. The expense for labor hours will be charged to the areas' respective O&M accounts.

CA-IR-352

Ref: HECO T-14 Update, pages 2 & 3, & CA-IR-162 (Oahu ESA).

At page 3 of the HECO T-14 Update, the HNEI/USDOE cost share is shown as $176,000. The response to part (a) of CA-IR-162 refers to this assumed cost share amount and indicates that HECO expects to finalize the GE statement of work and work schedule and then sign an agreement finalizing the cost share amount in the fourth quarter of 2008. Please provide the following:

a. Please describe the current status of and expected outlook for finalizing the statement of work and work schedule with GE.
b. Please describe the current status of and expected outlook for finalizing the cost share amount with HNEI/USDOE.
c. If the responses to parts (a) or (b) of this information request, indicate that finalization of the referenced agreements have been significantly delayed, please provide a detailed explanation of the basis for and cause of the delays(s).
d. Please provide a copy of all documentation supporting the responses to parts (a) through (c) of this information request.

<u>HECO Response:</u>

a. GE's statement of work for Phase 1 was finalized with the execution of the agreement between HECO and the University of Hawaii, filed as Attachment 5 in B. Tamashiro's HECO T-14 Update, which was filed in December 2008.

b. The USDOE cost share has been finalized at $176,000, as referenced in the executed agreement between HECO and the University of Hawaii. (See Attachment 5 in B. Tamashiro's HECO T-14 Update, page 15). Based on discussions with the HNEI Director, they have confirmed that their agreement with USDOE for this project has also been executed.

c. As discussed in parts a and b above, GE's statement of work for Phase 1 and USDOE/HNEI cost sharing have been finalized.

d. See responses to parts a and b above.

CA-IR-353

Ref: HECO T-14 Update, page 11, & CA-IR-2 (Community Service Activities).

At page 11 of the HECO T-14 Update, the $361,000 amount for Community Service Activities has not changed from the Company's original forecast. In the response of HECO T-14 to CA-IR-2, the Company provided Attachments 1 and 11 that further support this amount. Referring to CA-IR-2, Attachment 11, pages 3 to 5, $35,384 is identified as CR000443-Native-Plants-O/S Svc, with a further reference to page 5. Please provide the following:

a. Please describe the business purpose of HECO's involvement in the Grow Hawaiian Festival and Arbor Day.
b. Please identify and describe the ratepayer benefits resulting from HECO's participation in this activity.
c. Please provide additional documentation regarding the benefits and responsibilities of the corporate sponsorship for the 2009 Grow Hawaiian Festival.

<u>HECO Response:</u>

a. For 15 years, Hawaiian Electric Company has been part of a partnership of organizations that sponsors a tree giveaway on Arbor Day at six sites throughout Oahu, three of which are HECO properties. The Arbor Day activity supports the utility's interest in asking customers to plant the "right tree in the right place" to avoid outages caused by tree limbs growing too close to overhead lines and to promote the natural cooling benefit of trees to reduce energy use. Native plants require less care and maintenance, and help to protect and maintain Hawaii's unique island landscape and culture. Plants, trees and other greenery have environmental benefits that include erosion control and clean air through absorption of carbon dioxide. Hawaiian Electric shares the very serious concerns of many regarding potential adverse effects of global warming and human contributions to this phenomenon, including the burning of fossil fuels for electricity production, transportation, manufacturing, agricultural activities, and deforestation. Carbon dioxide can be removed from the atmosphere (or sequestered) when absorbed by plants as part of the biological carbon cycle. Over the course of its lifetime, an average tree can absorb up to one ton of carbon dioxide.

Hawaiian Electric's purpose in sponsoring the Grow Hawaiian Festival is to expand on the message promoted through Arbor Day and to educate customers on key issues, such as global warming and green house gas, which will have substantial impacts on energy costs and choices for customers in the near future. Grow Hawaiian Festival is a venue to educate customers on the importance of reducing Hawaii's dependence on imported fossil fuels and towards locally produced renewable energy, the value of energy efficiency and energy conservation in reducing green house gases, and empowering customers with more choices to manage their energy use. In 2007, the Hawaii State Legislature passed Act 234, making Hawaii the second state in the nation with a plan to create a regulatory scheme for reducing green house gas emissions to 1990 levels. Federal green house gas reduction legislation has been proposed and has been stated as a priority for the new federal administration. These initiatives pose significant cost implications and choices for policy makers and ratepayers. The Hawaii Clean Energy Initiative and Energy Agreement signed between Hawaiian Electric Companies and the State also include a number of renewable energy initiatives which require public investments with impacts on Hawaii's ratepayers and taxpayers.

In 2007, to further educate the community about these initiatives, greenhouse gases, and the benefits of planting trees and other greenery, Hawaiian Electric sponsored the Grow Hawaiian Festival in celebration of Earth Day. The Grow Hawaiian Festival expands the Arbor Day effort to promote Hawaiian Electric's "right tree, right place" message and it provides an opportunity to educate customers on green house gases and ways to reduce them through planting native trees and plants, expanding renewable energy, and increasing energy efficiency and energy conservation.

b. Arbor Day and the Grow Hawaiian Festival are educational venues for Hawaiian Electric to provide information and outreach to ratepayers on safety around overhead power lines, ways to reduce outages related to vegetation, and on how trees and native plants provide multiple environmental benefits, including reduced electricity usage for cooling and the sequestration of carbon dioxide. The Grow Hawaiian Festival and Arbor Day are also venues to educate customers and key environmental and cultural organizations of the importance of transitioning to a "green" future with protection of our environment through native plants and trees, increased renewable energy and energy efficiency. Information, material and tools on energy conservation, energy efficiency and renewable energy are provided to customers, with hands-on activities to help customers learn how to reduce their use of energy and use electricity wisely.

c. The benefits and responsibilities of the corporate sponsorship for the 2009 Grow Hawaiian Festival include the opportunity for Hawaiian Electric Company to work together with various community groups and environmental organizations to promote sustainable practices such as the use of native plants and increasing renewable energy, energy efficiency and energy conservation. Working collaboratively with environmental organizations, cultural and community groups also helps to establish and strengthen Hawaiian Electric's relationships with several key constituencies and build understanding and support for renewable energy projects and other clean energy initiatives. Through an interactive, informational booth at the 2008 event, Hawaiian Electric employee volunteers responded to questions and shared Hawaiian Electric's energy conservation, electrical safety, and right tree, right place programs, materials and services with over 2,000 customers.

CA-IR-354

Ref: HECO-1503 and responses to CA-IR-30 & DOD-IR-87 (Employee Counts).

Please provide the following:

a. Please provide actual/budget employee count reports for all months during the period December 2005 through December 2008 that were not previously supplied in response to CA-IR-30.

b. Referring to the response to DOD-IR-87, please provide actual employee counts for the months of October through December 2008.

HECO Response:

a. Reports containing the requested information on HECO's actual and budgeted employee counts are provided on pages 2 through 75 of this response. These reports reflect the organizational structure in place at the end of each respective period. The reports also exclude employees whose labor expenses are recovered through the Demand-side Management ("DSM") adjustment surcharge from the forecast budget and actual employee count levels.

b. See pages 70 through 75 for the requested information.

Pages 2-75 are voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the documents. An electronic copy of the requested information is being provided.

CA-IR-355

Ref: HECO T-15 Update, pages 2 to 11 & 16 (Employee Counts).

The staffing change discussion (pages 2 to 11) contains various references to the HCEI Agreement or related commitments. Referring to the Updated 2009 employee counts on page 16, please identify the number of employees, by department if available, included in the Updated 2009 count that have been or are forecasted to be added as a result of the HCEI Agreement or related commitments. If the information is not available, please explain.

HECO Response:

A total of thirteen new positions will be dedicated to or substantially involved in HCEI activities.

Page 16 of the HECO T-15 Rate Case Update (HECO WP-1501) has been revised to show these new positions, by department and is provided as Attachment 1.

Hawaiian Electric Company, Inc.
Updated 2009 Test Year Average Calculation
Updated HECO-WP-1501

Dept	Jan-09	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Test Year Average
Comp & Ben	11	11	11	11	11	11	11	11	11	11	11	11	11	**11**
Ind Rel	9	9	9	9	9	9	9	9	9	9	9	9	9	
Upd Adjustment	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	**10**
SSF	53	53	53	53	53	53	53	53	53	53	53	53	53	
Adjustment	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	**52**
VP-Corp Exc	5	5	5	5	5	5	4	4	4	4	4	4	4	**4**
WFSD	25	25	25	25	25	25	25	25	25	25	25	25	25	
Upd Adjustment	*-5*	*-5*	*-5*	*-5*										**23**
	98	**98**	**98**	**98**	**103**	**103**	**102**	**102**	**102**	**102**	**102**	**102**	**102**	**100**
Corp Comm	9	9	9	9	9	9	9	9	9	9	9	9	9	**9**
VP-Corp Rel	3	3	3	3	3	3	3	3	3	3	3	3	3	**3**
	12	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
CustTechAp	10	10	10	10	10	10	10	10	10	10	10	10	10	
Tsf to Engy Svcs	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	**9**
Engy Svcs	19	19	19	19	19	19	19	19	19	19	19	19	19	
Rcv from CustTech	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	
Less DSM	*-5*	*-5*	*-5*	*-5*	*-5*	*-5*	*-5*	*-5*	*-5*	*-5*	*-5*	*-5*	*-5*	
HCEI Sr. Rate Analyst	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	
Upd Adjustment SSP			*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	
Upd Less SSP			*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	**16**
Fcst&Res	10	10	10	10	10	10	10	10	10	10	10	10	10	**10**
IRP	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Mktg Svcs	12	12	12	12	12	12	12	12	12	12	12	12	12	**12**
VP-Cust Sol	2	2	2	2	2	2	2	2	2	2	2	2	2	
HCEI Special Proj. Director	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	**3**
	50	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**
C&M	220	220	220	220	220	220	220	220	220	220	220	220	220	
Upd Adjustment	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	**222**
Engineering	85	85	85	85	85	85	85	85	85	85	85	85	85	**85**
Supp Svcs	85	85	85	85	85	85	85	85	85	85	85	85	85	**85**
Sys Op	118	118	118	118	118	118	118	118	118	118	118	118	118	
Upd Adjustment	*3*	*3*	*3*	*3*	*3*	*3*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	**122**
VP-En Del	2	2	2	2	2	2	2	2	2	2	2	2	2	**2**
	515	**515**	**515**	**515**	**515**	**515**	**517**	**517**	**517**	**517**	**517**	**517**	**517**	**516**
CID	55	55	55	55	55	55	55	55	55	55	55	55	55	**55**
Engy Proj	9	9	9	9	9	9	9	9	9	9	9	9	9	
HCEI Sr. Tech Svcs Engr								*2*	*2*	*2*	*2*	*2*	*2*	***10***
SVP-EnSol	4	4	4	4	4	4	4	4	4	4	4	4	4	**4**
Tech	3	3	3	3	3	3	3	3	3	3	3	3	3	**3**
	71	**71**	**71**	**71**	**71**	**71**	**71**	**73**	**73**	**73**	**73**	**73**	**73**	**72**
Gen Acctg	27	27	27	27	27	27	27	27	27	27	27	27	27	
HCEI Lead Corp Acct.					*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	**28**
InfoTech	97	97	97	97	97	97	97	97	97	97	97	97	97	**97**
MAFS	22	22	22	22	22	22	22	22	22	22	22	22	22	
HCEI Sr. Fin. Analyst						*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	**23**
RiskMgt	9	9	9	9	9	9	9	9	9	9	9	9	9	**9**
SVP Finance & Admin	3	3	3	3	3	3	3	3	3	3	3	3	3	**3**
	158	**158**	**158**	**158**	**159**	**160**	**160**	**160**	**160**	**160**	**160**	**160**	**160**	**160**
Legal & Land	17	17	17	17	17	17	17	17	17	17	17	17	17	**17**
VPGen	2	2	2	2	2	2	2	2	2	2	2	2	2	**2**
	19	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**
Ed & Cons Aff	8	8	8	8	8	8	8	8	8	8	8	8	8	**8**
Reg Affairs	15	15	15	15	15	15	15	15	15	15	15	15	15	**15**
VP-Gov & Com	7	7	7	7	7	7	7	7	7	7	7	7	7	**7**
	30	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**
Cust Svc	148	148	148	148	148	148	148	148	148	148	148	148	148	
Upd Adjustment				*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	
Upd Less SSP				*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	**148**
SVP-Oper	2	2	2	2	2	2	2	2	2	2	2	2	2	**2**
	150	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**
CorpAudComp	11	11	11	11	11	11	15	15	15	13	13	13	13	**13**
President	4	4	4	4	4	4	4	4	4	4	4	4	4	
Upd Tsf to Corp Planning	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	*-1*	**3**
	14	**14**	**14**	**14**	**14**	**14**	**18**	**18**	**18**	**16**	**16**	**16**	**16**	**16**
Corp Planning ***(NEW)***	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	
Upd Rcv from Pres Ofc	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	
Upd Rcv from IRP	*6*	*6*	*6*	*6*	*6*	*6*	*6*	*6*	*6*	*6*	*6*	*6*	*6*	**8**
Gov Rel	3	3	3	3	3	3	3	3	3	3	3	3	3	**3**
IRP	6	6	6	6	6	6	6	6	6	6	6	6	6	
Upd Tsf to Corp Planning	*-6*	*-6*	*-6*	*-6*	*-6*	*-6*	*-6*	*-6*	*-6*	*-6*	*-6*	*-6*	*-6*	**0**
EVP-Pub Aff	2	2	2	2	2	2	2	2	2	2	2	2	2	**2**
	13	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**

Hawaiian Electric Company, Inc.
Updated 2009 Test Year Average Calculation
Updated HECO-WP-1501

Dept	Jan-09	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Test Year Average
Environ	25	25	25	25	25	25	25	25	25	25	25	25	25	**25**
Pwr Sup O&M	375	375	375	375	375	375	375	375	375	375	375	375	375	**375**
Pwr Sup Services	15	15	15	15	15	15	15	15	15	15	15	15	15	
HCEI Dir RE Purch Power	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	
HCEI Negotiator				*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	**17**
PwrSup Eng	52	52	52	52	52	52	52	52	52	52	52	52	52	
HCEI Project Mgr	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	**53**
Sys Planning	22	22	22	22	22	22	22	22	22	22	22	22	22	
HCEI Renewable Engr.	*1*	*1*	*1*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	
HCEI Dir RE Planning				*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	
HCEI Sr. Renewable Engr					*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	**25**
VP-Pwr Sup	3	3	3	3	3	3	3	3	3	3	3	3	3	**3**
	495	**495**	**495**	**498**	**499**	**499**	**499**	**499**	**499**	**499**	**499**	**499**	**499**	**498**
SrEVP	2	2	2	2	2	2	2	2	2	2	2	2	2	
Upd Adjustment	*-2*	*-2*	*-2*	*-2*	*-2*	*-2*	*-2*	*-2*	*-2*	*-2*	*-2*	*-2*	*-2*	***0***
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Test Year Counts	**1625**	**1625**	**1625**	**1628**	**1635**	**1636**	**1641**	**1643**	**1643**	**1641**	**1641**	**1641**	**1641**	**1636**

*Employee counts include interns and temporary employees on HECO payroll, but exclude employees covered under the DSM surcharge adjustment docket from

CA-IR-356

Ref: HECO T-15 Update, Attachment 6 (Employee Regression).

Referring to page 7 of Attachment 6, please provide the following:

a. In the original response to CA-IR-30, HECO supplied actual and budget employee count data on a quarterly basis, beginning with March 2006. Please explain why the Company's regression analysis (i.e., HECO T-15, Attachment 6) starts with September 2006 data and excludes the two prior calendar quarters.

b. The "% Actual/Budgeted" ratios at September 2006 (91.98%) and December 2006 (92.70%) are significantly lower than the subsequent regression data points, primarily due to the higher budgeted employee counts. Please explain and reconcile the drop in budgeted employee levels from 1122-1123 to 1086-1087 during late 2006 to early 2007, respectively, identifying and describing any formal or informal austerity/cost reduction programs.

c. Please explain why the Attachment 6 regression analysis was not limited to quarter-end data, but also included the months of July and October 2008.

<u>HECO Response:</u>

a. The objective of the regression analysis is to test whether the visual impression that the Company's budgeting of employee count is improving over the recent past. The regression model, in this case, is very simple and parsimonious, not offering explanation about why the budgeting is improving. This type of time-series model is judged in its effectiveness mostly by the strength of the r-square statistic. Dramatic improvement in the r-square (from .44 to .78) was achieved by dropping the March and June 2006 points. As these points are older, they are less relevant to current practice, thus providing more reason for their non-inclusion.

b. No formal or informal austerity programs were established. In 2006, departments were asked to use their 2005 test year rate case staffing level, which was the staffing level allowed in the prior rate case, as a guideline when preparing their 2007 labor budget. Many departments chose to keep their employee count at the lower 2005 level since labor market conditions at the time (high competition for talent and skills shortages) made it difficult to find qualified and interested candidates on a timely basis. Instead, they

considered other ways to accomplish the required work (such as increased overtime or outside services). As the data below shows, the staffing level budgeted in 2007 was more consistent with 2005 but was not restricted to that level.

Historical Employment Headcount Data
(Non-Power Supply employees: includes T&D, Customer Accts., Customer Svc and A&G)

Date	Actual	Budgeted	Difference
12/31/2005	1059	1053	-6
12/31/2006	1041	1123	82
3/31/2007	1033	1086	53

c. July and October 2008 data were included because of their availability and to increase the number of observations for the regression analysis. The interpretation of the regression is that the forecasts improve, not limiting it to improvement by quarter.

CA-IR-357

Ref: HECO T-16 Update, Attachment 4, pages 6 & 7 (Federal Deferred Income Taxes).

Please provide an updated HECO-WP-1605 spreadsheet substituting actual recorded Deferred Income tax balances by subaccount as of December 31, 2008 in place of the "Estimate 12 31-08" amounts under each scenario. In addition, where necessary provide revisions to the "Estimate 2009" values for each subaccount to reflect more current information and explain each such change.

HECO Response:

The information submitted as Attachment 1 is being submitted under protective order, as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for the later part of February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable. The 2009 amounts have not changed from the Rate Case Update, filed in December 2008. However, to the extent that the 2008 estimates were replaced with the actual recorded deferred income tax balances, the 2009 deferred income tax balances have been updated.

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

Attachment 1 contains confidential information and is provided subject to the Protective Order filed on November 21, 2008 in this proceeding.

CA-IR-357

Ref: HECO T-16 Update, Attachment 4, pages 6 & 7 (Federal Deferred Income Taxes).

Please provide an updated HECO-WP-1605 spreadsheet substituting actual recorded Deferred Income tax balances by subaccount as of December 31, 2008 in place of the "Estimate 12 31-08" amounts under each scenario. In addition, where necessary provide revisions to the "Estimate 2009" values for each subaccount to reflect more current information and explain each such change.

HECO Response:

The 2008 actual year end data as of December 31, 2008 is not available at this time. The preliminary information for December 2008 will be made available in mid February 2009. The preliminary information will be submitted under protective order, as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

The 2009 amounts have not changed from the Rate Case Update, filed in December 2008.

CA-IR-358

Ref: HECO T-16 Update, Attachment 4, pages 8 & 9 (State Deferred Income Taxes).

Please provide an updated HECO-WP-1605 spreadsheet substituting actual recorded Deferred Income tax balances by sub account as of December 31, 2008 in place of the "Estimate 12 31 08" amounts under each scenario. In addition, where necessary provide revisions to the "Estimate 2009" values for each subaccount to reflect more current information and explain each such change.

HECO Response:

The information submitted as Attachment 1 is being submitted under protective order, as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for the later part of February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable. The 2009 amounts have not changed from the Rate Case Update, filed in December 2008. However, to the extent that the 2008 estimates were replaced with the actual recorded deferred income tax balances, the 2009 deferred income tax balances have been updated.

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

Attachment 1 contains confidential information and is provided subject to the Protective Order filed on November 21, 2008 in this proceeding.

CA-IR-358

Ref: HECO T-16 Update, Attachment 4, pages 8 & 9 (State Deferred Income Taxes).

Please provide an updated HECO-WP-1605 spreadsheet substituting actual recorded Deferred Income tax balances by sub account as of December 31, 2008 in place of the "Estimate 12 31 08" amounts under each scenario. In addition, where necessary provide revisions to the "Estimate 2009" values for each subaccount to reflect more current information and explain each such change.

HECO Response:

The 2008 actual year end data as of December 31, 2008 is not available at this time. The preliminary information for December 2008 will be made available in mid February 2009. The preliminary information will be submitted under protective order, as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

The 2009 amounts have not changed from the Rate Case Update, filed in December 2008.

CA-IR-359

Ref: HECO-1606 and HECO-1607 (Regulatory Assets/Liabilities and Reconciliation to Deferred Taxes).

Please provide an updated HECO-1606 schedule and electronic spreadsheet substituting actual recorded 2008 Amortization and "Adds" and an actual 12/31/2008 in place of the "Estimated Balance 12/31/2008." In addition, where necessary provide revisions to the estimated 2009 activity and the HECO-1607 reconciliation to fully update the amounts provided therein.

HECO Response:

The information submitted as Attachment 1 is being submitted under protective order, as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for the later part of February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable. The 2009 amounts have not changed from the Rate Case Update, filed in December 2008. However, to the extent that the 2008 estimates were replaced with the actual recorded deferred income tax balances, the 2009 deferred income tax balances have been updated.

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

Attachment 1 contains confidential information and is provided subject to the Protective Order filed on November 21, 2008 in this proceeding.

CA-IR-359

Ref: HECO-1606 and HECO-1607 (Regulatory Assets/Liabilities and Reconciliation to Deferred Taxes).

Please provide an updated HECO-1606 schedule and electronic spreadsheet substituting actual recorded 2008 Amortization and "Adds" and an actual 12/31/2008 in place of the "Estimated Balance 12/31/2008." In addition, where necessary provide revisions to the estimated 2009 activity and the HECO-1607 reconciliation to fully update the amounts provided therein.

HECO Response:

The 2008 actual year end data as of December 31, 2008 is not available at this time. The preliminary information for December 2008 will be made available in mid February 2009. The preliminary information will be submitted under protective order, as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

The 2009 amounts have not changed from the Rate Case Update, filed in December 2008.

CA-IR-360

Ref: HECO Response to DOD-IR-92 (R&D Credit Extension).

According to the Company's response, "Although the Company expects to earn a credit for 2009 (approximately $330,000 less tax effect), the benefit of this credit is not taken into account for the 2009 test year. The credit sunsets on December 31, 2009 and therefore, HECO has excluded this credit as a normalization adjustment." Please provide the following additional information:

a. Provide a calculation of the $330,000 and any related "tax effect", indicating how inclusion of this credit would impact the Company's asserted revenue requirement if not "excluded".
b. State and explain each reason for "exclusion" of this tax expense savings.
c. Provide complete copies of all studies, reports, calculations, workpapers and other documents associated with or supportive of your response to part (b) of this information request.
d. Explain whether HECO knows with certainty that the credit will not be extended beyond 2009 and describe the basis for any such knowledge.
e. Define what is meant by "normalization adjustment" and describe whether this criteria has been uniformly applied by HECO to eliminate any 2009 expense that will not be recurring in subsequent years.

<u>HECO Response:</u>

a. The R&D credit is $209,000. It is 20% of the total EPRI dues of $1,608,000 less the federal tax rate of 35%, or ($1,608,000 x 20%) x 65%.

b. As explained in the response to DOD-IR-92, Section 41 of the Internal Revenue Code, which provides for the credit on research activities, was set to expire on December 31, 2009. (Refer to Attachment 1.) On this basis, HECO proposed to exclude this benefit from the 2009 test year as a normalization adjustment.

Upon further review, HECO has changed its position and now proposes that this credit be included in the computation of income tax expense for the test year. Costs and cost reductions reasonably expected to be incurred or realized in the year used as a rate case test year should be considered in ratemaking, taking into account normalization adjustments that may be necessary or appropriate to make the test year representative of

the future period in which new rates established in the rate case will be effective. Normalization adjustments are intended to make the test year results of operation more representative of a normal, on-going level of operations, or of the operating conditions that are expected to be in effect during the period that the rates set in this docket will be in effect. There is no certainty to any change in the tax law, and unless a larger, more encompassing trend were evident, the exclusion of this credit could be considered akin to a line item by line item ratemaking. HECO will add this credit into the income tax calculation at the next opportunity.

c. None.

d. HECO does not know with certainty that the credit will not be extended beyond 2009.

e. No normalization adjustment is proposed by the Company. Normalization adjustments are intended to make the test year results of operation more representative of a normal on-going level of operations. A carve out of this credit, which is but a small component of the income tax calculation, is not an appropriate normalization adjustment.

IRC, 2009FED ¶4350, Sec. 41., **CREDIT FOR INCREASING RESEARCH ACTIVITIES**

41(h) TERMINATION. —

41(h)(1) IN GENERAL. —This section shall not apply to any amount paid or incurred —

41(h)(1)(A) after June 30, 1995, and before July 1, 1996, or

41(h)(1)(B) after December 31, 2009.

Caution: Code Sec. 41(h)(2), below, prior to amendment and redesignation by P.L. 110-343, applies to tax years beginning on or before December 31, 2007.

41(h)(2) COMPUTATION OF BASE AMOUNT. —In the case of any taxable year with respect to which this section applies to a number of days which is less than the total number of days in such taxable year, the base amount with respect to such taxable year shall be the amount which bears the same ratio to the base amount for such year (determined without regard to this paragraph) as the number of days in such taxable year to which this section applies bears to the total number of days in such taxable year.

Caution: Code Sec. 41(h)(2), below, as added by P.L. 110-343, applies to tax years beginning after December 31, 2007.

41(h)(2) TERMINATION OF ALTERNATIVE INCREMENTAL CREDIT. —No election under subsection (c)(4) shall apply to tax years beginning after December 31, 2008.

Caution: Code Sec. 41(h)(2) was redesignated as Code Sec. 41(h)(2)[(3)] and amended by P.L. 110-343, applicable to tax years beginning after December 31, 2007.

41(h)(2)[(3)] COMPUTATION FOR TAXABLE YEAR IN WHICH CREDIT TERMINATES. —In the case of any taxable year with respect to which this section applies to a number of days which is less than the total number of days in such taxable year —

41(h)(2)(A) the amount determined under subsection (c)(1)(B) with respect to such taxable year shall be the amount which bears the same ratio to such amount (determined without regard to this paragraph) as the number of days in such taxable year to which this section applies bears to the total number of days in such taxable year, and

41(h)(2)(B) for purposes of subsection (c)(5), the average qualified research expenses for the preceding 3 taxable years shall be the amount which bears the same ratio to such average qualified research expenses (determined without regard to this paragraph) as the number of days in such taxable year to which this section applies bears to the total number of days in such taxable year.

.01 Added by P.L. 97-34. Amended by P.L. 110-343, P.L. 110-172 (technical correction and clerical amendment), P.L. 109-432, P.L. 109-135 (technical correction), P.L. 109-58, P.L. 108-311, P.L. 106-170, P.L. 105-277, P.L. 105-34, P.L. 104-188, P.L. 103-66, P.L. 102-227, P.L. 101-508, P.L. 101-239, P.L. 100-647, P.L. 99-514, P.L. 98-369, P.L. 97-448, and P.L. 97-354. For details, see the Code Volumes.

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CA-IR-361

Ref: HECO Response to DOD-IR-92 (FUTA Surtax Extension).

According to the Company's response, "The expectation is that it will be extended again after the current extension. However, consistent with the treatment of the research activities credit above, the surtax (adjusted for revised employee count) should be excluded from revenue requirements." Please provide the following additional information:

a. Provide a calculation of the $16,000 and any comparable amounts under the HECO updated test year, indicating how inclusion of this surtax extension would impact the Company's asserted revenue requirement if not "excluded".
b. State and explain each reason for "exclusion" of this tax expense savings.
c. Provide complete copies of all studies, reports, calculations, workpapers and other documents associated with or supportive of your response to part (b) of this information request.
d. Explain whether HECO knows with certainty that the surtax will be extended beyond 2009 and describe the basis for any such knowledge.

HECO Response:

a. If the surtax extension was not excluded, the updated test year amount would not have to be adjusted since the HECO update included the surtax. As shown in the referenced DOD-IR-92, the calculation was as follows:

Total FUTA tax	66,000	*Rate Case Update, HECO T-16, Att 1, pg 4*
Surtax/Total tax	x .2/.8	
FUTA tax reduction	16,500	

b. Upon further review and based on the response to CA-IR-360, HECO does not propose to exclude the FUTA surtax as calculated in a. above.

c. Not applicable.

d. HECO does not know with any certainty that the surtax will be extended beyond 2009.

CA-IR-362

Ref: HECO Response to DOD-IR-92 (Smart Meters/Grid Recovery Period/Method).

Please provide calculations showing the Company's best estimate of the further adjustment to test year accumulated deferred income taxes (after the T-16 update) that should be made to account for the 10-year recovery period and 150% declining balance depreciation method for qualifying investment.

HECO Response:

The adjustment to test year 2009 accumulated deferred income taxes would be:

Plant in service	$36,103	see CA-IR-216 (c)
Difference in depr rate	x .0375	see below
Change in depreciation	1,354	
Deferred tax rate	x .3891	includes federal (.3289) and state (.06015)
Increase in def taxes	527	

The difference in the depreciation rate is the Year 1 MACRS rate for 10 year class (0.075) versus the 20 year class (0.0375).

CA-IR-363

Ref: HECO Response to CA-IR-36, Confidential Attachment 1 (Income Tax Return documents).

Please provide, to the extent available, actual income tax filing documents for 2007 as an update to this information request response.

HECO Response:

See Attachment 1 for HECO's stand alone proforma federal income tax return for 2007, which is extracted from the HEI consolidated income tax return. Attachment 1 contains confidential information and is provided subject to Protective Order.

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

Attachment 1 contains confidential information and is provided subject to

the Protective Order filed on November 21, 2008 in this proceeding.

CA-IR-364

Ref: HECO Response to CA-IR-251 (Account 282 Calculations).

Please provide, to the extent available, an update to this information request response supporting the Account 282 projected activity for 2009 as reflected in the HECO T-16 updates in Attachment 4.

HECO Response:

See pages 2 – 13 of this response.

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

			2009
	FEDERAL		
1	Book Depreciation on Tax Basis		76,073,326
2	State Tax Depreciation	*CA-IR-364, pg 4*	(77,278,231)
3	State Tax Depreciation on RO Pipeline	*NOTE 1*	(239,937)
4	Reg Asset Amort - Deficit Def on Accel Depr	*NOTE 2*	110,682
5	Subtotal		(1,334,160)
6	Tax Rate		32.8947%
7	Deferred Tax		(438,868)
8	Addback State Tax Depreciation	*Line 2*	77,278,231
9	Federal Tax Depreciation	*CA-IR-364, pg 4*	(72,267,666)
10	Subtotal		5,010,565
11	Tax Rate		35.0000%
12	Deferred Tax		1,753,698
13	Federal Deferred Taxes		1,314,830
14	Post Year End federal deferred tax		
15	Total Federal Deferred Taxes		1,314,830
	STATE		
16	Book Depreciation	*Line 1*	76,073,326
17	State Tax Depreciation	*CA-IR-364, pg 4*	(77,278,231)
18	State Tax Depreciation on RO Pipeline	*NOTE 1*	(239,937)
19	Reg Asset Amort - Deficit Def on Accel Depr	*NOTE 2*	110,682
20	Subtotal		(1,334,160)
21	Tax Rate		6.015%
22	State Deferred Tax		(80,250)
23	Post Year End state deferred tax		
24	Total State Deferred Taxes		(80,250)

NOTE 1> The depreciation on RO Pipeline is calculated using the basis of $6,398,325 (see HECO T-11, page 65, line 23) multiplied by the first year depreciation rate of 3.75% (based on MACRS 20 year).

NOTE 2> The source of the Reg Asset Amort is Rate Case Update, HECO T-16, Attachment 5, page 1.

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

		2009
Plant Additions:		
Projects	*Rate Case Update, T-17, pg 13*	231,507,365
Programs	*Rate Case Update, T-17, pg 17*	56,827,037
Total Plant Additions	*Rate Case Update, T-17, pg 5*	288,334,402
AFUDC		(19,813,649)
CIAC		(12,525,510)
Vehicles		(3,150,760)
Tax Basis of 282 Plant Additions		252,844,483
		CA-IR-364, pg 8

HAWAIIAN ELECTRIC CO., INC.
282 TAX DEPRECIATION

		2009	
FEDERAL			
From Power Tax	*CA-IR-364, pg 8*	73,222,179	
V2005, V2006 Rev Bond Adj		(1,038,950)	
RAR 92-96		309,846	
RAR 97-99		183,832	
RAR 00-02		43,424	
§481(a) Adj		227,376	
D&T CWIP scrub		(680,041)	
282 Tax Depreciation - Federal		72,267,666	*CA-IR-364, pg 2*
STATE			
From Power Tax	*CA-IR-364, pg 13*	77,646,030	
V2005, V2006 Rev Bond Adj		(1,038,950)	
RAR 92-96		309,846	
RAR 97-99		183,832	
RAR 00-02		43,424	
§481(a) Adj		227,376	
D&T CWIP scrub		(93,327)	
282 Tax Depreciation - State		77,278,231	*CA-IR-364, pg 2*

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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles, Walau 3 Turbine Weld, RAR Legal
Grouped By: Total Tax Classes

Tax Book : Federal
Tax Year : 2009

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

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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles, Walau 3 Turbine Weld, RAR Legal
Grouped By: Total Tax Classes

Tax Book : Federal
Tax Year : 2009

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1944	$1,640,675.73	$0.00	$116,042.09	$1,562,758.64	$0.00	$0.00	$0.00	$0.00	$0.00	$1,640,675.73	$1,562,758.64
V1945	$571,388.10	$0.00	$180,769.91	$390,618.19	$0.00	$0.00	$0.00	$0.00	$0.00	$571,388.10	$390,618.19
V1946	$804,175.43	$0.00	$4,655.99	$799,519.44	$0.00	$0.00	$0.00	$0.00	$0.00	$804,175.43	$799,519.44
V1947	$7,051,163.34	$0.00	$43,962.92	$7,007,200.42	$0.00	$0.00	$0.00	$0.00	$0.00	$7,051,163.34	$7,007,200.42
V1948	$1,161,251.15	$0.00	$53,559.89	$1,152,360.07	$0.00	$0.00	$0.00	$0.00	$0.00	$1,161,251.15	$1,152,360.07
V1949	$850,578.96	$0.00	$28,461.82	$822,117.14	$0.00	$0.00	$0.00	$0.00	$0.00	$850,578.96	$822,117.14
V1950	$4,862,347.05	$0.00	$6,291.95	$4,856,055.10	$0.00	$0.00	$0.00	$0.00	$0.00	$4,862,347.05	$4,856,055.10
V1951	$1,554,214.34	$0.00	$22,468.45	$1,531,745.89	$0.00	$0.00	$0.00	$0.00	$0.00	$1,554,214.34	$1,531,745.89
V1952	$925,644.22	$0.00	$10,034.68	$915,609.54	$0.00	$0.00	$0.00	$0.00	$0.00	$925,644.22	$915,609.54
V1953	($163,534.79)	$0.00	$56,010.58	($227,698.59)	$0.00	$0.00	$0.00	$0.00	$0.00	($163,534.79)	($227,698.59)
V1954	($26,240.00)	$0.00	$0.00	($26,240.00)	$0.00	$0.00	$0.00	$0.00	$0.00	($26,240.00)	($26,240.00)
V1954 H1	$4,050,327.18	$0.00	$0.00	$4,050,327.18	$0.00	$0.00	$0.00	$0.00	$0.00	$4,050,327.18	$4,050,327.18
V1954 H2	$6,507,380.70	$0.00	$231,751.82	$6,271,242.88	$0.00	$0.00	$0.00	$0.00	$0.00	$6,507,380.70	$6,271,242.88
V1955	$1,678,019.93	$0.00	$25,849.49	$1,556,846.31	$0.00	$0.00	$0.00	$0.00	$0.00	$1,678,019.93	$1,556,846.31
V1956	$1,412,225.70	$0.00	$27,457.01	$1,313,571.55	$0.00	$0.00	$0.00	$0.00	$0.00	$1,412,225.70	$1,313,571.55
V1957	$8,210,906.58	$0.00	$100,587.61	$8,099,842.74	$0.00	$0.00	$0.00	$0.00	$0.00	$8,210,906.58	$8,099,842.74
V1958	$2,834,301.90	$0.00	$34,322.88	$2,793,345.30	$0.00	$0.00	$0.00	$0.00	$0.00	$2,834,301.90	$2,793,345.30
V1959	$11,176,809.27	$0.00	$263,952.94	$10,709,269.95	$0.00	$0.00	$0.00	$0.00	$0.00	$11,176,809.27	$10,709,269.95
V1960	$7,351,386.31	$0.00	$2,243,508.95	$4,757,063.89	$0.00	$0.00	$0.00	$0.00	$0.00	$7,351,386.31	$4,757,063.89
V1961	$12,403,474.57	$0.00	$59,161.46	$11,903,243.12	$0.00	$0.00	$0.00	$0.00	$0.00	$12,403,474.57	$11,903,243.12
V1962	$6,867,423.16	$0.00	$484,015.86	$5,958,466.88	$0.00	$0.00	$0.00	$0.00	$0.00	$6,867,423.16	$5,958,466.88
V1963	$18,750,657.15	$0.00	$169,523.62	$18,270,345.49	$0.00	$0.00	$0.00	$0.00	$0.00	$18,750,657.15	$18,270,345.49
V1964	$13,539,240.51	$0.00	$99,319.26	$13,101,944.70	$0.00	$0.00	$0.00	$0.00	$0.00	$13,539,240.51	$13,101,944.70
V1965	$7,243,775.69	$0.00	$543,742.90	$6,379,524.34	$6,401.31	$0.00	$0.00	$0.00	$0.00	$7,243,775.69	$6,385,925.65
V1966	$21,427,013.67	$0.00	$453,020.36	$20,332,999.08	$827.87	$0.00	$0.00	$0.00	$0.00	$21,427,013.67	$20,333,826.95
V1967	$7,573,888.50	$0.00	$417,049.36	$6,693,927.27	$5,058.28	$0.00	$0.00	$0.00	$0.00	$7,573,888.50	$6,698,985.55
V1968	$18,268,034.99	$0.00	$142,885.06	$17,573,330.85	$1,112.65	$0.00	$0.00	$0.00	$0.00	$18,268,034.99	$17,574,443.51
V1969	$9,286,377.73	$0.00	$207,812.73	$8,537,005.09	$743.27	$0.00	$0.00	$0.00	$0.00	$9,286,377.73	$8,537,748.36
V1970	$31,873,073.95	$0.00	$1,658,773.81	$29,481,235.71	$74,386.24	$0.00	$0.00	$0.00	$0.00	$31,873,073.95	$29,555,621.95
V1971	$15,368,925.95	$0.00	$15,252,328.18	$14,928,650.11	$7,234.81	$0.00	$0.00	$0.00	$0.00	$15,368,925.95	$14,935,884.92
V1972	$33,472,101.40	$0.00	$33,461,538.40	$31,448,894.87	$2,487.24	$0.00	$0.00	$0.00	$0.00	$33,472,101.40	$31,451,382.11

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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles, Waiau 3 Turbine Weld, RAR Legal
Grouped By: Total Tax Classes

Tax Book : Federal
Tax Year : 2009

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

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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles, Waiau 3 Turbine Weld, RAR Legal

Grouped By: Total Tax Classes

Tax Book : Federal
Tax Year : 2009

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1999 Q3	$8,946,164.68	$0.00	$8,946,164.68	$3,644,535.35	$394,110.80	$0.00	$0.00	$0.00	$0.00	$8,946,164.68	$4,038,646.15
V1999 Q4	$18,169,977.48	$0.00	$18,169,977.48	$6,238,815.80	$755,148.40	$0.00	$0.00	$0.00	$0.00	$18,169,977.48	$6,993,964.20
V2000	$58,695,882.01	$0.00	$58,695,882.01	$26,465,121.17	$2,220,773.80	$0.00	$0.00	$0.00	$0.00	$58,695,882.01	$28,685,894.97
V2001	$73,501,927.45	$0.00	$73,501,927.45	$33,016,207.73	$2,944,622.81	$0.00	$0.00	$0.00	$0.00	$73,501,927.45	$35,960,830.54
V2001_JC	$541,173.12	$0.00	$541,173.12	$257,437.89	$22,688.95	$0.00	$0.00	$0.00	$0.00	$541,173.12	$280,126.84
V2002	$53,177,696.23	$0.00	$53,177,696.23	$15,665,079.15	$1,972,608.14	$0.00	$0.00	$0.00	$0.00	$53,177,696.23	$17,637,687.29
V2002_JC	$15,080,651.26	$0.00	$15,080,651.26	$7,127,665.52	$700,184.71	$0.00	$0.00	$0.00	$0.00	$15,080,651.26	$7,827,850.23
V2003	$19,114,363.12	$0.00	$19,114,363.12	$5,338,503.62	$735,193.51	$0.00	$0.00	$0.00	$0.00	$19,114,363.12	$6,073,697.13
V2003_JC	$15,491,453.36	$0.00	$15,491,453.36	$6,257,620.72	$731,160.82	$0.00	$0.00	$0.00	$0.00	$15,491,453.36	$6,988,781.54
V2003_JGT	$7,097,917.68	$0.00	$7,097,917.68	$3,511,122.48	$296,948.75	$0.00	$0.00	$0.00	$0.00	$7,097,917.68	$3,808,071.23
V2004	$64,128,266.81	$0.00	$64,128,266.81	$17,056,123.12	$3,093,293.00	$0.00	$0.00	$0.00	$0.00	$64,128,266.81	$20,149,416.12
V2004_JC	$14,362,507.45	$0.00	$14,362,507.45	$4,463,221.37	$761,101.67	$0.00	$0.00	$0.00	$0.00	$14,362,507.45	$5,224,323.04
V2004_JGT	$21,539,081.88	$0.00	$21,539,081.88	$7,086,034.74	$956,803.28	$0.00	$0.00	$0.00	$0.00	$21,539,081.88	$8,042,838.02
V2005	$87,786,437.98	$0.00	$87,786,437.98	$19,981,105.60	$4,746,247.48	$0.00	$0.00	$0.00	$0.00	$87,786,437.98	$24,727,353.08
V2005_JC	$3,028,835.31	$0.00	$3,028,835.31	$729,336.64	$173,037.36	$0.00	$0.00	$0.00	$0.00	$3,028,835.31	$902,374.00
V2005_JGT	$492,066.70	$0.00	$492,066.70	$135,288.18	$28,111.77	$0.00	$0.00	$0.00	$0.00	$492,066.70	$163,399.95
V2006 Q1	$49,084,663.14	$0.00	$49,084,663.14	$9,541,062.45	$2,728,828.41	$0.00	$0.00	$0.00	$0.00	$49,084,663.14	$12,269,890.86
V2006 Q2	$19,676,930.57	$0.00	$19,676,930.57	$3,746,944.55	$1,202,241.11	$0.00	$0.00	$0.00	$0.00	$19,676,930.57	$4,949,185.66
V2006 Q3	$15,536,385.24	$0.00	$15,536,385.24	$2,916,047.77	$1,031,090.39	$0.00	$0.00	$0.00	$0.00	$15,536,385.24	$3,947,138.16
V2006 Q4	$27,552,578.61	$0.00	$27,552,578.61	$5,393,487.57	$1,907,695.17	$0.00	$0.00	$0.00	$0.00	$27,552,578.61	$7,301,182.74
V2007	$78,831,293.56	$0.00	$78,831,293.56	$8,357,833.52	$4,823,200.68	$0.00	$0.00	$0.00	$0.00	$78,831,293.56	$13,181,034.20
V2008	$38,099,196.00	$0.00	$38,099,196.00	$909,718.28	$1,723,111.77	$0.00	$0.00	$0.00	$0.00	$38,099,196.00	$2,632,830.04
V2008_SA	$21,742,464.00	$0.00	$21,742,464.00	$990,115.96	$1,847,036.21	$0.00	$0.00	$0.00	$0.00	$21,742,464.00	$2,837,152.17
V2009	$0.00	$252,844,483.00	$252,844,483.00	$0.00	$11,259,028.45	$0.00	$0.00	$0.00	$0.00	$252,844,483.00	$11,259,028.45
Total Tax Classes	2,130,687,355.30	$252,844,483.00	2,150,976,963.30	1,309,708,725.98	$73,222,178.53	$0.00	$0.00	$0.00	$0.00	2,383,531,838.30	1,382,930,904.49
HECO	2,130,687,355.30	$252,844,483.00	2,150,976,963.30	1,309,708,725.98	$73,222,178.53	$0.00	$0.00	$0.00	$0.00	2,383,531,838.30	1,382,930,904.49
Tax Year:	2,130,687,355.30	$252,844,483.00	2,150,976,963.30	1,309,708,725.98	$73,222,178.53	$0.00	$0.00	$0.00	$0.00	2,383,531,838.30	1,382,930,904.49

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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles, Waiau 3 Turbine Weld, RAR Legal
Grouped By: Total Tax Classes

Tax Book : State
Tax Year : 2009

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1903	$14,121.00	$0.00	$14,121.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$14,121.00	$0.00
V1914	$838.94	$0.00	$0.00	$838.94	$0.00	$0.00	$0.00	$0.00	$0.00	$838.94	$838.94
V1915	$553.83	$0.00	$553.83	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$553.83	$0.00
V1916	$4,444.00	$0.00	$4,444.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$4,444.00	$0.00
V1917	$107,378.00	$0.00	$107,378.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$107,378.00	$0.00
V1918	$89,648.00	$0.00	$89,648.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$89,648.00	$0.00
V1919	$24,163.99	$0.00	$23,845.00	$318.99	$0.00	$0.00	$0.00	$0.00	$0.00	$24,163.99	$318.99
V1920	$247,024.08	$0.00	$32,614.56	$214,409.52	$0.00	$0.00	$0.00	$0.00	$0.00	$247,024.08	$214,409.52
V1921	$8,609.50	$0.00	$2,013.00	$6,596.50	$0.00	$0.00	$0.00	$0.00	$0.00	$8,609.50	$6,596.50
V1922	$148,438.48	$0.00	$25,364.00	$123,074.48	$0.00	$0.00	$0.00	$0.00	$0.00	$148,438.48	$123,074.48
V1923	$22,358.50	$0.00	$0.00	$22,358.50	$0.00	$0.00	$0.00	$0.00	$0.00	$22,358.50	$22,358.50
V1924	$23,860.96	$0.00	$7.97	$23,852.99	$0.00	$0.00	$0.00	$0.00	$0.00	$23,860.96	$23,852.99
V1925	$93,051.97	$0.00	$21,830.00	$71,221.97	$0.00	$0.00	$0.00	$0.00	$0.00	$93,051.97	$71,221.97
V1926	$34,706.45	$0.00	$1,165.00	$33,541.45	$0.00	$0.00	$0.00	$0.00	$0.00	$34,706.45	$33,541.45
V1927	$130,241.99	$0.00	$59,895.94	$70,346.05	$0.00	$0.00	$0.00	$0.00	$0.00	$130,241.99	$70,346.05
V1928	$58,664.52	$0.00	$8,279.33	$50,385.19	$0.00	$0.00	$0.00	$0.00	$0.00	$58,664.52	$50,385.19
V1929	$51,892.74	$0.00	$281.00	$51,611.74	$0.00	$0.00	$0.00	$0.00	$0.00	$51,892.74	$51,611.74
V1930	$320,361.86	$0.00	$412.00	$319,949.86	$0.00	$0.00	$0.00	$0.00	$0.00	$320,361.86	$319,949.86
V1931	$94,980.01	$0.00	$2,140.00	$92,840.01	$0.00	$0.00	$0.00	$0.00	$0.00	$94,980.01	$92,840.01
V1932	$150,307.50	$0.00	$4,829.00	$145,478.50	$0.00	$0.00	$0.00	$0.00	$0.00	$150,307.50	$145,478.50
V1933	$131,210.13	$0.00	$1,409.09	$129,801.04	$0.00	$0.00	$0.00	$0.00	$0.00	$131,210.13	$129,801.04
V1934	$79,048.76	$0.00	$353.00	$78,695.76	$0.00	$0.00	$0.00	$0.00	$0.00	$79,048.76	$78,695.76
V1935	$115,832.98	$0.00	$3,277.00	$112,555.98	$0.00	$0.00	$0.00	$0.00	$0.00	$115,832.98	$112,555.98
V1936	$140,392.95	$0.00	$1,504.30	$138,888.65	$0.00	$0.00	$0.00	$0.00	$0.00	$140,392.95	$138,888.65
V1937	$293,697.03	$0.00	$16,861.71	$276,835.32	$0.00	$0.00	$0.00	$0.00	$0.00	$293,697.03	$276,835.32
V1938	$782,704.82	$0.00	$52,587.58	$730,117.24	$0.00	$0.00	$0.00	$0.00	$0.00	$782,704.82	$730,117.24
V1939	$220,242.28	$0.00	$87,102.22	$133,140.06	$0.00	$0.00	$0.00	$0.00	$0.00	$220,242.28	$133,140.06
V1940	$751,439.37	$0.00	$201,885.84	$549,553.53	$0.00	$0.00	$0.00	$0.00	$0.00	$751,439.37	$549,553.53
V1941	$795,311.02	$0.00	$29,003.00	$766,308.02	$0.00	$0.00	$0.00	$0.00	$0.00	$795,311.02	$766,308.02
V1942	$329,905.70	$0.00	$52.00	$329,853.70	$0.00	$0.00	$0.00	$0.00	$0.00	$329,905.70	$329,853.70
V1943	$318,517.16	$0.00	$3,367.38	$315,149.78	$0.00	$0.00	$0.00	$0.00	$0.00	$318,517.16	$315,149.78

