



May 21, 2019

The Honorable Chair and Members of
the Hawai'i Public Utilities Commission
Kekuanaoa Building, 1st Floor
465 South King Street
Honolulu, Hawai'i 96813

Dear Commissioners:

Subject: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)
2019 RBA Rate Adjustment Tariff Filings
Hawaiian Electric Companies Reply Statement of Position

INTRODUCTION

Enclosed for filing is the Hawaiian Electric Companies'¹ reply to the *Division of Consumer Advocacy's Statement of Position* ("Consumer Advocate's SOP")² filed on May 10, 2019 on Transmittal Nos. 19-01, 19-02 and 19-03, the Companies' Revenue Balancing Account ("RBA") Rate Adjustment tariff filings for 2019. In this filing, the Companies address each of the recommendations in the Consumer Advocate's SOP. The Companies' reply positions would result in resolution of all issues except one – whether the Measured Performance for the System Average Interruption Duration Index ("SAIDI") and the System Average Interruption Frequency Index ("SAIFI") Performance Incentive Mechanisms ("PIM") for 2018 should exclude planned maintenance outages for a 25 kV splice replacement project that occurred in Honolulu in July 2018, as Hawaiian Electric proposed in Transmittal Nos. 18-05 and 19-01. In addition, the outcome of Docket No. 2016-0342 for the West Loch PV project will determine whether the project will receive recovery through the Major Project Interim Recovery ("MPIR") mechanism³ or be included as a major project plant addition in the calculation of the

¹ The "Hawaiian Electric Companies" or "Companies" are Hawaiian Electric Company, Inc. ("Hawaiian Electric"), Hawai'i Electric Light Company, Inc. ("Hawai'i Electric Light"), and Maui Electric Company, Limited ("Maui Electric").

² The "Consumer Advocate" is the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs.

³ If the Commission approves MPIR recovery for the West Loch PV project, the RBA Rate Adjustment for 2019 will exclude recovery of MPIR revenues since the project's scheduled in-service date is September 2019. In accordance with the MPIR Guidelines in Order No. 34514 in Docket No. 2013-0141, the MPIR revenues will flow through the RBA and will be included in the calculation of the 2020 RBA Rate Adjustment. If the Commission rejects MPIR recovery, the West Loch project will be included as a major project plant addition in the calculation of the 2019 RAM Revenue Adjustment.

RAM Revenue Adjustment. The table below provides the RBA Rate Adjustment for Hawaiian Electric for each of these scenarios:

Hawaiian Electric 2019 RBA Rate Adjustment

Attachment 2 (Scenario #)	West Loch in RAM Revenue Adjustment	25kV Excluded from SAIDI/SAIFI PIM	RBA Rate Adjustment
Att 2 (1)	Yes	Yes	0.9980¢
Att 2A (2)	No	Yes	0.9582¢
Att 2B (3)	Yes	No	0.9776¢
Att 2C (4)	No	No	0.9378¢

Given the proposed resolution of issues in this reply, the 2019 RBA Rate Adjustment for Hawai'i Electric Light and Maui Electric would be as follows:

Company	RBA Rate Adjustment
Hawai'i Electric Light	0.9077¢
Maui Electric	0.8718¢

The Hawaiian Electric Companies request the Commission to approve by May 29, 2019 the tariff changes proposed in this reply to go into effect on June 1, 2019. The Companies need this lead time to perform certain internal control procedures to allow completion and verification of the rate changes.

If the Commission requires more time to address the remaining contested issue on the proposed adjustment to the SAIDI/SAIFI PIM Measured Performance, the Companies recommend that the Commission allow the RBA Rate Adjustment for Scenario 2 (or 2A if the Commission approves recovery of the West Loch project through the MPIR mechanism) to go into effect on an interim basis on June 1, 2019. If the Commission decides to reject the 25kV adjustment to the Measured Performance for the SAIDI/SAIFI PIMs, the RBA Rate Adjustment can be reduced at that time and any overage already billed to customers can flow through the RBA at the interest rate specified in the RBA Provision tariff.

HAWAIIAN ELECTRIC COMPANIES' REPLY POSITIONS

The Consumer Advocate's SOP identified five proposed adjustments.

1. **RBA-** Revise Schedule B in order to continue calculating interest on the RBA balance on a net-of-tax basis.
2. **RBA-** Recognize the reduced cost rate for short term debt at the time new interim rates were effective in Hawai'i Electric Light's 2016 test year, starting September 1, 2017.

3. **RAM-** Commence amortization of the “protected” category of excess ADIT, using an amortization period of 40 years as a conservative estimate of annual amortization amounts that will comport with Average Rate Assumption Method (“ARAM”) restrictions.
4. **RAM-** Recognize the additional 2019 joint pole revenues as a reduction in determining the RAM Revenue Adjustment.
5. Recommend rejection of Hawaiian Electric’s proposed adjustment to SAIDI/SAIFI Measured Performance (i.e., calculated reliability PIM results).

As further explained in Exhibit 1 to this filing, for the purposes of eliminating the adjustments as contentious issues, the Companies are willing to accept the Consumer Advocate’s two proposed RBA adjustments and the RAM adjustment for the amortization of the “protected” category of excess ADIT, using an amortization period of 40 years, subject to the true up and cure provisions described in Exhibit 1.

Regarding the proposed RAM joint pole adjustment, as discussed in the May 17, 2019 meeting, the Companies propose an adjustment to remove the joint pole assets, related depreciation, accumulated deferred income taxes, unbilled pole credits, and Hawaiian Telcom existing pole revenues from the calculation of the 2019 RAM Revenue Adjustment. The Companies propose this treatment for purposes of the 2019 RAM only. Exhibit 1 addresses the Consumer Advocate’s original recommendation in detail.

Regarding the RAM adjustment to calculate Hawaiian Electric’s reliability PIM results, Hawaiian Electric does not accept the Consumer Advocate’s proposal, for the reasons discussed in Exhibit 1 to this filing. Hawaiian Electric maintains its original position regarding the exclusion of the July 2018 25kV planned maintenance outages from its 2018 SAIDI and SAIFI performance scores for the PIM adjustment.

Subsequent to the filing of the 2019 annual decoupling filings on March 29, 2019, the Companies became aware of certain corrections required for their 2019 decoupling filings. Section 3 of Exhibit 1 describes these corrections in detail and where they appear in the attached schedules.

The Companies have incorporated the applicable adjustments in their revised decoupling templates.⁴ As a result of these adjustments:

- Hawaiian Electric’s proposed RBA Revenue Adjustment for Attachment 2⁵ decreased from \$69,808,410 to \$64,771,508 and its 2019 RBA Rate Adjustment decreased by

⁴ Tabs containing revisions have been highlighted along with the individually revised cells within each tab.

⁵ The revised RBA Rate shown reflects the first scenario listed below.

0.0776¢, from 1.0756¢ (in the original Transmittal No. 19-01 filing dated March 29, 2019) to 0.9980¢ per kWh. The overall incremental impact of the RBA Rate Adjustment proposed in this filing compared to the current RBA Rate Adjustment on a typical customer's monthly bill is a decrease of (\$0.18) for Hawaiian Electric's customers (based on an average usage of 500 kWh).

- Hawai'i Electric Light's proposed RBA Revenue Adjustment decreased from \$12,130,866 to \$9,647,362 and its 2019 RBA Rate Adjustment decreased by 0.2337¢, from 1.1414¢ (in the original Transmittal No. 19-02 filing dated March 29, 2019) to 0.9077¢ per kWh. The overall incremental impact of the RBA Rate Adjustment proposed in this filing compared to the current RBA Rate Adjustment on a typical customer's monthly bill is a decrease of (\$0.46) for Hawai'i Electric Light's customers (based on an average usage of 500 kWh).
- Maui Electric's proposed RBA Revenue Adjustment decreased from \$9,822,924 to \$9,163,116 and its 2019 RBA Rate Adjustment decreased by 0.0628¢, from 0.9346¢ (in the original Transmittal No. 19-03 filing dated March 29, 2019) to 0.8718¢ per kWh. The overall incremental impact of the RBA Rate Adjustment proposed in this filing compared to the current RBA Rate Adjustment on a typical customer's monthly bill is an increase of \$2.77 for Maui Electric's customers (based on an average usage of 500 kWh) and \$2.22 (based on an average usage of 400 kWh).

EXHIBIT AND ATTACHMENTS

This filing includes the following exhibit and attachments:

1. Response to the Consumer Advocate's SOP in Exhibit 1
2. Affidavit of Rudy W. Tamayo in Exhibit 2
3. Revised tariff sheet (in clean and blacklined versions) with Hawaiian Electric's revised proposed RBA Rate Adjustment, as calculated in Hawaiian Electric's revised Attachment 2
4. Revised tariff sheet (in clean and blacklined versions) with Hawai'i Electric Light's revised proposed RBA Rate Adjustment, as calculated in Hawai'i Electric Light's revised Attachment 2

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1. Attachment 2- Decoupling template includes recovery of West Loch PV as a Major Project and exclusion of 25kV outages in the SAIDI and SAIFI PIM adjustment.
 2. Attachment 2A- Decoupling template excludes recovery of West Loch PV and 25kV outages in the SAIDI and SAIFI PIM adjustment.
 3. Attachment 2B- Decoupling template includes recovery of West Loch PV as a Major Project and 25kV outages in the SAIDI and SAIFI PIM adjustment.
 4. Attachment 2C- Decoupling template excludes recovery of West Loch PV but includes 25kV outages in the SAIDI and SAIFI PIM adjustment.

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5. Revised tariff sheet (in clean and blacklined versions) with Maui Electric's revised proposed RBA Rate Adjustment, as calculated in Maui Electric's revised Attachment 2⁶

If you have any questions, please call Dean Matsuura at 543-4622.

Very truly yours,



Joseph P. Viola
Vice President
Regulatory Affairs

Attachments

cc: Division of Consumer Advocacy

⁶ On May 16, 2019, in Order No. 36323 in Docket No. 2017-0150 (Maui Electric's 2018 test year rate case), the Commission approved, among other things, Maui Electric's proposed Performance Incentive Mechanism Tariff revisions. Included in these revisions were the requested changes that Maui Electric proposed in its Transmittal No. 19-03 filing on March 29, 2019, on Tariff Sheet Nos. 101E, 112D.1, and 156D.1. Because the Performance Incentive Mechanism Tariff revisions were approved in Docket No. 2017-0150, Maui Electric is not including its Performance Incentive Mechanism Tariffs in this filing.

TRANSMITTAL NOs. 19-01, 19-02, and 19-03
HAWAIIAN ELECTRIC COMPANIES
RESPONSE TO CONSUMER ADVOCATE'S STATEMENT OF POSITION

In this exhibit, the Hawaiian Electric Companies¹ respond to the recommendations in the *Division of Consumer Advocacy's Statement of Position* ("Consumer Advocate SOP") on Transmittal Nos. 19-01, 19-02 and 19-03,² filed on May 10, 2019.

The positions set forth in this document are for the purpose of simplifying and expediting this proceeding and represent the Companies' proposed compromise of the matters discussed herein, and do not constitute an admission with respect to any matters agreed upon herein. The Companies reserve their right to take different positions regarding the matters agreed to herein in other proceedings. Furthermore, nothing contained in this document shall be deemed or be interpreted to set any type of precedent, or be used as evidence in any other regulatory proceeding, except as necessary to enforce the agreements, where applicable, described in this document.

1. REVIEW OF THE REVENUE BALANCING ACCOUNT

The Consumer Advocate has identified two adjustments to the December 31, 2018 recorded Revenue Balancing Account ("RBA") balances. (See Consumer Advocate SOP at 11-17)

A. Accumulated Deferred Income Taxes ("ADIT") Related To RBA Revenue (Transmittals 19-01, 19-02 and 19-03).

i) Consumer Advocate's Position

¹ The "Hawaiian Electric Companies" or "Companies" are Hawaiian Electric Company, Inc., Maui Electric Company, Limited and Hawai'i Electric Light Company, Inc.

² The "Consumer Advocate" is the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs.

In its SOP, the Consumer Advocate agrees that some uncertainty is created by tax law changes that may ultimately impact the ability to continue deferring income taxes on RBA revenues that are accrued on the utilities' books. The Consumer Advocate proposes to revise Schedule B, in order to continue calculating interest on the RBA balance on a net-of-tax basis. The Consumer Advocate recommends that any final determination by the Internal Revenue Service ("IRS") that eliminates the deferral of income taxes on RBA balances should be addressed in future RBA transmittals, by an adjustment that would prospectively modify the RBA balance with applicable interest, in a manner consistent with the regulatory treatment of other uncertain tax positions. (Consumer Advocate SOP at 11-15)

ii) Hawaiian Electric Companies' Response

The Hawaiian Electric Companies disagree with Consumer Advocate's net of tax calculation that assumes that the Companies will receive the benefit of deferral on the RBA balance. In preparation for the anticipated loss of deferral of the RBA revenue, the Companies have paid the income taxes associated with the loss of deferral and are out of pocket for these taxes. The Companies should be compensated for these funds paid out for estimated taxes since it is reasonable to assume the new law in IRC §451(b) will apply. However, to settle this issue, the Companies will agree with continuing the net of tax calculation utilized in prior decoupling filings for calculating interest on the RBA balance (interest rate applied on base that is equal to $\text{RBA balance} \times (1 - 25.752\%)$) for this filing under the conditions proposed by the Consumer Advocate. As stated above, the proposal will treat RBA revenue as if the continued tax deferral applies. If clarification in the law or a determination by the

IRS or the Hawaii Department of Taxation (“HDOT”) should result in the loss of any deferral benefit, then an adjustment (similar to that resolution agreed to in prior rate cases for uncertain tax positions, i.e., FIN 48) to compensate the Company will be addressed in future RBA transmittals or in a rate case, whichever comes first. The Companies propose that this compensation should, at a minimum, include the interest lost due to the incorrect application of §451(b), as finally determined. In addition, the incorrect application of the law could result in interest and penalties imposed by the IRS and the HDOT. These additional costs should also be recoverable in a manner similar to the methodology agreed to in prior rate cases for uncertain tax positions.

B. HELCO RBA Interest Rate Update (Transmittal 19-02).

i) Consumer Advocate’s Position

The Consumer Advocate recommends that the reduced cost rate for short term debt that was determined appropriate in Hawai‘i Electric Light's 2016 test year rate case be recognized at the time new interim rates were effective in that docket, starting September 1, 2017. Docket No. 2015-0170 was Hawaii Electric Light's last “full rate case” and there was no dispute between the Consumer Advocate and the utility regarding the short term debt rate in that docket. As a result, the updated 1.50 percent cost rate was used to determine both the interim and final rates approved by the Commission for use by Hawai‘i Electric Light. (Consumer Advocate SOP at 15-17)

ii) Hawaiian Electric Companies’ Response

Hawai‘i Electric Light’s RBA Tariff Sheet No. 92B, section C, states that “The Interest Rate shall be the short term debt rate as established in deriving the consolidated cost of capital in the Company’s last full rate case.” The tariff was

based on the language in Decision and Order No. 31908 dated February 7, 2014,³ which stated: “The commission orders the HECO Companies to utilize the short term debt rate as established in deriving the consolidated cost of capital in each company’s last full rate case in computing interest on the outstanding RBA balances.” Hawai‘i Electric Light interpreted “last full rate case” as the most recent final decision and order in a general rate case. Therefore, the Company did not recognize the reduced short term debt rate at the time new interim rates were effective in Docket No. 2015-1070.

For the purpose of settling this issue, Hawai‘i Electric Light is willing to reflect the Consumer Advocate’s recommended adjustment of revising the RBA interest rate as of the date interim rates went into effect. Hawai‘i Electric Light will revise its calculations to reflect an interest rate of 1.50% as approved by the Commission in Docket No. 2015-0170, starting September 1, 2017, with corresponding adjustments made to the beginning of 2018 RBA balance. See Hawai‘i Electric Light’s revised Schedule B in Attachment 2 to this filing.

2. REVIEW OF THE RATE ADJUSTMENT MECHANISM AND PERFORMANCE INCENTIVE MECHANISM PROVISION CALCULATION FOR THE 2019 RAM YEAR

The Consumer Advocate SOP proposed only three other matters requiring consideration by the Commission with respect to the Hawaiian Electric Companies' proposed RBA Rate Adjustment:

³ “Instituting an Investigation to Reexamine the Existing Decoupling Mechanisms for Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited” Docket No. 2013-0141, Decision and Order No. 31908, p.78.

A. Excess Accumulated Deferred Tax Amortization (Transmittals 19-01, 19-02 and 19-03).

i) Consumer Advocate's Position

In its SOP, the Consumer Advocate proposes an adjustment to the RAM calculations of each utility to commence amortization of the "protected" category of excess ADIT, using an amortization period of 40 years as a conservative estimate of annual amortization amounts that will comport with Average Rate Assumption Method ("ARAM") restrictions. The Consumer Advocate recommends commencing amortization of the Companies' "protected" excess ADIT balances within Schedule D5, by inserting an assumed 40-year amortization period to calculate annual amortization credits for the "Plant-282-protected" category of regulatory liabilities on line 2.

If the Consumer Advocate's recommendation is adopted and later information from the Internal Revenue Service and/or Power Tax suggests that a different amortization period is more appropriate, the parties can also rely on making appropriate adjustments to a regulatory asset/liability in the future. (Consumer Advocate SOP at 18-27)

ii) Hawaiian Electric Companies' Response

The Companies conceptually agree with the Consumer Advocate's recommendation of initiating the amortization of a conservative estimate of the ARAM for the Companies' "Plant 282 – protected" regulatory liabilities in the interim period between June 1, 2019 until the actual ARAM amortization is calculated. The amortization would begin in June 2019. However, with respect to

the proposed use of a 40-year amortization on the total “Plant 282 – protected” regulatory liabilities, the Companies believe that the result is not a “conservative” estimate in light of the ARAM methodology, which accounts for the excess ADIT vintage by vintage for each account. Under ARAM, the excess for each vintage/account begins amortizing only when book depreciation exceeds the tax depreciation. Consequently, the more recent vintages will not have started the amortization since accelerated tax depreciation rates will generally exceed book depreciation rates in the early periods of equipment life, and therefore applying a 40-year amortization rate on the entire “Plant 282 – protected” regulatory liabilities will likely overstate the ARAM amortization and is not a “conservative” estimate. This vintage by vintage tracking of the excess ADIT is complicated and is the reason for the need to use the PowerTax module. Paring the 40-year amortization by 50% would result in a more “conservative” estimate of ARAM; however, in consideration of the fact that the Companies did not recognize any amortization in 2018, the Companies are willing to implement a 40-year amortization beginning with the change in RBA rates on June 1, 2019 on a temporary basis until the Companies can determine its actual ARAM calculation, subject to Commission assurances of true-up provisions. As recommended by the Consumer Advocate, any true-up between the estimate of ARAM and the actual ARAM calculation should be included in a regulatory asset/liability as soon as the Companies determine their actual ARAM and accordingly adjusted for in rates as soon as practicable. For example, if the Companies determine actual ARAM at the end of 2019 for 2018 and 2019 and consequently establish that a different amount should be amortized effective January

1, 2020, the difference between the cumulative amount being amortized from June 1, 2019 and the amount that should have been amortized will accrue in a new regulatory asset/liability account until electric rates change, reflecting the calculated ARAM amortization amount. This regulatory asset/liability amount will be adjusted for in the 2020 annual decoupling filing, along with the revised prospective amortization amount (assuming no general rate case results in a decision and order in the interim).

Note that a violation of tax normalization has dire consequences and therefore caution should be exercised when there is significant uncertainty in this area. In fact, the IRS has recognized the uncertainty created by the change in the corporate tax rate under the 2017 Tax Cuts and Jobs Act and earlier this month issued Notice 2019-33, which announced the IRS's intent to issue guidance under §168 of the Internal Revenue Code to clarify the normalization requirements for excess tax reserves resulting from the tax rate decrease.

In this light and assuming the 40-year amortization is implemented in the interim, the Companies strongly recommend that the Commission's order include the following points: 1) the parties agree that the intent is to comply with the tax normalization requirements and that additional guidance may impact the Companies' current interpretation of the application of the normalization rules to the facts in these proceedings, and 2) the Companies will have the right to a revenue requirement modification that addresses the normalization issues if it is later determined that the interim 40-year amortization will potentially result or has resulted in a normalization violation, based on the rules and guidance available.

B. Joint Pole Revenues (Transmittals 19-01, 19-02, and 19-03)

i) Consumer Advocate's Position

In its SOP, the Consumer Advocate stated the Hawaiian Electric Companies seek to recover a return on and depreciation of the joint pole assets in the 2019 RBA/RAM filings at ratepayers' expense without recognizing all of the available potentially offsetting forecasted revenues associated with the transferred joint poles in the same filings.

The 2019 RBA/RAM filings appear to exclude forecasted Joint Pole revenues to be received by the utilities, while including joint pole costs in excess of the portion of related revenues adjusted for by the utilities. For purposes of the current RBA/RAM filings, the Consumer Advocate recommends that the Commission recognize the additional 2019 forecasted revenues estimated by the Hawaiian Electric Companies in the response to Informal CA-IR-49 and HELCO-2222/HELCO-WP-2222 in Docket No. 2018-0368. (Consumer Advocate SOP at 27-36)

ii) Hawaiian Electric Companies' Response

The Companies' analyses on the joint pole transactions in the application filed jointly by the Hawaiian Electric Companies and Hawaiian Telcom, Inc. ("HT") in Docket No. 2018-0075 reflect the general premise that over time and across the consolidated Hawaiian Electric Companies entity, other utility operations are not providing subsidization of or being subsidized by the joint pole operations. As shown in Pro-Forma Income Statements under both high and low scenarios in Exhibit E of

the Application filed in the Joint Pole docket,⁴ the joint pole revenues net of revenue requirements were not positive or zero for each given year for each Company. The Application in Docket No. 2018-0075 stated the following:⁵

The attachment and ancillary revenues received from Hawaiian Telcom and other third-party attachers will offset some or all of Hawaiian Electric Companies' incremental O&M costs. As the Hawaiian Electric Companies explore and learn under this new business arrangement, they anticipate, overall, attachment revenues will exceed the incremental O&M costs, depreciation and the allowed return on the additional investment in the poles.

[Emphasis added.]

Overall, the underlying concept was that all other customers not be significantly impacted by the joint pole transaction.

The Companies' 2019 annual decoupling filings included the following known items related to the Hawaiian Telcom transaction:

- 1) Joint pole revenues – Revenues for existing poles from Hawaiian Telcom as provided for in the settlement agreement were reflected as reductions to the RAM⁶ because these amounts were designed to recover the return of and return on investment in the joint pole interests as well as the associated incremental operation and maintenance (“O&M”) expenses associated with those investments. Although the current RAM tariff does not specifically

⁴ Hawaiian Telcom, Inc., and Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc. and Maui Electric Company, Limited For Approval of the Transfer of Equity Ownership Interest in Certain Joint Poles, to Commit Funds in Excess of \$2,500,000, Accounting and Ratemaking Treatment, Amendments to Joint Pole Agreements Between the Applicants, Asset Transfer Agreement, and Pole Licensing Agreement Docket, No. 2018-0075.

⁵ Application, Docket No. 2018-0075, page 34.

⁶ See Schedule A1, line 4, of each Company's annual decoupling filing.

provide for this adjustment, the amounts are known and were approved by the Commission in the Joint Pole docket.

2) Rate base adjustments for:

- a) Joint pole interest acquisition – Included in plant in service⁷ as these amounts were included in actual 12/31/18 plant balances and as approved in the Joint Pole docket.
- b) Unbilled pole credits – Included as a reduction to plant in service⁸ as these amounts are known credits which accrue to other customers and which will be amortized in the next rate case for each respective company as provided for in the Joint Pole docket.
- c) ADIT – The ADIT associated with the joint pole interest acquisition and unbilled pole credits⁹ were embedded in the ADIT calculations used in the rate base RAM calculation.

Forecasted attachment revenues and forecasted incremental O&M expenses related to the joint poles were not included in Companies' annual decoupling filings. The RAM tariff provides for rate adjustment based on items that are: 1) formulaic adjustments to O&M expenses in base rates from the last rate case, 2) return on rate base changes that are based on formulaic projections of baseline plant additions, major project additions that have been approved by the Commission and actual

⁷ Included in Schedule D1, line 1 of each Company's annual decoupling filing.

⁸ See Schedule D1, footnote 1 of each Company's annual decoupling filing.

⁹ See the Accelerated Depreciation line (not separately stated) and HT Joint Pole Revenue/Unbilled line on HECO-WP-D4-001 of Hawaiian Electric's annual decoupling filing, HELCO-WP-D4-001a and HELCO-WP-D4-001b of Hawai'i Electric Light's annual decoupling filing, and MECO-WP-D4-001 of Maui Electric's annual decoupling filing.

recorded plant balances and 3) depreciation expense changes based on actual recorded plant balances. Forecasted revenues and forecasted O&M expenses are not provided for in the current RAM tariff and therefore should not be adjusted for in the RAM. The Companies do not agree with the Consumer Advocate's proposed adjustment to incorporate all forecasted revenues because it is based on forecasted revenues, regardless of whether these revenues are realized and does not include the incremental forecasted O&M expenses necessary to achieve the forecasted revenues. Forecasts of incremental O&M expenses associated with the joint pole initiative were several million annually¹⁰ which have not been included in base rates or in the RAM. Forecasted revenues and expenses are appropriately addressed in the upcoming rate case for each Company (the ongoing Hawai'i Electric Light rate case and upcoming Hawaiian Electric and Maui Electric rate cases). The Companies' position on the components of Consumer Advocate's revenue adjustment¹¹ is addressed below:

1. HT existing pole attachment revenue – Amounts are known and approved by the Commission and were adjusted for in the RAM calculations.
2. HT new pole attachment revenue – This forecast of potential revenue for new pole attachments is a preliminary estimate and should not be adjusted for in the RAM.
3. HT double pole remediation revenues – Double pole remediation revenues generally cover O&M expenses incurred for the remediation of double poles and should not be included because the associated incremental O&M expenses

¹⁰ Exhibit E of the Joint Pole docket included 2019 incremental O&M of \$3.06 million (\$2.17 million, \$0.63 million, and \$0.26 million for Hawaiian Electric, Hawaii Electric Light, and Maui Electric, respectively)

¹¹ Consumer Advocate Statement of Position, page 30 and Exhibit 7, page 7 of 8.

are not included in base rates and are not included in the RAM; therefore, this class of revenues should not be adjusted for in the RAM.

4. HT unbilled pole (Hawai'i Electric Light only) – This item to be amortized in the Hawai'i Electric Light 2019 test year rate case and will be included in rates when the 2019 RAM terminates and therefore should not be included in the 2019 RAM.
5. Other attachment/ancillary revenues – Forecast revenue estimates include recovery of incremental O&M expenses which are not included in the RAM and may include recovery of and on investments not included in the RAM; therefore, this class of revenues should not be adjusted for in the RAM. This item should be addressed in the next rate case of each Company.
6. Uncollectible interest income - This revenue (subsequently corrected for ratemaking purposes to an uncollectible write-off expense offset) was recognized in 2018 and relates to uncollectible expenses recognized in prior years which were not incorporated as adjustments to the RAM. This item should not be adjusted for in the RAM because the associated expenses were not adjustments to the RAM.

The Consumer Advocate has also included a calculation of the Joint Pole Revenues and Costs¹² which generally captures the conceptual impacts of the Joint Pole Settlement Agreement on the 2019 annual decoupling filings. The Companies'

¹² Consumer Advocate Statement of Position, page 34 and Exhibit 7, page 8 of 8.

response to the Consumer Advocate's Joint Pole Revenues and Costs calculation is as follows:

- 1) Depreciation RAM – The Companies agree with the depreciation associated with the joint pole interest acquisition calculated by the Consumer Advocate.
- 2) Rate base RAM – Return on rate base which includes:
 - a) Joint pole interest acquisition – The Companies agree that this item is included in the RAM rate base; however, the Consumer Advocate based its calculations on the 12/31/18 plant in service only, rather than the impact on average rate base for 2019. The Companies' position is that this item should be based on average rate base since the rate base RAM calculation is an average rate base for the RAM period. The Consumer Advocate's calculations did not consider the reduction to plant in service related to the unbilled pole credits and the associated ADIT which the Companies included in the RAM rate base.¹³
 - b) ADIT – The ADIT associated with the joint pole interest acquisition and unbilled pole credits which were embedded in the ADIT calculations used in the rate base RAM calculation. The Companies agree that this item should be included as an item in rate base; however the signs for the ADIT balances were inadvertently presented as negative balances in response to informal CA-IR-50 which the Consumer Advocate used in preparing its calculations (i.e., this is a deferred tax asset as a result of the unbilled pole

¹³ See Schedule D1, footnote 1 of each Companies' annual decoupling filing.

credits discussed below) and the rate base should be calculated on an average rate base balance.

- 3) Joint pole revenues – This adjustment is the same as what was included as a revenue adjustment to the RAM by the Companies.

For the 2019 rate base RAM calculation and until the forecasted other revenues and incremental O&M expenses can be addressed in the upcoming rate cases, the Companies would agree to settle this issue by removing these joint pole items from the RAM calculations: 1) depreciation (Schedule E), 2) rate base (plant, unbilled pole, and associated ADIT) (Schedules D and D1), and 3) existing pole revenues (Schedule A1). This compromise keeps the RAM filings neutral with respect to the Hawaiian Telcom joint pole transactions until these issues can be addressed in each Company's respective rate case.

C. Performance Incentive Mechanisms (Transmittal 19-01)

i) Consumer Advocate's Position

In its SOP, and as discussed more fully below, the Consumer Advocate recommends application of PIMs in the form they were developed and approved by the Commission in Docket No. 2013-0141 and does not support Hawaiian Electric's request to exclude the 2018 25kV splice replacement work from the measurement of actual System Average Interruption Frequency Index ("SAIFI") and System Average Interruption Duration Index ("SAIDI") 2018 performance results.

The Consumer Advocate also views the Company's proposed revisions to existing reliability measurement and potentially the related PIM targets as more

properly considered within the broader PBR investigatory docket. (Consumer Advocate SOP at 36-44)

ii) Hawaiian Electric Companies' Response

The Companies continue to maintain that Hawaiian Electric's request for a waiver to exclude the 2018 25kV splice replacement work SAIFI and SAIDI 2018 performance measure measurement results is permissible, reasonable and justified.

The Consumer Advocate's position would result in Hawaiian Electric being penalized for performing work that was prudent, served safety and customer interests, and was not inconsistent with the spirit of the reliability performance incentive mechanisms ("PIMs"). Especially with newly adopted PIMS, reasonable exceptions should be considered and granted as warranted on a case by case basis while experience with the actual operation of the PIMs is gained. It is difficult to conceive all possible unintended consequences when designing and developing PIMs. Over time, with experience, and modifications to the PIMs made following review and based on lessons-learned, the need for case by case waiver requests will likely diminish. In the meantime, the Companies should not be foreclosed from seeking specific waivers from PIM metric calculations for circumstances that were not expressly considered. With respect to PIMs, many outcomes should be balanced and overall equity should be served. Where possible, PIM penalties should not be imposed for conduct that serves other desired outcomes. And while the PBR docket is an appropriate venue to consider PIMs generally, that docket would not likely provide a timely ruling for this 2018 performance specific request.

As discussed further below, the Consumer Advocate's arguments should not prevail as they disregard the facts surrounding Hawaiian Electric's 2018 25kV splice replacement activities, ignore certain provisions in Hawaiian Electric's reliability PIM tariff language, devalue the reasons the reliability PIMs were implemented, include erroneous assumptions, and ultimately would produce an inequitable and unintended result.

1. Consumer Advocate's argument that the request should be considered in a docketed proceeding

The Consumer Advocate claims that "modifications" to PIMs should be considered in docketed proceedings rather than decoupling transmittals so that procedural steps are in place to evaluate the proposal and allow an opportunity for stakeholder participation.¹⁴ The Consumer Advocate's argument mischaracterizes the relief requested and fails to consider or address relevant facts. Hawaiian Electric's requested relief made via the decoupling transmittal process is appropriate.

First, Hawaiian Electric is seeking a one-time waiver to exclude the planned outages that occurred in July 2018, as a result of the Company's 25kV splice replacements project, from its 2018 SAIDI and SAIFI PIMs calculations. Hawaiian Electric is not requesting to modify the reliability PIMs via this request.¹⁵

As discussed in its Transmittal No. 18-05, filed December 18, 2018, Hawaiian Electric made this one-time waiver request to only exclude outages arising out of the July 2018 25kV splice replacement project for the purposes of the 2018 SAIDI and

¹⁴ Consumer Advocate SOP at 38-39.

¹⁵ Hawaiian Electric's response to PUC-IR-200 discussed the Commission's inherent or implied authority to approve a partial or complete waiver from the penalties it established for failure to meet the service reliability standards that it established.

SAIFI PIMs reporting due to the unique nature of the project. As discussed in Transmittal No. 18-05 and in subpart 4 below, the facts that made the 25kV splice replacement work unique include (1) the number of customers impacted (approximately 400 major businesses and 2,500 residential customers) and the locations of the project (densely populated circuits in Iwilei, Kakaako, and Ala Moana districts), and (2) the randomness and frequency of the splice failures.¹⁶

Second, contrary to the Consumer Advocate's claim, Hawaiian Electric did not attempt to "short circuit" the process. In fact, Hawaiian Electric filed its request in December 2018, well in advance of the annual decoupling filing in March 2019. Hawaiian Electric's December 18, 2018 filing (Transmittal No. 18-05) (page 2) stated that "[w]hile the 2018 performance evaluation period has not yet concluded, the Company wants to raise this issue in advance of its annual decoupling tariff filings in March of 2019 to give the Commission and Consumer Advocate additional time to consider this request."

The Consumer Advocate had the opportunity to ask informal information requests ("IRs") concerning Hawaiian Electric's waiver request following Hawaiian Electric's December 18, 2018 filing. However, the Consumer Advocate did not ask any informal IRs about the request until April 2019, after the Company made its March 31, 2019 decoupling filing.

Third, beginning with the 2019 PIM reporting, the Companies will request (among other things in a separate forthcoming filing) that all scheduled maintenance

¹⁶ The factual statements about the 25kV splice replacement work are supported by the Affidavit of Rudy W. Tamayo, which is attached as Exhibit 2.

related outages and events be removed from SAIDI and SAIFI PIM Measured Performance calculations. The Companies will also propose to recalculate their current SAIDI and SAIFI PIM targets and deadbands to remove scheduled maintenance related outages and update their PIM tariffs accordingly. The 2019 and ongoing SAIDI and SAIFI PIM reporting will still include other maintenance related outages, such as forced and system change outages.

Fourth, the Consumer Advocate's argument ignores the fact that in promulgating the PIM tariff, the Commission showed that it was retaining flexibility regarding the implementation, application and content of the PIMs. For example, the PIM tariff states that: "The Commission may suspend any or all parts of this PIM Provision. Such suspension shall remain in place until removed by Commission order."¹⁷ The Commission also ruled that it may amend the tariff parameters outside the context of a general rate case, as necessary, to ensure that the implementation of the PIMs is fair to the Companies and customers, and required that the following language regarding the timing of amendments to the PIM parameters be reflected: "The performance targets, deadbands and the amount of maximum financial incentives used to determine the incentive levels for the PIMs shall be updated upon issuance of an interim or final order in a general rate case for interim periods, unless otherwise amended, as necessary, by order of the commission."¹⁸

Fifth, Phase 2 of Docket No. 2018-0088 (PBR Investigation) is not a more appropriate docket in which to make this request. The present request is specific to

¹⁷ Hawaiian Electric Performance Incentive Mechanism Provision at Tariff Sheet No. 98D.

¹⁸ Order No. 34750, issued August 11, 2017, in Docket No. 2013-0141, at 9-10.

the circumstances in 2018 and the Company's performance during that time is not the subject of the PBR docket. Further, decisions and orders on PIM design or modifications in that docket would occur in Phase 2, likely well beyond the time necessary for these proposed decoupling adjustments.

2. Consumer Advocate's concerns about "gaming"

The Consumer Advocate argues that allowing adjustments to measured reliability PIM performance for discrete events or programs could lead to gaming the PIM process as the Companies have access to data that is not readily available to the Consumer Advocate, the Commission and other stakeholders.¹⁹ The Consumer Advocate's argument is not persuasive.

The purpose of the reliability PIMs is to ensure that cost savings between general rate cases are not achieved by measures that result in reduced reliability or customer service quality. In Order No. 32735 Modifying Decoupling Mechanisms and Establishing Briefing Schedule (Docket No. 2013-0141, filed March 31, 2015) ("Order 32735") page 40, the Commission stated

There is also a distinction between "conventional" PIMs designed to ensure maintained quality of services to customers, and "energy policy" PIMs designed to promote attainment of energy policy objectives. Most PBR frameworks incorporate conventional PIMs to ensure that the cost control incentives of the PBR framework do not encourage the utility to obtain cost reductions by reducing the quality of services provided to customers. Conventional PIMs reward or penalize a utility based on performance according to one or more conventional service quality metrics.