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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles, Walau 3 Turbine Weld, RAR Legal
Grouped By: Total Tax Classes

Tax Book : State
Tax Year : 2009

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1944	$1,608,024.28	$0.00	$77,917.09	$1,530,107.19	$0.00	$0.00	$0.00	$0.00	$0.00	$1,608,024.28	$1,530,107.19
V1945	$571,798.65	$0.00	$180,769.91	$391,028.74	$0.00	$0.00	$0.00	$0.00	$0.00	$571,798.65	$391,028.74
V1946	$804,916.95	$0.00	$4,655.99	$800,260.96	$0.00	$0.00	$0.00	$0.00	$0.00	$804,916.95	$800,260.96
V1947	$7,068,438.79	$0.00	$43,962.92	$7,024,475.87	$0.00	$0.00	$0.00	$0.00	$0.00	$7,068,438.79	$7,024,475.87
V1948	$1,161,717.38	$0.00	$53,192.00	$1,152,826.30	$0.00	$0.00	$0.00	$0.00	$0.00	$1,161,717.38	$1,152,826.30
V1949	$850,273.97	$0.00	$28,461.82	$821,812.15	$0.00	$0.00	$0.00	$0.00	$0.00	$850,273.97	$821,812.15
V1950	$4,873,116.93	$0.00	$6,291.95	$4,866,824.98	$0.00	$0.00	$0.00	$0.00	$0.00	$4,873,116.93	$4,866,824.98
V1951	$1,555,887.76	$0.00	$22,468.45	$1,533,419.31	$0.00	$0.00	$0.00	$0.00	$0.00	$1,555,887.76	$1,533,419.31
V1952	$924,692.16	$0.00	$10,034.68	$914,657.48	$0.00	$0.00	$0.00	$0.00	$0.00	$924,692.16	$914,657.48
V1953	($163,424.54)	$0.00	$56,010.58	($227,588.34)	$0.00	$0.00	$0.00	$0.00	$0.00	($163,424.54)	($227,588.34)
V1954	($26,240.00)	$0.00	$0.00	($26,240.00)	$0.00	$0.00	$0.00	$0.00	$0.00	($26,240.00)	($26,240.00)
V1954 H1	$4,067,836.00	$0.00	$0.00	$4,067,836.00	$0.00	$0.00	$0.00	$0.00	$0.00	$4,067,836.00	$4,067,836.00
V1954 H2	$6,507,380.70	$0.00	$231,751.82	$6,271,242.88	$0.00	$0.00	$0.00	$0.00	$0.00	$6,507,380.70	$6,271,242.88
V1955	$1,678,019.93	$0.00	$25,849.49	$1,556,846.31	$0.00	$0.00	$0.00	$0.00	$0.00	$1,678,019.93	$1,556,846.31
V1956	$1,412,225.70	$0.00	$27,457.01	$1,313,571.55	$0.00	$0.00	$0.00	$0.00	$0.00	$1,412,225.70	$1,313,571.55
V1957	$8,210,906.58	$0.00	$100,587.61	$8,018,324.69	$0.00	$0.00	$0.00	$0.00	$0.00	$8,210,906.58	$8,018,324.69
V1958	$2,834,301.90	$0.00	$34,322.88	$2,656,872.97	$0.00	$0.00	$0.00	$0.00	$0.00	$2,834,301.90	$2,656,872.97
V1959	$11,176,809.27	$0.00	$263,952.94	$10,695,613.20	$0.00	$0.00	$0.00	$0.00	$0.00	$11,176,809.27	$10,695,613.20
V1960	$7,355,556.95	$0.00	$2,243,508.95	$4,760,942.58	$0.00	$0.00	$0.00	$0.00	$0.00	$7,355,556.95	$4,760,942.58
V1961	$12,408,278.90	$0.00	$59,161.46	$11,907,710.96	$0.00	$0.00	$0.00	$0.00	$0.00	$12,408,278.90	$11,907,710.96
V1962	$6,867,423.16	$0.00	$484,015.86	$5,958,466.88	$0.00	$0.00	$0.00	$0.00	$0.00	$6,867,423.16	$5,958,466.88
V1963	$18,744,491.64	$0.00	$169,523.62	$18,264,179.98	$0.00	$0.00	$0.00	$0.00	$0.00	$18,744,491.64	$18,264,179.98
V1964	$13,533,240.51	$0.00	$98,899.26	$13,096,364.70	$0.00	$0.00	$0.00	$0.00	$0.00	$13,533,240.51	$13,096,364.70
V1965	$7,209,059.62	$0.00	$511,830.64	$6,376,720.67	$6,342.53	$0.00	$0.00	$0.00	$0.00	$7,209,059.62	$6,383,063.20
V1966	$21,431,242.86	$0.00	$453,020.36	$20,337,362.26	$827.87	$0.00	$0.00	$0.00	$0.00	$21,431,242.86	$20,338,190.13
V1967	$7,570,160.63	$0.00	$416,743.67	$6,690,505.09	$4,981.86	$0.00	$0.00	$0.00	$0.00	$7,570,160.63	$6,695,486.95
V1968	$18,268,034.99	$0.00	$142,885.06	$17,573,330.85	$1,112.65	$0.00	$0.00	$0.00	$0.00	$18,268,034.99	$17,574,443.51
V1969	$9,286,377.73	$0.00	$207,812.73	$8,537,005.09	$743.27	$0.00	$0.00	$0.00	$0.00	$9,286,377.73	$8,537,748.36
V1970	$31,877,418.07	$0.00	$1,658,773.94	$29,485,277.34	$74,386.26	$0.00	$0.00	$0.00	$0.00	$31,877,418.07	$29,559,663.60
V1971	$15,368,925.95	$0.00	$15,252,328.18	$14,928,650.11	$7,234.81	$0.00	$0.00	$0.00	$0.00	$15,368,925.95	$14,935,884.92
V1972	$33,472,101.40	$0.00	$33,461,538.40	$31,448,894.87	$2,487.24	$0.00	$0.00	$0.00	$0.00	$33,472,101.40	$31,451,382.11

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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles, Walau 3 Turbine Weld, RAR Legal
Grouped By: Total Tax Classes

Tax Book : State
Tax Year : 2009

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1973	$33,473,537.74	$0.00	$31,983,732.83	$31,640,993.56	$1,877.23	$0.00	$0.00	$0.00	$0.00	$33,473,537.74	$31,642,870.79
V1974	$57,220,942.04	$0.00	$50,310,226.11	$54,738,678.48	$1,296.25	$0.00	$0.00	$0.00	$0.00	$57,220,942.04	$54,739,974.73
V1975	$22,101,505.82	$0.00	$19,260,988.53	$22,092,266.09	$840.73	$0.00	$0.00	$0.00	$0.00	$22,101,505.82	$22,093,106.82
V1976	$26,373,264.09	$0.00	$24,011,518.23	$24,280,461.28	$4,015.44	$0.00	$0.00	$0.00	$0.00	$26,373,264.09	$24,284,476.72
V1977	$11,393,983.02	$0.00	$9,860,486.96	$10,705,576.61	$1,109.59	$0.00	$0.00	$0.00	$0.00	$11,393,983.02	$10,706,686.20
V1978	$16,415,914.13	$0.00	$14,440,755.04	$15,717,403.28	$5,822.92	$0.00	$0.00	$0.00	$0.00	$16,415,914.13	$15,723,226.20
V1979	$18,751,761.23	$0.00	$14,825,407.75	$18,539,303.38	$5,598.31	$0.00	$0.00	$0.00	$0.00	$18,751,761.23	$18,544,901.69
V1980	$33,034,647.10	$0.00	$28,404,805.89	$29,663,973.99	$4,748.12	$0.00	$0.00	$0.00	$0.00	$33,034,647.10	$29,668,722.11
V1981	$64,304,317.27	$0.00	$64,304,317.27	$64,222,692.13	$3,243.51	$0.00	$0.00	$0.00	$0.00	$64,304,317.27	$64,225,935.64
V1982	$16,755,531.53	$0.00	$16,755,531.53	$16,654,824.17	$1,086.14	$0.00	$0.00	$0.00	$0.00	$16,755,531.53	$16,655,910.31
V1983	$15,157,534.50	$0.00	$15,157,534.50	$15,131,994.42	$968.14	$0.00	$0.00	$0.00	$0.00	$15,157,534.50	$15,132,962.56
V1984	$16,814,225.39	$0.00	$16,814,225.39	$16,525,848.66	$6,319.03	$0.00	$0.00	$0.00	$0.00	$16,814,225.39	$16,532,167.69
V1985	$24,887,365.88	$0.00	$24,887,365.88	$24,694,588.67	$181.81	$0.00	$0.00	$0.00	$0.00	$24,887,365.88	$24,694,770.48
V1986	$24,605,510.43	$0.00	$24,605,510.43	$24,592,499.93	$473.12	$0.00	$0.00	$0.00	$0.00	$24,605,510.43	$24,592,973.05
V1987	$27,598,589.12	$0.00	$27,598,589.12	$27,433,433.69	$15,758.66	$0.00	$0.00	$0.00	$0.00	$27,598,589.12	$27,449,192.35
V1988	$38,801,607.30	$0.00	$38,801,607.30	$37,596,903.31	$106,035.84	$0.00	$0.00	$0.00	$0.00	$38,801,607.30	$37,702,939.15
V1989	$46,874,752.41	$0.00	$46,874,752.41	$41,762,885.45	$1,163,493.55	$0.00	$0.00	$0.00	$0.00	$46,874,752.41	$42,926,379.00
V1990	$75,648,359.28	$0.00	$75,648,359.28	$50,284,607.97	$2,591,386.77	$0.00	$0.00	$0.00	$0.00	$75,648,359.28	$52,875,994.74
V1991	$38,351,170.92	$0.00	$38,351,170.92	$28,040,577.20	$1,411,697.32	$0.00	$0.00	$0.00	$0.00	$38,351,170.92	$29,452,274.52
V1992	$57,242,128.64	$0.00	$57,242,128.64	$43,941,795.70	$2,316,027.00	$0.00	$0.00	$0.00	$0.00	$57,242,128.64	$46,257,822.70
V1993	$77,639,236.95	$0.00	$77,639,236.95	$54,496,974.16	$2,946,022.24	$0.00	$0.00	$0.00	$0.00	$77,639,236.95	$57,442,996.40
V1994	$85,444,533.54	$0.00	$85,444,533.54	$50,798,071.27	$3,156,324.44	$0.00	$0.00	$0.00	$0.00	$85,444,533.54	$53,954,395.71
V1995	$95,074,700.74	$0.00	$95,074,700.74	$52,181,514.98	$3,500,489.76	$0.00	$0.00	$0.00	$0.00	$95,074,700.74	$55,682,004.74
V1996 Q1	$15,242,361.48	$0.00	$15,242,361.48	$6,594,191.95	$507,381.99	$0.00	$0.00	$0.00	$0.00	$15,242,361.48	$7,101,573.94
V1996 Q2	$11,804,801.98	$0.00	$11,804,801.98	$5,371,131.43	$409,395.11	$0.00	$0.00	$0.00	$0.00	$11,804,801.98	$5,780,526.54
V1996 Q3	$27,286,478.74	$0.00	$27,286,478.74	$10,578,354.95	$709,776.55	$0.00	$0.00	$0.00	$0.00	$27,286,478.74	$11,288,131.50
V1996 Q4	$23,963,545.73	$0.00	$23,963,545.73	$10,872,446.21	$825,809.46	$0.00	$0.00	$0.00	$0.00	$23,963,545.73	$11,698,255.65
V1997	$62,270,809.92	$0.00	$62,270,809.92	$34,666,194.45	$2,485,879.07	$0.00	$0.00	$0.00	$0.00	$62,270,809.92	$37,152,073.52
V1998	$78,079,579.10	$0.00	$78,079,579.10	$43,856,056.76	$3,338,065.86	$0.00	$0.00	$0.00	$0.00	$78,079,579.10	$47,194,122.62
V1999 Q1	$9,361,241.76	$0.00	$9,361,241.76	$4,757,995.55	$413,638.75	$0.00	$0.00	$0.00	$0.00	$9,361,241.76	$5,171,634.30
V1999 Q2	$3,687,629.80	$0.00	$3,687,629.80	$1,476,227.45	$134,896.71	$0.00	$0.00	$0.00	$0.00	$3,687,629.80	$1,611,124.16

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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles, Waiau 3 Turbine Weld, RAR Legal
Grouped By: Total Tax Classes

Tax Book : State
Tax Year : 2009

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V1999 Q3	$8,946,164.68	$0.00	$8,946,164.68	$3,644,535.35	$394,110.80	$0.00	$0.00	$0.00	$0.00	$8,946,164.68	$4,038,646.15
V1999 Q4	$18,169,977.48	$0.00	$18,169,977.48	$6,238,815.80	$755,148.40	$0.00	$0.00	$0.00	$0.00	$18,169,977.48	$6,993,964.20
V2000	$58,695,882.01	$0.00	$58,695,882.01	$26,465,121.17	$2,220,773.80	$0.00	$0.00	$0.00	$0.00	$58,695,882.01	$28,685,894.97
V2001	$73,501,927.45	$0.00	$73,501,927.45	$33,016,207.73	$2,944,622.81	$0.00	$0.00	$0.00	$0.00	$73,501,927.45	$35,960,830.54
V2001_JC	$772,739.08	$0.00	$772,739.08	$367,672.77	$32,396.48	$0.00	$0.00	$0.00	$0.00	$772,739.08	$400,069.25
V2002	$53,177,696.23	$0.00	$53,177,696.23	$15,665,079.15	$1,972,608.14	$0.00	$0.00	$0.00	$0.00	$53,177,696.23	$17,637,687.29
V2002_JC	$21,139,403.18	$0.00	$21,139,403.18	$9,871,858.74	$955,664.94	$0.00	$0.00	$0.00	$0.00	$21,139,403.18	$10,827,523.68
V2003	$19,114,363.12	$0.00	$19,114,363.12	$5,338,503.62	$735,193.51	$0.00	$0.00	$0.00	$0.00	$19,114,363.12	$6,073,697.13
V2003_JC	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
V2003_JC	$21,913,293.00	$0.00	$21,913,293.00	$8,718,481.62	$1,043,434.19	$0.00	$0.00	$0.00	$0.00	$21,913,293.00	$9,761,915.81
V2003_JGT	$13,295,417.82	$0.00	$13,295,417.82	$6,228,481.02	$592,364.26	$0.00	$0.00	$0.00	$0.00	$13,295,417.82	$6,820,845.28
V2004	$64,128,266.81	$0.00	$64,128,266.81	$17,056,123.12	$3,093,293.00	$0.00	$0.00	$0.00	$0.00	$64,128,266.81	$20,149,416.12
V2004_JC	$306,834.42	$0.00	$306,834.42	$289,160.76	$17,673.66	$0.00	$0.00	$0.00	$0.00	$306,834.42	$306,834.42
V2004_JC	$20,094,444.29	$0.00	$20,094,444.29	$5,965,629.83	$1,063,175.43	$0.00	$0.00	$0.00	$0.00	$20,094,444.29	$7,028,805.26
V2004_JGT	$489,327.64	$0.00	$489,327.64	$144,527.82	$25,860.96	$0.00	$0.00	$0.00	$0.00	$489,327.64	$170,388.78
V2004_JGT	$42,748,812.40	$0.00	$42,748,812.40	$13,991,714.56	$2,180,275.75	$0.00	$0.00	$0.00	$0.00	$42,748,812.40	$16,171,990.31
V2005	$87,786,437.98	$0.00	$87,786,437.98	$19,981,105.60	$4,746,247.48	$0.00	$0.00	$0.00	$0.00	$87,786,437.98	$24,727,353.08
V2005_JC	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
V2005_JC	$4,416,132.81	$0.00	$4,416,132.81	$1,059,832.49	$252,293.67	$0.00	$0.00	$0.00	$0.00	$4,416,132.81	$1,312,126.16
V2005_JGT	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
V2005_JGT	$1,467,677.60	$0.00	$1,467,677.60	$367,708.00	$83,848.42	$0.00	$0.00	$0.00	$0.00	$1,467,677.60	$451,556.42
V2006 Q1	$49,084,663.14	$0.00	$49,084,663.14	$9,541,062.45	$2,728,828.41	$0.00	$0.00	$0.00	$0.00	$49,084,663.14	$12,269,890.86
V2006 Q2	$19,676,930.57	$0.00	$19,676,930.57	$3,746,944.55	$1,202,241.11	$0.00	$0.00	$0.00	$0.00	$19,676,930.57	$4,949,185.66
V2006 Q3	$15,536,385.24	$0.00	$15,536,385.24	$2,916,047.77	$1,031,090.39	$0.00	$0.00	$0.00	$0.00	$15,536,385.24	$3,947,138.16
V2006 Q4	$27,552,578.61	$0.00	$27,552,578.61	$5,393,487.57	$1,907,695.17	$0.00	$0.00	$0.00	$0.00	$27,552,578.61	$7,301,182.74
V2007	$78,831,293.56	$0.00	$78,831,293.56	$8,357,833.52	$4,823,200.68	$0.00	$0.00	$0.00	$0.00	$78,831,293.56	$13,181,034.20
V2008	$38,099,196.00	$0.00	$38,099,196.00	$909,718.28	$1,723,111.77	$0.00	$0.00	$0.00	$0.00	$38,099,196.00	$2,632,830.04
V2008_SA	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
V2008_SA	$43,484,928.00	$0.00	$43,484,928.00	$1,980,231.93	$3,694,072.41	$0.00	$0.00	$0.00	$0.00	$43,484,928.00	$5,674,304.34

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All Assets except CIAC, Cap Int, Cust Adv, DSM/IRP, Non Utility, Vehicles, Waiau 3 Turbine Weld, RAR Legal

Grouped By: Total Tax Classes

Tax Book : State
Tax Year : 2009

Vintage	Beginning Asset Balance	Additions/ Retirements	Depreciable Base	Beginning Reserve	Depreciation	Capitalized Depreciation	Gain/ (Loss)	Salvage	Cost of Removal	Ending Asset Balance	Ending Reserve
V2009	$0.00	$252,844,483.00	$252,844,483.00	$0.00	$11,259,028.45	$0.00	$0.00	$0.00	$0.00	$252,844,483.00	$11,259,028.45
Total Tax Classes	2,202,185,284.04	$252,844,483.00	2,222,393,143.89	1,328,681,379.74	$77,646,030.00	$0.00	$0.00	$0.00	$0.00	2,455,029,767.04	1,406,327,409.72
HECO	2,202,185,284.04	$252,844,483.00	2,222,393,143.89	1,328,681,379.74	$77,646,030.00	$0.00	$0.00	$0.00	$0.00	2,455,029,767.04	1,406,327,409.72
Tax Year:	2,202,185,284.04	$252,844,483.00	2,222,393,143.89	1,328,681,379.74	$77,646,030.00	$0.00	$0.00	$0.00	$0.00	2,455,029,767.04	1,406,327,409.72

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Ref: HECO T-17 Update, page 3 (Plant Additions).

The referenced update indicates that completion of Project P0001552 (Kahe-Permanente 46kV Nanakuli) is expected to be completed in 2009, rather than 2008, and has increased to $2,174,053 from $785,541. Please provide the following:

a. Please provide detailed information regarding the soil condition and permitting issues cited in the above Update, including copies of any related documentation that may have been submitted to the Commission in other regulatory dockets.
b. Please provide a copy of, not access to, the Project Initiation Authorization packet (or similar documentation) for the original and revised project work scope, identified at page 3 of the HECO T-17 Rate Case Update.
c. Please confirm that this project was undertaken, in part, due to poles falling during the 2006 windstorm. If this cannot be confirmed, please explain.
d. Referring to part (c) of this information request, please provide the following:
    1. Please explain and describe the extent of the windstorm damage, including the number of poles damaged/toppled and whether any other Company facilities were impacted.
    2. Was any of the Company property damaged by the windstorm covered by insurance? If so, please explain the extent of the coverage and how/whether any insurance recoveries were reflected in the 2009 test year forecast.
    3. Please indicate whether the damaged facilities will be retired from utility service, when such assets were placed in utility service, and provide the estimated original cost thereof.
    4. Referring to subpart (d)(3) of this information request, please explain how and whether any such retirements were explicitly reflected in the 2009 test year forecast.

<u>HECO Response:</u>

a. Regarding the soil condition, please see Attachment 1, Foundation Investigation Report for Farrington Highway Replacement Poles as performed by Fewell Geotechnical Engineering, Ltd. The Foundation Investigation Report is used to size the foundations for the twelve poles to be installed under the scope of this project.

Regarding the permitting issues, the project scope of one-for-one pole replacements required street usage and trenching permits from the State of Hawaii, Department of Transportation's ("State DOT"). Upon submittal of the permit applications in July 2008,

approval was deferred by the State DOT, until the project design was reviewed and approved by the State DOT Traffic Branch. The State DOT Traffic Branch approved the construction plans on September 23, 2008, but the State DOT did not issue the permits until October 20, 2008 because of traffic concerns on Farrington Highway due to a City and County of Honolulu's Board of Water Supply's ("BWS") construction project also occurring in the Nanakuli area. (Because the BWS project is scheduled through 2010, there was discussion that HECO's pole replacement project should be delayed until the completion of the BWS project. HECO requested to start work as soon as possible because of the concern of poles falling for the third time in Nanakuli.) HECO received approval by the State DOT on October 20, 2008, and provided its contractor with the notice to proceed. The contractor mobilized and began work on Farrington Highway on November 18, 2008.

b. Please see Attachment 2 for the Project Identification Form ("PIF"). The scope of work did not change but the sizes of the footings changed considerably based on the Foundation Investigation Report.

c. The scope of this pole replacement project is to replace poles 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, and 67 with 11 steel poles and one concrete pole along Farrington Highway fronting the Nanakuli area. These poles fell during the March 2006 windstorm.

d. Eight of 12 poles that will be replaced as part of Project P0001552 (Kahe-Permanente 46kV Nanakuli) also fell in the December 2007 storm.

    1. Please see Attachment 3 letter dated January 31, 2008 for explanation and description to the extent of the December 2007 windstorm damage, including the

number of poles damaged/toppled and whether any other Company facilities were impacted.

2. No, none of the Company property damaged by the windstorm was covered by insurance.
3. The damaged facilities which were originally placed in service in 2003 at a cost of $98,569.96, were retired in June 2006.
4. Since the damaged facilities were retired in June 2006, their retirement costs are reflected in the 2009 test year forecast.

Attachments 1-3 are voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the documents. Electronic copies of the requested information are being provided.

CA-IR-366

Ref: HECO T-17 Update, pages 8 to 10 (2008 Plant Additions).

Project P0001400 (Ewa Nui-CIP Fiber Repl) has been advanced for completion in 2008, rather than 2009 in the original test year forecast. The projected 2008 project cost has decreased to $549,185 from $616,975 in 2009. Please provide the following:

a. Please provide a copy of, not access to, the Project Initiation Authorization packet (or similar documentation).
b. Is this project related to the CIP1 project? Please explain.
c. Please provide a detailed explanation of the basis for advancing this project for completion in 2008.
d. Please provide the actual date this project was completed and placed in-service.

HECO Response:

a. See Attachment 1 for Project Identification Form.

b. Project P0001400 (Ewa Nui-CIP Fiber Repl) is not related to the CIP1 project. The original fiber optic cable ran from the Ewa Nui Substation along Farrington Highway, over to the new North-South Road, and then transferred onto the overhead lines along the railroad right-of-way to the CEIP Substation in Campbell Industrial Park (CIP). Project P0001400 was required to replace the damaged fiber optic cable segment along Farrington Highway and to relocate the cable along the North-South Road route to allow for the installation of a future 46kV overhead subtransmission line.

c. The basis for advancing this project for completion in 2008 was to replace the damaged fiber optic cable along Farrington Highway. The damaged cable had a few fiber optic strands still operational. However, signal degradation on those strands were increasing faster than expected. As such, the project was advanced to address this.

d. The actual date this project was completed and placed in-service was November 21, 2008.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: North-South Rd Fiber Repl

Plant Addition Date: 2008-03

Project Number: RCHONG21_ P0001400
(Temporary)

Commitment Date: 2007-10

Primary Corporate Goal: SAIF

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

Impact on Goal: Medium

Project Forecast (Thousand $)

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

Prior Years	2007	2008	2009	2010	2011	Future Years	Total
$0	$352	$320	$0	$0	$0	$0	$672

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
45	15	0	33	0	93

Purpose/Objectives:

The purpose of this project is to replace an existing hybrid OPGW and ADSS cable between Ewa Nui Subtation and the end of North South Road with a new ADSS cable.

MANAGEMENT ACCOUNTING

MAR 7 2007

Scope Description:

Install new cross arms along North-South Road. Install a new fiber optic, ADSS cable from Ewa Nui Substation, down Farrington Highway and North-South Road. Pre-position splice points along the road for future substations (DHHL, UH West Oahu College 1 and UH West Oahu College 2). Circuits to be transferred to the new ADSS fiber optic cable from the existing ADSS & OPGW cable.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

See attached PR9105-PH: For PIF Labor hours.

Justification:

The original OPGW cable between Ewa Nui Substation to CEIP Substation was damaged due to the outer protection tube constricting and crushing the inner fiber. An ADSS fiber cable was installed on the 46 KV vang and spliced to the OPGW cable to bypass the section of crushed fiber. There is concern for the long term reliability of the remaining OPGW portion. The circuits currently assigned to this damaged cable include the primary protection circuits (Ewa Nui - CEIP) and (Waiau - Ewa Nui), as well as a SONET fiber ring. The new fiber optic cable will also serve as backup for:

- several Remote Terminal Units (RTUs) that interface with the Energy Management System (EMS)
- SCADA for the fuel pipeline between Barbers Point and Waiau Power Plant
- Kahe Power Plant LAN and PBX"

Another reason to install a replacement ADSS fiber cable is the existing ADSS fiber cable along North-South Road is located on the 46 KV vangs. This needs to be relocated and fiber drops planned to support new substations at DHHL, West Oahu College 1 and West Oahu College 2.

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:

This project is consistent with HECo's IRP. Transmission and Distribution (T&D) projects generally are not explicitly considered in the IRP process. However, HECo's IRP assumes that HECo's transmission and distribution system will continue to operate reliably. For this project, the subject fiber optic lines will be replaced in order to continue to reliably serve our customers.

Issues, Impacts, Considerations:

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ◯ Approval Required ● Not Required

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

◯ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Rodney S. Chong **Phone/Ext #:** 7980

Originator's Name: Rodney Chong

Responsible Estimator: Robert Thompson (Pillar UserID) **Resp. Estimator Dept:** Engineering (Pillar Department Folder)

Project Manager: Rodney Chong

Date: 01/24/2007

REVIEWED AND RECOMMENDED FOR APPROVAL:

2/23/2007
Chairman, CEM Core Group Date

2/26/07
Chairman, EDP Managers Group Date

Required Approvals to Authorize a Project:

2/26/07
Responsible Manager **Date**

3/2/07
Responsible Vice President **Date**
(not required for budgeted projects $1 million and less)

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

3/5/07
Controller **Date**

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

*Project #	Project	*Ind...	Cost Categ...	Curr Upd Total $	PTD 12/06 Act $	Update 2007 $	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 UPDATE12	FY13 UPDATE12	FY14 UPDATE12	FY15 UPDATE12	FY16 UPDATE12	Future Years
RChong21_	Temp ProjRChong21_	*AF...	statistical	$0	0	$0	$0	$0	$0	$0	0	0	0	0	0	0
				$0	0	$0	$0	$0	$0	$0	0	0	0	0	0	0
		_	AFUDC	$55,310	0	$8,897	$46,413	$0	$0	$0	0	0	0	0	0	0
			MATERIAL	$17,763	0	$17,560	$203	$0	$0	$0	0	0	0	0	0	0
			OVERHEADS	$198,986	0	$66,604	$132,381	$0	$0	$0	0	0	0	0	0	0
				$272,059	0	$93,062	$178,998	$0	$0	$0	0	0	0	0	0	0
		NI	LABOR	$117,711	0	$37,577	$80,134	$0	$0	$0	0	0	0	0	0	0
			MATERIAL	$147,728	0	$145,728	$2,000	$0	$0	$0	0	0	0	0	0	0
			O/S SVCS	$132,169	0	$73,430	$58,739	$0	$0	$0	0	0	0	0	0	0
				$397,608	0	$256,735	$140,873	$0	$0	$0	0	0	0	0	0	0
		NR	LABOR	$2,640	0	$2,640	$0	$0	$0	$0	0	0	0	0	0	0
				$2,640	0	$2,640	$0	$0	$0	$0	0	0	0	0	0	0
				$672,308	0	$352,437	$319,871	$0	$0	$0	0	0	0	0	0	0
				$672,308	0	$352,437	$319,871	$0	$0	$0	0	0	0	0	0	0

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DOCKET NO. 2008-0083
ATTACHMENT 1
PAGE 6 OF 7

*Project #	Project	*Ind #	*RA #	*Lbr Class	Proj to Date Act Hrs	2/07-12/07 Update Hrs	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 UPDATE12	FY13 UPDATE12	FY14 UPDATE12	FY15 UPDATE12	FY16 UPDATE12	2/07-12/11 Curr Upd Hrs
RChong21_	Temp ProjRChong...	NI	PBE	B_TNDENG	0	39	39	0	0	0	0	0	0	0	0	78
RChong21_	Temp ProjRChong...	NI	PBP	B_PRJMGT	0	258	50	0	0	0	0	0	0	0	0	308
RChong21_	Temp ProjRChong...	NI	PBT	B_STRENG	0	100	54	0	0	0	0	0	0	0	0	154
RChong21_	Temp ProjRChong...	NI	PBY	__BUOCB	0	80	72	0	0	0	0	0	0	0	0	152
RChong21_	Temp ProjRChong...	NI	PBY	B_SUBDFT	0	50	39	0	0	0	0	0	0	0	0	89
RChong21_	Temp ProjRChong...	NI	PBY	B_TCENGR	0	275	84	0	0	0	0	0	0	0	0	359
RChong21_	Temp ProjRChong...	NI	PBY	B_TCSENG	0	48	0	0	0	0	0	0	0	0	0	48
RChong21_	Temp ProjRChong...	NI	PDJ	D_OHC...	0	100	1,212	0	0	0	0	0	0	0	0	1,312
RChong21_	Temp ProjRChong...	NI	PRC	R_COM...	0	100	586	0	0	0	0	0	0	0	0	686
RChong21_	Temp ProjRChong...	NI			0	1,050	2,136	0	0	0	0	0	0	0	0	3,186
RChong21_	Temp ProjRChong...	NR	PDJ	D_OHC...	0	72	0	0	0	0	0	0	0	0	0	72
RChong21_	Temp ProjRChong...	NR			0	72	0	0	0	0	0	0	0	0	0	72
					0	1,122	2,136	0	0	0	0	0	0	0	0	3,258

CA-IR-367

Ref: HECO T-17 Update, pages 8 to 10 (2008 Plant Additions).

Project P0001010 (HR Suite Phase 1) has been advanced for completion in 2008, rather than 2009 in the original test year forecast. The projected 2008 project cost has increased to $630,513 from $371,580 in 2009. Please provide the following:

a. Please provide a detailed explanation of the basis for advancing the Phase 1 portion of this HRS project for completion in 2008.

b. Please provide a detailed explanation for the increase in project cost.

c. Please explain how the Company determined that this project should be considered as "in-service" in 2008 when a significant portion ($164,040 or about 26%) of the total cost of this project is expected to be expended in 2009.

HECO Response:

a. The Phase 1 portion of the HRS project was not advanced for completion in 2008. The "non-production" hardware and operating system software costs of $190,508 shown in HECO-WP-1701 page 5 inadvertently had an in-service date of 2009. The "non-production" hardware and operating system software costs should have had an in-service date of 2008 as shown in HECO T-17 Rate Case Update page 9.

b. The increased estimate in the project cost is primarily driven by the increase in the hardware and operating system software costs. As a result of discussions with Oracle about the security requirements for access through the Internet, it was determined that the processing, storage, and security requirements for the Oracle HCM application required additional capacity. An additional $128,900 has been estimated for production and "non-production" computer server hardware and associated operating system software required to filter, secure, and support the Internet access for recruitment and employee self-services. An additional $124,200 is estimated for production and "non-production" database storage required to store the applicant and employee personal and business data, including all

historical records required for legislative and federal compliance reporting. See HECO/HELCO/MECO Human Resources Suite System Notification Letter filed with the Commission on December 12, 2008.

c. The 2008 costs of $466,473 are for the "non-production" hardware and operating system software installed and being used during the design, development and testing stages of the project. The 2009 costs of $164,040 are for the "production" hardware and operating system software that will be installed in 2009.

CA-IR-368

Ref: HECO T-17 Update, pages 8 to 10 (2008 Plant Additions).

Project P0001514 (Airport Iwilei Shield Wire) has been partially advanced for completion in 2008, rather than fully completed in 2009 in the original test year forecast. The projected plant addition is $675,592 in 2008 and $674,067 in 2009 versus 2008 expenditures of $1,306,851 in the original forecast. Please provide the following:

a. Please provide a copy of, not access to, the Project Initiation Authorization packet (or similar documentation).
b. Please explain how the Company determined that this project should be considered as "in-service" in 2008 when a significant portion ($674,067 or about 50%) of the total cost of this project is now expected to be expended in 2009.

HECO Response:

a. See Attachment 1 for the Project Identification Form.

b. In the HECO T-17 Update, the projected plant addition for project P0001514 is $675,592 in 2008 and $674,067 in 2009 versus a 2008 projected plant addition of $1,306,851 included in the direct testimony. However, in the HECO T-17 Update the in-service date was inadvertently stated as 2008, but should have been 2009 as the project completion had slipped into 2009. As such, the 2008 plant addition estimate for this project should be $0 and the 2009 plant addition estimate should be $1,349,659.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: Airport Iwilei Shield Wire

Project Number: P0001514
(Permanent)

Stategic Plan Linkage: Keep the Lights On
(Primary)

Plant Addition Date: 2008-11

Commitment Date: 2008-06

Primary Corporate Goal: Sys Rel & Effic

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2008	2009	2010	2011	2012	Future Years	Total
$0	$1,614	$0	$0	$0	$0	$0	$1,614

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
0	0	0	33	-12	21

Purpose/Objectives:

Replacement of the Airport Iwilei 138kV transmission line shield wire is recommended to avoid failure of the shield wire and the potential adverse impact to the transmission system.

This project implements recommendations from "HECO's 138kV Shield Wire Replacement Program-Final Report" dated June 4, 2003.

Scope Description:

Remove and replace existing 3/8" Extra High Strength (EHS) galvanized steel shield wire for the Airport Iwilei 138kV transmission line (roughly 5.4 circuit miles). Purchase and install replacement #3/0 AL AAAC shield wire, splices, preformed grips, conductor clamps, and other attachment hardware.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Resource Needs:

Various resources are required to design, construct, and manage the project (refer to the attached Pillar reports for RA and Labor Class breakdowns).

Justification:

The purpose of the shield wire is to protect the transmission conductors located below from a direct lightning strike and dissipate the energy before it causes damage to critical components of the transmission system.

Exposure to lightning and weather has caused the existing 3/8" EHS galvanized steel shield wire to be severely corroded. Sections of the existing shield wire have been removed during repairs, which significantly inhibits the performance of the lightning protection system.

Replacement of the Airport Iwilei138kV transmission line shield wire is recommended to avoid failure of the shield wire and the potential adverse impact to the transmission system. The present condition of the shield wire, analysis of related shield wire failures, potential exposure to public safety and the relative age of the shield wire also support this recommendation.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

This project is consistent with the Company's IRP. Transmission and Distribution projects generally are not explicitly considered in the IRP process. However, HECO's IRP assumes that HECO's transmission and distribution system will continue to operate reliably. For this project, HECO's existing overhead shield wire will be replaced.

Issues, Impacts, Considerations:

Construction of this project is being coordinated with other shield wire replacement and 138kV overhead line maintenance projects in order to maximize use of the 138kV holdoff schedule and the rental of cranes required to perform the work.

Portions of the Airport Iwilei 138kV transmission line are located along high traffic areas. Extensive traffic control may be required. The possibility of night or weekend work is being explored.

Portions of the Airport Iwilei 138kV transmission line are located within Navy property. Access to these ares will have to be coordinated with the Navy.

A portion ot the Airport Iwilei 138kV transmission line crosses the H1 freeway near Middle Street. The work over the freeway will need to be coordinated with the SDOT.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Isaac Lee **Phone/Ext #:** 7539

Originator's Name: Isaac Lee

Responsible Estimator: Isaac Lee (Pillar UserID)

Resp. Estimator Dept: Engineering (Pillar Department Folder)

Project Manager: Isaac Lee

Date: 03/20/2008

REVIEWED AND RECOMMENDED FOR APPROVAL:

Chairman, CEM Core Group — Date 4/18/2008

Chairman, EDP Managers Group — Date 4/23/08

Required Approvals to Authorize a Project:

Responsible Manager — **Date** 3/31/08

Responsible Vice President — **Date** 4/29/08

(not required for budgeted projects $1 million and less)

VP, Government and Community Affairs — **Date**

(not required if PUC approval is obtained

Controller — **Date** 5/13/08

Sr. VP, Operations — Date 5/5/08

Sr. Executive VP & COO — Date 5/12/08

President & CEO — Date 5/9/08

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

*Project #	Project	*In...	Cost Categ...	Curr Upd Total $	PTD 12/07 Act $	Update 2008 $	FY09 Update08	FY10 Update08	FY11 Update08	FY12 Update08	FY13 UPDATE13	FY14 UPDATE13	FY15 UPDATE13	FY16 UPDATE13	FY17 UPDATE13	Future Years
P0001514	Airport Iwilei Shield Wire	*AF...	statistical	$0	0	$0	$0	$0	$0	$0	0	0	0	0	0	0
				$0	0	$0	$0	$0	$0	$0	0	0	0	0	0	0
	CAP	–	AFUDC	$20,317	0	$20,317	$0	$0	$0	$0	0	0	0	0	0	0
			MATERIAL	$4,231	0	$4,231	$0	$0	$0	$0	0	0	0	0	0	0
			OVERHEADS	$748,320	0	$748,320	$0	$0	$0	$0	0	0	0	0	0	0
				$772,869	0	$772,869	$0	$0	$0	$0	0	0	0	0	0	0
	O&M	NE	LABOR	$30,096	0	$30,096	$0	$0	$0	$0	0	0	0	0	0	0
				$30,096	0	$30,096	$0	$0	$0	$0	0	0	0	0	0	0
		NI	LABOR	$503,145	0	$503,145	$0	$0	$0	$0	0	0	0	0	0	0
	CAP		MATERIAL	$26,445	0	$26,445	$0	$0	$0	$0	0	0	0	0	0	0
			O/S SVCS	$190,650	0	$190,650	$0	$0	$0	$0	0	0	0	0	0	0
				$720,240	0	$720,240	$0	$0	$0	$0	0	0	0	0	0	0
	Other	NR	LABOR	$90,288	0	$90,288	$0	$0	$0	$0	0	0	0	0	0	0
				$90,288	0	$90,288	$0	$0	$0	$0	0	0	0	0	0	0
				$1,613,493	0	$1,613,493	$0	$0	$0	$0	0	0	0	0	0	0
				$1,613,493	0	$1,613,493	$0	$0	$0	$0	0	0	0	0	0	0

*Project #	Project	*Ind #	*RA #	*Lbr Class	Proj to Date Act Hrs	3/08-12/08 Update Hrs	FY09 Update08	FY10 Update08	FY11 Update08	FY12 Update08	FY13 UPDATE13	FY14 UPDATE13	FY15 UPDATE13	FY16 UPDATE13	FY17 UPDATE13	3/08-12/12 Curr Upd Hrs
P0001514	Airport Iwilei Shield ...	NE	PDS	D_OHC...	0	800	0	0	0	0	0	0	0	0	0	800
P0001514	Airport Iwilei Shield ...	NE			0	800	0	0	0	0	0	0	0	0	0	800
P0001514	Airport Iwilei Shield ...	NI	PBE	B_TNDDFT	0	480	0	0	0	0	0	0	0	0	0	480
P0001514	Airport Iwilei Shield ...	NI	PBE	B_TNDENG	0	960	0	0	0	0	0	0	0	0	0	960
P0001514	Airport Iwilei Shield ...	NI	PBT	B_STRENG	0	200	0	0	0	0	0	0	0	0	0	200
P0001514	Airport Iwilei Shield ...	NI	PDF	D_PTM	0	640	0	0	0	0	0	0	0	0	0	640
P0001514	Airport Iwilei Shield ...	NI	PDS	__TCS-ED	0	400	0	0	0	0	0	0	0	0	0	400
P0001514	Airport Iwilei Shield ...	NI	PDS	D_OHC...	0	7,200	0	0	0	0	0	0	0	0	0	7,200
P0001514	Airport Iwilei Shield ...	NI	PZP	__POLICE	0	4,500	0	0	0	0	0	0	0	0	0	4,500
P0001514	Airport Iwilei Shield ...	NI			0	14,380	0	0	0	0	0	0	0	0	0	14,380
P0001514	Airport Iwilei Shield ...	NR	PDS	D_OHC...	0	2,400	0	0	0	0	0	0	0	0	0	2,400
P0001514	Airport Iwilei Shield ...	NR			0	2,400	0	0	0	0	0	0	0	0	0	2,400
					0	17,580	0	0	0	0	0	0	0	0	0	17,580

CA-IR-369

Ref: HECO T-17 Update, pages 8 to 10 (2008 Plant Additions).

Project P0001557 (Makakilo C&D Ph1 46k/v) is shown as partially completed in 2008, similar to the original test year forecast. The projected plant addition is $497,147 in 2008 and $570,400 in 2009. Please provide the following:

a. Please provide a copy of, not access to, the Project Initiation Authorization packet (or similar documentation).
b. Please explain how the Company determined that this project should be considered as "in-service" in 2008 when a significant portion ($570,400 or about 53%) of the total cost of this project is expected to be expended in 2009.

HECO Response:

a. See Attachment 1 for the Project Identification Form.

b. This project is a 46/12kV underground conversion requested and paid for by the customer to clear the way for the customer's proposed residential development. In October 2008, the project construction was completed and HECO's facilities were placed in service. The $570,400 identified in 2009 represents "in-kind" CIAC for facilities the customer will turn over to HECO in 2009. See Testimony T-17 Rate Case Update page 21 (update to HECO-WP-1706 page 4) for the "in-kind" CIAC and Testimony T-17 Rate Case Update page 20 (update to HECO-WP-1706 page 3) for the cash CIAC associated with this project (Makakilo C&D Ph1 46kV UG).

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Makakilo C&D Ph1 46kV UG

Project Number: DNAKAMOT05_ (Temporary) P0001557

Stategic Plan Linkage: Grow the Business (Primary)

Plant Addition Date: 2008-12

Commitment Date: 2008-03

Primary Corporate Goal: Customer Ret

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2008	2009	2010	2011	2012	Future Years	Total
$0	$640	$570	$0	$0	$0	$0	$1,210

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
45	0	25	0	0	70

Purpose/Objectives:

To underground a portion of HECO's existing Kahe-Standard Oil #2 46kV and Makakilo #2 12kV overhead lines at the D.R. Horton - Schuler Division's proposed Makakilo C&D Phase 1 residential subdivision for the construction of a new access road.

MANAGEMENT ACCOUNTING

MAR 6 2008

Scope Description:

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

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

Various resources required to design, manage, and construct the project (refer to attached Pillar report for RA and Labor Class breakdown)

Justification:

The 46/12kV underground conversion is being requested by the Customer (D.R. Horton - Schuler Division) in order to clear the way for its proposed residential development (Makakilo C&D Phase 1) in Makakilo. The Customer is requesting to pay 100% of the project cost.

The Customer has requested the 46kV line be relocated ASAP. The homes near the line relocation are expected to be constructed in June 2008. If the line is not relocated by this time, and access road will not be constructed and the Customer will have to delay the construction of the homes.

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:

This project is consistent with HECo's IRP. Transmission and Distribution (T&D) projects generally are not explicitly considered in the IRP process. However, HECo's IRP assumes that HECo's transmission and distribution system will continue to operate reliably. For this project, the subject lines will be relocated in order to continue to reliably serve our customers.

Issues, Impacts, Considerations:

The Customer is electing to pay 100% of the project costs to underground the existing 46kV/12kV overhead lines. Per D&O 23047, it is HECO's interpretation that any overhead to underground 46kV (or 138 kV) line relocation that is in conformance with the tariff regarding cost sharing does not appear to require PUC approval. Furthermore, any overhead to underground 46kV (or 138 kV) line relocation that is not in conformance with the tariff regarding cost sharing will still require PUC approval in order to vary from the tariff, but does not need PUC approval pursuant to HRS 269-27.6.
The Customer will provide HECO with a substitute perpetual easements with no relocation clause for the relocated alignment.
Under the DOT Policy, DOT-Hwys will not issue HECO a permit for the work in the ROW unless there is a certification that the project outside the ROW complies with Hawaii Revised Statutes (HRS) Chapter 343, Hawaii's environmental review law. This project is not within the ROW. However, HECO has a service request that may trigger the DOT Policy. DRH will be responsible for any required Environmental Assessment in order for HECO to serve the proposed Makakilo C&D development.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind**	$570,400.00	7690 lf 5" duct with thermal concrete and FTB. 3 7x16 MH, 1 6x11 HH.
GET Included	$0.00	
- **In Cash**	$670,000.00	Payment for HECO work. See Proposal letter for details.
GET Included	$30,150.00	
Cash Advance	$134,000.00	20% advance payment for engineering and inspection services. See Proposal letter for details.
GET Included	$6,030.00	

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: Dustin Nakamoto **Phone/Ext #:** 7763

Originator's Name: Dustin Nakamoto

Responsible Estimator: Dustin Nakamoto (Pillar UserID) **Resp. Estimator Dept:** Engineering (Pillar Department Folder)

Project Manager: Dustin Nakamoto

Date: 02/26/2008

REVIEWED AND RECOMMENDED FOR APPROVAL:

3/3/2008
Chairman, CEM Core Group Date

3/3/08
Chairman, EDP Managers Group Date

Required Approvals to Authorize a Project:

2/26/08
Responsible Manager **Date**

3/5/08
Responsible Vice President **Date**
(not required for budgeted projects $1 million and less)

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

3/11/08
Controller **Date**

3/7/08
Sr. VP, Operations Date

3/10/08
Sr. Executive VP & CFO Date

3/10/08
President & CEO Date

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

*Project #	Project	*Ind #	Cost Categ...	Curr Upd Total $	PTD 12/06 Act $	Update 2007 $	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 UPDATE12	FY13 UPDATE12	FY14 UPDATE12	FY15 UPDATE12	FY16 UPDATE12	Future Years
DNakamot...	Temp Proj DNakamot05_	_	MATERIAL	$19,863	0	0	$19,863	$0	$0	$0	0	0	0	0	0	0
			OVERHEADS	$232,443	0	0	$232,443	$0	$0	$0	0	0	0	0	0	0
				$252,306	0	0	$252,306	$0	$0	$0	0	0	0	0	0	0
		NE	LABOR	$8,038	0	0	$8,038	$0	$0	$0	0	0	0	0	0	0
				$8,038	0	0	$8,038	$0	$0	$0	0	0	0	0	0	0
		NI	LABOR	$115,261	0	0	$115,261	$0	$0	$0	0	0	0	0	0	0
			MATERIAL	$201,864	0	0	$201,864	$0	$0	$0	0	0	0	0	0	0
			O/S SVCS	$45,850	0	0	$45,850	$0	$0	$0	0	0	0	0	0	0
			OTHER	$570,400	0	0	$0	$570,400	$0	$0	0	0	0	0	0	0
				$933,374	0	0	$362,974	$570,400	$0	$0	0	0	0	0	0	0
		NR	LABOR	$15,989	0	0	$15,989	$0	$0	$0	0	0	0	0	0	0
				$15,989	0	0	$15,989	$0	$0	$0	0	0	0	0	0	0
				$1,209,707	0	0	$639,307	$570,400	$0	$0	0	0	0	0	0	0
				$1,209,707	0	0	$639,307	$570,400	$0	$0	0	0	0	0	0	0

*Project #	Project	*Ind #	*RA #	*Lbr Class	Proj to Date Act Hrs	Update Hrs	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 UPDATE12	FY13 UPDATE12	FY14 UPDATE12	FY15 UPDATE12	FY16 UPDATE12	1/08-12/11 Curr Upd Hrs
DNakamot...	Temp Proj DNakam...	NE	PDF	D_PTM	0	0	20	0	0	0	0	0	0	0	0	20
DNakamot...	Temp Proj DNakam...	NE	PDS	D_OHC...	0	0	192	0	0	0	0	0	0	0	0	192
DNakamot...	Temp Proj DNakam...	NE			0	0	212	0	0	0	0	0	0	0	0	212
DNakamot...	Temp Proj DNakam...	NI	PBE	B_TNDDFT	0	0	80	0	0	0	0	0	0	0	0	80
DNakamot...	Temp Proj DNakam...	NI	PBE	B_TNDENG	0	0	775	0	0	0	0	0	0	0	0	775
DNakamot...	Temp Proj DNakam...	NI	PBT	B_STRDFT	0	0	40	0	0	0	0	0	0	0	0	40
DNakamot...	Temp Proj DNakam...	NI	PBT	B_STRENG	0	0	338	0	0	0	0	0	0	0	0	338
DNakamot...	Temp Proj DNakam...	NI	PBT	B_SURVBU	0	0	16	0	0	0	0	0	0	0	0	16
DNakamot...	Temp Proj DNakam...	NI	PBT	B_SURVEY	0	0	130	0	0	0	0	0	0	0	0	130
DNakamot...	Temp Proj DNakam...	NI	PDS	__TCS-ED	0	0	80	0	0	0	0	0	0	0	0	80
DNakamot...	Temp Proj DNakam...	NI	PDS	D_OHC...	0	0	940	0	0	0	0	0	0	0	0	940
DNakamot...	Temp Proj DNakam...	NI	PDS	D_UGC...	0	0	710	0	0	0	0	0	0	0	0	710
DNakamot...	Temp Proj DNakam...	NI			0	0	3,109	0	0	0	0	0	0	0	0	3,109
DNakamot...	Temp Proj DNakam...	NR	PDS	D_OHC...	0	0	425	0	0	0	0	0	0	0	0	425
DNakamot...	Temp Proj DNakam...	NR			0	0	425	0	0	0	0	0	0	0	0	425
					0	0	3,746	0	0	0	0	0	0	0	0	3,746

CA-IR-370

Ref: HECO T-17 Update, pages 8 to 10 (2008 Plant Additions).

Please provide the following with regard to Project P0001597 (CEIP3 138kV Tsf):

a. Please provide a copy of, not access to, the Project Initiation Authorization packet (or similar documentation).
b. Is this project related to the CIP1? Please explain.
c. If the response to part (b) of this information request is affirmative, please provide a detailed explanation of the basis for determining that the project was (or will be) placed in-service in 2008 when CIP1 will not be completed and in service until 2009.
d. Please provide the actual date this project was completed and placed in-service.
e. Were any facilities specifically retired as a result of the completion of this project? Please explain.

HECO Response:

a. See Attachment 1 for the Project Identification Form.

b. No, this project is not related to CIP1. This project is for a transformer replacement in the CEIP Substation. This project was required to replace the existing 30/50 MVA transformer with a larger 48/80 MVA transformer to accommodate the projected growth planned for the area. The removed 30/50 MVA transformer was then relocated from CEIP Substation to Wahiawa Substation to replace a failed transformer at the Wahiawa Substation.

c. Not applicable.

d. This project was placed in service on April 13, 2008.

e. No facilities were specifically retired as a result of the completion of this project. The existing CEIP 30/50 MVA Transformer #3 was removed from the CEIP Substation and installed at the Wahiawa Substation to replace the failed Wahiawa 80 MVA Transformer #2.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: CEIP3 138kV Tsf Replacement
Project Number: HHAMADA04_ P0001597
(Temporary)
Stategic Plan Linkage: Keep the Lights On
(Primary)

Plant Addition Date: 2008-06
Commitment Date: 2008-06
Primary Corporate Goal: Sys Rel & Effic
Impact on Goal: Medium

Project Forecast (Thousand $)

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

Prior Years	2008	2009	2010	2011	2012	Future Years	Total
$0	$435	$0	$0	$0	$0	$0	$435

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
0	0	0	33	0	33

Purpose/Objectives:

To replace the existing 30/50MVA CEIP #3 at CEIP Substation with the spare 48/80 MVA transformer.

MANAGEMENT ACCOUNTING
JUL 8 2008

Scope Description:

Install one new 138-46kV, 48/80MVA sub-transmission transformer at CEIP Substation.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

See attached pillar file.

Justification:

The initiation of this project is a result of the violation of the planning criteria.

The existing CEIP #3 30/50 MVA transformer mainly serves part of the Campbell Industrial Park, a portion of Kapolei, and a major section of the Ewa Beach area. The existing load on the unit is approximately 30 MVA. Presently, there are a large number of residential, commercial, and industrial projects being planned for the areas that are served by the CEIP #3 transformer. Some of the notable near term new developments are Ocean Pointe residential subdivision, which will include the new marina and resort complex; Ewa Gentry residential development; retail projects such as Kapolei Commons and Ka Makana Alii (Kapolei Mall); University of Hawaii West Oahu Campus; Kapolei Judiciary Court Complex; and Kapolei Industrial Park (phase 2).
The projected new loads from these anticipated developments are expected to exceed the capacity of the CEIP3 30/50 MVA in the year 2010; therefore, additional transformer capacity will be required to serve these new loads.

CEIP 30/50 MVA unit #3 at CEIP will be replaced by using a spare 48/80 MVA transformer to provide required capacity to serve the projected new loads in the Kapolei/Ewa Beach area in year 2010.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

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

For this project, the replacement of the 138-46kV transformer at CEIP Substation is necessary to improve system operating procedures and provide the customers with continually reliable service.

Issues, Impacts, Considerations:

This project maximizes the utilization of the new 48/80 MVA transformer where it is justifiably needed. By replacing the existing CEIP #3 30/50 MVA transformer with the spare 48/80 MVA transformer, the 30/50 MVA transformer can be used to replace the failed Wahiawa #2 48/80 MVA; hence, avoiding replacing the failed Wahiawa # 2 transformer with the spare 48/80 MVA transformer at Wahiawa Substation where it will not be fully utilized. (See "HHAMADA05_" Wah2 138kV Tsf Replacement)

The replacement of these transformers was due to an emergency situation where Wahiawa #2 transformer failed.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has 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 1/8/08

Submitted by: Mina Brinkopf **Phone/Ext #:** 7282

Originator's Name: Mina Brinkopf

Responsible Estimator: Hope Hamada (Pillar UserID)

Resp. Estimator Dept: Engineering (Pillar Department Folder)

Project Manager: Hope Hamada

Date: 06/18/2008

REVIEWED AND RECOMMENDED FOR APPROVAL:

Cy S Platto for K. Wong 6/30/08
Chairman, CEM Core Group Date

Michael O. [illegible]
For Ken Morikami 6/26/08
Chairman, EDP Managers Group Date

Required Approvals to Authorize a Project:

HH
DMA SRV NL
Michael O. [illegible]
FOR KEN Morikami 6/26/08

Responsible Manager **Date**

Harold K. Kagan 7/2/08

Responsible Sr. VP or VP **Date**
(not required for budgeted projects $1 million and less or unbudgeted projects $200,000 and less)

Sr. Executive VP and COO **Date**
(not required for budgeted projects $5 million and less or unbudgeted projects $1 million and less)

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

Barry H Rush 7/1/08

Controller ok 7/1/08 **Date**

President and CEO **Date**
(not required for budgeted projects $5 million and less or unbudgeted projects $1 million and less)

*Project #	Project	*In...	Cost Categ...	Curr Upd Total $	PTD 12/07 Act $	Update 2008 $	FY09 Update08	FY10 Update08	FY11 Update08	FY12 Update08	FY13 UPDATE13	FY14 UPDATE13	FY15 UPDATE13	FY16 UPDATE13	FY17 UPDATE13	Future Years
HHamada04_	Temp Proj HHamada04_	*AF...	statistical	$0	0	$0	$0	$0	$0	$0	0	0	0	0	0	0
				$0	0	$0	$0	$0	$0	$0	0	0	0	0	0	0
		_	AFUDC	$2,512	0	$2,512	$0	$0	$0	$0	0	0	0	0	0	0
			MATERIAL	$6,180	0	$6,180	$0	$0	$0	$0	0	0	0	0	0	0
			OVERHEADS	$166,707	0	$166,707	$0	$0	$0	$0	0	0	0	0	0	0
				$175,400	0	$175,400	$0	$0	$0	$0	0	0	0	0	0	0
		NI	LABOR	$85,761	0	$85,761	$0	$0	$0	$0	0	0	0	0	0	0
			MATERIAL	$38,626	0	$38,626	$0	$0	$0	$0	0	0	0	0	0	0
			O/S SVCS	$111,279	0	$111,279	$0	$0	$0	$0	0	0	0	0	0	0
				$235,666	0	$235,666	$0	$0	$0	$0	0	0	0	0	0	0
		NR	LABOR	$23,560	0	$23,560	$0	$0	$0	$0	0	0	0	0	0	0
				$23,560	0	$23,560	$0	$0	$0	$0	0	0	0	0	0	0
				$434,626	0	$434,626	$0	$0	$0	$0	0	0	0	0	0	0
				$434,626	0	$434,626	$0	$0	$0	$0	0	0	0	0	0	0

*Project #	Project	*Ind #	*RA #	*Lbr Class	Proj to Date Act Hrs	5/08-12/08 Update Hrs	FY09 Update08	FY10 Update08	FY11 Update08	FY12 Update08	FY13 UPDATE13	FY14 UPDATE13	FY15 UPDATE13	FY16 UPDATE13	FY17 UPDATE13	5/08-12/12 Curr Upd Hrs
HHamada04_	Temp Proj HHamada04_	NI	PBT	B_STRENG	0	2	0	0	0	0	0	0	0	0	0	2
HHamada04_	Temp Proj HHamada04_	NI	PBY	B_SSENG	0	220	0	0	0	0	0	0	0	0	0	220
HHamada04_	Temp Proj HHamada04_	NI	PBY	B_SUBDFT	0	40	0	0	0	0	0	0	0	0	0	40
HHamada04_	Temp Proj HHamada04_	NI	PRI	R_INSCRW	0	140	0	0	0	0	0	0	0	0	0	140
HHamada04_	Temp Proj HHamada04_	NI	PRI	R_INSENG	0	70	0	0	0	0	0	0	0	0	0	70
HHamada04_	Temp Proj HHamada04_	NI	PRI	R_INSSUP	0	23	0	0	0	0	0	0	0	0	0	23
HHamada04_	Temp Proj HHamada04_	NI	PRR	R_REL...	0	130	0	0	0	0	0	0	0	0	0	130
HHamada04_	Temp Proj HHamada04_	NI	PRR	R_RELENG	0	64	0	0	0	0	0	0	0	0	0	64
HHamada04_	Temp Proj HHamada04_	NI	PRR	R_RELSUP	0	22	0	0	0	0	0	0	0	0	0	22
*HHamada04_*	*Temp Proj HHamada04_*	*NI*	*PRS*	*R_SUB...*	*0*	*1,100*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,100*
HHamada04_	Temp Proj HHamada04_	NI	PRS	R_SUBENG	0	160	0	0	0	0	0	0	0	0	0	160
HHamada04_	Temp Proj HHamada04_	NI	PRS	R_SUBPLN	0	160	0	0	0	0	0	0	0	0	0	160
HHamada04_	Temp Proj HHamada04_	NI	PRS	R_SUBSUP	0	160	0	0	0	0	0	0	0	0	0	160
HHamada04_	Temp Proj HHamada04_	NI			0	2,291	0	0	0	0	0	0	0	0	0	2,291
HHamada04_	Temp Proj HHamada04_	NR	PRS	R_SUB...	0	639	0	0	0	0	0	0	0	0	0	639
HHamada04_	Temp Proj HHamada04_	NR			0	639	0	0	0	0	0	0	0	0	0	639
					0	2,930	0	0	0	0	0	0	0	0	0	2,930

CA-IR-371

Ref: HECO T-17 Update, pages 8 to 10 (2008 Plant Additions).

Please provide the following with regard to Project P0001698 (Check Processing Upgrade):

a. Please provide a copy of, not access to, the Project Initiation Authorization packet (or similar documentation).
b. Is this project related to the CIS project? Please explain.
c. If the response to part (b) of this information request is affirmative, please provide a detailed explanation of the basis for determining that the project was (or will be) placed in-service in 2008.
d. Please provide the actual date this project was completed and placed in-service.
e. Were any assets specifically retired as a result of the completion of this project? Please explain.

HECO Response:

a. See Attachment 1 for the Project Identification Form (PIF).

b. No. This project is not related to the CIS project. Please refer to the "Justification" and "Issues, Impacts, Considerations" portions of the PIF (provided in the response to subpart a) for further explanation.

c. Not applicable.

d. This project is now estimated to be placed in-service in March 2009. The project did not go in-service in 2008 as there were conflicting schedules between the vendor and the Company.

e. The current check processing equipment is classified in plant account 391.2 Office Data Handling Equipment. Assets included in this category are accounted for by using vintage amortization accounting as approved by the Public Utilities Commission in Decision & Order No. 21331, Docket No. 02-0391. The current check processing equipment will be retired at the end of its amortization period for this class of asset which is 12 years.

PROJECT IDENTIFICATION FORM - ~~INITIALIZE~~ AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Check Processing Upgrade

Project Number: DYOKOI09 P0001698
(Temporary)

Stategic Plan Linkage: Strengthen Our Earnings
(Primary)

Plant Addition Date: 2008-12

Commitment Date: 2008-10

Primary Corporate Goal: Cap & O&M Exp

Impact on Goal: Medium

Project Forecast (Thousand $)

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

Prior Years	2008	2009	2010	2011	2012	Future Years	Total
$0	$343	$0	$0	$0	$0	$0	$343

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score

Purpose/Objectives:

Upgrade check processing system equipment to increase reliability and improve productivity.

Scope Description:

Upgrade of computer equipment in the check processing area to:
1) meet minimum equipment requirements needed to install updates of check processing software
2) meet HECO Standards

Server
PC
Printer

PROJECT IDENTIFICATION FORM - ~~INITIALIZE~~ AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

Vendor to provide hardware and install software.

Justification:

The check processing system is the key to HECO/MECO/HELCO Same Day processing of customer check payments.

This system gathers the data used to update Customer account balances, images the checks, batches, payment information and encodes and endorses the checks for same day deposit to the respective bank accounts. Approximately 3,000,000 transactions (roughly 75% of all payments taken in) amounting to $900,000,000 are handled annually through this system.

The current computer hardware is obsolete and repair/replacement of parts is no longer feasible.

PROJECT IDENTIFICATION FORM - ~~INITIALIZE~~ 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:

Processing is currently by the mainland vendor via phone. If the Check Processing system is not operational, all check payments must be manually inputted to update our system and delays deposit of our accounts receivable payments. Failure of this system would cause lose of revenue due to delays in processing and depositing the approximately $5,000,000 we now process daily for the 3 companies combined.

PROJECT IDENTIFICATION FORM - ~~INITIALIZE~~ AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has 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 ~~exceed~~ budget

Submitted by: **Phone/Ext #:** 7507

Originator's Name: Sylvia Chock

Responsible Estimator: Sylvia Chock
(Pillar UserID)

Resp. Estimator Dept: Customer Service
(Pillar Department Folder)

Project Manager:

Date: 10/01/2008

Required Approvals to Authorize a Project:

10/2/08

Responsible Manager **Date**

10/2/08

Responsible Sr. VP or VP **Date**
(not required for budgeted projects $1 million and less or unbudgeted projects $200,000 and less)

Sr. Executive VP and COO **Date**
(not required for budgeted projects $5 million and less or unbudgeted projects $1 million and less)

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

10/2/08

Controller 10/2/08 **Date**

President and CEO **Date**
(not required for budgeted projects $5 million and less or unbudgeted projects $1 million and less)

*Project #	Project	*In...	Cost Categ...	Curr Upd New Total $	Prior to 12/07 Act $	Update 2008 $	FY09 Update08	FY10 Update08	FY11 Update08	FY12 Update08	FY13 Update13
DYokoi09_	TempProjDYokoi09_	_	MATERIAL	$43,945	0	$43,945	$0	$0	$0	$0	0
				$43,945	0	$43,945	$0	$0	$0	$0	0
		NE	MATERIAL	$21,500	0	$21,500	$0	$0	$0	$0	0
				$40,600	0	$40,600	$0	$0	$0	$0	0
				$62,100	0	$62,100	$0	$0	$0	$0	0
		NI	MATERIAL	$237,000	0	$237,000	$0	$0	$0	$0	0
				$237,000	0	$237,000	$0	$0	$0	$0	0
				$343,045	0	$343,045	$0	$0	$0	$0	0
				$343,045	0	$343,045	$0	$0	$0	$0	0

CA-IR-372

Ref: HECO T-17 Update, pages 8 to 10 (2008 Plant Additions).

Please provide the following with regard to Project P0001699 (ICONA AMI Pilot):

a. Please provide a detailed explanation and breakdown of project costs between hardware, software, installation and R&D costs that comprise this project amount.

b. Please provide a detailed explanation of the basis for determining that the project was (or will be) placed in-service in 2008.

c. Please provide the actual date this project was completed and placed in-service.

HECO Response:

a. The detailed explanation and breakdown of project costs that comprise this project amount are provided in the table below.

Category	Cost
Hardware (1)	$ 90,592
Software	$ -
Installation (2)	$ 19,059
R&D	$ -
Other (3)	$ 21,638
Total	$131,289

(1) The Hardware Category includes costs for procurement of the new Meters.

(2) The Installation Category includes labor and labor related costs for the meter installation, field supervision, and administrative support during the meter installations.

(3) The Other Category includes costs for removal of the original meters, project management, meter receipt testing, billing validation, over-the-air performance testing and administrative support.

b. The criteria used to establish that the project could be placed in-service included: (1) receipt, inspection and testing completed on all meters, (2) meter installations completed, and (3) verification of meters to provide all readings required for the billing calculation.

c. This project was placed in-service on December 31, 2008.

CA-IR-373

Ref: HECO T-17 Update, pages 11 to 13 (2009 Plant Additions).

For each project listed below, please provide: (i) a copy of, not access to, the Project Initiation Authorization packet (or similar documentation), (ii) describe how and/or whether these "Ward" projects are related, and (iii) explain why each project is considered to be a capital project when the $525,000 Ward Base Yard Project (HECO T-14 Update, page 8) has been forecast to A&G maintenance expense.

a. Project P0001422 (New Ward MW Battery Rm), $586,145.
b. Project P0001547 (Ward ITS Generator Repl), $358,940.
c. Project P0001705 (Wrd undgd security cabling), $367,338.
d. Project P0001287 (Ward bldg 1/2 Atrium Roof), $549,497.

HECO Response:

i) See Attachment 1 for the Project Identification Form for Project P0001422.

See Attachment 2 for the Project Identification Form for Project P0001547.

See Attachment 3 for the Project Identification Form for Project P0001705.

See Attachment 4 for the Project Identification Form for Project P0001287.

ii) The projects listed above are independent projects and are not related to any of the other projects referred to in this CA-IR-373.

iii) As noted in HECO's response to CA-IR-348, approximately one-fourth of the costs for the Ward Base Yard Project will be capitalized. The projects listed above are considered to be capital projects as they meet the following criteria:

a. The equipment being installed is a property unit.

b. The cost of the equipment is greater than $300.

c. The expected life of the equipment is greater than 1 year.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: New Ward MW Battery Rm
Project Number: RTHOMPSO01 P0001422
(Temporary)
Stategic Plan Linkage: Reliable & Adequate Pwr Sup
(Primary)

Plant Addition Date: 2008-12
Commitment Date: 2007-06
Primary Corporate Goal: Emp Safety
Impact on Goal: Medium

Project Forecast (Thousand $)

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

Prior Years	2007	2008	2009	2010	2011	Future Years	Total
$0	$109	$494	$0	$0	$0	$0	$603

Assessment Factors

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

Purpose/Objectives:

The purpose of this project is to comply with current safety standards and to prevent damage to the vital telecommunication equipment in the microwave room at Ward.

MANAGEMENT ACCOUNTING

MAY 2 2007

Scope Description:

The scope of this project is to build a separate battery room adjacent to the microwave room at Ward, to correct the grounding in the microwave room and each antenna K-frame, and to correct the transmission line support by moving it off the rooftop onto a support structure.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

See attached PR9105-PH: For PIF Labor hours.

Justification:

The microwave room on the roof of Ward was built in 1963. The room needs to be brought up to current safety standards. Currently, the batteries are housed in the same room as the equipment and proper ventilation is insufficient. The hydrogen gas produced from the charging process is explosive. The recommendation is to build a separate battery room with explosive proof light fixtures and switches. Also, the current site grounding is unsafe. There is no earth ground point at each microwave radio antenna frame or the transmission line cable entrance. A lightning strike at or near the frame will likely enter the microwave room and damage equipment and possibly cause injury to any personnel in the room. Lastly, there is a transmission line that was moved to make room for the installation of a chiller on the rooftop. This transmission needs to be lifted off the rooftop and secured to a support structure. This project will address these issues.

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:

This project is consistent with the Company's IRP. Transmission and Distribution (T&D) projects generally are not explicitly considered in the IRP process. However, HECO's IRP assumes that HECO's transmission and distribtution system will continue to operate reliably. For this project, the Ward microwave room will be upgraded in order to continue to reliably serve our customers.

Issues, Impacts, Considerations:

See attached PR9105-PH: For PIF Labor hours.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are unbudgeted

Submitted by: Robert Thompson **Phone/Ext #:** 7598

Originator's Name: Robert Thompson

Responsible Estimator: Robert Thompson (Pillar UserID) **Resp. Estimator Dept:** Engineering (Pillar Department Folder)

Project Manager: Robert Thompson

Date: 04/20/2007

REVIEWED AND RECOMMENDED FOR APPROVAL:

4/24/2007
Chaitman, CEMG Core Group Date

4/26/07
Chairman, EDP Managers Group Date

Required Approvals to Authorize a Project:

4/23/07
Responsible Manager **Date**

4/24/07
Responsible Vice President **Date**
(not required for budgeted projects $1 million and less)

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

5/1/07
Controller **Date**

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

4/30/2007 budget manager: PR9150-P Cost Category $ -Projects 4:41PM

*Project #	Project	*Ind #	Cost Category	Curr Upd Total $	Proj to Date Act $	4/07-12/07 Update $	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07
RThompso01	Temp ProjRThompso		AFUDC	$34,388	0	$2,703	$31,685	$0	$0	$0
RThompso01	Temp ProjRThompso		MATERIAL	$3,378	0	$0	$3,378	$0	$0	$0
RThompso01	Temp ProjRThompso		OVERHEADS	$61,427	0	$20,432	$40,995	$0	$0	$0
RThompso01	Temp ProjRThompso			$99,193	0	$23,135	$76,058	$0	$0	$0
RThompso01	Temp ProjRThompso	NI	LABOR	$35,990	0	$12,572	$23,418	$0	$0	$0
RThompso01	Temp ProjRThompso	NI	MATERIAL	$33,246	0	$0	$33,246	$0	$0	$0
RThompso01	Temp ProjRThompso	NI	O.S.SVCS	$430,541	0	$70,788	$359,753	$0	$0	$0
RThompso01	Temp ProjRThompso	NI	OTHER	$2,570	0	$2,570	$0	$0	$0	$0
RThompso01	Temp ProjRThompso	NI		$502,347	0	$85,930	$416,417	$0	$0	$0
RThompso01	Temp ProjRThompso	NR	LABOR	$1,730	0	$0	$1,730	$0	$0	$0
RThompso01	Temp ProjRThompso	NR		$1,730	0	$0	$1,730	$0	$0	$0
RThompso01				$603,270	0	$109,065	$494,205	$0	$0	$0
				$603,270	0	$109,065	$494,205	$0	$0	$0

CA-IR-373
DOCKET NO. 2008-0083
ATTACHMENT 1
PAGE 7 OF 7

*Project #	Project	*Ind #	*RA #	*Lbr Class	Proj to Date Act Hrs	4/07-12/07 Update Hrs	FY08 update07	4/07-12/11 Curr Upd Hrs
RThompso	Temp ProjRThompso	NI	PRT	B-STRUCT	0	0	40	40
RThompso	Temp ProjRThompso	NI	PRT	B-STRENG	0	91	26	117
RThompso	Temp ProjRThompso	NI	PRX	B-DOCP	0	0	8	8
RThompso	Temp ProjRThompso	NI	PRX	B-SUBDET	0	0	39	39
RThompso	Temp ProjRThompso	NI	PRX	B-TCENGR	0	263	82	345
RThompso	Temp ProjRThompso	NI	PRX	B-TCSENG	0	8	8	16
RThompso	Temp ProjRThompso	NI	PRX	B-COM	0	0	15	15
RThompso	Temp ProjRThompso	NI	PRX	B-COM	0	0	211	211
RThompso	Temp ProjRThompso	NI	PRX	B-CON	0	0	72	72
RThompso	Temp ProjRThompso	NI	PRX	B-COMELE	0	0	120	120
RThompso	Temp ProjRThompso	NI			0	962	621	963
RThompso	Temp ProjRThompso	NI	PRX	B-CON	0	0	40	40
RThompso	Temp ProjRThompso	NI			0	0	40	40
					0	362	661	1,023

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Ward ITS Generator Repl

Project Number: HFENG8 P0001547
(Temporary)

Stategic Plan Linkage: Keep the Lights On
(Primary)

Plant Addition Date: 2009-12

Commitment Date: 2009-03

Primary Corporate Goal: Sys Rel & Effic

Impact on Goal: Medium

Project Forecast (Thousand $)

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

Prior Years	2009	2010	2011	2012	2013	Future Years	Total
$0	$347	$0	$0	$0	$0	$0	$347

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
0	0	0	0	12	12

Purpose/Objectives:

Replace the aging back-up generator for ITS Data Ctr. The existing backup generator (MO18) is 20+ years and past its life expectancy.

Scope Description:

Purchase and install a new generator to replace the MO18 generator. The MO18 generator is a back up power source to the ITS Operations and Services (Data Cntr) area should we lose commercial power to the Ward facility. Scope to include: Removal of the exisitng MO18 generator, fill the existing fuel spill catchment area, install concrete pad and grounding for new generator, install new conduits (if old conduits are old and new cables are required for addtional acticipated load).

MANAGEMENT ACCOUNTING

JAN 2 1 2008

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

Electrical Engineering consultants, construction company for trenching, concrete pad and grounding, installation of 4" conduits, replacement of autotransfer switches, etc.

Justification:

Need to replace the existing generator with new because of aging. Keeping the IT Data Center running in the event of an outage is critical to company operations.

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:

Issues, Impacts, Considerations:

May impact company vehicle parking. Noise. Emmission control. Enviornmental compliance.

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 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 - 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: _____ **Phone/Ext #:** 1-16-08

Originator's Name: R. Takemot

Responsible Estimator: R. Takemoto
(Pillar UserID)

Resp. Estimator Dept: Safety, Security & Fac
(Pillar Department Folder)

Project Manager: R. Takemoto

Date: 01/16/2008

Required Approvals to Initialize a Project:

_____ 1-16-08
Responsible Manager **Date**

_____ 1/16/08
Responsible Vice President **Date**

mk 1/21/08

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

*Project #	Project	*In...	Cost Categ...	Curr Upd New Total $	Prior to 12/06 Act $	Update 2007 $	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
HFEng8_	Temp Proj HFEng8_	_	AFUDC	$21,683	0	$0	$0	$21,683	$0	$0	0
			MATERIAL	$12,350	0	$0	$0	$12,350	$0	$0	0
			OVERHEADS	$14,663	0	$0	$0	$14,663	$0	$0	0
				$48,696	0	$0	$0	$48,696	$0	$0	0
		NI	LABOR	$17,818	0	$0	$0	$17,818	$0	$0	0
			MATERIAL	$100,000	0	$0	$0	$100,000	$0	$0	0
			O/S SVCS	$180,000	0	$0	$0	$180,000	$0	$0	0
				$297,818	0	$0	$0	$297,818	$0	$0	0
				$346,514	0	$0	$0	$346,514	$0	$0	0
				$346,514	0	$0	$0	$346,514	$0	$0	0

*Project #	Project	*RA #	*Lbr Class	FY09 Update07	FY10 Update07	FY11 Update07	FY12 Update12
HFEng8_	Temp Proj HFEng8_	PHF	__BUTC	580	0	0	0
HFEng8_				580	0	0	0
				580	0	0	0

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Wrd undgd security cabling

Project Number: HFPM26 P0001705
(Temporary)

Stategic Plan Linkage: Keep the Lights On
(Primary)

Plant Addition Date: 2009-03

Commitment Date: 2008-11

Primary Corporate Goal: Security

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2008	2009	2010	2011	2012	Future Years	Total
$0	$131	$237	$0	$0	$0	$0	$368

Assessment Factors

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

Purpose/Objectives:

Purpose of project is to remove existing cabling and conduits on the warehouse ramp wall feeding the Security Command Center and Install new cabling and conduits using a new route from the covered level parking deck, down the stairwell of the Ward Warehouse and underground to the Purchasing building.

MANAGEMENT ACCOUNTING
OCT 2 2 2008

Scope Description:

Scope of work will include saw cutting and trenching between the Warehouse and the Purchasing building in addition to installation of new duct work on the covered level parking deck to create a new route for new cabling, installation of duct work inside the stairwell to reach below grade in the bottom of the stairwell.
Additional work will include installation of new fiber cabling, security camera cabling, access card reader cabling, fire alarm cabling and electrical back up power from MO18 generator

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

Resources wil include internal HECO engineering and CSA construction crew, external contractor due to lack of internal man power, external engineering consultant for permitting and design, external contractor for electrical, security cabling and internal communications division for fiber cabling work.

Justification:

Work for this project is to remove the existing conduits which house the Security Command center connections to its many cameras, card access readers at entry doors, connection to the Ward computer room and fire alarm system. Proposed plan is to underground new ducts between the Warehouse and Purchasing building for cabling described above and for future needs.

The existing conduit location interferes with our ability to install a fiber reinforced polymer coated steel plate on the top of the ramp walls to increase the structural strength needed as part of the overall structural improvements design.

This work is part of the ongoing ramp improvements projects and is critical that we keep proceeding and completing improvements to the ramp as soon as possible.

Existing conditions have many penetrations due to the existing conduits anchors into the top of the ramp wall posing potential entry points for water access into the concrete ramp walls, increasing the chances of rain water reaching the reinforcing steel.

Undergrounding the existing security cabling will increase reliabilty, reduce the possiblity of damage to the cabling and provide added security and safety to the security surveillance system.

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:

To make improvements to the ramp structure, the existing conduits need to be removed from the existing location. Since the existing cabling is essential to daily security operations, we cannot relocated the existing cabling without having an extended down time to security operations. Therfore, new cabling and duct work will have to be installed and prepped prior to the cut over date to minimize the down time.
In addition, the new ducts and cabling will be in an appropriate secured location away from heavy traffic and potential damage.
With the conduits placed on the ramp walls, strructural improvements cannot be completed, therefore compromising the design and forcing us to make costly changes. Changing the structural design at this point will cause us to use more traditional methods of construction such as increasing the size of the concrete girders, ramp deck, columns and ramp walls. The cost of the more traditional method of reinforcing the ramp may increase the project cost by more than $400K, which will also delay and prolong the project. As the size of the added concrete is increased to strengthen the ramp, the supporting structure will also have to be increased, which will also impact and encroach into the operational areas.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

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

NONE

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

NONE

AUTHORIZE &

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: Russell Hisamot **Phone/Ext #:** 7003

Originator's Name: Russell Hisamot

Responsible Estimator: Russell Hisamot
(Pillar UserID)

Resp. Estimator Dept: Safety, Security & Fac
(Pillar Department Folder)

Project Manager: Russell Hisamot

Date: 10/07/2008

Required Approvals to Initialize a Project:

10/7/08

Responsible Manager **Date**

10/10/08

Responsible Sr. VP or VP **Date**

10/20/08

CONTROLLER DATE

10/20/08

10/15/2008 » budget manager: PR9105-P: For PIF 8:54AM

*Project #	Project	*Ind #	Cost Category	Curr Upd New Total $	Prior to 12/07 Act $	Update 2008 $	FY09 Update08	FY10 Update08
HF PM26_	Temp Proj HF PM26_	_	AFUDC	$7,384	0	$1,198	$6,187	$0
			MATERIAL	$4,718	0	$4,250	$468	$0
			OVERHEADS	$45,474	0	$42,813	$2,661	$0
				$57,577	0	$48,261	$9,316	$0
		NI	LABOR	$36,550	0	$32,426	$4,123	$0
			MATERIAL	$30,000	0	$25,000	$5,000	$0
			O/S SVCS	$243,574	0	$25,000	$218,574	$0
				$310,124	0	$82,426	$227,697	$0
				$367,700	0	$130,687	$237,013	$0
				$367,700	0	$130,687	$237,013	$0

*Project #	Project	*RA #	*Lbr Class	YTD Aug 08 Actual Hrs	9/08-12/08 Update Hrs	FY09 Update08	FY10 Update08
HF PM26_	Temp Proj HF PM26_	PHF	__TC	0	80	120	0
HF PM26_	Temp Proj HF PM26_	PRX	R_CONCRW	0	240	0	0
HF PM26_	Temp Proj HF PM26_	PRX	R_CONSUP	0	480	0	0
HF PM26_				0	800	120	0
				0	800	120	0

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: Ward bldg. 1/2 Atrium Upgrad
Plant Addition Date: 2008-02
Project Number: P0001287
(Permanent)
Commitment Date: 2007-07
Primary Corporate Goal: Emp Safety
Stategic Plan Linkage: Reliable & Adequate Pwr Sup
(Primary)
Impact on Goal: Medium

Project Forecast (Thousand $)

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

Prior Years	2007	2008	2009	2010	2011	Future Years	Total
$0	$253	$262	$0	$0	$0	$0	$515

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
15	30	0	0	12	57

Purpose/Objectives:

Purpose of the project is to repair spalling concrete at the roof line of the Ward 2 building. The existing concrete roof line is spalling and therefore, safety is a concern due to the area below being used as a walkway.
The objective of the project is to repair the spalling concrete at the roof line of the Ward 2 building. To do so, the existing glass atrium roof and frame must be removed along with the metal roof support wall to access the concrete roof line.
Once the concrete is repaired, replace the metal support wall with a CMU concrete wall and replace the glass roof with a new roof that can withstand hurricane force winds.

MANAGEMENT ACCOUNTING
MAY 15 2007

Scope Description:

Scope of work includes:

Removal of existing glass roof, metal framing and metal support wall.
Repair spalling concrete at the Ward 2 roof line.
Replace metal support wall with a concrete wall.
Install new roof and framing.
Repair roofing material at the Ward 2 roof area.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Resource Needs:

Resources include:

Facilities project management
Outside contractor to remove and install metal roof frame and roof material
Outside contractor to install concrete wall
Outside contractor to patch roofing material
Outside contractor to fabricate metal roof framing.

Justification:

The existing concrete roof line at the Ward 2 building between the Ward 1 and 2 buildings is showing signs of spalling. Currently, the edge of the roof line has shown spalling with the removal of several pieces of concrete. This situation is a safety concern due to the area below being used as a walk way.
Another concern is the structural integrity of the existing glass roof. Facilities would like to install a roofing system that could withstand a category 3 hurricane.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

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

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are ~~x~~ lower than unbudgeted $515,533 GS 5-15-07

Submitted by: Russell Hisamoto **Phone/Ext #:** 7003

Originator's Name: RussellHisamoto

Responsible Estimator: RussellHisamoto
(Pillar UserID)

Resp. Estimator Dept: Safety, Security & Fac
(Pillar Department Folder)

Project Manager: RussellHisamoto

Date: 05/07/2007

Required Approvals to Authorize a Project:

5/7/07
Responsible Manager **Date**

5/9/07
Responsible Vice President **Date**
(not required for budgeted projects $1 million and less)

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

5/15/07
Controller 5/15/07 **Date**

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

*Project #	Project	*In...	Cost Categ...	Curr Upd New Total $	Prior to 12/06 Act $	Update 2007 $	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY1: Update1:
P0001287	Ward Bldg. 1/2 Roof Improv	_	OVERHEADS	$7,837	0	$2,864	$4,974	$0	$0	$0	0
				$7,837	0	$2,864	$4,974	$0	$0	$0	0
		NE	O/S SVCS	$50,000	0	$30,000	$20,000	$0	$0	$0	0
				$50,000	0	$30,000	$20,000	$0	$0	$0	0
		NI	LABOR	$11,566	0	$4,222	$7,344	$0	$0	$0	0
			O/S SVCS	$255,000	0	$25,000	$230,000	$0	$0	$0	0
				$266,566	0	$29,222	$237,344	$0	$0	$0	0
		NR	O/S SVCS	$191,000	0	$191,000	$0	$0	$0	$0	0
				$191,000	0	$191,000	$0	$0	$0	$0	0
				$515,403	0	$253,086	$262,317	$0	$0	$0	0
				$515,403	0	$253,086	$262,317	$0	$0	$0	0

5/11/2007 » budget manager: PR9105-PH: For PIF (labor hours) 9:00A

*Project #	Project	*RA #	*Lbr Class	YTD Mar 07 Actual Hrs	Apr-Dec 07 Update Hrs	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07
P0001287	Ward Bldg. 1/2 Roof Im...	PHF	__TC	0	130	220	0	0	0
P0001287				0	130	220	0	0	0
				0	130	220	0	0	0

CA-IR-374

Ref: HECO T-17 Update, pages 3 & 11 to 13 (2009 Plant Additions).

The 2009 plant addition cost estimate for Project P0001121 (Maunalani Hts Reliab) has increased by $1,030,344 to $1,598,758 because the original filing erroneously included about $1 million of plant additions in 2010. Please provide the following:

a. Please provide a copy of, not access to, the Project Initiation Authorization packet (or similar documentation).
b. To the extent not adequately addressed in the response to part (a) of this information request, please provide a detailed explanation of the nature of the $1.5 million of "reliability" work, including a discussion of the factors or events leading to the initiation of this project.
c. Please provide the Company's best current estimate of the expected date for completing this project, outlining any remaining construction or permitting approval issues yet to be resolved.

HECO Response:

a. See Attachment 1 for the Project Identification Form.

b. The original project P0001121 has been re-scoped as a result of a change in replacement strategy for the direct buried cable replacement (CR) projects, such as the Maunalani Hts CR project. HECO's initial strategy was to replace all direct buried cables within an entire subdivision. However, based on the experience of other utilities with secondary cables, and the Consumer Advocate's concerns expressed about the Waikiki Cable Rehabilitation projects, the strategy has been refined to target specific streets in each subdivision. Therefore, the Maunalani Heights CR project has been scaled back.

Project P0001121 will now:

i. Improve reliability to the Maunalani Heights Nursing Home. The Nursing Home has many patients who rely on life sustaining equipment such as feeding tubes and oxygen concentrators which are dependent on power from HECO. There is currently only one 12 kV circuit feeding the Nursing Home. The installation of

an additional duct and a primary 12 kV circuit along Matsonia Drive will create redundancy and increase reliability for the Nursing Home.

ii. Replace live front switchgear. There is currently a live front switchgear located in a Corten shell enclosure on Sierra Drive near the Maunalani Heights Nursing Home. Live front switchgear creates a dangerous situation for HECO personnel. The removal and replacement of this live front switchgear with a new manual transfer switchgear would significantly decrease risks and improve safety conditions for our crews.

iii. Replace direct buried cables within the project area. The original direct buried cables and transformers within the project area were installed in the 1940s. Since the work listed above will require trenching of the roadways, the project team will also be installing new distribution duct lines along with primary, secondary cables and laterals to help reduce the number of outages within the project area.

c. The current project plan estimates a November 2009 in service date. There are currently no permitting or construction issues to resolve.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

MANAGEMENT ACCOUNTING

Project Title: Maunalani Hts Reliab Impvmts

Plant Addition Date: 2008-11

Project Number: P0001121
(Permanent)

Commitment Date: 2007-07

JUL 5 2007

Primary Corporate Goal: Sys Rel & Effic

Stategic Plan Linkage: Keep the Lights On
(Primary)

Impact on Goal: Medium

Project Forecast (Thousand $)

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

Prior Years	2007	2008	2009	2010	2011	Future Years	Total
$52	$102	$1,345	$11	$0	$0	$0	$1,510

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
0	15	0	33	12	60

Purpose/Objectives:

The original project P0001121 has been rescoped to change the strategy for the direct buried cable replacement (CR) projects, such as the Maunalani Hts CR proj. Initially, the strategy was to replace an entire subdivision. However, based on experiences of other utilities with secondary cables and the CA's concerns expressed through the Waikiki Rehab Cable PUC process, the strategy has been modified to target only specific streets in a particular subdivision. Therefore, the plan is to scale down the Maunalani Heights CR project and to defer the other direct buried CR projects.
Project P0001121 will now:
1) Improve reliability to the Maunalani Heights Nursing Home. The Nursing Home has many patients who rely on life sustaining equipment such as feeding tubes and oxygen concentrators which are dependent on power from HECO. There is currently only one 12kv circuit feeding the Nursing Home. The installation of an additional duct and a primary 12kv cable along Matsonia Drive will create redundancy and increase reliability for the Nursing Home.
2) There is currently a live front switchgear located in a cortenshell enclosure on Sierra Drive near the Nursing Home. Having a live front switchgear located in a cortenshell enclosure is a very dangerous situation for the HECO C&M crews. The removal and replacement of this live front switchgear with a new manual transfer switchgear would significantly decrease risks and improve safety conditions for our C&M crews.
3) The original direct buried cables and transformers within the project area were installed in the 1940s. Since the work listed above will require trenching of the roadways, the project team will also be installing new distribution conduits along with primary, secondary cables and laterals to help reduce the number of outages within the project area. (see attached scope change request form)

Scope Description:

The ORIGINAL SCOPE of the project included the replacement of direct buried cables in the Maunalani Height area including the following streets: Maunalani Circle, Mana Place, Matsonia Drive, Sierra Drive, Halehoola Place, Lurline Drive, Wilhelmina Rise, Lanipili Place, Monterey Place, Monterey Drive, and Paula Drive. The project involved the following work on the Wilhelmina circuit: 1) design of an underground electrical distribution conduit system, 2) the replacement of primary and secondary cables including the design of a 7.2kv primary and secondary electrical system, 3) replace a total of 10 "live front" and cortenshell type transformers, 4) the installation of new automatic switch gear and the removal of existing switch gear, 5) installation of an additional duct and primary cable along Matsonia Drive for reliability purposes, and 6) underground tie in from overhead riser poles P33 & P34 on Paula Drive.

The REVISED SCOPE includes the removal and installation of a new manual transfer switchgear. Replacement of 2 pad mount transformers. The installation of primary and secondary ducts, cables, and laterals along various portions of Wilhelmina Rise, Sierra Drive, and Matsonia Drive.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Resource Needs:

See Pillar Reports

Justification:

Over the last several years the Maunlani Heights Nursing Homes has experienced the following outages resulting from HECO equipment failures or errors:
2003 - 3 outages (deteriorated cutout, cable fault, transformer fuse deteriorated)
2004 - 2 outages (cable fault, equipment overload)
2005 - 2 outages (cable faults)
2006 - 4 outages (cable faults, conductor fell, switching error)
2007 - 1 outage (transformer outage)

Improving the work environment for our C&M crews by installing safer more updated equipment is consistent with our company's goals to "Be the Winning Team" by making employee safety and security a priority.

Finally, since HECO will be trenching in an area with direct buried cables, we should take this opportunity to install ducts and replace the direct buried cables in this portion of the Maunalani Heights area.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

This Project is consistent with the Company's IRP. Transmission and distribution (T&D) projects generally are not explicitly considered in the IRP process. However, HECO's IRP assumes that HECO's T&D system will continue to operate reliable. This project will help improve reliability to our customers.