¹⁹ Consumer Advocate SOP at 37, 39-40.

The Commission found in Order No. 34514 Establishing Performance Incentive Measures and Addressing Outstanding Schedule B Issues, filed April 27, 2017 in Docket No. 2013-0141 (page 28) “[p]erformance incentives, as conventionally used in most PBR frameworks, can serve to ensure that expense reductions between rate cases are not attained by, or do not result in, deterioration of service reliability or customer service quality.”

As discussed in Hawaiian Electric’s December 18, 2018 filing, Hawaiian Electric’s system was experiencing an increasing rate of splice failures in its 25kV lines. The 25kV splices were failing randomly without warning, and causing significant risk of injury or death to Hawaiian Electric employees, and increasing and prolonging unplanned customer outages and impairing reliability. The 25kV splice replacement work was performed to address these concerns.

Excluding these planned outages from the 25kV splice replacement work from the PIM calculation is consistent with the intent, spirit, and purpose of the reliability PIMs as the work was done to maintain and improve reliable service. Excluding the planned outages would avoid the inequitable result of penalizing Hawaiian Electric for efforts that align with the metrics’ goals of maintaining service quality, reducing outage duration and frequency, and minimizing negative impacts to customers. While the Consumer Advocate uses labels such as “gaming” in its argument, it did not contest the need for or the benefit of the 25kV splice replacement work that was completed.

3. Consumer Advocate's argument concerning the "primary driver" of reliability performance

The Consumer Advocate contends that Hawaiian Electric's request should be denied as the 25kV splice replacement work was not the "primary driver" of reliability performance throughout 2018, and that "there are other drivers of performance with more explanatory value for service reliability problems than the 25kV schedule outages Hawaiian Electric would like to exclude from measured performance", and that after the Company's adjustments for the July 2018 25kV splice replacement work are made the reliability is unusually stronger than in other months.²⁰

The Consumer Advocate's contention rebuts a "strawman" argument that was not made by Hawaiian Electric. As discussed in Hawaiian Electric's December 18, 2018 transmittal, the Company requested to exclude the 25kV splice replacement work for a number of reasons, none of which were because it was the primary driver of poor reliability performance throughout 2018. As previously discussed, the Company made this one-time request to exclude the 25kV splice replacement work due to the unique nature of the project and the benefits to customers of performing this work proactively.

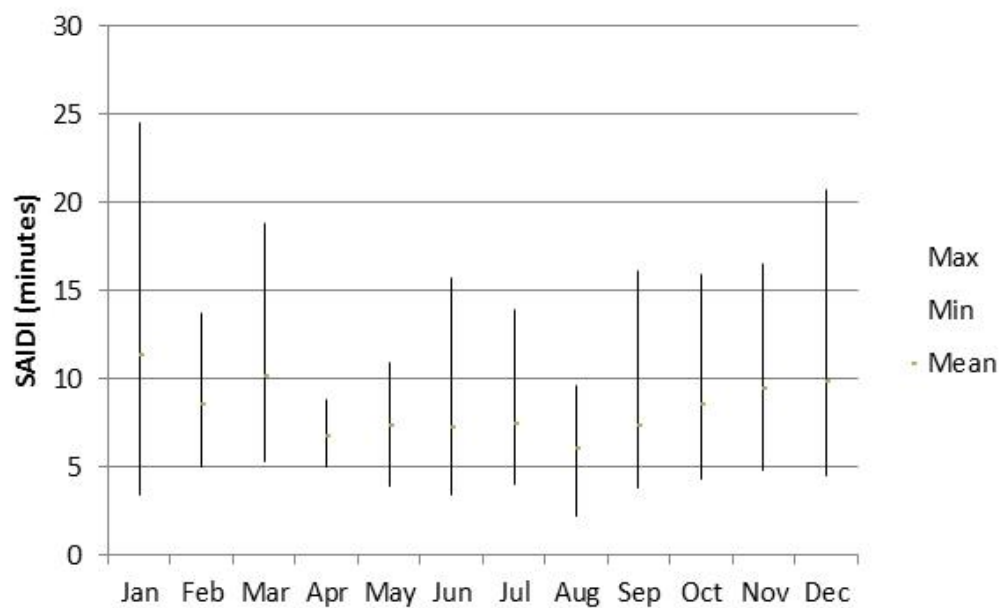
In fact, reliability for each month varies from year to year but has generally been better (lower SAIDI and SAIFI)²¹ on average in months April through

²⁰ Consumer Advocate SOP at 37-38, 40.

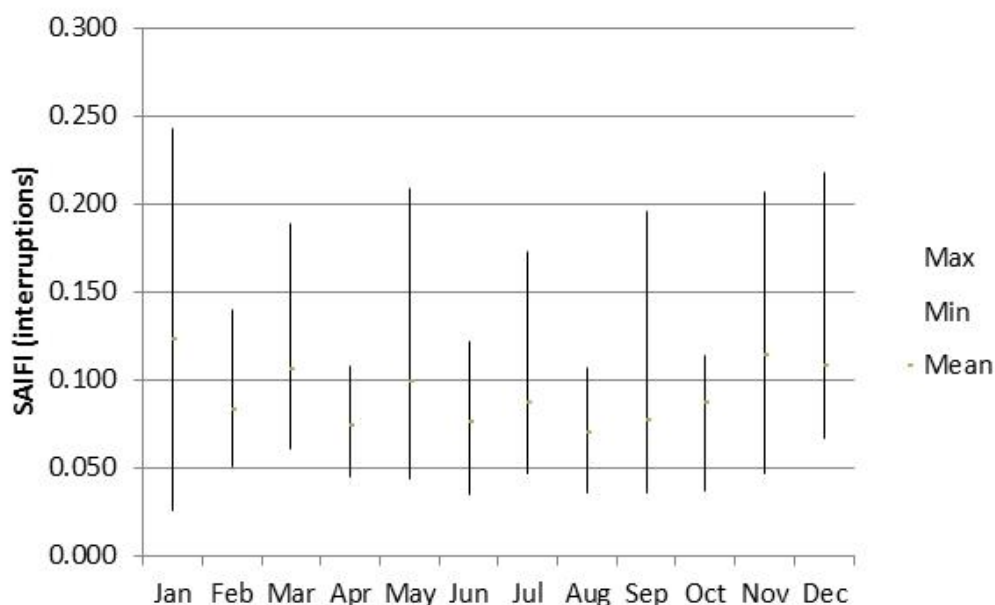
²¹ Consumer Advocate SOP at page 40 refers to reliability performance in terms of "Hours Interrupted" and "Customer Interruptions." Points made about "Hours Interrupted" are the same for SAIDI since $\text{Hours Interrupted} \times 60 \text{ minutes/hour} \div \text{total number of customers served} = \text{SAIDI}$. The points made about "Customer Interruptions" are the same for SAIFI since $\text{Customer Interruptions} \div \text{total number of customers served} = \text{SAIFI}$.

September and worse on average in months October through March, as shown in the following chart. Thus, the Consumer Advocate's comments regarding the Company's relative reliability performance in July versus other months are misconceived. They also overlook the normal variance in reliability from month to month.

Monthly SAIDI Variation for 2008-2017



Monthly SAIFI Variation for 2008-2017



While “Hours Interrupted” and SAIDI for July 2018 were not the highest of all months for 2018, they were relatively high for July historically. July 2018 SAIDI, including the 25kV splice replacement work (10.76 minutes), was more than one standard deviation higher (worse) than the average July SAIDI for 2008-2017 (7.42 minutes).

In addition, while July 2018 SAIDI (5.23 minutes) and SAIFI (0.069 occurrences) excluding the 25kV splice replacement work would for the most part be lower than other months in 2018, the adjusted July 2018 SAIDI and SAIFI performances are both within one standard deviation of the average for July SAIDI and SAIFI for 2008-2017.²²

²² One standard deviation of annual historical performance data is the deadband for the SAIDI and SAIFI PIMs in the Performance Incentive Mechanism Provision tariffs.

The tables below provide monthly SAIDI and SAIFI performance for 2008-

2017.

SAIDI

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	4.20	6.81	8.95	6.97	7.18	3.42	11.28	2.21	3.88	9.11	16.48	20.71
2009	15.60	6.75	7.85	6.29	3.85	8.84	5.12	6.35	5.19	6.54	10.61	6.95
2010	11.23	5.99	10.30	8.18	6.15	4.95	7.43	5.71	10.57	9.55	8.36	17.36
2011	24.52	4.99	13.77	6.13	8.46	15.65	4.81	5.40	6.76	6.59	8.61	7.12
2012	8.13	13.66	18.76	7.95	5.67	7.24	6.29	7.03	7.09	8.59	5.38	9.73
2013	17.63	7.22	7.89	5.45	6.70	panie	8.76	6.92	7.39	15.85	8.13	5.36
2014	15.26	6.40	9.72	5.97	10.84	8.81	13.87	4.98	3.76	10.37	4.81	9.45
2015	4.25	13.53	5.26	6.18	5.27	5.06	4.02	9.58	16.13	4.31	9.81	7.88
2016	3.36	7.24	9.81	8.75	8.90	4.48	6.59	3.96	7.77	4.53	13.41	4.44
2017	8.40	12.11	8.70	4.95	9.89	8.31	6.07	7.52	4.61	8.93	7.94	8.47
Max	24.52	13.66	18.76	8.75	10.84	15.65	13.87	9.58	16.13	15.85	16.48	20.71
Mean	11.26	8.47	10.10	6.68	7.29	7.19	7.42	5.97	7.31	8.44	9.35	9.75
Min	3.36	4.99	5.26	4.95	3.85	3.42	4.02	2.21	3.76	4.31	4.81	4.44
StDev	6.92	3.29	3.73	1.25	2.20	3.55	3.09	2.03	3.73	3.33	3.51	5.22

SAIFI

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	0.045	0.066	0.189	0.093	0.082	0.035	0.173	0.036	0.055	0.111	0.207	0.218
2009	0.140	0.075	0.084	0.074	0.044	0.121	0.073	0.070	0.060	0.072	0.146	0.118
2010	0.091	0.051	0.136	0.082	0.079	0.078	0.068	0.068	0.122	0.094	0.105	0.158
2011	0.243	0.057	0.078	0.064	0.072	0.115	0.057	0.066	0.062	0.082	0.124	0.080
2012	0.112	0.101	0.156	0.081	0.078	0.088	0.072	0.071	0.051	0.113	0.069	0.090
2013	0.190	0.072	0.078	0.051	0.076	0.048	0.093	0.107	0.062	0.114	0.074	0.068
2014	0.193	0.071	0.102	0.044	0.209	0.097	0.116	0.071	0.037	0.082	0.047	0.104
2015	0.098	0.123	0.061	0.088	0.058	0.055	0.047	0.098	0.196	0.037	0.117	0.087
2016	0.026	0.074	0.102	0.108	0.132	0.041	0.105	0.042	0.091	0.062	0.152	0.067
2017	0.094	0.139	0.076	0.048	0.160	0.085	0.062	0.073	0.036	0.098	0.094	0.092
Max	0.243	0.139	0.189	0.108	0.209	0.121	0.173	0.107	0.196	0.114	0.207	0.218
Mean	0.123	0.083	0.106	0.073	0.099	0.076	0.087	0.070	0.077	0.086	0.113	0.108
Min	0.026	0.051	0.061	0.044	0.044	0.035	0.047	0.036	0.036	0.037	0.047	0.067
StDev	0.068	0.029	0.041	0.021	0.052	0.030	0.037	0.022	0.049	0.025	0.047	0.047

4. Consumer Advocate's argument concerning revising PIM performance targets

The Consumer Advocate argues that if planned maintenance outage events are approved for exclusion from measured performance in 2018, then the PIM performance targets for the prior 10 years should be revised to exclude similar planned outages in order for the performance targets to remain comparable to the normalized performance.²³ The Companies don't take issue with this premise, but the Companies believe the targets (and thus the results here) would not materially change.

Hawaiian Electric conducted a review to determine whether there were planned outages on its operating system in the prior 10 years that involved comparable circumstances. Hawaiian Electric's review determined that it did not have planned outages over the prior 10 years that resulted from work that had factors comparable to those surrounding the 25kV splice replacement work.

There were special and unique circumstances surrounding the 25kV splice replacement work that resulted in Hawaiian Electric making its request. These include (1) the location of the project and the number of customers impacted, and (2) the randomness and frequency of the splice failures.

The Company's 25kV splice replacement project involved replacing the 25kV splices in the cable underground distribution system located in the Iwilei, Kakaako, and Ala Moana districts. Hawaiian Electric's 25kV circuits are unique in that they serve an extremely dense population of a wide variety of customers, ranging from

²³ Consumer Advocate SOP at 38, 40-41.

24-hour operational businesses to Senior Residential Condominium. Approximately 400 major businesses and 2,500 residential customers were affected by the work.

In recent years, the system experienced an increasing rate of splice failures where the splices failed, and in some cases, exploded (four in 2016, eight in 2017, and eight in first six months of 2018). Due to the circumstances surrounding the 25kV splice failures, in order to safely perform work on these components, both primary and backup circuits need to be deenergized resulting in an outage for all customers that were served by these circuits. (Typically, during routine maintenance work and system upgrades, customers would be served by the alternate circuit while performing work on the other, which limited outages to customers.)

Unpredictable and random splice component failures of both adjacent primary and backup circuits within the manhole were occurring when cable vaults and manholes that were filled with rainwater were pumped out to allow workers to work on other circuits or to add new customers. This created a serious situation in which Company employees working in underground vaults could be working inches away from an energized cable splice that had a real risk of failure, especially when the surrounding area was dewatered. Failure of these splices could result in massive releases of energy at the splice, including flame, heat, kinetic energy and explosion. The risk of the explosions causing injury or death to the Company's employees when working in the manholes became so significant that the only safe way to work in the manholes was to completely de-energize the system and interrupt service on a planned basis.

As stated previously, the Company conducted a review to determine whether there were planned outages on its operating system in the prior 10 years that involved comparable circumstances. The review did identify one project initiative with respect to which there were planned outages in the 2013 to 2014 timeframe due to failing 12kV “oil insulated manual switching equipment” (Trayer and ACME manufactures switches). In the 2003 to 2011 timeframe, Hawaiian Electric experienced seven Trayer and ACME switch failures on its system. Subsequently, Hawaiian Electric developed an asset management strategy to replace all this equipment and was issued in 2013. The replacement initiative was completed in 2014.²⁴

However, unlike the 25kV splice replacement work, these planned outages did not impact the same magnitude of customers. The majority of the Trayer and ACME switches served a single building or customer (e.g., hotel, condominium, office building). In contrast, the 25kV splice replacement work occurred on densely populated circuits (Iwilei, Kakaako, and Ala Moana districts) and involved more than one customer impacted for each outage (400-1,200 customers were impacted for each outage). In fact, due to the significance of the outages, the Company proactively notified affected customers of the outage(s) through letters, phone calls, property managers, Neighborhood Board Meetings, and in some cases, personal visits from Hawaiian Electric employees. The Company also notified governmental and City agencies and coordinated with first responders (Honolulu Fire Department, Honolulu

²⁴ The factual statements about the Trayer switches replacement work are supported by the Affidavit of Rudy W. Tamayo, which is attached as Exhibit 2.

Police Department) to insure the safety of its critical and medical needs customers and Hawaiian Electric personnel.

In addition, the work involved was significantly greater for the 25kV splice replacement work. For instance, an extensive dewatering plan needed to be developed and mobilized to continually pump out the large amount of water flowing into the manholes and conduit facilities. All the available pumper contractors were mobilized, and an elaborate temporary water storage and staging was erected at Hawaiian Electric's nearby substation facility. The work to replace the Trayer switches did not involve such extensive work.

There was no safety issue with the crews working around adjacent energized circuits while replacing the Trayer and ACME switches. As previously discussed, due to the significant employee safety concerns, the Company de-energized both the primary and backup circuits for the 25kV splice replacement work.

5. Consumer Advocate's contention that under the reliability PIMs future improved reliability performance should reward Hawaiian Electric

The Consumer Advocate contends that "[t]he future reliability benefits resulting from the planned outages occurring in 2018 should serve to improve and reward future utility performance under SAIDI and SAIFI PIMs, effectively rewarding the utilities for any near-term penalties that resulted from planned outages."²⁵

The Consumer Advocate's contention appears to presume that Hawaiian Electric will be more likely to avoid reliability PIM penalties in the future due to

²⁵ Consumer Advocate SOP at 38, 42.

better reliability performance resulting from the splice replacement work. However, such a contention is speculative as it is uncertain what will happen in future years, all things considered, and the relevant question is 2018 measured reliability performance and whether reliability penalties should be imposed.

If the Consumer Advocate is contending that Hawaiian Electric can be financially rewarded for future reliability performance, then that contention is based on an incorrect assumption. Currently, the SAIDI and SAIFI PIMs are asymmetric - - they provide for only financial penalties. The reliability PIMs do not provide for financial rewards under any circumstances. Since the reliability PIMs are asymmetric, with penalties only, there is no ability for Hawaiian Electric to be rewarded for future reliability performance.

6. Consumer Advocate's claim that Hawaiian Electric's proposal should be considered in Phase 2 of the PBR docket and ratemaking arguments

The Consumer Advocate argues that Hawaiian Electric's proposal to exclude certain 2018 planned maintenance outages from the measurement of actual SAIFI and SAIDI 2018 performance results should be considered within Phase 2 of Docket No. 2018-0088 (PBR investigation proceeding).²⁶

As previously discussed, it is appropriate for the Commission to act on Hawaiian Electric's request to exclude certain planned outages from the 2018 evaluation period via the transmittal submission. While PIMs may be further evaluated in Docket No. 2018-0088 (PBR Investigation), the Company realizes an order regarding Performance-Based Regulation Phase 2 may not be issued prior to the

²⁶ Consumer Advocate SOP at 38, 43.

end of 2019 and the Companies' requested adjustment is desired to be effective by June 1, 2019.

With respect to reliability PIMs, allowing exclusions in the PIM calculation is consistent with other jurisdictions that allow for the exclusion of planned outages in their reliability metrics calculations. For example, while the California Public Utilities Commission ("CPUC") still requires utilities to report planned outages, they are excluded from SAIDI and SAIFI calculations because they are sometimes necessary to perform maintenance activities safely.²⁷ The Massachusetts Department of Public Utilities also automatically allows exclusion of planned outages, defined as any interruption that is scheduled by the company and of which customers are notified in advance.²⁸ The New York Public Services Commission does not automatically allow the exclusion of planned outages from its SAIDI calculation, but considers petitions for subjective exclusions for outages beyond the utility's control.²⁹

The Consumer Advocate's contention that approval of Hawaiian Electric's request could somehow set "poor precedent"³⁰ is without merit. On the contrary, the Companies contend that it would be poor precedent to penalize Hawaiian Electric under these specific circumstances for its 25kV splice replacement efforts under the

²⁷ See California Public Utilities Commission Decision 96-09-045: Appendix A at 2 ("Planned outages are those outages which the utility schedules and customers are notified in advance. These outages are sometimes necessary to connect new customers or perform maintenance activities safely. They are excluded in outages used to calculate reliability indices.").

²⁸ Massachusetts Department of Public Utilities, *Order Adopting Revised Service Quality Guidelines*, D.P.U. 12-120-C (December 22, 2014), Attachment A at 1-13.

²⁹ New York Public Service Commission, *Order Approving Electric, Gas and Steam Rate Plans in Accord with Joint Proposal*, Consolidated Edison Company of New York, Case 13-E-0030 et al. (February 21, 2014), Appendix 16 at 5.

³⁰ Consumer Advocate SOP at 43.

reliability PIMs when those efforts align with the reliability PIMs' goals of maintaining service quality, reducing outage duration and frequency, minimizing negative impacts to customers, as well as with employee safety goals.

The Consumer Advocate also argues that Hawaiian Electric's request is inconsistent with the prohibition against retroactive ratemaking, constitutes single issue ratemaking, and is inconsistent with the filed-rate doctrine.³¹ The Consumer Advocate's arguments are not persuasive.

The rule against retroactive ratemaking generally prohibits a public utility commission from setting future rates to allow a utility to recoup past losses or to require a utility to refund to consumers excess utility profits.

The general prohibition against single-issue ratemaking (to which there are a number of exceptions) is predicated on the principle that ratemaking should not be based on an increase in a single, specific cost item, and that the Commission should consider whether the change in rates has not been offset by changes in other costs or revenues. Single issue ratemaking is generally prohibited because considering any one item or only a portion of the items in a revenue formula in isolation risks understating or overstating the utility's revenue requirement.

Hawai'i Revised Statutes ("HRS") § 269-16 requires utilities to submit "rates, fares, charges, classifications, schedules, rules, and practices" (collectively, "tariffs") to the Commission for review and approval. Once approved by the Commission, the tariffs of a public utility "have the force and effect of law until suspended and set

³¹ Consumer Advocate SOP at 43-44; see also Consumer Advocate response to PUC-IR-200 filed May 14, 2019.

aside,” and the tariffs are binding upon both the utility and its customers.³² This principle, termed the filed-rate doctrine or the filed-tariff doctrine, bars any claims that “directly attack the validity or reasonableness of rates or terms defined in a tariff.”³³

The Company is not aware of any instance in which the rule against retroactive ratemaking, or the general prohibition against single-issue ratemaking, or the filed-rate doctrine has been applied to prohibit the waiver of all or part of a penalty that a utility would otherwise be required to pay.

The Company’s request for a waiver does not involve ratemaking, much less retroactive ratemaking. Hawaiian Electric is seeking a one-time waiver to exclude the planned outages that occurred in July 2018 as a result of the Company’s 25kV splice replacements project from its 2018 SAIDI and SAIFI PIMs calculations. In effect, Hawaiian Electric is seeking a one-time waiver of part of the 2018 SAIDI and SAIFI PIMs penalty, in an amount equal to the difference between the penalty calculated with and without the inclusion of the July 2018 planned 25kV splice replacement outages in its 2018 SAIDI and SAIFI PIMs Measured Performance calculations.

Moreover, Hawaiian Electric is not seeking to retroactively modify the penalty mechanism or the tariff incorporating the penalty mechanism. The Company is not proposing to recalculate 2018 PIM targets, deadbands, and financial incentives.

³² See *In re Waikoloa Sanitary Sewer Co., Inc.*, 109 Haw. 263, 271, 125 P.3d 484, 492 (2005).

³³ *Pac. Lightnet, Inc. v. Time Warner Telecom*, 131 Haw. 257, 270, 318 P.3d 97, 110 (2013) (quoting *Balthazar v. Verizon Hawaii, Inc.*, 1098 Haw. 69, 81, 123 P.3d 194, 206 (2005)) (see also *Wagner v. State of Hawaii*, Docket No. 2014-0191 at 48-49).

Nor is it “attacking” the validity of the PIM tariff provision. In requesting a partial waiver of the penalty, Hawaiian Electric necessarily focuses on the unique factor that warrants the requested waiver. However, it is not asking the Commission to modify rates, or to set rates based on a single factor.

The Consumer Advocate also contends that Hawaiian Electric’s request is “patently unfair” as it allows the Company to “cherry pick events.”³⁴ The Companies disagree. It seems more unfair to penalize the Company for taking actions that benefit customers and that promote and are aligned with desired outcomes – in this case quality of electrical service and safety. The Consumer Advocate characterizes the Company’s request as “selectively exclud[ing] certain performance events that lead to adverse outcomes to shareholders”, and ignores the fact that the Company proposes to exclude specific, unique events that benefitted customers. Avoiding a penalty incurred while acting in the best interests of customers does not constitute a windfall or unearned benefit for shareholders.

While the Consumer Advocate raised these ratemaking arguments, it should be pointed out that there are no reliability PIM penalty amounts included in Hawaiian Electric’s 2017 test year revenue requirements. If annual SAIDI and SAIFI variations are normally distributed, the Companies would expect to exceed the upper deadband approximately once every six years even if their reliability performance was maintained at 10-year historical levels. This is because the probability of being more than one standard deviation above the average for a **normal** distribution is about 16%.

³⁴ Consumer Advocate SOP at 43.

Thus, the Companies can expect to be penalized, on average, once every six years even if their performance remains at the same levels as that on which the standards were based.

If the reliability measures were symmetric, instead of asymmetric, this might not be an unfair result. The Companies also would expect to do better than the lower deadband, on average, once every six years (and would receive an award when that happened).

As it is, since the Companies can expect to receive a penalty, on average, once every six years even for normal reliability performance, without the possibility of offsetting rewards, a good argument can be made that a normalized penalty amount should be included in the test year revenue requirement in a rate case. Then, the Companies would receive revenues to offset normal penalties. Of course there was no normalized penalty amount included in the 2017 test year revenue requirement for Hawaiian Electric.

3. OTHER REVISIONS TO THE COMPANIES' 2019 ANNUAL DECOUPLING FILING

A. Items Impacting Results

1. During informal discussions with the Consumer Advocate, Maui Electric became aware that the depreciation rates of 3.19% and 2.30% as shown in MECO-WP-D1-002 for Production and Distribution, respectively, should have been updated as of August 23, 2018 in conjunction with the effective date of the interim rates for the 2018 test year rate case in Docket No. 2017-0150. As a result, the

accumulated depreciation balance at December 31, 2018 for the Lanai CHP system as presented in Note 1 on Schedule D1 was revised to (\$952,000) from (\$966,000).³⁵

2. Subsequent to the filing of the 2019 annual decoupling filing on March 29, 2019, Maui Electric became aware that it had inadvertently omitted amortization of excess ADIT of \$453,467 from the calculation of Depreciation & Amortization in Current Revenues (see Footnote 3) on Schedule E. As a result, the Depreciation and Amortization in Current Revenues on Schedule E, line 191 decreased from \$29,877,000 to \$29,423,533.

B. Items That Have No Impact to Results

1. In the response to CA-IR-242, subparts d and e, in Docket No. 2018-0368 (Hawai'i Electric Light's 2019 test year rate case), Hawai'i Electric Light stated that the settlement recovery of prior joint pole accounts receivables previously written off (\$1.6 million in total: \$0.7 million for Hawaiian Electric, \$0.7 million for Hawai'i Electric Light and \$0.2 million for Maui Electric) should have been recorded as a reversal to the uncollectible accounts (904) rather than recorded as "interest income" by the Hawaiian Electric Companies. The \$1.6 million in total recorded as interest income in 2018 for the Companies were originally excluded from the calculation of earnings for purposes of the 2019 RBA/RAM earnings sharing mechanism in the Companies' 2019 annual decoupling filings, filed on March 29, 2019. In this filing, the Companies have filed revised earnings sharing calculations on their respective Schedule H in Attachment 2.

³⁵ See the response to Informal CA-IR-62.

2. During informal discussions with the Consumer Advocate, Hawaiian Electric acknowledged an error in Schedule D1 of its decoupling template. At cell E25 in Schedule D1, it should have inserted the value of \$6,470.³⁶ Hawaiian Electric has revised Schedule D1 and confirmed that the error did not impact the “Change in Rate Base” amount of \$128,963 because of the manner in which the schedule calculates the change in average rate base.
3. During informal discussions with the Consumer Advocate, Maui Electric identified an error in the presentation of the Unbilled Pole Credits balance at December 31, 2018 on MECO-WP-H-001.³⁷ It was erroneously presented as a debit balance, but should have been a credit balance. Maui Electric’s revised Attachment 2 in this filing reflects the correction to this balance and the applicable change in the ending rate base and average rate base balances. The revised simple average rate base balance impacts Schedule H. However, there is no impact on the outcome of the earnings sharing revenue credits as a result of the revisions to MECO-WP-H-001 and Schedule H.
4. Subsequent to the filing of the 2019 annual decoupling filing on March 29, 2019, Hawai‘i Electric Light identified that the formula on Schedule D1, Note 1 for Plant In Service did not properly sum and excluded the Unbilled Pole Credits from the Adjusted Balance. However, as explained above, Unbilled Pole Credits are removed from the calculation of the 2019 RAM Revenue Adjustment.

³⁶ See the response to Informal CA-IR-54.

³⁷ See the response to Informal CA-IR-62.

5. Hawai'i Electric Light also revised HELCO-WP-H-001 and HELCO-WP-H-008 to remove the inadvertent double-counting of the Unbilled Pole Credits and correct the Unamortized CIAC amount, resulting in a higher simple Average Rate Base used on Schedule H. There is no impact on the outcome of the earnings sharing revenue credits on Schedule H as a result of the revisions to HELCO-WP-H-001 and HELCO-WP-H-008.

4. EFFECTIVE DATE OF THE RBA RATE ADJUSTMENT

The Transmittals submitted by the Companies propose to revise their decoupling Revenue Balancing Account ("RBA") Rate Adjustment from the current rate to the new rate effective June 1, 2019.

Generally speaking, surcharge rates are changed effective the first of the month. The internal control process to ensure billing rate changes are accurate and complete takes place on the next to last business day of the month to allow for completion of the rate change verification and transport of the rate changes to the production environment in advance of the first of the month.

In order for the revised RBA Rate Adjustment to be effective June 1, 2019, the Companies' request a decision by May 29, 2019, approving one of the recalculated RBA Rate Adjustments submitted in this filing, so they can perform the internal control process described above. A decision after May 29, 2019 would delay the implementation of a revised RBA Rate Adjustment (the Companies need approximately two days to program, test and implement a rate change in the production environment).

EXHIBIT 2

AFFIDAVIT OF RUDY W. TAMAYO

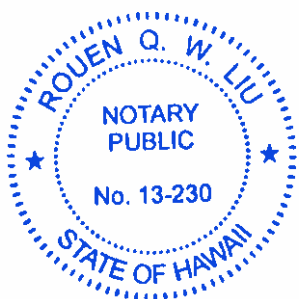
STATE OF HAWAI'I)
) ss.
CITY AND COUNTY OF HONOLULU)

Rudy W. Tamayo, being duly sworn on oath, deposes and says:

1. I am Director, Test & Substation Division, Hawaiian Electric Company, Inc.
2. My business address is 820 Ward Avenue, Honolulu, Hawai'i 96814.
3. I am making this Affidavit in support of the Hawaiian Electric Companies' Response to the Division of Consumer Advocacy's Statement of Position in Transmittal No. 19-01 (Decoupling), Transmittal No. 19-02 (Decoupling), and Transmittal No. 19-03 (Decoupling) ("Hawaiian Electric Companies' Response"). I refer to Hawaiian Electric Company, Inc., Hawai'i Electric Light Company, Inc., and Maui Electric Company, Limited as the "Hawaiian Electric Companies".

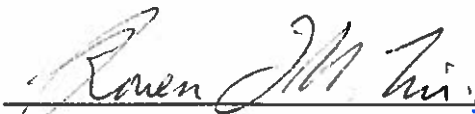
4. I have reviewed Section C to Exhibit 1 of Hawaiian Electric Companies' Response titled "Performance Incentive Mechanisms (Transmittal 19-01)". Based on my personal knowledge or on the knowledge that I have acquired in my capacities identified above, verify that the facts contained therein concerning (a) the 25kV splice replacement work that was performed in July 2018 by Hawaiian Electric Company, Inc. and (b) the Trayer and ACME switch replacement work that was performed by Hawaiian Electric Company, Inc. in 2013 and 2014 are true and accurate to the best of my knowledge and belief.

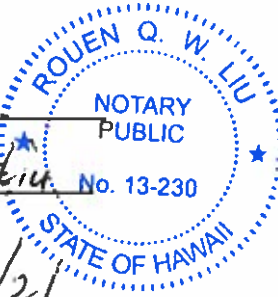
Further Affiant Sayeth Naught.



Rudy W. Tamayo

This two-page Affidavit of Rudy W. Tamayo,
dated May 21, 2019, was subscribed
and sworn to before me this 21st day of
May, 2019, in the First Circuit of the
State of Hawai'i.


Print name: Rouen Q. W. Liu
Notary Public, State of Hawai'i
My Commission expires 7/14/21



7478951.1

HAWAIIAN ELECTRIC

SCENARIO 1

WEST LOCH PV PROJECT IN RAM

REVENUE ADJUSTMENT

25kV EXCLUDED FROM 2018 SAIDI AND

SAIFI PIM CALCULATIONS

HAWAIIAN ELECTRIC
ATTACHMENT 1

RATE SCHEDULES (continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
92	"RBA"	September 1, 2018	Revenue Balancing Account Provision
92A	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92A.1	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92B	"RBA"	February 16, 2018	Revenue Balancing Account Provision
92C	"RBA"	January 1, 2018	Revenue Balancing Account Provision
92D	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92E	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92F	"RBA"	June 1, 2019	Revenue Balancing Account Provision
93	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93A	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93B	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93C	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93D	"RAM"	June 1, 2017	Rate Adjustment Mechanism Provision
93E	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93F	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93G	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
93H	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
93I	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
94	"PPAC"	May 1, 2019	Purchased Power Adjustment Clause
94A	"PPAC"	May 1, 2019	Purchased Power Adjustment Clause
94B	"PPAC"	May 1, 2019	Purchased Power Adjustment Clause

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

RATE SCHEDULES (continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
95	EV-F	January 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
95A	EV-F	January 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
95B	EV-F	December 12, 2017	Commercial Public Electric Vehicle Charging Facility Service Pilot
96	EV-U	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
96A	EV-U	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
97	TOU-RI	October 18, 2018	Residential Interim Time-of-Use Service
97A	TOU-RI	January 1, 2019	Residential Interim Time-of-Use Service
97B	TOU-RI	October 18, 2018	Residential Interim Time-of-Use Service
97C	TOU-RI	January 1, 2019	Residential Interim Time-of-Use Service
98	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
98A	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
98B	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
98C	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
98D	"PIM"	June 1, 2019	Performance Incentive Mechanism Provision
98E	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
99	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99A	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99B	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99C	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service

HAWAIIAN ELECTRIC COMPANY, INC.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION

Supplement To:

Schedule R	- Residential Service
Schedule G	- General Service - Non-Demand
Schedule J	- General Service - Demand
Schedule DS	- Large Power Directly Served Service
Schedule P	- Large Power Service
Schedule F	- Public Street Lighting, Highway Lighting and Park and Playground Floodlighting
Schedule U	- Time-of-Use Service
Schedule TOU-R	- Residential Time-of-Use Service
Schedule TOU-G	- Small Commercial Time-of-Use Service
Schedule TOU-J	- Commercial Time-of-Use Service
Schedule TOU-P	- Large Commercial Time-of-Use Service
Schedule SS	- Standby Service
Schedule TOU EV-	Residential Time-of-Use Service with Electric Vehicle Pilot
Schedule EV-F	- Commercial Public Electric Vehicle Charging Facility Service Pilot
Schedule TOU-RI-	Residential Interim Time-of-Use Service

All terms and provisions of the above listed rate schedules applicable except that the total base rate charges for each billing period shall be adjusted by the Revenue Balancing Account Rate Adjustments shown below:

A: PURPOSE:

The purpose of the Revenue Balancing Account ("RBA") is to record: 1) the difference between the Hawaiian Electric Company's target revenue and recorded adjusted revenue, and 2) monthly interest applied to the simple average of the beginning and ending month balances in the RBA. In addition, the recovery provision of this tariff provides for collection or return of the calendar year-end balance in the RBA and recovery or refund of the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits provided in the Rate Adjustment Mechanism ("RAM") Provision, and any revenue adjustment provided in accordance with the Performance Incentive Mechanism Provision, over the subsequent June 1st through May 31st period. Tracking of target revenue and recorded adjusted revenue commenced on the effective date of the tariff that implemented the Final Decision and Order in Hawaiian Electric's 2009 test year rate case, Docket No. 2008-0083, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

HAWAIIAN ELECTRIC COMPANY, INC.

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018.

Transmittal Letter Dated July 23, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

B: TARGET REVENUE:

For the purpose of the RBA, the target revenue is the annual electric revenue approved by the Public Utilities Commission in the last issued Decision & Order in the Company's most recent test year general rate case, excluding revenue for fuel and purchased power expenses that are recovered either in base rates or in a purchased power adjustment clause; excluding revenue being separately tracked or recovered through any other surcharge or rate tracking mechanism; and excluding amounts for applicable revenue taxes;

Plus: Any effective RAM Revenue Adjustment calculated under the RAM provision for years subsequent to the most recent rate case test year for which the Commission has issued a Decision & Order; and any Performance Incentive Adjustment provided for in accordance with the Performance Incentive Mechanism Provision; and

Less: Any applicable Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits calculated under the RAM provision.

Adjusted by: Other adjustments, as applicable, in accordance with Commission's Order authorizing such adjustment. Other adjustments, if any, are shown in the table *Target Revenue Currently in Effect*, provided in section H.