Issues, Impacts, Considerations:

The team will work with Community Relations to minimize the impacts and inconvenience to the community during construction activities. In addition, the team may encounter rock under the roadway, and drilling and other such activities may be required.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

PUC Approved: ◯ Approval Required ● Not Required

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

◯ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are less than budget $3,096,128 GS 7-5-07

Submitted by: Kathy Yonamine **Phone/Ext #:** 7194

Originator's Name: Kathy Yonamine

Responsible Estimator: Kathy Yonamine (Pillar UserID) **Resp. Estimator Dept:** Engineering (Pillar Department Folder)

Project Manager: Kathy Yonamine

Date: 06/13/2007

REVIEWED AND RECOMMENDED FOR APPROVAL:

6/20/2007
Chairman, CEM Core Group Date

7/2/07
Chairman, EDP Managers Group Date

Required Approvals to Authorize a Project:

KSW 7/2/07
Responsible Manager **Date**

7/3/07
Responsible Vice President **Date**
(not required for budgeted projects $1 million and less)

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

7/5/07
Controller mk 7/5/07 **Date**

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

*Project #	Project	*In...	Cost Categ...	Curr Upd Total $	PTD 12/06 Act $	Update 2007 $	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 UPDATE12
P0001121	Maunalani Heights Cabl...	*AF...	statistical	$0	0	$0	$0	$0	$0	$0	0
				$0	0	$0	$0	$0	$0	$0	0
		_	AFUDC	$24,086	0	$4,971	$19,115	$0	$0	$0	0
			MATERIAL	$9,991	0	$0	$9,991	$0	$0	$0	0
			OVERHEADS	$188,422	0	$53,120	$128,572	$6,730	$0	$0	0
				$222,499	0	$58,090	$157,678	$6,730	$0	$0	0
		NE	LABOR	$5,287	0	$0	$5,287	$0	$0	$0	0
				$5,287	0	$0	$5,287	$0	$0	$0	0
		NI	AFUDC	$4,258	$2,678	$1,580	0	0	0	0	0
			LABOR	$136,668	$15,096	$36,608	$80,462	$4,502	$0	$0	0
			MATERIAL	$98,339	0	$0	$98,339	$0	$0	$0	0
			O/S SVCS	$1,010,395	$10,195	$0	$1,000,200	$0	$0	$0	0
			OTHER	$0	0	$0	$0	$0	$0	$0	0
			OVERHEADS	$30,371	$24,518	$5,853	0	0	0	0	0
			TRANSPORT	$5	$5	0	0	0	0	0	0
				$1,280,037	$52,492	$44,041	$1,179,001	$4,502	$0	$0	0
		NR	LABOR	$2,644	0	$0	$2,644	$0	$0	$0	0
				$2,644	0	$0	$2,644	$0	$0	$0	0
				$1,510,467	$52,492	$102,131	$1,344,611	$11,233	$0	$0	0
				$1,510,467	$52,492	$102,131	$1,344,611	$11,233	$0	$0	0

FY13 UPDATE12	FY14 UPDATE12	FY15 UPDATE12	FY16 UPDATE12	Future Years
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

*Project #	Project	*Ind #	*RA #	*Lbr Class	Proj to Date Act Hrs	5/07-12/07 Update Hrs	FY08 Update07	FY09 Update07	FY10 Update07	FY11 Update07	FY12 UPDATE12	FY13 UPDATE12	FY14 UPDATE12	FY15 UPDATE12	FY16 UPDATE12	5/07-12/11 Curr Upd Hrs
P0001121	Maunalani Heights ...	NE	PDS	D_UGC...	0	0	120	0	0	0	0	0	0	0	0	120
P0001121	Maunalani Heights ...	NE			0	0	120	0	0	0	0	0	0	0	0	120
P0001121	Maunalani Heights ...	NI	P3V		0	0	0	0	0	0	0	0	0	0	0	0
P0001121	Maunalani Heights ...	NI	P3V	__TC	0	0	108	0	0	0	0	0	0	0	0	108
P0001121	Maunalani Heights ...	NI	PBE		0	0	0	0	0	0	0	0	0	0	0	0
P0001121	Maunalani Heights ...	NI	PBE	B_TNDDFT	0	40	10	10	0	0	0	0	0	0	0	60
P0001121	Maunalani Heights ...	NI	PBE	B_TNDENG	33.00	136	104	10	0	0	0	0	0	0	0	250
P0001121	Maunalani Heights ...	NI	PBP		0	0	0	0	0	0	0	0	0	0	0	0
P0001121	Maunalani Heights ...	NI	PBP	B_PRJMGT	27.00	120	260	40	0	0	0	0	0	0	0	420
P0001121	Maunalani Heights ...	NI	PBP	B_PRJSUP	0.50	60	0	0	0	0	0	0	0	0	0	60
P0001121	Maunalani Heights ...	NI	PBT		0	0	0	0	0	0	0	0	0	0	0	0
P0001121	Maunalani Heights ...	NI	PBT	B_STRDFT	0	160	48	8	0	0	0	0	0	0	0	216
P0001121	Maunalani Heights ...	NI	PBT	B_STRENG	37.00	164	114	0	0	0	0	0	0	0	0	278
P0001121	Maunalani Heights ...	NI	PBT	B_SURVEY	0	272	0	0	0	0	0	0	0	0	0	272
P0001121	Maunalani Heights ...	NI	PBZ		0	0	0	0	0	0	0	0	0	0	0	0
P0001121	Maunalani Heights ...	NI	PDP		0	0	0	0	0	0	0	0	0	0	0	0
P0001121	Maunalani Heights ...	NI	PDS	D_PTM	0	0	81	0	0	0	0	0	0	0	0	81
P0001121	Maunalani Heights ...	NI	PDS	D_UGC...	0	0	1,065	40	0	0	0	0	0	0	0	1,105
P0001121	Maunalani Heights ...	NI	PDS	R_CONSUP	0	0	36	0	0	0	0	0	0	0	0	36
P0001121	Maunalani Heights ...	NI	PRS	R_SUB...	0	0	120	0	0	0	0	0	0	0	0	120
P0001121	Maunalani Heights ...	NI	PSN	__TC	0	4	16	0	0	0	0	0	0	0	0	20
P0001121	Maunalani Heights ...	NI			97.50	956	1,962	108	0	0	0	0	0	0	0	3,026
P0001121	Maunalani Heights ...	NR	PDS	D_UGC...	0	0	60	0	0	0	0	0	0	0	0	60
P0001121	Maunalani Heights ...	NR			0	0	60	0	0	0	0	0	0	0	0	60
					97.50	956	2,142	108	0	0	0	0	0	0	0	3,206

CA-IR-375

Ref: HECO T-17 Update, pages 11 to 13 (2009 Plant Additions).

The 2009 plant addition Projects P0001580 (2008 Spare 8% Tsf #1) and P0001591 (2008 Spare 15kV Switchgear #1) appear to relate to spare equipment. Please provide the following:

a. Are these projects related to spare equipment and materials purchased in 2008 and then used in capital projects expected to be completed and placed in-service in 2009? Please explain.
b. Are these projects related to the procurement of spare equipment and materials in 2009 that will be used in future year projects? Please explain.
c. The names of these projects imply that the related amounts represent items that should be placed in inventory until future deployment to a specific capital project. Please explain the Company's proposal to include the respective amounts in rate base as part of plant in service.

HECO Response:

a. No, although this spare equipment was ordered in 2008, it is expected to arrive and be paid for in 2009. Upon receipt of equipment in 2009, the transformer will be placed in service as "Transformers, Station Distribution" equipment and the switchgear will be placed in service as "Switchgear Assembly" equipment.

b. Yes, these projects will be placed into service in 2009 and the spares will be used to replace a failed existing switchgear or transformer in future years.

c. Transformers and switchgears (same functionality as network protectors) are pre-capitalized equipment and are properly included in plant in service.

CA-IR-376

Ref: HECO T-17 Update, pages 11 to 13 (2009 Plant Additions).

The projected 2009 cost of Project P0000192 (Waikiki Rehabilitation) has been increased to $1,928,447 from $1,678,913 in the original test year forecast. Please provide the following:

a. Please provide a copy of, not access to, the Project Initiation Authorization packet (or similar documentation).

b. Please explain the 14.9% increase in the cost of this project.

c. Please provide a detailed explanation of the need for and purpose of the rehabilitation work, if not adequately discussed in the response to part (a) of this information request.

HECO Response:

a. See Attachment 1 of this response for the Project Identification Form.

b. The cost for this project increased primarily because a large portion of the project costs were shifted from 2008 to 2009 and have been escalated for inflation. In addition, the project estimate was updated to more accurately reflect project progress to date, resulting in an increase in labor costs offset by a decrease in material costs.

c. In the study period from 1992 through 1999, the underground system serving Waikiki suffered 217 outages. This was an average of over 27 failures per year. While the system serving Waikiki is extensive, 27 failures annually is a significant rate – a large number of failures is indicative of a deteriorating system. The purpose of Project 3 is to improve electric service reliability in the eastern end of Waikiki area by reducing the number of cable and splice failures. The scope for Project 3 includes inspecting cables and ducts, and replacing non poly-jacketed PEICN cables from the Sheraton 1 and 2, Kapahulu 1 and 4, Diamond Head, and Kanekapolei 12 kV distribution circuits. In addition, replacement of outdated transformer vaults will provide a safer operating environment for the public and HECO employees, and reduce the probability of transformer failures.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Waikiki Rehabilitation Project 3

Plant Addition Date: 2008-04

Project Number: P0000192
(Temporary)

Commitment Date: 2007-02

Primary Corporate Goal: CAID

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

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$0	$1,333	$1,074	$0	$0	$0	$2,407

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
0	0	-25	66	12	53

Purpose/Objectives:

Inspect cables and ducts in Waikiki. Replace non poly-jacketed PEICN cables from Sheraton 1, Sheraton 2, Kapahulu 1, Kapahulu 4, Kanekapolei and Diamond Head 12kV distribution circuits. Replace Corten Shell and "Chimney type" Vaults with standard padmount transformers.

MANAGEMENT ACCOUNTING

NOV 2 9 2006

Scope Description:

Field check manholes and handholes in Waikiki. Replace cables from Sheraton 1, Sheraton 2, Kapahulu 1, Kapahulu 4, Kanekapolei and Diamond Head 12kV distribution circuits. Make associated cuts and taps. Replace Corten Shell and "Chimney type" transformer vaults with standard padmount transformers.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

See Pillar file.

Justification:

Reliability in Waikiki needs to be improved by rehabilitating underground circuits using a preventive maintenance approach.

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:

A study was done to identify circuits in Waikiki that have the highest failure rate. These circuits will be upgraded in three projects. Work will begin at the Kapahulu end of Waikiki and progress westward towards the middle of Waikiki.

The following work will be done in conjunction with this project but charged to the O&M budget: Ducts will be sealed and sleeves will be installed on splices throughout Waikiki.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

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

NONE

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

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has not been established in MIMS

PUC Approved: ◯ Approval Required ● Not Required

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

◯ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that exceed budget $1,868,689 GS 11-20-06

Submitted by: Earlynne Oshiro **Phone/Ext #:** 7825

Originator's Name: Earlynne Oshiro

Responsible Estimator: Gary Ting
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Earlynne Oshiro

Date: 10/31/2006

REVIEWED AND RECOMMENDED FOR APPROVAL:

11/13/2006
Chairman, CEM Core Group Date

11/13/06
Chairman, EDP Managers Group Date

Required Approvals to Authorize a Project:

11/2/06
Responsible Manager **Date**

11/15/06
Responsible Vice President **Date**
(not required for budgeted projects $1 million and less)

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

11/17/06
Controller **Date**

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

*Project #	Project	*In...	Cost Categ...	Curr Upd Total $	PTD 12/05 Act $	Update 2006 $	FY07 Update06	FY08 Update06	FY09 Update06	FY10 Update06	FY11 UPDATE11	FY12 UPDATE11	FY13 UPDATE11	FY14 UPDATE11	FY15 UPDATE11	Future Years
P0000192	Waikiki Rehabilitation Pr...	*AF...	statistical	$0	0	$0	$0	$0	$0	$0	0	0	0	0	0	0
				$0	0	$0	$0	$0	$0	$0	0	0	0	0	0	0
		_	AFUDC	$74,279	0	$0	$28,802	$45,478	$0	$0	0	0	0	0	0	0
			MATERIAL	$22,348	0	$0	$11,305	$11,044	$0	$0	0	0	0	0	0	0
			OVERHEADS	$1,130,692	0	$0	$595,267	$535,425	$0	$0	0	0	0	0	0	0
				$1,227,320	0	$0	$635,373	$591,946	$0	$0	0	0	0	0	0	0
		NE	LABOR	$28,076	0	$0	$12,926	$15,150	$0	$0	0	0	0	0	0	0
				$28,076	0	$0	$12,926	$15,150	$0	$0	0	0	0	0	0	0
		NI	LABOR	$605,581	0	$0	$342,134	$263,448	$0	$0	0	0	0	0	0	0
			MATERIAL	$205,807	0	$0	$102,304	$103,504	$0	$0	0	0	0	0	0	0
			O/S SVCS	$189,429	0	$0	$180,437	$8,993	$0	$0	0	0	0	0	0	0
			OTHER	$1	0	$0	$0	$1	$0	$0	0	0	0	0	0	0
				$1,000,819	0	$0	$624,874	$375,945	$0	$0	0	0	0	0	0	0
		NR	LABOR	$144,991	0	$0	$57,649	$87,342	$0	$0	0	0	0	0	0	0
			O/S SVCS	$5,485	0	$0	$1,804	$3,680	$0	$0	0	0	0	0	0	0
				$150,475	0	$0	$59,453	$91,022	$0	$0	0	0	0	0	0	0
				$2,406,690	0	$0	$1,332,627	$1,074,064	$0	$0	0	0	0	0	0	0
				$2,406,690	0	$0	$1,332,627	$1,074,064	$0	$0	0	0	0	0	0	0

*Project #	Project	*Ind #	*RA #	*Lbr Class	Proj to Date Act Hrs	10/06-12/06 Update Hrs	FY07 Update06	FY08 Update06	FY09 Update06	FY10 Update06	FY11 UPDATE11	FY12 UPDATE11	FY13 UPDATE11	FY14 UPDATE11	FY15 UPDATE11	10/06-12/10 Curr Upd Hrs
P0000192	Waikiki Rehabilitatio...	NE	PDF	D_PTM	0	0	281	370	0	0	0	0	0	0	0	650
P0000192	Waikiki Rehabilitatio...	NE	PDS	D_UGC...	0	0	43	0	0	0	0	0	0	0	0	43
P0000192	Waikiki Rehabilitatio...	NE			0	0	324	370	0	0	0	0	0	0	0	694
P0000192	Waikiki Rehabilitatio...	NI	PBE	B_DISPLN	0	0	6	0	0	0	0	0	0	0	0	6
P0000192	Waikiki Rehabilitatio...	NI	PBE	B_TNDDFT	0	0	862	470	0	0	0	0	0	0	0	1,332
P0000192	Waikiki Rehabilitatio...	NI	PBE	B_TNDENG	0	0	979	706	0	0	0	0	0	0	0	1,685
P0000192	Waikiki Rehabilitatio...	NI	PBP	B_PRJMGT	0	0	626	0	0	0	0	0	0	0	0	626
P0000192	Waikiki Rehabilitatio...	NI	PBT	B_STRDFT	0	0	19	0	0	0	0	0	0	0	0	19
P0000192	Waikiki Rehabilitatio...	NI	PBT	B_STRENG	0	0	19	0	0	0	0	0	0	0	0	19
P0000192	Waikiki Rehabilitatio...	NI	PDS	__TCS-ED	0	0	384	528	0	0	0	0	0	0	0	912
P0000192	Waikiki Rehabilitatio...	NI	PDS	D_UGC...	0	0	4,990	4,354	0	0	0	0	0	0	0	9,343
P0000192	Waikiki Rehabilitatio...	NI	PZP	__POLICE	0	0	958	398	0	0	0	0	0	0	0	1,356
P0000192	Waikiki Rehabilitatio...	NI			0	0	8,843	6,456	0	0	0	0	0	0	0	15,299
P0000192	Waikiki Rehabilitatio...	NR	PBE	B_TNDDFT	0	0	2	5	0	0	0	0	0	0	0	7
P0000192	Waikiki Rehabilitatio...	NR	PBE	B_TNDENG	0	0	12	24	0	0	0	0	0	0	0	36
P0000192	Waikiki Rehabilitatio...	NR	PDS	__TCS-ED	0	0	113	226	0	0	0	0	0	0	0	338
P0000192	Waikiki Rehabilitatio...	NR	PDS	D_UGC...	0	0	1,198	1,666	0	0	0	0	0	0	0	2,863
P0000192	Waikiki Rehabilitatio...	NR	PZP	__POLICE	0	0	84	168	0	0	0	0	0	0	0	252
P0000192	Waikiki Rehabilitatio...	NR			0	0	1,409	2,088	0	0	0	0	0	0	0	3,497
					0	0	10,576	8,914	0	0	0	0	0	0	0	19,489

CA-IR-377

Ref: HECO T-17 Update, pages 11 to 13 (2009 Plant Additions).

The projected 2009 cost of Project P0000809 (K6 Annunciator Replacement) has been increased to $1,175,741 from $774,495 in the original test year forecast. Please provide the following:

a. Please provide a copy of, not access to, the Project Initiation Authorization packet (or similar documentation).
b. Please explain the 51.8% increase in the cost of this project.
c. Please provide a detailed explanation of the need for and purpose of the identified replacement work, if not adequately discussed in the response to part (a) of this information request.

HECO Response:

a. See Attachment 1 for the Project Identification Form.

b. This project was originally scheduled for installation during the Kahe 6 overhaul in 2005. However, due to the late delivery of hardware, the window of opportunity in 2005 was missed. The K6 Annunciator Replacement project was rescheduled to coincide with the 2009 overhaul. Engineering for this project was originally completed in 2005. From the time this project was designed in 2005, several other annunciator systems have been installed at other HECO generating units. With each installation, the design philosophy of annunciator systems also evolves. For example, the window grouping and placement locations have changed as well as the criteria behind the Sequence of Events (SOE) points. These revisions in the design philosophy required the K6 Annunciator Replacement project to be re-engineered and additional hardware to be procured – this resulted in the cost increase to the project.

c. An annunciator is an audio and visual alarm system which informs the control room operator of problems in the plant. These alarms include unit trips, equipment malfunctions, and variations in plant processes. The annunciator system is centrally

located in the control room and allows the plant operator to monitor the more than 200 alarm points.

The existing Kahe 6 Annunciator requires replacement because of obsolescence of replacement parts. Replacement parts for the Kahe 6 Annunciator are becoming difficult to find, causing windows to be out of commission for extended periods of time. In addition, the new annunciator system adds enhancements that will be beneficial to plant monitoring operations including the capability to communicate with the Distributed Control System (DCS) and a SOE recorder.

The capability to communicate with the DCS is beneficial because it allows alarm information to be directly transmitted across the control loop. Acquiring alarm information directly from the DCS reduces the number of input/outputs (I/O), which reduces the amount of I/O hardware required.

A SOE recorder keeps a time-stamped record of all occurrences in a system. This information can be used for fault diagnosis, performance monitoring, or predictive maintenance. The SOE log can also be used to determine the cause of a unit trip. The events surrounding a trip can occur within moments of each other and without a SOE recorder it is very difficult to determine the order of these events. A record of these events would facilitate troubleshooting and potentially reduce the amount of time a unit is down.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: K6 Annunciator Replacement

Plant Addition Date: 2005-02

Project Number: P0000809
(Permanent)

Commitment Date: 2004-11

Primary Corporate Goal: O&M Prod

Stategic Plan Linkage: Reliability
(Primary)

Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2004	2005	2006	2007	2008	Future Years	Total
$0	$4	$406	$0	$0	$0	$0	$410

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
0	0	0	33	0	33

Purpose/Objectives:

To ensure safe, reliable operation of K6 by upgrading the annunciator system.

MANAGEMENT ACCOUNTING

NOV 2 2 2004

Scope Description:

Install new Ronan LED annunciator system with existing field wiring.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Resource Needs:

See attached Pillar reports.

Justification:

The existing annunciator system is obsolete and spare parts and point circuit boards are no longer available. The existing system doesn't have the capability of silencing nuisance alarms without disabling the annunciator point.

Issues, Impacts, Considerations:

If parts are unavailable or unable to repair, the annunciator or at least parts of the annunciator will be out of service. Operators depend on the annunciator to inform them of abnormal conditions. If the annunciator is not functioning properly it will result in unsafe operating conditions.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind**

- **In Cash**

Cash Advance

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

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

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 less than budget $422,933 GS 11-22-04

Submitted by: Cory Tiede **Phone/Ext #:** 7526

Originator's Name: A Yagi

Responsible Estimator: C. Tiede
(Pillar UserID)

Resp. Estimator Dept: Planning & Engineering
(Pillar Department Folder)

Project Manager: C. Tiede

Date: 11/03/2004

CT

Required Approvals to Authorize a Project:

11/15/04

Responsible Manager **Date**

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

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

11-19-04

Controller **Date**

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

*Project #	Project	*In...	Cost Categ...	Curr Upd New Total $	Prior to 12/... 03	Update 20... 04	FY05 UPDATE04	FY06 UPDATE04	FY07 UPDATE04	FY08 UPDATE04
P0000809	K6 Annunciator Replace...	_	AFUDC	$4,500	0	$41	$4,460	$0	$0	$0
			MATERIAL	$23,125	0	$0	$23,125	$0	$0	$0
			OVERHEADS	$56,179	0	$1,530	$54,649	$0	$0	$0
				$83,804	0	$1,570	$82,234	$0	$0	$0
		NI	LABOR	$70,898	0	$2,272	$68,626	$0	$0	$0
			MATERIAL	$246,537	0	$0	$246,537	$0	$0	$0
				$317,435	0	$2,272	$315,163	$0	$0	$0
		NR	LABOR	$9,362	0	$0	$9,362	$0	$0	$0
				$9,362	0	$0	$9,362	$0	$0	$0
				$410,601	0	$3,842	$406,758	$0	$0	$0
				$410,601	0	$3,842	$406,758	$0	$0	$0

*Project #	Project	*RA #	*Lbr Class	YTD Sep 04 Actual Hrs	Oct-Dec 04 Update Hrs	FY05 UPDATE04	FY06 UPDATE04	FY07 UPDATE04	FY08 UPDATE04	FY09 Update09
P0000809	K6 Annunciator Replace...	PIT	I_TVLBLR	0	0	300	0	0	0	0
P0000809	K6 Annunciator Replace...	PIT	I_TVLELC	0	0	440	0	0	0	0
P0000809	K6 Annunciator Replace...	PIT	I_TVLTCH	0	0	260	0	0	0	0
P0000809	K6 Annunciator Replace...	PYE	Y_TEC...	0	0	280	0	0	0	0
P0000809	K6 Annunciator Replace...	PYF	Y_PPE...	0	80	855	0	0	0	0
P0000809	K6 Annunciator Replace...	PYG	Y_PPD...	0	0	180	0	0	0	0
P0000809				0	80	2,315	0	0	0	0
				0	80	2,315	0	0	0	0

CA-IR-378

Ref: HECO T-17 Update, pages 11 to 13 (2009 Plant Additions).

For each project listed below, please provide: (i) a copy of, not access to, the Project Initiation Authorization packet (or similar documentation), (ii) provide a detailed explanation of the need for each project, if not adequately addressed in the PIA, and (iii) explain why each capital project first appears as a 2009 plant addition in the Company's rate case update, but not the original filing.

a. P0000981 (K5/6 Brkr Deck AC).
b. P0001538 (K3 PCT Upgrade).
c. P0001567 (Airport Dist Feeders 2B & 3B).
d. P0001592 (Kah Per 46kV Improv).
e. P0001594 (Allure Waikiki 12kV UG).
f. P0001614 (W5 CWP No. 52).
g. P0001644 (Waiau-Wahiawa SW OPGW).
h. P0001681 (Halawa-School OPGW).
i. P0001682 (Kapolei IC, Ph1-12kV OH & UG).
j. P0001686 (Kapolei IC, Ph1-12kV OH Conv).
k. P0001689 (Kahe Technical Trailer).
l. P0001690 (Ironwoods-12kV OH to UG).

HECO Response:

i) See Attachment 1 for the Project Identification Form for Project P0000981.

See Attachment 2 for the Project Identification Form for Project P0001538.

See Attachment 3 for the Project Identification Form for Project P0001567.

See Attachment 4 for the Project Identification Form for Project P0001592.

See Attachment 5 for the Project Identification Form for Project P0001594.

See Attachment 6 for the Project Identification Form for Project P0001614.

See Attachment 7 for the Project Identification Form for Project P0001644.

See Attachment 8 for the Project Identification Form for Project P0001681.

See Attachment 9 for the Project Identification Form for Project P0001682.

See Attachment 10 for the Project Identification Form for Project P0001686.

See Attachment 11 for the Project Identification Form for Project P0001689.

See Attachment 12 for the Project Identification Form for Project P0001690.

ii) See Attachment 1.

iii) For P0000981, the project was originally planned for 2005 but due to higher priority projects it was deferred to 2012. The project was advanced to 2009 because of increased operational concerns with dust and heat impacts on the reliability of the critical power plant components.

For P0001538, the project was originally scheduled for the Kahe 3 planned maintenance outage in 2011. However, a 4 week maintenance outage for Kahe 3 subsequently scheduled in late 2009 provides an opportunity to install the equipment that was already on site.

The remaining projects were budgeted after the capital project expenditure estimates had been finalized for the original testimony filing of this docket.

Attachments 1-12 are voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the documents. Electronic copies of the requested information are being provided.

Confidential Information Deleted Pursuant To Protective Order, Filed on November 21, 2008.

CA-IR-379

Ref: HECO T-17 Update, HECO-1707 & HECO-WP-1707, page 2 (Customer Advances).

The referenced update does not revise the original forecast of customer advances. Referring to page 2 of HECO-WP-1707, please provide the actual recorded receipts, refunds and year-end balance for 2008.

HECO Response:

Recorded Balance – 12/31/07	[redacted]
2008 Recorded:	
Receipts	[redacted]
Refunds	[redacted]
Transfers to CIAC	[redacted]
Recorded Balance – 12/31/08	[redacted]

The preliminary information for December 2008 is being made available. The information is being submitted under protective order as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

CA-IR-379

Ref: HECO T-17 Update, HECO-1707 & HECO-WP-1707, page 2 (Customer Advances).

The referenced update does not revise the original forecast of customer advances. Referring to page 2 of HECO-WP-1707, please provide the actual recorded receipts, refunds and year-end balance for 2008.

HECO Response:

The 2008 actual year end data as of December 31, 2008 is not available at this time. The preliminary information for December 2008 will be made available in early February 2009. The preliminary information will be submitted under protective order as the October, November and December 2008 information is confidential until the information is publicly disclosed in the financial statements submitted to the Securities and Exchange Commission ("SEC"), which is scheduled for late February 2009. The information provided will not be considered final until the Company issues its financial statements to the SEC. Should any of the preliminary information change, the Company will provide the revisions as soon as practicable.

CA-IR-380

Ref: HECO T-22 Update, Attachment 1, pages 2 to 4, Attachment 5 (Purchased Power Adjustment Calculations)

Please explain why the Purchased Power Energy, Capacity and Total amounts in Mr. Young's Attachment 5, page 1 do not tie to the updated Total Purchased Power Expenses shown at HECO T-6 update, page 4 of 37. The Direct Testimony purchased power expenses of $477,055 appears to have been retained by mistake and is also shown on HECO T-23 Update Attachment 2, page 1 within the proposed revenue requirement. Please reconcile the intended updated purchased power expense amounts to Mr. Young's Attachment 5, Mr. Hee's ECAC update calculations and provide a reconciliation of updated purchased power expenses in total, indicating the amounts proposed to be recovered through the ECAC, the new PPA clause and through base rates.

HECO Response:

For this HECO T-22 Update, HECO intentionally used the direct testimony estimates of purchased power expenses as the basis for the proposed purchased power adjustment clause, as shown in Attachment 5. HECO did file revised purchased power expenses in its T-6 Update, but as explained on page 4 of the HECO T-1 Update, "the Company prefers not to revise its 2009 test year estimates according to the reduction to its sales forecast." The amount shown in Column D of Attachment 5, plus associated revenue taxes, is proposed to be recovered in base rates. The amount shown in Column E of Attachment 5, plus associated revenue taxes, is proposed to be recovered in the new purchased power adjustment clause. The Energy Cost Adjustment Clause (ECAC) will continue to recover the differences between fuel and purchased power energy costs assumed in base rates and actual costs, subject to a heat rate limitation for fuel costs.

CA-IR-381

Ref: HECO Responses to CA-IR-51, CA-IR-52 and Revised CA IR-271 (Regulatory Assets & Liabilities).

The December 2008 trial balance provided in the revised response to CA-IR-271 does not provide a breakdown of the year-end balance in Account 254 (Regulatory Liabilities). Some of the regulatory asset amounts appear as discrete subaccounts to NARUC Account 186, but not all of the items listed in the response to CA-IR-51 are shown. Please update the responses to CA-IR-51 and CA-IR-52 with actual balances at December 31, 2008.

HECO Response:

See Attachment 1 of this response for updates to CA-IR-51 and CA-IR-52 with actual balances

as of December 31, 2008.

CA-IR-51
Ref: HECO-102, page 1; Balance Sheet "Regulatory Assets"

(a)	(a) 12/31/08 balance	(b) D&O relied upon	(c) Rate base	(d) Amortization period
Leases for office space (Difference between lease payment and straight-line lease expense):				
King St. building	380,712	D&O No. 24171 (Dkt. No. 04-0113); issued on May 1, 2008	not in rate base	lease term 7/2005 - 11/2021
Bishop Square offices	128,156	D&O No. 24171 (Dkt. No. 04-0113); issued on May 1, 2008	not in rate base	lease term 2/2005 - 1/2015
SFAS No. 112 Postemployment benefits incurred but not paid	441,751	D&O No. 24171(Dkt. No. 04-0113); issued on May 1, 2008	not in rate base	decreases as benefits are provided; increases as benefits are accrued
Barbers Point (Kahe unit 7) project costs	-	D&O No. 24171 (Dkt. No. 04-0113); issued on May 1, 2008	not in rate base	3.5 years, 7/2005 - 12/2008
SFAS No. 143 Asset retirement obligations incurred but not paid	7,789	D&O No. 21331 (Dkt. No. 02-0391); issued on September 3, 2004	not in rate base	decreases as costs to remove asset are incurred; increases as additional retirement obligations are incurred
DSM program costs incurred in excess of DSM revenues collected	3,736,539	D&O No. 24232 (Dkt No. 2007-0341); issued on May 15, 2008	not in rate base	decreases as revenues are collected; increases as DSM costs are incurred
SFAS No. 106 Postretirement benefits other than pensions	5,207,247	D&O No. 13659 (Dkt. Nos. 7243 & 7233 (CONSOLIDATED)); issued on November 29, 1994	not in rate base	18 years, 1/1995 - 12/2012
Employee vacation benefits earned but not taken	4,857,432	D&O No. 11019 (Dkt. No. 6432); issued on April 1, 1991	not in rate base	1 year, decreases as vacation is taken; increases as vacation is earned
Issuance costs related to retired long-term debt	8,384,042	D&O No. 24171 (Dkt. No. 04-0113); issued on May 1, 2008	included in cost of capital	various remaining periods, 4 to 21 years
2007 and 2009 TY rate case costs	1,000,934	Interim D&O 23749 (Dkt. No. 2006-0386); issued on October 22, 2007	not in rate base	3 years, 10/22/2007 - 10/21/2010
SFAS No. 109 Income taxes	57,753,214	D&O No. 24171 (Dkt. No. 04-0113); issued on May 1, 2008	included in rate base, offset with deferred income taxes	various remaining periods, 1 to 36 years
Issuance costs related to redeemed preferred stock	1,101,718	D&O No. 24171 (Dkt. No. 04-0113); issued on May 1, 2008	included in cost of capital	30 years beginning 1/1999
Investment income differential related to retired revenue bonds	1,167,119	D&O No. 24171 (Dkt. No. 04-0113); issued on May 1, 2008	included in cost of capital	various remaining periods, 4 to 21 years
Pension tracking mechanism:				
Prepaid pension asset	35,889,813	Interim D&O 23749 (Dkt. No. 2006-0386); issued on October 22, 2007	not in rate base	decreases as net periodic pension costs incurred
SFAS No. 158 Retirement benefit plans	231,491,375	Interim D&O 23749 (Dkt. No. 2006-0386); issued on October 22, 2007	not in rate base	changes with the plan's projected benefit obligation and fair value of assets
OPEB tracking mechanism:				
SFAS No. 158 Retirement benefit plans	36,506,384	Interim D&O 23749 (Dkt. No. 2006-0386); issued on October 22, 2007	not in rate base	changes with the plan's accumulated postretirement benefit obligation and fair value of assets
	388,054,224			

CA-IR-52
Ref: HECO-102, page 2; Balance Sheet "Regulatory Liabilities"

(a)	(a) 12/31/08 balance	(b) D&O relied upon	(c) Rate base	(d) Amortization period
Cost of removal in excess of salvage value	196,833,804	No. 21331 (Dkt. No. 02-0391); issued on September 3, 2004	Deduct from rate base as part of net plant in svc	1 to 60 years, life of utility plant, as costs of removal are incurred
Solar Saver program (Difference between program administrative costs and amounts collected from ratepayers to fund program costs)	1,874	No. 23531 (Dkt. No. 2006-0425); issued on June 29, 2007	No effect on rate base	Decreases as program costs are incurred
Pension tracking mechanism (Difference between actual NPPC vs. NPPC in rates)	3,050,757	Interim D&O No. 23749 (Dkt. No. 2006-0386); issued on October 22, 2007	Deduct from rate base	5 years beginning in next rate case
OPEB tracking mechanism (Difference between actual NPBC vs. NPBC in rates)	776,762	Interim D&O No. 23749 (Dkt. No. 2006-0386); issued on October 22, 2007	Deduct from rate base	5 years beginning in next rate case
Deferred gains on sales of land:				
Queen Emma	303,305	No. 19839 (Dkt. No. 02-0098); issued on December 2, 2002	Unamortized balance	5 years, 2/2005 - 1/2010
Kuliouou	23,291	No. 16935 (Dkt No. 98-0314); issued on April 14, 1999	deducted from rate base	5 years, 8/2004 - 7/2009
Palolo	24,242	No. 22664 (Dkt 05-0280); issued on August 1, 2006	(see unamortized gain	5 years, 10/2006 - 9/2011
Waianae parcel 328-N	59,321	No. 16935 (Dkt No. 98-0314); issued on April 14, 1999	on sale)	5 years, 9/2006 - 8/2011
Waianae parcel 328-P	64,371	No. 16935 (Dkt No. 98-0314); issued on April 14, 1999	"	5 years, 3/2008 - 2/2013
Waianae SS remnant site	13,298	No. 24098 (Dkt No. 2007-0189); issued on March 20, 2008	"	5 years, 5/2008 - 4/2013
Aiea Park Place	88,043	No. 23154 (Dkt. No. 2006-0323); issued on December 21, 2006	"	5 years, 10/2007 - 9/2012
Iolani Court Plaza	433,796	No.16833 (Dkt No. 98-0170); issued on February 16, 1999	"	5 years, various 1/2004 - 12/2012
Barbers Point Harbor SS site	34,964	No. 24077 (Dkt No. 2007-0188); issued on March 6, 2008	"	5 years, 7/2008 - 6/2013
Haiku Corridor site	295,534	D&O in Dkt No. 2007-0424; issued on September 5, 2008	"	5 years, 11/2008 - 10/2013
	1,340,164			
	202,003,361			

CA-IR-382

Ref: HEI SEC Form 10-K for 2008, page 53 (Salary Freeze).

According to the HEI Form 10-K, "Base salaries for the HECO named executive officers, excluding selective salary adjustments for executives to make up for the elimination of the car and gas allowance and for other special circumstances, will be frozen in 2009." Please provide the following information:

a. A complete explanation of the reasons for the salary freeze.
b. Copies of all studies, reports, analyses, workpapers and other documents prepared by or for HECO to evaluate the salary freeze and each "selective salary adjustment" made in connection with same.
c. Provide a comparison of test year 2009 salaries per executive, as proposed by the Company, in comparison to the "frozen" salary levels now effective.
d. Describe and quantify each other (beyond executive management) salary or benefit change that has been implemented in 2009 that is significantly different than assumed wage and benefit levels in the Company's prefiled evidence.
e. Provide a calculation of the ratemaking adjustments that would be required to fully reflect the executive salary freeze and each other changes (per your response to part d) within the test year revenue requirement.

<u>HECO Response:</u>

a. In light of the current economic difficulties, HECO determined that base salaries for HECO officers, including the named executive officers identified in HEI's SEC Form 10-K, excluding selective salary adjustments for executives to make up for the elimination of the car and gas allowance and for other special circumstances, will be frozen in 2009. Selective salary adjustment for other special circumstances refers to adjustments related to promotions, expanded responsibilities, reorganization changes, and market based salary adjustments.

b. There were no specific studies or reports used to evaluate the salary freeze, other than various news reports on the economic trends and conditions in the state and nationally.

c. The salaries for merit employees, which would include the HECO officers, included in the test year estimate were based on salaries as of May 1, 2008 with a salary increase of 4%

effective May 1, 2009, an increase of 0.3% effective September 1, 2009, and an increase of 0.2% effective December 1, 2009. The impact of adjusting the standard labor rates for executives to reflect removing a base salary increase is provided on Attachment 1. However, as noted in the response to part a, there will be an adjustment to salaries for the elimination of a car and gas allowance effective May 1, 2009, and there were specific salary adjustments to certain executives identified after May 1, 2008 noted in the SEC Form 10-K. In addition, it is anticipated that there will be certain salary adjustments for other special circumstances effective May 1, 2009 for executives. See Attachment 1 for the impact of the freezing of the executive salaries, as well as the adjustment for known changes in salaries (e.g., specific salary adjustments to certain executives and an adjustment for the car and gas allowance effective May 1, 2009, and certain salary adjustments for other special circumstances effective May 1, 2009). Note that a portion of the executive salaries are budgeted to billable to subsidiaries, and not included in the test year estimates.

d. See response to part c.

e. See response to part c. No other changes in salary or benefits have been implemented in 2009 that are significantly different from the assumed wage and benefit levels in the Company's direct testimony filing.

Executive	(A) 2009 Salary Increase	(B) Salary increase for Car/gas Allowance	(C) Other Salary Increases	(D) = (A) + (B) + (C) Total Change in Salary	(E) O&M %	(F) = (D) * (E) Salary Impact to O&M	NARUC	Salary Impact to O&M by NARUC
President & CEO	(5,551)			(5,551)	77.96%	(4,327)	920	(4,272)
							9302	(55)
VP-Government & Community Affairs	(3,898)	6,667		2,769	95.24%	2,637	920	2,637
Sr. VP-Operations	(3,633)			(3,633)	100.00%	(3,633)	920	(3,633)
Executive VP- Public Affairs	(3,779)	6,667	37,167	40,054	93.84%	37,587	920	37,587
Sr. VP-Energy Solutions & Chief Tech Officer	(3,633)			(3,633)	87.12%	(3,165)	920	(3,165)
VP-Corporate Excellence	(3,633)	6,667		3,034	86.84%	2,634	920	2,634
VP-Customer Service	(3,633)	6,667		3,034	96.71%	2,934	909	2,934
Sr. VP-Finance & Administration	(4,788)	6,667	10,000	11,878	95.18%	11,305	920	11,305
VP-Corporate Relations	(4,614)	6,667		2,052	88.10%	1,808	920	1,808
VP-Energy Delivery	(3,633)	6,667		3,034	100.00%	3,034	920	3,034
VP-Power Supply	(3,842)	6,667		2,825	98.71%	2,788	920	2,788
VP-General Counsel	(3,668)	6,667		2,999	100.00%	2,999	920	2,999
Controller	(2,028)	6,667		4,639	86.36%	4,007	920	4,007
Treasuer	(2,382)	6,667		4,285	96.33%	4,127	920	4,127
Secretary	(2,162)	6,667		4,505	53.98%	2,432	920	2,432
Salary adjustments for other special circumstances			7,710		90.04%	6,942		

Summary of Salary Impact to O&M by NARUC

NARUC	Salary Impact to O&M by NARUC	Additional Salary Increase	Total Salary Impact to O&M by NARUC
909	2,934	514	3,448
920	64,287	6,419	70,707
9302	(55)	8	(47)
	67,166	6,942	74,108

(A) The 2009 salary increase is calculated by multiplying the 2009 test year budgeted hours by the difference in the standard labor rate due to no wage increase in 2009. See Attachment 2 page 1 for the revised standard labor rate without a 2009 wage increase.

(B) The salary increase for car/gas allowance is 8/12 of the $10,000 because it is effective May 1, 2009.

(C) The other salary increase respresents salary increases after May 1, 2008, which was not included in determining the standard labor rate used for the test year. As noted in the SEC Form 10-K, the Sr. VP-Finance and Admin received a salary increase of $10,000 effective August 1, 2008, and the Executive Vice President received an increase of $44,600 effective March 2, 2009. Amount included is 10/12 of the $44,600.

(E) Represents the portion of position's labor that is charged to O&M expense.

HECO
Calculation of Standard Labor Rates

On-Cost Category	Labor Class	Labor Classes (description)	2008	Revised 2009
GE	EXEC	Executives - Pres/VPs	115.38	117.12
GE	EXEC2	Executives - Other	63.60	64.56

See CA-IR-239 Attachment 1 pages 1-3 and page 6 for original calculation of standard labor rate.

HECO
Estimated Wage Increase for BU Merit Employees

Bargaining Unit	**Base yr**		
	2007	**2008**	**2009**
Jan	1.000	1.035	1.075
Feb	1.000	1.035	1.075
Mar	1.000	1.035	1.075
Apr	1.000	1.035	1.075
May	1.000	1.035	1.075
Jun	1.000	1.035	1.075
Jul	1.000	1.035	1.075
Aug	1.000	1.035	1.075
Sep	1.000	1.035	1.075
Oct	1.000	1.035	1.075
Nov	1.000	1.035	1.075
Dec	1.000	1.035	1.075
Weighted avg. increase	1.000	1.035	1.075
% increase from prior year		3.5%	3.9%

Merit Employees	**Base yr**		
	2007	**2008**	**2009**
Jan	1.000	1.0400938	1.0815938
Feb	1.000	1.0400938	1.0815938
Mar	1.000	1.0400938	1.0815938
Apr	1.000	1.0400938	1.0815938
May	1.035	1.0764063	1.0815938
Jun	1.035	1.0764063	1.0815938
Jul	1.035	1.0764063	1.0815938
Aug	1.035	1.0764063	1.0815938
Sep	1.0375	1.0795188	1.0815938
Oct	1.0375	1.0795188	1.0815938
Nov	1.0375	1.0795188	1.0815938
Dec	1.0375	1.0815938	1.0815938
Weighted avg. increase	1.024167	1.065513	1.081594
% increase from prior year		4.04%	1.51%

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Ref: HEI 2008 SEC Form 10-K, page 53 (Executive Perquisites).

According to the HEI Form 10-K, "Company-paid executive physicals and car and gas allowances for HECO executives have been eliminated in keeping with HEI's philosophy to reduce nonperformance perquisites, effective January 1 and May 1, 2009, respectively." Please provide:

a. Actual 2008 expenses recorded by HECO for perquisites of the type being eliminated, and
b. A detailed calculation of the ratemaking adjustments that would be required to remove the estimated costs of executive perquisites from the asserted test year revenue requirement.

HECO Response:

a. The amount paid in 2008 for car and gas allowance is provided as Attachment 1. The amount paid for executive physicals in 2008 amounted to $2,644.77. In addition, an invoice of $389.59 related to 2008 physicals was received late and paid in 2009. Atachment 1 contains personal information on executives' actual auto and gas allowance eosts and are considered confidential. The executive titles have been redacted and are being provided subject to the Protective Order filed on November 21, 2008 of this proceeding.

b. Attachment 2 provides the adjustment required for reducing from the test year, car and gas allowance effective May 1, 2009. There were no executive physical costs included in the test year.

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Executive	Auto Allowance	Gas Allowance	Total Auto and Gas
	$9,600.00	$1,284.97	$10,884.97
	$6,300.00	$1,844.95	$8,144.95
	$2,100.00	$289.11	$2,389.11
	$3,150.00	$340.65	$3,490.65
	$12,086.79	$0.00	$12,086.79
	$8,400.00	$1,362.42	$9,762.42
	$8,400.00	$2,199.24	$10,599.24
	$8,400.00	$3,267.31	$11,667.31
	$8,400.00	$1,134.32	$9,534.32
	$8,400.00	$2,060.59	$10,460.59
	$8,400.00	$1,766.72	$10,166.72
	$8,400.00	$2,705.90	$11,105.90
	$8,400.00	$1,206.49	$9,606.49
	$8,400.00	$2,714.33	$11,114.33
	$108,836.79	$22,177.00	$131,013.79

* Auto allowance represents pool car charges.

Executive	(A) Reduction in Car/gas allowance	(B) O&M %	(C) = (A) * (B) Car/gas Impact to O&M	NARUC	Car/gas Impact to O&M by NARUC
President & CEO	(6,400)	94%	(6,016)	921	(6,016)
VP-Government & Community Affairs	(7,200)	94%	(6,768)	921	(6,768)
Sr. VP-Operations	(496)	94%	(466)	921	(466)
Executive VP- Public Affairs	(6,440)	94%	(6,054)	921	(6,054)
Sr. VP-Energy Solutions & Chief Tech Officer	(7,240)	94%	(6,806)	921	(6,806)
VP-Corporate Excellence	(5,600)	94%	(5,264)	921	(5,264)
VP-Customer Service	(6,400)	100%	(6,400)	909	(6,400)
Sr. VP-Finance & Administration	(6,880)	94%	(6,467)	921	(6,467)
VP-Corporate Relations	(6,720)	94%	(6,317)	921	(6,317)
VP-Energy Delivery	(7,360)	94%	(6,918)	921	(6,918)
VP-Power Supply	(7,867)	94%	(7,395)	921	(7,395)
VP-General Counsel	(6,880)	94%	(6,467)	921	(6,467)
					(71,338)

(A) See page 2 for annual amount, amount shown in this column is 8/12 of the total amount budgeted
(B) Represents the portion of 921.00 nonlabor that is not transferred out of O&M via the Corporate Administration on-cost rate.

Car/Gas Allowance in 2009 Test Year Budget

Executive	NARUC		
VP-Corporate Relations	921	Car allowance	$8,400
	921	Gas allowance	$1,680
VP-Customer Service	909	Car allowance	$8,400
	909	Gas allowance	$1,200
VP-Government & Community Affairs	921	Car allowance	$8,400
	921	Gas allowance	$2,400
Sr. VP-Finance & Administration	921	Car allowance	$8,400
	921	Gas allowance	$1,920
VP-General Counsel	921	Car allowance	$8,400
	921	Gas allowance	$1,920
VP-Corporate Excellence	921	Car allowance	$8,400
VP-Power Supply	921	Car allowance	$10,600
	921	Gas allowance	$1,200
Sr. VP-Operations	921	Pool car	$744
President & CEO	921	Car allowance	$9,600
Executive VP- Public Affairs	921	Car allowance	$8,400
	921	Gas allowance	$1,260
Sr. VP-Energy Solutions & Chief Tech Officer	921	Car allowance	$8,400
	921	Gas allowance	$2,460
VP-Energy Delivery	921	Car allowance	$8,400
	921	Gas allowance	$2,640

CA-IR-384

Ref: HECO Response to CA-IR-27; Docket No. 2008-0274, HECO Decoupling Proposal 1/31/2009, Attachment 7A (Long Term Capital Budget).

Please provide the following information:

a. Complete copies of the most detailed available financial model output, statements of assumptions, reports, workpapers, analyses, and other supporting calculations associated with and supportive of the amounts set forth in Confidential Attachment 7A in Docket No. 2008-0274.
b. Does HECO utilize any corporate financial projection models for the purpose of developing financial projections such as Attachment 7A?
c. If your response to part (b) is affirmative, please provide a complete copy of the most detailed available model output associated with the most current iteration of the model that contains estimates of future HECO financial performance.

HECO Response:

a. Please see Attachment 1 of this response. Rate base projections are not generally developed unless a specific need arises for them – in the case of Attachment 7A, it and its supporting calculations were created for Docket No. 2008-0274. Some of the information in Attachment 1 contains privileged commercial and financial information that is non-public, confidential information and disclosure of such information could trigger requirements under the rules and guidelines of the Securities and Exchange Commission and/or the New York Stock Exchange that information that would be meaningful to an investor be released to all investors, if the information is disclosed beyond a limited number of "insiders." As a result, the confidential information is being provided subject to the Protective Order filed on November 21, 2008 in this proceeding.

b. No. HECO does not currently utilize any financial projection models to develop financial projections such as those illustrated in Attachment 7A. Generally, HECO does not generate financial projections such as those illustrated in Attachment 7A. As responded to in a, Attachment 7A was developed specifically for Docket No. 2008-0274.

c. Not applicable.

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Hawaiian Electric Company, Inc.

Net Cost of Plant in Service - Base Case (includes significant projects)

($ in thousands)

	Original Cost	Accum. Depreciation, Removal Reg. Liability, Acc. Retirement Oblig.	Net Plant In Service	HECO Reference
Recorded Balances - 12/31/07	2,529,629	(1,174,518)	1,355,111	
ESTIMATED CHANGES in 2008:				
Net Plant Additions	103,523		103,523	1701
Cost of Removal		6,548	6,548	1409
Salvage		(260)	(260)	1409
Depreciation Accrual		(91,663)	(91,663)	1408
Retirements [1]	(17,215)	17,215	0	1409
Estimated Balances - 12/31/08	2,615,937	(1,242,678)	1,373,259	
ESTIMATED CHANGES in 2009:				
Net Plant Additions	288,334		288,334	1701
Cost of Removal		6,770	6,770	1409
Salvage		(277)	(277)	1409
Depreciation Accrual		(92,979)	(92,979)	1408
Retirements [1]	(16,063)	16,063	0	1409
Estimated Balances - 12/31/09	2,888,208	(1,313,101)	1,575,107	
ESTIMATED CHANGES in 2010:				
Net Plant Additions	[redacted]		[redacted]	
Cost of Removal		[redacted]	[redacted]	
Salvage		[redacted]	[redacted]	
Depreciation Accrual		[redacted]	[redacted]	
Retirements [1]	[redacted]	[redacted]	[redacted]	
Estimated Balances - 12/31/10	[redacted]	[redacted]	[redacted]	
ESTIMATED CHANGES in 2011:				
Net Plant Additions	[redacted]		[redacted]	
Cost of Removal		[redacted]	[redacted]	
Salvage		[redacted]	[redacted]	
Depreciation Accrual		[redacted]	[redacted]	
Retirements [1]	[redacted]	[redacted]	[redacted]	
Estimated Balances - 12/31/11	[redacted]	[redacted]	[redacted]	
ESTIMATED CHANGES in 2012:				
Net Plant Additions	[redacted]		[redacted]	
Cost of Removal		[redacted]	[redacted]	
Salvage		[redacted]	[redacted]	
Depreciation Accrual		[redacted]	[redacted]	
Retirements [1]	[redacted]	[redacted]	[redacted]	
Estimated Balances - 12/31/12	[redacted]	[redacted]	[redacted]	

NOTE: Totals may not add exactly due to rounding.

[1] Original cost of estimated retirements for the respective year.

Hawaiian Electric Company, Inc.
Projected Retirements, Cost of Removal and Gross Salvage for Depreciable Plant
Recorded 2003 to 2007 ($ in Thousands)

	Recorded 2003	Recorded 2004	Recorded 2005	Recorded 2006	Recorded 2007	Total Recorded
Depr. Plant Balances - Beginning of the Year [a] (HECO-WP-1403)						
Production	$ 443,528	$ 457,074	$ 516,558	$ 529,205	$ 552,031	$ 2,498,396
Transmission	522,153	526,540	539,592	550,826	576,639	2,715,751
Distribution	913,623	947,610	998,044	1,052,098	1,097,284	5,008,659
General	121,084	130,099	125,796	146,552	177,108	700,639
Vehicles	24,575	24,542	24,402	24,924	24,622	123,065
Total	$ 2,024,963	$ 2,085,865	$ 2,204,392	$ 2,303,605	$ 2,427,684	$ 11,046,509
Retirements [b]						
Production	$ 292	$ 437	$ 1,033	$ 149	$ 13,036	$ 14,948
Transmission	2,213	859	805	615	1,622	6,114
Distribution	3,209	4,560	4,166	3,952	4,604	20,491
General	1,864	1,783	793	-	5,496	9,936
Vehicles	2,087	2,009	994	793	408	6,291
Total	$ 9,665	$ 9,647	$ 7,792	$ 5,509	$ 25,166	$ 57,779
Percentages of Book Retirements to Beginning Plant Balances [b] / [a]						
Production	0.000659	0.000956	0.002001	0.000282	0.023615	0.005983
Transmission	0.004238	0.001631	0.001493	0.001117	0.002813	0.002251
Distribution	0.003512	0.004812	0.004174	0.003756	0.004196	0.004091
General	0.015397	0.013702	0.006301	0.000000	0.031032	0.014181
Vehicles	0.084910	0.081864	0.040752	0.031817	0.016571	0.051121
TOTAL	0.004773	0.004625	0.003535	0.002391	0.010366	0.005231
Cost of Removal [c]						
Production	$ 614	$ 342	$ 640	$ 248	$ 3,552	$ 5,397
Transmission	694	896	953	1,031	719	4,293
Distribution	2,787	3,406	5,539	4,567	2,721	19,020
General	(56)	128	7	63	-	141
Vehicles	2	-	-	-	144	146
Total	$ 4,041	$ 4,772	$ 7,138	$ 5,909	$ 7,136	$ 28,997
Percentages of Removal Cost to Retirements [c] / [b]						
Production	2.101125	0.782806	0.619564	1.664430	0.272476	0.361034
Transmission	0.313670	1.043709	1.182786	1.676423	0.443280	0.702160
Distribution	0.868474	0.746919	1.329621	1.155617	0.591008	0.928212
General	(0.030194)	0.071772	0.008406	#DIV/0!	0.000000	0.014223
Vehicles	0.001024	0.000000	0.000000	0.000000	0.352941	0.023229
TOTAL	0.418127	0.494652	0.916168	1.072608	0.283557	0.501856
Gross Salvage [d]						
Production	$ 6	$ -	$ -	$ -	$ -	$ 6
Transmission	-	-	-	-	-	-
Distribution	12	69	85	135	167	469
General	8	-	-	1	25	34
Vehicles	270	209	85	85	6	656
Total	$ 297	$ 279	$ 170	$ 221	$ 198	$ 1,165
Percentages of Gross Salvage to Retirements [d] / [b]						
Production	0.020752	0.000000	0.000000	0.000000	0.000000	0.000406
Transmission	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Distribution	0.003808	0.015239	0.020398	0.034160	0.036273	0.022873
General	0.004364	0.000000	0.000000	#DIV/0!	0.004549	0.003436
Vehicles	0.129487	0.104185	0.085772	0.107188	0.014706	0.104242
TOTAL	0.030690	0.028901	0.021853	0.040116	0.007868	0.020158

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Hawaiian Electric Company, Inc.
Projected Retirements, Cost of Removal and Gross Salvage for Depreciable Plant
Estimated 2008 to 2009 ($ in Thousands)

	(UPDATE) Estimated 2008	(UPDATE) Test Year Estimate 2009	2010	2011	2012
Depr Plant Balance- Beginning of the Year					
Production	$ 562,075	$ 584,989			
Transmission	581,274	596,329			
Distribution	1,147,202	1,185,574			
General	134,353	136,464			
Vehicles	27,214	29,638			
Total	$ 2,452,118	$ 2,532,994	[redacted]	[redacted]	[redacted]
Retirements					
Production	$ 3,363	$ 3,500			
Transmission	1,308	1,342			
Distribution	4,693	4,850			
General	1,905	1,935			
Vehicles	1,391	1,515			
Total	$ 12,661	$ 13,143	[redacted]	[redacted]	[redacted]
Cost of Removal					
Production	$ 1,215	$ 1,263			
Transmission	919	943			
Distribution	4,356	4,502			
General	27	28			
Vehicles	32	35			
Total	$ 6,549	$ 6,770	[redacted]	[redacted]	[redacted]
Gross Salvage					
Production	$ 1	$ 1			
Transmission	0	0			
Distribution	107	111			
General	7	7			
Vehicles	145	158			
Total	$ 260	$ 277	[redacted]	[redacted]	[redacted]

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Hawaiian Electric Company, Inc.
2008 and 2009
PROPERTY HELD FOR FUTURE USE
($ Thousands)

Name of Site	Size	Tax Map Key	Year Acquired	Proposed Service Date	Purchase Price
Kalaeloa-Barbers Point Harbor Pipeline	----	9-1-14:08	1991	----	$517
Campbell Industrial Park Generating Station	2.045 acres	9-1-26:39	2007	Jul-09	$1,262
Campbell Industrial Park Generating Station	1.76 acres	9-1-26:38	2007	Post 2009	$1,810
Kapolei Substation	1.112 acres	9-1-16:90	2006	2011	$4
TOTAL AT 12/31/2007					3,593
Less: Transfer to plant in service. CIP Gen. Station					(1,262)
TOTAL AT 12/31/2008					2,331
No changes in 2009					
TOTAL AT 12/31/2009					2,331
TOTAL AT 12/31/2010					[redacted]
[redacted]					[redacted]
TOTAL AT 12/31/2011					[redacted]
[redacted]					[redacted]
TOTAL AT 12/31/2012					[redacted]

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Hawaiian Electric Company, Inc.

Fuel Inventory Projection

Per HECO-505	(A) Average Barrels	(B) Price per Barrel	(C) = (A) x (B) (C) Fuel Oil Inventory ($000)
Residual Fuel Oil	761,694	99.4545	$ 75,753,865
Diesel Oil	19,144	139.3794	$ 2,668,209
Biodiesel	29,266	232.0913	$ 6,792,362
Total end of year 2009			$ 85,214,437
Beginning of test year inventory value (HECO-505)			80,152,522
Increase in Inventory value between end of test year and beginning of test year			[redacted]
Projected end of 2010 inventory value to account for CIP-2 and increased biodiesel inventory.			$ [redacted]

[redacted]

2009 Power Supply Inventory Calculations

1	2008 year-end value = 2009 TY starting inventory value	$	8,561,752
2	2009 projected issues are calculated at an increase of 12.7% from 2008, which is equal to the average increase in issues for 4 prior years*.		
	2008 Issues	$	6,289,193
	average increase in issues		12.7%
	2009 projected issues	$	7,089,112
3	Receipts to 2009 are expected to 10.6% more than receipts from 2008, which is the average from 2004-2008, plus estimated additions of new items to inventory.		
	2008 Receipts	$	6,583,431
	average increase in receipts		10.6%
	2009 calculated Receipts	$	7,283,940
	+ additional new items added to PS catalog	$	300,000
	2009 projected receipts	$	7,583,940
4	2009 TY Production Materials Inventory calculations:		
	2008 year-end value	$	8,561,752
	+ projected receipts	$	7,583,940
	- projected issues	$	7,089,112
	projected 2009 TY year-end value	$	9,056,579
5	The average inventory value based on the average of the starting and ending inventory		
	2009 starting inventory	$	8,561,752
	2009 ending inventory	$	9,056,579
	2009 average inventory	$	8,809,166

2010 Power Supply Inventory Calculations

1 2009 year-end value = 2010 TY starting inventory value $ [redacted]

2 2010 projected issues are calculated at an increase of [redacted] from 2009, which is equal to the average increase in issues for [redacted] prior years*.

2009 Issues	$	[redacted]
average increase in issues		[redacted]
2010 projected issues	$	[redacted]

3 Receipts to 2010 are expected to [redacted] more than receipts from 2009, which is the average from [redacted], plus estimated additions of new items to inventory.

2009 Receipts	$	[redacted]
average increase in receipts		[redacted]
2010 calculated Receipts	$	[redacted]
+ additional new items added to PS catalog		
2010 projected receipts	$	[redacted]

4 2010 TY Production Materials Inventory calculations:

2009 year-end value	$	[redacted]
+ projected receipts	$	[redacted]
- projected issues	$	[redacted]
projected 2010 TY year-end value	$	[redacted]

5 The average inventory value based on the average of the starting and ending inventory

2010 starting inventory	$	[redacted]
2010 ending inventory	$	[redacted]
2010 average inventory	$	[redacted]
Less: working cash adjustment	$	[redacted]
	$	[redacted]

2011 Power Supply Inventory Calculations

1 2010 year-end value = 2011 TY starting inventory value $ [redacted]

2 2011 projected issues are calculated at an increase of [redacted] from 2010, which is equal to the average increase in issues for [redacted] prior years*.

2010 Issues	$	[redacted]
average increase in issues		[redacted]
2011 projected issues	$	[redacted]

3 Receipts to 2011 are expected to [redacted] more than receipts from 2010, which is the average from [redacted], plus estimated additions of new items to inventory.

2010 Receipts	$	[redacted]
average increase in receipts		[redacted]
2011 calculated Receipts	$	[redacted]
+ additional new items added to PS catalog		
2011 projected receipts	$	[redacted]

4 2011 TY Production Materials Inventory calculations:

2010 year-end value	$	[redacted]
+ projected receipts	$	[redacted]
- projected issues	$	[redacted]
projected 2011 TY year-end value	$	[redacted]

5 The average inventory value based on the average of the starting and ending inventory

2011 starting inventory	$	[redacted]
2011 ending inventory	$	[redacted]
2011 average inventory	$	[redacted]
Less: working cash adjustment	$	[redacted]
	$	[redacted]

2012 Power Supply Inventory Calculations

1 2011 year-end value = 2012 TY starting inventory value $ [redacted]

2 2012 projected issues are calculated at an increase of [redacted] from 2011, which is equal to the average increase in issues for [redacted] prior years*.

2011 Issues	$	[redacted]
average increase in issues		[redacted]
2012 projected issues	$	[redacted]

3 Receipts to 2012 are expected to [redacted] more than receipts from 2011, which is the average from [redacted], plus estimated additions of new items to inventory.

2011 Receipts	$	[redacted]
average increase in receipts		[redacted]
2012 calculated Receipts	$	[redacted]
+ additional new items added to PS catalog		
2012 projected receipts	$	[redacted]

4 2012 TY Production Materials Inventory calculations:

2011 year-end value	$	[redacted]
+ projected receipts	$	[redacted]
- projected issues	$	[redacted]
projected 2012 TY year-end value	$	[redacted]

5 The average inventory value based on the average of the starting and ending inventory

2012 starting inventory	$	[redacted]
2012 ending inventory	$	[redacted]
2012 average inventory	$	[redacted]
Less: working cash adjustment	$	[redacted]
	$	[redacted]

T&D Inventory Calculations - 2009 TY

1. 2008 year end value becomes 2009 TY starting Inventory Value $ 7,842,880

2. 2009 projected year end inventory value is expected to increase by 9.4%, which is the historical average over the past 5 years

2008 ending inventory value	$ 7,842,880	
+ 9.4%	$ 737,231	
2009 projected ending inventory value		$ 8,580,111

3. 2009 projected issues are calculated based on an expected turns ratio of 1.28, which is the average from 2004 to 2008.

2009 projected average inventory	$ 8,211,496	
X projected turns ratio of 1.28		$ 10,510,714

4. 2009 projected receipts are projected to be 7% more than issues

2009 projected issues	$ 10,510,714	
projected increase 7 %	$ 737,231	
2009 projected receipts		$ 11,247,945

5. 2009 TY T&D Materials Inventory Calculation

2008 year-end value	$ 7,842,880	
+ projected receipts	$ 11,247,945	
- projected issues	$ 10,510,714	
projected 2009 TY year-end value		$ 8,580,111

6. 2009 average inventory value is based on the average of the starting and ending inventory

2009 starting inventory	$ 7,842,880	
2009 ending inventory	$ 8,580,111	
2009 average inventory		$ 8,211,496

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T&D Inventory Calculations - 2010

1. 2009 year end value becomes 2010 TY starting Inventory Value $ 8,580,111

2. 2010 projected year end inventory value is expected to increase by [redacted]
which is the historical average over the past [redacted] years ([redacted])

2008 ending inventory value	$ [redacted]	
[redacted]	$ [redacted]	
2010 projected ending inventory value		$ [redacted]

3. 2010 projected issues are calculated based on an expected turns ratio of [redacted],
which is the average from [redacted].

2010 projected average inventory	$ [redacted]	
X projected turns ratio of [redacted]		$ [redacted]

4. 2010 projected receipts are projected to be [redacted] more than issues

2009 projected issues	$ [redacted]	
projected increase [redacted]	$ [redacted]	
2010 projected receipts		$ [redacted]

5. 2010 TY T&D Materials Inventory Calculation

2009 year-end value	$ [redacted]	
+ projected receipts	$ [redacted]	
- projected issues	$ [redacted]	
projected 2010 TY year-end value		$ [redacted]

6. 2010 average inventory value is based on the average
of the starting and ending inventory

2010 starting inventory	$ [redacted]	
2010 ending inventory	$ [redacted]	
2010 average inventory		$ [redacted]
Less: Working cash adjustment		[redacted]
		$ [redacted]

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T&D Inventory Calculations - 2011

1. 2010 year end value becomes 2011 TY starting Inventory Value $ 9,386,642

2. 2011 projected year end inventory value is expected to increase by [redacted],
which is the historical average over the past [redacted] years ([redacted])

2008 ending inventory value	$ [redacted]	
[redacted]	$ [redacted]	
2011 projected ending inventory value		$ [redacted]

3. 2011 projected issues are calculated based on an expected turns ratio of [redacted],
which is the average from [redacted].

2011 projected average inventory	$ [redacted]	
X projected turns ratio of [redacted]		$ [redacted]

4. 2011 projected receipts are projected to be [redacted] more than issues

2011 projected issues	$ [redacted]	
projected increase [redacted]	$ [redacted]	
2011 projected receipts		$ [redacted]

5. 2011 TY T&D Materials Inventory Calculation

2010 year-end value	$ [redacted]	
+ projected receipts	$ [redacted]	
- projected issues	$ [redacted]	
projected 2011 TY year-end value		$ [redacted]

6. 2011 average inventory value is based on the average
of the starting and ending inventory

2011 starting inventory	$ [redacted]	
2011 ending inventory	$ [redacted]	
2011 average inventory		$ [redacted]
Less: Working cash adjustment		[redacted]
		$ [redacted]

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T&D Inventory Calculations - 2012

1. 2011 year end value becomes 2012 TY starting Inventory Value $ [redacted]

2. 2012 projected year end inventory value is expected to increase by [redacted],
which is the historical average over the past [redacted] years ([redacted])

2011 ending inventory value	$ [redacted]	
[redacted]	$ [redacted]	
2012 projected ending inventory value		$ [redacted]

3. 2012 projected issues are calculated based on an expected turns ratio of [redacted],
which is the average from [redacted]

2012 projected average inventory	$ [redacted]	
X projected turns ratio of [redacted]		$ [redacted]

4. 2012 projected receipts are projected to be [redacted] more than issues

2012 projected issues	$ [redacted]	
projected increase [redacted]	$ [redacted]	
2012 projected receipts		$ [redacted]

5. 2012 TY T&D Materials Inventory Calculation

2011 year-end value	$ [redacted]	
+ projected receipts	$ [redacted]	
- projected issues	$ [redacted]	
projected 2012 TY year-end value		$ [redacted]

6. 2012 average inventory value is based on the average
of the starting and ending inventory

2012 starting inventory	$ [redacted]	
2012 ending inventory	$ [redacted]	
2012 average inventory		$ [redacted]
Less: Working cash adjustment		[redacted]
		$ [redacted]

HAWAIIAN ELECTRIC COMPANY, INC.
SFAS 109 RECONCILIATION
REGULATORY ASSETS AND LIABILITIES

($ Thousand)

		A Actual Balance 12/31/2005	B Actual 2006 Amort	C Actual 2006 Adds	D Actual Balance 12/31/2006	E Actual 2007 Amort	F Actual 2007 Adds	G Actual Balance 12/31/2007
1	CWIP Equity Transition (#18673100)	1,850	(87)		1,763	(75)		1,688
2	SFAS 109 Flow Through (#18673200)	3,264	(326)		2,938	(326)		2,612
3	Plant Transition (#18673300)	20,459	(1,023)		19,436	(1,023)		18,413
4	CWIP Equity Ongoing (#18673400)	30,280	(893)	2,585	31,972	(932)	2,805	33,845
5	Federal ITC (#18673500)	(3,011)	539		(2,472)	487		(1,985)
	Excess Deferred Taxes							
6	(#18673110 - Acct 282)	(1,809)	904		(905)	904		(1)
7	(#18673900 - Acct 283)	(1,414)	58		(1,356)	58		(1,298)
8	Subtotal	(3,223)	962	-	(2,261)	962	-	(1,299)
	Deficit Deferred Taxes							
9	(#18673120 - Acct 282)	2,216	(111)		2,105	(111)		1,994
10	(#18673190 - Acct 283)				-			-
11	Subtotal	2,216	(111)	-	2,105	(111)	-	1,994
12	TOTAL	51,835	(939)	2,585	53,481	(1,018)	2,805	55,268
13	AVERAGE BALANCE				52,658			54,375

NOTE: All SFAS 109 assets and liabilities and related taxes have been computed on effective tax rate of 32.8947368% (Federal) and 6.0150376% (State).

HAWAIIAN ELECTRIC COMPANY, INC.
SFAS 109 RECONCILIATION
REGULATORY ASSETS AND LIABILITIES

($ Thousand)

		H Actual Balance 12/31/2007	I Estimated 2008 Amort	J Estimated 2008 Adds	K Estimated Balance 12/31/2008	L Estimated 2009 Amort	M Estimated 2009 Adds	N Estimated Balance 12/31/2009
1	CWIP Equity Transition (#18673100)	1,688	(75)		1,613	(75)		1,538
2	SFAS 109 Flow Through (#18673200)	2,612	(326)		2,286	(326)		1,960
3	Plant Transition (#18673300)	18,413	(1,023)		17,390	(1,023)		16,367
4	CWIP Equity Ongoing (#18673400)	33,845	(1,013)	4,805	37,637	(1,102)	7,134	43,669
5	Federal ITC (#18673500)	(1,985)	458		(1,527)	410		(1,117)
	Excess Deferred Taxes							
6	(#18673110 - Acct 282)	(1)			(1)			(1)
7	(#18673900 - Acct 283)	(1,298)	58		(1,240)	58		(1,182)
8	Subtotal	(1,299)	58	-	(1,241)	58	-	(1,183)
	Deficit Deferred Taxes							
9	(#18673120 - Acct 282)	1,994	(111)		1,883	(111)		1,772
10	(#18673190 - Acct 283)	-	-		-	-		-
11	Subtotal	1,994	(111)	-	1,883	(111)	-	1,772
12	TOTAL	55,268	(2,032)	4,805	58,041	(2,169)	7,134	63,006
13	AVERAGE BALANCE				56,655			60,524

NOTE: All SFAS 109 assets and liabilities and related taxes have been computed on effective tax rate of 32.8947368% (Federal) and 6.0150376% (State).

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HAWAIIAN ELECTRIC COMPANY, INC.
SFAS 109 RECONCILIATION
REGULATORY ASSETS AND LIABILITIES

Estimated 2010 Amort	Estimated 2010 Adds	Estimated Balance 12/31/2010	Estimated 2011 Amort	Estimated 2011 Adds	Estimated Balance 12/31/2011	Estimated 2012 Amort	Estimated 2012 Adds	Estimated Balance 12/31/2012
[redacted]		[redacted]	[redacted]		[redacted]	[redacted]		[redacted]
[redacted]		[redacted]	[redacted]		[redacted]	[redacted]		[redacted]
[redacted]		[redacted]	[redacted]		[redacted]	[redacted]		[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]		[redacted]	[redacted]		[redacted]	[redacted]		[redacted]
[redacted]		[redacted]	[redacted]		[redacted]	[redacted]		[redacted]
[redacted]		[redacted]	[redacted]		[redacted]	[redacted]		[redacted]
		[redacted]			[redacted]			[redacted]
		[redacted]			[redacted]			[redacted]

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Hawaiian Electric Company, Inc.

Unamortized System Development Costs (Revised)

($ Thousands)

	Outage Management System (OMS)	Customer Information System (CIS)	HR Suite	TOTAL
BALANCE - 12/31/07	4,300		0	4,300
Deferred Project cost	676		0	676
Amortization	(408)		0	(408)
ESTIMATED BALANCE - 12/31/08	4,568	0	0	4,568
Deferred Project cost	0	23,760	4,010	27,770
Amortization	(432)	(977)	(212)	(1,621)
ESTIMATED BALANCE - 12/31/09	4,137	22,783	3,798	30,717
Amortization	[redacted]	[redacted]	[redacted]	[redacted]
ESTIMATED BALANCE - 12/31/10	[redacted]	[redacted]	[redacted]	[redacted]
Amortization	[redacted]	[redacted]	[redacted]	[redacted]
ESTIMATED BALANCE - 12/31/11	[redacted]	[redacted]	[redacted]	[redacted]
Amortization	[redacted]	[redacted]	[redacted]	[redacted]
ESTIMATED BALANCE - 12/31/12	[redacted]	[redacted]	[redacted]	[redacted]

Amortization Estimate	Def Cost	Amort. Period in Months	Monthly Amort.	In-service date
CIS	23,760	144	165	April-09
HR Suite	4,010	144	28	April-09

NOTE: Totals may not add exactly due to rounding.

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Hawaiian Electric Company, Inc.

Reverse Osmosis Water Pipeline Regulatory Asset (Revised)

($ Thousands)

BALANCE - 12/31/07	0
Transfer	0
Amortization	0
ESTIMATED BALANCE - 12/31/08	0
Transfer to Regulatory Asset - 2008	6,398
Amortization	(32)
ESTIMATED BALANCE - 12/31/09	6,366
Amortization	[redacted]
ESTIMATED BALANCE - 12/31/10	[redacted]
Amortization	[redacted]
ESTIMATED BALANCE - 12/31/11	[redacted]
Amortization	[redacted]
ESTIMATED BALANCE - 12/31/12	[redacted]

Annual Amortization [redacted]

NOTE: Totals may not add exactly due to rounding.

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Hawaiian Electric Company, Inc.

Unamortized ARO Regulatory Asset

($ in thousands)

		HECO Reference
RECORDED BALANCES - 12/31/07	14	
ESTIMATED CHANGES in 2008:		
Accretion & Depreciation	5	
Cost of Removal	(6)	
ESTIMATED BALANCE - 12/31/08	13	(A)
ESTIMATED CHANGES in 2009:		
Accretion & Depreciation	5	
Cost of Removal	(6)	
ESTIMATED BALANCE - 12/31/09	12	(B)
Accretion & Depreciation	[redacted]	
Cost of Removal	[redacted]	
ESTIMATED BALANCE - 12/31/10	[redacted]	
Accretion & Depreciation	[redacted]	
Cost of Removal	[redacted]	
ESTIMATED BALANCE - 12/31/11	[redacted]	
Accretion & Depreciation	[redacted]	
Cost of Removal	[redacted]	
ESTIMATED BALANCE - 12/31/12	[redacted]	

NOTE: Totals may not add exactly due to rounding.

Hawaiian Electric Company, Inc.

WORKING CASH ITEMS, 2009 (Current Effective Rates)

CIP1 GENERATING UNIT AT FULL COST FOR STEP INCREASE

without HCEI Implementation Studies or Sales Forecast Reduction

($ in thousands)

	(A) Revenue Collection Lag (Days)	Payment Lag Workpaper Reference	(B) Payment Lag (Days)	(C) Net Collection Lag (Days) (A) - (B)	Annual Amount Workpaper Reference	(D) Annual Amount	(E) Average Daily Amount - Effective (D) / 365	(F) Working Cash Required (Provided) under Effective Rates (C) x (E)	(G) Average Daily Amount - Proposed (D) / 365	(H) Working Cash Required (Provided) under Proposed Rates (C) x (G)
	per HECO T-9	HECO WP-1806			Rate Case Update T-23 Att. 2					
ITEMS REQUIRING WORKING CASH:										
Fuel Purchases	37	p. 1	17	20	p. 4	809,058	2,217	44,332	2,217	44,332
O&M Labor	37	p. 8	11	26	p. 4	101,730	279	7,247	279	7,247
O&M Nonlabor	37	p. 32	30	7	p. 4	128,292	351	2,460	351	2,460
ITEMS PROVIDING WORKING CASH:										
Purchased Power	37	p. 38	37	0	p. 4	477,055	1,307	0	1,307	0
Revenue Taxes - Effective Rates	37	p. 44	66	(29)	p. 4	165,583	454	(13,156)		
Revenue Taxes - Proposed Rates	37	p. 44	66	(29)	p. 6	174,462			478	(13,861)
Income Taxes - Effective Rates	37	p. 47	39	(2)	p. 4	14,307	39	(78)		
Income Taxes - Proposed Rates	37	p. 47	39	(2)	p. 4	49,748			136	(273)
Total WORKING CASH								40,805		39,905
Change in WORKING CASH										**(900)**

NOTE: Totals may not add exactly due to rounding.

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Hawaiian Electric Company, Inc.

WORKING CASH ITEMS, 2010 (Current Effective Rates)

CIP1 GENERATING UNIT AT FULL COST FOR STEP INCREASE

without HCEI Implementation Studies or Sales Forecast Reduction

($ in thousands)

	(A) Revenue Collection Lag (Days)	Payment Lag Workpaper Reference	(B) Payment Lag (Days)	(C) Net Collection Lag (Days) (A) - (B)	Annual Amount Workpaper Reference	(D) Annual Amount	(E) Average Daily Amount - Effective (D) / 365	(F) Working Cash Required (Provided) under Effective Rates (C) x (E)	(G) Average Daily Amount - Proposed (D) / 365	(H) Working Cash Required (Provided) under Proposed Rates (C) x (G)
	per HECO T-9	HECO WP-1806			Rate Case Update T-23 Att. 2					
ITEMS REQUIRING WORKING CASH:										
Fuel Purchases	37	p. 1	17	20	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
O&M Labor	37	p. 8	11	26	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
O&M Nonlabor	37	p. 32	30	7	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
ITEMS PROVIDING WORKING CASH:										
Purchased Power	37	p. 38	37	0	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Revenue Taxes - Effective Rates	37	p. 44	66	(29)	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Revenue Taxes - Proposed Rates	37	p. 44	66	(29)	p. 6	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Income Taxes - Effective Rates	37	p. 47	39	(2)	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Income Taxes - Proposed Rates	37	p. 47	39	(2)	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total WORKING CASH								[redacted]		[redacted]
Change in WORKING CASH										[redacted]

NOTE: Totals may not add exactly due to rounding.

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Hawaiian Electric Company, Inc.

WORKING CASH ITEMS, 2011 (Current Effective Rates)

CIP1 GENERATING UNIT AT FULL COST FOR STEP INCREASE

without HCEI Implementation Studies or Sales Forecast Reduction

($ in thousands)

	(A) Revenue Collection Lag (Days)	Payment Lag Workpaper Reference	(B) Payment Lag (Days)	(C) Net Collection Lag (Days) (A) - (B)	Annual Amount Workpaper Reference	(D) Annual Amount	(E) Average Daily Amount - Effective (D) / 365	(F) Working Cash Required (Provided) under Effective Rates (C) x (E)	(G) Average Daily Amount - Proposed (D) / 365	(H) Working Cash Required (Provided) under Proposed Rates (C) x (G)
	per HECO T-9	HECO WP-1806			Rate Case Update T-23 Att. 2					
ITEMS REQUIRING WORKING CASH:										
Fuel Purchases	37	p. 1	17	20	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
O&M Labor	37	p. 8	11	26	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
O&M Nonlabor	37	p. 32	30	7	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
ITEMS PROVIDING WORKING CASH:										
Purchased Power	37	p. 38	37	0	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Revenue Taxes - Effective Rates	37	p. 44	66	(29)	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Revenue Taxes - Proposed Rates	37	p. 44	66	(29)	p. 6	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Income Taxes - Effective Rates	37	p. 47	39	(2)	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Income Taxes - Proposed Rates	37	p. 47	39	(2)	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total WORKING CASH								[redacted]		[redacted]
Change in WORKING CASH										[redacted]

NOTE: Totals may not add exactly due to rounding.

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Hawaiian Electric Company, Inc.

WORKING CASH ITEMS, 2012 (Current Effective Rates)

CIP1 GENERATING UNIT AT FULL COST FOR STEP INCREASE

without HCEI Implementation Studies or Sales Forecast Reduction

($ in thousands)

	(A) Revenue Collection Lag (Days)	Payment Lag Workpaper Reference	(B) Payment Lag (Days)	(C) Net Collection Lag (Days) (A) - (B)	Annual Amount Workpaper Reference	(D) Annual Amount	(E) Average Daily Amount - Effective (D) / 365	(F) Working Cash Required (Provided) under Effective Rates (C) x (E)	(G) Average Daily Amount - Proposed (D) / 365	(H) Working Cash Required (Provided) under Proposed Rates (C) x (G)
	per HECO T-9	HECO WP-1806			Rate Case Update T-23 Att. 2					
ITEMS REQUIRING WORKING CASH:										
Fuel Purchases	37	p. 1	17	20	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
O&M Labor	37	p. 8	11	26	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
O&M Nonlabor	37	p. 32	30	7	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
ITEMS PROVIDING WORKING CASH:										
Purchased Power	37	p. 38	37	0	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Revenue Taxes - Effective Rates	37	p. 44	66	(29)	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Revenue Taxes - Proposed Rates	37	p. 44	66	(29)	p. 6	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Income Taxes - Effective Rates	37	p. 47	39	(2)	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Income Taxes - Proposed Rates	37	p. 47	39	(2)	p. 4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total WORKING CASH								[redacted]		[redacted]
Change in WORKING CASH										[redacted]

NOTE: Totals may not add exactly due to rounding.

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Hawaiian Electric Company, Inc.

Unamortized Contributions In Aid of Construction (Revised)

($ in thousands)

		HECO Reference
RECORDED BALANCES - 12/31/07	176,425	
ESTIMATED CHANGES in 2008:		
Cash Receipts	8,945	1706
In-Kind Receipts	3,805	1706
Transfer from Advances	19	1706
Amortization	(9,009)	
ESTIMATED BALANCE - 12/31/08	180,185	
ESTIMATED CHANGES in 2009:		
Cash Receipts	8,460	1706
In-Kind Receipts	3,998	1706
Transfer from Advances	67	1706
Amortization	(9,383)	
ESTIMATED BALANCE - 12/31/09	183,327	
ESTIMATED CHANGES in 2010:		
Cash Receipts	[redacted]	
In-Kind Receipts		
Transfer from Advances		
Amortization		
ESTIMATED BALANCE - 12/31/10		
ESTIMATED CHANGES in 2011:		
Cash Receipts	[redacted]	
In-Kind Receipts		
Transfer from Advances		
Amortization		
ESTIMATED BALANCE - 12/31/11		
ESTIMATED CHANGES in 2012:		
Cash Receipts	[redacted]	
In-Kind Receipts		
Transfer from Advances		
Amortization		
ESTIMATED BALANCE - 12/31/12		

NOTE: Totals may not add exactly due to rounding.

Hawaiian Electric Company, Inc.
CUSTOMER ADVANCES
($ Thousands)

			Reference
Recorded balance - 12/31/07	$	921	
2008:			
Receipts		105	HECO-WP-1707
Refunds		(119)	HECO-WP-1707
Transfers to CIAC		(19)	HECO-WP-1707
Estimated balance - 12/31/08	$	888	***Per 2009TY Rate Case***
2009:			
Receipts		110	HECO-WP-1707
Refunds		(124)	HECO-WP-1707
Transfers to CIAC		(67)	HECO-WP-1707
Estimated balance - 12/31/09	$	807	***Per 2009TY Rate Case***
Receipts		[redacted]	
Refunds		[redacted]	
Transfers to CIAC		[redacted]	
Estimated balance - 12/31/10	$	[redacted]	
Receipts		[redacted]	
Refunds		[redacted]	
Transfers to CIAC		[redacted]	
Estimated balance - 12/31/11	$	[redacted]	
Receipts		[redacted]	
Refunds		[redacted]	
Transfers to CIAC		[redacted]	
Estimated balance - 12/31/12	$	[redacted]	

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CUSTOMER ADVANCES FORECAST

A/C 25200

YEARS 2008 - 2013 Forecast

YEARS		RECEIPTS	RECEIPTS Net of GET	REFUNDS	REFUNDS Net of GET	TRANSFERS	TRANSFERS Net of GET
2008	FCST	$ 110,000	$ 105,050	$ 125,000	$ 119,375	$ 20,000	$ 19,100
2009	FCST	$ 115,000	$ 109,825	$ 130,000	$ 124,150	$ 70,000	$ 66,850
2010	FCST	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]
2011	FCST	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]
2012	FCST	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]
2013	FCST	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]

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CUSTOMER ADVANCES FORECAST

2008 THRU 2013

#	YEAR	RECEIPTS	REFUNDS	%(RF/RC)	TRNSFRS		C&C PERMITS	AVG Rcpt/Permit
1	2003 Recd	$ 52,986	$ 27,544	52%	$ 109,780		15,623	$ 3.39
2	2004 Recd	$ 128,459	$ 4,130	3%	$ 51,554	0.9857	15,399	$ 8.34
3	2005 Recd	$ 38,095	$ -	0%	$ 109,848	1.0109	15,567	$ 2.45
4	2006 Recd	$ 66,595	$ 575,100	864%	$ 24,228	1.0628	16,545	$ 4.03
5	2007 Recd	$ 256,198	$ -	0%	$ 340,753	0.8768	14,507	$ 17.66
	SUBTOTAL	$ 542,333	$ 606,774	111.9%	$ 636,163		77,641	$ 6.99
	# Years	5						
	AVG	$ 108,467	$ 121,355	111.9%			15,528	AVG #

FUTURE YEARS FORECAST

		RCPTS FCST	REFUNDS	RFND FCST	TRNSFRS	%	ADJ TRANS	TNSFR FCST
		(near $5,000)	(RECPT * Avg %)	(near $5,000)				(near $5,000)
2008 Fcst	f	110,000	$ 123,070	$ 125,000	$ 19,836	90%	$ 17,852	$ 20,000
2009 Fcst	f	$ 115,000	$ 128,665	$ 130,000	$ 85,065	80%	$ 68,052	$ 70,000
2010 Fcst	f	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]	[redacted]	$ [redacted]	$ [redacted]
2011 Fcst	f	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]	[redacted]	$ [redacted]	$ [redacted]
2012 Fcst	f	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]	[redacted]	$ [redacted]	$ [redacted]
2013 Fcst	f	$ [redacted]	$ [redacted]	$ [redacted]	$ [redacted]	[redacted]	$ [redacted]	$ [redacted]
			$ 666					

NOTES:

(f) Rcpts Fcst as % of AVG		Estimate	Estimate plus escalation	
2007	102.5%	$ 108,467	$ 111,178	
2008	105.0%	$ 108,467	$ 113,890	(See above)
2009	107.5%	$ 108,467	$ 116,602	
2010	[redacted]	$ [redacted]	$ [redacted]	
2011	[redacted]	$ [redacted]	$ [redacted]	
2012	[redacted]	$ [redacted]	$ [redacted]	

Avg Fcst		
	Rcpts	$ [redacted]
	Refnd	$ [redacted]

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HAWAIIAN ELECTRIC COMPANY, INC.
CUSTOMER DEPOSITS
(Account 235.01)

	2003	2004	2005	2006	2007	2008	
JANUARY	4,542,477	5,096,061	5,075,469	5,461,661	6,518,843	6,897,836	
FEBRUARY	4,530,123	5,124,279	5,099,965	5,596,777	6,600,316	6,958,955	
MARCH	4,564,027	5,164,089	5,094,526	5,741,625	6,681,692	7,437,645	
APRIL	4,590,389	5,161,650	5,116,575	5,798,289	6,681,665	7,141,140	
MAY	4,616,784	5,139,280	5,148,162	5,828,493	6,721,780	7,217,302	
JUNE	4,594,128	5,144,856	5,152,599	5,909,336	6,716,049	7,330,189	
JULY	4,575,584	5,090,420	5,139,242	5,950,459	6,718,205	7,455,249	
AUGUST	4,693,623	5,125,293	5,143,856	6,009,412	6,753,675	7,610,294	
SEPTEMBER	4,812,854	5,124,987	5,179,767	6,077,225	6,754,462	7,741,329	
OCTOBER	5,020,781	5,035,822	5,273,681	6,217,532	6,725,736	7,796,299	(1)
NOVEMBER	5,065,511	5,030,873	5,359,351	6,294,852	6,801,986	7,851,659	(1)
DECEMBER	5,071,972	5,065,653	5,387,270	6,368,722	6,800,761	7,907,412	(1)

Avg. annual % increase (2003 - 2007) 8.521% 0.7101% 1/12 of avg. annual increase to est. yr end
Based on year end balances

				YEAR-END BALANCE
2008	6,800,761 X	1.08521	=	7,380,254
2009	7,380,254 X	1.08521	=	**8,009,125**

	2008 UPD Est. Yr-End BALANCE			**2009 UPD Est. YR-END BALANCE**
2008	7,907,412 X	1.08521	=	**8,581,203**
2009	8,581,203 X	1.08521		**9,312,407**
2010	[redacted]	[redacted]		[redacted]
2011				
2012				

(1) $\frac{\text{2007 YEAR END BALANCE - 2003 YEAR END BALANCE}}{\text{2003 YEAR END BALANCE}}$

$\frac{6{,}800{,}761 - 5{,}071{,}972}{5{,}071{,}972}$ = 34.085% / 4 Years = 8.521%

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Tax Balances Projection

	D&O 23749 ('07 TY)						HECO T-23 Attachment 4 Update (Base Case)								
	12/31/2006		12/31/2007		Avg		12/31/2008		12/31/2009		Avg				
Net Rate Base (exclude Work. Cash)	1,114,491		1,154,839		1,134,665		1,177,703		1,411,735		1,294,719				
Net Cost of Plant in Service	1,331,363		1,370,649		1,351,006		1,373,259		1,575,107		1,474,183				
													Avg of Avg	Avg YE	Say
SFAS No. 109 Reg. Asset	53,483	4.7989%	55,970	4.8466%	54,727	4.8231%	58,041	4.9283%	63,006	4.4630%	60,524	4.6746%	4.7489%	4.7592%	
Ratio-Plant		4.0172%		4.0835%		4.0508%		4.2265%		4.0001%		4.1056%	4.0782%	4.0818%	
Accum. Def. Income Tax	135,254	12.1359%	130,294	11.2824%	132,774	11.7016%	132,241	11.2287%	133,100	9.4281%	132,671	10.2470%	10.9743%	11.0188%	
Ratio-Plant		10.1591%		9.5060%		9.8278%		9.6297%		8.4502%		8.9996%	9.4137%	9.4363%	9.5%
Unamortized ITC	28,523	2.5593%	30,044	2.6016%	29,284	2.5808%	30,264	2.5697%	37,411	2.6500%	33,838	2.6135%	2.5972%	2.5952%	
Ratio-Plant		2.1424%		2.1920%		2.1675%		2.2038%		2.3751%		2.2953%	2.2314%	2.2283%	2.2%

SFAS No. 109 Reg. Asset Projections

	Actuals				09 TY Rate Case Update		
HECO-1606/HECO-1506	2004	2005	2006	2007	2008	2009	Avg.
Line 4-CWIP Equity Ongoing (Amort)	770	840	893	932	1,013	1,102	925
Line 4-CWIP Equity Ongoing (Add)	3,328	2,567	2,585	2,805	4,805	7,134	3,871
Line 5-Federal ITC (Amort)	622	577	539	487	458	410	
% Decrease		-7.23%	-6.59%	-9.65%	-5.95%	-10.48%	-7.98%

ADIT & Unamortized ITC Projection

	12/31/2010	12/31/2011	12/31/2012
Net Plant in Service	[redacted]	[redacted]	[redacted]
ADIT - Ratio	[redacted]	[redacted]	[redacted]
Estimated ADIT Balance	[redacted]	[redacted]	[redacted]
Unamort. ITC - Ratio	[redacted]	[redacted]	[redacted]
Est. Unamrt. ITC Bal.	[redacted]	[redacted]	[redacted]

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Hawaiian Electric Company, Inc.
Test Year 2009
Unamortized Gain on Sales of Land

Description	Docket No.	Decision and Order No.	Balance 12/31/2007	Additions	Amortize	Balance 12/31/2008	Additions	Amortize	Balance 12/31/2009	Amortize	Balance 12/31/2010	Amortize	Balance 12/31/2011	Amortize	Balance 12/31/2012
Gain on Sales:															
Haiku *	2007-0424		0	318,504		318,504		63,701	254,803						
Barbers Point Sub *	2007-0188	24077	0	34,905	3,490	31,415		6,981	24,434						
Waianae Remnant Site (7)	2007-0189	24098	0	15,343	2,046	13,297		3,069	10,228						
Aiea Park Place (6)	2006-0323	23154	111,522		23,478	88,044		23,478	64,566						
Palolo (5)	05-0280	22664	33,057		8,815	24,242		8,815	15,427						
Queen Emma (1)	02-0098	19839	583,278		279,974	303,304		279,974	23,330						
Iolani Court Plaza (2)	98-0170	16833	490,124	127,439	183,768	433,795		168,265	265,530						
Waianae (3)	98-0314	16935	81,566	77,245	35,119	123,692		37,694	85,998						
Kuliouou (4)	98-0314	16935	63,219		39,928	23,291		23,291	0						
Utility Gain on Sales			1,362,766	573,436	576,618	1,359,584	0	615,268	744,316						
Iolani Court Plaza Lease Premium (8)	2640	3921	7,871	0	3,172	4,699	0	2,950	1,749						
Total Gain on Sales			1,370,637	573,436	579,790	1,364,283	0	618,218	746,065						
Non-utility Gain on Sales **															
Waianae Remnant Site (Non-Utility)	2007-0189	24098	0	35,015	35,015	0	0	0	0						
Waianae (Non-utility)	98-0314	16935	0	39,819	39,819	0	0	0	0						
Total Non-utility Gain on Sales			0	74,834	74,834	0	0	0	0						

(1) Amortized to 41408000
(2) Amortized to 41403000
(3) Amortized to 41412000
(4) Amortized to 41409000
(5) Amortized to 41411000
(6) Amortized to 41414000
(7) Amortized to 41413000
(8) Amortized to 45407100

* Assumptions and estimates provided by Land and Rights-of-Way.
** Non-utility gain recognized entirely in month of sale to NARUC acct 422.

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Hawaiian Electric Company, Inc.

Regulatory Liability - NPPC vs NPPC in Rates

($ Thousands)

Balance, 12/31/07	$	-	[A]
2008			
NPPC in rates ($17,711) vs. NPPC for 2008 ($14,660)	$	3,051	[B]
Balance, 12/31/08 est		3,051	[C] = [A] + [B]
2009 test year			
Amortization (1/5 of 12/31/08 balance)		(610)	[D]=[C] /5
NPPC in rates ($14,623) vs NPPC for 2009 ($14,623)		0	[E]
Balance, 12/31/09 estimate	$	2,441	[F]=[C]+[D]+[E]
Amortization (1/5 of 12/31/08 balance)	$	[redacted]	
Balance, 12/31/10 estimate	$	[redacted]	
Amortization (1/5 of 12/31/08 balance)	$	[redacted]	
Balance, 12/31/11 estimate	$	[redacted]	
Amortization (1/5 of 12/31/08 balance)	$	[redacted]	
Balance, 12/31/12 estimate	$	[redacted]	

Sources:
[B] NPPC in rates per Docket No. 2006-0386; NPPC estimates per Watson Wyatt
[E] NPPC estimate per Watson Wyatt

[A] Tracking mechanism implemented in Oct. 2007 with interim D&O in Docket No. 2006-0386. NPPC in rates equaled SFAS 87 NPPC.

Hawaiian Electric Company, Inc.
OPEB
Regulatory Liability - NPBC vs NPBC in rates
($ Thousands)

Balance, 12/31/07	$ -	[A]
2008		
NPBC in rates ($6,350) vs NPBC for 2008 ($5,573)	(777)	[B]
Balance, 12/31/08 estimate	(777)	[C] = [A] + [B]
2009 test year		
Amortization (1/5 of 12/31/08 balance)	155	[C]/5
NPBC in rates	0	
Balance, 12/31/09 estimate	(622)	
Amortization (1/5 of 12/31/08 balance)	[redacted]	
Balance, 12/31/10 estimate	[redacted]	
Amortization (1/5 of 12/31/08 balance)	[redacted]	
Balance, 12/31/11 estimate	[redacted]	
Amortization (1/5 of 12/31/08 balance)	[redacted]	
Balance, 12/31/12 estimate	[redacted]	

OPEB in rates:		
NPBC (2007)	6,291	
Amortization of 106 Regulatory Asset	1,302	
Electric Discount	(408)	
Executive Life	(835)	
OPEB in rates	6,350	Per Docket No. 2006-0386
2008 OPEB		
NPBC	5,549	Per Watson Wyatt
Amortization of 106 Regulatory Asset	1,302	Per page 2
Electric Discount	(408)	same as OPEB in rates
Executive Life	(870)	Per Watson Wyatt
2008 OPEB	5,573	
2009 OPEB		
NPBC	5,224	Per Watson Wyatt
Amortization of 106 Regulatory Asset	1,302	per page 2
Executive Life	(873)	per Watson Wyatt
2009 OPEB in rates	5,653	

Notes:
[A] Tracking mechanism implemented in October 2007 with interim D&O in Docket No. 2006-0386.
[A] & [B] Estimates per Watson Wyatt

CA-IR-385

Ref: HECO Response to CA-IR-27 (2009 Operating Budget).

According to the response, "HECO does not prepare a long term operating budget. HECO has prepared an operating budget for 2008 and 2009 which is reflected in HECO-WP-101(A) through HECO-WP-101(I)." Please provide the following information:

a. State when the referenced, "operating budget for 2008 and 2009 which is reflected in HECO-WP-101(A) through HECO-WP-101(I)" was completed by HECO.
b. Explain whether any updated iteration of the 2009 operating budget has been prepared by HECO.
c. Provide a complete copy of the most recent available 2009 operating budget for HECO, in the most detailed form it exists.
d. State the general assumptions used in preparing the Company's updated 2009 operating budget and provide complete copies of the documentation associated with such assumptions.
e. Provide an electronic file containing a breakdown of the Company's updated 2009 operating budget in a form comparable to HECO-WP-101(A) through HECO-WP-101(I).