The target revenue shall be revised to correct for any errors in the calculation of the RAM Revenue Adjustment, Performance Incentive Adjustment, recorded adjusted revenues or other RBA accounting determinations (collectively "target revenue determinations") for any previous period and for revisions to RAM Revenue Adjustments or Performance Incentive Adjustments as a result of subsequent Commission orders that change the basis of previously calculated RAM Revenue Adjustments and/or Performance Incentive Adjustments. For any corrections of errors in previously calculated target revenue determinations, the target revenue shall be adjusted as of the date that the correct determinations would have been reflected in target revenue. For changes in the RAM Revenue Adjustment and/or Performance Incentive Adjustments as a result of subsequently issued Commission orders, the target revenue shall be adjusted as of the effective date of changes that are implemented pursuant to the subsequently issued Commission order.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

The Commission and the Consumer Advocate will be notified of the target revenue revisions or corrections prior to implementation by the Company. There is no presumption that the target revenue changes are ultimately warranted or correct. In the annual RBA review transmittal ("RBA Review Transmittal") filed on or before March 31 of each year, the utility will have the burden to demonstrate that the interim changes for the previous calendar year are warranted and correctly applied. The Consumer Advocate will provide comments regarding the changes with its Statement of Position. The RBA balance and RBA Rate Adjustment for the following year will reflect any appropriate modifications to the change made by the utility in the prior year if necessary.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.19%
February	7.59%
March	8.10%
April	7.98%
May	8.40%
June	8.07%
July	8.70%
August	8.94%
September	8.65%
October	8.84%
November	8.26%
December	8.28%
Total	100.00%

These factors are based on the mWh sales forecast that is approved by the Commission in Hawaiian Electric's 2017 test year rate case and shall be updated in any subsequent test year rate case.

C: BALANCING ACCOUNT ENTRIES:

Entries to the RBA will be recorded monthly. A debit entry to the RBA will be made equal to the target revenue as defined in Section B. above, times the appropriate monthly allocation factor in the table above. A credit entry to the RBA will be made equal to the recorded adjusted revenue. The recorded adjusted revenue is defined to include the electric sales revenue from authorized base rates, plus revenue from any authorized interim rate increase, plus revenue from any RBA rate adjustment, but excluding revenue for fuel and purchased power expenses, IRP/DSM, any Commission Ordered one-time rate refunds or credits or other surcharges, and adjusted to remove amounts for applicable revenue taxes.

Interest will be recorded monthly to the RBA by multiplying the simple average of the beginning and ending month balance in the RBA times the Interest Rate divided by 12. The Interest Rate shall be the short term debt rate as established in deriving the consolidated cost of capital in the Company's last full rate case. The Interest Rate prior to March 1, 2014 shall be 6 percent.

D: RECOVERY OF BALANCING ACCOUNT AMOUNTS:

In its annual RBA Review Transmittal, the Company will file with the Commission a statement of the previous calendar year-end balance in the RBA and the RAM Revenue Adjustment for the current calendar year, along with supporting calculations.

HAWAIIAN ELECTRIC COMPANY, INC.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Both an amortization of the previous calendar year-end balance in the RBA, adjusted for any Earnings Sharing Revenue Credits or Major Capital Projects Credits, Baseline Capital Projects Credits or corrections, any Performance Incentive Adjustment provided in accordance with the Performance Incentive Mechanism Provision and the RAM Revenue Adjustment will be recovered through a per-kWh RBA rate adjustment, over the 12 months from June 1 of the current calendar year to May 31 of the succeeding calendar year. The recovery through the RBA Rate Adjustment of a RAM Revenue Adjustment calculated for a calendar year that is also a rate case test year shall terminate on the effective date of tariff rates that implement a Commission approved base revenue level authorized in the Company's test year rate case.

Revisions to Target Revenue based on corrections for errors and subsequently issued Commission orders, described in Section B above, will not be reflected in the RBA Rate Adjustment until a succeeding June 1 to May 31 period, unless otherwise ordered or approved by the Commission.

On or before March 31 of each year, the Company shall file with the Commission, the Consumer Advocate, and each party to the Company's most recent rate case proceeding, an RBA Review Transmittal supporting the implementation of the RBA Provision, including RBA reconciliation, implementation of applicable components of the RAM Provision and Performance Incentive Mechanism Provision, determination and adjustments of target revenues, determination of the RBA Rate Adjustment; and documenting any errors, corrections and adjustments to Target Revenues in the preceding calendar year and prior to the transmittal date.

Complete, indexed workpapers and electronic files supporting the previous year-end balance in the RBA and target revenue determinations shall be provided to the Commission, the Consumer Advocate and all other parties to the Utility's most recent rate case proceeding ("Other Rate Case Parties"), if any, as part of the annual RBA Review Transmittal filing. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, Other Rate Case Parties, and other interested persons that may propose any adjustments necessary to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications, Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

As described in Sections 6-61-61 and 6-61-111 of the Hawaii Administrative Rules, Title 6, Chapter 61, based upon the Company's filed schedules and in the absence of any protests submitted by the Consumer Advocate, Other Rate Case Parties, or other interested persons, not later than 15 days before June 1st, the RBA Rate Adjustment shall go into effect on June 1st, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

The RBA Rate Adjustment is comprised of the calculated values from Section D above, adjusted to include amounts for applicable revenue taxes, and calculated based on the Company's forecast of mWh sales over the RBA Rate Adjustment recovery period.

The RBA Rate Adjustment shall remain unchanged during the recovery period unless further modification is required by order or approval of the Commission, except as specifically provided above.

RBA Rate Adjustment

All Rate Schedules 0.9980 ¢/kWh

F. NOTICE

Notice of the annual Revenue Balancing Account Rate Adjustment filing shall be provided to all affected customers of the Utility in accordance with the provisions of this section by publication in newspapers of general circulation within 14 days and by including notification with its billing statements within 60 days after the Company makes its annual RBA Review Transmittal filing pursuant to this tariff. The notice to customers shall include the following information:

- a) A description of the proposed revision of revenues, Earnings Sharing Credits, and Major or Baseline Capital Projects Credits;
- b) The effect on the rates applicable to each customer class and on the typical bill for residential customers; and
- c) The Company's address, telephone number and website where information concerning the proposed Revenue Balancing Account Rate Adjustment may be obtained.

G: COMMISSION'S AUTHORITY

The Commission may modify or suspend any or all parts of this Revenue Balancing Account Provision. Such suspension shall remain in place until removed by Commission Order.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

H: TARGET REVENUE CURRENTLY IN EFFECT

Hawaiian Electric Company, Inc.
Annual Target Revenue (\$000s)

	<u>Description</u>	<u>Amount</u>
1	Electric Sales Revenue (Unadjusted)	\$1,531,852
2	Tax Act Implementation Lag	(\$2,143)
3	Electric Sales Revenue (Adjusted)	\$1,529,709
	Less:	
4	Fuel Expense	(\$327,609)
5	Purchase Power Expense	(\$466,211)
6	Revenue Tax on Electric Sales Revenue	(\$135,915)
7	Last Rate Order Target Revenues	\$599,974
8	Authorized RAM Revenues	\$22,951
9	Revenue Tax	(\$2,039)
10	Net RAM Adjustment	\$20,912
11	Authorized MPIR Revenues	\$19,811
12	Revenue Tax	(\$1,760)
13	Net MPIR Adjustment	\$18,051
14	Earnings Sharing Revenue Credits	\$0
15	Revenue Tax	\$0
16	Net Earnings Sharing Revenue Credits	\$0
17	Performance Incentive Mechansim (PIM)	\$54
18	Revenue Tax	(\$5)
19	Net PIM Reward (Penalty)	\$49
20	2017 Test Year Final D&O Refund	(\$48)
21	Revenue Tax	\$4
22	Net 2017 Test Year Final D&O Refund	(\$44)
23	On-Bill Financing Pgm Implementation Costs	\$844
24	Revenue Tax	(\$75)
25	Net On-Bill Financing Adjustment	\$769
26	Effective Target Revenue	\$639,711

Notes:

Totals may not add, due to rounding.

Lines 1,4,5: Final Decision and Order No. 35545, issued June 22, 2018 in Docket No. 2016-0328. Exhibit A.

Line 2: Hawaiian Electric March 2018 Settlement Tariff Sheets, Attachment 1, Line 2. Filed March 16, 2018 in Docket No. 2016-0328.

Lines 6,9,12,15,18,21,24: Revenue Tax based on 8.885% statutory rates.

Lines 8,11,14,17,20,23,26: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling) Schedule B1 (Scenario 2), filed May 21, 2019.
Change in Effective Target Revenue for MPIR is effective January 1, 2019.
See Order 35556, filed June 27, 2018 in Docket No. 2017-0213.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

I: HISTORICAL REFERENCE

Category	Effective Period	Effective Target Revenue (\$000)	Change in Target Revenue (\$000)	Source
Annual Decoupling Filing	6/1/2017 thru 2/15/2018	\$604,302	N/A (1/1/2018 Baseline)	Schedule B1 filed in Transmittal No. 17-02 on 3/31/2017.
2017 Test Year Rate Case (Interim)	2/16/2018 thru 4/12/2018	\$637,077	\$32,775	Schedule B1 filed in Docket No. 2016-0328 on 1/19/2018.
2017 Test Year Rate Case (Interim)	4/13/2018 thru 5/31/2018	\$599,960	(37,117)	Schedule B1 filed in Docket No. 2016-0328 on 3/16/2018.
Annual Decoupling Filing	6/1/2018 thru 6/30/2018	\$612,574	\$12,614	Schedule B1 filed in Transmittal No. 18-01 on 3/29/2018.
MPIR (Schofield)	7/1/2018 thru 9/30/2018	\$618,587	\$6,013	Schedule B1 filed in Docket No. 2017-0213 on 7/18/2018.
MPIR (Schofield)	10/1/2018 thru 12/31/2018	\$620,374	\$1,787	Schedule B1 filed in Docket No. 2017-0213 on 12/21/2018.
MPIR (Schofield)	1/1/2019 thru 5/31/2019	\$630,624	\$10,250	Schedule B1 filed in Transmittal No. 19-01 on 2/7/2019.
Annual Decoupling Filing	6/1/2019 (current)	\$639,711	\$9,087	Schedule B1 (Scenario 2) filed in Transmittal No. 19-01 on 5/21/2019.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

PERFORMANCE INCENTIVE MECHANISM PROVISION

Introduction

This Performance Incentive Mechanism ("PIM") Provision provides for the determination of a PIM Financial Incentive for each approved PIM for each Evaluation Period, based on Measured Performance compared to an established Performance Target for each PIM, as specified below.

The sum of the PIM Financial Incentives determined for all PIMs for the Evaluation Period will be the Performance Incentive Adjustment, which will be applied as an adjustment to the effective Target Revenue and will be recovered from or credited to customers through the RBA Rate Adjustment, as defined by and in accordance with the terms of the Revenue Balancing Account ("RBA") Provision.

Annual PIM Provision Transmittal

On or before March 31 of the year following an Evaluation Period, the Company shall file with the Commission, the Consumer Advocate, and each party to the Company's most recent rate case proceeding, a transmittal documenting the Measured Performance and calculation of the PIM Financial Incentives and Performance Incentive Adjustment for the Evaluation Period. Complete, indexed schedules, workpapers and electronic files supporting the transmittal shall be provided with the transmittal. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, other rate case parties, and other interested persons that may propose any adjustments necessary to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

The review of the annual PIM Provision transmittal will be conducted concurrent with and in conjunction with the annual RBA Review Transmittal. The Performance Incentive Adjustment will be determined annually based on the PIM Provision transmittal and, after review and subject to explicit approval by the Commission, will become effective on June 1 of the year following the Evaluation Period, concurrent and in conjunction with determination of Target Revenues and the RBA Rate Adjustment in accordance with the RBA Provision. Any approved Performance Incentive Adjustment will be applied as monthly adjustments to Target Revenues for the twelve month period commencing June 1 of the year following the Evaluation Period in accordance with the Monthly Allocation Factors identified in the RBA Provision.

The Performance Targets, Deadbands and the amount of Maximum Financial Incentives used to determine the PIM Financial Incentive

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications,
Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

levels for each of the PIMs shall be re-determined upon issuance of an interim or final order in a general rate case for each Company and shall remain constant in interim periods, unless otherwise amended, as necessary, by order of the Commission.

In the event that Performance Targets, Deadbands or the amounts of Maximum Financial Incentives are updated or amended by order of the Commission during the Evaluation Period, the Performance Targets, Deadbands and the amounts of Maximum Financial Incentives used in determining the amount of PIM Financial Incentives shall be a pro-rated weighted average based on the number of days of the Evaluation Period each parameter was effective.

Any revenue adjustments approved in accordance with this PIM Provision shall be excluded from the determination of Earnings Sharing Credits provided for in the Rate Adjustment Mechanism Provision ("RAM Provision").

The Performance Incentive Adjustment, and any prior year Performance Incentive Adjustment, shall be recalculated for errors in prior calculations and for subsequent Commission orders that change the basis for prior calculations. The effect of such changes shall be implemented as described in the RBA Provision, except that, the Performance Target, Deadband and Maximum Financial Incentive amounts determined in this PIM Provision shall not be recalculated based on errors in the calculation of these parameters and shall remain as specified unless and until changed by order of the Commission.

Evaluation Period

The Evaluation Period is defined as the annual twelve month calendar year period ending December 31, over which Measured Performance is determined and compared to the established Performance Target for each PIM described below. The first Evaluation Period shall begin January 1, 2018.

PIM Financial Incentive Calculation

For each PIM below, a Performance Target is specified, developed based on historical performance data. A Deadband is specified for each Performance Target in order to provide a satisfactory range of performance within which no reward or penalty amount is assessed.

A Maximum Financial Incentive amount is specified for each PIM with separate identification of a Maximum Reward Amount and a Maximum Penalty Amount.

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications,
Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Measured Performance for the Evaluation Period is compared to the Performance Target for each PIM. If the difference between Measured Performance and the Performance Target is less than or equal to the Deadband amount, no reward or penalty is awarded and the amount of the PIM Financial Incentive is zero. If the difference between Measured Performance and the Performance Target exceeds the Deadband amount, a reward or penalty ratio is calculated where the difference between Measured Performance and the Performance Target, less the Deadband amount, is the numerator and the Deadband amount is the denominator. This ratio is multiplied by either the Maximum Reward Amount or Maximum Penalty Amount, as applicable, to determine the PIM Financial Incentive for each PIM. The magnitude of the PIM Financial Incentive for each PIM shall not exceed 100% of the magnitude of the applicable Maximum Reward Amount or Maximum Penalty Amount established for each PIM.

Reliability Performance Incentive Mechanisms

There are two reliability PIMs: 1) System Average Interruption Frequency Index ("SAIFI"); and 2) System Average Interruption Duration Index ("SAIDI"). SAIFI is a measure of the average frequency of outages, defined as the annual total number of customer interruptions divided by the total number of customers served. SAIDI is a measure of the average duration of outage, defined as the sum of all customer interruption durations (in minutes) divided by the total number of customers served. The SAIFI and SAIDI Measured Performance and Performance Targets are determined using the IEEE Standard 1366 methodology.

For the Reliability Performance Incentive Mechanisms, the 2008-2017 record of historical performance data was used to establish the Performance Target and the Deadband. The Deadband was calculated as ± 1 standard deviation of the historical performance data. Accordingly, 100% of the penalty is achieved when Measured Performance is equal to or greater than 2 standard deviations from the Performance Target.

SAIFI:

Performance Target: 1.103 interruptions per customer during the one-year Evaluation Period

Deadband: ± 0.088 interruptions (1 Standard Deviation)

HAWAIIAN ELECTRIC COMPANY, INC

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Range for no penalty: 1.015 interruptions to 1.191 interruptions per customer (± 1 Standard Deviation from Target)

Rewards: Not Applicable

Penalties for greater than 1.191 interruptions per customer

Maximum Reward Amount: Not Applicable

Maximum Penalty Amount: \$2,276,417.

The Maximum Penalty Amount was determined to be equal to 0.20% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

SAIDI:

Target: 99.23 minutes per outage

Deadband: ± 8.96 minutes (1 Standard Deviation)

Range for no penalty: 90.27 minutes to 108.19 minutes per outage (± 1 Standard Deviation from Target)

Rewards: Not Applicable

Penalties for greater than 108.19 minutes per outage

Maximum Reward Amount: Not Applicable

Maximum Penalty Amount: \$2,276,417.

The Maximum Penalty Amount was determined to be equal to 0.20% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

Call Center Performance Incentive Mechanism

The Call Center Performance PIM measures the performance of the utility call center in terms of the percentage of calls answered within thirty (30) seconds. The calculation of the call center performance shall exclude blocked calls from the denominator.

The Performance Target for the Call Center Performance Incentive Mechanism was calculated based on the average of quarterly data from Quarter 3 of 2016 to Quarter 2 of 2018.

HAWAIIAN ELECTRIC COMPANY, INC

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Call Center Performance:

Performance Target: 80.10% of calls answered within 30 seconds

Deadband: +/- 3.00% of calls answered within 30 seconds

Range for no reward or penalty: 77.10 % of calls answered to 83.10% of calls answered.

Rewards apply for greater than 83.10 % of calls answered
Penalties apply for less than 77.10 % of calls answered

Maximum Reward Amount: \$910,567.

Maximum Penalty Amount: \$910,567.

The magnitude of the Maximum Reward Amount and Maximum Penalty Amount were determined to be equal to 0.08% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

Additional PIMs:

The Commission may order the establishment of one or more PIMs, and the targets, deadbands, rewards, penalties, and allocations for that PIM, as applicable, shall be implemented as specified in the Commission's order that approved the applicable PIM, and the applicable PIM Financial Incentive shall be included in the Performance Incentive Adjustment.

Commission's Authority

The Commission may suspend any or all parts of this PIM Provision. Such suspension shall remain in place until removed by Commission order.

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Historical Reference

The following table summarizes the prior PIMs in effect, as these values may be applicable during certain portions of the Evaluation Period.

PIM:	Effective Period:	Performance Target:	Deadband:	Maximum Reward:	Maximum Penalty:
SAIFI	1/1/2018 thru 2/15/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,039,094
SAIFI	2/16/2018 thru 4/12/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,260,799
SAIFI	4/13/2018 thru 8/31/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,276,417
SAIDI	1/1/2018 thru 2/15/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,039,094
SAIDI	2/16/2018 thru 4/12/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,260,799
SAIDI	4/13/2018 thru 8/31/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,276,417
Call Center	1/1/2018 thru 2/15/2018	79.07% of calls answered within 30 sec.	+/- 3.00%	\$815,638	\$815,638
Call Center	2/16/2018 thru 4/12/2018	79.46% of calls answered within 30 sec.	+/- 3.00%	\$904,320	\$904,320
Call Center	4/13/2018 thru 8/31/2018	79.56% of calls answered within 30 sec.	+/- 3.00%	\$910,567	\$910,567

HAWAIIAN ELECTRIC COMPANY, INC

HAWAIIAN ELECTRIC
ATTACHMENT 1A

Superseding Revised Sheet No. 50E
Effective May 1, 2019.

REVISED SHEET NO. 50E
Effective June 1, 2019

Deleted: February 1, 2019

RATE SCHEDULES (continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
92	"RBA"	September 1, 2018	Revenue Balancing Account Provision
92A	"RBA"	<u>June 1, 2019</u> .	Revenue Balancing Account Provision
92A.1	"RBA"	June 1, 2019	<u>Revenue Balancing Account Provision</u>
92B	"RBA"	February 16, 2018	Revenue Balancing Account Provision
92C	"RBA"	January 1, 2018	Revenue Balancing Account Provision
92D	"RBA"	<u>June 1, 2019</u> .	Revenue Balancing Account Provision
92E	"RBA"	<u>June 1, 2019</u> .	Revenue Balancing Account Provision
92F	"RBA"	June 1, 2019	<u>Revenue Balancing Account Provision</u>
93	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93A	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93B	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93C	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93D	"RAM"	June 1, 2017	Rate Adjustment Mechanism Provision
93E	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93F	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93G	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
93H	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
93I	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
94	"PPAC"	<u>May 1, 2019</u>	Purchased Power Adjustment Clause
94A	"PPAC"	<u>May 1, 2019</u>	Purchased Power Adjustment Clause
94B	"PPAC"	<u>May 1, 2019</u>	Purchased Power Adjustment Clause

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HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

Deleted: February 22, 2019

Superseding SHEET NO. 50F
Effective January 1, 2019

REVISED SHEET NO. 50F
Effective June 1, 2019

RATE SCHEDULES (continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
95	EV-F	January 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
95A	EV-F	January 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
95B	EV-F	December 12, 2017	Commercial Public Electric Vehicle Charging Facility Service Pilot
96	EV-U	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
96A	EV-U	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
97	TOU-RI	October 18, 2018	Residential Interim Time-of-Use Service
97A	TOU-RI	January 1, 2019	Residential Interim Time-of-Use Service
97B	TOU-RI	October 18, 2018	Residential Interim Time-of-Use Service
97C	TOU-RI	January 1, 2019	Residential Interim Time-of-Use Service
98	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
98A	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
98B	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
98C	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
98D	"PIM"	<u>June 1, 2019</u>	Performance Incentive Mechanism Provision
98E	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
99	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99A	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99B	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99C	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

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Deleted: Docket No. 2016-0328; Order No. 35927,
Filed on December 7, 2018.

Superseding REVISED SHEET NO. 92
Effective January 1, 2018

REVISED SHEET NO. 92
Effective September 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION

Supplement To:

Schedule R	- Residential Service
Schedule G	- General Service - Non-Demand
Schedule J	- General Service - Demand
Schedule DS	- Large Power Directly Served Service
Schedule P	- Large Power Service
Schedule F	- Public Street Lighting, Highway Lighting and Park and Playground Floodlighting
Schedule U	- Time-of-Use Service
Schedule TOU-R	- Residential Time-of-Use Service
Schedule TOU-G	- Small Commercial Time-of-Use Service
Schedule TOU-J	- Commercial Time-of-Use Service
Schedule TOU-P	- Large Commercial Time-of-Use Service
Schedule SS	- Standby Service
Schedule TOU EV-	Residential Time-of-Use Service with Electric Vehicle Pilot
Schedule EV-F	- Commercial Public Electric Vehicle Charging Facility Service Pilot
Schedule TOU-RI-	Residential Interim Time-of-Use Service

All terms and provisions of the above listed rate schedules applicable except that the total base rate charges for each billing period shall be adjusted by the Revenue Balancing Account Rate Adjustments shown below:

A: PURPOSE:

The purpose of the Revenue Balancing Account ("RBA") is to record: 1) the difference between the Hawaiian Electric Company's target revenue and recorded adjusted revenue, and 2) monthly interest applied to the simple average of the beginning and ending month balances in the RBA. In addition, the recovery provision of this tariff provides for collection or return of the calendar year-end balance in the RBA and recovery or refund of the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits provided in the Rate Adjustment Mechanism ("RAM") Provision, and any revenue adjustment provided in accordance with the Performance Incentive Mechanism Provision, over the subsequent June 1st through May 31st period. Tracking of target revenue and recorded adjusted revenue commenced on the effective date of the tariff that implemented the Final Decision and Order in Hawaiian Electric's 2009 test year rate case, Docket No. 2008-0083, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

HAWAIIAN ELECTRIC COMPANY, INC.

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018.

Transmittal Letter Dated July 23, 2018

Superseding REVISED SHEET NO. 92A
Effective January 1, 2018

REVISED SHEET NO. 92A
Effective June 1, 2019

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

B: TARGET REVENUE:

For the purpose of the RBA, the target revenue is the annual electric revenue approved by the Public Utilities Commission in the last issued Decision & Order in the Company's most recent test year general rate case, excluding revenue for fuel and purchased power expenses that are recovered either in base rates or in a purchased power adjustment clause; excluding revenue being separately tracked or recovered through any other surcharge or rate tracking mechanism; and excluding amounts for applicable revenue taxes;

Plus: Any effective RAM Revenue Adjustment calculated under the RAM provision for years subsequent to the most recent rate case test year for which the Commission has issued a Decision & Order; and any Performance Incentive Adjustment provided for in accordance with the Performance Incentive Mechanism Provision; and

Less: Any applicable Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits calculated under the RAM provision.

Adjusted by: Other adjustments, as applicable, in accordance with Commission's Order authorizing such adjustment. Other adjustments, if any, are shown in the table Target Revenue Currently in Effect, provided in section H.

The target revenue shall be revised to correct for any errors in the calculation of the RAM Revenue Adjustment, Performance Incentive Adjustment, recorded adjusted revenues or other RBA accounting determinations (collectively "target revenue determinations") for any previous period and for revisions to RAM Revenue Adjustments or Performance Incentive Adjustments as a result of subsequent Commission orders that change the basis of previously calculated RAM Revenue Adjustments and/or Performance Incentive Adjustments. For any corrections of errors in previously calculated target revenue determinations, the target revenue shall be adjusted as of the date that the correct determinations would have been reflected in target revenue. For changes in the RAM Revenue Adjustment and/or Performance Incentive Adjustments as a result of subsequently issued Commission orders, the target revenue shall be adjusted as of the effective date of changes that are implemented pursuant to the subsequently issued Commission order.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

Deleted: Decision and Order No. 35165; Approving, With Modifications, Proposed Revisions To RBA Tariffs, Filed December 29, 2017.

Deleted: January 11, 2018

SHEET NO. 92A.1
Effective June 1, 2019

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

The Commission and the Consumer Advocate will be notified of the target revenue revisions or corrections prior to implementation by the Company. There is no presumption that the target revenue changes are ultimately warranted or correct. In the annual RBA review transmittal ("RBA Review Transmittal") filed on or before March 31 of each year, the utility will have the burden to demonstrate that the interim changes for the previous calendar year are warranted and correctly applied. The Consumer Advocate will provide comments regarding the changes with its Statement of Position. The RBA balance and RBA Rate Adjustment for the following year will reflect any appropriate modifications to the change made by the utility in the prior year if necessary.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

Superseding REVISED SHEET NO. 92B
Effective June 1, 2017

REVISED SHEET NO. 92B
Effective February 16, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.19%
February	7.59%
March	8.10%
April	7.98%
May	8.40%
June	8.07%
July	8.70%
August	8.94%
September	8.65%
October	8.84%
November	8.26%
December	8.28%
Total	100.00%

These factors are based on the mWh sales forecast that is approved by the Commission in Hawaiian Electric's 2017 test year rate case and shall be updated in any subsequent test year rate case.

C: BALANCING ACCOUNT ENTRIES:

Entries to the RBA will be recorded monthly. A debit entry to the RBA will be made equal to the target revenue as defined in Section B. above, times the appropriate monthly allocation factor in the table above. A credit entry to the RBA will be made equal to the recorded adjusted revenue. The recorded adjusted revenue is defined to include the electric sales revenue from authorized base rates, plus revenue from any authorized interim rate increase, plus revenue from any RBA rate adjustment, but excluding revenue for fuel and purchased power expenses, IRP/DSM, any Commission Ordered one-time rate refunds or credits or other surcharges, and adjusted to remove amounts for applicable revenue taxes.

Interest will be recorded monthly to the RBA by multiplying the simple average of the beginning and ending month balance in the RBA times the Interest Rate divided by 12. The Interest Rate shall be the short term debt rate as established in deriving the consolidated cost of capital in the Company's last full rate case. The Interest Rate prior to March 1, 2014 shall be 6 percent.

D: RECOVERY OF BALANCING ACCOUNT AMOUNTS:

In its annual RBA Review Transmittal, the Company will file with the Commission a statement of the previous calendar year-end balance in the RBA and the RAM Revenue Adjustment for the current calendar year, along with supporting calculations.

HAWAIIAN ELECTRIC COMPANY, INC.

Docket No. 2016-0328; Order No. 35280, issued February 9, 2018.
Transmittal Letter Dated February 12, 2018.

Superseding REVISED SHEET NO. 92C
Effective June 1, 2017

REVISED SHEET NO. 92C
Effective January 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Both an amortization of the previous calendar year-end balance in the RBA, adjusted for any Earnings Sharing Revenue Credits or Major Capital Projects Credits, Baseline Capital Projects Credits or corrections, any Performance Incentive Adjustment provided in accordance with the Performance Incentive Mechanism Provision and the RAM Revenue Adjustment will be recovered through a per-kWh RBA rate adjustment, over the 12 months from June 1 of the current calendar year to May 31 of the succeeding calendar year. The recovery through the RBA Rate Adjustment of a RAM Revenue Adjustment calculated for a calendar year that is also a rate case test year shall terminate on the effective date of tariff rates that implement a Commission approved base revenue level authorized in the Company's test year rate case.

Revisions to Target Revenue based on corrections for errors and subsequently issued Commission orders, described in Section B above, will not be reflected in the RBA Rate Adjustment until a succeeding June 1 to May 31 period, unless otherwise ordered or approved by the Commission.

On or before March 31 of each year, the Company shall file with the Commission, the Consumer Advocate, and each party to the Company's most recent rate case proceeding, an RBA Review Transmittal supporting the implementation of the RBA Provision, including RBA reconciliation, implementation of applicable components of the RAM Provision and Performance Incentive Mechanism Provision, determination and adjustments of target revenues, determination of the RBA Rate Adjustment; and documenting any errors, corrections and adjustments to Target Revenues in the preceding calendar year and prior to the transmittal date.

Complete, indexed workpapers and electronic files supporting the previous year-end balance in the RBA and target revenue determinations shall be provided to the Commission, the Consumer Advocate and all other parties to the Utility's most recent rate case proceeding ("Other Rate Case Parties"), if any, as part of the annual RBA Review Transmittal filing. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, Other Rate Case Parties, and other interested persons that may propose any adjustments necessary to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications, Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

Superseding REVISED SHEET NO. 92D
Effective June 1, 2018

REVISED SHEET NO. 92D
Effective June 1, 2019

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

As described in Sections 6-61-61 and 6-61-111 of the Hawaii Administrative Rules, Title 6, Chapter 61, based upon the Company's filed schedules and in the absence of any protests submitted by the Consumer Advocate, Other Rate Case Parties, or other interested persons, not later than 15 days before June 1st, the RBA Rate Adjustment shall go into effect on June 1st, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

The RBA Rate Adjustment is comprised of the calculated values from Section D above, adjusted to include amounts for applicable revenue taxes, and calculated based on the Company's forecast of mWh sales over the RBA Rate Adjustment recovery period.

The RBA Rate Adjustment shall remain unchanged during the recovery period unless further modification is required by order or approval of the Commission, except as specifically provided above.

RBA Rate Adjustment

All Rate Schedules 0.9980 ¢/kWh

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F. NOTICE

Notice of the annual Revenue Balancing Account Rate Adjustment filing shall be provided to all affected customers of the Utility in accordance with the provisions of this section by publication in newspapers of general circulation within 14 days and by including notification with its billing statements within 60 days after the Company makes its annual RBA Review Transmittal filing pursuant to this tariff. The notice to customers shall include the following information:

- a) A description of the proposed revision of revenues, Earnings Sharing Credits, and Major or Baseline Capital Projects Credits;
- b) The effect on the rates applicable to each customer class and on the typical bill for residential customers; and
- c) The Company's address, telephone number and website where information concerning the proposed Revenue Balancing Account Rate Adjustment may be obtained.

G: COMMISSION'S AUTHORITY

The Commission may modify or suspend any or all parts of this Revenue Balancing Account Provision. Such suspension shall remain in place until removed by Commission Order.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

Deleted: May 29, 2018

Superseding REVISED SHEET NO. 92E
Effective January 1, 2019

REVISED SHEET NO. 92E
Effective June 1, 2019

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

H: TARGET REVENUE CURRENTLY IN EFFECT

Hawaiian Electric Company, Inc.
Annual Target Revenue (\$000s)

	Description	Amount
1	Electric Sales Revenue (Unadjusted)	\$1,531,852
2	Tax Act Implementation Lag	(\$2,143)
3	Electric Sales Revenue (Adjusted)	\$1,529,709
	Less:	
4	Fuel Expense	(\$327,609)
5	Purchase Power Expense	(\$466,211)
6	Revenue Tax on Electric Sales Revenue	(\$135,915)
7	Last Rate Order Target Revenues	\$599,974
8	Authorized RAM Revenues	\$22,951
9	Revenue Tax	(\$2,039)
10	Net RAM Adjustment	\$20,912
11	Authorized MPIR Revenues	\$19,811
12	Revenue Tax	(\$1,760)
13	Net MPIR Adjustment	\$18,051
14	Earnings Sharing Revenue Credits	\$0
15	Revenue Tax	\$0
16	Net Earnings Sharing Revenue Credits	\$0
17	Performance Incentive Mechansim (PIM)	\$54
18	Revenue Tax	(\$5)
19	Net PIM Reward (Penalty)	\$49
20	2017 Test Year Final D&O Refund	(\$48)
21	Revenue Tax	\$4
22	Net 2017 Test Year Final D&O Refund	(\$44)
23	On-Bill Financing Pgm Implementation Costs	\$844
24	Revenue Tax	(\$75)
25	Net On-Bill Financing Adjustment	\$769
26	Effective Target Revenue	\$639,711

Notes:

Totals may not add, due to rounding.

Lines 1,4,5: Final Decision and Order No. 35545, issued June 22, 2018 in Docket No. 2016-0328. Exhibit A.

Line 2: Hawaiian Electric March 2018 Settlement Tariff Sheets, Attachment 1, Line 2. Filed March 16, 2018 in Docket No. 2016-0328.

Lines 6,9,12,15,18,21,24: Revenue Tax based on 8.885% statutory rates.

Lines 8,11,14,17,20,23,26: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling) Schedule B1 (Scenario 2), filed May 21, 2019.
Change in Effective Target Revenue for MPIR is effective January 1, 2019.
See Order 35556, filed June 27, 2018 in Docket No. 2017-0213.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

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issued December 14, 2018.

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

I: HISTORICAL REFERENCE

<u>Category</u>	<u>Effective Period</u>	<u>Effective Target Revenue (\$000)</u>	<u>Change in Target Revenue (\$000)</u>	<u>Source</u>
Annual Decoupling Filing	6/1/2017 thru 2/15/2018	\$604,302	N/A (1/1/2018 Baseline)	Schedule B1 filed in Transmittal No. 17-02 on 3/31/2017.
2017 Test Year Rate Case (Interim)	2/16/2018 thru 4/12/2018	\$637,077	\$32,775	Schedule B1 filed in Docket No. 2016-0328 on 1/19/2018.
2017 Test Year Rate Case (Interim)	4/13/2018 thru 5/31/2018	\$599,960	(37,117)	Schedule B1 filed in Docket No. 2016-0328 on 3/16/2018.
Annual Decoupling Filing	6/1/2018 thru 6/30/2018	\$612,574	\$12,614	Schedule B1 filed in Transmittal No. 18-01 on 3/29/2018.
MPiR (Schofield)	7/1/2018 thru 9/30/2018	\$618,587	\$6,013	Schedule B1 filed in Docket No. 2017-0213 on 7/18/2018.
MPiR (Schofield)	10/1/2018 thru 12/31/2018	\$620,374	\$1,787	Schedule B1 filed in Docket No. 2017-0213 on 12/21/2018.
MPiR (Schofield)	1/1/2019 thru 5/31/2019	\$630,624	\$10,250	Schedule B1 filed in Transmittal No. 19-01 on 2/7/2019.
Annual Decoupling Filing	6/1/2019 (current)	\$639,711	\$9,087	Schedule B1 (Scenario 2) filed in Transmittal No. 19-01 on 5/21/2019.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

PERFORMANCE INCENTIVE MECHANISM PROVISION

Introduction

This Performance Incentive Mechanism ("PIM") Provision provides for the determination of a PIM Financial Incentive for each approved PIM for each Evaluation Period, based on Measured Performance compared to an established Performance Target for each PIM, as specified below.

The sum of the PIM Financial Incentives determined for all PIMs for the Evaluation Period will be the Performance Incentive Adjustment, which will be applied as an adjustment to the effective Target Revenue and will be recovered from or credited to customers through the RBA Rate Adjustment, as defined by and in accordance with the terms of the Revenue Balancing Account ("RBA") Provision.

Annual PIM Provision Transmittal

On or before March 31 of the year following an Evaluation Period, the Company shall file with the Commission, the Consumer Advocate, and each party to the Company's most recent rate case proceeding, a transmittal documenting the Measured Performance and calculation of the PIM Financial Incentives and Performance Incentive Adjustment for the Evaluation Period. Complete, indexed schedules, workpapers and electronic files supporting the transmittal shall be provided with the transmittal. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, other rate case parties, and other interested persons that may propose any adjustments necessary to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

The review of the annual PIM Provision transmittal will be conducted concurrent with and in conjunction with the annual RBA Review Transmittal. The Performance Incentive Adjustment will be determined annually based on the PIM Provision transmittal and, after review and subject to explicit approval by the Commission, will become effective on June 1 of the year following the Evaluation Period, concurrent and in conjunction with determination of Target Revenues and the RBA Rate Adjustment in accordance with the RBA Provision. Any approved Performance Incentive Adjustment will be applied as monthly adjustments to Target Revenues for the twelve month period commencing June 1 of the year following the Evaluation Period in accordance with the Monthly Allocation Factors identified in the RBA Provision.

The Performance Targets, Deadbands and the amount of Maximum Financial Incentives used to determine the PIM Financial Incentive

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications,
Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

SHEET NO. 98A
Effective January 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

levels for each of the PIMs shall be re-determined upon issuance of an interim or final order in a general rate case for each Company and shall remain constant in interim periods, unless otherwise amended, as necessary, by order of the Commission.