<u>HECO Response:</u>

HECO stated it "has prepared an operating budget for 2008 and 2009" in the response to CA-IR-27. The response should have used the term "operating and maintenance expense budget" (which is a bottoms up build up approach of O&M expense projections) instead of "operating budget" to more precisely describe the HECO-WP-101 workpaper information. In the Supplemental Response to CA-IR-268, HECO is providing a five year proforma income statement, which includes the 2009 operating budget. When responding to this information request, HECO will respond based on the information that was provided in HECO-WP-101(A) through HECO-WP-101(I), which is the O&M expense budget, unless otherwise noted.

a. The O&M expense budget as reflected on HECO-WP-101(A) through HECO-WP-101(I) was completed in May 2008.

b. Yes. Subsequent to preparing its direct testimony, HECO had prepared its 2009 O&M expense budget that generally reflects the changes that were made to the December 2008 update of the 2009 test year estimates.

c. The Company objects to providing O&M expense budget information for 2009 on the grounds that such information contains privileged commercial and financial information that is non-public, confidential information and disclosure of such information could trigger requirements under the rules and guidelines of the Securities and Exchange .Commission and/or the New York Stock Exchange that information that would be meaningful to an investor be released to all investors, if the information is disclosed beyond a limited number of "insiders".

Without waiving any of the objections stated above, O&M expense information taken from HECO's 2009 O&M expense budget is being provided in Attachment 1, but provided subject to the terms of Amended Protective Order No. 23378 to mitigate the concerns of not publicly disclosing financial information elaborated above.

Attachment 1 contains nine reports: S1 corresponds to HECO-WP-101(A); S2 to HECO-WP-101(B); D1 to HECO-WP-101(C); E1 to HECO-WP-101(D); I2 to HECO-WP-101(E); L1 to HECO-WP-101(F); N2 to HECO-WP-101(G); O1 to HECO-WP-101(H); and O2 to HECO-WP-101(I).

d. The Company's 2009 operating budget (which is provided in HECO's Supplemental response to CA-IR-268) reflects a lower 2009 GWH sales forecast than the direct testimony and November 2008 update. Refer to Rate Case Update HECO T-1, page 11 and Rate Case Update HECO T-2, pages 1-4 for the sales forecast of 7,484.7 GWH's that was reflected in the 2009 operating budget. Rate Case Update HECO T-1, pages 15-30 for other specific assumptions included in the updated 2009 operating budget.

e. See HECO's response to part c. above.

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CA-IR-385
DOCKET NO. 2008-0083
ATTACHMENT 1
PAGES 1-1140 OF 1140

Attachment 1 contains confidential information and is provided subject to the Protective Order filed on November 21, 2008 in this proceeding.

Attachment 1 is voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the document. An electronic copy of the requested information is being provided.

CA-IR-386

Ref: HECO Response to CA-IR-272 (Better Place Collaboration)

Please provide a complete copy of the "collaboration agreement" between HECO and BPH, as well as the Company's best estimate of anticipated revenues, expenses, investment and operational impacts in each of the years 2009, 2010 and 2011. Which, if any, of the amounts in your response are expected to be recorded in utility operating income or rate base included accounts?

HECO Response:

The Memorandum of Understanding ("MOU") provided in the Company's response to CA-IR-272 states that HECO and BPH will negotiate and execute a collaboration agreement by February 27, 2009. A collaboration agreement between the parties has not been entered into as yet. Both HECO and BPH have agreed to extend the MOU until December 31, 2009, and are in the process of modifying the MOU to reflect this new target date for the execution of a collaboration agreement. HECO and BPH continue to have discussions related to aspects of the key elements reflected in the MOU. At this point in time, it is still too preliminary for HECO to develop anticipated revenues, expenses, investments and operational impacts without the key elements of the MOU finalized.

CA-IR-387

What unit prices for motor vehicle fuel (gasoline and diesel) were included in the Company's test year ratemaking expense assumptions and how would such amounts be impacted if current actual motor fuel pricing were substituted for the test year assumed pricing? Provide calculations supportive of the approximate ratemaking adjustment that would be required.

HECO Response:

For the test year estimates, vehicle fuel costs are included as part of the vehicle charges that are cleared through the vehicle on-cost. Unit prices were not utilized when determining the motor vehicle fuel estimate included in the vehicle on-cost calculation for the test year. The estimated fuel cost included in the vehicle on-cost calculation for the 2009 test year was $1,413,888, which was the 2008 fuel budget increased by a percentage to account for rising fuel prices.

Based on current information, the amount of the fuel cost that would be included in the vehicle on-cost calculation would be $1,332,918. (See Attachment 1 of this response.) This estimate is based on a 2009 estimated usage multiplied by a 2009 estimated average price, including an estimate for miscellaneous lube, oil and grease costs for 2009. The 2009 estimated usage and fuel price for the biodiesel and unleaded fuel were based on a 3-year historical average. For the propane fuel, a 2-year historical average usage and fuel price were estimated, since 2006 usage and fuel price were not available. The miscellaneous lube, oil and grease costs were estimated based on a 3-year historical average. See Attachment 2 of this response for the calculation of the historical average information. Note that while this IR requests information based on actual current fuel pricing, applying the current fuel pricing in determining the vehicle fuel costs may not be indicative of the prices that will be incurred during the year, as oil prices are starting to escalate again. A historical average may be more indicative of the vehicle fuel costs that would be incurred for the 2009 test year. Attachment 3 of this response provides the

calculation based on fuel prices as of March 23, 2009. Only 61.62% of the vehicle charges are cleared to an expense account. See Attachment 1 for the impact to the test year O&M expense estimate if current information, based on historical average usage and price of fuel were utilized in calculating the 2009 motor vehicle fuel estimate in the vehicle on-cost calculation. See Attachment 3 for the impact to the test year O&M expense estimate if fuel prices as of March 23, 2009 were utilized in calculating the 2009 motor vehicle fuel estimate in the vehicle on-cost calculation.

HECO 2009 Test Year Vehicle Fuel estimate (included in Vehicle Clearing): $1,413,888

	2009 Estimated usage: Note a	2009 Estimated Avg Price Note a	
Biodiesel:	62,960	$3.17	199,310
Unleaded:	296,823	$3.05	906,062
Propane:	16,527	$2.73	45,039
Misc: oil, lube, grease			182,508
2009 Vehicle Fuel estimate at estimated average prices			$1,332,918
Difference			($80,970)
% of vehicle clearings to O&M expense			61.62%
Impact to O&M Expense			($49,894)

Impact to O&M Expense by Block of Account:

Production Operation	($2,618.35)
Production Maintenance	($4,818.85)
Transmission Operation	($5,691.04)
Transmission Maintenance	($5,856.77)
Distribution Operation	($11,113.18)
Distribution Maintenance	($10,824.41)
Customer Accounts	($4,122.99)
Customer Services	($484.63)
A & G Operation	($3,808.84)
A & G Maintenance	($554.54)
	($49,893.61)

Note a: Estimated 2009 usage and price based on 3-year historical average usage and price, if available, or 2-year historical information if not available. See Attachment 2 for historical information.

	2008			2007			2006		
	Actual Usage (gallons)	Actual Cost	Average price/gallon	Actual Usage (gallons)	Actual Cost	Average price/gallon	Actual Usage (gallons)	Actual Cost	Average price/gallon
Biodiesel:	68,081	$247,948	$3.64	72,259	$215,702	$2.99	70,411	$202,071	$2.87
Unleaded:	261,963	$858,988	$3.28	257,529	$765,515	$2.97	250,186	$727,045	$2.91
Propane:	11,189	$34,777	$3.11	13,811	$32,347	$2.34	not available	not available	-----
Misc lube, oil, grease:	not available	$200,097	-----	not available	$164,408	-----	not available	$183,017	-----
TOTAL		$1,341,810			$1,177,973			$1,112,133	

	3 Year Average			
	Actual Usage (gallons)	Actual Cost	Average price/gallon	
Biodiesel:	70,250		$3.17	
Unleaded:	256,559		$3.05	
Propane:	12,500		$2.73	* 2-year average
Misc lube, oil, grease:		$182,508		

HECO 2009 Test Year Vehicle Fuel estimate (included in Vehicle Clearing): $1,413,888

	2009 Estimated usage: Note a	Current Prices as of 3/23/09	
Biodiesel:	62,960	$2.42	152,363
Unleaded:	296,823	$2.04	605,519
Propane:	16,527	$2.37	39,169
Misc: oil, lube, grease			182,508
2009 Vehicle Fuel estimate at estimated average prices			$979,559
Difference			($434,329)
% of vehicle clearings to O&M expense			61.62%
Impact to O&M Expense			($267,633)

Impact to O&M Expense by Block of Account:

Production Operation	($14,045.01)
Production Maintenance	($25,848.66)
Transmission Operation	($30,527.20)
Transmission Maintenance	($31,416.20)
Distribution Operation	($59,611.98)
Distribution Maintenance	($58,062.99)
Customer Accounts	($22,116.07)
Customer Services	($2,599.58)
A & G Operation	($20,430.92)
A & G Maintenance	($2,974.62)
	($267,633.24)

Note a: Estimated 2009 usage based on 3-year historical average usage, if available, or 2-year historical average if not available. See Attachment 2 for historical information.

CA-IR-388

Ref: Lifeline Rates.

a. Please explain the Company's efforts to date to develop proposals for implementation of "Lifeline Rates," as contemplated at paragraph 20 of the "Energy Agreement Among the State of Hawaii, Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs, and the Hawaiian Electric Companies." Provide complete copies of all studies, reports, analyses, projections, workpapers, proposed tariffs and other information associated with such efforts.
b. Please discuss whether the Company intends to seek recovery of the costs incurred to develop and implement Lifeline rates through a separate surcharge or some other cost recovery mechanism. If so, please identify any necessary adjustments to the test year to remove those costs from the test year.

HECO Response:

a. The Company's efforts to date include preliminary research of "Lifeline Rate" programs at other electric utilities and a review of Hawaiian Telcom's "Lifeline/Link-Up Service." The Company has not completed development of a draft proposal, but will share it with the Consumer Advocate as soon as it is completed.

b. HECO anticipates that a separate surcharge or other cost recovery mechanism will be proposed outside of the rate case to recover the incremental cost and/or loss of revenue resulting from any electric bill benefits for participants in a lifeline rate program. This will allow the Commission to consider a lifeline rate proposal on a procedural schedule different from HECO's test year 2009 rate case. HECO has not yet estimated the incremental cost and/or loss of revenue associated with the development and implementation of a lifeline rate program, however, the test year costs estimates do not include any costs or loss of revenue associated with a lifeline rate program, and any surcharge will not include costs that are already recovered or proposed to be recovered in base rates.

CA-IR-389

Ref: HECO Response to CA-IR-275 (Sales Forecast Update).

According to Mr. Alm's T-1 Update at page 4, "The Company has taken other steps to minimize the impact of its rate case updates. First, in connection with its proposal to establish a revenue balancing account to be effective upon the issuance of the interim decision and order in this rate case, the Company prefers not to revise its 2009 test year estimates according to the reduction to its sales forecast." In its response to CA-IR-275, HECO notes that, "These impacts would also drive changes to working cash, taxes and uncollectibles." Please respond to the following:

a. What is the approximate incremental impact of the Company's preference to "not revise" its 2009 test year sales forecast on each of the following elements of the test year revenue requirement:
   1. Uncollectibles.
   2. Fuel inventory.
   3. Working Cash.
b. Explain whether the Company believes that its uncollectibles, fuel inventory and working cash would be more accurately quantified for ratemaking purposes using the test year sales forecast included in its Direct Testimony versus the revised lower sales forecast included in its Update.
c. Explain whether the Company's proposal to "not revise" the sales forecast would imply higher Revenue Balancing Account ("RBA") accruals and carrying charges to be paid by ratepayers in the future, as a known and certain result of not revising for known declines in test year kwh sales.
d. Aside from mitigation of the size of the apparent immediate rate increase, please identify and explain any other benefits believed by Mr. Alm to result from not revising the sales forecast for the test year. For each additional benefit identified, please quantify the benefit and include copies of the supporting workpapers used to develop the Company's response.

<u>HECO Response:</u>

a. Attachment 1 to this response shows the approximate incremental impact of not incorporating the sales forecast reduction into the test year on uncollectibles, fuel inventory and working cash. The impacts are based on a comparison of Attachments 7 and 8 in the HECO T-23 Rate Case Update. The revenue requirement runs in these attachments reflected the "base case" (i.e., they included the 2009 CIP CT-1 plant additions (net of deferred income taxes) in the end of test year rate base balance but not in the beginning of test year rate base balance) and included the cost of the HCEI Implementation Studies.

Although the Company has not revised the uncollectibles factor used to derive its uncollectibles test year estimates, the economic factors contributing to lower sales are also expected to contribute to a higher uncollectibles factor, as recorded uncollectible expenses in 2008 indicate. The recorded uncollectible accounts expense in account 904 in 2008 was $3,646,452 compared to the 2009 test year estimate of $1,339,000 at current effective rates (without the sales forecast reduction). See page 1 of Attachments 2, 3, 4 and 7 of the HECO T-23 Rate Case Update.

b. Assuming that the reduced sales forecast would more closely approximate actual sales in 2009 and that all other aspects of the test year estimates are adjusted to the sales forecast reduction, uncollectibles, fuel inventory and working cash would be more accurately quantified for ratemaking purposes using the revised lower sales forecast included in the HECO T-2 Rate Case Update.

c. If the lower sales forecast more closely approximates actual sales in the test year, not incorporating the lower sales forecast into the test year estimates will generally result in a deferral of cash recovery, with lower billed revenues in the immediate term and a higher RBA upon which interest would be calculated.

d. In addition to mitigating the size of the immediate rate increase, <u>not</u> incorporating the reduced sales forecast into the test year estimates may facilitate processing of this rate case as the other parties have indicated a preference not to incorporate updates of significant impact into the 2009 test year.

	Attachment 7 w/o Sales Reduction Current Effective Rates	Attachment 7 w/o Sales Reduction Proposed Rates	Attachment 8 w/Sales Reduction Current Effective Rates	Attachment 8 w/Sales Reduction Proposed Rates	Incremental Impact Current Effective Rates	Incremental Impact Proposed Rates
EXPENSE						
Uncollectibles	1,339	1,404	1,302	1,375	37	29
RATE BASE						
Working Cash	41,055	40,240	39,651	38,733	1,404	1,507
Fuel Inventory (Ave Balance)	82,683	82,683	80,045	80,045	2,638	2,638

See Rate Case Update, HECO T-23, Attachments 7 and 8.

CA-IR-390

Ref: HECO Response to CA-IR-208, Attachment 1, page 4 (CT 1 - Facilities Repair Expenses).

Please provide the following additional information regarding:

a. Identify each known "modifications to the facilities" that will be needed after the CIP CT-1 service date of July 31, 2009.
b. For each listed "modification" in your response to part a, please explain why the need to relocate or change equipment was not included within the initial design of the facility.
c. Provide a breakdown of the post-in service "actual expenditures for similar purposes following the service date of the Waiau Fuel Pipeline" that is referenced in your response.
d. Explain why the listed modifications to CT-1 would not be capitalized as part of the installed cost of the facility, rather than being expensed.

HECO Response:

a. Examples of modifications to the facility were provided in Attachment 1, page 4, to the response to CA-IR-208. These examples included possible modifications to equipment that may be inadvertently overlooked in the design of the facility but are needed to address safety issues and/or improve operating efficiency at the facility. Examples of such modifications, as stated in CA-IR-208, include:

- Relocating / adding lights,
- Relocating / adding light switches,
- Adding remote indications,
- Adding local on / off stations,
- Adding non-skid surfaces to floors or stairs,
- Providing platforms not originally considered in the design process,
- Providing sidewalks for access not originally considered in the design process; and
- Adding or moving fire protection water spray nozzles.

b. The modifications listed are generalized examples that, through experience, operating and maintenance personnel find were inadvertently overlooked in the original design of the facility. As an example, hoisting capability to remove a pump or motor from its installed position for maintenance may not have been incorporated in the design. Lighting inadequacies may come to the attention of operating personnel only after the facility has been constructed and operators are required to walk through the facility at night. Other personnel safety issues such as tripping hazards or other work area obstructions may require attention. Fire protection is typically based on design drawing and may not take into account field modifications that were made during construction. Details similar to these may not have been included in the original design or may simply be an oversight. In general, it is not uncommon to find many overlooked or excluded, but necessary, details following the construction of a facility.

c. Please refer to Attachment 1 to this response for a description of modifications performed on the Waiau Fuel Pipeline equipment following its service date. Modifications were performed at the Barbers Point Tank Farm ("BPTF") location as well as the related Iwilei Tank Farm location. For the modifications listed at the BPTF location, the cost of the modifications can only be estimated as the charges were embedded in the cost for other work. The estimate for BPTF is $23,000. The cost for the work performed at the Iwilei Tank Farm location was captured in a single work order as a lump sum. Charges to this work order total $36,000. The sum of both locations is $59,000.

Based on a relative comparison of the amount of equipment and site complexity between the Waiau Fuel Oil Pipeline project and CIP CT-1, the $160,000 estimated for modification work at CIP CT-1 is reasonable.

d. The capitalized cost of the project includes the work specified to be a part of the project. Modifications such as those mentioned above, which are not included in the project specifications, would as a consequence not be included in the capital cost of the project. Once the project is completed, all project specifications are satisfactorily met, and the project is closed, capital charges to the project cease. Modifications following the in-service date then become either an O&M expense or part of a follow-up capital project.

Hawaiian Electric Company, Inc.
2009 Rate Case
Waiau Fuel Oil Pipeline Modifications

	Cost
Barbers Point Tank Farm (estimated cost)	
Installed truck rack roof canopy	$ 3,000
Installed lighting for loading operations	$ 2,000
Modified truck rack platform to match height of tanker truck used	$ 10,000
Installed re-circ line on transfer pump	$ 3,000
Purchased spill response kits, sorbents, and cleaning solvent	$ 2,000
Install fuel loading timer and lock box to minimize spills	$ 2,000
Install additional steps for diesel tank stairway for personnel safety	$ 1,000
BPTF Total Estimated Cost	**$ 23,000**
Iwilei (work charged to WO# PR045230)	
Installed lighting for discharge operations	
Obtained jersey barriers for spill containment pit	
Re-coated truck discharge pad w/ oil resistant coating	
Purchased spill response kits, sorbents, and cleaning solvent	
Installed electric heat trace on piping and re-insulated due to cold plugs on piping.	
Changed out door frame and door at Terminal Automation System Room (door was non-standard and too wide for room size; blocked entry/exit access)	
Changed out discharge pump seal several times during first year of operations.	
Installed chain fall mount to facilitate removal of discharge pump	
Iwilei Total	**$ 36,862**
Grand Total	**$ 59,862**

CA-IR-391

Ref: HECO Response to CA-IR-207, Attachment 1 (CIP CT-1 Operating Expenses).

For each of the following line items, please provide a detailed price times quantity calculation, proving the reasonableness of the projected expense amount, along with contract/invoice documentation and all available support for the assumptions employed in your calculations:

a. Reverse Osmosis (RO) Water $90,000 – provide consumption calculations and water supply contract support.
b. City Water $3,000.
c. Telephones, Cell, pagers $5,400.
d. Chemicals $105,000 – for each type of chemical, provide support for quantities and prices, including studies of "similar facilities performing similar duty."

HECO Response:

a. RO Water expense was recalculated in HECO's response to CA-IR-468 due to the delayed in-service date of the Water Treatment System. Please refer to CA-IR-468 for the recalculated expense and proposed adjustment to 2009 Budgeted O&M and Full Cost O&M.

b. In the absence of a price times quantity historical reference or clearly understood forecast consumption levels, the City Water expense of $3,000 was based on a nominal amount of $500 per month beginning July 2009. This expense is primarily for domestic water consumption ($6,000 for the full year). By comparison, City Water consumption at HECO's other power plants are as follows:

    1. Kahe Station (RA:PIK) is budgeted for $17,700 per month or $212,400 total (refer to CA-IR-2, HECO T-7, Attachment 11D, page 2). Kahe Station city water expense is not a good indicator of city water expense for CIP CT-1 as Kahe Station uses city water in the production of demineralized water and CIP CT-1 does not.

2. Waiau Station (RA:PIW) is budgeted for $1,500 per month or $18,000 total (refer to CA-IR-2, HECO T-7, Attachment 11K, page 2). Waiau Station city water consumption provides the best cost reference for CIP CT-1 as Waiau Station city water consumption is primarily domestic consumption. The relative station staffing level at CIP CT-1 is on the order of 10% of Waiau Station.
3. Honolulu Station (RA:PIH) is budgeted for $3,500 per month or $42,000 total (refer to CA-IR-2, HECO T-7, Attachment 11C, page 2). Honolulu Station city water expense is not a good indicator of city water cost for CIP CT-1 as Honolulu Station uses city water in the production of demineralized water and CIP CT-1 does not.

c. The referenced amount of $5,400 consists of the following items identified in CA-IR-2, HECO T-7, Attachment 11M, page 2:

1. Land line telephone additions for CIP CT-1. This cost was estimated at $400 per month from July through December and a total of $2,400. A total of two Hawaiian Telcom land line phones are now anticipated for the CIP CT-1 facility. The cost is estimated to be $50 per line or $100 per month and $600 for the period July through December and $1,200 per year.
2. Cellular phone additions for CIP CT-1 personnel. This cost was estimated at $500 per month from July through December for a total of $3,000. A total of six cellular phones are now expected to be assigned to personnel at CIP CT-1. The service cost is estimated to be $50 per phone, depending on the features subscribed to. The total cost is expected to be approximately $300 per month or $1,800 for the period July through December and $3,600 for the year. Beginning April 2009,

four cellular phones have already been assigned to personnel stationed at CIP CT-1.

d. The referenced amount of $105,000 consists of the following items identified on Rate Case Update, HECO T-7, Attachment 14, page 6:

1. Water Treatment Chemical expense from June 2009 to December 2009 at an estimate of $7,000 per month and a total of $49,000. As stated in HECO's response to CA-IR-297, HECO will propose the removal of this expense.
2. Demin/Evap Chemicals expense from June 2009 to December 2009 at an estimate of $2,000 per month and a total of $14,000. The Demin/Evap Chemical expense was recalculated in HECO's response to CA-IR-468 due to the delayed in-service date of the Water Treatment System. Please refer to CA-IR-468 for the recalculated expense and proposed adjustment to 2009 Budgeted O&M and Full Cost O&M.
3. Boiler Water Treatment chemical expense from July 2009 to December 2009 at an estimate of $7,000 per month and a total of $42,000. As stated in HECO's response to CA-IR-297, HECO will propose the removal of this expense.

CA-IR-392

Ref: HECO Response to CA-IR-312, Attachment 5 (Production Maintenance Expense).

a. Please explain and itemize costs for the primary projects that contributed to the $11.2 million in "Cycling Unit Overhauls" in 2008, a cost level much higher than all prior years and the proposed test year.
b. Provide a copy of the actual outage schedule for historical year 2008, indicating which cycling unit outages contributed to the extraordinary costs described in your response to part (a).
c. Provide an itemized listing of the "Other Project" activities that make up the $4,062,063 of actual spending in 2008.
d. For each item listed in your response to part (c), please identify the date when the project was first included in the Company's prioritized station maintenance listing.
e. Provide an itemized listing of the "Other Project" forecasted activities that make up the $5,249,588 for the test year.
f. For each item listed in your response to part (e), please identify the date when the project was first included in the Company's prioritized station maintenance listing.

HECO Response:

a. The primary projects that contributed to the $11,200,000 in "Cycling Unit Overhauls" in 2008, include Waiau 5 (W5) overhaul and Honolulu 8 (H8) overhaul. A description of the work performed at each overhaul is included in the table below. The increase in cost in 2008 for Cycling Unit Overhauls relative to 2007 and 2009 was a function of timing of work effort on the units.

Project	Cost	Comments
W5	$5,095,000	P0001279; 1/14/08 to 4/19/08. Boiler Standard, Boiler Chemical Clean, HP Turbine, and LP Turbine.
H8	$6,110,000	P0001278; 4/22/08 to 9/6/08. Boiler Standard, Boiler Chemical Clean, HP Turbine, LP Turbine, and Generator.
Total	$11,205,000	

Referring to the Excel file "HECO Units' Recommended Interval Inspections (30yrs. Mstr. Calendar 2035) 12.07.07 - ENGR.TSD - jjc.xls" which was provided in response to

CA-IR-194 or the hard copy earlier version of the file, HECO-714; due to timing, in 2008 overhaul maintenance work was biased to W5 and H8. W5 overhaul included Boiler Standard, Boiler Chemical Clean, HP Turbine, and LP Turbine. H8 overhaul included Boiler Standard, Boiler Chemical Clean, HP Turbine, LP Turbine, and Generator. (These listed types of work were described in CA-IR-231, Docket No. 2006-0386.) With the bias of work to H8 and W5, however, came a shift of work away from other units on the Planned Maintenance Schedule. In 2008, overhaul work and cost was biased to H8 and W5 and away from the Reheat 90 Overhauls. This same timing issue biased the work and cost to the Reheat 90 Overhauls in 2007 and away from the Cycling Unit Overhauls, Reheat 140 Overhauls, and Combustion Turbines. This periodic biasing of work and cost can be readily seen in HECO's response to CA-IR-312, Attachment 5, and the Excel file/HECO-714. When viewed in the aggregate, however, the Sum of Overhauls total cost follows a fairly consistent trend, as shown in CA-IR-312, Attachment 5.

b. The 2008 Actual Planned Maintenance Schedule is provided at Attachment 1 to this response.

c. The "Other Project" activities that make up the $4,062,063 of actual spending in 2008 are as listed below:

Project	Description	Cost	Date when the project was first included in the Company's prioritized station maintenance listing
P0000346	A/C Repair (Consolidated)	$7,175	This project is managed by Facilities. It has never been on any station maintenance listing. It has been in use since February 2002.
P0000524	PSOM Structural Engineering	$37,794	This project is used to collect Civil Structural O&M work. It is managed by O&M Department but has never been on the station maintenance

			listing. It has been used continuously since February 2003.
P0001170	CIP0 Air Quality Monitoring Stations	$1,064	This is a community give back project associated with the CIP CT-1 Plant. It has never been on the station maintenance listing. It has been in use continuously since February 2006.
P0001271	PS O&M Program	$3,969,291	Refer to Attachment 2 for details.
P0001581	K7/8 Sheet Pile Refurbishment	$46,739	The project was first entered in the 03/05/08 O&M list with the major work to be done in 2010. The 2008 expenditure includes Engineering charges.
Total		$4,062,063	

d. Please refer to the table in part (c) above.

e. The "Other Project" activities that make up the $5,249,588 for the 2009 test year are as listed below:

Project	Description	Cost	Date when the project was first included in the Company's prioritized station maintenance listing
P0000346	A/C Repair (Consolidated)	$17,340	This project is managed by Facilities. It has never been on any station maintenance listing. It has been in use since February 2002.
P0000524	PSOM Structural Engineering	$101,178	This project is used to collect Civil Structural O&M work. It is managed by O&M Department but has never been on the station maintenance listing. It has been used continuously since February 2003.
P0000680	W0 Waiau Waste Oil Recover	$9,299	This project was approved in April 2002 but not authorized until October 2007. It was created by PSED. It has never been on the station maintenance listing.
P0001269	Kahe Fuel Oil Tank 11 Clean/Inspect	$328,955	Project was first budgeted in 2008; 50% of the cost in 2008 and 50% in 2009.
P0001271	PS O&M Program	$4,654,958	Refer to Attachment 3 for details.

P0001574	K2 Replace H2 Purity Meter	$4,429	Project was approved in April 2008. It was created by PSED. It has never been on the station maintenance listing.
P0001575	K1 Replace H2 Purity Meter	$4,429	Project was approved in April 2008. It was created by PSED. It has never been on the station maintenance listing.
P0001269	Kahe Fuel Oil Tank #11 Maintenance	$329,000	This 50% portion of the project cost was deferred from 2008 to 2009 per Rate Case Update, HECO T-7.
P0001271	Iwilei Pipeline	($200,000)	Removed per Rate Case Update, HECO T-7.
Total		$5,249,588	

f. Please refer to the table in part (e) above.

An HEI Company

POWER SUPPLY OPERATION & MAINTENANCE
2008 PLANNED MAINTENANCE SCHEDULE

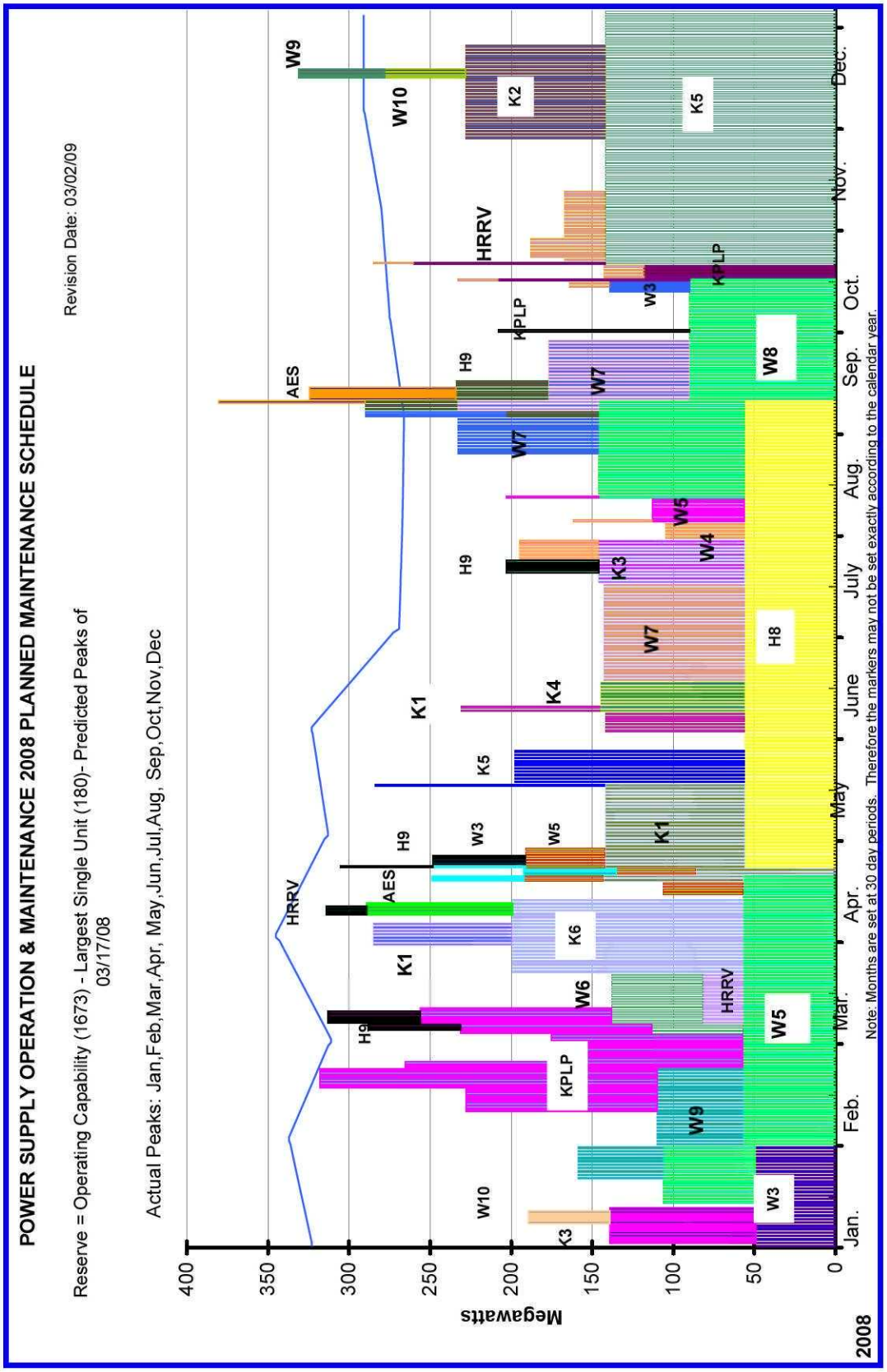
Peaks as of: 3/17/2008
Revision date: 3/2/2009

Comments:
Revised 5-22-08
Approved 5-22-08
Revised 7-15-08
Revised 7-22-08
Approved 7-22-08
Revised 9-15-08
Revised 9-24-08
Revised 10-01-08
Revised 10-3-08
Approved 10-3-08
Summary Draft 3-2-09
Summary Approved 3-3-09

UNIT	DATE				Duration	REMARKS
	Brk Op	Start	Bkr Cl	Firm	(Wks.Days)	
W3	12/10/2007	12/11/2007	1/30/2008	1/30/2008	7.3	MOa(Turbine vibration, #1 bearing, APH sootblowers,APH Wash)
K3	1/2/2008	1/3/2008	1/11/2008	1/12/2008	1.3	MOa(APH Wsh), PCT (cap) Instal(postpone next OH),Mauka RH IV/Stp Hyd Lk
W10	1/8/2008		1/11/2008		0.4	MOa(videoprobe, hydraulic pmp replace)
W5	1/14/2008	1/14/2008	3/27/2008	4/19/2008	10.4	PO-a(HP/LP,BCC,APH Rtr Repairs,OCB Wirng, FWH52,PO-1/2,W51BFPvolute)
W9	1/21/2008	1/21/2008	2/15/2008	2/22/2008	3.5	MOa(ovation upgrade,"C" bus (subsn), 1 wk tuning, viidprcomb liners)
KPLP-	2/10/2008		2/16/2008		1.0	(a)118 MW Loss, CT1 C Inspection
KPLP	2/17/2008		2/24/2008		1.1	(a)208 MW Loss, ST Outage; CT2 "B" Insp
KPLP-	2/25/2008		3/11/2008		2.2	(a)118 MW Loss, CT1 C Inspection
W6	3/4/2008	3/4/2008	3/20/2008	3/21/2008	2.3	MO-a(w/W5 for CW disch tun inspect/clng, CW inlet tun clng)
H9	3/5/2008	3/6/2008	3/9/2008	3/10/2008	0.5	(a)FO(lwr header hh leak, drain line lk)
HRRV-	3/7/2008		3/21/2008		2.1	(a)23 MW Loss
K6	3/22/2008	3/23/2008	4/11/2008	4/12/2008	3.0	MO-a(Blr/APH Wash, Blr Inspect (permit exp 7/9/08), SPR)
K1	3/30/2008	3/31/2008	4/4/2008	4/5/2008	0.6	(a) MO (Hot Inter, Cold Inter APH Baskets Replacement)
AES-	4/8/2008		4/11/2008		0.4	(a)"B" blr leak
HRRV-	4/8/2008		4/10/2008		0.3	(a) #2 blr tube leak
W3	4/14/2008	4/14/2008	4/26/2008	4/27/2008	1.6	MO-a(sblwrs rail adjmts, ignitors, trb hi-vib, trb glds, trb tv, oil purfy)
K1	4/18/2008	4/19/2008	5/15/2008	5/16/2008	4.0	MO-a(Opacity Monitr Upgrade,APH Wsh,Cond Slev,BLk Plnt-Acompr
H9	4/18/2008	4/19/2008	4/21/2008	4/22/2008	0.4	(a)MO(blr tube leak, buckstay)
H8	4/22/2008	4/22/2008	7/31/2008	9/6/2008	14.3	PO(a)-(Annun,VReg,TSI,Main Tsf,HP/LP,APH CE tubes,Gen,OCB 4552)
W5	4/22/2008	4/23/2008	4/24/2008	4/25/2008	0.3	(a)MO(makai throttle valve lk reparis)
K5	5/16/2008	5/17/2008	5/25/2008	5/26/2008	1.3	(a)MO(APH Wash, #7 gen bearing, Mn Xfmer SPR,Trb autostop oil)
K1	6/1/2008	6/1/2008	6/7/2008	6/8/2008	1.0	FO-a(SFO strainer valve repairs, trb lube oil pmp mtr)
K4	6/7/2008	6/8/2008	6/14/2008	6/15/2008	1.1	(a)MO (APH Wash, Mn Xfmer SPR re-connect)
W7	6/16/2008	6/16/2008	7/13/2008	7/14/2008	4.0	(a)MO(Main Xfmer replace(blk plnt),Cond WtrBx Xover Vlv, APH wash,APH Int Bsk)
K3	7/15/2008	7/15/2008	7/26/2008	7/27/2008	1.5	MO(a)(APH/Economzr wash,HP spline coupling inspect)
H9	7/18/2008	7/18/2008	7/21/2008	7/21/2008	0.4	(a)MO (blr front ww hdr plug, supply tbes lk;lwr rear ww hdr supply tbes lk)
W4	7/22/2008	7/22/2008	8/1/2008	8/2/2008	1.4	FO-a(Gen H2 lk, APH Wash, seal oil cooler replace. APH sootblwers)
W5	8/2/2008	8/2/2008	8/9/2008	8/9/2008	1.1	MO(a)(MS stop vlve, trb throttle valves, trb o/s trip spring)
W8	8/9/2008	8/9/2008	10/11/2008	10/12/2008	9.1	PO(a)(OCB 107/108,blr per, AH stp al,Ex/VR,H2 Dry,Trb Drn MOV, CW tunel)
W7	8/22/2008	8/22/2008	9/2/2008	9/3/2008	1.5	FO(a)-(Mn Xfmer Bushing/Ltng Arrestor Failure frm xfmer fire suppression sys)
H9	9/2/2008	9/2/2008	9/11/2008	9/12/2008	1.3	MO-a(APH Wash, OCB 4553,Blr tbe repairs,H94 FWH-cancelled)
W7	9/4/2008	9/4/2008	9/23/2008	9/24/2008	2.6	FO(a)-PB756 Electrical Cable Fire
AES-	9/6/2008		9/10/2008		0.5	FO(a)-blr ww tube leak
KPLP-	9/27/2008		9/27/2008		0.1	(a)118 MW Loss, CT2 HRSG wash
W3	10/9/2008	10/9/2008	10/11/2008	10/11/2008	0.3	MO(a)(ID Fan Rotor Bearing Measurements)
HRRV-	10/10/2008		10/18/2008		1.2	(a)23 MW Loss
HRRV	10/19/2008		10/24/2008		0.6	(a)46 MW Loss
HRRV-	10/25/2008		11/7/2008		2.0	(a)23 MW Loss
KPLP-	10/12/2008		10/17/2008		0.6	(a)-118 MW (CT1 "B" Inspection)
K5	10/17/2008	10/18/2008	1/30/2009	2/6/2009	15.1	PO(a)(Ign,H2 Anzr,HP/IP,LP, Blr stk gunite/ext paint,VR,Annun,OCB246/247,SPR)
K2	11/23/2008	11/23/2008	12/18/2008	12/20/2008	3.5	MO(a)(APH CE,APH,blr per 12/6/08,FWH 25 inspt,chlr,blr ww tbe rem)
W9	12/11/2008		12/13/2008		0.3	(a)FO(flooding of control cables)
W10	12/11/2008		12/13/2008		0.3	(a)FO(flooding of control cables)

Dan Giovanni
Power Supply O&M Manager

Date


POWER SUPPLY OPERATION & MAINTENANCE 2008 PLANNED MAINTENANCE SCHEDULE
Reserve = Operating Capability (1673) - Largest Single Unit (180)- Predicted Peaks of 03/17/08
Revision Date: 03/02/09
Actual Peaks: Jan,Feb,Mar,Apr, May,Jun,Jul,Aug, Sep,Oct,Nov,Dec
Megawatts
400
350
300
250
200
150
100
50
0
Jan.
Feb.
Mar.
Apr.
May
June
July
Aug.
Sep.
Oct.
Nov.
Dec.
2008
Note: Months are set at 30 day periods. Therefore the markers may not be set exactly according to the calendar year.

Hawaiian Electric Company, Inc.
2009 Rate Case
P0001271 PS O&M Program 2008 Actuals

LOC	WO#	DESCRIPTION	TOTAL	Date when the project was first included in the Company's prioritized station maintenance listing
HON	PR066284	In-Line Planning & Inspection (Piping)	$5,609	First budgeted in 2007. Majority of the work was done in 2007. This was a carryover from 2007 to 2008.
HON	PR061796	HPP BUILDING REPAIRS 2007	$105,457	Unbudgeted work in 2008. Continuation of work from 2007, when $64,000 of $160,000 budget was spent.
HON	PR066283	Iwilei Pipeline Repairs	$286,107	Budgeted as $300,000 in 2007 but deferred to 2008 due to lack of pigging data to locate the digs. Budgeted as $200,000 in 2008.
HON	HP002704	Iwilei Pipeline NS and ILI Continuation	$636,433	Part of Iwilei repairs above.
KAHE	PR074079	TB K4 Replace Cold End Baskets	$319	Unbudgeted labor in anticipation of replacing baskets. This work will likely be done in 2010 overhaul.
KAHE	PR061105	Kahe Stilling Basins Concrete Repairs	$17,790	Budgeted $100,000 in 2008. Also budgeted $150,000 in 2007; spent $93,200.
KAHE	PR072348	Kahe back office clean up/repairs	$23,899	Unbudgeted in 2008. Not previously budgeted.
KAHE	PR065863	Refurbish/Modernize K1-4 Gantry Crane	$94,844	Unbudgeted work started in 2007 and completed in 2008.
KAHE		K1-4 Controls	($62,675)	Credit associated with the accrual of crane work above
KAHE	PR065862	Refurbish/Modernize K5&6 Gantry Crane	$153,788	Unbudgeted work started in 2007 and completed in 2008.
KAHE		K5&6 Controls	($126,099)	Credit associated with the accrual of crane work above
KAHE	PR068997	K1-4 GANTRY CRANE REPAIRS	$140,628	Budgeted in 2008.
KAHE	PR069169	K5/6 GANTRY CRANE REPAIRS	$181,702	Cost covered by asset optimization funds in 2008.
KAHE	PR071402	Kahe 1-6 Basin Dredging	$143,892	Budgeted at $136,600 in 2008. Also budgeted at $200,000 in 2007; spent $132,400.
KAHE	PR062362	LM K42BFP Poor Ultrasound & Performance	$157,120	Budgeted at $170,000 in 2008. This work is budgeted annually.
KAHE	PR075491	LM K22BFP Degraded performance	$205,343	Unbudgeted. Budget covered volute above.

Hawaiian Electric Company, Inc.
2009 Rate Case
P0001271 PS O&M Program 2008 Actuals

LOC	WO#	DESCRIPTION	TOTAL	Date when the project was first included in the Company's prioritized station maintenance listing
KAHE	PR060367	K1-Replace Hot Int and Cold Int Baskets	$210,033	Unbudgeted in 2008. Not previously budgeted.
KAHE	PR071886	KGP TURBINE DECK COATING REPAIRS	$217,628	Budgeted in 2008 at $300,000. Budgeted in 2007 at $300,000; not done. Budgeted in 2006 at $300,000; not done. Budgeted in 2005 at $15,000; $6,700 spent.
KAHE	PR071875	KAHE PP ROADWAY REPAIRS - 2008	$270,920	Budgeted in 2008 at $200,000. Also budgeted in 2007 at $100,000; spent $157,000.
KAHE	PR067490	K1-Design plan execute condenser repairs	$425,750	Budgeted in 2008 at $400,000. Not previously budgeted.
WAIAU	PR068555	Waiau Raw Water Tunnel Inspect and Clean	$45	Unbudgeted in 2008. Not previously budgeted.
WAIAU	PR068998	W10: Replace combustion liners (CI)	$4,321	Unbudgeted in 2008. Not previously budgeted.
WAIAU	PR076614	Waiau EDR Upgrade	$49,084	Unbudgeted in 2008. Not previously budgeted.
WAIAU	PR068987	W7&8: Gantry Crane-Modify Bus System	$106,236	Covered by Asset Optimization in 2008. Not previously budgeted.
WAIAU	PR068689	W6 CW Disch Tunnel Cleaning and Repair	$145,749	Covered by Asset Optimization in 2008. Not previously budgeted.
WAIAU	PR075834	W5/6 Crane Replace crane controls	$151,820	Covered by Asset Optimization in 2008. Not previously budgeted.
WAIAU	PR070482	W33 BFP Repair/Refurbishment	$182,418	Budgeted in 2008 at $150,000. Budgeted in 2007 at $188,600; $0 spent.
WAIAU	PR068669	W3: HP Turbine Repair	$241,131	Unbudgeted in 2008. Not previously budgeted.
		TOTAL	$3,969,291	

Hawaiian Electric Company, Inc.
2009 Rate Case
P0001271 PS O&M Program 2009

LOC	WO#	DESCRIPTION	AMOUNT	Date when the project was first included in the Company's prioritized station maintenance listing
HON		Boiler Feed Pump OH	$170,000	Budgeted annually, used as needed.
HON		Stores - Boiler Feed Pump OH	$17,901	Loading for above.
HON		Hicks Plt Crane Ctrls Upgrade	$150,000	First budgeted in 2009.
HON	PR078786	Tunnel FO Pipe Replacement	$200,000	First budgeted in 2009.
HON		Asset Optimization	$156,000	Budgeted annually, used as needed.
HON		Iwilei Pipeline Repairs	$200,000	Budgeted as $300,000 in 2007 but deferred to 2008 due to lack of pigging data to locate the digs. Budgeted as $200,000 in 2008.
KAHE	PR062362	Boiler Feed Pump Volute OH	$170,000	Budgeted annually, used as needed.
KAHE		Stores - Boiler Feed Pump Volute OH	$17,901	Loading for above.
KAHE	PR078145	Travelling Screens OH	$240,000	Budgeted at $50,000 in 2006; spent $44,100. This work is budgeted as needed.
KAHE		Asset Optimization	$499,200	Budgeted annually, used as needed.
KAHE	PR071402	Basin Dredging	$150,000	Budgeted at $136,600 in 2008. Also budgeted at $200,000 in 2007; spent $132,400.
KAHE	PR061105	Stilling Basin Structural Repair	$100,000	Budgeted $100,000 in 2008. Also budgeted $150,000 in 2007, spent $93,200.
KAHE		Shoe Box South Wall Spall & Fence	$200,000	Previously budgeted in 2006 at $50,000; $0 spent.
KAHE		Pond 2A & 2B Cleaning	$220,000	Not previously budgeted. Previously done unbudgeted in 2005 at $99,000.
KAHE	PR071875	Paving Repairs	$200,000	Budgeted in 2008 at $200,000. Also budgeted in 2007 at $100,000; spent $157,000.
KAHE	PR071886	Turbine Deck Coating Repairs	$300,000	Budgeted in 2008 at $300,000. Budgeted in 2007 at $300,000; not done. Budgeted in 2006 at $300,000; not done. Budgeted in 2005 at $15,000; $6,700 spent.
KAHE		Fuel Oil Line Dead Leg Removal & Rep	$130,000	First budgeted in 2009.
WAIAU	HP002913	W31 Boiler Feed Pump OH	$100,000	Budgeted annually, used as needed.
WAIAU		Stores - W31 Boiler Feed Pump OH	$10,530	Loading for above.
WAIAU		Turbine Deck Coating Repairs 7/8	$300,000	Previously budgeted in 2005 at $50,000; $0 spent.

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LOC	WO#	DESCRIPTION	AMOUNT	Date when the project was first included in the Company's prioritized station maintenance listing
WAIAU		Travel Screens OH 3/4	$240,000	Previously budgeted in 2008 at $240,000; $88,500 spent.
WAIAU		Stores - Travel Screens OH 3/4	$25,272	Loading for above.
WAIAU		Circ Water Pump OH	$180,000	Budgeted in 2008 at $180,000; $0 spent in O&M. Work done on the property unit level at $157,933 in capital.
WAIAU		Stores - Circ Water Pump OH	$18,954	Loading for above.
WAIAU		Asset Optimization	$499,200	Budgeted annually, used as needed.
CIP		Facility Repairs	$160,000	First budgeted in 2009.
		TOTAL	$4,654,958	

CA-IR-393

Ref: HECO Response to CA-IR-310, Attachment 1 (Raw Material Price Indexes).

Please provide the following information:

a. Describe whether HECO personnel, in preparing rate case non-labor forecasts, considered the price trends indicated in the Direct Testimony version of HECO-745 in estimating test year anticipated expense levels.

b. If your response to part (a) is negative, please explain why the raw materials price index information was deemed relevant for inclusion as an Exhibit in the rate case.

c. If your response to part (a) is affirmative, please provide a detailed itemization of the further adjustments to test year expenses that would be required at this time to recognize the generally lower price trends extant in late 2008 in connection with the current economic recession.

HECO Response:

a. In general, HECO monitors the price trends that may affect the cost of performing its work. As stated in HECO T-7 direct testimony at page 102, HECO receives monthly updates from suppliers on market prices of commodities that affect materials price escalation. However, the price trends shown in HECO-745 were not explicitly used in estimating test year anticipated expense levels.

b. The raw materials price index information was provided as HECO-745 because it illustrates the periodic volatility of raw material prices as well as the longer-term, general trend of material prices that affect the cost of performing work rising more quickly than the increase in the Consumer Price Index. HECO-746, a sampling of 50 items purchased by PSO&M, also shows a trend of rising prices. Please refer to HECO T-7, pages 102-103. Because of increases in materials prices, which at times have been dramatic, work was oftentimes performed at a cost that exceeded the budget and/or lower priority discretionary work was deferred. As shown on the graph in HECO's response to CA-IR-310 (HECO-745, updated 1/27/09), the recent short-term price movement has been sharply lower for some materials,

but not for others. In estimating future prices of materials, the general trend of prices should be given more weight than the exceptional economic events of the last six months.

c. Not applicable.

CA-IR-394

Ref: HECO-907 (CIS Expenses).

Please provide the following information regarding the projected test year Customer Information Service ("CIS") expenses projected for the test year on this Exhibit:

a. A detailed monthly breakdown of each line item on HECO-907, supporting the amounts initially included in the Company's Direct Testimony filing.
b. An updated detailed monthly breakdown for each line item on HECO-907, supporting the amounts currently expected to be expended in each month of 2009, based upon the current status and expectations regarding completion of the CIS system.
c. Explain each assumption that was revised in comparing HECO-907 in the prefiled case to your response to part (b) of this information request.
d. Provide complete copies of all documents supportive of your revised assumptions set forth in the response to part (c) of this information request.

<u>HECO Response:</u>

a. - b. Please see the Company's response to CA-IR-323 which states that, at this time, the HECO Companies believe that it is likely that the CIS project will not be placed into service in 2009. As reflected in the revised HECO-907 (Attachment 1A of the response to CA-IR-323), most of the CIS project costs are being removed from the 2009 test year except for reclassified on-costs of $306,102. These costs by month (and account code) were provided in the response to CA-IR-149, Attachment 3, pages 3, 7, 8 and 11.

c. - d. Please see the response to subparts a. and b. above and the response to CA-IR-323 which states that most of the CIS project costs are being removed from the 2009 test year.

CA-IR-395

Ref: HECO-908 (CIS Project and Post Go-Live Expenses).

Please provide the following information regarding the projected test year "Project and Non-project" expenses projected for the test year on this Exhibit:

a. A detailed monthly breakdown of each line item on HECO-908, supporting the amounts initially included in the Company's Direct Testimony filing.
b. An updated detailed monthly breakdown for each line item on HECO-908, supporting the amounts currently expected to be expended in each month of 2009, based upon the current status and expectations regarding completion of the CIS system.
c. Explain each assumption that was revised in comparing HECO-908 in the prefiled case to your response to part (b) of this information request.
d. Provide complete copies of all documents supportive of your revised assumptions set forth in the response to part (c) of this information request.

<u>HECO Response:</u>

a. - b. Please see the Company's response to CA-IR-323 which states that, at this time, the HECO Companies believe that it is likely that the CIS project will not be placed into service in 2009. As reflected in the revised HECO-908 (Attachment 2 of the response to CA-IR-323), most of the CIS project costs are being removed from the 2009 test year except for $60,468 to purchase Standard Register forms for the continuation of the current billing system. The breakdown for this expense is $10,078 per month for July through December 2009 ($10,078 x 6 months = $60,468) and is consistent with the monthly charges for Standard Register Bill Forms for HECO from January through June 2009, as shown in Attachment 2, page 3, in the response to CA-IR-2, HECO T-9.

c. - d. Please see the response to subparts a. and b. above and the response to CA-IR-323 which states that most of the CIS project costs are being removed from the 2009 test year.

CA-IR-396

Ref: HECO T-9 Update, page 2, (Temporary Meter Readers).

According to the T-9 update narrative, "Four of the additional temporary meter readers are needed to support the operations by performing the duties of these regular employees after the go-live date and during the transition period in which other parts of the Company become more accustomed to the new CIS system…The two remaining temporary meter readers will replace regular meter readers who will supplement HECO's current senior field investigator staff in addressing an increase in bill inquiries ("BI")." Please provide the following additional information:

a. Copies of supporting studies, calculations, workpapers, projections and other reports associated with the decision to hire these additional contract personnel.
b. A monthly breakdown of the revised test year proposed expenses for all temporary meter readers, indicating the hire and release dates for the eleven temporary meter readers in Direct Testimony (T-9, page 10) and each of the six added positions.
c. Updates to the response to part (b), as necessary to fully reflect the Company's current expectations regarding completion and go-live of the CIS system.
d. Copies of monthly 2009 invoices and other indicia of hiring and paying the temporary meter reader personnel.
e. Explain why the needs for staffing after go-live and during transition of the CIS have changed, relative to previous plans that were reflected in the Company's Direct Testimony.
f. Describe HECO's plans and expected timing (by month/year) for returning to more normal staffing levels for temporary and permanent meter reading personnel after completion of the CIS transition period.

<u>HECO Response:</u>

a. At the time of the HECO T-9 update, additional resources were needed for testing and retesting of the CIS software due to an unexpected number of software defects. With the growing backlog of incidents, the testing completion rate fell well below the rate needed to meet the planned schedule. This issue is raised on page 12 of the Customer Information System Notification Filing ("CIS Notification"), dated July 1, 2008, in Docket No. 04-0268, regarding the decision to assign additional staff to execute tests on the CIS project and also in the Vertex Quality Assurance Review, dated August 2008 (see response to Revised CA-IR-146, confidential Attachment 1, pages 556-558). Additional meter

readers were added to the CIS project as testers to mitigate the risk of delay in the completion of testing and additional temporary meter readers were required to take their place and support daily operations.

b. See Attachment 1, Page 1, for the projected expense for the 11 temporary meter readers that were initially included in the test year and discussed in direct testimony, HECO T-9. The estimated expense of $349,200 is based on the hours shown on CA-IR-1, HECO T-9, Attachment 2, Page 43, and the hourly rate from CA-IR-239, Attachment 1, Page 2 of 22 "SUMMER, Summer Hire". Page 2 of Attachment 1 provides the monthly breakdown of the additional expense for the six temporary meter readers discussed in the Rate Case Update, HECO T-9, page 2. However, upon review of the costs, the Company discovered that it had inadvertently neglected to decrease its O&M labor costs for the four regular meter readers that it planned to assign to the CIS project and whose labor expenses will be deferred. As a result, the estimated O&M expense of $352,800 for the additional six temporary meter readers is reduced by $235,200 to $117,600 (see Attachment 1, Page 3 for the revised amount).

Page 1 of Attachment 4 is the revised Attachment 1 to the response to CA-IR-323 and reflects the removal of the four temporary meter readers from the updated test year O&M expenses. Pages 2 and 3 of Attachment 4 also reflect the changes to revised HECO-901 which was filed in the HECO T-9 Rate Case Update, Supplemental Filing (pages 7 and 8). Page 1 of Attachment 4 also reflects a correction to the ADIT impact amount associated with the delay in the CIS in-service date (see item 3 of "AVERAGE RATE BASE ITEMS", item 3). The initial amount reflected for the change in ADIT incorrectly removed the average ADIT balance in the test year. However, with continued

CIS development activities throughout 2009, there will be, instead, an increase in average deferred taxes, i.e., an additional reduction to average rate base, of $305,908 (see Attachment 4, page 4).

The remaining expense of $117,600 is still included in the test year O&M expenses to support the two temporary meter readers who are replacing the regular meter readers that assist the senior field investigator staff. HECO anticipates that as long as the current poor condition of the economy continues, these two meter readers will be required to support operations and address the increase in the field related work load, as noted in the response to CA-IR-315 (b). Data for collection orders generated in 2009 continue to reflect the increase in collection work as noted in Table 1 below and Attachment 3, page 1.

Table 1 – Collection Orders Generated – Monthly Average

Collection Orders Generated Monthly Average				
	2006	2007	2008	2009 YTD*
Collection Orders	4105	3864	5005	5193
*YTD February 2009				

c. At this time, because the Company is reassessing the testing plan for the CIS, a portion of the regular employees will temporarily return to their regular positions in April 2009 and four of the temporary meter readers are expected to be released. Temporary meter readers will continue to replace the Customer Service personnel who are still involved as the "core" CIS team and the meter readers that are assisting the senior investigator staff as described above in response to part b.

d. No staffing agency invoices or related documents are available for the added temporary meter readers. HECO forecasted the six temporary meter readers as agency temporary

hires anticipating that recruiting for HECO temporary positions would continue to be difficult. However, due to the current state of the economy and high unemployment rate, HECO did not experience the same difficulties in recruiting for HECO temporary positions and was able to fill all six positions with HECO temporary personnel in December 2008. Please refer to Attachment 2 for documentation supporting the hire and payment of all eleven HECO temporary meter reader personnel. The names and employee identification numbers in Attachment 2 of this response have been redacted as they are considered confidential employee information. It is not to be released to the public for employee privacy and Company security reasons as names and identification numbers are used to access HECO systems.

e. Please see the Company's response to CA-IR-323 which states that, at this time, the HECO Companies believe that it is likely that the CIS project will not be placed into service in 2009. As a result, plans for the implementation of CIS, including staffing needs, during the transition and go-live period are still being developed.

f. Please see the Company's response to CA-IR-323 which states that, at this time, the HECO Companies believe that it is likely that the CIS project will not be placed into service in 2009. As a result, plans for the implementation of CIS, including the return to normal levels of temporary and permanent meter reading personnel, are still being developed.

2009 Outside Services - Temporary Meter Readers
(11) Temporary Meter Readers to support the CIS project

NARUC Acct	Quan.	RA	Activity	Description	Hrly Rate	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
				Productive Hours		176	160	176	176	168	176	184	168	176	176	168	184	2088
				Overtime Hours			8	8			8		8			32		64
		PCM - Temporary Meter Reader																
902	11	PCM	610	Temp Mtr Rdr $[1]	$14.75	$28,556	$25,960	$28,556	$28,556	$27,258	$28,556	$29,854	$27,258	$28,556	$28,556	$27,258	$29,854	$338,778
			610	Temp Mtr Rdr $ OT	$14.75	$0	$1,298	$1,298	$0	$0	$1,298	$0	$1,298	$0	$0	$5,192	$0	$10,384
						$28,556	$27,258	$29,854	$28,556	$27,258	$29,854	$29,854	$28,556	$28,556	$28,556	$32,450	$29,854	$349,162
		PCM																
		PCM	610	Temp Mtr Rdr Prod Hr		1936	1760	1936	1936	1848	1936	2024	1848	1936	1936	1848	2024	22968
			610	Temp Mtr Rdr Prod Hr OT		0	88	88	0	0	88	0	88	0	0	352	0	704
						1936	1848	2024	1936	1848	2024	2024	1936	1936	1936	2200	2024	23672

1- Source: CA-IR-1, Attachment 2, Page 43, Line 33
2 - Source: Standard Labor Rate for Summer Hire from CA-IR-239, Attachment 1, Page 2, last line on page.

2009 Outside Services - Temporary Meter Readers
(6) Temporary Meter Readers to support the CIS project

NARUC Acct	Quan.	RA	Activity	Description	Hrly Rate	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
				Productive Hours		168	152	176	168	160	168	176	160	168	168	152	168	1984
				Overtime Hours			8	8			8		8			32		64
		PCM - Temporary Meter Reader																
902	6	PCM	610	Temp Mtr Rdr $	$28.71	$28,940	$26,184	$30,318	$28,940	$27,562	$28,940	$30,318	$27,562	$28,940	$28,940	$26,184	$28,940	$341,769
			610	Temp Mtr Rdr $ OT	$28.71	$0	$1,378	$1,378	$0	$0	$1,378	$0	$1,378	$0	$0	$5,512	$0	$11,025
						$28,940	$27,562	$31,696	$28,940	$27,562	$30,318	$30,318	$28,940	$28,940	$28,940	$31,696	$28,940	$352,794
		PCM																
		PCM	610	Temp Mtr Rdr Prod Hr		1008	912	1056	1008	960	1008	1056	960	1008	1008	912	1008	11904
			610	Temp Mtr Rdr Prod Hr OT		0	48	48	0	0	48	0	48	0	0	192	0	384
						1008	960	1104	1008	960	1056	1056	1008	1008	1008	1104	1008	12288

Hourly Rate

$20.31	- Estimate based on average 1st Year Meter Reader Pay Rate for 2009
$7.11	- 35% Agency Fee (Estimate, covers holiday pay)
$27.42	
$ 1.29	- 4.712% GET (tax)
$28.71	

2009 HECO Meter Reader Pay Rate

$18.64	January
$18.64	February
$18.64	March
$19.54	April
$19.54	May
$19.54	June
$21.53	July
$21.53	August
$21.53	September
$21.53	October
$21.53	November
$21.53	December
$20.31	Average

2009 Outside Services
(2) Temporary Meter Readers to address an increase in field related work loads

NARUC Acct	Quan.	RA	Activity	Description	Hrly Rate	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
				Productive Hours		168	152	176	168	160	168	176	160	168	168	152	168	1984
				Overtime Hours			8	8			8		8			32		64
		PCM - Temporary Meter Reader																
902	2	PCM	610	Temp Mtr Rdr $	$28.71	$9,647	$8,728	$10,106	$9,647	$9,187	$9,647	$10,106	$9,187	$9,647	$9,647	$8,728	$9,647	$113,923
			610	Temp Mtr Rdr $ OT	$28.71	$0	$459	$459	$0	$0	$459	$0	$459	$0	$0	$1,837	$0	$3,675
						$9,647	$9,187	$10,565	$9,647	$9,187	$10,106	$10,106	$9,647	$9,647	$9,647	$10,565	$9,647	$117,598
		PCM																
		PCM	610	Temp Mtr Rdr Prod Hr		336	304	352	336	320	336	352	320	336	336	304	336	3968
			610	Temp Mtr Rdr Prod Hr OT		0	16	16	0	0	16	0	16	0	0	64	0	128
						336	320	368	336	320	352	352	336	336	336	368	336	4096

Hourly Rate

$20.31 - Estimate based on average 1st Year Meter Reader Pay Rate for 2009
$7.11 - 35% Agency Fee (Estimate, covers holiday pay)
$27.42
$ 1.29 - 4.712% GET (tax)
$28.71

2009 HECO Meter Reader Pay Rate

$18.64 January
$18.64 February
$18.64 March
$19.54 April
$19.54 May
$19.54 June
$21.53 July
$21.53 August
$21.53 September
$21.53 October
$21.53 November
$21.53 December
$20.31 Average

CONFIDENTIAL EMPLOYEE INFORMATION DELETED

Listing of Temporary Meter Readers (as of 3/20/09)

EMP_DIV	EMP_ID	EMP_LAST_NAME	EMP_FIRST_NAME	CO_HIRE_DATE	POSITION	POS_TITLE	DIV_DESCR	DEPT_DESCR
PCM				12/17/2007	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				12/17/2007	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				1/7/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				1/14/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				2/4/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				2/11/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				8/25/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				10/14/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				10/27/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				12/17/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				12/19/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				12/19/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				12/22/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				12/22/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				12/26/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				12/26/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE
PCM				12/29/2008	5163	TEMPORARY METER READER	METER READING	CUSTOMER SERVICE

Source: Ellipse Production Data as of 3/20/09

Hawaiian Electric Company
Collection Orders Generated

	2006	2007	2008	2009 YTD[1]
Total Collection Orders	49255	46367	60068	10385
Avg. Collections Orders per Month	4105	3864	5006	5193
Annual Change		-6%	30%	

1 - YTD February 2009

Actual - Collection Orders Generated

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2006	4210	3689	3737	3376	4529	3925	3914	4492	4489	4478	4076	4340	49255
2007	4327	3554	3012	2771	3918	3334	3891	3967	3802	4387	4651	4753	46367
2008	5010	4018	5236	4474	5360	4340	4603	4688	5076	5267	5271	6725	60068
Three Year Average (2006 - 2008)	4516	3754	3995	3540	4602	3866	4136	4382	4456	4711	4666	5273	4325
2009	5887	4498	-	-	-	-	-	-	-	-	-	-	-

Summary of Changes to the HECO 2009 Test Year Due to the Delay in the Customer Information System ("CIS") In-Service Date

PROJECT EXPENSES:	
1 Reversal of Project Expenses - See Attach. 1A -Revised HECO-907 (line 29)	($1,506,519)
Reversal of Amortization - See Attach.1A - Revised HECO-907 (line 30)	($976,941)
2 Expense reduction due to employees remaining on the CIS development team for the months of June through December (recorded to Deferred Expenses)	
See Attachment 1B - Productive Expense	($293,288)
See Attachment 1B - Non-Productive Expense	($42,990)
See Attachment 1B - Emp Benefit	($93,116)
Total Project Expenses	**($2,912,854)**
NON-PROJECT EXPENSES (Including new Bill Print, IVR, IWR systems/processes):	
1 Reversal of Post Go-Live Non-Project expenses	
See Attachment 2, (line 14a,"Post Go-Live Adj." column)	($1,353,565)
2 Additional expenses for Standard Register Forms	
See Attachment 2 (line 10a, "Post Go-Live Adj." column)	$60,468
3 Net Reduction of ITS Costs	
See Attachment 3	($458,094)
4 Reversal of labor expenses for 4 temporary meter readers included in Update	
See response to CA-IR-396, part b	($235,200)
Total Non-Project Expenses	**($1,986,391)**
ADD BACK FOR LABOR EXPENSES:	
1 See Attachment 4 - Productive Expense	$280,658
See Attachment 4 - Non-Productive Expense	$41,559
See Attachment 4 - All other On-Cost	$287,193
Total add back to test year	**$609,410**
TOTAL NET CHANGE TO TEST YEAR EXPENSES	**($4,289,835)**
TOTAL NET CHANGE TO TAXES OTHER THAN INCOME TAXES	**($18,375)**
See Attachment 4; Payroll Tax changes associated with labor in O&M expenses.	
AVERAGE RATE BASE ITEMS:	
1 Removal of Capital Costs (P000571) - ($30,948)	($15,474)
See Attachment 1A - Revised HECO-907 (line 27)	
2 Removal of Unamortized System Development Costs ($22,783,000)	
See HECO-1117 from Rate Case Update	($11,391,500)
3 Increase of ADIT associated with the CIS project in the test year - REVISED	($305,908)
See Response to CA-IR-396, Attachment 4, page 4	
TOTAL NET CHANGE TO TEST YEAR AVERAGE RATE BASE	**($11,712,882)**

HAWAIIAN ELECTRIC COMPANY, INC.
2003 - 2009
($ THOUSANDS)

	RECORDED					BUDGET		ADJUST	Direct Test. BUDGET	Nov. 2008 Update (Revised 4/1/09)	TY Update
CUSTOMER ACCOUNTS	2003	2004	2005	2006	2007	2008	2009		2009	2009	2009
901.00 Supervision	620	856	973	1,156	1,331	1,279	1,658	0	1,658	0	1,658
902.00 Meter Reading Expenses	2,085	2,413	2,192	2,472	2,518	3,123	3,545	0	3,545	118	3,663
903.00 Cust Records & Collection	6,335	7,049	7,644	7,106	7,429	10,168	10,786	(35)	10,751	182	10,933
905.00 Misc. Customer Accounts	0	1	1	0	0	0	0	0	0	0	0
Subtotal less Uncollectible Acct.	9,040	10,319	10,810	10,734	11,278	14,570	15,989	(35)	15,954	300	16,254
904.00 Uncollectible Accounts	1,015	413	339	1,582	976	970	1,093	190	1,283	0	1,283
Total Customer Account Expense **Present Rates**	10,055	10,732	11,149	12,316	12,254	15,540	17,082	155	17,237	300	17,537
904.00 Uncollectible Accounts	1,015	413	339	1,582	976	970	1,093	246	1,339	0	1,339
Total Customer Account Expense **Current Effective Rates**	10,055	10,732	11,149	12,316	12,254	15,540	17,082	211	17,293	300	17,593
904.00 Uncollectible Accounts	1,015	413	339	1,582	976	970	1,093	318	1,411	0	1,411
Total Customer Account Exp.**CIP1 CT-1 (Full Cost) @ Present & Current Effective Rates**	10,055	10,732	11,149	12,316	12,254	15,540	17,082	283	17,365	300	17,665
904.00 Uncollectible Accounts	1,015	413	339	1,582	976	970	1,093	300	1,393	0	1,393
Total Customer Account Exp. **Interim Increase (w/o CIP1 CT-1) @ Present & Current Effective Rates**	10,055	10,732	11,149	12,316	12,254	15,540	17,082	265	17,347	300	17,647
904.00 Uncollectible Accounts	1,015	413	339	1,582	976	970	1,093	309	1,402	0	1,402
Total Customer Account Expense **Base Case at Current Effective Rates**	10,055	10,732	11,149	12,316	12,254	15,540	17,082	274	17,356	300	17,656
904.00 Uncollectible Accounts	1,015	413	339	1,582	976	970	1,093	311	1,404	0	1,404
Total Customer Account Expense **Base Case with HCEI Studies at Current Effective Rates (New)**	10,055	10,732	11,149	12,316	12,254	15,540	17,082	276	17,358	300	17,658
904.00 Uncollectible Accounts	1,015	413	339	1,582	976	970	1,093	282	1,375	0	1,375
Total Customer Account Expense **Base Case with HCEI Studies & Sales Reduction at Current Effective Rates (NEW)**	10,055	10,732	11,149	12,316	12,254	15,540	17,082	247	17,329	300	17,629

Source: HECO-WP-101 (B), Reports S1 & S2 for Recorded 2003-2007, 2008 Budget latest update & 2009 TY.
Uncollectible expense based on Revenues from HECO T-23 update, Attachments 2 - 8; rev. 12-11-08 P.Young

HAWAIIAN ELECTRIC COMPANY, INC.
CUSTOMER ACCOUNTS EXPENSE 2003 - 2009
($ THOUSANDS)

(REVISED 4/1/09)

LINE	CUSTOMER ACCOUNTS	RECORDED 2003	2004	2005	2006	2007	BUDGET 2008	2009	ADJUST	Direct Test. Budget 2009	Nov. 2008 Update 2009	TY Update 2009
	Acct 901 - Supervision											
1	Labor	60	43	80	146	153	169	177		177	0	177
2	Non-labor	560	813	893	1,010	1,178	1,110	1,481		1,481	0	1,481
3	TOTAL	620	856	973	1,156	1,331	1,279	1,658		1,658	0	1,658
	Acct 902 - Meter Reading											
4	Labor	1,847	1,963	1,852	2,090	2,133	2,635	3,016		3,016	0	3,016
5	Non-labor	238	450	340	382	385	488	529		529	118	647
6	TOTAL	2,085	2,413	2,192	2,472	2,518	3,123	3,545		3,545	118	3,663
	Acct 903 - Cust Rec. & Collec.											
7	Labor	3,724	4,012	4,400	4,105	4,439	5,358	4,909		4,909	0	4,909
8	Non-labor	2,611	3,037	3,244	3,001	2,990	4,810	5,877	(35)	5,842	182	6,024
9	TOTAL	6,335	7,049	7,644	7,106	7,429	10,168	10,786	(35)	10,751	182	10,933
	Acct 905 - Misc Cust Accts.											
10	Labor	0	1	1	0	0	0	0		0	0	0
11	Non-labor											
12	TOTAL	0	1	1	0	0	0	0		0	0	0
	Sub total 901,902,903,905											
13	Labor	5,631	6,019	6,333	6,341	6,725	8,162	8,102	0	8,102	0	8,102
14	Non-Labor	3,409	4,300	4,477	4,393	4,553	6,408	7,887	(35)	7,852	300	8,152
15	TOTAL	9,040	10,319	10,810	10,734	11,278	14,570	15,989	(35)	15,954	300	16,254
	Acct 904 - Uncollectible Accts.											
16	Non-labor	1,015	413	339	1,582	976	970	1,093	190	1,283		1,283
17	TOTAL	1,015	413	339	1,582	976	970	1,093	190	1,283		1,283
	Total Cust. Accts **Present Rates**											
18	Labor	5,631	6,019	6,333	6,341	6,725	8,162	8,102	0	8,102	0	8,102
19	Non-labor	4,424	4,713	4,816	5,975	5,529	7,378	8,980	155	9,135	300	9,435
20	TOTAL	10,055	10,732	11,149	12,316	12,254	15,540	17,082	155	17,237	300	17,537
	Account 904 - Uncollectible Accts.											
21	Non-labor	1,015	413	339	1,582	976	970	1,093	246	1,339		1,339
22	TOTAL	1,015	413	339	1,582	976	970	1,093	246	1,339		1,339
	Total Cust. Accts **Current Effective Rates**											
23	Labor	5,631	6,019	6,333	6,341	6,725	8,162	8,102	0	8,102	0	8,102
24	Non-labor	4,424	4,713	4,816	5,975	5,529	7,378	8,980	211	9,191	300	9,491
25	TOTAL	10,055	10,732	11,149	12,316	12,254	15,540	17,082	211	17,293	300	17,593
	Account 904 - Uncollectible Accts.											
26	Non-labor	1,015	413	339	1,582	976	970	1,093	318	1,411		1,411
27	TOTAL	1,015	413	339	1,582	976	970	1,093	318	1,411		1,411
	Total Cust. Accts **CIP1 CT-1 (Full Cost) at Present & Curent Effective Rates**											
28	Labor	5,631	6,019	6,333	6,341	6,725	8,162	8,102	0	8,102	0	8,102
29	Non-labor	4,424	4,713	4,816	5,975	5,529	7,378	8,980	283	9,263	300	9,563
30	TOTAL	10,055	10,732	11,149	12,316	12,254	15,540	17,082	283	17,365	300	17,665
	Account 904 - Uncollectible Accts.											
31	Non-labor	1,015	413	339	1,582	976	970	1,093	300	1,393		1,393
32	TOTAL	1,015	413	339	1,582	976	970	1,093	300	1,393		1,393
	Total Cust. Accts **Interim Increase (w/o CIP1 CT-1) at Present & Current Effective Rates)**											
33	Labor	5,631	6,019	6,333	6,341	6,725	8,162	8,102	0	8,102	0	8,102
34	Non-labor	4,424	4,713	4,816	5,975	5,529	7,378	8,980	265	9,245	300	9,545
35	TOTAL	10,055	10,732	11,149	12,316	12,254	15,540	17,082	265	17,347	300	17,647
	Account 904 - Uncollectible Accts.											
36	Non-labor	1,015	413	339	1,582	976	970	1,093	309	1,402		1,402
37	TOTAL	1,015	413	339	1,582	976	970	1,093	309	1,402		1,402
	Total Cust. Accts **Base Case at Current Effective Rates**											
38	Labor	5,631	6,019	6,333	6,341	6,725	8,162	8,102	0	8,102	0	8,102
39	Non-labor	4,424	4,713	4,816	5,975	5,529	7,378	8,980	274	9,254	300	9,554
40	TOTAL	10,055	10,732	11,149	12,316	12,254	15,540	17,082	274	17,356	300	17,656
	Account 904 - Uncollectible Accts.											
41	Non-labor	1,015	413	339	1,582	976	970	1,093	311	1,404		1,404
42	TOTAL	1,015	413	339	1,582	976	970	1,093	311	1,404		1,404
	Total Cust. Accts **Base Case with HCEI Studies Current Effective Rates (NEW)**											
43	Labor	5,631	6,019	6,333	6,341	6,725	8,162	8,102	0	8,102	0	8,102
44	Non-labor	4,424	4,713	4,816	5,975	5,529	7,378	8,980	276	9,256	300	9,556
45	TOTAL	10,055	10,732	11,149	12,316	12,254	15,540	17,082	276	17,358	300	17,658
	Account 904 - Uncollectible Accts.											
46	Non-labor	1,015	413	339	1,582	976	970	1,093	282	1,375		1,375
47	TOTAL	1,015	413	339	1,582	976	970	1,093	282	1,375		1,375
	Total Cust. Accts **Base Case with HCEI Studies & Sales Reduction at Current Effective Rates (NEW)**											
48	Labor	5,631	6,019	6,333	6,341	6,725	8,162	8,102	0	8,102	0	8,102
49	Non-labor	4,424	4,713	4,816	5,975	5,529	7,378	8,980	247	9,227	300	9,527
50	TOTAL	10,055	10,732	11,149	12,316	12,254	15,540	17,082	247	17,329	300	17,629

HAWAIIAN ELECTRIC CO., INC.
DEFERRED TAXES ON CIS PROJECT COSTS

	DR / (CR) Rate Case Update	DR / (CR) Revised	DR / (CR) Difference
Deferred Tax at 12/31/08	(854,364)	(857,710)	(3,346)
Deferred Tax at 12/31/09	(2,164,279)	(2,772,748)	(608,469)
Average	(1,509,322)	(1,815,229)	(305,908)

REVISED

	(A) Pre Selection/ Evaluation	(B) Software Implementation	Total	32.8947% Deferred Federal	6.0150% Deferred State	Deferred Total
2003	408,877		408,877	134,499	24,594	159,093
2004	(95,263)		(95,263)	(31,336)	(5,730)	(37,066)
2005	430,341		430,341	141,559	25,885	167,444
2006	148,950		148,950	48,997	8,959	57,956
2007		(1,370,579)	(1,370,579)	(450,848)	(82,440)	(533,288)
2008		(1,726,690)	(1,726,690)	(567,989)	(103,860)	(671,849)
Total	892,905	(3,097,269)	(2,204,364)	(725,118)	(132,592)	(857,710)
2009		(4,921,750)	(4,921,750)	(1,618,995)	(296,043)	(1,915,038)
Total	892,905	(8,019,019)	(7,126,114)	(2,344,113)	(428,635)	(2,772,748)

Note A> Pre Selection / Evaluation costs - outside services: book expense, tax capitalize
Note B> Software Implementation - internal labor and overheads: book defer, tax expense

CA-IR-397

Ref: HECO-WP-906; Response to CA-IR-315, pages 2.3; T 9 Update, page 2 (Added Meter Readers).

One rationale for adding two of the temporary meter readers is to support "…an increase in bill inquiries….due to increased fuel oil costs." However, in response to CA-IR-315, the Company noted, "…a shift in work focus …to field collections." Please provide the following:

a. Explain and reconcile the CA-IR-315, Table 3 "Collection Orders" statistics to the much lower "# of transactions" used in HECO-WP-906 to estimate Field Collection Charge revenues.
b. Update the monthly statistics set forth on page 2 of HECO WP-906 to include all months of 2008.
c. State whether any update of the # of transactions is used in HECO-WP-906 is viewed as appropriate by HECO and explain the basis for such opinion.

HECO Response:

a. The "# of transactions" used in HECO WP-906 to estimate Field Collection Charge revenue is based on the number of Field Collection Charges. According to the *Tariffs Applicable to Electric Service of Hawaiian Electric Company, Inc.*, Rule No. 7D, HECO may only assess the Field Collection Charge when a field collection visit results in a successful collection of monies. In comparison, the statistics used in the response to CA-IR-315, Table 3, "Collection Orders", is based on the total number of field collection orders generated for the year. Therefore, this number is much higher.

As is reported in the response to CA-IR-315, Table 2, "Completed Field Related Work Statistics", the number of field collection orders completed in 2008 was 35,832, or roughly 60% of the total orders generated. Of those, HECO collected 7,116 payments, or 20% of the total field collection orders. Many reasons are attributed to this collection rate, such as the customer's inability to make a payment resulting in disconnection of service or no is home to make a payment to avoid disconnection and the meter is inaccessible due to a

locked gate, dogs or enclosed garage resulting in a door hanger left behind indicating amount to pay and how and where to make payment.

b. Please refer to Attachment 1 of this response for the updated 2008 monthly statistics of HECO WP-906 (refer to the column highlighted).

c. While Attachment 1 of this response provides updated 2008 information for Field Collection Charges in HECO WP-906, it is still appropriate to use the five-year average of Field Collection Charges estimated for 2009 in the original HECO T-9 testimony. Even with the updated 2008 information, a five-year average (for years 2004 – 2008) of Field Collection Charges is 5,430, and a six-year average (2003 – 2008) is 5,589, and therefore, HECO did not propose to change the test year estimate. While it is anticipated that the bad economy will continue, and therefore, HECO's level of Field Collections Charges in 2009 will more closely resemble the 2008 Field Collection Charges in Attachment 1, HECO did not propose any changes at this time based on the five- and six-year average information.

2009 Non-Sales Electric Utility Charges TRANSACTION COUNT

	Gen. Led. Acct	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	5 yr. avg. TOTAL
Field Collection (1)	45001	559	478	465	440	429	361	374	372	412	500	471	426	5,284
Returned Check (2)	45002	508	406	395	391	418	422	494	489	501	537	505	538	5,605
Service Establishment (Regular) (3)	45103	2,980	2,916	2,916	3,078	3,125	3,420	3,710	3,692	3,592	3,350	3,058	2,911	38,748
Service Eestablishment (Same day) (4)	45103	751	736	685	639	606	602	571	634	737	793	760	704	8,218
		4,798	4,535	4,461	4,549	4,579	4,805	5,148	5,187	5,242	5,179	4,794	4,579	57,856

(1) Number of successful field calls
(2) Number of returned checks
(3) & (4) Number of transactions

FIELD COLLECTION		2003	2004	2005	2006	2007	5 yr. TOTAL	2008
acct 45001000	J	622	491	373	671	636	2,793	542
	F	621	439	448	472	409	2,389	474
	M	421	439	447	505	511	2,323	503
	A	577	447	341	408	425	2,198	746
	M	535	350	411	484	367	2,147	567
	J	554	280	349	313	310	1,806	734
	J	424	202	349	425	468	1,868	720
	A	486	98	451	418	406	1,859	571
	S	547	226	385	472	428	2,058	686
	O	576	403	416	563	540	2,498	548
	N	529	305	408	536	575	2,353	495
	D	494	382	374	371	508	2,129	530
		6,386	4,062	4,752	5,638	5,583	26,421	7,116

RETURN CHECK		2003	2004	2005	2006	2007	5 year TOTAL	2008
acct 45002000	J	456	462	478	560	586	2,542	754
	F	407	367	342	434	481	2,031	621
	M	346	361	383	458	429	1,977	627
	A	415	360	333	404	445	1,957	656
	M	433	357	341	472	487	2,090	564
	J	350	396	388	443	533	2,110	1,016
	J	495	397	440	524	616	2,472	686
	A	457	397	450	518	624	2,446	710
	S	422	541	451	546	545	2,505	754
	O	453	481	572	511	667	2,684	800
	N	433	449	482	506	653	2,523	638
	D	437	528	535	490	700	2,690	697
		5,104	5,096	5,195	5,866	6,766	28,027	8,523

SERVICE ESTABLISHMENT		2003	2004	2005	2006	2007	5 yr. TOTAL	2008
SVY - Regular $15.00	J	3,157	3,026	2,962	2,933	2,822	14,900	2,809
	F	2,902	3,038	2,916	2,976	2,747	14,579	2,930
	M	3,083	3,152	3,141	3,021	2,986	15,383	2,735
	A	3,039	3,141	3,205	2,946	3,060	15,391	2,767
	M	2,973	3,202	3,254	3,083	3,112	15,624	2,867
	J	3,420	3,525	3,821	3,242	3,092	17,100	3,072
	J	3,701	3,835	4,037	3,634	3,341	18,548	3,186
	A	3,718	3,690	3,884	3,725	3,441	18,458	3,554
	S	3,600	3,649	3,816	3,556	3,340	17,961	3,280
	O	3,333	3,368	3,499	3,259	3,292	16,751	2,902
	N	3,130	2,935	3,192	2,858	3,176	15,291	2,786
	D	2,969	2,876	3,041	2,777	2,894	14,557	2,623
		39,025	39,437	40,768	38,010	37,303	194,543	35,511

SERVICE ESTABLISHMENT		2003	2004	2005	2006	2007	5 yr. TOTAL	2008
SVS - Same day $25.0(	J	164	208	221	212	225	1,030	230
	F	203	190	239	249	254	1,135	245
	M	180	217	219	260	291	1,167	237
	A	173	230	235	244	266	1,148	220
	M	193	219	181	212	240	1,045	258
	J	212	237	202	271	242	1,164	266
	J	206	213	216	254	260	1,149	191
	A	321	229	237	259	244	1,290	252
	S	324	212	250	293	276	1,355	250
	O	311	206	196	300	320	1,333	262
	N	315	231	194	266	316	1,322	259
	D	312	188	214	223	229	1,166	204
		2,914	2,580	2,604	3,043	3,163	14,304	**2,874**

RECONNECTION		2003	2004	2005	2006	2007	5 yr. TOTAL	2008
RCS - Same Day $25.00	J	476	444	350	659	796	2,725	672
RCY - Regular $15.00	F	530	604	429	482	498	2,543	647
	M	306	439	471	541	500	2,257	466
	A	477	433	317	337	485	2,049	808
	M	461	308	327	446	445	1,987	725
	J	506	215	361	344	421	1,847	669
	J	459	180	297	326	443	1,705	869
	A	438	61	425	433	523	1,880	736
	S	513	241	408	602	568	2,332	826
	O	512	431	370	693	624	2,630	823
	N	501	290	417	607	664	2,479	686
	D	411	438	386	441	677	2,353	573
		5,590	4,084	4,558	5,911	6,644	26,787	**8,500**

CA-IR-398

Ref: HECO Response to CA-IR-150, Attachment 1 (IT Expenses for CIS).

For each line item on page 1 of Attachment 1, please provide a detailed explanation and quantification of how test year PEI allocated annual charges in total (and to HECO) are expected to change as a result of termination of ACCESS and go-live of the new CIS system. State all assumptions and provide workpapers supporting your response.

HECO Response:

Please see the Company's response to CA-IR-323 which states that, at this time, HECO believes that it is likely that the CIS project will not be placed into service in 2009. Therefore, ACCESS (Legacy CIS) will continue operation through 2009 and all PEI (Mainframe) costs shown in the response to CA-IR-150, Attachment 1, associated with the Legacy CIS will remain in the test year. In addition, as shown in the response to CA-IR-323, Attachment 3 (Impact of CIS Implementation Deferral on 2009 ITS Costs), additional Legacy CIS ITS maintenance and support costs have been added to the test year due to the new CIS implementation deferral. Attachment 3 also removes a greater amount of new CIS ITS support costs which were previously included in the test year. This results in a net reduction to test year expenses. The total impact of these are adjustments are shown in Column A of CA-IR-323 Attachment 3, page 1 and the HECO portion of these impacts are shown in Column F.

CA-IR-399

Ref: HECO T-9, page 18 (PEACE Breach of Contract).

According to Mr. Yamamoto, "PEACE was informed that HECO was not terminating the contract and that HECO desired to see the project completed successfully with PEACE." Please describe each of the studies, analyses, projections and other efforts undertaken by or for HECO to support the decision to not terminate the contract with PEACE and provide complete copies of all reports, analyses, workpapers, projections and other documents associated with such efforts.

HECO Response:

HECO respectfully objects to describing "each of the studies, analyses, projections and other efforts undertaken by or for HECO to support the decision to not terminate the contract with PEACE" or providing "complete copies of all reports, analyses, workpapers, projections and other documents associated with such efforts." Some of that analysis and evaluation is protected by the attorney-client privilege. To the extent the request seeks information that reflects the mental impressions, conclusions, opinions, or legal theories of HECO's attorneys and HECO, the information requested is also protected from disclosure by the attorney work product doctrine.

HECO also objects to the request, as unduly burdensome, onerous and overly broad to the extent that it requests "complete copies of all reports, analyses, workpapers, projections and other documents associated with such efforts."

HECO further objects to describing or disclosing documents that reveal internal deliberations regarding the progress, status, or contingencies with the new CIS system. Requiring that this information be subject to review by parties in a regulatory proceeding would have a "chilling" effect on the self-analysis process. Subjecting such sensitive internal deliberations to review in a regulatory proceeding would inhibit robust and candid internal dialogue of this nature in the future.

This information request fails to balance the need for the information against HECO's need to manage. By analogy, for example, the Federal Freedom of Information Act ("FFIA"), codified at 5 U.S.C. §552, and the Uniform Information Practices Act (Modified), codified at H.R.S. Ch. 92F, contain broad disclosure requirements based on the public's interest in open government. However, the broad policy in favor of disclosure still allows for exceptions that are intended to permit the efficient and effective functioning of government by protecting the internal deliberative process. *See generally, Pennsylvania Public Utility Commission v. West Penn Power Company*, 73 PA PUC 122 (July 20, 1990), West Law Slip Op ("deliberative process privilege" recognized by the Pennsylvania Public Utility Commission with respect to its own internal staff reports).

HECO would also object to disclosure of such documents even under a protective order. The value of these documents will be diminished if HECO is required to provide the documents, even if the documents were provided pursuant to a protective order.

Without waiving the foregoing objections, please see HECO's response to CA-IR-323 which provides an update on the status of the CIS project.

CA-IR-400

Ref: HECO T-9, page 20 (CIS Deferred Cost Amortization).

According to HECO T-9 at page 20, "The amortization amount that is reflected in non-labor expenses of the test year is $977,000 as reflected in HECO-WP-908 and HECO-1117." Please provide the following information:

a. The most current available estimate of cumulative and estimated CIS cost deferrals by month and by type of cost, from inception of the project to currently estimated go-live date.
b. Revised calculations of the monthly amortization, based upon your response to part (a), above.
c. Describe how HECO proposes to treat the amounts arising from its claims against PEACE for ratemaking purposes.
d. Provide calculations supporting each of the further adjustments to test year expenses and rate base that are proposed by HECO in connection with the PEACE breach of contract obligations that is discussed by Mr. Yamamoto at T 9, page 18.

HECO Response:

a. – b. Please see the Company's response to CA-IR-323 which states that, at this time, the HECO Companies believes that it is likely that the CIS project will not be placed into service in 2009. As reflected in Attachment 2 of the response to CA-IR-323, all the CIS project amortization costs of $976,941 are being removed from the 2009 test year, and all of the unamortized system development costs ($22,783,000) are being removed from the 2009 test year.

c. – d. Please see the response to subparts a and b above and the response to CA-IR-323 which states that most of the CIS project costs are being removed from the 2009 test year.

CA-IR-401

Ref: HECO Response to CA-IR-335 (Energy Efficiency Advertising).

According to the response, "HECO has not deemed it necessary or prudent to expend funds to conduct any studies" in connection with the whether the Company is a recognized brand name and respected as a source of energy information. Please respond to the following:

a. Identify and provide copies of all information relied upon by HECO to determine that brand and energy efficiency advertising is needed in order to reinforce or expand customer awareness of HECO and its reputation as an energy information supplier.
b. Explain how HECO determines the amounts of advertising that is needed and what message(s) should be included in such advertising.
c. Provide copies of all documents associated with or supportive of your response to part (b).
d. Does HECO possess any information regarding the effectiveness of its energy efficiency advertising?
e. If your response to part (d) is affirmative, please provide complete copies of all documents relevant to the issue of advertising effectiveness.

<u>HECO Response:</u>

a. In the response to CA-IR-355, HECO is not claiming that "brand and energy efficiency advertising is needed in order to reinforce or expand customer awareness of HECO and its reputation" as the Consumer Advocate states in subpart a. of this information request. Rather, HECO's response to CA-IR-335 points out that customers believe that Hawaiian Electric is a recognized and trusted source for information and advice about electricity use, and that customers turn to HECO and expect the utility to educate and inform them on these issues. This is supported by the Company's collective experience with a large variety of customer interactions, and was discussed in more detail in HECO's response to CA-IR-335. The advertising expenses in the current rate case proceeding are needed to help meet customers' expectations about communications from their electric company regarding energy issues.

b. HECO has addressed this topic in the Residential Customer Energy Awareness Pilot Program application in Docket No. 03-0142, Exhibit 1, pages 34 - 42. HECO also addressed this question in response to CA-IR-334 subpart e., which included a discussion about the development of media plans. To recap those discussions, expenditures for media buys are based on achieving adequate reach and frequency to deliver a message. HECO further addressed this topic, along with the topic of message development, in the evaluation reports on the RCEA program. Please see Attachment C to the HECO report filed on September 30, 2008 in Docket No. 2007-0341 – Review of Demand-Side Management Reports and Requests for Program Modifications ("M&E Report").[1] The M&E report provides details about the development of messages and the reach and frequency of the media placed.

c. Attachment C discussed in subpart a. above is provided as part of Attachment 1 to this response. HECO's response to CA-IR-334 is already included in the record of the current proceeding.

d. Please see Attachment B of the M&E Report discussed in subpart b above.[2] As a result of the advertising efforts undertaken by HECO in 2007 and 2008, more than nine in ten Oahu residents surveyed recalled at least one of six messages/advertising elements from Hawaiian Electric and nearly half of all respondents (46.6%) reportedly did something differently in order to conserve energy after seeing or hearing an energy conservation ad.[3]

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[1] HECO's M&E Report, filed September 30, 2008, in Docket No. 2007-0341 is 117 pages. Attachment 1 to this response includes the transmittal letter, table of contents, the narrative section which covered the RCEA program, and Attachments B and C of the M&E Report. Attachment C of the M&E Report is included as pages 25 to 62 of Attachment 1 to this response.

[2] Attachment B of the M&E Report is included as pages 9 to 24 of Attachment 1 to this response.

[3] Attachment B of the M&E Report at 4 (page 12 of Attachment 1 to this response).

Measure	%
Recall of six messages/advertising elements from Hawaiian Electric	93.8%
Took action as a result of advertising	46.6%
Installed or switched to CFLs	27.2%
Turned off lights	13.2%
Overall awareness: CFLs	87.3%
Overall awareness: ENERGY STAR®	69.8%
Base =	(401)

Additional details of the effectiveness of the advertising can be found in Attachment C to the M&E report.

e. Please see Attachment B of the M&E Report referenced is subpart d. above.

Attachment 1 is voluminous and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the document. An electronic copy of the requested information is being provided.

CA-IR-402

Ref: HECO Response to CA-IR-334(a), Attachment 1, page 10 (PUC Denial of Continued RCEA Program Funding).

At page 9 of its Decision and Order in Docket No. 2008-0341, the Commission stated, "Upon review, the commission denies HECO's request to continue its RCEA Program after 2008. The RCEA is a pilot program in part due to the anticipated transition of the HECO Companies' DSM programs to the PBF Administrator. The PBF Administrator will be in place during much of 2009, and the commission therefore declines to continue HECO's RCEA Program." Please respond to the following:

a. Explain whether HECO believes the Commission intended, without saying so, to include funding for energy efficiency advertising within HECO's pending rate case when RCEA program funding was denied.
b. Provide copies of all documents associated with or supportive of your response to part (a) of this information request.
c. Explain how rate case funding of energy efficiency advertising would be compatible with any future RCEA-like programs that may be proposed and approved for implementation by the PBF Administrator. If HECO is already involved, might the flexibility for PBF involvement in energy efficiency advertising be constrained?
d. Explain how HECO's proposed rate case funding for energy efficiency advertising is consistent with footnote 13 which states, "The commission notes that monies which would have gone to HECO for the RCEA Program for 2009 may be utilized by some similar program proposed by the third party administrator."

<u>HECO Response:</u>

a. HECO does not presume to speculate about undeclared intentions on the part of the Commission.

b. N/A.

c. If customers receive energy conservation and efficiency information via multiple sources, including the electric utility, it helps increase credibility, reinforces the messages and increases penetration. Thus, if the PBF Administrator implements an RCEA-like program, HECO believes it would complement utility-sponsored advertising. Further, the successful integration of awareness and energy efficiency messages demonstrated in HECO's advertising campaigns in 2007 and 2008 should serve as the model for a

cooperative effort that blends these messages into a cohesive approach to energy efficiency and awareness advertising. Should the PBF Administrator sponsor an RCEA-like program, HECO believes that cooperation between the two advertising efforts would benefit consumers and prevent any confusion of messages in the market place. See also the Company's response to CA-IR-125, subpart a.

d. As discussed in response to CA-IR-125, subpart b, the current level of base rate funding will not support a sustained mass market campaign, especially in a mass market environment with climbing advertising rates, a reduced supply of commercial time availability, and proliferation of mass market vehicles. The Company has a continued responsibility to aggressively communicate with our customers about energy efficiency and related issues, even if a third party is conducting informational advertising as well. Customers have an expectation that their electric utility will provide information and choices that will help them manage energy use and costs. When customers have questions about their bills and seek advice on managing them, they will look to the utility no matter who has titular responsibility for energy efficiency programs. There is a customer expectation that a responsible utility will actively promote energy efficiency and conservation, and will educate and inform customers about energy issues and options.