In the event that Performance Targets, Deadbands or the amounts of Maximum Financial Incentives are updated or amended by order of the Commission during the Evaluation Period, the Performance Targets, Deadbands and the amounts of Maximum Financial Incentives used in determining the amount of PIM Financial Incentives shall be a pro-rated weighted average based on the number of days of the Evaluation Period each parameter was effective.

Any revenue adjustments approved in accordance with this PIM Provision shall be excluded from the determination of Earnings Sharing Credits provided for in the Rate Adjustment Mechanism Provision ("RAM Provision").

The Performance Incentive Adjustment, and any prior year Performance Incentive Adjustment, shall be recalculated for errors in prior calculations and for subsequent Commission orders that change the basis for prior calculations. The effect of such changes shall be implemented as described in the RBA Provision, except that, the Performance Target, Deadband and Maximum Financial Incentive amounts determined in this PIM Provision shall not be recalculated based on errors in the calculation of these parameters and shall remain as specified unless and until changed by order of the Commission.

Evaluation Period

The Evaluation Period is defined as the annual twelve month calendar year period ending December 31, over which Measured Performance is determined and compared to the established Performance Target for each PIM described below. The first Evaluation Period shall begin January 1, 2018.

PIM Financial Incentive Calculation

For each PIM below, a Performance Target is specified, developed based on historical performance data. A Deadband is specified for each Performance Target in order to provide a satisfactory range of performance within which no reward or penalty amount is assessed.

A Maximum Financial Incentive amount is specified for each PIM with separate identification of a Maximum Reward Amount and a Maximum Penalty Amount.

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications,
Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

Superseding Sheet no. 98B
Effective January 1, 2018

REVISED SHEET NO. 98B
Effective September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Measured Performance for the Evaluation Period is compared to the Performance Target for each PIM. If the difference between Measured Performance and the Performance Target is less than or equal to the Deadband amount, no reward or penalty is awarded and the amount of the PIM Financial Incentive is zero. If the difference between Measured Performance and the Performance Target exceeds the Deadband amount, a reward or penalty ratio is calculated where the difference between Measured Performance and the Performance Target, less the Deadband amount, is the numerator and the Deadband amount is the denominator. This ratio is multiplied by either the Maximum Reward Amount or Maximum Penalty Amount, as applicable, to determine the PIM Financial Incentive for each PIM. The magnitude of the PIM Financial Incentive for each PIM shall not exceed 100% of the magnitude of the applicable Maximum Reward Amount or Maximum Penalty Amount established for each PIM.

Reliability Performance Incentive Mechanisms

There are two reliability PIMs: 1) System Average Interruption Frequency Index ("SAIFI"); and 2) System Average Interruption Duration Index ("SAIDI"). SAIFI is a measure of the average frequency of outages, defined as the annual total number of customer interruptions divided by the total number of customers served. SAIDI is a measure of the average duration of outage, defined as the sum of all customer interruption durations (in minutes) divided by the total number of customers served. The SAIFI and SAIDI Measured Performance and Performance Targets are determined using the IEEE Standard 1366 methodology.

For the Reliability Performance Incentive Mechanisms, the 2008-2017 record of historical performance data was used to establish the Performance Target and the Deadband. The Deadband was calculated as ± 1 standard deviation of the historical performance data. Accordingly, 100% of the penalty is achieved when Measured Performance is equal to or greater than 2 standard deviations from the Performance Target.

SAIFI:

Performance Target: 1.103 interruptions per customer during the one-year Evaluation Period

Deadband: ± 0.088 interruptions (1 Standard Deviation)

HAWAIIAN ELECTRIC COMPANY, INC

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018. Transmittal Letter Dated July 23, 2018.

Superseding Sheet No. 98C
Effective January 1, 2018

REVISED SHEET NO. 98C
Effective September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Range for no penalty: 1.015 interruptions to 1.191
interruptions per customer (\pm 1 Standard Deviation from Target)

Rewards: Not Applicable
Penalties for greater than 1.191 interruptions per customer

Maximum Reward Amount: Not Applicable
Maximum Penalty Amount: \$2,276,417.

The Maximum Penalty Amount was determined to be equal to 0.20% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

SAIDI:

Target: 99.23 minutes per outage

Deadband: \pm 8.96 minutes (1 Standard Deviation)

Range for no penalty: 90.27 minutes to 108.19 minutes per outage (\pm 1 Standard Deviation from Target)

Rewards: Not Applicable
Penalties for greater than 108.19 minutes per outage

Maximum Reward Amount: Not Applicable
Maximum Penalty Amount: \$2,276,417.

The Maximum Penalty Amount was determined to be equal to 0.20% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

Call Center Performance Incentive Mechanism

The Call Center Performance PIM measures the performance of the utility call center in terms of the percentage of calls answered within thirty (30) seconds. The calculation of the call center performance shall exclude blocked calls from the denominator.

The Performance Target for the Call Center Performance Incentive Mechanism was calculated based on the average of quarterly data from Quarter 3 of 2016 to Quarter 2 of 2018.

HAWAIIAN ELECTRIC COMPANY, INC

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018. Transmittal Letter Dated July 23, 2018.

Superseding Sheet No. 98D
Effective September 1, 2018

REVISED SHEET NO. 98D
Effective June 1, 2019

Deleted: January

Deleted: September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Call Center Performance:

Performance Target: 80.10% of calls answered within 30 seconds

Deadband: +/- 3.00% of calls answered within 30 seconds

Range for no reward or penalty: 77.10 % of calls answered to 83.10% of calls answered.

Rewards apply for greater than 83.10 % of calls answered
Penalties apply for less than 77.10 % of calls answered

Maximum Reward Amount: \$910,567.

Maximum Penalty Amount: \$910,567.

The magnitude of the Maximum Reward Amount and Maximum Penalty Amount were determined to be equal to 0.08% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

Additional PIMs:

The Commission may order the establishment of one or more PIMs, and the targets, deadbands, rewards, penalties, and allocations for that PIM, as applicable, shall be implemented as specified in the Commission's order that approved the applicable PIM, and the applicable PIM Financial Incentive shall be included in the Performance Incentive Adjustment.

Commission's Authority

The Commission may suspend any or all parts of this PIM Provision. Such suspension shall remain in place until removed by Commission order.

Deleted: Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018. Transmittal Letter Dated July 23, 2018.¶

HAWAIIAN ELECTRIC COMPANY, INC

Transmittal Letter dated May 21, 2019.

SHEET NO. 98E
Effective September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Historical Reference

The following table summarizes the prior PIMs in effect, as these values may be applicable during certain portions of the Evaluation Period.

PIM:	Effective Period:	Performance Target:	Deadband:	Maximum Reward:	Maximum Penalty:
SAIFI	1/1/2018 thru 2/15/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,039,094
SAIFI	2/16/2018 thru 4/12/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,260,799
SAIFI	4/13/2018 thru 8/31/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,276,417
SAIDI	1/1/2018 thru 2/15/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,039,094
SAIDI	2/16/2018 thru 4/12/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,260,799
SAIDI	4/13/2018 thru 8/31/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,276,417
Call Center	1/1/2018 thru 2/15/2018	79.07% of calls answered within 30 sec.	+/- 3.00%	\$815,638	\$815,638
Call Center	2/16/2018 thru 4/12/2018	79.46% of calls answered within 30 sec.	+/- 3.00%	\$904,320	\$904,320
Call Center	4/13/2018 thru 8/31/2018	79.56% of calls answered within 30 sec.	+/- 3.00%	\$910,567	\$910,567

HAWAIIAN ELECTRIC COMPANY, INC

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018. Transmittal Letter Dated July 23, 2018.

Attachment 2 – List of Schedules and Workpapers

Schedule A (REVISED)	HECO-WP-A-001
Schedule A1 (REVISED)	HECO-WP-B-001
Schedule B (REVISED)	HECO-WP-C-001
Schedule B1 (REVISED)	HECO-WP-C-002
Schedule B2	HECO-WP-C-003
Schedule C	HECO-WP-D1-001
Schedule C1	HECO-WP-D2-001
Schedule C2	HECO-WP-D2-002
Schedule D (REVISED)	HECO-WP-D2-003
Schedule D1 (REVISED)	HECO-WP-D2-004
Schedule D2	HECO-WP-D3-001
Schedule D3	HECO-WP-D4-001
Schedule D4	HECO-WP-D4-002
Schedule D5 (REVISED)	HECO-WP-D4-003
Schedule E (REVISED)	HECO-WP-E-001
Schedule F (REVISED)	HECO-WP-F-001
Schedule F1	HECO-WP-F1-001
Schedule F2	HECO-WP-F1-002
Schedule G	HECO-WP-F1-003
Schedule H (REVISED)	HECO-WP-H-001
Schedule I	HECO-WP-H-002
Schedule J	HECO-WP-H-003
Schedule K	HECO-WP-H-004
Schedule L	HECO-WP-H-005
Schedule L1	HECO-WP-H-006
Schedule M	HECO-WP-H-007
Schedule N	HECO-WP-H-008
	HECO-WP-H-009
	HECO-WP-L1-001
	HECO-WP-L1-002
	HECO-WP-L1-003
	HECO-WP-M-001
	HECO-WP-M-002
	HECO-WP-M-003
	HECO-WP-M-004
	HECO-WP-M-005

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF 2019 REVENUE BALANCING ACCOUNT RATE ADJUSTMENT
SCENARIO 1 - WEST LOCH PV PROJECT IN RAM REVENUE ADJUSTMENT /
25 KV EXCLUDED FROM 2018 SAIDI AND SAIFI PIM CALCULATIONS

Line No.	Description (a)	Reference (b)	Amount (c)	6/1/2019 Rate Amount (d)		
RECONCILIATION OF RBA BALANCE:						
1	RBA Prior calendar year-end balance	Schedule B	\$ 37,331,443			
1a	OBF Program Implementation Cost Recovery - Year 1 of 2	Schedule N	\$ 768,575			
			\$ 38,100,018			
2	Revenue Tax Factor	Schedule C	1.0975			
3	Revenue for RBA Balance			\$ 41,814,770		
RATE ADJUSTMENT MECHANISM "RAM" AMOUNT:						
4	Total RAM Revenue Adjustment Allowed (Note 2)	Schedule A1		\$ 22,950,740		
5	<u>EARNINGS SHARING REVENUE CREDITS - 2019 ROE:</u>	Schedule H		\$ -		
6	<u>PERFORMANCE INCENTIVE MECHANISM REWARD (PENALTY)</u>	Schedule M		\$ 53,998		
7	<u>2017 TEST YEAR RATE CASE FINAL D&O REFUND</u>	Note (3)		\$ (48,000)		
8	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS</u>	Schedule I		\$ -		
9	TOTAL RBA REVENUE ADJUSTMENT	Sum Col. (d)		\$ 64,771,508		
10	GWH SALES VOLUME ESTIMATE JUNE 2019 - MAY 2020	HECO-WP-A-001		6,489,900		
11	RBA RATE ADJUSTMENT - cents per kWh	Note (1)		0.9980	6/1/2018 1.0350	Incremental (0.0370)
12	MONTHLY BILL IMPACT @ 600 KWH			\$ 5.99	\$ 6.21	\$ (0.22)
	MONTHLY BILL IMPACT @ 500 KWH			\$ 4.99	\$ 5.18	\$ (0.18)

Note (1): 2019 RBA Rate Adjustment Breakdown

	Col. (d)	Rate Adjustment cents per kWh	Percentage Share
RBA Balance	\$ 41,814,770	0.64430530	64.5574%
RAM Amount	\$ 22,950,740	0.35363781	35.4334%
Earnings Sharing Revenue Credits	\$ -	0.00000000	0.0000%
Performance Incentive Mechanism Reward (Penalty)	\$ 53,998	0.00083204	0.0834%
2017 Test Year Rate Case Final D&O Refund	\$ (48,000)	-0.00073961	-0.0741%
Major or Baseline Capital Projects Credits	\$ -	0.00000000	0.0000%
	\$ 64,771,508	0.99803553	100.0000%

Note (2): Total RAM Revenue Adjustment Allowed is the sum of the RAM Cap + Exceptional and Other Projects. See Order No. 32735, filed March 31, 2015, paragraph 107, page 94, which states that the Total RAM Revenue Adjustment is to be comprised of the RAM Cap plus recovery of Exceptional And Other Matters.

Note (3): Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case Hawaiian Electric Proposed PIM Tariff Revisions and Refund Calculation, Exhibit 4, filed July 23, 2018, and approved by the Commission in Order No. 35661, filed August 30, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TOTAL RAM REVENUE ADJUSTMENT ALLOWED

Line No.	Description	Reference	Amount
	(a)	(b)	(c)
RAM REVENUE ADJUSTMENT DETERMINED ACCORDING TO EXISTING TARIFFS AND PROCEDURES			
1	O&M RAM	Schedule C	\$ 8,622,195
2	Rate Base RAM - Return on Investment	Schedule D	\$ 11,388,829
3	Depreciation & Amortization RAM Expense	Schedule E	\$ 2,939,716
4	Total RAM Revenue Adjustment		\$ 22,950,740
RAM REVENUE ADJUSTMENT CAP			
5	RAM Cap for 2019 RAM Revenue Adjustment	Schedule J	\$ 27,945,687
6	Plus: Exceptional and Other Matters	Schedule K	\$ -
7	2019 Cap - Total RAM Revenue Adjustment (Note 2)		\$ 27,945,687
8	Total RAM Revenue Adjustment Allowed (Note 1)	Lesser of Line 4 or Line 7	\$ 22,950,740
			To Sch A

Note 1 **RAM Revenue Adjustment Allowed:**

See Order No. 32735, filed March 31, 2015, paragraph 106, page 94:

"The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the **lesser of** (a) the RAM Revenue Adjustment determined according to existing tariffs and procedures or (b) a RAM Revenue Adjustment Cap ("RAM Cap) to be calculated as specified."

Note 2 **Total RAM Cap:**

See Order No. 32735, filed March 31, 2015, paragraph 110, page 96:

"The RAM Cap will apply to the entire RAM Revenue Adjustment including the O&M RAM, Rate Base RAM (including Major Capital Projects and Baseline Projects), and the Depreciation and Amortization RAM."

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
SUMMARY OF ACCUMULATED REVENUE BALANCING ACCOUNT

Line No.	Month	Beginning Balance	Target Revenues	Recorded Adjusted Revenue	Variance to RBA	Adjustment for prior year RBA accrual	Tax-effected Balance Subject to Interest	Interest at 1.75%/year	Ending Balance
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Monthly RBA Balance and Activity (Monthly PUC Rpt)									
		\$ 18,013,624							
1	2017 December	\$ 46,306,327	\$ 49,915,326	\$ 43,730,598	\$ 6,184,728	\$ (3,302,057)	29,169,047	\$ 42,538	\$ 49,231,536
2									
3	2018 January	\$ 49,231,536	\$ 48,948,443	\$ 43,871,232	\$ 5,077,211	\$ (3,369,650)	\$ 37,188,347	\$ 54,233	\$ 50,993,330
4	February	\$ 50,993,330	\$ 45,953,154	\$ 40,430,219	\$ 5,522,935	\$ (4,185,853)	\$ 38,358,939	\$ 55,940	\$ 52,386,352
5	March	\$ 52,386,352	\$ 51,603,222	\$ 46,365,780	\$ 5,237,442	\$ (3,345,112)	\$ 39,599,394	\$ 57,749	\$ 54,336,431
6	April	\$ 54,336,431	\$ 49,061,587	\$ 45,638,864	\$ 3,422,723	\$ (3,430,466)	\$ 40,341,925	\$ 58,832	\$ 54,387,520
7	May	\$ 54,387,520	\$ 50,396,658	\$ 43,802,261	\$ 6,594,397	\$ (3,440,553)	\$ 41,553,464	\$ 60,599	\$ 57,601,782
8	June	\$ 57,601,782	\$ 49,434,694	\$ 46,747,403	\$ 2,687,291	\$ (4,129,862)	\$ 42,233,769	\$ 61,591	\$ 56,220,802
9	July	\$ 56,220,802	\$ 53,817,091	\$ 50,144,604	\$ 3,672,487	\$ (4,451,628)	\$ 41,454,689	\$ 60,455	\$ 55,502,116
10	August	\$ 55,502,116	\$ 55,301,701	\$ 50,148,289	\$ 5,153,412	\$ (4,546,694)	\$ 41,435,565	\$ 60,427	\$ 56,169,261
11	September	\$ 56,169,261	\$ 53,507,798	\$ 54,077,963	\$ (570,165)	\$ (4,315,858)	\$ 39,891,740	\$ 58,175	\$ 51,341,413
12	October	\$ 51,341,413	\$ 54,683,113	\$ 56,214,832	\$ (1,531,719)	\$ (4,543,142)	\$ 35,865,707	\$ 52,304	\$ 45,318,856
13	November	\$ 45,318,856	\$ 51,095,307	\$ 51,711,892	\$ (616,585)	\$ (4,111,538)	\$ 31,893,935	\$ 46,512	\$ 40,637,245
14	Oct/Nov True-Up		\$ 305,574		\$ 305,574			\$ 453	\$ 40,943,272
15	December	\$ 40,943,272	\$ 51,366,986	\$ 51,070,061	\$ 296,925	\$ (3,951,109)	\$ 29,043,764	\$ 42,355	\$ 37,331,443
16			\$ 615,475,328	\$ 580,223,400	\$ 35,251,928	\$ (47,821,465)		\$ 669,625	
17									
18									
19	2019 January	\$ -	\$ 51,648,125	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	February	\$ -	\$ 47,864,379	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	March	\$ -	\$ 51,080,563	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April	\$ -	\$ 50,323,814	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	May	\$ -	\$ 52,972,435	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	OBF Recovery	\$ 1,537,150							\$ -
24a	June	\$ -	\$ 51,624,640	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	July	\$ -	\$ 55,654,816	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	August	\$ -	\$ 57,190,121	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	September	\$ -	\$ 55,334,961	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	October	\$ -	\$ 56,550,411	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	November	\$ -	\$ 52,840,090	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	December	\$ -	\$ 52,968,032	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31									

Sources of Data: Sch. B1 Sch B2 Cols (c)-(d) Note (1) Col ((b)+(e)+(f))/2/(k) Cols (b)+(e)+(f)+(h)
Note (3)

Composite Federal & State Income Tax Rate 25.75% (j)
Income Tax Factor (1 / 1-tax rate) 1.346801347 (k)

Note (1):

Amounts represent recovery of prior years' RBA balance through the RBA rate adjustment effective June 1, 2017 for the period June 2017 through May 2018 and June 1, 2018 for the period June 2018 through May 2019.

Note (2):

In May 2018, the Company identified an inadvertent transposition error in the DSM adjustment (\$67,965) used to derive Recorded Adjusted Revenues. May 2018 Recorded Adjusted Revenues includes a true-up of -\$135,930 (-\$123,853 net of revenue taxes) to properly state the RBA Balance as of May 2018. The May 2018 balance includes an adjustment of -\$181 related to interest resulting from this correction

Note (3):

In December 2018, the Company recorded a RBA Target true-up adjustment resulting from the Schofield Generating Station MPIR Order No. 35953, issued 12/14/18 in Docket No. 2017-0213, effective October 1, 2018. The RBA balance includes an adjustment of \$306,027 related to the incremental Target Revenues (\$305,574) and related interest (\$453) to properly state the RBA balance as of December 2018

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description	Reference	Docket No. 2010-0080 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	<u>Last Rate Case Annual Electric Revenue at Approved Rate</u>	Note (3), (5), (5a)	\$000s \$ 1,765,954	\$ 1,581,445	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (3)	\$000s \$ (5,000)	\$ -	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (3)	\$000s \$ (6,000)	\$ -	\$ -	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (3), (5), (5a)	\$000s \$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (3), (5), (5a)	\$000s \$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rate)		\$000s \$ (156,905)	\$ (139,534)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1..4	\$000s \$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (1a)	\$000s \$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%		\$000s \$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$000s \$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (7)	\$000s \$ -	\$ -	\$ -	\$ 13,828	\$ 13,828	\$ 13,828
10	Less: Revenue Taxes on Line 9 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ (1,229)	\$ (1,229)	\$ (1,229)
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$000s \$ -	\$ -	\$ -	\$ 12,599	\$ 12,599	\$ 12,599
12	Authorized RAM Revenues	Sch A, Line 4	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net RAM Adjustment - Test Year +2	Lines 12 + 13	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Authorized MPIR Revenues	Schedule L	\$000s \$ -	\$ -	\$ -	\$ -	\$ 6,600	\$ 8,561
16	Less: Revenue Taxes on Line 15 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ (586)	\$ (761)
17	Net MPIR Adjustment	Lines 15 + 16	\$000s \$ -	\$ -	\$ -	\$ -	\$ 6,014	\$ 7,800
18	Less: <u>EARNINGS SHARING REVENUE CREDITS</u>	Note (1a)	\$000s \$ (16)	\$ (16)	\$ (16)	\$ -	\$ -	\$ -
19	Less: Revenue Taxes on Line 18 at 8.885%		\$000s \$ 1	\$ 1	\$ 1	\$ -	\$ -	\$ -
20	Net Earnings Sharing Revenue Credits	Lines 18 + 19	\$000s \$ (14)	\$ (14)	\$ (14)	\$ -	\$ -	\$ -
21	Less: <u>PERFORMANCE INCENTIVE MECHANISM</u>	Sch A, Line 6	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	Less: Revenue Taxes on Line 24 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	Net Performance Incentive Mechanism	Lines 21 + 2	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	Less: <u>2017 TEST YEAR FINAL D&O REFUND</u>	Sch A, Line 8	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Less: Revenue Taxes on Line 27 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	Net 2017 Test Year Final D&O Refund	Lines 24 + 25	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	Add: <u>OBF PROGRAM IMPLEMENTATION COSTS</u>	Sch A, Line 1a * 1.0975	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	Less: Revenue Taxes on Line 21 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	Net OBF Program Implementation Costs	Lines 27 + 28	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS</u>	Note (1a)	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31	Total Annual Target Revenues							
32	June 1, 2017 Annualized Revenues w/RAM Increase	Col (c), lines (5+8+20+30)	\$000s \$ 604,302					
33	February 16, 2018 Annualized Revenues w/Interim Increase	Col (d), lines (5+8+20+30)	\$000s	\$ 637,077				
34	April 13, 2018 Annualized Revenues w/2nd Interim Increase	Col (e), lines (5+11+20+30)	\$000s		\$ 599,960			
35	June 1, 2018 Annualized Revenues w/RAM Increase	Col (f), lines (5+11+20+30)	\$000s			\$ 612,574		
36	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 7/1/18	Col (g), lines (5+11+17+20+30)	\$000s				\$ 618,587	
37	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 10/1/18	Col (h), lines (5+11+17+20+30)	\$000s					\$ 620,374
38	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (i), lines (5+11+17+20+30)	\$000s					
39	June 1, 2019 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (j), lines (5+14+17 +20+23+26+29+30)	\$000s					
40	<u>Distribution of Target Revenues by Month:</u>	Note (1)	Note (2)	Note (4)	Note (4), (6)	Note (6)	Note (8)	Note (8a)
41	January	8.10%	8.19%	\$48,948,443	\$48,948,443			
42	February	7.26%	7.59%	\$23,503,022	\$22,450,132			
43	March	8.10%	8.10%		\$51,603,222			
44	April	7.84%	7.98%		\$20,335,492	\$28,726,095		
45	May	8.44%	8.40%			\$50,396,658		
46	June	8.47%	8.07%				\$49,434,694	
47	July	8.77%	8.70%					
48	August	9.04%	8.94%				\$53,817,090	
49	September	8.68%	8.65%				\$55,301,700	
50	October	8.78%	8.84%				\$53,507,797	
51	November	8.26%	8.26%					\$54,841,062
52	December	8.26%	8.28%					\$51,242,893
53	Total Distributed Target Revenues	100.00%	100.00%	\$72,451,465	\$94,388,846	\$79,122,753	\$49,434,694	\$162,626,587
								\$157,450,923

Footnotes:

- 1 RBA Tariff Revised July 26, 2011 to reflect 2011 test year.
- 1a Transmittal 17-02 filed March 31, 2017, establishing 2017 target revenue effective June 1, 2017.
- 2 RBA Tariff Effective February 16, 2018 to reflect 2017 test year.
- 3 Test Year 2017 Interim Increase provided for in Interim Decision and Order 35100, issued December 15, 2017 in Docket No. 2016-0328:
- 4 For the month of the initial implementation (Feb 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days:
- 5 Test Year 2017 2nd Interim Increase provided for in Order No. 35335, issued March 9, 2018 in Docket No. 2016-0328:
- 5a Reduction for Tax Act Implementation Lag (March 2018 Settlement Tariff Sheets, Attachment 3, filed March 16, 2018, in accordance with Order No. 35335):
- 6 For the month of the initial implementation (April 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days:
- 7 Transmittal 18-01 filed May 29, 2018, establishing 2018 target revenue effective June 1, 2018.
- 8 MPIR Revenue accrual starting effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018 in Docket No. 2017-0213. Excerpt filed at HECO-WP-L1-003.
- 8a MPIR Revenue accrual starting October 1, 2018 approved in Order No. 35953, issued December 14, 2018 in Docket No. 2017-0213. Excerpt filed at HECO-WP-L1-003.
- 8b MPIR Revenue accrual starting January 1, 2019 filed in Transmittal 19-01, filed February 7, 2019. Excerpt filed at HECO-WP-L1-003.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description	Reference		Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts
	(a)	(b)		(i)	(j)	(k)
1	<u>Last Rate Case Annual Electric Revenue at Approved Rate</u>	Note (3), (5), (5a)	\$000s	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (3)	\$000s	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (3)	\$000s	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (3), (5), (5a)	\$000s	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (3), (5), (5a)	\$000s	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rate)		\$000s	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1...4	\$000s	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (1a)	\$000s	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%		\$000s	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$000s	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (7)	\$000s	\$ 13,828	\$ -	\$ -
10	Less: Revenue Taxes on Line 9 at 8.885%		\$000s	\$ (1,229)	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$000s	\$ 12,599	\$ -	\$ -
12	Authorized RAM Revenues	Sch A, Line 4	\$000s	\$ -	\$ 22,951	\$ 22,951
13	Less: Revenue Taxes on Line 12 at 8.885%		\$000s	\$ -	\$ (2,039)	\$ (2,039)
14	Net RAM Adjustment - Test Year +2	Lines 12 + 13	\$000s	\$ -	\$ 20,912	\$ 20,912
15	Authorized MPIR Revenues	Schedule L	\$000s	\$ 19,811	\$ 19,811	\$ 19,811
16	Less: Revenue Taxes on Line 15 at 8.885%		\$000s	\$ (1,760)	\$ (1,760)	\$ (1,760)
17	Net MPIR Adjustment	Lines 15 + 16	\$000s	\$ 18,051	\$ 18,051	\$ 18,051
18	Less: <u>EARNINGS SHARING REVENUE CREDITS</u>	Note (1a)	\$000s	\$ -	\$ -	\$ -
19	Less: Revenue Taxes on Line 18 at 8.885%		\$000s	\$ -	\$ -	\$ -
20	Net Earnings Sharing Revenue Credits	Lines 18 + 19	\$000s	\$ -	\$ -	\$ -
21	Less: <u>PERFORMANCE INCENTIVE MECHANISM</u>	Sch A, Line 6	\$000s	\$ -	\$ 54	\$ 54
22	Less: Revenue Taxes on Line 24 at 8.885%		\$000s	\$ -	\$ (5)	\$ (5)
23	Net Performance Incentive Mechanism	Lines 21 + 2	\$000s	\$ -	\$ 49	\$ 49
24	Less: <u>2017 TEST YEAR FINAL D&O REFUND</u>	Sch A, Line 8	\$000s	\$ -	\$ (48)	\$ (48)
25	Less: Revenue Taxes on Line 27 at 8.885%		\$000s	\$ -	\$ 4	\$ 4
26	Net 2017 Test Year Final D&O Refund	Lines 24 + 25	\$000s	\$ -	\$ (44)	\$ (44)
27	Add: <u>OBF PROGRAM IMPLEMENTATION COSTS</u>	Sch A, Line 1a * 1.0975	\$000s	\$ -	\$ 844	\$ 844
28	Less: Revenue Taxes on Line 21 at 8.885%		\$000s	\$ -	\$ (75)	\$ (75)
29	Net OBF Program Implementation Costs	Lines 27 + 28	\$000s	\$ -	\$ 769	\$ 769
30	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:</u>	Note (1a)	\$000s	\$ -	\$ -	\$ -
31	Total Annual Target Revenues					
32	June 1, 2017 Annualized Revenues w/RAM Increase	Col (c), lines (5+8+20+30)	\$000s			
33	February 16, 2018 Annualized Revenues w/Interim Increase	Col (d), lines (5+8+20+30)	\$000s			
34	April 13, 2018 Annualized Revenues w/2nd Interim Increase	Col (e), lines (5+11+20+30)	\$000s			
35	June 1, 2018 Annualized Revenues w/RAM Increase	Col (f), lines (5+11+20+30)	\$000s			
36	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 7/1/18	Col (g), lines (5+11+17+20+30)	\$000s			
37	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 10/1/18	Col (h), lines (5+11+17+20+30)	\$000s			
38	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (i), lines (5+11+17+20+30)	\$000s	\$ 630,624		
39	June 1, 2019 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (j), lines (5+14+17+20+23+26+29+30)	\$000s		\$ 639,711	\$ 639,711
40	<u>Distribution of Target Revenues by Month:</u>	Note (1)	Note (2)	Note (8b) 2019	Note (8b) 2019	Note (8b) 2020
41	January	8.10%	8.19%	\$51,648,125		\$52,392,292
42	February	7.26%	7.59%	\$47,864,379		\$48,554,029
43	March	8.10%	8.10%	\$51,080,563		\$51,816,553
44	April	7.84%	7.98%	\$50,323,814		\$51,048,900
45	May	8.44%	8.40%	\$52,972,435		\$53,735,685
46	June	8.47%	8.07%		\$51,624,640	
47	July	8.77%	8.70%		\$55,654,816	
48	August	9.04%	8.94%		\$57,190,121	
49	September	8.68%	8.65%		\$55,334,961	
50	October	8.78%	8.84%		\$56,550,411	
51	November	8.26%	8.26%		\$52,840,090	
52	December	8.26%	8.28%		\$52,968,032	
53	Total Distributed Target Revenues	100.00%	100.00%	\$253,889,316	\$382,163,071	\$257,547,459

HAWAIIAN ELECTRIC COMPANY
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RECORDED ADJUSTED REVENUES

Line No.	Description	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018	November 2018	December 2018	Total
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	
BILLED REVENUES:														
1	Current month's billed revenues (SAP014w)	131,367,405	134,781,670	138,532,375	139,891,016	136,565,143	148,254,104	155,912,953	166,208,215	166,774,673	179,719,396	165,592,723	159,911,354	1,823,511,027
2	Remove PBF revenues	(1,218,709)	(1,201,960)	(1,194,318)	(1,211,024)	(1,182,968)	(1,265,642)	(1,382,251)	(1,590,817)	(1,573,352)	(1,655,808)	(1,506,750)	(1,423,869)	(16,407,468)
3	Remove Solar Saver non-revenues	-	-	-	58,286	67,403	-	-	-	-	-	-	-	125,689
4	City & County traffic signal revenue adjustments	-	-	(10,230)	-	-	(10,310)	-	-	(10,911)	-	-	(11,330)	(42,781)
5 =														
sum 1-4	BILLED REVENUES	130,148,696	133,579,710	137,327,827	138,738,278	135,449,578	146,978,152	154,530,702	164,617,398	165,190,410	178,063,588	164,085,973	158,476,155	1,807,186,467
UNBILLED REVENUES														
6	Current month's unbilled revenues (Unbilled Sales and Revenue Est)	78,387,084	70,879,493	70,665,761	70,377,168	76,196,920	80,293,995	90,404,928	92,787,255	95,015,547	90,754,173	87,978,477	88,120,287	991,861,088
7	Reverse prior month's unbilled revenues (Unbilled Sales and Revenue Est)	(77,212,019)	(78,387,084)	(70,879,493)	(70,665,761)	(70,377,168)	(76,196,920)	(80,293,995)	(90,404,928)	(92,787,255)	(95,015,547)	(90,754,173)	(87,978,477)	(980,952,820)
8 = 6+7	Unbilled revenues per Unbilled Sales and Revenue Estimate	1,175,065	(7,507,591)	(213,732)	(288,593)	5,819,752	4,097,075	10,110,933	2,382,327	2,228,292	(4,261,374)	(2,775,696)	141,810	10,908,268
9	Recovery of 12-31-16 RBA balance through RBA Rate Adjustment beginning 6-1-17	(3,698,239)	(4,594,033)	(3,671,308)	(3,764,985)	(3,776,056)	-	-	-	-	-	-	-	(19,504,621)
10	Recovery of 12-31-17 RBA balance through RBA Rate Adjustment beginning 6-1-18	-	-	-	-	-	(4,532,582)	(4,885,725)	(4,990,061)	(4,736,715)	(4,986,163)	(4,512,471)	(4,336,398)	(32,980,115)
11	Accrual and reversal of ESM refund	1,258	1,127	1,258	1,217	1,310	-	-	-	-	-	-	-	6,170
12	Accrual of Performance Incentive Mechanism	-	-	-	-	-	-	-	-	-	-	-	(531,871)	(531,871)
13	Accrual of Test Year Rate Case Refund	-	-	-	-	-	(48,000)	-	-	-	-	-	-	(48,000)
14	Accrual of ECAC adjustment	3,370,200	1,909,100	2,951,000	5,038,900	(1,598,200)	(2,982,800)	3,568,600	2,029,500	(1,810,600)	1,430,100	3,000,000	4,585,500	21,491,300
15	Reversal of ECAC accrual	(361,600)	(2,429,267)	(2,429,267)	(2,429,266)	(2,743,434)	(2,743,434)	(2,743,432)	(152,634)	(152,634)	(152,632)	(1,262,501)	(1,262,501)	(18,862,602)
16	Accrual of PPAC adjustment	2,191,500	757,800	3,515,100	2,401,700	4,654,200	4,647,800	1,320,900	1,157,600	(1,315,800)	(3,152,800)	(1,325,100)	123,800	14,976,700
17	Reversal of PPAC accrual	(822,234)	(1,534,900)	(1,534,900)	(1,534,900)	(2,154,801)	(2,154,801)	(2,154,798)	(3,901,233)	(3,901,233)	(3,901,234)	(387,568)	(387,568)	(24,370,170)
18	Reclass excess DSM revenues	(33,172)	(49,801)	11,448	163,556	164,655	172,002	184,046	80,370	75,572	79,569	(17,328)	(15,121)	815,796
19	Reclass excess DRAC revenues	-	(12,490)	(96,264)	(79,581)	(115,027)	(131,987)	(173,171)	(162,078)	(210,176)	(88,349)	(106,014)	(75,362)	(1,250,499)
20	Tax Reform Act adjustment	(2,265,026)	(2,099,090)	(1,309,124)	(649,271)	178,602	178,602	178,602	178,602	178,602	178,602	178,602	178,602	(4,893,695)
21	Other unbilled adjustments	-	-	(239,405)	(457,680)	(1,408,951)	-	-	-	-	-	-	-	(2,106,036)
22	Accrual of current month's RBA (PUC Monthly Financial Report pg. 9A)	5,077,211	5,522,935	5,237,442	3,422,723	6,594,397	2,687,291	3,672,487	5,153,412	(570,165)	(1,531,719)	(616,585)	602,499	35,251,928
23	RBA gross up for revenue taxes	495,099	538,563	510,724	333,763	643,046	262,048	358,119	502,530	(55,599)	(149,364)	(60,126)	58,752	3,437,555
24 =														
sum 9-23	Miscellaneous unbilled accruals	3,954,997	(1,990,056)	2,946,704	2,446,176	439,741	(4,597,861)	(722,372)	(103,992)	(12,498,748)	(12,273,990)	(5,109,091)	(1,059,668)	(28,568,160)
25 = 8+24	UNBILLED REVENUES	5,130,062	(9,497,647)	2,732,972	2,157,583	6,259,493	(500,786)	9,388,561	2,278,335	(10,270,456)	(16,535,364)	(7,884,787)	(917,858)	(17,659,892)
26 = 5+25	TOTAL REVENUES PER G/L (PUC Monthly Financial Report)	135,278,758	124,082,063	140,060,798	140,895,862	141,709,071	146,477,366	163,919,264	166,895,733	154,919,954	161,528,223	156,201,186	157,558,297	1,789,526,575
Billed Adjustments to Determine Adjusted Revenues for RBA:														
27	Add back C&C unmetered revenue	-	-	10,230	-	-	10,310	-	-	10,911	-	-	11,330	42,781
28	Add back diplomatic tax exemption (excl. exempted rev taxes on PBF surcharge)	323	312	337	297	307	17	742	351	334	332	-	581	3,933
29	Remove ECAC revenues	7,436,356	4,121,689	1,715,503	2,282,011	(962,632)	(6,550,979)	(7,637,339)	(6,113,486)	(13,243,977)	(25,122,448)	(25,453,166)	(28,257,616)	(97,786,084)
30	Remove PPAC revenues	(13,915,656)	(14,192,358)	(14,513,240)	(14,719,197)	(12,339,728)	(11,177,856)	(13,913,483)	(18,062,250)	(19,621,783)	(21,968,249)	(18,435,053)	(15,583,999)	(188,442,852)
31	Remove REIP revenues	-	-	-	-	-	9	(9)	-	-	-	-	-	-
32	Remove DSM revenues	(357,105)	(321,161)	(68,674)	(67,965)	275,965	150,334	153,540	124,173	66,280	70,534	24,118	(25,119)	24,920
33	Remove revenue taxes of PBF revenues	(83,120)	(81,978)	(81,456)	(82,596)	(80,682)	(86,323)	(94,272)	(108,499)	(107,308)	(112,932)	(102,768)	(97,111)	(1,119,045)
34	Remove Solar Saver revenues	-	2	-	3,675	4,250	(4)	5	-	-	-	-	-	7,928
35	Remove revenue taxes on billed revenues	(10,948,941)	(10,937,987)	(11,052,098)	(11,208,828)	(10,870,536)	(11,490,407)	(11,820,594)	(12,479,665)	(11,754,399)	(11,633,204)	(10,672,582)	(10,175,477)	(135,044,718)
36	Remove base fuel (adjusted for revenue taxes)	(45,592,364)	(45,532,869)	(44,984,425)	(45,711,413)	(44,832,955)	(47,622,032)	(48,663,614)	(52,260,945)	(41,614,714)	(30,245,267)	(27,651,766)	(26,028,373)	(500,740,737)
37	Remove power purchase energy (adjusted for revenue taxes)	(19,235,019)	(19,209,918)	(18,978,535)	(19,285,245)	(18,914,631)	(20,091,318)	(20,530,752)	(22,048,435)	(23,218,962)	(27,055,291)	(24,735,328)	(23,283,155)	(256,586,589)
38	Other operating revenue - EV-U revenue net of revenue taxes	8,735	7,570	8,289	7,811	9,331	8,857	9,382	10,487	9,761	9,376	8,408	8,222	106,229
39	Other operating revenue - SMNP revenue net of revenue taxes	10,372	10,091	10,724	10,775	10,473	10,868	11,357	11,803	12,350	12,566	12,930	13,235	137,544
Unbilled Adjustments to Determine Adjusted Revenues for RBA:														
40	Remove ESM refund accrual & reversal	(1,258)	(1,127)	(1,258)	(1,217)	(1,310)	-	-	-	-	-	-	-	(6,170)
41	Remove accrual of Performance Incentive Mechanism	-	-	-	-	-	-	-	-	-	-	-	531,871	531,871
42	Remove accrual of Test Year rate case refund	-	-	-	-	-	-	48,000	-	-	-	-	-	48,000
43	Remove ECAC revenues	(1,486,257)	(2,862,578)	303,420	280,965	(3,957,819)	(1,816,018)	500,913	1,265,450	(10,925,845)	1,035,980	(2,713,315)	(892,545)	(21,267,649)
44	Remove ECAC accrual	(3,008,600)	520,167	(521,733)	(2,609,634)	4,341,634	5,726,234	(825,168)	(1,876,866)	1,963,234	(1,277,468)	(1,737,499)	(3,322,999)	(2,628,698)
45	Remove PPAC revenues	(362)	790,980	83,923	(190,441)	1,925,917	(585,389)	(3,208,412)	(1,255,573)	(926,779)	502,842	2,437,748	175,715	(243,758)
46	Remove PPAC accrual	(1,369,266)	777,100	(1,980,200)	(866,800)	(2,499,399)	(2,492,999)	833,898	2,743,633	5,217,033	7,054,034	1,712,668	263,768	9,393,470
47	Remove DSM revenues	123	146,685	67,590	75,567	1,691	10,508	(54,195)	(1,101)	(1,358)	(20,780)	(28,943)	200,841	(20,780)
48	Remove excess DSM revenues	33,172	49,801	(11,448)	(163,556)	(164,655)	(172,002)	(184,046)	(80,370)	(75,572)	(79,569)	17,328	15,121	(815,796)
49	Remove excess DRAC revenues	-	12,490	96,264	79,581	115,027	131,987	173,171	162,078	210,176	88,349	106,014	75,362	1,250,499
50	Remove Tax Reform Act adjustment	2,265,026	2,099,090	1,309,124	649,271	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	4,893,695
51	Remove Other unbilled adjustments	-	-	239,405	457,680	(697,085)	-	-	-	-	-	-	-	-
52	Remove RBA accruals	(5,077,211)	(5,522,935)	(5,237,442)	(3,422,723)	(6,594,397)	(2,687,291)	(3,672,487)	(5,153,412)	570,165	1,531,719	616,585	(602,499)	(35,251,928)
53	Remove RBA gross up for revenue taxes	(495,099)	(538,563)	(510,724)	(333,763)	(643,046)	(262,048)	(358,119)	(502,530)	55,599	(149,364)	60,126	(58,752)	(3,437,555)
54	Remove revenue taxes on unbilled revenues	356,259	1,246,258	304,765	345,403	185,661	251,910	(224,632)	235,632	1,276,077	685,040	673,880	438,951	5,775,204
55	Remove base fuel (adjusted for revenue taxes)	36,828	4,056,143	67,966	(553,246)	(1,436,497)	(568,898)	(2,957,080)	(792,084)	13,375,971	644,413	813,770	270,673	12,957,959
56	Remove power purchase energy (adjusted for revenue taxes)	15,537	1,711,252	28,674	(233,410)	(606,045)	(240,013)	(1,247,567)	(334,173)	(1,940,840)	576,447	727,941	242,125	(1,300,072)
57 =														
sum 27-56	Total billed and unbilled adjustments to determine adjusted revenues for RBA	(91,407,526)	(83,651,844)	(93,695,018)	(95,256,998)	(97,906,810)	(99,729,963)	(113,774,660)	(116,747,444)	(100,841,991)	(105,313,391)	(104,489,294)	(106,488,236)	(1,209,303,175)
58 = 26+57	RECORDED ADJUSTED REVENUES FOR RBA DETERMINATION	43,871,232	40,430,219	46,365,780	45,638,864	43,802,261	46,747,403	50,144,604	50,148,289	54,077,963	56,214,832	51,711,892	51,070,061	580,223,400
Sch B														

Note: Amounts may not add exactly due to rounding.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF O&M RAM ADJUSTMENT
(\$ in Thousands)

Line No.	Description	Reference	Docket No. 2016-0328 Approved	Footnote 4 Previously Approved RAM	O&M Subject to Escalation Col (c) + (d)	Net Inflation Indices Footnote 2	2019 O&M RAM Adjustment Col (e) * (f)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base BU Labor Expenses	Schedule C1	\$ 47,048		\$ 47,048	4.19%	\$ 1,973
2	Base Non-Labor Expense	Schedule C2	\$ 134,734		\$ 134,734	4.24%	\$ 5,718
3	Payroll Taxes	Footnote 1	\$ 3,943		\$ 3,943	4.19%	\$ 165
4	Subtotal Expense Increase - RAM Adjustment before revenue taxes						\$ 7,856
5	Revenue Tax Factor (Footnote 3)						1.0975
6	O&M RAM (SubTotal Expenses x Rev Tax Factor)						<u>\$ 8,622</u>
							To Sch A1

Footnotes:

1: Payroll Taxes per Stipulated Settlement Letter, filed March 5, 2018 in Docket No. 2016-0328, Exhibit 2C, page 6, approved in Order No. 35545, filed June 22, 2018. \$ 9,342
Less: Portion of payroll taxes related to non-BU labor^A (57.79% * 9,342) \$ (5,399)
Payroll Taxes related to Bargaining Unit labor \$ 3,943

^A See Schedule C1 for calculation of percentage related to non-BU labor.

2: Escalation Rates

Labor:	2018	2019	
Bargaining Unit Wage Increase	2.67%	3.00%	(See HECO-WP-C-001)
Less: Labor Productivity Offset	0.76%	0.76%	Approved in Final D&O in Docket No. 2008- 0274, page 51, filed on August 31, 2010
Labor Cost Escalation Rate	<u>1.91%</u>	<u>2.24%</u>	

Calculation of 2018 Compounded Labor Cost Escalation

2018 Labor Cost Escalation	1.0191	A (2018 labor escalation plus 1)
2019 Labor Cost Escalation	1.0224	B (2019 labor escalation plus 1)
2018-2019 Compounded Labor Cost Escalation	1.0419	C = A * B
2018-2019 Compounded Labor Cost %	0.0419	D = C - 1

Non-Labor:

	2018	2019	
GDP Price Index	2.10%	2.10%	(See HECO-WP-C-002)

Calculation of 2018 Compounded Non-Labor Cost Escalation

2018 Non-Labor Cost Escalation	1.0210	A (2018 non-labor escalation plus 1)
2019 Non-Labor Cost Escalation	1.0210	B (2019 non-labor escalation plus 1)
2018-2019 Compounded Non-Labor Cost Escalation	1.0424	C = A * B
2018-2019 Compounded Non-Labor Cost %	0.0424	D = C - 1

3: Computation of Revenue Tax Factor

Public Service Tax Rate	0.05885	
PUC Fees Rate	0.00500	
Franchise Tax Rate	0.02500	
Total Revenue Tax Rate	0.08885	Revenue Tax Factor = 1 / (1 - Total Revenue Tax Rate) 1.0975

4: Column d "Previously Approved RAM" is not used as the labor and non-labor escalation is accomplished through the use of a compounded escalation rate in column f, as shown in footnote 2.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKSHEET
RATE ADJUSTMENT MECHANISM SUMMARY OF
OPERATIONS AND MAINTENANCE LABOR AND NON-LABOR EXPENSE
BY BLOCK OF ACCOUNTS
Interim D&O - Docket No. 2016-0328
(\$ in Thousands)

DESCRIPTION	Footnote 1		Footnote 2		
	(a)	(b)	(c)=(a)+(b)	(d)	(e)
	BU LABOR	NON-BU LABOR	TOTAL LABOR	NON-LABOR	TOTAL
Production	21,744	13,212	34,956	44,350	79,306
Transmission	2,420	2,933	5,353	10,454	15,807
Distribution	12,086	7,321	19,407	27,418	46,825
Customer Accounts	8,258	3,618	11,876	8,478	20,354
Allowance for Uncoll Accounts	-	-	-	732	732
Customer Service	134	5,582	5,716	9,936	15,652
Administrative & General	2,406	31,769	34,175	85,583	119,758
Customer Benefit Adjustment (Footnote 3)	-	-	-	(10,023)	(10,023)
Operation and Maintenance	47,048	64,435	111,483	176,928	288,411
	To Sch C			To Sch C2	X
Percentage of Total O&M Labor	42.20%	57.79%	100%		
* amounts may not add due to rounding					

Footnotes:

1 SOURCE: 2017 test year breakdown of BU and non-BU labor obtained from UI Planner Budget files.

2 O&M breakdown below includes fuel and purchase power expenses consistent with the presentation in the Results of Operations.

	Footnote 2a			Footnote 2b	
	LABOR	NON-LABOR	TOTAL	ADJUST- MENT	STIPULATED SETTLEMENT
FUEL	-	327,609	327,609		327,609
PURCHASE POWER	-	466,211	466,211		466,211
PRODUCTION	34,956	44,350	79,306		79,306
TRANSMISSION	5,354	10,454	15,808		15,808
DISTRIBUTION	19,407	27,418	46,825		46,825
CUSTOMER ACCOUNTS	11,876	8,478	20,354		20,354
UNCOLLECTIBLE ACCOUNTS	-	732	732		732
CUSTOMER SERVICE	5,715	9,936	15,651		15,651
ADMIN & GENERAL	34,265	85,945	120,210	(452)	119,758
CUSTOMER BENEFIT ADJUSTMENTS	-	-	-	(10,023)	(10,023)
TOTAL	111,573	981,133	1,092,706	(10,475)	1,082,231
TOTAL O&M EXPENSE (Excl Fuel & Purch Po	111,573	187,313	298,886	(10,475)	288,411
					X

2a See Order No. 35280, For Approval of General Rate Case and Revised Schedules/Rules, filed on February 9, 2018, in which the Commission approved the revised schedules or operations and tariff sheets filed January 19, 2018, Exhibit A, Page 1 of 4.

See Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case Revised Schedules Resulting from Interim Decision and Order No. 35100 as modified by Order No. 35229 and Order No. 35220, filed January 19, 2018, Exhibit 2, Attachment 1, Page 1 for Labor/Non-Labor breakdown.

2b See Order No. 35335, For Approval of General Rate Case and Revised Schedules/Rules, filed on March 9, 2018, in which the Commission accepted the Parties' Stipulated Settlement on Remaining Issues filed March 5, 2018, Exhibit 2C, Page 1 of 13.

3 Customer Benefit Adjustments identified in the Results of Operations have been included as a reduction to O&M non-labor subject to escalation. See Order No. 35545, For Approval of General Rate Case and Revised Schedules/Rules, Appendix A, page 1 of 4, filed on June 22, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK

Non-Labor Exclusion
Adjustment for O&M RAM
(\$ thousands)

<u>Line No.</u>	<u>Decription</u>	<u>Amount</u>	<u>Reference</u>
	(a)	(b)	(c)
1	Pension Expense	73,940	Note 1
2			
3			
4	OPEB Expense	(470)	Note 1
5			
6			
7	Total before amounts transferred	73,470	
8			
9	O&M %	57.43%	See Parties' Stipulated Settlement Letter, filed November 15, 2017, in Docket No. 2016-0328, HECO T-16 Attachment 4, page 1
10	(1- transfer rate of 42.57%)		
11			
12			
13	Adjustment to Non-Labor O&M Expense		
14	for O&M RAM base	42,194	
15			
16			
17	Non-Labor O&M Expense per Interim D&O	176,928	Schedule C1
18			
19			
20	Non-Labor O&M Expense Base for		
21	O&M RAM base	<u>134,734</u>	Schedule C

Note 1: See Parties' Stipulated Settlement Letter, filed November 15, 2017 in Docket No. 2016-0328, Exhibit 1, page 63 for the summary of the pension and OPEB cost the Parties agreed to. In Parties' Stipulated Settlement Letter on Remaining Issues, filed March 5, 2018 in Docket No. 2016-0328, Exhibit 1, page 4, amortization of the excess pension contribution from the test year was reduced to zero. Approved in Final Decision and Order No. 35545, filed on June 22, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RATE BASE RAM ADJUSTMENT - RETURN ON INVESTMENT

Line No.	Description	AMOUNTS IN THOUSANDS	PERCENT OF TOTAL	COST RATE	POST TAX WEIGHTED EARNINGS REQMTS	INCOME TAX FACTOR (Note 1)	PRETAX WEIGHTED EARNINGS REQMTS
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	<u>PUC APPROVED CAPITAL STRUCTURE & COSTS (Note 2):</u>						
2	Short-Term Debt	\$ 27,770	1.18%	1.75%	0.02%	1.000000	0.02%
3	Long-Term Debt	928,748	39.59%	5.03%	1.99%	1.000000	1.99%
4	Hybrid Securities	28,651	1.22%	7.19%	0.09%	1.000000	0.09%
5	Preferred Stock	21,137	0.90%	5.37%	0.05%	1.346835	0.07%
6	Common Equity	1,339,335	57.10%	9.50%	5.42%	1.346835	7.31%
7	Total Capitalization	<u>\$ 2,345,641</u>	<u>100.00%</u>		<u>7.57%</u>		<u>9.47%</u>
8	RAM CHANGE IN RATE BASE \$000 (From Schedule D1)						<u>\$ 109,578</u>
9	PRETAX RATE OF RETURN (Line 7, Col g)						<u>9.47%</u>
10	PRETAX RETURN REQUIREMENT						<u>\$ 10,377.1</u>
11	REVENUE TAX FACTOR (1/(1-8.885%))						<u>1.0975</u>
12	RATE BASE RAM - RETURN ON INVESTMENT \$000						<u>\$ 11,388.8</u>

To Sch A1

Footnotes:

1 Composite Federal & State Income Tax Rate 25.75% See HECO-WP-F-001
Income Tax Factor (1 / 1-tax rate) 1.346835

2 See Order No. 35335, For Approval of General Rate Case and Revised Schedules/Rules, filed on March 9, 2018, in which the Commission accepted the Parties' Stipulated Settlement on Remaining Issues filed March 5, 2018, Exhibit 2C, Page 2 of 13. Approved in Final Decision and Order No. 35545 filed June 22, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RATE BASE RAM ADJUSTMENT - CHANGE IN RATE BASE
\$ in thousands

Line No.	Description (a)	HECO 2017 Test Year Rate Base (Note 2)		HECO 2019 RAM Rate Base			
		Beg. Balance 12/31/2017 (b)	Budgeted Balance 12/31/2017 (c)	Adjusted Recorded at 12/31/2018 (d) (Note 1)	RAM Projected Amounts (e) See Detail Below	Estimated at 12/31/2019 (f)	
1	Net Cost of Plant in Service, Net of CIAC	\$ 2,595,452	\$ 2,770,695	\$ 2,437,105	\$ 129,932	\$ 2,567,037	(Note 3)
2	Property Held for Future Use	-	-	-	-	-	
3	Fuel Inventory	46,200	46,200	These Elements of Rate Base are Not Updated for RAM Purposes			(Note 5)
4	Materials & Supplies Inventories	28,427	28,427				
5	Unamort Net ASC 740 Reg Asset	70,144	74,887				
6	Unamort EOTP Reg Asset	444	89				
7	CIP CT-1 Reg Asset	2,306	1,352				
8	Unamort Sys Dev Costs	15,932	13,496				
9	RO Pipeline Reg Asset	4,958	4,842				
10	Pension Tracking	97,620	113,828				
11	Contrib in Excess of NPPC	6,470	6,470				
12	Total Additions	\$ 2,867,953	\$ 3,060,286	\$ 2,718,151	\$ 129,932	\$ 2,848,083	
13	Unamortized CIAC/CIAC in CWIP	\$ (347,826)	\$ (395,134)	\$ (30,110)	\$ -	\$ (30,110)	(Note 3)
13a	Developer Advances	-	-	\$ (21,345)	\$ -	\$ (21,345)	(Note 3)
14	Customer Advances	(3,581)	(3,925)	Not Updated			(Note 3)
15	Customer Deposits	(12,101)	(12,005)				
16	Accumulated Def Income Taxes	(520,643)	(333,360)	(282,714)	(6,983)	(289,696)	(Note 4)
17	ADIT Excess Reg Liability	-	(203,950)	(277,406)	10,381	(267,025)	(Note 4), Sch D5
18	Unamortized State ITC (Gross)	(56,323)	(54,903)	Not Updated			
19	Unamortized Gain on Sale	(248)	(182)				
20	Pension Reg Liability	-	-				
21	OPEB Reg Liability	(2,817)	(2,331)				
22	Total Deductions	\$ (943,539)	\$ (1,005,790)	\$ (685,783)	\$ 3,398	\$ (682,384)	
23	Working Cash	3,904	3,904	3,904	Not Updated	3,904	
24	Rate Base at Proposed Rates	\$ 1,928,318	\$ 2,058,400	\$ 2,036,272		\$ 2,169,602	
25	Average Rate Base		\$ 1,993,359			\$ 2,102,937	
26	Change in Rate Base					\$ 109,578	

To Schedule D

	Reference	Amount \$000
27	Column (e) Projected Changes to Rate Base:	
28	Plant - Baseline Capital Project Additions, Net of CIAC	Schedule D2 200,583
29	Major Project Additions, Net of CIAC	Schedule D3 69,023
30	Accumulated Depreciation/Amortization Change	Schedule E (139,674)
31	Net Plant	Sum: Lines 28-30 129,932
32	ADIT - Baseline and Major Capital Projects	Schedule F (7,226)
33	ADIT - Joint Pole Capital Transfer Price	Note 6 243
34	ADIT Excluding Joint Pole	Sum: Line 32-33 (6,983)
35	Excess ADIT Reg Liability Amortization (Plant 282 excess def amort beginning 6/1/2019)	Schedule D5 10,381

Footnotes:

1 Amounts are recorded, except for the following adjustments:

	Plant in Service	Acc. Depr.	Schedule D4 ADIT
[A] Unadjusted Balance	\$ 4,496,539	\$ (1,565,762)	\$ (283,658)
Add:			
[A] RWIP		41,901	
[A] Asset Retirement Obligation		(4,780)	
[A] Reg Liab-Cost of Removal (net salvage)		(356,926)	
Tenant Improvement Allowance (Sch E)	(14,132)	9,824	
Major Project Adjustments:	HECO-WP-D2-001	HECO-WP-E-001	HECO-WP-D4-002
ERP EAM Hardware	(14)	3	2
Koolau-Wailupe #1 Str 30 P9 Replace	(142)	4	14
Total Adjustments	\$ (156)	\$ 7	\$ 16
Major Project Interim Recovery Adjustments:	HECO-WP-D2-001	HECO-WP-E-001	HECO-WP-D4-003
Schofield Generation Station	(144,744)	-	1,832
Total Adjustments	\$ (144,744)	\$ -	\$ 1,832
Joint Pole Capital Transfer Price	Note 6 \$ (24,666)	\$ -	\$ (904)
Adjusted Balance	\$ 4,312,841	\$ (1,875,736)	\$ (282,714)

2 See Final Decision and Order No. 35545, For Approval of General Rate Case and Revised Schedules/Rules, filed on June 22, 2018, Exhibit B, Page 1 of 2. Revised for presentation purposes only to properly reflect the Unamortized Net ASC 740 Reg Asset, ADIT, and ADIT Excess Reg Liability balances. No change to Total Average Rate Base.

3 Per PowerPlan extract. Effective October 2018, the Company reclassified CIAC to Plant in Service or CWIP consistent with FERC guidelines. In 2018, CIAC has been netted with either Plant in Service or CWIP and Developer Advances (Cash CIAC received from developers, subject to refund) which has been included as a reduction to rate base. See further discussion of the Company's treatment of CIAC at HECO-WP-D1-001.

4 As a result of the 2017 Tax Reform Act, Regulatory Liability accounts were created and recorded as of December 31, 2017 to isolate the 2017 excess accumulated deferred taxes resulting from the lower federal tax rate. The bifurcated Regulatory Liabilities are included as a reduction to Rate Base. See further discussion at Schedule F.

5 HECO 2017 Test Year Rate Base includes CIS deferred costs in Unamortized System Development Costs. See detail in November 15, 2017, Stipulated Settlement Letter, HECO T-17, Attachment 1, Page 2.

6 See Decision and Order No. 35768, Docket No. 2018-0075 filed October 16, 2018. Commission approved the Asset Transfer, Pole Licensing and Amended Joint Pole Agreements and the accounting and ratemaking treatment described in Exhibit E of the Application. The change in ADIT represents the tax effect of the book - tax difference on depreciation for the Joint Pole assets.

[A] SOURCE: Hawaiian Electric Company, Inc. Monthly Financial Report - December 2018, filed February 28, 2019.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF BASELINE CAPITAL PROJECTS ADDITIONS, NET OF CIAC

Source: Docket No. 03-0257 General Order No. 7 Plant Additions Annual Reports filed with the PUC dated:

Line No.	Description		3/27/2015	3/29/2016	3/30/2017	3/27/2018	NOTE (1)
			2014	2015	2016	2017	2018
	(a)		(c)	(d)	(e)	(f)	(f)
1	Total Plant Additions		269,326,250	266,537,660	241,294,569	276,754,129	358,703,631
2	Less: Non-Utility Plant Additions	NOTE (2)	-	(63)	(3,954)	-	-
3	Adjusted Total Plant Additions		269,326,250	266,537,597	241,290,615	276,754,129	358,703,631
4							
5	<u>Less Major Projects: (+\$2.5 Million)</u>	Dkt No. Item No.					
6	W8 Boiler Controls Upgrade	2007-0365 P7650000	18,503	(70)			
7	EOTP Ph. 2 (Subs/Switch Stations)	2010-0062 Y48500	(7,357)	(55,681)	(682)		
8	W7 Controls Upgrade	2009-0195 P7590000	(8,237)	(35)			
9							
10	<u>2012 In-Service:</u>						
11	Kapolei Substation	2011-0026 Y00127	(6,459)				
12							
13	<u>2013 In-Service:</u>						
14	Pukele 80MVA Tsf #3	2011-0156 P0001494	(28,327)	15,611			
15	Kakaako Makai-Iwilei 25kV DL	2009-0042 Y00038	(485,650)	(496,818)		400,000	
16	North South Road 46kV Line	2008-0070 Y00119		(3,488)			
17							
18	<u>2014 In-Service:</u>						
19	Kaloi Substation	2008-0070 Y00119	(6,548,755)	(925)			
20	Kaloi Sub 46kV & 12kV Distr	2008-0070 Y00119	(1,218,895)				
21	Kaloi Telecomm	2008-0070 Y00119	(171,237)				
22	Kaloi Sub 12kV Work	2008-0070 Y00119	(25,906)				
23	Kakaako Makai-Kewalo 25kV DL	2009-0042 Y00038	(4,958,840)	(464,900)	(111)	400,000	
24	Kakaako Makai DOT Queen-Cook	2009-0042 Y00038	(1,961,600)	(418,816)	(2,890,742)	476,166	
25	BPT Tank 133 Improvements	2010-0318 P0000900	(6,095,787)	(1,092,308)			
26	Pukele 80MVA Tsf #2	2011-0156 P0001492	(3,449,859)	(40,084)			
27	DOT Airport DSG	2008-0329 P0001370	(4,965,396)	(97,130)	(172,652)	(94,001)	3,516
28							
29	<u>2016 In-Service:</u>						
30	Pukele 80MVA Tsf #1	2011-0156 P0002264			(3,839,121)	(7,612)	
31							
32	<u>2017 In-Service:</u>						
33	ERP EAM Hardware	2014-0170 PE.000003 (Y00168)				(2,604,146)	
34	Koolau-Wailupe #1 Str 30 P9 Replace	PE.000104 (P0003465)				(2,684,387)	(13,203)
35							
36	<u>2018 In-Service:</u>						
37	MPIR-Schofield Generating Station	2017-0213 PZ.000016/ PZ.001002 (P0001576)					(144,743,542)
38	Joint Pole Capital Transfer Price	2018-0075 PE.005155					(24,665,897)
39	Total Net Plant Additions (excluding major projects)		239,412,448	263,882,953	234,387,307	272,640,149	189,284,505
40							
41	Last Five-Year Average - Plant Additions					<i>To Sch F1</i>	239,921,472
42							
43	Less: CIAC, including Developer Advances	NOTE (3)	(31,803,050)	(42,140,722)	(36,314,281)	(59,849,268)	(29,568,427)
44							
45	EOTP Ph. 2 (Subs/Switch Stations)-CIAC	2010-0062 Y48500	43,725	15,232	718		
46	Kakaako Makai DOT Queen-Cook-CIAC	2009-0042 Y00038			2,825,023		
47	DOT Airport DSG-CIAC	2008-0329 P0001370					96,602
48	Total CIAC Additions (excluding major projects)		(31,759,325)	(42,125,490)	(33,488,540)	(59,849,268)	(29,471,825)
49							
50	Total Net Plant Additions, Net of CIAC (excluding major projects)		207,653,123	221,757,463	200,898,767	212,790,881	159,812,680
51							
52	Last Five-Year Average - Plant Additions, Net of CIAC					<i>To Sch D1</i>	200,582,583

NOTE (1): Amounts per HECO-WP-D2-002 and the Hawaiian Electric Companies' *Exemption From and Modification of General Order No. 7 Paragraph No. 2.3(g), Relating to Capital Improvements Capital Projects Completed in 2017*, in Docket No. 03-0257, filed on March 27, 2019.

NOTE (2): Source: UI Planner Budget files: Actuals Scenario. Adjustment to remove non-utility plant additions from utility plant. Chapin UG Duct Line is a non-utility asset. It is a contributed asset that was given to the Company. It is not being used and there are currently no plans to use it.

NOTE (3): See HECO-WP-D2-001 for line 47 - 2018 Major Project CIAC additions, HECO-WP-D2-003 for 2018 CIAC Additions, HECO-WP-D2-004 for 2014 to 2017 CIAC Additions and WP-D1-001 for treatment of CIAC.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF MAJOR CAPITAL PROJECT ADDITIONS, NET OF CIAC

Line No.	Description	PUC Docket Reference	Estimated In Service Date	Plant Addition Amount	CIAC Amount
	(a)	(b)	(c)	(d)	(e)
1	AES-CEIP #2 138kV OH Trans	Docket No. 2016-0439			
2	Line Relocation	(Decision & Order dated 03/02/2018)	Feb-19	3,007,232	
		UI Planner Budget files			
3	West Loch Utility Scale PV	Docket No. 2016-0342			
4		(Decision & Order dated 06/30/2017)	Jun-19	52,128,000	
		UI Planner Budget files			
5	Ala Wai Canal-46kV Relocation	Docket No. 2016-0416			
6		(Decision & Order dated 09/01/2017)	Jun-19	13,910,207	
		UI Planner Budget files			
7	Kakaako Makai	Docket No. 2009-0042			
8		(Decision & Order dated 06/12/2009)	Apr-14		(22,683)
		UI Planner Budget files			
9	Total Major Capital Projects Qualifying for 2019 RAM, Net of CIAC			<u>\$ 69,045,439</u>	<u>\$ (22,683)</u>
10				<i>To Sch D1 & F2</i>	<u>\$ 69,022,756</u>

Source: HECO-WP-D3-001

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF ADJUSTED RECORDED DEFERRED INCOME TAXES

Line No.	NARUC Account (a)	Reference (b)	DR/(CR) Federal ADIT (c)	DR/(CR) State ADIT (d)	DR/(CR) Total ADIT (e)	
1	Recorded Deferred Income Tax Balances December 31, 2018 Recorded Balances					
2	Depreciation Related Account 282	HECO-WP-D4-001	(208,764,869)	(35,223,942)	(243,988,811)	
3	Other Deferred Income Taxes	HECO-WP-D4-001	(33,950,451)	(5,718,989)	(39,669,440)	
4	Total Recorded Deferred Income Taxes		<u>(242,715,320)</u>	<u>(40,942,931)</u>	<u>(283,658,251)</u>	To Sch D1 To HECO-WP-H-001
5	<u>Adjustments to Recorded Balances:</u>					
6	ADIT on Major Project excess depreciation	HECO-WP-D4-002	15,698	898	16,596	
7	ADIT on Major Project Interim Recovery	HECO-WP-D4-003	1,404,184	427,943	1,832,127	To Sch D1
8	Total Adjustments to Recorded ADIT Balances		<u>1,419,882</u>	<u>428,841</u>	<u>1,848,723</u>	To Sch D1
9	Adjusted Recorded ADIT Balances -12/31/18		<u>(241,295,438)</u>	<u>(40,514,090)</u>	<u>\$ (281,809,528)</u>	To Sch D1
10	282 ADIT adjusted for ADIT on Major Project excess depreciation	Line 2 + Line 6	(208,749,171)			To HECO-WP-F1-003

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF ADJUSTED RECORDED EXCESS ADIT REGULATORY LIABILITY

Line	NARUC Account (a)	Reference (b)	DR/(CR) Balance at 12/31/17 (c)	DR/(CR) Adjustments	DR/(CR) Amortization (d)	DR/(CR) Balance at 12/31/18 (e) = (c) + (d)	Life (f)	Amortization (g)	Est Bal at 12/31/19 (h) = (e) + (g)
1	Plant 282 - protected		(215,702,497)	(7,803,210)		(223,505,707)	40	5,587,643	(220,246,249)
2	Plant 283 - unprotected		(35,065,867)		1,668,881	(33,396,986)	15	2,337,723	(31,059,263)
3	Nonplant 283 - unprotected		(23,918,454)		3,415,029	(20,503,425)	5	4,783,679	(15,719,746)
4	Total Excess ADIT Regulatory Liability		<u>(274,686,818)</u> Note 1	<u>(7,803,210)</u>	<u>5,083,910</u>	<u>(277,406,118)</u> To Sch D1		<u>12,709,045</u> To Sch E	<u>(267,025,258)</u> To Sch D1 Note 3

Reconciliation of 12/31/18 Balance:

Regulatory Liability in GL	GL#25400023/24	(278,155,753)
Regulatory Asset in GL	GL#18673900	34,112,667
2018 Amortization	587,116	
		<u>34,699,783</u>
		(243,455,970)
Add: FAS 109	Note 1	<u>(33,950,008)</u>
Total Excess ADIT		(277,405,978)
Total Excess ADIT	Line 4	<u>(277,406,118)</u>
Remaining Difference		140

Note 1: The 12/31/17 balances represent the amortization base presented in Docket 2016-0328 Hawaiian Electric's 2017 Test Year Rate Case Revised Attachment to the Parties' Stipulated Settlement on Remaining Issues, Attachment 2A, filed March 8, 2018. However, this amortization base inadvertently excluded reclassifications recorded at December 31, 2017 between the 2017 unprotected plant 283 excess net regulatory liability and the portion of ASC 740 regulatory assets/liabilities offsetting the related excess deferred income taxes.

Note 2: Amortization began 4/14/2018.