Furthermore, under the Energy Agreement between Hawaiian Electric and the State of Hawaii as part of the Hawaii Clean Energy Initiative ("HCEI"), in order to meet the 70% HCEI goal, the Company has a commitment to support aggressive energy efficiency achievements, including a future Energy Efficiency Portfolio Standard, incorporation of massive amount of renewable energy resources, and tariffs and pricing policy changes to effect these changes. Resources for the utility to help educate customers

and achieve these goals are critical. In the "Telling the Energy Story" section of the Energy Agreement on page 43, it states:

> To maximize public awareness and understanding of this big picture, the communications campaign should utilize a full range of communication vehicles including utility advertising, free media and person-to-person communications with interested groups. Resources for such communications shall be authorized and recoverable.

Thus, while the third party PBF Administrator only has responsibility for advertising related to energy efficiency programs, HECO has a much broader responsibility which encompasses: 1) consumers rights and safety (e.g. Rule 16 damage claims, metallic balloon outage prevention), 2) energy efficiency education and awareness, 3) general consumer education (e.g. Sun Power for Schools), and 4) educating consumers on initiatives such as those included in the Energy Agreement to move the state to a clean energy future.

CA-IR-403

Ref: HECO Response to CA-IR-336, Attachment 2, page 16 (Accounting for IRP Surcharge).

Please provide a complete copy of the "accounting of the IRP Surcharge for 2008 and 2009" that was required in Ordering paragraph 10 and explain and quantify any charges required to the Company's asserted IRP expenses in the test year as a result of changes in IRP/DSM regulation or because of changes associated with the Clean Energy Initiative Agreement.

HECO Response:

In accordance with the Commission's *Order Setting the Public Benefits Fee Surcharge for 2009*, filed December 15, 2008, in Docket No. 2007-0323, the HECO Companies filed exhibits in response to ordering paragraphs 8 and 10 on January 20, 2009. Please see Attachment 1 to this response for a copy of Exhibit B: HECO, HELCO, and MECO Accounting of the IRP Surcharge for 2008 and 2009. As stated in response to CA-IR-333, HECO maintains that the 2009 test year estimate for IRP planning costs is still an appropriate estimate at this time for normalized costs to support the CESP process and is proposing that the costs continue to be included in base rates. Please see HECO response to CA-IR-408 for additional information.

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-000

January 20, 2009

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PUBLIC UTILITIES COMMISSION

Darcy L. Endo-Omoto
Vice President
Government & Community Affairs

The Honorable Chairman and Members of
the Hawaii Public Utilities Commission
465 South King Street
Kekuanaoa Building, 1st Floor
Honolulu, Hawaii 96813

Dear Commissioners:

Subject: Docket No. 2007-0323
Hawaii Public Benefits Fund Investigation (HRS Chapter 269, Part VII)

In accordance with the Commission's *Order Setting the Public Benefits Fee Surcharge for 2009*, filed December 15, 2008, ordering paragraphs 8 and 10, attached are the following exhibits[1]:

Exhibit A: 2009 Monthly Goals and Budgets for the HECO, HELCO and MECO energy efficiency DSM programs, and for HECO only, for its load management DSM programs.

Exhibit B: HECO, HELCO and MECO Accounting of the IRP Surcharge for 2008 and 2009.

If you have any questions on this matter, please call Dan Brown at 543-4795.

Sincerely,

R. Alm
C. Beck
K. Block
C. Ching
D. Endo-Omoto
A. Hee
L. Kikuta
T. Miyashiro
R. Sakuda
K. Stahlkoph
S. Suzuki
L. Unemori
D. Waller
T. Williams
D. Matsuura
D. Brown
NP File

Attachments

cc: Division of Consumer Advocacy
R. Reed
W. Bollmeier II
H. Q Curtis
C. Freedman
Y. Maskrey
M. M. Kubo

[1] The exhibits were to be filed within 30 days of the Commission's Order, or by January 14, 2009, plus an additional 2 days because the Order was mailed to the HECO Companies, or by January 16, 2009. Because the Commission's offices were closed on January 16, 2009 due to the State's weather emergency, and January 19, 2009 is a State holiday, the exhibits were timely filed on January 20, 2009.

HECO

2008 Monthly IRP Surcharge Breakdown & Average Impact per Customer, Recorded Revenues in $

Residential	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(1) Customers at Month End[1]	261,013	260,418	260,809	260,769	260,503	259,968	260,373	260,029	260,739	260,513	260,513	260,513
IRP Surcharge Component												
(2) IRP Cost Recovery, $	14	18	1	0	2	0	0	0	0	0	0	0
(3) $ per Avg. Customer (3)=(2)/(1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(4) DSM, $	957,831	847,695	926,922	1,729,456	1,837,674	1,819,636	1,943,296	1,905,969	2,222,209	2,336,701	2,212,221	2,306,507
(5) $ per Avg. Customer (5)=(4)/(1)	3.67	3.26	3.55	6.63	7.05	7.00	7.46	7.33	8.52	8.97	8.49	8.85
(6) SolarSaver, $	29,493	-441	36	675	729	722	804	780	753	-310	0	1
(7) $ per Avg. Customer (7)=(6)/(1)	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(8) Total Surcharge, $ (8) = (2)+(4)+(6)	987,338	847,271	926,959	1,730,131	1,838,406	1,820,358	1,944,100	1,906,749	2,222,963	2,336,391	2,212,221	2,306,508
(9) $ per Avg. Customer (9)=(8)/(1)	3.78	3.25	3.55	6.63	7.06	7.00	7.47	7.33	8.53	8.97	8.49	8.85

Commercial	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(10) Customers at Month End[1,2]	33,705	33,545	33,557	33,574	33,603	33,539	33,577	33,259	33,501	33,540	33,540	33,540
IRP Surcharge Component												
(11) IRP Cost Recovery, $	530	0	0	0	736	0	0	0	0	0	30	0
(12) $ per Avg. Customer (12)=(11)/(10)	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(13) DSM, $	779,251	751,590	827,409	920,218	983,168	967,163	1,009,409	1,022,243	1,575,477	1,669,532	1,561,214	1,531,160
(14) $ per Avg. Customer (14)=(13)/(10)	23.12	22.41	24.66	27.41	29.26	28.84	30.06	30.74	47.03	49.78	46.55	45.65
(15) Total Surcharge, $ (15) = (11)+(13)	779,781	751,590	827,409	920,218	983,905	967,163	1,009,409	1,022,243	1,575,477	1,669,532	1,561,244	1,531,160
(16) $ per Avg. Customer (16)=(15)/(10)	23.14	22.41	24.66	27.41	29.28	28.84	30.06	30.74	47.03	49.78	46.55	45.65

Notes:
1. Recorded customer counts from January through September. October through December customer counts are not yet public; an average based on January through September data is used as an estimate for this 4th quarter period.
2. Excludes Schedule F.

HECO

2009 Monthly IRP Surcharge Breakdown & Average Impact per Customer, Estimated Revenues in $

Residential	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(1) Estimated Customers at Month End	261,351	260,949	261,562	261,423	261,556	261,530	261,860	262,058	262,542	262,313	262,624	263,020
IRP Surcharge Component[1]												
(2) IRP Cost Recovery, $	0	0	0	0	0	0	0	0	0	0	0	0
(3) $ per Avg. Customer (3)=(2)/(1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(4) DSM, $	1,296,653	1,120,977	1,234,292	1,216,040	1,260,909	1,290,569	1,339,241	325,489	312,936	313,997	295,963	301,974
(5) $ per Avg. Customer (5)=(4)/(1)	4.96	4.30	4.72	4.65	4.82	4.93	5.11	1.24	1.19	1.20	1.13	1.15
(6) SolarSaver, $	211,079	182,481	200,927	197,956	205,260	210,089	0	0	0	0	0	0
(7) $ per Avg. Customer (7)=(6)/(1)	0.81	0.70	0.77	0.76	0.78	0.80	0.00	0.00	0.00	0.00	0.00	0.00
(8) Total Surcharge, $ (8) = (2)+(4)+(6)	1,507,732	1,303,458	1,435,219	1,413,996	1,466,169	1,500,657	1,339,241	325,489	312,936	313,997	295,963	301,974
(9) $ per Avg. Customer (9)=(8)/(1)	5.77	5.00	5.49	5.41	5.61	5.74	5.11	1.24	1.19	1.20	1.13	1.15
Commercial												
(10) Estimated Customers at Month End[2]	33,741	33,704	33,784	33,811	33,896	33,871	33,840	33,955	33,960	33,965	33,920	33,993
IRP Surcharge Component[1]												
(11) IRP Cost Recovery, $	0	0	0	0	0	0	0	0	0	0	0	0
(12) $ per Avg. Customer (12)=(11)/(10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(13) DSM, $	1,303,301	1,218,404	1,341,751	1,310,376	1,401,118	1,393,120	1,450,026	307,469	300,498	304,768	284,484	282,851
(14) $ per Avg. Customer (14)=(13)/(10)	38.63	36.15	39.72	38.76	41.34	41.13	42.85	9.06	8.85	8.97	8.39	8.32
(15) Total Surcharge, $ (15) = (11)+(13)	1,303,301	1,218,404	1,341,751	1,310,376	1,401,118	1,393,120	1,450,026	307,469	300,498	304,768	284,484	282,851
(16) $ per Avg. Customer (16)=(15)/(10)	38.63	36.15	39.72	38.76	41.34	41.13	42.85	9.06	8.85	8.97	8.39	8.32

Notes:
1. Based on IRP Surcharge Components approved as-of 1/16/09
2. Excludes Schedule F.

HELCO

2008 Monthly IRP Surcharge Breakdown & Average Impact per Customer, Recorded Revenues in $

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Residential												
(1) Customers at Month End[1]	65,386	65,519	65,614	65,726	65,784	65,815	65,952	65,924	66,139	65,762	65,762	65,762
IRP Surcharge Component												
(2) IRP Cost Recovery, $	0	0	0	0	0	0	0	0	0	0	0	0
(3) $ per Avg. Customer (3)=(2)/(1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(4) DSM, $	99,602	86,101	88,085	85,214	85,082	152,444	162,632	161,448	149,278	152,668	150,942	161,556
(5) $ per Avg. Customer (5)=(4)/(1)	1.52	1.31	1.34	1.30	1.29	2.32	2.47	2.45	2.26	2.32	2.30	2.46
(6) SolarSaver, $	28,158	-456	-64	0	0	0	3	16,801	15,485	15,843	15,663	16,759
(7) $ per Avg. Customer (7)=(6)/(1)	0.43	-0.01	0.00	0.00	0.00	0.00	0.00	0.25	0.23	0.24	0.24	0.25
(8) Total Surcharge, $ (8) = (2)+(4)+(6)	127,760	85,645	88,021	85,214	85,082	152,444	162,635	178,248	164,763	168,511	166,605	178,315
(9) $ per Avg. Customer (9)=(8)/(1)	1.95	1.31	1.34	1.30	1.29	2.32	2.47	2.70	2.49	2.56	2.53	2.71
Commercial												
(10) Customers at Month End[1,2]	13,426	13,392	13,380	13,400	13,333	13,361	13,338	13,288	13,351	13,363	13,363	13,363
IRP Surcharge Component												
(11) IRP Cost Recovery, $	0	0	0	0	0	0	0	0	0	0	0	0
(12) $ per Avg. Customer (12)=(11)/(10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(13) DSM, $	69,661	69,724	74,657	72,310	76,060	66,306	70,149	70,450	69,192	69,263	65,584	65,915
(14) $ per Avg. Customer (14)=(13)/(10)	5.19	5.21	5.58	5.40	5.70	4.96	5.26	5.30	5.18	5.18	4.91	4.93
(15) Total Surcharge, $ (15) = (11)+(13)	69,661	69,724	74,657	72,310	76,060	66,306	70,149	70,450	69,192	69,263	65,584	65,915
(16) $ per Avg. Customer (16)=(15)/(10)	5.19	5.21	5.58	5.40	5.70	4.96	5.26	5.30	5.18	5.18	4.91	4.93

Notes:
1. Recorded customer counts from January through September. October through December customer counts are not yet public; an average based on January through September data is used as an estimate for this 4th quarter period.
2. Excludes Schedule F.

HELCO

2009 Monthly IRP Surcharge Breakdown & Average Impact per Customer, Estimated Revenues in $

Residential	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(1) Estimated Customers at Month End	67,422	67,457	67,684	67,785	67,898	68,069	68,144	68,534	68,590	68,819	68,994	69,268
IRP Surcharge Component[1]												
(2) IRP Cost Recovery, $	0	0	0	0	0	0	0	0	0	0	0	0
(3) $ per Avg. Customer (3)=(2)/(1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(4) DSM, $	207,211	174,968	196,539	188,044	188,693	184,201	197,095	0	0	0	0	0
(5) $ per Avg. Customer (5)=(4)/(1)	3.07	2.59	2.90	2.77	2.78	2.71	2.89	0.00	0.00	0.00	0.00	0.00
(6) SolarSaver, $	57,379	0	0	0	0	0	0	0	0	0	0	0
(7) $ per Avg. Customer (7)=(6)/(1)	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(8) Total Surcharge, $ (8) = (2)+(4)+(6)	264,590	174,968	196,539	188,044	188,693	184,201	197,095	0	0	0	0	0
(9) $ per Avg. Customer (9)=(8)/(1)	3.92	2.59	2.90	2.77	2.78	2.71	2.89	0.00	0.00	0.00	0.00	0.00
Commercial												
(10) Estimated Customers at Month End[2]	13,717	13,786	13,871	13,889	13,945	14,013	13,983	14,123	14,126	14,183	14,210	14,381
IRP Surcharge Component[1]												
(11) IRP Cost Recovery, $	0	0	0	0	0	0	0	0	0	0	0	0
(12) $ per Avg. Customer (12)=(11)/(10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(13) DSM, $	106,300	99,622	111,213	106,375	114,484	112,549	117,803	0	0	0	0	0
(14) $ per Avg. Customer (14)=(13)/(10)	7.75	7.23	8.02	7.66	8.21	8.03	8.42	0.00	0.00	0.00	0.00	0.00
(15) Total Surcharge, $ (15) = (11)+(13)	106,300	99,622	111,213	106,375	114,484	112,549	117,803	0	0	0	0	0
(16) $ per Avg. Customer (16)=(15)/(10)	7.75	7.23	8.02	7.66	8.21	8.03	8.42	0.00	0.00	0.00	0.00	0.00

Notes:
1. Based on IRP Surcharge Components approved as-of 1/16/09
2. Excludes Schedule F.

Maui

2008 Monthly IRP Surcharge Breakdown & Average Impact per Customer, Recorded Revenues in $

Residential	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(1) Customers at Month End[1]	52,244	52,364	52,444	52,489	52,426	52,585	52,574	52,554	52,687	52,485	52,485	52,485
IRP Surcharge Component												
(2) IRP Cost Recovery, $	26,726	24,067	25,285	23,728	24,918	17,293	18,547	17,943	16,354	17,428	16,424	17,289
(3) $ per Avg. Customer (3)=(2)/(1)	0.51	0.46	0.48	0.45	0.48	0.33	0.35	0.34	0.31	0.33	0.31	0.33
(4) DSM, $	176,340	156,926	164,596	154,479	162,986	191,339	205,629	198,787	211,354	223,259	211,648	223,302
(5) $ per Avg. Customer (5)=(4)/(1)	3.38	3.00	3.14	2.94	3.11	3.64	3.91	3.78	4.01	4.25	4.03	4.25
(6) SolarSaver, $	19,762	-174	3	1	1	0	1	8,744	7,888	8,341	7,906	8,341
(7) $ per Avg. Customer (7)=(6)/(1)	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.15	0.16	0.15	0.16
(8) Total Surcharge, $ (8) = (2)+(4)+(6)	222,828	180,819	189,884	178,207	187,904	208,633	224,177	225,474	235,596	249,027	236,978	248,932
(9) $ per Avg. Customer (9)=(8)/(1)	4.27	3.45	3.62	3.40	3.58	3.97	4.26	4.29	4.47	4.74	4.50	4.74

Commercial	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(10) Customers at Month End[1,2]	9,225	9,193	9,238	9,286	9,272	9,269	9,250	9,203	9,209	9,238	9,238	9,238
IRP Surcharge Component												
(11) IRP Cost Recovery, $	38,453	38,304	42,548	40,342	42,146	30,024	30,984	30,458	28,108	30,018	28,378	27,294
(12) $ per Avg. Customer (12)=(11)/(10)	4.17	4.17	4.61	4.34	4.55	3.24	3.35	3.31	3.05	3.25	3.07	2.95
(13) DSM, $	103,693	100,330	111,962	106,043	113,660	106,698	111,655	107,866	147,681	153,834	145,863	140,315
(14) $ per Avg. Customer (14)=(13)/(10)	11.24	10.91	12.12	11.42	12.26	11.51	12.07	11.72	16.04	16.65	15.79	15.19
(15) Total Surcharge, $ (15) = (11)+(13)	142,146	138,633	154,509	146,385	155,806	136,722	142,639	138,324	175,789	183,852	174,242	167,609
(16) $ per Avg. Customer (16)=(15)/(10)	15.41	15.08	16.73	15.76	16.80	14.75	15.42	15.03	19.09	19.90	18.86	18.14

Notes:
1. *Recorded customer counts from January through September. October through December customer counts are not yet public; an average* based on January through September data is used as an estimate for this 4th quarter period.
2. Excludes Schedule F.

Maui

2009 Monthly IRP Surcharge Breakdown & Average Impact per Customer, Estimated Revenues in $

Residential	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(1) Estimated Customers at Month End	52,867	52,931	52,995	53,059	53,123	53,251	53,251	53,379	53,506	53,570	53,570	53,762
IRP Surcharge Component[1]												
(2) IRP Cost Recovery, $	19,525	16,638	18,660	18,071	18,289	0	0	0	0	0	0	0
(3) $ per Avg. Customer (3)=(2)/(1)	0.37	0.31	0.35	0.34	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(4) DSM, $	227,456	191,265	218,090	208,268	212,266	218,503	230,940	0	0	0	0	0
(5) $ per Avg. Customer (5)=(4)/(1)	4.30	3.61	4.12	3.93	4.00	4.10	4.34	0.00	0.00	0.00	0.00	0.00
(6) SolarSaver, $	5,017	0	0	0	0	0	0	0	0	0	0	0
(7) $ per Avg. Customer (7)=(6)/(1)	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(8) Total Surcharge, $ (8) = (2)+(4)+(6)	251,998	207,903	236,750	226,340	230,555	218,503	230,940	0	0	0	0	0
(9) $ per Avg. Customer (9)=(8)/(1)	4.77	3.93	4.47	4.27	4.34	4.10	4.34	0.00	0.00	0.00	0.00	0.00
Commercial												
(10) Estimated Customers at Month End[2]	9,330	9,362	9,393	9,392	9,414	9,424	9,466	9,478	9,512	9,533	9,544	9,554
IRP Surcharge Component[1]												
(11) IRP Cost Recovery, $	29,980	28,284	30,731	30,043	31,800	0	0	0	0	0	0	0
(12) $ per Avg. Customer (12)=(11)/(10)	3.21	3.02	3.27	3.20	3.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(13) DSM, $	186,340	170,098	191,391	183,393	199,148	201,627	210,053	0	0	0	0	0
(14) $ per Avg. Customer (14)=(13)/(10)	19.97	18.17	20.38	19.53	21.15	21.40	22.19	0.00	0.00	0.00	0.00	0.00
(15) Total Surcharge, $ (15) = (11)+(13)	216,320	198,382	222,122	213,436	230,948	201,627	210,053	0	0	0	0	0
(16) $ per Avg. Customer (16)=(15)/(10)	23.19	21.19	23.65	22.73	24.53	21.40	22.19	0.00	0.00	0.00	0.00	0.00

Notes:
1. Based on IRP Surcharge Components approved as-of 1/16/09
2. Excludes Schedule F.

LANAI

2008 Monthly IRP Surcharge Breakdown & Average Impact per Customer, Recorded Revenues in $

Residential	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(1) Customers at Month End[1]	1,434	1,435	1,438	1,442	1,430	1,435	1,431	1,431	1,451	1,436	1,436	1,436
IRP Surcharge Component												
(2) IRP Cost Recovery, $	663	535	591	518	583	383	407	413	359	380	367	398
(3) $ per Avg. Customer (3)=(2)/(1)	0.46	0.37	0.41	0.36	0.41	0.27	0.28	0.29	0.25	0.26	0.26	0.28
(4) DSM, $	3,831	3,057	3,380	2,932	3,348	3,697	3,810	3,924	3,979	4,108	4,070	4,364
(5) $ per Avg. Customer (5)=(4)/(1)	2.67	2.13	2.35	2.03	2.34	2.58	2.66	2.74	2.74	2.86	2.83	3.04
(6) SolarSaver, $	429	-13	0	0	0	0	0	171	148	153	152	163
(7) $ per Avg. Customer (7)=(6)/(1)	0.30	-0.01	0.00	0.00	0.00	0.00	0.00	0.12	0.10	0.11	0.11	0.11
(8) Total Surcharge, $ (8) = (2)+(4)+(6)	4,923	3,579	3,971	3,450	3,931	4,081	4,217	4,507	4,486	4,642	4,589	4,925
(9) $ per Avg. Customer (9)=(8)/(1)	3.43	2.49	2.76	2.39	2.75	2.84	2.95	3.15	3.09	3.23	3.20	3.43

Commercial	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(10) Customers at Month End[1,2]	249	248	246	248	245	240	241	240	235	244	244	244
IRP Surcharge Component												
(11) IRP Cost Recovery, $	1,454	1,358	1,524	1,427	1,532	1,039	1,075	1,136	1,050	1,070	968	952
(12) $ per Avg. Customer (12)=(11)/(10)	5.84	5.48	6.20	5.75	6.25	4.33	4.46	4.73	4.47	4.39	3.97	3.91
(13) DSM, $	-159	-147	-165	-153	-166	133	133	143	132	133	120	116
(14) $ per Avg. Customer (14)=(13)/(10)	-0.64	-0.59	-0.67	-0.62	-0.68	0.55	0.55	0.59	0.56	0.55	0.49	0.48
(15) Total Surcharge, $ (15) = (11)+(13)	1,296	1,211	1,360	1,273	1,365	1,171	1,208	1,278	1,181	1,203	1,087	1,068
(16) $ per Avg. Customer (16)=(15)/(10)	5.20	4.88	5.53	5.13	5.57	4.88	5.01	5.33	5.03	4.94	4.46	4.39

Notes:
1. Recorded customer counts from January through September. October through December customer counts are not yet public; an average based on January through September data is used as an estimate for this 4th quarter period.
2. Excludes Schedule F.

Lanai

2009 Monthly IRP Surcharge Breakdown & Average Impact per Customer, Estimated Revenues in $

Residential	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(1) Estimated Customers at Month End	1,410	1,412	1,412	1,413	1,415	1,417	1,410	1,417	1,425	1,429	1,435	1,434
IRP Surcharge Component[1]												
(2) IRP Cost Recovery, $	478	404	445	429	437	0	0	0	0	0	0	0
(3) $ per Avg. Customer (3)=(2)/(1)	0.34	0.29	0.31	0.30	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(4) DSM, $	0	0	0	0	0	0	0	0	0	0	0	0
(5) $ per Avg. Customer (5)=(4)/(1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(6) SolarSaver, $	109	0	0	0	0	0	0	0	0	0	0	0
(7) $ per Avg. Customer (7)=(6)/(1)	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(8) Total Surcharge, $ (8) = (2)+(4)+(6)	587	404	445	429	437	0	0	0	0	0	0	0
(9) $ per Avg. Customer (9)=(8)/(1)	0.42	0.29	0.31	0.30	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial												
(10) Estimated Customers at Month End[2]	267	271	274	273	271	280	282	290	287	287	284	281
IRP Surcharge Component[1]												
(11) IRP Cost Recovery, $	1,039	972	1,074	1,056	1,134	0	0	0	0	0	0	0
(12) $ per Avg. Customer (12)=(11)/(10)	3.89	3.59	3.92	3.87	4.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(13) DSM, $	0	0	0	0	0	0	0	0	0	0	0	0
(14) $ per Avg. Customer (14)=(13)/(10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(15) Total Surcharge, $ (15) = (11)+(13)	1,039	972	1,074	1,056	1,134	0	0	0	0	0	0	0
(16) $ per Avg. Customer (16)=(15)/(10)	3.89	3.59	3.92	3.87	4.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:
1. Based on IRP Surcharge Components approved as-of 1/16/09
2. Excludes Schedule F.

MOLOKAI

2008 Monthly IRP Surcharge Breakdown & Average Impact per Customer, Recorded Revenues in $

Residential	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(1) Customers at Month End[1]	2,574	2,582	2,586	2,585	2,581	2,580	2,583	2,594	2,586	2,583	2,583	2,583
IRP Surcharge Component												
(2) IRP Cost Recovery, $	830	744	753	711	747	550	586	581	541	563	540	604
(3) $ per Avg. Customer (3)=(2)/(1)	0.32	0.29	0.29	0.28	0.29	0.21	0.23	0.22	0.21	0.22	0.21	0.23
(4) DSM, $	5,473	4,807	4,864	4,575	4,842	5,581	5,889	5,868	6,406	6,574	6,339	7,160
(5) $ per Avg. Customer (5)=(4)/(1)	2.13	1.86	1.88	1.77	1.88	2.16	2.28	2.26	2.48	2.54	2.45	2.77
(6) SolarSaver, $	613	-5	-1	-1	0	0	0	255	239	246	237	268
(7) $ per Avg. Customer (7)=(6)/(1)	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.09	0.10	0.09	0.10
(8) Total Surcharge, $ (8) = (2)+(4)+(6)	6,916	5,546	5,616	5,285	5,588	6,131	6,475	6,704	7,186	7,383	7,115	8,032
(9) $ per Avg. Customer (9)=(8)/(1)	2.69	2.15	2.17	2.04	2.17	2.38	2.51	2.58	2.78	2.86	2.75	3.11

Commercial												
(10) Customers at Month End[1,2]	554	549	555	551	552	558	561	560	560	556	556	556
IRP Surcharge Component												
(11) IRP Cost Recovery, $	1,188	1,194	1,346	1,264	1,298	952	1,008	1,019	954	996	936	891
(12) $ per Avg. Customer (12)=(11)/(10)	2.15	2.17	2.43	2.29	2.35	1.71	1.80	1.82	1.70	1.79	1.69	1.60
(13) DSM, $	148	152	169	157	166	213	222	224	263	272	249	233
(14) $ per Avg. Customer (14)=(13)/(10)	0.27	0.28	0.30	0.29	0.30	0.38	0.40	0.40	0.47	0.49	0.45	0.42
(15) Total Surcharge, $ (15) = (11)+(13)	1,336	1,346	1,515	1,421	1,464	1,165	1,230	1,243	1,218	1,269	1,185	1,125
(16) $ per Avg. Customer (16)=(15)/(10)	2.41	2.45	2.73	2.58	2.65	2.09	2.19	2.22	2.17	2.28	2.13	2.02

Notes:
1. Recorded customer counts from January through September. October through December customer counts are not yet public; an average based on January through September data is used as an estimate for this 4th quarter period.
2. Excludes Schedule F.

Molokai

2009 Monthly IRP Surcharge Breakdown & Average Impact per Customer, Estimated Revenues in $

Residential	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(1) Estimated Customers at Month End	2,582	2,585	2,589	2,595	2,598	2,595	2,601	2,601	2,604	2,610	2,610	2,617
IRP Surcharge Component[1]												
(2) IRP Cost Recovery, $	616	547	592	582	596	0	0	0	0	0	0	0
(3) $ per Avg. Customer (3)=(2)/(1)	0.24	0.21	0.23	0.22	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(4) DSM, $	0	0	0	0	0	0	0	0	0	0	0	0
(5) $ per Avg. Customer (5)=(4)/(1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(6) SolarSaver, $	151	0	0	0	0	0	0	0	0	0	0	0
(7) $ per Avg. Customer (7)=(6)/(1)	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(8) Total Surcharge, $ (8) = (2)+(4)+(6)	768	547	592	582	596	0	0	0	0	0	0	0
(9) $ per Avg. Customer (9)=(8)/(1)	0.30	0.21	0.23	0.22	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial												
(10) Estimated Customers at Month End[2]	556	552	557	556	555	556	552	553	555	553	558	557
IRP Surcharge Component[1]												
(11) IRP Cost Recovery, $	994	943	1,047	1,017	1,096	0	0	0	0	0	0	0
(12) $ per Avg. Customer (12)=(11)/(10)	1.79	1.71	1.88	1.83	1.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(13) DSM, $	0	0	0	0	0	0	0	0	0	0	0	0
(14) $ per Avg. Customer (14)=(13)/(10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(15) Total Surcharge, $ (15) = (11)+(13)	994	943	1,047	1,017	1,096	0	0	0	0	0	0	0
(16) $ per Avg. Customer (16)=(15)/(10)	1.79	1.71	1.88	1.83	1.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:
1. Based on IRP Surcharge Components approved as-of 1/16/09
2. Excludes Schedule F.

Allocation of DSM Expenses Between Customer Incentives and Program Administration
2008 Recorded DSM Expenses in $

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	TOTALS
HECO													
Incentives	887,196	1,349,124	1,093,621	1,511,688	1,130,012	627,724	1,721,801	1,207,741	930,821	1,145,230	2,624,932	2,816,505	17,046,395
Administration													
Base Labor	28,198	31,845	38,749	43,297	32,501	41,095	42,589	32,058	35,150	38,753	20,019	28,451	412,705
Base Non-Labor	30,435	4,920	32,267	31,670	19,021	51,977	49,557	25,331	25,312	78,079	239,123	130,373	718,065
Admin/Misc.	9,487	2,471	15,077	10,073	13,642	6,125	111,824	3,006	34,147	4,754	12,170	12,542	235,318
Subtotal	68,120	39,236	86,093	85,040	65,164	99,197	203,970	60,395	94,609	121,586	271,312	171,366	1,366,088
SUBTOTAL	955,316	1,388,360	1,179,714	1,596,728	1,195,176	726,921	1,925,771	1,268,136	1,025,430	1,266,816	2,896,244	2,987,871	18,412,483
HELCO													
Incentives	88,118	93,556	63,747	98,537	55,180	101,926	122,330	72,162	99,581	236,664	130,588	154,630	1,317,039
Administration													
Base	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Admin/Misc.	446	4,593	979	525	578	1,653	781	2,986	3,584	3,611	1,092	2,711	23,539
Subtotal	446	4,593	979	525	578	1,653	781	2,986	3,584	3,611	1,092	2,711	23,539
SUBTOTAL	88,564	98,149	64,726	99,062	55,758	103,579	123,111	75,148	103,165	240,295	131,680	157,341	1,340,578
MECO													
Incentives	187,580	99,050	155,282	159,691	164,760	76,842	217,836	148,758	122,526	164,097	108,907	331,963	1,937,292
Administration/Implementation													
Base	2,413	2,447	3,699	84	673	612	148	672	2,063	1,534	1,111	569	16,025
Incremental	968	1,914	236	63	1,057	265	20,411	650	1,419	789	379	17,240	45,391
Subtotal	3,381	4,361	3,935	147	1,730	877	20,559	1,322	3,482	2,323	1,490	17,809	
SUBTOTAL	190,961	103,411	159,217	159,838	166,490	77,719	238,395	150,080	126,008	166,420	110,397	349,772	1,998,708

Notes:
1. Expenses do not include year-end accruals
2. Administration is defined as base labor plus "Materials, Travel & Misc." Other program cost element not shown in this exhibit here include incremental "Direct Labor", "Outside Services", and "Advertising/Marketing".
3. Base Non-Labor expenses only occur in HECO's two load control programs, RDLC and CIDLC

Allocation of DSM Expenses Between Customer Incentives and Program Administration
2009 Estimated DSM Expenses in $

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	TOTALS
HECO													
Incentives	2,050,075	1,958,145	1,661,845	1,511,445	1,408,445	1,657,145	1,715,995	380,914	391,289	396,464	399,104	401,500	13,932,365
Administration													
Base Labor	109,061	109,061	109,061	109,061	109,061	109,061	109,061	59,967	59,967	59,967	59,967	59,967	1,063,263
Base Non-Labor	75,233	75,233	75,233	75,233	75,233	75,233	75,233	75,233	75,233	75,233	75,233	75,233	902,793
Admin/Misc.	20,055	24,088	27,755	22,788	19,255	24,286	63,352	0	0	0	0	0	201,577
Subtotal	204,349	208,382	212,049	207,082	203,549	208,580	247,646	135,200	135,200	135,200	135,200	135,200	2,167,633
SUBTOTAL	2,254,423	2,166,526	1,873,893	1,718,526	1,611,993	1,865,724	1,963,640	516,114	526,489	531,664	534,304	536,700	16,099,998
HELCO													
Incentives	176,920	154,670	166,670	139,670	179,670	197,670	123,670	0	0	0	0	0	1,138,940
Administration													
Base	1,667	1,667	1,667	1,667	1,667	1,667	0	0	0	0	0	0	10,000
Admin/Misc.	2,894	2,894	28,894	2,894	2,894	2,894	4,106	0	0	0	0	0	47,469
Subtotal	4,561	4,561	30,561	4,561	4,561	4,561	4,106	0	0	0	0	0	57,469
SUBTOTAL	181,481	159,231	197,231	144,231	184,231	202,231	127,776	0	0	0	0	0	1,196,409
MECO													
Incentives	104,764	157,101	423,166	159,166	99,437	348,190	76,930	0	0	0	0	0	1,368,754
Administration/Implementation													
Base	6,647	6,647	6,647	6,647	6,647	6,647	6,647	0	0	0	0	0	46,526
Admin/Misc.	3,172	3,197	5,497	4,456	3,297	5,697	3,101	0	0	0	0	0	28,419
Subtotal	9,819	9,844	12,144	11,103	9,944	12,344	9,748	0	0	0	0	0	74,945
SUBTOTAL	114,583	166,945	435,310	170,269	109,381	360,534	86,678	0	0	0	0	0	1,443,699

Notes:

1. Administration is defined as base labor plus "Materials, Travel & Misc." Other program cost element not shown in this exhibit here include incremental "Direct Labor", *"Outside Services", and "Advertising/Marketing"*.
2. Base Non-Labor expenses only occur in HECO's two load control programs, RDLC and CIDLC

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Ref: HECO T-10 Rate Case Update, page 6 (Pricing Initiatives Consulting Costs).

At page 6 of his update, Mr. Hee states, "HECO has hired a consultant to help with development and testing of various decoupling/attrition mechanisms…Consultants for other pricing initiatives, such as lifeline rates and mandatory time-of-use rates, will also be needed." Please provide the following information:

a. Provide the most detailed available breakdown of projected 2009 consulting fees by vendor and activity (decoupling, lifeline, etc.).
b. Provide copies of consulting proposals and contracts for activities other than those underway by PEG (decoupling).
c. Provide an itemization of actual consulting invoiced charges in the described areas, to date in 2009.
d. Explain HECO's planned timing (month/year) of consultant hiring, PUC application and estimated implementation for lifeline rates.
e. Explain HECO's planned timing (month/year) of consultant hiring, PUC application and estimated implementation for mandatory time-of-use rates.

<u>HECO Response:</u>

a. Please see Attachment 1 of this response.

b. As of April 3, 2009, HECO has not received any consultant proposals or signed any consultant contracts for other than decoupling thus far in 2009.

c. Please see Attachment 1, note 1.

d. The HECO Companies had anticipated hiring a consultant to assist with the design of lifeline rates when the HECO T-10 rate case update was submitted on December 5, 2008, During the course of further researching and fleshing out details of the lifeline rates project after the rate case update was filed, the HECO Companies have since decided to develop a lifeline rate proposal in-house since the development of a discount to electric rates for low income households could use the existing local telephone lifeline rates as one of the bases for design. The October 20, 2008 HCEI Agreement requires that the HECO Companies

and the Consumer Advocate explore lifeline rates and submit a proposal for Commission approval by April 2009.[1]

If the Commission approves the HECO Companies' proposal without a formal docket, the HECO Companies do not expect that they will incur consultant costs for lifeline rates. In the event the Commission opens a docket to review the HECO Companies' lifeline rates proposal, then the HECO Companies might contract a consultant depending on the complexity of issues being raised.

e. Per the HCEI Agreement, mandatory time-of-use rates are required for HECO's commercial and industrial customer classes as AMI is implemented.[2] In order to support mandatory time-of-use rates, HECO will need to assess and re-design its existing cost of service studies as well as develop and align proposed regular rate schedules with mandatory time-of-use rate schedules. HECO anticipates consultant assistance will be a necessary in order to provide expertise and guidance to this development effort.

Per the schedule of AMI meter deployment in the Companies' AMI application, HECO's commercial and industrial customers are scheduled to receive AMI meters within the period 2011 through 2013.[3] In order for a mandatory time-of-use rate tariff to be in place to meet this implementation time schedule, the tariff would have to be included in HECO's 2011 test year rate case proceeding that HECO plans to file in 2010.[4] To meet the 2010 filing time line, HECO anticipates hiring a consultant to assist with its mandatory time-of-use rate design in the October 2009 timeframe.

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[1] HCEI Agreement at 29.
[2] HCEI Agreement at 25 to 26.
[3] Advanced Metering Infrastructure (AMI) Project Application, Exhibit 18 (Overall Project Schedule), filed December 1, 2008, in Docket No. 2008-0303.
[4] Joint Proposal on Decoupling and Statement of Position of the HECO Companies and the Consumer Advocate, at 26, filed March 30,2009, in Docket No. 2008-0274.

Hawaiian Electric Company, Inc.

Projected 2009 Consultant Fees ($)

Line	Topic	Consultant	Projected Fees	Actual 4/3/2009
1	Decoupling	Pacific Economics Group	150,000	83,053 (1)
2	Lifeline Rates	None	None	0
3	Green Contracting	TBD	50,000	0
4	Mandatory TOU	TBD	75,000	0 (2)
Total			275,000	83,053

Notes: (1) For work conducted through February 28, 2009, which does not include work to complete the Joint Decoupling Proposal or responses to the PUC-IRs filed in March 2009, also does not include work expected for the simultanoues responses to information request, the second technical workshop, final statement of position, panel hearing, and any additional PUC-Irs in the future.

(2) Anticipated hiring date is October 2009.

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Ref: HECO T-10, pages 19-21 (DSM "Base" Staffing/Expenses).

Mr. Hee describes the distinction between "base" and "Incremental" DSM costs in his testimony and, at page 19, describes several changes that are proposed to attribute additional costs into the "base" category prospectively. Please respond to the following:

a. Provide a comparative "Position Matrix" in the form of HECO-1016 for each of the past four years 2005, 2006, 2007 and 2008 and for the test year (after T-10 updates), illustrating "base" and "incremental" staffing levels in each year.
b. Explain the changes that have occurred or that are proposed in the data responsive to part (a).
c. Provide a comparison of the "base" versus "incremental" labor and non-labor DSM expenses incurred by HECO in each of the past four years 2005 through 2008, and for the test year (after T-10 updates).
d. Explain the primary causes of any individually material changes that have occurred or that are proposed in the data responsive to part (c), above.
e. Provide a description of the location(s) and square footage estimates for the space that was occupied by DSM base personnel and incremental personnel in each of the years 2005, 2006, 2007 and 2008 and for the test year (after T-10 updates).
f. Explain why office space or office equipment expenses cannot be ratably reduced for the shifting of DSM incremental staffing to third party administration.
g. Provide complete copies of all reports, studies, analyses, workpapers, projections and other documents relied upon by HECO to estimate its ongoing "base" and load control (RDLC, CIDLC, DPP Pilot) support staffing and expenses for DSM after transition to the new PBF administrator.

<u>HECO Response:</u>

a. Please see attached exhibits on pages 4 to 6. The exhibits for 2005-2008 represent filled positions as of year end. The exhibit for 2009 is the test year estimate.

b. Please see notes on exhibits to subpart a. above.

c. Please see attached exhibit on page 7.

d. Beginning in October 2007, four base employees were transferred to incremental positions pursuant to the Proposed Decision and Order No. 23748 in HECO's 2005 test year rate case. This transfer is apparent in the decrease in base labor and increase in incremental labor starting in 2007 and for the full year in 2008.

For all programs, the increases in incremental nonlabor expenses are due mainly to the increase in the amounts of rebates paid to customers. This is especially significant in the CIDLC Program.

The 2009 test year assumed the transition of certain energy efficiency programs to a third party PBF Administrator so there are no budgets for these programs. The 2009 test year base administration expenses increased to accommodate some of the labor of the DSM director and CEP Analyst. This labor will be directed to the load management and SSP programs. See also double asterisked note on page 7 for additional details.

e. Please see attached exhibit on page 8.

f. Office space could be ratably reduced if it was expected to be vacant after the transition of the energy efficiency programs to the third party PBF Administrator. However, HECO does not expect that the office space will remain vacant. First, two new positions (a Senior Pricing Analyst and the SSP Program Manager) have been added to the Energy Services Department which will be placed on the 12th floor. (See HECO's T-10 update, pages 1 to 3.) This reduces the number of vacant workstations to two, from the four vacant workstations previously identified in CA-IR-124. As further described in CA-IR-124, the remaining two vacant workstations would allow for future overflow from other departments such as for future expansion of the Pricing Division, or possible use by the third party contractor to implement the Small Business Direct Load Control Program element. Therefore, HECO maintains that the entire cost of office space on the 12th floor of the Central Pacific Plaza should remain in base rates.

g. The following is a listing of key workpapers (in addition to HECO T-10, exhibits, and workpapers) that support the annualized staffing and expenses for the RDLC, CIDLC, and DPP Pilot programs after the transition to the new PBF Administrator:

RDLC: Responses to CA-IR-1, Att. C, pp. 2, 11, and 13, CA-IR-2, Att. C, pp. 2, 5, and 16, CA-IR-119, CA-IR-121, CA-IR-122, CA-IR-228, CA-IR-340, and HECO rate case update, HECO T-10, pp. 16-17.

CIDLC: Responses to CA-IR-1, Att. C, pp. 2, 9, 12, 13, and 24-26, CA-IR-2, Att. C, pp. 2, 5, and 15, CA-IR-123, CA-IR-231, and CA-IR-340.

DPP Pilot: Responses to CA-IR-1, Att. C, pp. 2, 9, 11, and 27, CA-IR-2, Att. C, pp. 2, 5, and 18, CA-IR-120, CA-IR-122, CA-IR-266, and CA-IR-337.

Hawaiian Electric Company, Inc.

Position Matrix -- DSM Program Positions

2005

Base Rates	Incremental
ESD CEP Division (8) Director PM Residential PM Commercial & Industrial PM, RDLC PM, CIDLC CEP Analyst CEP Analyst Clerk	ESD CEP Division (2) CEP Analyst C&I Engineer Contract Hires (9)

2006

Base Rates	Incremental
ESD CEP Division (8) Director PM Residential PM Commercial & Industrial PM, RDLC PM, CIDLC CEP Analyst CEP Analyst Clerk Customer Technology Applications (2) Sr Technical Svc Engr Sr Technical Svc Engr	ESD CEP Division (2) CEP Analyst C&I Engineer Contract Hires (9)

Notes: Addition of 2 CTAD Sr Technical Services Engineers assigned to the CIDLC Program.

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Position Matrix -- DSM Program Positions

2007

Base Rates	Incremental
ESD CEP Division (4) Director PM, CIDLC LM Engineer Clerk	ESD CEP Division (6) PM Residential PM Commercial & Industrial C&I Engineer CEP Analyst CEP Analyst CEP Analyst
Customer Technology Applications (1) Sr Technical Svcs Engr	Contract Hires (9)

Notes: Transfer of 4 base employees to incremental pursuant to Proposed Decision and Order No. 23748, filed October 22, 2007, Docket No. 04-0113, HECO's 2005 test year rate case; addition of base LM Engineer, reduction of 1 CTAD Sr Technical Svcs Engr, PM RDLC left in December.

2008

Base Rates	Incremental
ESD CEP Division (4) Director PM, RDLC PM, CIDLC Clerk	ESD CEP Division (5) PM Residential PM Commercial & Industrial C&I Engineer CEP Analyst CEP Analyst
Customer Technology Applications (1) Sr Technical Svc Engr	Contract Hires (9)

Notes: PM, CIDLC left end of July. LM Engineer was promoted to PM, CIDLC in October thus leaving the LM Engineer position vacant, and a CEP Analyst left in December.

Hawaiian Electric Company, Inc.

Position Matrix -- DSM Program Positions

2009 Test Year
RATE CASE UPDATE

Base Rates	Incremental
ESD CEP Division (5)	ESD CEP Division (7)
Director	CEP Analyst
PM, RDLC	C&I Engineer
PM, CIDLC	PM, Residential
LM Engineer	PM, Commercial
Clerk	CEP Analyst
<==========	CEP Analyst (a)
	PM, SS Program (c)
Customer Technology Applications (2)	Cust. Svcs Department (1)
Sr Technical Svc Engr	CS Representative (d)
~~Sr Technical Svc Engr~~ (b)	

Notes:
a. CEP Analyst position to be transferred into base.
b. Senior Technical Engineer to be transferred out of the CTA Dvision into the Pricing Division as a Senior Rate Analyst.
c. Addition of the incremental Program Manager for the SSP Program.
d. Addition of the incremental CSR for the Cust. Svcs Department to assist with the SSP Program.

Excludes contract employees.

Hawaiian Electric Company, Inc.

Base and Incremental DSM Expenses
($1,000)

	Regular HECO Employees*		Base			Incremental**		
	Base	Incremental	Labor	Non-Labor	Total	Labor	Non-Labor	Total
2005	8	2	668	683	1,351	162	8,189	8,351
2006	8	2	793	920	1,713	107	12,037	12,144
2007	5	6	707	991	1,698	146	17,145	17,291
2008	5	5	574	1,092	1,666	425	26,106	26,531
2009	7	7	704	1,670	2,374	113	6,886	6,999

* Year-end position occupied, except 2009 which is the test year estimate.

** Incremental labor expenses in 2007 reflect the transfer of four base employees to incremental in October 2007. Incremental labor costs in 2009 only reflect the SSP Program Manager and Customer Services billing clerk since all other energy efficiency programs are assumed transferred to the PBF Administrator as of January 1, 2009. The remaining 5 incremental employees are assumed transferred administratively to other departments.

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Hawaiian Electric Company, Inc.

Base and Incremental DSM Expenses
($1,000)

	Regular HECO Employees*		Base			Incremental**		
	Base	Incremental	Labor	Non-Labor	Total	Labor	Non-Labor	Total
2005	8	2	668	673	1,341	162	8,189	8,351
2006	8	2	793	895	1,688	107	12,037	12,144
2007	5	6	708	992	1,700	146	17,145	17,291
2008	5	5	574	1,086	1,660	425	26,106	26,531
2009	7	7	704	1,670	2,374	113	6,886	6,999

* Year-end position occupied, except 2009 which is the test year estimate.

** Incremental labor expenses in 2007 reflect the transfer of four base employees to incremental in October 2007. Incremental labor costs in 2009 only reflect the SSP Program Manager and Customer Services billing clerk since all other energy efficiency programs are assumed transferred to the PBF Administrator as of January 1, 2009. The remaining 5 incremental employees are assumed transferred administratively to other departments.

Hawaiian Electric Company, Inc.

DSM Lease Rent Space
(Square Feet)

	2005	2006	2007	2008	2009
Central Pacific Plaza 10th floor	200	400	400	400	400
Central Pacific Plaza 12th floor	3,090	3,090	3,090	3,090	3,090
Total	3,290	3,490	3,490	3,490	3,490