Note 3: Line 1: Plant 282-protected excess deferred balance calculated as follows: [col (e)/col (f)] * (7 months/12 months) + col (e)
Amortization begins on 6/1/2019.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF DEPRECIATION & AMORTIZATION RATE ADJUSTMENT

Line No.	FERC Account	Recorded Depreciable/Amort. Balance (Footnote 3)	Adjustments (Footnote 1)	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate	Annual Accrual
	(a)	(b)	(c)	(d)	(e)	(f)
1	<u>Depreciable Plant</u>					
2	311	107,116,270		107,116,270	0.01600	1,713,860
3	312	407,080,257	(3,423,000)	403,657,257	0.02030	8,194,242
4	314	194,394,996		194,394,996	0.01540	2,993,683
5	315	83,448,693		83,448,693	0.02430	2,027,803
6	Tot - Steam	792,040,216	(3,423,000)	788,617,216	0.01885	14,929,589
7						
8	341	38,255,922		38,255,922	0.00770	294,571
9	342	17,647,714		17,647,714	0.02580	455,311
10	343	212,348,035	(142,147,612)	70,200,423	0.03260	2,288,534
11	344	32,411,015		32,411,015	0.01010	327,351
12	345	34,684,516		34,684,516	0.02510	870,581
13	Tot - Gas Turb	335,347,202	(142,147,612)	193,199,590	0.01263	4,236,348
14						
15	Tot - Prod	1,127,387,418	(145,570,612)	981,816,806		19,165,937
16						
17	3501	3,033,447		3,033,447	-	-
18	352	41,371,948	(2,003,490)	39,368,458	0.01600	629,895
19	353	316,099,319	(352,190)	315,747,129	0.01860	5,872,897
20	354	15,336,208		15,336,208	0.01480	226,976
21	355	377,095,780		377,095,780	0.03240	12,217,903
22	356	184,909,083	(141,971)	184,767,112	0.03270	6,041,885
23	357	60,113,518		60,113,518	0.01590	955,805
24	358	66,198,742		66,198,742	0.01730	1,145,238
25	359	3,235,054		3,235,054	0.01490	48,202
26	Tot - Transm	1,067,393,099	(2,497,651)	1,064,895,448	0.02543	27,138,801
27						
28	3601	2,599,051		2,599,051	0.02340	60,818
29	361	26,265,151		26,265,151	0.01080	283,664
30	362	273,453,197		273,453,197	0.02020	5,523,755
31	363	2,957,666		2,957,666	0.03740	110,617
32	364	245,168,525	(24,665,897)	220,502,628	0.03390	7,475,039
33	365	105,897,935		105,897,935	0.04190	4,437,123
34	366	270,101,616		270,101,616	0.02190	5,915,225
35	367	405,492,451		405,492,451	0.04980	20,193,524
36	368	220,837,260		220,837,260	0.05200	11,483,538
37	369.1	59,534,914		59,534,914	0.05250	3,125,583
38	369.2	174,898,002		174,898,002	0.04070	7,118,349
39	370	40,383,030		40,383,030	0.02660	1,074,189
40	Tot - Distr	1,827,588,798	(24,665,897)	1,802,922,901	0.03655	66,801,423
41						
42	Tot - T & D	2,894,981,897	(27,163,548)	2,867,818,349		93,940,224
43						
44	390	67,940,630		67,940,630	0.02450	1,664,545
45	Tot - General	67,940,630	-	67,940,630	0.02450	1,664,545
46						
47	Sub-Total	4,090,309,945	(172,734,160)	3,917,575,785		114,770,706
48						
49	3902 (King)	8,011,075		8,011,075	0.03010	241,114
50	3902 (CPP)	2,115,809		2,115,809	0.00417	8,814
51	3902 (Waterhouse)	1,517,450		1,517,450	0.00000	-
52	3902 (Hon Cl)	523,097		523,097	0.07824	40,929
53	3902 (ASB)	1,463,127		1,463,127	0.06133	89,738
54	3902 (Shinco)	939,475		939,475	0.00000	-
55	3902 (PPP)	372,940		372,940	0.11111	41,438
	3902 (Pauahi)	50,376		50,376	0.33333	16,792
56	3902 (Tenant Allowance)	14,131,757	(14,131,757)	-	-	-
57	Tot- LH Impr	29,125,106	(14,131,757)	14,993,349		438,824
58						
59	392	59,063,238		59,063,238	0.06130	3,620,576
60						
61	Utility Total Depreciation	4,178,498,289	(186,865,917)	3,991,632,372	0.02844	118,830,107

Line No.	FERC Account (a)	Recorded Depreciable/Amort. Balance (Footnote 3) (b)	Adjustments (Footnote 1) (c)	Adjusted Depreciable/Amort. Balance (d)	PUC Approved Accrual Rate (e)	Annual Accrual (f)
61	<u>Amortizable Plant</u>					
62	316	26,291,658		26,291,658	0.05000	1,314,583
63	Tot - Steam	26,291,658	-	26,291,658	0.05000	1,314,583
64						
65	346	20,326,815		20,326,815	0.05000	1,016,341
66	Tot - Gas Turb	20,326,815	-	20,326,815	0.05000	1,016,341
67						
68	Tot - Prod	46,618,473	-	46,618,473	0.05000	2,330,924
69						
70	3911	30,764,654	(14,146)	30,750,508	0.20000	6,150,102
71	3912	3,172,052		3,172,052	0.10000	317,205
72	3913	16,599,312		16,599,312	0.06670	1,107,174
73	393	1,478,752		1,478,752	0.04000	59,150
74	394	39,001,211		39,001,211	0.04000	1,560,048
75	395	879,317		879,317	0.06670	58,650
76	396	4,479		4,479	0.05560	249
77	397	130,589,670	(240,250)	130,349,420	0.06670	8,694,306
78	398	8,483,472		8,483,472	0.06670	565,848
79	Tot - General	230,972,919	(254,396)	230,718,523	0.08015	18,512,733
80						
81						
82						
83	Utility Total Amortization	277,591,392	(254,396)	277,336,996	0.07509	\$ 20,843,656
84						
85	TOTAL RAM DEPRECIATION / AMORTIZATION				Line 61 + Line 83	\$ 139,673,763
86	LESS: Vehicle Depreciation (A/C 392 above)				Line 59	\$ (3,620,576)
87	LESS: ADIT Excess Amortization				Schedule D5	(12,709,045)
88	LESS: Depreciation & Amortization in Current Revenues				Footnote 2	\$ (120,665,585)
89						
90	RAM Adjustment for Depreciation & Amortization					\$ 2,678,556
91	RAM Adjustment for CIAC Amortization				Note 5	\$ -
92	Total RAM Adjustment for Depreciation & Amortization					\$ 2,678,556
93	Times: Factor for Revenue Taxes				Schedule C Line 5	1.0975
94						
95	RAM DEPRECIATION & AMORTIZATION					\$ 2,939,716

To Sch A1

Footnotes:

1	Amounts are recorded (in \$000s), except for the following adjustments (see HECO-WP-D2-001):	Plant in Service From D1	
	ERP EAM Hardware	HECO-WP-D2-001	\$ (14)
	Koolau-Wailupe #1 Str 30 P9 Replace		(142)
	MPiR - Schofield Generating Station		(144,744)
	Joint Pole Capital Transfer Price		(24,666)
	Tenant Improvement Allowance (see Footnote 4)		(14,132)
	ARO Assets included in Depreciable Plant	GL# 10100001	(3,423)
	Total		\$ (187,121)
2	Depreciation & Amortization in Current Revenues*:	Depr/Amort Expense	
	Total Depreciation	\$	139,686,000
	LESS: Vehicle Depreciation (A/C 392)		(3,590,000)
	LESS: Amortization of Excess ADIT		(7,121,415)
	Total Depreciation in Current Revenues	\$	128,974,585
	ADD: CIAC Amortization	Note 5	(8,309,000)
	Total Depreciation & Amortization in Current Revenues		120,665,585

Linked from Sch D1

See Decision and Order No. 35768, Docket No. 2018-0075 filed October 16, 2018

To Line 88

*See Order No. 35335, in Docket No. 2016-0328, For Approval of General Rate Case and Revised Schedules/Rules, filed on March 9, 2018, in which the Commission accepted the Parties' Stipulated Settlement on Remaining Issues filed March 5, 2018, HECO T-25, Attachment 1, Page 1 and the Revised Attachment to the Parties Stipulated Settlement on Remaining Issues, filed March 8, 2018, HECO T-26, Attachment 2A, Page 1. Approved in Final Decision and Order No. 35545, filed June 22, 2018.

- Per Accounting records, does not include land amounting to \$40,449,426 as of December 31, 2018.
- Amount represents tenant improvement allowances paid by the lessors and excluded from the RAM calculation.
- Effective October 2018, the Company reclassified CIAC to Plant in Service or CWIP consistent with FERC guidelines. Amounts shown in this Schedule represent balances net of CIAC.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF CHANGE IN DEFERRED INCOME TAXES

Line No.	NARUC Account (a)	Reference (b)	Projected ADIT Change (c)
1	State Tax Depreciation	Schedule F1	20,239,341
2	Amortization of Excess Deferreds	Schedule D5	10,380,860
3	Subtotal		30,620,201
4	Effective Federal Tax Rate	HECO-WP-F-001	19.7368%
5	Federal Deferred Tax on State Tax Depreciation		6,043,461
6	Add back State Tax Depreciation	Line 1	(20,239,341)
7	Federal Tax Depreciation	Schedule F1	20,239,341
8	Federal/State Difference		-
9	Tax Rate on Federal Only Adjustment	HECO-WP-F-001	21%
10	Federal Deferred Tax Adjustment		-
11	Total Federal Deferred Taxes Before Proration		6,043,461
12	Proration Adjustment	HECO-WP-F1-003	(659,544)
13	Total Federal Deferred Taxes After Proration		5,383,917
STATE DEFERRED TAXES			
14	State Tax Depreciation	Line 1	20,239,341
15	Amortization of Excess Deferreds	Line 2	10,380,860
16	Subtotal		30,620,201
17	Effective State Tax Rate	HECO-WP-F-001	6.0150%
18	Total State Deferred Taxes		1,841,817
19	TOTAL FED AND STATE DEFERRED TAXES		7,225,733
			To Sch D1

NOTE 1: In accordance with the tariff, the change in ADIT in the RAM year is based on the temporary book/tax depreciation differences associated with the RAM year plant additions (major capital projects and baseline plant additions). It does not include any estimated ADIT related to the repairs deduction or CIAC on RAM year plant additions.

NOTE 2: The change in ADIT includes the tax effect of the amortization of the regulatory liability associated with the excess deferred taxes resulting from the tax rate change from the Tax Cuts and Jobs Act of 2017. This is consistent with the inclusion of the regulatory liability and the related amortization in rate base RAM.

NOTE 3: The amortization of excess deferreds was adjusted from Schedule D5 to properly reflect the ending balance of ADIT at 12/31/2019. The amortization of the Plant 282 excess deferred amortization begins on 6/1/2019; the 12/31/2019 balance therefore reflects 7/12ths of this component in the ending ADIT balance.

Calculation of Excess Deferred Amortization

Plant 282 - protected	5,587,643	Schedule D5	
Proration Percentage (7 months/12 months)	58.33%		
			3,259,458
Plant 283 - unprotected			2,337,723
Nonplant 283 - unprotected			4,783,679
Amortization of Excess Deferreds, as Adjusted			10,380,860
			Schedule D1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TAX DEPRECIATION

Line No.	HECO-WP-F1-002						
	LIFE	PROJECTS	PROGRAMS	TOTAL	PROJECTS	PROGRAMS	TOTAL
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Computers/PV	5	6,092	6,092	2.54%		2.54%
2	Communication	20	5,920	5,920	2.47%		2.47%
3	Off/Furn/Tools	7	5,022	5,022	2.09%		2.09%
4	Distribution	20	130,472	130,472	54.38%		54.38%
5	Land	-	816	816	0.34%		0.34%
6	Non-Steam Production	15	3,713	3,713	1.55%		1.55%
7	Steam Production	20	22,905	22,905	9.55%		9.55%
8	Structural	39	3,265	3,265	1.36%		1.36%
9	Transmission	20	21,834	21,834	9.10%		9.10%
10	Transmission	15	34,674	34,674	14.45%		14.45%
11	Vehicles	-	5,209	5,209	2.17%		2.17%
12	TOTAL	239,922	-	239,922	100.00%	0.00%	100.00%

From Sch D2

5 yr	2.54%	2.54%
7 yr	2.09%	2.09%
15 yr	16.00%	16.00%
20 yr	75.50%	75.50%
39 yr	1.36%	1.36%
Land	0.34%	0.34%
Vehicles	2.17%	2.17%
Total	100.00%	0.00% 100.00%

	FED YR 1	FED YR 1	STATE YR 1	STATE YR 1
BASIS	DEPR RATE	TAX DEPR	DEPR RATE	TAX DEPR

Vintage 2019 - Regular Depreciation

Basis subject to regular depreciation

5 yr	2.54%	2.54%	5 yr	5,211,519	20.00%	1,042,304	20.00%	1,042,304
7 yr	2.09%	2.09%	7 yr	4,296,167	14.29%	613,922	14.29%	613,922
15 yr	16.00%	16.00%	15 yr	32,838,900	5.00%	1,641,945	5.00%	1,641,945
20 yr	75.50%	75.50%	20 yr	154,952,011	3.75%	5,810,700	3.75%	5,810,700
39 yr	1.36%	1.36%	39 yr	2,793,107	1.177%	32,875	1.177%	32,875
	97.49%	0.00%	97.49%					

TOTAL ASSETS 97.49% 0.00% 97.49%

Net Depreciable Baseline Plant Adds 200,091,704 9,141,746 9,141,746

Major Capital Projects from Schedule F2 69,045,439 11,097,595 11,097,595

Total Depreciable Plant Adds 269,137,143 20,239,341 20,239,341

Fed Tax Depreciation
to Schedule F St. Tax Depreciation
to Schedule F

Reconciliation from Baseline Plant Adds to Net Depreciable Plant Adds :

Baseline Capital Projects Plant Adds (rounded)	239,922,000	Schedule D2
Less: Repairs deduction HECO-WP-F1-001 pg 1	34,676,093	<<supported by Special Study each year.
Net plant add basis	205,245,907	
Less: Land and Vehicles (2.51% x 205,245,907)	5,154,203	
	200,091,704	

NOTE (1) The Tax Cut and Jobs Act removed bonus depreciation for public utility property.

NOTE (2) The numbers in columns b, c, d are rounded to the nearest thousand.

NOTE (3) Totals may not add exactly due to rounding.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
TAX DEPRECIATION ON MAJOR CAPITAL PROJECTS ADDITIONS

Line No.	Description	PUC Docket	Estimated In Service Date	Amount	
	(a)	(b)	(c)	(d)	(e)
1	Assumed Value of 2019 Major Capital Projects Plant Items			\$ 69,045,439	Schedule D3
2	Assumed Value of 2019 Major Capital Projects - CIAC nontaxable			\$ -	Schedule D3
3	Assumed Value of 2019 Major Capital Projects - Total			<u>\$ 69,045,439</u>	
	Tax Classification of	FED YR 1	FED YR 1	STATE YR 1	STATE YR 1
4	Major Capital Project Additions	Tax Basis	DEPR RATE	TAX DEPR	DEPR RATE
5	5 yr	52,128,000	20.00%	10,425,600	20.00%
6	7 yr	-	14.29%	-	14.29%
7	15 yr	3,007,232	5.00%	150,362	5.00%
8	20 yr	13,910,207	3.75%	521,633	3.75%
9	39 yr	-			
10	Land	-			
11	Vehicles	-			
	Total	<u>\$ 69,045,439</u>		<u>\$ 11,097,595</u>	<u>\$ 11,097,595</u>
		To Sch F1		To Sch F1	To Sch F1

* Adjustment only for non-taxable CIAC.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
CIAC SUMMARY

Line No.	Description	Reference	Unamortized CIAC	CIAC Amortization
	(a)	(b)	(c)	(d)

Schedule not applicable.

See HECO-WP-D1-001 for further discussion on the Company's treatment of CIAC within the Annual Decoupling filing.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
EARNINGS SHARING CALCULATIONS
All Amounts \$000 (Except %)

Line No.	Description (a)	Reference (b)	Ratemaking Basis Return on Equity		
			Operating Income (c)	Rate Base (d)	Rate of Return (e)
1	Reported Operating Income before ratemaking adjustment	HECO-WP-H-009 & HECO-WP-H-001	\$ 134,181	\$ 2,109,963	
1a	Settlement of prior Joint Pole Accounts Receivable	Note 3	697		
2	<u>Ratemaking Adjustments to Line 1:</u>				
2a	Incentive Compensation Expenses (net of tax)	HECO-WP-H-002	4,073		
2b	Discretionary and Other Expenses Not Recoverable (net of tax)	HECO-WP-H-002	1,052		
2c	Amortization of investment income differential	HECO-WP-H-003	185		
2d	Income tax on items to be replaced by synchronized interest	HECO-WP-H-003	(12,461)		
2e	Special Medical Needs Program discount (net of tax)	HECO-WP-H-005	102		
2f	Performance Incentive Mechanism (net of tax)	HECO-WP-H-006	360		
2g	Final Test Year Refund (net of tax)	HECO-WP-H-007	32		
3	Ratemaking Basis Amounts - Post Tax	Sum Lines 1 & 2	\$ 128,221	\$ 2,109,963	
4	<u>Ratemaking Capitalization</u>				
		Balances	Ratios	Cost Rate	Weighted Cost
5	Short-Term Debt (12 mo. Avg)	\$ 88,868	3.68%	2.54%	0.09%
6	Long-Term Debt (Simple Avg)	\$ 939,810	38.92%	5.03%	1.96%
7	Hybrid Securities (Simple Avg)	\$ 28,758	1.19%	7.16%	0.09%
8	Preferred Stock (Simple Avg)	\$ 21,192	0.88%	5.36%	0.05%
9	Common Equity (Simple Avg)	\$ 1,335,921	55.33%	9.50%	5.26%
10	Total Capitalization	HECO-WP-H-004	\$ 2,414,549	100.00%	7.45%
11	Line 3 Rate Base Amount			\$ 2,109,963	
12	Weighted Cost of Debt (Sum Lines 5-7)			2.14%	
13	Synchronized Interest Expense			\$ 45,153	
	Income Tax Factor (Note 1)			1.346801347	
13a	Synchronized Interest Expense, net of tax			\$ 33,526	
14	Post Tax Income Available for Preferred & Common (Line 3 - Line 13a)				\$ 94,695
17	Less: Preferred Income Requirement (Line 8 Weighted Cost times Rate Base)				1,055
18	Income Available for Common Stock				\$ 93,640
19	Ratemaking Equity Investment (Line 9 Ratio times Rate Base)				1,167,400
20	Return on Equity for Decoupling Earnings Sharing (Line 18/Line 19)				8.02%
21	<u>Earnings Sharing Revenue Credits:</u>	Basis Points			
22	Achieved ROE (basis points)	802			
23	Authorized Return (basis points)	950			
24	ROE for sharing (basis points)	-			
25	Sharing Grid per RAM Provision	First 100 bp	Next 200 bp	All over 300 bp	Ratepayer Total
26	Distribution of Excess ROE (basis points)	0	0	0	
27	Ratepayer Share of Excess Earnings	25%	50%	90%	
28	Ratepayer Earnings Share - Basis Points	-	-	-	-
29	Revenue Credit per Basis Point (Note 2)				\$ 173
30	Earnings Sharing Revenue Credits (thousands)				0
					To Sch A Line 5

Footnotes:

1	Composite Federal & State Income Tax Rate	25.75%
	Income Tax Factor (1 / 1-tax rate)	1.346801347
2	Ratemaking Equity Investment (line 19)	\$ 1,167,400
	Basis Point = 1/100 of a percent	0.01%
	Earnings Required per Basis Point (thousands)	\$ 116.74
	Times: Income Tax Conversion Factor	1.346801347
	Pretax Income Required per Basis Point (thousands)	\$ 157
	Times: Revenue Tax Conversion Factor	1.0975
	Revenue Requirement per Basis Point (thousands)	\$ 173
3	Per Docket No. 2018-0075, Decision and Order No. 35768, the Commission approved the Asset Transfer, Pole Licensing and Amended Joint Pole agreements. The settlement recovery of prior joint pole accounts receivables previously written-off was recorded to interest income (and excluded from Operating Income) in 2018. Upon further consideration, the recovery should have been recorded to Uncollectible Accounts (904) and included in Operating Income in 2018. (Taxes on the Joint Pole interest income was already included in Operating Income as of December 31, 2018.) Accordingly, an upward adjustment of \$696,636 is being made to Operating Income in the earnings sharing mechanism calculation.	

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS

Line No.	Description	Reference	Amount \$000
	(a)	(b)	(c)

This Schedule has not been developed yet and will be developed only when/as needed.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RAM CAP

Line No.	Description (a)	Reference (b)	Amount \$000 (c)
1	Last Rate Order Target Annual Revenues	Schedule B1	\$ 599,974
2	2018 RAM Cap Increase excluding Exceptional & Other Matters (net of Revenue Tax)	Note 2	12,599
3	2018 Target Revenues Subject to Escalation	Line 1 + Line 2	612,573
4	2019 GDP Price Index	HECO-WP-C-002	2.10%
5	2019 RAM Cap Increase Excluding Exceptional & Other Matters		12,864
6	RAM Cap for 2018 RAM Revenue Adjustment	Line 2	12,599
7	RAM Cap for 2019 RAM Revenue Adjustment	Line 5 + Line 6	25,463
8	Revenue Tax Factor (1/(1-8.885%))		1.0975
9	RAM Cap for 2019 RAM Revenue Adjustment	Line 7 x Line 8	\$ 27,946
			To Sch A1

Note 1 Target Revenues:

See Decision and Order No. 32735, filed March 31, 2015, paragraph 107, page 94:

"The RAM Cap shall be based on the Target Revenues determined in accordance with the RBA and RAM tariffs as provided below ("Basis"), times the cumulative annually compounded increase(s) in GDPPI for intervening years, adjusted to include applicable revenue taxes."

The RAM basis for the calculation of the RAM Revenue Adjustment cap shall be the target revenues determined in accordance with the RBA tariff based on the results of the Company's most recent interim or final rate case decision.

Note 2 See Transmittal No. 18-01 (Decoupling) - Hawaiian Electric Company RBA Rate Adjustment, Schedule J for 2018 RAM Revenue Adjustment Cap of \$13,828 (\$12,599 net of revenue tax).

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
EXCEPTIONAL & OTHER MATTERS

<u>Line No.</u>	<u>Description</u>	<u>Reference</u>	<u>Amount \$000</u>
	(a)	(b)	(c)
1	None		-
2	2019 Revenue Adjustment for Exceptional & Other Matters		\$ -
			To Sch A1

Note 1 Exceptional and Other Matters:
 See Order No. 32735, filed March 31, 2015, paragraph 107, page 94 - 95:
 "The Basis used in determining the RAM Cap shall be adjusted to exclude or otherwise appropriately account for adjustments for the recovery of revenues for previously explicitly stipulated and approved exceptional matters or other matters specifically ordered by the commission, which shall, in any event, be recovered fully without respect to any limitations resulting from application of the RAM Cap."

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
MAJOR PROJECT INTERIM RECOVERY

<u>Line No.</u>	<u>Description</u>	<u>Reference</u>	<u>Amount \$000</u>
	(a)	(b)	(c)
1	Schofield Generating Station	Schedule L1	\$ 18,051
2	Docket No. 2017-0213		
3	Revenue Tax Factor (1/(1-8.885%))		<u>1.0975</u>
4	Major Project Interim Recovery Total		<u>\$ 19,811</u>
			To Sch B1, line 15

Note: Per Notice Transmittal to Update Target Revenue for Schofield Generating Station through the Major Project Interim Recovery Adjustment Recovery Mechanism, filed February 7, 2019, Transmittal No. 19-01 effective January 1, 2019. See Schedule L1.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
REVENUE REQUIREMENT AND DETERMINATION OF MAJOR PROJECT INTERIM RECOVERY
MPIR PROJECT
\$ in thousands

Line No.	Description	Reference	Recorded at 12/31/2018	2019 Activity	Ending Balance as of 12/31/19	Average Balance (f)=[(c)+(e)]/2	MPIR
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<u>Return on Investment - Schofield Generating Station</u>						
1	Gross Plant in Service (not to exceed PUC approved amount)	HECO-WP-L-001	141,570	-	141,570	141,570	
2	Accum Depreciation	HECO-WP-L-001	-	(4,586)	(4,586)	(2,293)	
3	Net Cost of Plant in Service		141,570	(4,586)	136,984	139,277	
4	Fuel Inventory - Avoided	Note 3	(1,534)	-	(1,534)	(1,534)	
5	M&S Inventory	Note 3	100	-	100	100	
6	Total Additions		(1,434)	-	(1,434)	(1,434)	
7	CIAC	Not Applicable	-	-	-	-	
8	ADIT	HECO-WP-L-002	(8,653)	(1,540)	(10,193)	(9,423)	
9	State ITC	HECO-WP-L-002	(4,124)	412	(3,712)	(3,918)	
10	Total Deductions		(12,777)	(1,128)	(13,905)	(13,341)	
11	Total Rate Base		\$ 127,359	\$ (5,713)	\$ 121,646	124,502	
12	Average Rate Base					\$ 124,502	
13	Rate of Return (grossed-up for income taxes, before revenue tax)	Note 4				9.47%	
14	Annualized Return on Investment (before revenue taxes)						\$ 11,790
15	Depreciation Expense (Note 1)	HECO-WP-L-001				4,586	
16	Operating & Maintenance Expense	Note 2				2,087	
16a	Prior year reconciliation of O&M to actuals	Note 2				-	
17	Amortization of State ITC	see line 6				(412)	
18	Lease Rent Expense	Not Applicable				-	
19	Other Expense	Not Applicable				-	
20	Total Expenses						\$ 6,260
21	Total Major Project Interim Recovery						\$ 18,051
22	Revenue Tax Factor (1/(1-8.885%))						1.0975
23	Annualized Revenue for Major Project Interim Recovery						<u>\$ 19,810.8</u>

To Sch B & B1

Reconciliation to Schedule B1 (Info Only)			
	Jul - Sep 18	Oct - Dec 18	2019
Annualized Revenue for MPIR	\$ 6,600	\$ 8,561	\$ 19,811
Rev Tax Adj	\$ (586)	\$ (761)	\$ (1,760)
Prorated MPIR for Year 1 excl Rev Tax	\$ 6,014	\$ 7,800	\$ 18,051
Incremental	\$ 6,014	\$ 1,787	\$ 10,250
	Note 5	Note 6	

Note 1: Depreciation expense is recorded beginning in the year after an asset is placed in service, therefore, depreciation expense is zero in year 1. The revenue requirement for year 2 and thereafter will include depreciation expense at existing, approved depreciation accrual rates at the time of filing.

Note 2: Total O&M expense is estimated to cost \$1.787 million annually for year 1 (\$2.087 million annually during the interim period thereafter), as referenced within Attachment 1 - SGS Business Case Revenue Requirement Update and approved in Order No. 35953, filed December 14, 2018.

Note 3: Decision and Order No. 35556 dated June 27, 2018 in Docket No. 2017-0213.

Note 4: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric's RBA Rate Adjustment, Schedule D, filed May 29, 2018.

Note 5: MPIR Revenues effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018 in Docket No. 2017-0213.

Note 6: MPIR Revenues effective October 1, 2018 filed December 21, 2018 in Docket No. 2017-0213.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
2018 PERFORMANCE INCENTIVE MECHANISMS

	2018 Annual Total *	2018 Target **	Variance (c)=(a)-(b)	Deadband ** (d)	Maximum \$ ** (e)	(Penalty) / Reward Amount 1.0 * (((b - a) / d) * e + e)
<u>Service Quality:</u>						
Normalized T&D SAIFI						
Without Exclusion	1.253	1.112	0.141	0.089	\$ 2,244,112	\$ (1,306,645)
With Exclusion	1.238	1.112	0.126	0.089	\$ 2,244,112	\$ (929,827)
Normalized T&D SAIDI						
Without Exclusion	111.94	99.10	12.84	9.033	2,244,112	\$ (946,492)
With Exclusion	106.41	99.10	7.31	9.033	2,244,112	\$ -
Call Center Performance (Excludes Blocked Calls)						
	83.97%	79.66%	4.31%	3.00%	\$ 897,645	\$ 391,972
<u>Phase 1 Renewable Energy RFP PIM</u>						
First Allocation ***						\$ 591,854
					Total Without Exclusion	\$ (1,269,311)
					Total With Exclusion	\$ 53,998
						To Sch A

Notes:

Exclusion represents 25kV Proactive Work, filed in Transmittal No. 18-05, Hawaiian Electric's Letter Request for Exclusion of 25kV Splice Replacement Work from Performance Incentive Mechanism Provision's SAIDI and SAIFI 2018 Calculation, filed December 18, 2018.

* See HECO-WP-M-002

** See HECO-WP-M-001

*** See HECO-WP-M-005

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
ON-BILL FINANCING COST RECOVERY

Note 1				Cost Recovery (excluding Rev Tax)			Cost Recovery (including Rev Tax)		
Line	Company	Customer Count	Allocation	Total Recovery	2019 Recovery	2020 Recovery	Total Recovery with Rev Tax	2019 Recovery with Rev Tax	2020 Recovery with Rev Tax
		a	b = a/total a	c = \$2,330,408 allowed x b			d = c * 1.0975		
1	HE	305,456	66%	1,537,150 To Sch B	768,575 To Sch A	768,575	1,687,022	843,511 To Sch B1	843,511
2	HL	85,758	19%	431,561	215,780	215,781	473,638	236,819	236,819
3	ME	71,875	16%	361,697	180,849	180,848	396,963	198,481	198,482
4	Total	463,089	100%	2,330,408	1,165,204	1,165,204	2,557,623	1,278,811	1,278,812

Note 1: Statistical Report as of December 31, 2018.

Note 2: See Decision and Order No. 36212, Docket No. 2017-0102, filed March 11, 2019, pages 18-19. The Commission allowed the Companies to recover Program implementation costs over a period of two years, commencing with the 2019 RBA Rate Adjustment which will, if there are no major issues with the standard RBA Review Transmittal process, become effective on June 1, 2019.

Hawaiian Electric Company, Inc.
Sales Forecast for June 2019 to May 2020
in GWh

	2019							2020					
	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Total</u>
R	126.7	141.7	151.2	146.2	143.0	131.9	130.4	132.1	118.6	120.1	116.7	121.7	1,580.3
G	24.2	25.6	26.5	25.3	26.0	23.9	24.1	22.6	22.8	23.9	23.7	24.6	293.2
J	148.0	159.0	160.8	157.3	158.4	145.6	139.3	139.4	140.8	141.7	144.9	152.0	1,787.2
P	233.6	250.5	261.0	246.4	249.4	230.6	225.1	219.6	214.0	223.5	225.2	232.1	2,811.0
F	<u>1.8</u>	<u>1.9</u>	<u>1.7</u>	<u>1.6</u>	<u>1.6</u>	<u>1.4</u>	<u>1.4</u>	<u>1.3</u>	<u>1.3</u>	<u>1.5</u>	<u>1.3</u>	<u>1.4</u>	<u>18.2</u>
Total	534.3	578.7	601.2	576.8	578.4	533.4	520.3	515.0	497.5	510.7	511.8	531.8	6,489.9

Source: Hawaiian Electric Company, Inc. February 2019 Sales Forecast Update.

Hawaiian Electric Company, Inc.
Adjustment For Prior Year RBA Accrual
Recovery of 12/31/16 RBA Balance

		2018					
		January	February	March	April	May	Total
Billed RBA Revenues	Note 1	11,581,297	10,784,945	5,161,437	3,718,306	3,653,460	34,899,445
Net Unbilled Revenues	Note 1	(834)	(3,556,154)	(1,491,331)	45,447	121,360	(4,881,511)
Total Billed + Unbilled		11,580,464	7,228,791	3,670,106	3,763,752	3,774,820	30,017,934
x % Share for RBA	Note 2 & 3	31.9352%	63.5519%	100.0327%	100.0327%	100.0327%	
RBA Revenues (Recovery of 12/31/16 RBA balance)		3,698,239	4,594,033	3,671,308	3,764,985	3,776,056	19,504,621
		← Schedule B2 →					
Less: Revenue Taxes	0.08885	(328,589)	(408,180)	(326,196)	(334,519)	(335,503)	(1,732,987)
RBA Revenues (Recovery of 12/31/16 RBA balance)		3,369,650	4,185,853	3,345,112	3,430,466	3,440,553	17,771,634
net of Revenue Taxes		← Schedule B →					

* Differences are due to rounding

Note 1: RBA rate adjustment revenues per the Billed reports and Unbilled reports include both RBA and RAM revenues. Therefore, an allocation % is utilized to determine RBA revenues.

Note 2: RBA Rate Adjustment Allocation for January 1, 2018 to February 15, 2018 is per Transmittal No. 17-02 (Decoupling) - RBA Rate Adjustment (filed March 31, 2017), Schedule A, Note (1). RBA Rate Adjustment Allocation for February 16, 2018 to May 31, 2018 is per Hawaiian Electric Revised Schedules Resulting from Interim Decision and Order No. 35100 as modified by Order No. 35229, and Order No. 35220, Exhibit 7, filed on January 19, 2018, which was approved by Order No. 35280, issued on February 9, 2018. See Note 3 below for prorated % share for RBA for February 2018.

Note 3: Prorated % Share for RBA by day resulting from 2017 Test Year Interim Rates, effective February 16, 2018, per Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case Hawaiian Electric Revised Schedules Resulting from Interim Decision and Order No. 35100 as modified by Order No. 35229 and Order No. 35220, Exhibit 7, filed on January 19, 2018. As approved by the Commission in Order No. 35280, Approving Revised Schedules of Operations and Tariff Sheets, filed on February 9, 2018.

	RBA %	No of Days	Prorated RBA %
Feb 1-Feb 15	31.9352%	53.6%	17.1081%
Feb 16-Feb 28	100.0327%	46.4%	46.4438%
			<u>63.5519%</u>

Hawaiian Electric Company, Inc.
Adjustment For Prior Year RBA Accrual
Recovery of 12/31/17 RBA Balance

		2018							
		June	July	August	September	October	November	December	Total
Billed RBA Revenues	Note 1	4,701,823	5,771,562	6,185,543	6,034,935	6,400,115	5,842,574	5,503,361	40,439,912
Net Unbilled Revenues	Note 1	990,752	364,534	81,590	(85,985)	(137,876)	(175,257)	(57,177)	980,581
Total Billed + Unbilled		5,692,575	6,136,096	6,267,133	5,948,950	6,262,238	5,667,317	5,446,183	41,420,493
x % Share for RBA	Note 2	79.6227%	79.6227%	79.6227%	79.6227%	79.6227%	79.6227%	79.6227%	
RBA Revenues (Recovery of 12/31/17 RBA balance)		4,532,582	4,885,725	4,990,061	4,736,715	4,986,163	4,512,471	4,336,398	32,980,115
		← Schedule B2 →							
Less: Revenue Taxes	0.08885	(402,720)	(434,097)	(443,367)	(420,857)	(443,021)	(400,933)	(385,289)	(2,930,284)
RBA Revenues (Recovery of 12/31/17 RBA balance)		4,129,862	4,451,628	4,546,694	4,315,858	4,543,142	4,111,538	3,951,109	30,049,831
net of Revenue Taxes		← Schedule B →							

* Differences are due to rounding

Note 1: RBA rate adjustment revenues per the Billed reports and Unbilled reports include both RBA and RAM revenues. Therefore, an allocation % is utilized to determine RBA revenues.

Note 2: RBA Rate Adjustment Allocation for June 1, 2018 - May 31, 2019 is per Transmittal No. 18-01 (Decoupling) - RBA Rate Adjustment (Filed May, 29, 2018), Schedule A , Note (1).

Hawaiian Electric Company, Inc.

Bargaining Unit Wage Increase per Collective Bargaining Agreements

Wage Increases:	1/1/2014	3.00%	(Note 1)
(non-compounded)	1/1/2015	3.00%	(Note 1)
	1/1/2016	3.25%	(Note 1)
	1/1/2017	3.00%	(Note 1)
	1/1/2018	3.00%	(Note 1)
	1/1/2019	3.00%	(Note 2)
	1/1/2020	3.00%	(Note 2)
	1/1/2021	3.00%	(Note 2)

Increase effective			Increase Amount	Wage Rate With Increase	Labor Cost Escalation Rate	
			(a)	(b) or prev (b) + (a)	(c) (b) / prev (b) -1	
1.00	3.00%	1/1/2014	0.0300	1.0300		
	3.00%	1/1/2015	0.0300	1.0600	0.0291	2.91%
	3.25%	1/1/2016	0.0325	1.0925	0.0307	3.07%
	3.00%	1/1/2017	0.0300	1.1225	0.0275	2.75%
	3.00%	1/1/2018	0.0300	1.1525	0.0267	2.67%
1.00	3.00%	1/1/2019	0.0300	1.0300		
	3.00%	1/1/2020	0.0300	1.0600	0.0291	2.91%
	3.00%	1/1/2021	0.0300	1.0900	0.0283	2.83%

Note 1: Agreement ratified by the IBEW, Local 1260 on November 1, 2012, reflects a 3.00% increase effective 1/1/2014, 1/1/2015, 1/1/2017 and 1/1/2018 and a 3.25% increase effective 1/1/2016, based on 1/1/2013 rates.

Note 2: Agreement ratified by the IBEW, Local 1260 on July 31, 2018, reflects a 3.00% increase effective 1/1/2019, 1/1/2020 and 1/1/2021 based on 1/1/2018 rates. See also HECO-WP-C-003.

Blue Chip Economic Indicators®

Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead
Vol. 44, No. 2, February 10, 2019

2019 Real GDP Forecast Drops to 2.5%

FEBRUARY 2019 Forecast For 2019 SOURCE:	Percent Change 2019 From 2018 (Full Year-Over-Prior Year)										Average For 2019			Total Units-2019		2019
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	Real GDP (Chained (2012\$) Index	Price Index (Cur.\$) Index	Nominal GDP (Cur.\$) Index	Consumer Price Index (Total) (2012\$)	Indust. Prod. (2012\$)	Dis. Pers. Income (2012\$)	Personal Cons. Exp. (2012\$)	Non-Res. Fix. Inv. (2012\$)	Corp. Profits (Cur.\$) (2012\$)	Treas. Bills 3-mo.	Treas. Notes 10-Year	Unempl. Rate (Civ.)	Housing Starts (Mil.)	Auto & Light Truck Sales (Mil.)	Net Exports (2012\$)	
Action Economics	2.9 H	2.0	5.0	1.9	3.5	2.8	3.1 H	4.9	7.5	2.7	3.0	3.7	1.28	17.1	-967.9	
Amherst Pierpont Securities	2.9 H	2.4	5.4 H	2.5 H	3.5	2.8	3.1 H	4.8	7.5	2.6	3.2	3.6	1.29	16.9	-960.0	
MUFG Union Bank	2.9 H	2.4	5.3	1.8	3.2	na	2.9	3.8	5.5	2.4	3.0	3.7	1.29	17.2 H	-960.0	
Barclays, US*	2.8	1.9	4.8	1.4	2.8	na	2.9	5.1	na	na	na	3.7	na	na	-1024.5	
RDQ Economics	2.8	2.0	4.9	2.1	3.7 H	2.5	2.9	5.6	8.5 H	2.7	3.1	3.5	1.30	17.2 H	-1021.6	
SOM Economics, Inc.	2.8	2.0	4.8	2.0	3.1	2.5	2.5	4.2	5.0	2.6	2.9	3.6	1.25	16.8	-938.0	
U.S. Chamber of Commerce	2.8	2.1	4.9	2.1	3.2	2.6	2.9	5.2	4.5	2.6	2.9	3.9	1.30	na	-932.7	
Credit Suisse	2.7	2.0	4.7	1.8	na	na	2.9	3.0	na	na	na	3.7	na	na	-966.2	
Moody's Analytics, US	2.7	2.3	5.1	2.1	2.9	2.2	2.8	5.3	6.1	2.6	3.1	3.6	1.38 H	17.0	-1080.7 L	
NatWest Markets	2.7	2.0	4.8	1.8	2.4	2.5	3.0	5.8 H	5.0	2.7	2.8	3.5	1.20	16.5	-980.0	
PNC Financial Services Group	2.7	1.7	4.4	1.8	2.9	1.3 L	2.7	4.6	na	2.5	2.9	3.6	1.30	17.0	-1013.0	
RBC Capital Markets	2.7	2.1	4.8	1.7	na	na	2.9	5.2	na	na	3.1	3.6	1.28	17.0	-980.0	
The Conference Board, US*	2.7	na	4.8	2.1	na	2.5	2.8	4.4	6.2	2.5	2.8	3.7	1.24	17.2 H	-1020.3	
Comerica**	2.6	2.0	4.6	1.9	3.5	2.9	2.6	4.1	na	2.5	2.9	3.7	1.24	16.6	-942.4	
Georgia State University*	2.6	2.4	5.0	2.0	2.6	2.5	2.8	5.1	4.4	2.5	3.2	4.1	1.24	16.3	-1021.3	
High Frequency Economics	2.6	2.0	4.7	1.9	2.8	2.9	3.0	3.3	1.7	2.4	2.9	3.8	1.22	16.9	-953.1	
Naroff Economic Advisors*	2.6	2.1	4.8	2.0	2.6	2.3	2.6	2.9	4.3	2.8	3.2	3.7	1.30	16.7	-977.0	
Point72 Asset Management*	2.6	1.9	4.5	1.9	3.1	2.3	2.8	5.4	6.2	2.5	2.8	3.7	1.20	16.7	-1058.8	
Regions Financial Corporation	2.6	2.5 H	5.1	1.7	2.9	2.3	3.0	4.4	4.5	2.6	2.8	3.7	1.25	16.9	-954.4	
Turning Points (Micrometrics)	2.6	2.4	5.0	2.1	2.6	2.4	2.7	4.5	2.8	2.8	3.4 H	3.8	1.18 L	16.7	-985.0	
ACT Research	2.5	2.0	4.5	1.9	2.8	3.0	2.7	5.0	na	2.4	2.8	3.7	1.31	16.6	-1012.7	
Bank of America-Merrill Lynch, US**	2.5	2.0	4.6	1.6	2.7	na	2.6	3.4	na	2.4	2.8	3.7	1.29	16.6	-969.1	
Eaton Corporation	2.5	2.3	4.8	2.0	2.5	2.7	2.6	4.1	na	2.6	3.0	3.7	1.30	16.8	-1006.2	
Econoclast	2.5	2.0	4.5	2.0	2.8	2.2	2.8	3.5	5.2	2.4	2.8	3.8	1.25	16.3	-989.0	
Fannie Mae	2.5	2.3	4.8	2.0	2.5	2.4	2.6	3.9	1.5	2.5	2.7	3.7	1.26	16.7	-1020.9	
FedEx Corporation, US	2.5	2.1	4.5	1.9	2.7	2.5	2.6	4.6	3.9	2.6	3.0	3.6	1.27	16.8	-1008.0	
Ford Motor Company*	2.5	2.1	4.5	2.2	2.6	2.5	2.5	3.9	na	na	2.7	3.7	1.27	na	-1003.0	
General Motors Corporation, US	2.5	2.1	4.6	2.0	2.8	2.6	2.7	3.8	1.8	2.6	2.9	3.6	1.28	na	-857.3	
Inform - Univ. of Maryland	2.5	2.1	4.7	2.0	2.7	2.4	2.6	4.3	4.5	2.7	3.0	3.7	1.27	16.7	-980.4	
Moody's Capital Markets, US*	2.5	1.9	4.5	1.6	3.5	2.6	2.8	3.8	4.3	2.4	2.8	3.6	1.28	16.9	-967.7	
National Assn. of Home Builders	2.5	2.3	4.5	2.0	1.7 L	2.6	2.6	4.0	na	2.7	3.0	3.6	1.27	16.8	-1020.0	
UCLA Business Forecasting Proj.*	2.5	2.2	4.7	2.2	2.5	2.5	2.6	4.3	4.0	2.5	3.0	3.6	1.31	16.6	-1035.0	
Wells Fargo, US	2.5	1.9	4.4	2.1	3.0	2.9	2.9	3.8	4.4	2.6	3.0	3.7	1.30	16.7	-1010.7	
AIG	2.4	2.3	4.7	2.0	2.5	2.7	2.5	3.8	4.8	2.4	2.8	3.5	1.27	16.7	-1009.2	
BMO Capital Markets*	2.4	2.1	4.5	2.0	3.3	2.1	2.7	3.3	5.9	2.5	2.8	3.6	1.24	16.4	-1009.0	
Daiwa Capital Markets America	2.4	2.0	4.5	1.9	2.5	2.2	2.9	3.6	5.0	2.4	2.8	3.8	1.19	16.7	-1012.0	
Goldman Sachs & Co.**	2.4	2.0	4.3	1.8	1.7 L	3.4 H	2.8	3.3	na	2.7	2.9	3.7	1.27	na	-975.5	
Macroeconomic Advisers by IHS Markit**	2.4	2.1	4.5	2.0	2.7	2.5	2.6	3.6	1.5	2.6	2.9	3.6	1.28	16.8	-1021.1	
MacroFin Analytics & Rutgers Bus School	2.4	2.2	4.6	2.0	3.1	2.3	2.5	3.8	4.7	2.6	2.9	3.9	1.26	16.8	-943.8	
Nomura Securities, US	2.4	2.3	4.7	1.7	2.7	2.1	2.9	2.7	na	na	2.7	3.4 L	1.25	16.9	-1044.3	
Northern Trust Company*	2.4	1.8	4.2	2.0	2.7	2.2	2.7	3.1	4.1	2.7	3.2	3.6	1.28	16.6	-989.9	
Oxford Economics, US	2.4	1.7	4.2	1.7	2.9	2.4	2.8	3.3	-2.4 L	2.5	2.8	3.7	1.29	17.0	-996.9	
Societe Generale	2.4	1.9	4.3	1.6	na	2.5	2.8	4.1	3.2	2.6	2.8	3.6	1.23	16.7	-1011.4	
UBS	2.4	2.0	4.5	1.5	2.4	3.2	2.4	3.0	na	2.5	na	3.7	1.33	na	-1010.9	
Economist Intelligence Unit, UK	2.3	1.8	4.1	2.2	2.6	2.0	2.3	3.0	na	2.6	2.7	4.1	1.26	16.2	-915.0	
Grant Thornton/Diane Swonk	2.3	2.1	4.4	1.9	2.6	2.5	2.6	3.4	1.2	2.4	2.8	3.7	1.24	16.6	-1010.4	
JP MorganChase, US	2.3	1.8	4.1	1.4	2.0	2.7	2.9	3.4	3.5	na	3.1	3.7	1.28	17.0	-1058.0	
MacroPolicy Perspectives	2.3	1.7	4.0	1.3 L	na	na	2.9	3.6	2.0	2.6	2.8	3.8	1.22	16.7	-1051.0	
Morgan Stanley, US**	2.3	2.0	4.3	1.8	3.4	2.6	2.5	2.6	na	2.9 H	2.5	3.5	1.28	na	-988.4	
S&P Global, US*	2.3	2.1	4.4	2.2	2.5	1.8	2.6	3.5	0.7	2.7	3.0	3.6	1.30	16.8	-1006.3	
Swiss Re	2.2	1.6 L	3.8 L	1.9	2.4	2.8	2.7	3.2	4.5	2.5	3.0	3.9	1.27	16.9	-1019.1	
BNP Paribas North America	2.1	na	na	1.4	2.4	2.6	2.5	3.0	na	2.8	3.4 H	3.6	na	na	-1008.0	
ACIMA Private Wealth, US	1.7 L	2.1	3.8 L	1.8	2.0	1.5	1.5 L	1.6 L	na	2.1 L	2.3 L	4.2 H	1.20	15.7 L	-832.5 H	
2019 Consensus: February Avg.	2.5	2.1	4.6	1.9	2.8	2.5	2.7	3.9	4.1	2.6	2.9	3.7	1.27	16.7	-991.1	
Top 10 Avg.	2.8	2.4	5.1	2.2	3.4	2.9	3.0	5.3	6.4	2.8	3.2	3.9	1.31	17.1	-922.9	
Bottom 10 Avg.	2.2	1.8	4.1	1.5	2.2	2.0	2.4	2.8	1.4	2.4	2.7	3.5	1.21	16.4	-1041.6	
January Avg.	2.6	2.1	4.7	1.9	2.7	2.5	2.7	4.1	4.6	2.6	3.0	3.6	1.27	16.8	-989.7	
Historical data 2015	2.9	1.0	4.0	0.1	-1.0	4.1	3.7	1.8	-2.9	0.1	2.1	5.3	1.11	17.4	-724.9	
2016	1.6	1.1	2.7	1.3	-1.9	1.7	2.7	0.5	-1.1	0.3	1.8	4.9	1.17	17.5	-786.2	
2017	2.2	1.9	4.2	2.1	1.6	2.6	2.5	5.3	3.2	0.9	2.3	4.4	1.20	17.1	-858.7	
2018	2.9 f	2.2 f	5.2 f	2.4	4.1	2.8 f	2.7 f	6.8 f	7.8 f	2.0	2.9	3.9	1.26 f	17.2	-908.4 f	
<i>f=Dec 2018 Consensus Forecasts</i>																
Number of Forecasts Changed From a Month Ago:																
Down	18	17	26	18	10	8	14	19	12	25	26	6	9	13	14	
Same	28	24	14	17	13	26	31	20	16	16	15	23	30	23	21	
Up	3	6	8	14	22	11	4	9	3	2	2	20	6	1	13	
February Median	2.5	2.0	4.6	1.9	2.7	2.5	2.7	3.8	4.5	2.6	2.9	3.7	1.27	16.8	-1006.2	
February Diffusion Index	35 %	38 %	31 %	46 %	63 %	53 %	40 %	40 %	35 %	23 %	22 %	64 %	47 %	34 %	49 %	

*Former winner of annual Lawrence R. Klein Award for Blue Chip Forecast Accuracy. **Denotes two-time winner.

HAWAIIAN ELECTRIC COMPANY, INC.

EXHIBIT A 3.00% 3.00% 3.00%

JOB CODE	JOB TITLE	1/1/2019	1/1/2020	1/1/2021	
CL829	CASHIER				
	1st 3 mos.	24.19	24.89	25.59	
	Next 3 mos.	25.31	26.05	26.79	
	Next 3 mos.	26.60	27.37	28.14	
	Next 6 mos.	27.91	28.72	29.53	
	Next 6 mos.	29.26	30.11	30.96	
	Thereafter	30.71	31.60	32.49	
CLC05	SR INFORMATION STORAGE EQUIPMENT OPERATOR				
CL18	SYSTEM OPERATION CLERK				
CL20	TEST AND SUBSTATION CLERK				
CL22	DESKTOP PUBLISHING OPERATOR				
CL104	POWER PLANT CLERK				
CL257	MOTOR FLEET CLERK				
CL328	METER CLERK				
CL21	PRINT PRODUCTION OPERATOR				
CL684	COMPUTER SYSTEMS OPERATOR TRAINEE				
	1st 3 mos.	24.71	25.43	26.15	
	Next 3 mos.	25.95	26.71	27.47	
	Next 3 mos.	27.20	27.99	28.78	
	Next 6 mos.	28.55	29.38	30.21	
	Next 6 mos.	29.99	30.86	31.73	
	Thereafter	31.40	32.31	33.22	
TL180	CONDENSER CLEANER				
	1st 6 mos.	27.20	27.99	28.78	
	Next 6 mos.	28.55	29.38	30.21	
	Next 6 mos.	29.99	30.86	31.73	
	Thereafter	31.40	32.31	33.22	
CLA49	PROJECT CLERK				
CLA81	STANDARDS CLERK				
CL12	JOINT POLE AIDE				
CL13	PROJECT CLERK				
CL15	FIELD SERVICE CLERK				
	1st 3 mos.	25.31	26.05	26.79	
	Next 3 mos.	26.60	27.37	28.14	
	Next 3 mos.	27.91	28.72	29.53	
	Next 6 mos.	29.26	30.11	30.96	
	Next 6 mos.	30.71	31.60	32.49	
	Thereafter	32.27	33.21	34.15	
T335	TRUCK DRIVER A	1/1/2018	32.31	33.25	34.19
CL406	METER READER				
	1st 3 mos.	23.99	24.71	25.43	26.15
	Next 3 mos.	25.19	25.95	26.71	27.47
	Next 6 mos.	27.72	28.55	29.38	30.21
	Next 6 mos.	29.12	29.99	30.86	31.73
	Next 6 mos.	30.49	31.40	32.31	33.22
	Thereafter	32.03	32.99	33.95	34.91
			x 1.03	x 1.0291	x 1.0283

CIAC Treatment
Resulting from FERC Adoption

Adoption of FERC USOA required a change in presentation change to Contributions in Aid of Construction (CIAC)

Prior to October 2018, and in establishing rates in previous test year rate cases, the Company's presentation of contributions in aid of construction ("CIAC") followed the guidelines of the National Associate of Regulatory Utility Commissioners Uniform System of Accounts (NARUC USOA). Under the NARUC reporting system, CIAC is reported under an exclusive account, account 271, which includes donations or contributions in cash, services or property from states, municipalities, or other governmental agencies, individuals and others for construction purposes. All CIAC was incorporated as a deduction in the calculation of rate base in part because the Companies' systems did not facilitate on-going reporting of CIAC related to plant in service separate from CIAC related to construction work in progress ("CWIP").

The Commission approved the Companies' request to change to Federal Energy Regulatory Commission Uniform System of Accounts (FERC USOA), beginning with the implementation of the Companies' new ERP/EAM, in Decision and Order No. 31757, issued December 19, 2013 in Docket No. 2013-0007.

Beginning in October 2018 with the transition to FERC, the net balance of CIAC in account 271 less the CIAC amortization to be recorded for October to December 2018, was credited against the account balances charged with the cost of construction, i.e., gross plant in service and CWIP, resulting in the account becoming zero (i.e. "0") at December 31, 2018.

Ratemaking treatment for CIAC

The Company's ratemaking treatment of contributions in aid of construction is summarized below:

- *CIAC associated with Plant in Service* – When a utility capital project is placed into service, the plant in service net of the associated CIAC is included as net cost of plant in service in rate base. The plant in service net of the CIAC is included as part of the basis for the depreciation accrual the year after it is placed into service (i.e. January 1 of the year after it is placed into service).
- *CIAC associated with CWIP* – For book purposes, CIAC that is received while projects are still under construction (i.e. in CWIP) will offset the costs incurred and is presented net in CWIP. The CWIP net of the associated CIAC is subject to the AFUDC accrual if there is a net CWIP balance. In the next rate case, the Company will request CIAC associated with CWIP be excluded from the rate base calculation since CWIP net of

CIAC earns AFUDC. CIAC associated with CWIP is however, included in rate base in this RAM calculation for consistency with the 2017 Test Year treatment. See further discussion of Company's requested treatment of CIAC associated with CWIP below.

- *Developer Advances* - Cash contributions received in advance of construction of a utility capital project that are temporarily not classified as CIAC because the funds received are in excess of the specific project expenditures. The balance of developer advances is presented as funds from non-investors, included in its own exclusive account, and deducted in the calculation of rate base. As project costs are incurred for a utility capital project, an equal portion of developer advances associated with the project will be reclassified as CIAC and credit the accounts charged with the cost of construction. Developer Advances were included as a part of CIAC as a reduction to rate base in the 2017 Test Year.

Treatment of CIAC within the 2019 Annual Decoupling Filing

For the 2019 Decoupling Filing, the Company treated CIAC consistently with prior filings resulting in no impact to rate base.

Schedule D1, Determination of Rate Base RAM Adjustment – Change in Rate Base

Plant in Service - There is no change in rate base for plant in service and CIAC associated with plant in service. Under NARUC, in rate base, plant in service was the gross cost of plant (net of accumulated depreciation), and CIAC was a separate reduction to rate base. Under FERC, the plant in service amounts are net of (i.e., already reduced by) CIAC, and presented net of accumulated depreciation in the calculation of rate base. There is no separate CIAC line item reducing rate base because it is already net in utility plant. Therefore, there is no net rate base impact. The difference between NARUC and FERC for plant in service is a matter of where the costs are classified in rate base, and not a matter of inclusion or exclusion of costs in rate base.

CIAC associated with CWIP - There is no change in rate base for CIAC associated with CWIP. Previously, presentation of CIAC aligned with NARUC and all CIAC, including amounts associated with projects in CWIP, were included as a reduction to rate base under account 271. The 2019 estimated balance continues the treatment of including the CIAC in CWIP to be consistent with the recorded balance at 2018 year-end because all 2019 estimated CIAC additions have been included at Schedule D2 and included as part of net cost of plant at Schedule D1. Although the treatment described above was used in the 2019 annual decoupling filing, see Company's requested treatment to exclude CIAC associated with CWIP from rate base in future filings in the discussion below.

Developer Advances - With the transition to FERC, CIAC is credited when received against the related project costs in CWIP. To the extent funds are not yet expended for a project in

CWIP, the CIAC will be classified as developer advances and deducted in the calculation of rate base at Schedule D1. The recorded balance at 2018 year-end is not adjusted for 2019 activity as it is incorporated in Schedule D2.

Schedule D2, Determination of Baseline Capital Projects Additions

Schedule D2 was revised to incorporate the baseline and major project CIAC (including Developer Advances) for 2014 to 2017 into the baseline average calculation of net plant in service, consistent with the presentation of rate base. The 2018 CIAC additions calculated at HECO-WP-D2-003 includes additions to CIAC from all sources, i.e. Plant, CWIP and Developer Advances, which were used in the 5-year baseline calculation. As a result, the estimated 2019 additions to CIAC in CWIP and Developer Advances balances at Schedule D1 for the Change in Rate Base are not required as they are already included in the net cost of plant line item.

Schedule E, Determination of Depreciation & Amortization RAM Adjustment

FERC Uniform System of Accounts Electric Plant Instructions, 2. Electric Plant To Be Recorded at Cost. D. states, "The electric plant accounts shall not include the cost or other value of electric plant contributed to the company." Therefore, the Recorded Depreciable/Amortizable Balances at December 31, 2018 in Schedule E represents plant in service net of CIAC which is used as the basis to estimate the 2019 annual accrual amount. In calculating the 2019 RAM Depreciation and Amortization, Depreciation and Amortization in Current Revenues also includes CIAC amortization approved in the 2017 Test Year.

Schedule F & F1, Determination of Change in Deferred Income Taxes & Tax Depreciation

The methodology for computing the deferred taxes related to RAM year tax depreciation was not changed within the 2019 annual decoupling filing. Gross plant additions are used as the basis for calculating tax depreciation. However, see the CIAC impact to ADIT section below for the Company's preferred treatment considering the effects of netting CIAC against plant in service.

Schedule G-series, CIAC

Schedule G, G1 and G2 were removed from the Decoupling filings and instead incorporated into either Plant in Service, CIAC in CWIP or Developer Advances. The December 31, 2018 balances for CIAC associated with CWIP and Developer Advances were extracted from PowerPlan. Additionally, as noted above, the calculation of the 5-year baseline average of CIAC and amortization was incorporated within Schedule D2 and Schedule E, respectively.

The Company will continue to include CIAC associated with CWIP and Developer Advances as a reduction to rate base until the FERC presentation of rate base is approved in the Company's next rate case.

Company's requested CIAC treatment

The Company requests to reflect the following changes to the treatment of CIAC within the annual decoupling filings.

CIAC associated with CWIP

In Mr. Franklin's T-12 direct testimony in Hawaii Electric Light's 2019 Test Year rate case, the Company proposes to remove CIAC associated with CWIP from the calculation of rate base due to the fact that CWIP net of associated CIAC earns AFUDC, therefore the CWIP and its associated CIAC should be excluded from rate base.

Excluding CWIP net of CIAC, to better align the source of funds with its use (i.e. the CIAC funds received were applied against the costs incurred for the project) and is therefore properly excluded from the calculation of rate base. In addition, and as mentioned previously, any material CIAC received in advance of construction expenditures will continue to be deductions in the calculation of rate base as Developer Advances.

CIAC impact to ADIT

ADIT associated with CIAC in CWIP should be divided between nontaxable and taxable CIAC. Nontaxable CIAC (primarily interconnection CIAC) is treated as a reduction in basis for both book and tax purposes. On the other hand, although taxable CIAC is also a reduction in basis for book purposes, for tax purposes, the receipt of taxable CIAC creates tax basis by way of the recognition of taxable income and reverses by way of tax depreciation.

Nontaxable CIAC does not create ADIT since there is no book tax difference. Consequently, the regulatory netting of nontaxable CIAC against the plant assets should not create any issue with respect to the ADIT beginning balance for the rate base RAM calculation

Taxable CIAC generates a Deferred Tax Asset (DTA) as it is received and recorded into CWIP under the new FERC accounting. Prior NARUC accounting treatment with account 271 created DTA as CIAC was booked to 271, which is equivalent to what is now booked to CWIP. The origination and timing of the DTA under the FERC method will be equivalent to the NARUC method. However, under the old method, the DTA was immediately recognized as part of rate base, consistent with the treatment of the account 271 inclusion. However, under the FERC method, the generation of the DTA must be inventoried and tracked to match up with the amount of CIAC in CWIP and the amounts closed to plant in service. This tracking is necessary to ensure that the amount of DTA related to CWIP is excluded from rate base. Once CWIP costs are closed to plant, the related DTA will be included in rate base and will begin reversal through tax depreciation taken on the CIAC tax basis.

FERC accounting imbeds the book treatment of CIAC within CWIP and the ultimate plant and related depreciation. The separation will disappear and the Company asserts that the ADIT

effects will be the same with respect to the beginning balance of ADIT for the annual decoupling filing except to the extent CIAC is still in CWIP. This issue will be addressed along with the rate base treatment of CIAC associated with CWIP as mentioned above.

FERC accounting nets CIAC against Plant in Service for purposes of computing baseline and major plant additions. For RAM year tax depreciation and the related ADIT calculated for the change in RAM year ADIT, adopting the net plant additions as the RAM year tax additions will be a change that will result in a smaller amount of tax depreciation and ADIT “change” since the Company previously has assumed the gross additions to be the RAM year tax depreciable base. The Company asserts this is reasonable for the following reasons:

- 1) Under the old method, to the extent nontaxable CIAC was included in the RAM year numbers (through major projects or baseline projects), tax depreciable basis was overstated since there is no tax basis for assets funded by nontaxable CIAC.
- 2) With respect to taxable CIAC, the funded assets do have depreciable tax basis and it is accounted for in the RAM year additions tax depreciation. However, the receipt of taxable CIAC generates taxable income and deferred tax assets that increase rate base. The effect of this DTA from taxable CIAC was never recognized in the RAM tariff, which resulted in an overstatement of RAM year ADIT change, as it related to the projected plant additions.

For purposes of the 2019 RAM calculation, ADIT has been calculated on gross plant additions, consistent with the 2017 Test Year treatment and prior decoupling filings, however the Company is requesting treatment of CIAC in deferred tax to follow FERC accounting.

Summary

In summary, Hawaiian Electric prepared the 2019 annual decoupling filings in accordance with the historical treatment of CIAC. Historically, due to system constraints, CIAC records were not maintained with matching of the separate components (plant in service, CWIP, developer advances). As a result, the entire amount of CIAC was treated as a reduction to rate base and the Return on Investment was understated. As stated in Mr. Franklin’s T-12 direct testimony in Hawaii Electric Light’s 2019 Test Year rate case, the Companies propose to exclude the CIAC associated with CWIP in its calculation of rate base in the rate base RAM filings. Should the Commission approve Hawaii Electric Light’s proposal, Hawaiian Electric will implement this change in the annual decoupling filing in the year following the Commission’s approval.

**Hawaiian Electric Company, Inc.
Revenue Decoupling - Rate Base RAM
2018 Major Projects and Other Plant Additions, Net of CIAC**

NET CALCULATION

Grand parent	Project #	Project	Plant Addition Date	[1]	[2]	2018 Plant Additions, Net of CIAC				[3]	Over/(Under) Net PUC Approved (E) - (F)	Functional Plant Category	
				Net Plant Adds Thru 12/31/17 (A)	Total Project Cost (B)	CIAC & Adjs (C)	Net Project Cost (D) = (B) + (C)	Net Plant Adds Thru 12/31/18 (E) = (A) + (D)	Net PUC Approved (F)				
<u>2018 Major Projects</u>													
1	-	P0001370 DOT Airport DSG	2018 straggling	3,336,179	(3,516)	(96,602)	(100,118)	3,236,061	3,400,139	[3a]	(164,078)	Production Other	
2	-	P0002264 Pukele 80MVA Tsf #1	2018 straggling	3,846,733	-	-	-	3,846,733	3,846,733	[3a]	-	Transmission	
3	Y00038	(P0000783) Kakaako Makai-Iwilei 25kV DL	2018 straggling	7,243,799	-	-	-	7,243,799					
		(P0000672) Kakaako Makai-Kewalo 25kV DL	2018 straggling	5,023,851	-	-	-	5,023,851					
		(P0001579) Kakaako Makai DOT Queen-Cook	2018 straggling	1,969,969	-	-	-	1,969,969					
		PZ.000001		14,237,619				14,237,619	14,537,623	[3a]	(300,004)	Distribution	
4	Y00168	PZ.000003 (P0003205) ERP EAM Hardware	2018 straggling	2,604,146	-	-	-	2,604,146	2,590,000	[3b]	14,146	Computers	To Sch D1
5		PE.005155 Joint Pole Capital Transfer Price	201812	-	24,665,897	-	24,665,897	24,665,897	24,665,897	[3c]	-	Distribution	
<u>Other</u>													
6	-	PE.000104 (P0003465) Koolau-Wailupe #1 Str 30 P9 Replace	2018 straggling	2,684,387	13,203	-	13,203	2,697,590	2,555,619	[3d]	141,971	Transmission	To Sch D1
<u>Major Project Interim Recovery (MPIR) Projects</u>													
7	-	PZ.000016/ PZ001002 (P0001576) Schofield Generation Station	201806	-	144,743,542	-	144,743,542	144,743,542	-	[4]	144,743,542	Production Other	To Sch D1

[1] Transmittal No. 18-01 (Decoupling) - Hawaiian Electric Company RBA Rate Adjustment, HECO-WP-D2-001, filed on May 29, 2018.

[2] Hawaiian Electric Companies' *Exemption From and Modification of General Order No. 7 Paragraph No. 2.3(g), Relating to Capital Improvements Capital Projects Completed in 2018*, in Docket No. 03-0257, filed on March 27, 2019. See HECO-WP-D2-002.

[3] Per the *Final Decision & Order and Dissenting Opinion of Leslie H. Kondo, Commissioner*, filed on August 31, 2010, in Docket No. 2008-0274, on page 54, "for purposes of calculating the Rate Base for the RAM, the costs on Major Capital Projects shall be limited to those amounts most recently approved, e.g., when authorized in the commission's decision approving the HECO Companies' application in compliance with General Order No. 7 or in an interim or final decision and order issued by the commission in the HECO companies' rate cases."

[3a] Net PUC Approved amount was derived from the Hawaiian Electric 2017 Test Year Rate Case, filed in Docket No. 2016-0328, in response to CA-IR-303 and CA-IR-304 which updated 2016 Plant Additions and CIAC for actuals through December 31, 2016 and revised forecast for 2017. See calculation below:

	DOT Airport DSG			Pukele 80MVA Tsf #1			Kakaako Makai		
	Gross	CIAC	Net	Gross	CIAC	Net	Gross	CIAC	Net
Gross/Net Plant Adds Thru 12/31/16) - column [1]	5,235,178	(1,993,000)	3,242,178	3,839,121	-	3,839,121	18,338,808	(2,825,023)	15,513,785
2017 Plant Addition (CA-IR-303, Att 2)	157,961	-	157,961	7,612	-	7,612	(76,162)	-	(76,162)
2017 CIAC Estimate (CA-IR-304, Att 2)	-	-	-	-	-	-	-	(900,000)	(900,000)
Derived PUC Approved	5,393,139	(1,993,000)	3,400,139	3,846,733	-	3,846,733	18,262,646	(3,725,023)	14,537,623

[3b] Per Decision and Order No. 33861, page 4, Docket No. 2014-0170, For Approval of an Enterprise Resource Planning and Enterprise Asset Management System Implementation Project and Related Accounting Treatment, filed August 11, 2016.

[3c] Per Decision and Order No. 35768, Docket No. 2018-0075, For Approval of the Transfer of Equity Ownership Interest in Certain Joint Poles, to Commit Funds in Excess of \$2,500,000, Accounting and Ratemaking Treatment, Amendments to Joint Pole Agreements Between the Applicants, Asset Transfer Agreement, and Pole Licensing Agreement, file October 16, 2018. The Commission approved the acquisition of Hawaiian Telcom's joint pole equity ownership shares, valued at \$47,970,092, of which \$24,665,897 was related to Hawaiian Electric.

[3d] In the 2017 Fourth Quarter Capital Projects Status Report filed on February 28, 2018, Hawaiian Electric identified that the project costs had unexpectedly exceeded \$2,500,000 and provided an explanation for the higher costs. Project cost is limited for rate base RAM recovery to the amount identified in Hawaiian Electric's response to CA-IR-303, Attachment 2, page 3 of 7), filed in Docket No. 2016-0328, Hawaiian Electric 2017 Test Year Rate Case.

[4] Project to be recovered through the MPIR mechanism and therefore the entire project will be removed from the RAM Revenue Adjustment Calculation. See Notice Transmittal to Update Target Revenue for Schofield Generating Station through the Major Project Interim Recovery Adjustment Recovery Mechanism, filed February 7, 2019, Transmittal No. 19-01 effective January 1, 2019. MPIR Recovery calculated at the Schedule L series.

2018 General Order No. 7 (GO7) Report Summary

Plant Additions

Projects	2018 Plant Addition (1)
Less than \$2.5M	189,284,505
Greater than \$2.5M	169,419,126
Total Plant Additions - Gross	358,703,631
	To Sch D2, line 1
Less: Major Project additions in 2018	
DOT Airport DSG	3,516
Koolau-Wailupe #1 Str 30 P9 Replace	(13,203)
Schofield Generation Station	(144,743,542)
Joint Pole Transfer Price	(24,665,897)
	(169,419,126)
Baseline Plant Additions - Gross	189,284,505

(1) Source: Hawaiian Electric Companies' Exemption From and Modification General Order No. 7 Paragraph No. 2.3(g), Relating to Capital Improvements Capital Projects Completed in 2018, in Docket No. 03-0257 filed on March 27, 2019.

Hawaiian Electric Company, Inc.
CIAC Reconciliation
As of December 31, 2018

Line No.	Description (a)	Reference (b)	CIAC, Including Developer Advances (c)
1	12/31/17 Balance	5/29/18 Decoupling, Sch G1	(366,100,380)
2	Exclude: Non-Utility CIAC		618,464
3	Add: Developer Advances		(33,883,949)
4	12/31/17 Balance - Utility CIAC		(399,365,865)
5	9/30/18 Balance	GL #271	(378,238,665)
6	Exclude: Non-Utility CIAC	Line 2	618,464
7	Add: Developer Advances	GL #2520300	(34,163,852)
8	9/30/18 Balance - Utility CIAC	Line 4 + Line 5	(411,784,053)
9	CIAC Change Thru 9/30/18 - Utility	Line 6 - Line 3	(12,418,188)
10	Add Back: 2018 CIAC Amortization thru 9/30/18	5/29/18 Decoupling, Sch G3 (8,818,605 x 9/12)	8,818,605 (6,613,954)
11	CIAC Additions Thru 9/30/18		(19,032,141)
12	<u>Oct to Dec 2018 Activity</u>		
13	CIAC-Cash Tax	GL #60005200	(6,435,124)
14	CIAC-Cash Non-Tax	GL #60005201	(831,921)
15	CIAC-Settlement	GL #60050221	174,515
16	CIAC-In-Kind	GL #60005206	(3,443,756)
17			(10,536,286)
18	2018 CIAC Additions, included within Plant in Service, CWIP, Developer Advances		(29,568,427) To Sch D2

Purpose:

Starting October 1, 2018, the Company adopted FERC guidelines resulting in CIAC being netted with Plant via Plant Additions or CWIP. This workpaper calculates the 2018 CIAC additions by summing the CIAC activity from January 1 to September 30, 2018 (per Ellipse) with the CIAC activity from October 1 to December 31, 2018 (per SAP and Powerplan WBS) for inclusion in the Baseline Plant Additions calculation at Schedule D2. Beginning with calendar year 2019, Baseline Plant Additions will be shown net of CIAC.

Note 1:

See HECO-WP-D1-001 for documentation on the treatment of CIAC in the 2019 Decoupling Filing.

EXCERPT: Transmittal 18-01, Schedule G1, filed 5/29/18.

SCHEDULE G1
PAGE 1 OF 1**HAWAIIAN ELECTRIC COMPANY, INC.**
DECOUPLING CALCULATION WORKBOOK
BASELINE CAPITAL PROJECTS CIAC ADDITIONS**Source of CIAC balance and amort.: December Monthly Reports filed (non-confidential basis) with the PUC dated:**

Line No.	Description (a)		2/21/2014	2/26/2015	2/23/2016	2/24/2017	3/1/2018
			2013 (b)	2014 (c)	2015 (d)	2016 (e)	2017 (f)
1	CIAC Balance, January 1 (Dec Rpt. pg. 10)		(238,510,104)	(258,084,169)	(283,739,660)	(319,727,698)	(348,444,542)
2	Less: Non-Utility CIAC	NOTE (3)				618,464	618,464
3	Adjusted CIAC Balance, January 1		(238,510,104)	(258,084,169)	(283,739,660)	(319,109,234)	(347,826,078)
4	Less: CIAC Amortization (Dec Rpt. pg. 2)		5,652,912	6,147,559	6,771,148	7,597,437	8,309,481
5	CIAC Balance, December 31 (Dec Rpt. pg. 10)		258,084,169	283,739,660	319,727,698	348,444,542	366,100,380
6	Less: Non-Utility CIAC	NOTE (3)			(618,464)	(618,464)	(618,464)
7	Adjusted CIAC Balance, December 31		258,084,169	283,739,660	319,109,234	347,826,078	365,481,916
8	Total Adjusted CIAC Additions	(Sum Line 3, 4 & 7)	25,226,977	31,803,050	42,140,722	36,314,281	25,965,319
9	Add Developer Advances:	NOTE (4)	-	-	-	-	33,883,949
19	Total Adjusted CIAC & Developer Advance Additions		25,226,977	31,803,050	42,140,722	36,314,281	59,849,268
20	<u>Less Major Projects:</u>	<u>Dkt No.</u> <u>Item No.</u>					
21							
22	<u>2008 In-service:</u>						
23	CIP Generating Unit	05-0145 Y49000					
24							
25	<u>2010 In-service:</u>						
26	K3 Biofuel Co-Firing	2009-0155 P0001577					
27							
28	<u>2011 In-Service:</u>						
29	W8 Boiler Controls Upgrade	2007-0365 P7650000					
30	EOTF Ph. 2 (Subs/Switch Stations)	2010-0062 Y48500	(87,994)	(43,725)	(15,232)	(718)	
31	W7 Controls Upgrade	2009-0195 P7590000					
32	W8 Main Transformer Replace	P0001399					
33							
34	<u>2012 In-Service:</u>						
35	K1 Condenser Tube Replace	2010-0126 P0000681					
36	BPT Tank 132 Improvements	2010-0286 P0000899					
37	Mobile Radio Replacement	2010-0162 P0001595					
38	Kapolei Substation	2011-0026 Y00127					
39							
40	<u>2013 In-Service:</u>						
41	Pukele 80MVA Tsf #3	2011-0156 P0001494					
42	Kakaako Makai-Iwilei 25kV DL	2009-0042 Y00038					
43	Kaloi Substation - Land - NOTE (2)	2008-0070 Y00119					
44	North South Road 46kV Line	2008-0070 Y00119					
45							
46	<u>2014 In-Service:</u>						
47	Kaloi Substation	2008-0070 Y00119					
48	Kaloi Sub 46kV & 12kV Distr	2008-0070 Y00119					
49	Kaloi Telecomm	2008-0070 Y00119					
50	Kaloi Sub 12kV Work	2008-0070 Y00119					
51	Kakaako Makai-Kewalo 25kV DL	2009-0042 Y00038					
52	Kakaako Makai DOT Queen-Cook	2009-0042 Y00038				(2,825,023)	
53	BPT Tank 133 Improvements	2010-0318 P0000900					
54	Pukele 80MVA Tsf #2	2011-0156 P0001492					
55	DOT Airport DSG	2008-0329 P0001370					
56							
57	<u>2016 In-Service:</u>						
58	Pukele 80MVA Tsf #1	2011-0156 P0002264					
59							
60	<u>2017 In-Service:</u>						
61	ERP EAM Hardware	2014-0170 Y00168					
62							
63	Total Net CIAC & Developer Advance Additions		25,138,983	31,759,325	42,125,490	33,488,540	59,849,268
64							
65	Last Five-Year Average						38,472,321
							To Sch G

Schedule D2

Schedule D2

(2,825,023) Schedule D2

NOTE (1): The CIAC amounts of the major projects are reflected in the year that they were received. In previous Decoupling filings these amounts were from the respective year's GO7 plant addition annual reports which reports the CIAC in the year the project closed to plant. In the past, the total CIAC additions, which reflect actual contributions received in the year, may not have included the total major project CIAC from the GO7 report to the extent that the CIAC was received in advance, or in multiple payments over a span of more than one year. Source: UI Planner files: Actuals Scenario.

NOTE (2): CIAC received for this project was not reflected in the 2012 and 2013 Decoupling filings as previous filings reported the CIAC amounts of the major projects from the respective year's GO7 plant addition annual report which reports the CIAC in the year the project closed to plant. See GENERAL NOTE.

NOTE (3): Adjustment to remove non-utility project related CIAC from the general ledger balance. Chapin UG Duct Line is a non-utility asset. It is a contributed asset that was given to the Company. It is not being used and there are currently no plans to use it. See Schedule G3, Line 96. Adjusted CIAC Additions for 2016 was corrected to exclude the non-utility plant balance from the beginning balance.

NOTE (4): In 2017, the Company reclassified the portion of CIAC for projects where the cash balance received was in excess of total incurred costs since the project agreements include provisions which allow for instances that unapplied funds received in advance would be subject to refunds. The true-up provision allows for any excess funds not expended to be refunded back to the developer. Furthermore, between the timing of the cash receipt to the project completion date, the project could be terminated, which would then result in refund of the unapplied funds. See below for a reconciliation of the Customer Advance balance at December 31, 2017:

Customer Advance (#25200000)	4,239,163
Developer Advances (#25203000)	33,883,949
Customer Advances	38,123,112

SOURCE: HECO Monthly Financial Report - December 2017, page 10, filed March 1, 2018.

The unapplied developer funds received in advance (Developer Advances) are excluded from the CIAC balance subject to amortization until they are reclassified to CIAC as costs are incurred. Developer Advances are included in the calculation of the Last Five-Year Average because they represent funds received in advance and are expected to be reclassified to CIAC as costs are incurred in the current year. Developer advances were also included in the Unamortized CIAC balance (See "Average Rate Base" from HECO Decision and Order No 35280, filed 2/9/2018 of Docket No. 2016-0328).

Hawaiian Electric Company
2019 Plant Additions Net of CIAC - Major Projects Support

Grand-parent	Project	Functional Category	Plant Addition Date	Net PUC Approved [1]	Net Plant Adds thru 12/31/18 [2]	2019 Net Plant Additions [3]	2019 CIAC Additions [3]	2019 Net Project Costs $F = D + E$	Estimated Net Plant Adds thru 12/31/19 $G = C + F$	Over/ (Under) Net PUC Approved $H = A - G$	2019 Net Plant Addition Qualifying for RB RAM (Note A)
				<i>A</i>	<i>C</i>	<i>D</i>	<i>E</i>	$F = D + E$	$G = C + F$	$H = A - G$	
	PE.000209 (P0003975): AES-CEIP #2 138kV OH Trans Line Relocation	Transmission ≥69kV	2019/02	3,007,232 [1a]	-	4,091,987		4,091,987	4,091,987	1,084,755	3,007,232
	PG.000005/PZ.001001 (P0003966): West Loch Utility Scale PV	Production-Photovoltaic	2019/05	62,400,000 [1b]	-	52,128,000		52,128,000	52,128,000	(10,272,000)	52,128,000
	PZ.000015 (P0000974, P0003977): Ala Wai Canal 46kV Relocation	Transmission <69kV	2019/06	13,910,207 [1c]	-	20,300,268		20,300,268	20,300,268	6,390,061	13,910,207
Y00038	P0000672: Kakaako Makai-Kewalo 25kV DL		2014/04	7,243,799	7,243,799						
	P0000783: Kakaako Makai-Iwilei 25kV DL		2013/07	5,023,851	5,023,851						
	P0001579: Kakaako Makai DOT Queen-Cook		2014/04	1,969,969	1,969,969						
		Distribution		14,237,619 [1d]	14,237,619	-	(22,683)	(22,683)	14,214,936	(22,683)	(22,683)
											69,022,756
											To Sch D3

NOTE A: Amount qualifying for 2019 rate base RAM recovery is limited to the lower of the net plant addition (column D) or the net PUC approved amount (column A). In the case of straggling costs, the amount qualifying for 2019 rate base RAM recovery is limited to the lower of the 2019 net plant addition (column D) or the remaining unused balance of the net PUC approved amount.

[1] Per the Final Decision & Order and Dissenting Opinion of Leslie H. Kondo, Commissioner, filed on August 31, 2010, in Docket No. 2008-0274, on page 54, "for purposes of calculating the Rate Base for the RAM, the costs on Major Capital Projects shall be limited to those amounts most recently approved, e.g., when authorized in the commission's decision approving the HECO Companies' application in compliance with General Order No. 7 or in an interim or final decision and order issued by the commission in the HECO companies' rate cases."

[1a] Decision and Order No. 35312 in Docket No. 2016-0439, For Approval to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the P0003975 - AES-CEIP 2 138 kV Overhead Transmission Line Relocation Project, filed March 2, 2018.

[1b] Decision and Order No. 34676 in Docket No. 2016-0342, For Approval of Waiver from the Framework for Competitive Bidding and to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the Purchase and Installation of Item P0003966 - West Loch PV Project, filed June 30, 2017.

[1c] Decision and Order No. 34788 in Docket No. 2016-0416, For Approval to Commit Funds in Excess of \$2,500,000 for Item P0000974, Ala Wai Canal 46 kV Underground Line Construction and Item P0003977, Ala Wai Canal Easement Acquisition and Related Requests, filed September 1, 2017.

[1d] See HECO-WP-D2-001, Note [3a].

[2] Source: HECO-WP-D2-001.

[3] Source: UIPlanner Budget files. Forecast as of February 15, 2019.

HAWAIIAN ELECTRIC CO., INC.					
DEFERRED INCOME TAXES					
FEDERAL		DR / (CR)	DR / (CR)	DR / (CR)	
		HECO	HECO	HECO	
		FEDERAL	STATE	TOTAL	
DR / (CR)		LIABILITY	LIABILITY	LIABILITY	
LIAB	DESCRIPTION	12/31/2018	12/31/2018	12/31/2018	
28311	Unearned Lease	-	-	-	
28312	Accrued Vacation	(247,391.60)	(81,566.84)	(328,958.44)	
28313	Uncollectible Acct	365,876.81	111,502.91	477,379.72	
28314	Directors Def Comp	8,117.74	1,571.96	9,689.70	
28317	Discounted Work Comp	313,824.26	95,894.48	409,718.74	
28319	Cap to Construct (Cost of Removal)	71,429,406.70	21,769,003.09	93,198,409.79	
28321	Pension	(15.02)	0.31	(14.71)	
28323	Excess Benefit Plan	566,372.66	168,081.11	734,453.77	
28326	Def Exec Comp (Def EICP<IP)	35,031.69	10,677.39	45,709.08	
28327	Software (no APPRISE & e business	88,753.66	52,874.74	141,628.40	
28328	G/L ACRS Retirements	(12,405,681.27)	(4,236,659.06)	(16,642,340.33)	
28330	EICP	(358,728.30)	(125,497.81)	(484,226.11)	
28331	CIAC	20,071,371.03	10,206,246.04	30,277,617.07	
28332	Customer Advances	1,077,639.88	327,760.03	1,405,399.91	
28333	Capitalized Interest	9,984,224.16	3,836,301.98	13,820,526.14	
28335	Connection Fees	(9,611.91)	(8,444.14)	(18,056.05)	
28336	Nondeductible Interest	19,016.26	5,795.04	24,811.30	
28337	Supplemt Benefits - SERP	272,295.28	72,700.74	344,996.02	
28340	LTIP	822,110.82	250,548.14	1,072,658.96	
28341	Waipahu Baseyard Int	67,116.93	20,452.91	87,569.84	
28347	Waiau Water Well Pmts	79,910.90	24,369.66	104,280.56	
28350	Outage Loss Adj Exp	-	(24,509.00)	(24,509.00)	
28401	Genl/Auto (& Accidents)	248,241.27	75,654.04	323,895.31	
28403	CWIP Debt Transition	(160,324.76)	(48,863.15)	(209,187.91)	
28404	CWIP Equity Trans	(404,087.01)	(123,151.30)	(527,238.31)	
28405	Iolani Ct Plaza Sale	17,071.33	(6,033.56)	11,037.77	
28406	Kaonohi Sale	(22,651.01)	(6,942.61)	(29,593.62)	
28408	Plant Transition	(3,997,395.48)	(1,218,288.67)	(5,215,684.15)	
28409	CWIP Equity Net	(17,671,614.37)	(5,385,620.77)	(23,057,235.14)	
28410	CWIP Equity Grossup	(10,862,867.25)	(3,310,577.99)	(14,173,445.23)	
28411	CWIP Debt	(9,399,038.35)	(2,868,001.13)	(12,267,039.48)	
28412	Genl/Auto Liability - Legal	0.21	(2,428.89)	(2,428.68)	
28413	Post Retirement Ben	(875,563.84)	(246,873.67)	(1,122,437.51)	
28414	Reg Liab Federal ITC	172,357.16	53,366.18	225,723.34	
28418	IRP Costs	(25,223.69)	(8,107.96)	(33,331.65)	
28419	Reg Liab Excess 283	115,881.47	35,956.40	151,837.87	
28422	Miscellaneous	17,106.97	(16,969.99)	136.98	
28427	Prepaid Expenses	(915,615.83)	(279,043.26)	(1,194,659.09)	
28432	Coal Gasif Costs	-	(11,273.00)	(11,273.00)	
28434	EEO Claims	452.80	138.01	590.81	
28435	Rev Bond Differential	(106,539.65)	(32,468.74)	(139,008.39)	
28436	TIP/Rewards Programs	119,814.53	36,774.90	156,589.43	
28441	Sun Power	12,330.63	3,757.91	16,088.54	
28512	Revenue Bond Cost Amort.	(678,674.71)	(206,833.19)	(885,507.90)	
28514	Software (APPRISE only)	-	(22,551.00)	(22,551.00)	
28516	Honolulu Harbor Reserve	879,610.69	268,072.02	1,147,682.71	
28520	Deferred Comp - restricted stock	141,231.75	43,041.58	184,273.33	
28522	Perry reserve	64,996.20	19,808.00	84,804.20	
28526	Emissions Fees	331,750.98	101,105.19	432,856.17	
28530	AES Hawaii PPA	26,904.63	8,199.90	35,104.53	
28532	CIS Project	(48,966.54)	(14,316.02)	(63,282.56)	
28538	Rate Case Costs	(287,342.77)	(87,571.54)	(374,914.31)	
28542	QUIPS amortization	(140,608.50)	(42,852.44)	(183,460.94)	
28544	OPEB Exec Life	2,641,514.13	805,101.19	3,446,615.32	
28546	Percentage Repairs Allowance	(1,466,861.75)	(556,699.86)	(2,023,561.61)	
28548	Cap interest (D&T)	(2,603,450.33)	(1,054,919.70)	(3,658,370.03)	
28550	E-Business hardware	(19,730.68)	(8,206.93)	(27,937.61)	
28552	OMS project costs	262,187.44	81,204.84	343,392.28	
28558	Substation Land - Aiea	-	(2,073.65)	(2,073.65)	
28560	Solar tax credit	630.40	192.12	822.52	
28564	HR Suites project costs	(213,369.94)	(67,275.43)	(280,645.37)	
28568	Solar Saver Program	43,008.71	13,107.14	56,115.85	
28570	Pension Tracker	(18,456,906.96)	(5,624,946.08)	(24,081,853.04)	
28572	OPEB Tracker	1,198,564.16	365,276.00	1,563,840.16	
28580	Blue Earth reserve	(2,163.55)	(659.33)	(2,822.88)	
28584	RO Water Pipeline	215,900.82	65,798.23	281,699.05	
28590	Repairs Adjustment	(74,909,026.37)	(22,228,032.86)	(97,137,059.23)	
28592	Stimulus Funds	200.17	60.96	261.13	
28594	Budget System Replacement	(135,405.78)	(41,265.98)	(176,671.76)	
28596	EOTF interest / amort	(2,972.01)	(906.02)	(3,878.03)	
28598	CIP interest	(116,247.60)	(35,427.08)	(151,674.68)	
28600	ERP project costs	(1,035,960.90)	(315,721.84)	(1,351,682.74)	

HAWAIIAN ELECTRIC CO., INC.					
DEFERRED INCOME TAXES					
FEDERAL		DR / (CR)	DR / (CR)	DR / (CR)	
		HECO	HECO	HECO	
		FEDERAL	STATE	TOTAL	
DR / (CR)		LIABILITY	LIABILITY	LIABILITY	
LIAB	DESCRIPTION	12/31/2018	12/31/2018	12/31/2018	
28602	Reg Liab Federal PV/EV	192,541.81	58,679.74	251,221.54	
28604	IVR project costs	(174,366.73)	(53,140.93)	(227,507.66)	
28608	Franchise Tax	1,013,344.05	308,828.44	1,322,172.49	
28614	RBA revenues	(7,287,568.48)	(2,220,971.56)	(9,508,540.04)	
28618	NOL - charitable	(6,347.36)	-	(6,347.36)	
28620	G/L Lauula	8,240.41	(41.55)	8,198.86	
28626	Reg Asset - 2017 Excess-other	(3,312,656.78)	(5,623,166.16)	(8,935,822.94)	
28628	Reg Liab - 2017 Excess-other	7,289,541.76	6,835,162.29	14,124,704.06	
28630	Reg Liab - TRA revenues	965,858.79	294,357.59	1,260,216.38	
28632	PSC/PUC tax	5,781,313.48	1,761,927.88	7,543,241.36	
28634	Waianae Solar	1,774,655.94	540,848.68	2,315,504.62	
28636	HT joint pole unbilled	875,228.59	266,736.90	1,141,965.49	
AOCINQ	AOCI - NQ Pension	624,198.92	190,228.31	814,427.23	
AOCIOPEB	AOCI - OPEB Exec Life	(538,268.59)	(164,045.19)	(702,313.78)	
48000	FIN 48 tax	368,936.00	661,176.00	1,030,112.00	
48002	FIN 48 interest	41,253.93	12,572.63	53,826.56	
50000	Rounding	(709.37)	364.13	(345.24)	
FED ACCOUNT 283, excluding state ITC		(38,254,016.15)	(6,551,668.15)	(44,805,684.30)	
28310	State ITC	11,655,223.12	3,534,658.68	15,189,881.80	
	TOTAL ACCOUNT 283	(26,598,793.02)	(3,017,009.47)	(29,615,802.50)	
28210000	Accelerated Depreciation	(252,669,067.47)	(48,604,627.78)	(301,273,695.25)	
28210100	Accel. Depr. - Excess	44,073,568.30	13,431,888.93	57,505,457.23	
28210200	Accel. Depr. - Deficit	(169,370.14)	(51,202.87)	(220,573.02)	
	TOTAL ACCOUNT 282	(208,764,869.31)	(35,223,941.72)	(243,988,811.04)	To Sch D4
TOTAL DEF INCOME TAX - UTILITY		(235,363,662.34)	(38,240,951.20)	(273,604,613.53)	
28210300	Nonutility Depreciation	555,767.33	265,376.64	821,143.97	
28301001	Nonutility - Other	1,029,315.35	316,263.16	1,345,578.51	
28301002	RHI Tax Allocation	-	-	-	
28301003	UBC Tax Allocation	-	-	-	
50001	Rounding	(2.67)	-	(2.67)	
TOTAL DEF INCOME TAX - NONUTILITY		1,585,080.02	581,639.80	2,166,719.82	
TOTAL DEF INCOME TAX		(233,778,582.32)	(37,659,311.40)	(271,437,893.72)	
RATE BASE CALCULATION					
TOTAL ACCOUNT 283		(26,598,793.02)	(3,017,009.47)	(29,615,802.50)	
Less:					
28312	Accrued Vacation	(247,391.60)	(81,566.84)	(328,958.44)	
28313	Uncollectible Acct	365,876.81	111,502.91	477,379.72	
28314	Directors Def Comp	8,117.74	1,571.96	9,689.70	
28317	Discounted Work Comp	313,824.26	95,894.48	409,718.74	
28323	Excess Benefit Plan	566,372.66	168,081.11	734,453.77	
28326	Def Exec Comp (Def EICP<IP)	35,031.69	10,677.39	45,709.08	
28330	EICP	(358,728.30)	(125,497.81)	(484,226.11)	
28336	Nondeductible Interest	19,016.26	5,795.04	24,811.30	
28337	Supplemt Benefits - SERP	272,295.28	72,700.74	344,996.02	
28340	LTIP	822,110.82	250,548.14	1,072,658.96	
28341	Waipahu Baseyard Int	67,116.93	20,452.91	87,569.84	
28347	Waiau Water Well Pmts	79,910.90	24,369.66	104,280.56	
28350	Outage Loss Adj Exp	-	(24,509.00)	(24,509.00)	
28401	Genl/Auto (& Accidents)	248,241.27	75,654.04	323,895.31	
28412	Genl/Auto Liability - Legal	0.21	(2,428.89)	(2,428.68)	
28418	IRP Costs	(25,223.69)	(8,107.96)	(33,331.65)	
28422	Miscellaneous	17,106.97	(16,969.99)	136.98	
28434	EEO Claims	452.80	138.01	590.81	
28436	TIP/Rewards Programs	119,814.53	36,774.90	156,589.43	
28516	Honolulu Harbor Reserve	879,610.69	268,072.02	1,147,682.71	
28520	Deferred Comp - restricted stock	141,231.75	43,041.58	184,273.33	
28522	Perry reserve	64,996.20	19,808.00	84,804.20	
28538	Rate Case Costs	(287,342.77)	(87,571.54)	(374,914.31)	
28544	OPEB Exec Life	2,641,514.13	805,101.19	3,446,615.32	
28550	E-Business hardware	(19,730.68)	(8,206.93)	(27,937.61)	
28568	Solar Saver Program	43,008.71	13,107.14	56,115.85	

HAWAIIAN ELECTRIC CO., INC.					
DEFERRED INCOME TAXES					
FEDERAL		DR / (CR)	DR / (CR)	DR / (CR)	
		HECO	HECO	HECO	
		FEDERAL	STATE	TOTAL	
DR / (CR)		LIABILITY	LIABILITY	LIABILITY	
LIAB	DESCRIPTION	12/31/2018	12/31/2018	12/31/2018	
28580	Blue Earth reserve	(2,163.55)	(659.33)	(2,822.88)	
28600	ERP project costs	(1,035,960.90)	(315,721.84)	(1,351,682.74)	
28608	Franchise Tax	1,013,344.05	308,828.44	1,322,172.49	
28614	RBA revenues	(7,287,568.48)	(2,220,971.56)	(9,508,540.04)	
28618	NOL - charitable	(6,347.36)	-	(6,347.36)	
28630	Reg Liab - TRA revenues	965,858.79	294,357.59	1,260,216.38	
28632	PSC/PUC tax	5,781,313.48	1,761,927.88	7,543,241.36	
28634	Waianae Solar	1,774,655.94	540,848.68	2,315,504.62	
AOCINQ	AOCI - NQ Pension	624,198.92	190,228.31	814,427.23	
AOCIOPEB	AOCI - OPEB Exec Life	(538,268.59)	(164,045.19)	(702,313.78)	
48000	FIN 48 tax	368,936.00	661,176.00	1,030,112.00	
48002	FIN 48 interest	41,253.93	12,572.63	53,826.56	
	Adjustment for EOTP, CIS and CIP	(114,827.94)	(34,994.66)	(149,822.60)	
Total Exclusions		7,351,657.84	2,701,979.21	10,053,637.05	
Total 283 Deferred Taxes for Rate Base		(33,950,450.87)	(5,718,988.68)	(39,669,439.55)	To Sch D4
Total 282 Deferred Taxes for Rate Base		(208,764,869.31)	(35,223,941.72)	(243,988,811.04)	
TOTAL DEF INCOME TAX - RATE BASE		(242,715,320.18)	(40,942,930.41)	(283,658,250.59)	To Sch D4

HAWAIIAN ELECTRIC CO., INC.
ADIT ON EXCESS DEPRECIATION
DECEMBER 31, 2018

FEDERAL DEFERRED TAXES		source		ERP/EAM HARDWARE	KOOLAU- WAILUPE #1	TOTAL
1	State Tax Depreciation					
2	Book Depreciation	page 2, 3		7,356	14,620	21,976
3	Subtotal	HECO-WP-E-001		(2,829)	(4,211)	(7,040)
		Line 1 + Line 2		4,527	10,409	14,936
4	Effective Federal Tax Rate			19.7368%	19.7368%	19.7368%
5	Federal Deferred Tax on State Depreciation	Line 3 * Line 4		893	2,054	2,948
6	Addback State Tax Depreciation	Line 3		(4,527)	(10,409)	(14,936)
7	Federal Tax Depreciation	page 2, 3		10,751	71,941	82,692
8	Book Depreciation	Line 2		(2,829)	(4,211)	(7,040)
9	Federal State Difference	Line 6 + 7 + 8		3,395	57,321	60,716
10	Tax Rate on Federal Only Adjustment			21%	21%	21%
11	Federal Deferred Tax Adjustment	Line 9 * Line 10		713	12,037	12,750
12	Total Federal Deferred Taxes	Line 5 + Line 11		1,606	14,091	15,698
						to Sch D4
STATE DEFERRED TAXES						
13	State Tax Depreciation	Line 1		7,356	14,620	21,976
14	Book Depreciation	Line 2		(2,829)	(4,211)	(7,040)
15	Subtotal	Line 13 + Line 14		4,527	10,409	14,936
16	Effective State Tax Rate			6.0150376%	6.0150376%	6.0150376%
17	Total State Deferred Taxes	Line 15 * Line 16		272	626	898
						to Sch D4
18	TOTAL DEFERRED TAXES	Line 12 + Line 17		1,878	14,717	16,596
				to Sch D1	to Sch D1	to Sch D4

FEDERAL

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PE000104	v2017	Koolau-Waiupe #1	2,684,387	2,555,619	128,768	Trans	20	0	4,829	9,296
	v2018	Koolau-Waiupe #1	13,203	-	13,203	Trans	20	0		495
Total			2,697,590	2,555,619	141,971					
Cumulative										

**HAWAIIAN ELECTRIC CO., INC.
EXCESS TAX DEPRECIATION
ERP/EAM HARDWARE**

Project No.	DIS	Description	Total Basis	Less PUC Approved Amt	Disallowed Costs	Plant Acct	Life	Bonus	2017	2018
FEDERAL										
P0003205	v2017	ERP/EAM Hardware	HECO-WP-D2-001 2,604,146	2,590,000	14,146	Computer	5	50	8,488	2,263
Total			2,604,146	2,590,000	14,146					
Cumulative										

HAWAIIAN ELECTRIC CO., INC.
 MPIR ADIT - SCHOFIELD GENERATING STATION
 DECEMBER 31, 2018

	source	Tax Depreciation (page 2 of 5)	AFUDC (page 3 of 5)	Tax Cap Interest (page 3 of 5)	State ITC (page 3 of 5)	Removal (page 5 of 5)	2018 Total
FEDERAL DEFERRED TAXES							
1 State Book/Tax Difference		(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
2 Book Depreciation	HECO-WP-L-001						
3 Subtotal	Line 1 + Line 2	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
4 Effective Federal Tax Rate		19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%
5 Federal Def Tax on State Book/Tax Diff	Line 3 * Line 4	(1,353,254)	(2,361,501)	1,514,862	832,222	(36,513)	(1,404,184)
6 Addback State Book/Tax Difference	Line 3	6,856,503	11,964,962	(7,675,319)	(4,216,602)	185,002	7,114,546
7 Federal Book/Tax Difference		(6,856,502)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,545)
8 Book Depreciation	Line 2						
9 Federal State Difference	Line 6 + 7 + 8	1	-	-	-	-	1
10 Tax Rate on Federal Only Adjustment		21%	21%	21%	21%	21%	21%
11 Federal Deferred Tax Adjustment	Line 9 * Line 10	-	-	-	-	-	-
12 Total Federal Deferred Taxes	Line 5 + Line 11	(1,353,254)	(2,361,501)	1,514,862	832,222	(36,513)	(1,404,184)
							To Sch D4
STATE DEFERRED TAXES							
13 State Book/Tax Difference	Line 1	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
14 Book Depreciation	Line 2	-	-	-	-	-	-
15 Subtotal	Line 13 + Line 14	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
16 Effective State Tax Rate		6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%
17 Total State Deferred Taxes	Line 15 * Line 16	(412,421)	(719,697)	461,673	253,630	(11,128)	(427,943)
							To Sch D4
18 TOTAL DEFERRED TAXES	Line 12 + Line 17	(1,765,675)	(3,081,198)	1,976,535	1,085,852	(47,641)	(1,832,127)
							To Sch D4

HAWAIIAN ELECTRIC CO., INC.
TAX DEPRECIATION
SCHOFIELD GENERATION STATION

Project No.	Description	Book Basis	Less: AFUDC	Add: TCI	Tax Basis	Plant Acct	Life	Bonus	2018
FEDERAL									
P0001576	Schofield Generation Station	65,512,935	(5,393,539)	3,459,864	63,579,259	Oth Prod	15	0%	3,178,963
P0001576	Schofield Generation Station	65,512,935	(5,393,539)	3,459,864	63,579,259	Oth Prod	15	0%	3,178,963
P0001576	Schofield Generation Station	5,751,969	(522,427)	335,128	5,564,670	Trans	20	0%	208,675
P0001576	Schofield Generation Station	5,751,969	(522,427)	335,128	5,564,670	Trans	20	0%	208,675
P0001576	Schofield Generation Station	1,106,868	(66,514)	42,668	1,083,021	Comm	20	0%	40,613
P0001576	Schofield Generation Station	1,106,868	(66,514)	42,668	1,083,021	Comm	20	0%	40,613
Total		144,743,542	(11,964,962)	7,675,319	140,453,899				
Cumulative									

6,856,502

To page 1 of 5

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P0001576	Schofield Generation Station	131,025,869	(10,787,079)	6,919,727	127,158,518	Oth Prod	15	0	6,357,926
P0001576	Schofield Generation Station	11,503,937	(1,044,854)	670,256	11,129,339	Trans	20	0	417,350
P0001576	Schofield Generation Station	2,213,736	(133,029)	85,336	2,166,043	Comm	20	0	81,227
Total		144,743,542	(11,964,962)	7,675,319	140,453,899				
Cumulative									

6,856,503

To page 1 of 5

Hawaiian Electric Company, Inc.
Breakdown of SGS Costs by Major Area
Actuals through December 2018

TOTAL PLANT ADDITIONS:	A	B	C	D	E=SUM(B:D)	F=A+E	
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	State ITC
Labor	2,293,428	1,712,982	305,919	741,234	2,760,135	5,053,564	
Materials	32,932,285	1,523,772	545,040	512,566	2,581,378	35,513,663	35,513,663
Vehicles	2,062	117,109	187	563	117,859	119,921	
Overheads	12,885,912	2,456,221	544,975	928,736	3,929,932	16,815,844	
AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962	
Outside Services-Construction	69,147,360	614,746	59,095	80,179	754,019	69,901,379	69,901,379
Outside Services-Other	2,550,389	1,421,977	621,195	348,999	2,392,171	4,942,560	
Other	427,354	-	4,296	-	4,296	431,650	
	131,025,869	8,549,966	2,213,736	2,953,971	13,717,673	144,743,542	
Amount subject to bonus (A)	50%	50%	50%	50%	50%	50%	105,415,043
	65,512,935	4,274,983	1,106,868	1,476,985	6,858,836	72,371,771	4%
							4,216,602
			5,751,969				To page 1 of 5
Tie out of TCI:							
AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962	To page 1 of 5
ratio - 5 year average	64.15%	64.15%	64.15%	64.15%	64.15%	64.15%	From page 4 of 5
TCI	6,919,727	451,065	85,336	219,191	755,592	7,675,319	To page 1 of 5
			670,256				

Source: Ellipse & SAP

(A) - At year end, no bonus depreciation was taken for Schofield Generation Station. See page 2 for tax depreciation calculation.

Hawaiian Electric Company, Inc.
Annual - TCI Closed to AFUDC Closed Ratio

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>5 Yr Ave</u>
TCI	3,820,695	4,825,860	4,299,588	4,056,549	5,041,274	22,043,966
AFUDC	5,511,275	7,365,025	6,668,924	6,540,575	8,278,273	34,364,072
Ratio	0.693251	0.655240	0.644720	0.620213	0.608977	0.641483

To page 3 of 5

Hawaiian Electric Company, Inc.
MPIR Removal Costs
Actuals Through December 31, 2018

Row Labels	Sum of amount
Labor	90,530
Materials	46
Overheads	94,426
Grand Total	185,002

To page 1 of 5

SOURCE: Ellipse & SAP

Hawaiian Electric Company, Inc.
2018 Major Projects Excess Cost, Net of CIAC

[1]	[1]		[2]	[1]					[1]	[2]	[1]	[3]	[2]	To Sch D1	
Grandparent # or Project #	Project	Date In Service	Net Plant Adds Thru 12/31/17 (A)	Net Plant Adds Thru 12/31/18 (B)	Plant Acct	Docket No 2010-0053 Depr Rate (C)	2018 Depr (D) = (A) * (C)	2019 Depr (E) = (B) * (C)	Net PUC Approved (F)	2017 Net Cost in Excess of Docket (G)	2018 Net Cost in Excess of Docket (H) = (B) - (F)	Prior Years Depr Related to Excess (I)	2018 Depr Related to Excess (J) = (G) / (A) * (D)	Cumulative Depr Related to Excess (K) = (I) + (J)	2019 Depr Related to Excess (L) = (H) / (B) * (E)
PZ.000003/ (P0003205)	ERP EAM Hardware	2017/06	2,604,146	2,604,146	391.1	0.20000	520,829	520,829	2,590,000	14,146	14,146	-	2,829	2,829	2,829
PE.000104 (P0003465)	Koolau-Waiupe #1 Str 30 P9 Replace	2017/07	2,684,387	2,697,590	356	0.03270	87,779	88,211	2,555,619	128,768	141,971	-	4,211	4,211	4,642
PZ.000016/ PZ001002 (P0001576)	Schofield Generation Station - Note [4]	2018/06	-	142,147,612	343	0.03260	-	4,634,012							
			-	2,003,490	352	0.01600	-	32,056							
			-	352,190	353	0.01860	-	6,551							
			-	240,250	397	0.06670	-	16,025							
			-	144,743,542				4,688,643	-	-	144,743,542	-	-	-	4,688,643

[1] Source: HECO-WP-D2-001

[2] Source: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric Company RBA Rate Adjustment, HECO-WP-E-001, filed on May 29, 2018.

[3] Source: Transmittal No. 18-01 (Decoupling) - RBA Rate Adjustment (Filed May 29, 2018), HECO-WP-E-001, column (L), "Cumulative Depr Related to Excess".

[4] The Schofield Generation Station project is recovered via the Major Project Interim Recovery (MPIR) mechanism at the Schedule L series. As such, the entire project related costs will be excluded from all Decoupling calculations.

Hawaiian Electric Company
Calculation of Composite Effective Income Tax Rates
Federal and State

Composite Federal and State Effective Income Tax Rate

	<u>Eff 1/1/2018</u>	<u>2017 & Prior</u>
Federal Effective Income Tax Rate	19.7368421%	32.8947368%
State Effective Income Tax Rate	6.0150376%	6.0150376%
	<u>25.7518797%</u>	<u>38.9097744%</u>

Calculation of Effective Rates

Assumptions:

ST = State Income Tax Expense

FT = Federal Income Tax Expense

Pre-Tax Income = \$1.00

	<u>Eff 1/1/2018</u>	<u>2017 & Prior</u>
--	---------------------	-------------------------

State Statutory Income Tax Rate*	6.4%	6.4%
----------------------------------	------	------

Federal Statutory Income Tax Rate**	21.0%	35.0%
-------------------------------------	-------	-------

Calculation of State Effective Income Tax Rate

State Income Tax Expense = Statutory Rate x (Pre-Tax Income - State Income Tax Expense)

ST = .064 x (1 - ST)

ST = .064 - .064(ST)

1.064(ST) = .064

ST = .060150376 or 6.0150376% of Pre-Tax Income

Calculation of Federal Effective Income Tax Rate

Federal Income Tax Expense = Statutory Rate x (Pre-Tax Income - State Income Tax Expense)

Effective 1/1/18

FT = .21 x (1 - ST)

FT = .21 x (1 - .060150376)

FT = .21 - .01263157896

FT = .197368421 or 19.7368421% of Pre-Tax Income

2017 & Prior

FT = .35 x (1 - ST)

FT = .35 x (1 - .060150376)

FT = .35 - .01263157896

FT = .328947368 or 32.8947368% of Pre-Tax Income

* Hawaii Revised Statutes §235.71 was amended for tax years beginning after 1986.

** The Tax Cuts and Jobs Act changed the Federal tax rate for tax years ending after December 31, 2017.

HAWAIIAN ELECTRIC COMPANY, INC.
TAX REPAIRS ADJUSTMENT
2018

			A	B	C = A x B	D = A - C
		HECO-WP- F1-002 5 YR LIFE AVERAGE	Plant Adds	HECO-WP- F1-001, pg 2 Repairs Allocation	Repairs Deduction	Depreciable Basis
Computers/PV	5	6,092				
Communication	20	5,920				
Off/Furn/Tools	7	5,022				
Distribution	20	130,472	130,472,000	19.67%	25,659,352	104,812,648
Land	-	816				
Non-Steam Production	15	3,713	3,713,000	0.04%	1,582	3,711,418
Steam Production	20	22,905	22,905,000	28.28%	6,477,859	16,427,141
Structural	39	3,265				
Transmission	20	21,834	21,834,000	4.49%	980,382	20,853,618
Transmission	15	34,674	34,674,000	4.49%	1,556,918	33,117,082
Vehicles	-	5,209				
TOTAL		<u>239,922</u>	<u>213,598,000</u>		<u>34,676,093</u>	<u>178,921,907</u>
					To Sch F1	

NOTE 1> This schedule computes the estimated amount of deductible tax repairs related to the baseline plant additions for the RAM year. The deductible tax repairs amounts are carried forward to Schedule F1 and serve to reduce the depreciable tax basis for the baseline plant additions. The repairs percentages (Column B) are calculated on HECO-WP-F1-001, page 2.

NOTE 2> The numbers (excluding %) are rounded to the nearest thousand.

HAWAIIAN ELECTRIC COMPANY, INC.
REPAIRS DEDUCTION

		Distribution	Non Steam	Steam	Transmission
Repairs %:					
Total book basis repairs					
2014		40,010,784		8,698,003	1,620,540
2015		28,855,969		8,823,262	3,152,508
2016		19,906,067		6,512,311	2,697,168
2017		24,350,324	71,857	5,491,680	4,271,225
2018		23,503,387		4,894,363	1,396,139
		136,626,531	71,857	34,419,619	13,137,580
Total book basis adds					
2014	HECO-WP-F1-002	139,366,000	12,311,000	30,119,000	57,957,000
2015	HECO-WP-F1-002	150,513,000	5,613,000	25,823,000	48,871,000
2016	HECO-WP-F1-002	117,566,000	268,000	24,812,000	79,269,000
2017	HECO-WP-F1-002	147,966,000	1,658,000	22,867,000	73,183,000
2018	HECO-WP-F1-002	139,304,000	148,783,000	18,083,000	33,306,000
		694,715,000	168,633,000	121,704,000	292,586,000
AVERAGE %		19.666558%	0.042611%	28.281420%	4.490160%

NOTE 1> With the assistance of Price Waterhouse Coopers, the repairs deduction analysis was performed in 2010, 2012, 2015 and 2016 in connection with changing HECO's method of identifying deductible repairs for tax accounting purposes. The repairs percentage for each functional group represents the five year weighted average of the identified repairs costs.

NOTE 2> The numbers (excluding %s) are rounded to the nearest thousand.

HAWAIIAN ELECTRIC COMPANY, INC.
BASELINE PLANT ADDS

		LESS: MAJOR								%
	LIFE	2014	2015	2016	2017	2018	PROJECTS	TOTAL	AVERAGE	AVERAGE
Computers/PV	5	6,681	8,980	5,219	7,587	4,596	(2,604)	30,459	6,092	2.54%
Communication	20	5,340	5,183	5,870	7,349	6,611	(754)	29,599	5,920	2.47%
Off/Furn/Tools	7	8,242	4,315	2,964	5,204	4,384		25,109	5,022	2.09%
Distribution	20	139,366	150,513	117,566	147,966	139,304	(42,353)	652,362	130,472	54.38%
Land	-	1,729	1,233	11	262	847		4,082	816	0.34%
Non-Steam Production	15	12,311	5,613	268	1,658	148,783	(150,069)	18,564	3,713	1.55%
Steam Production	20	30,119	25,823	24,812	22,867	18,083	(7,178)	114,526	22,905	9.55%
Structural	39	2,899	5,468	1,647	5,217	1,092		16,323	3,265	1.36%
Transmission	20	13,295	21,461	38,676	29,442	8,994	(2,698)	109,170	21,834	9.10%
Transmission > 69kv	15	44,662	27,410	40,593	43,741	24,312	(7,349)	173,369	34,674	14.45%
		57,957	48,871	79,269	73,183	33,306	(10,047)	282,539	56,508	23.55%
Vehicles	-	4,682	10,540	3,665	5,460	1,697		26,044	5,209	2.17%
TOTAL		269,326	266,539	241,291	276,753	358,703	(213,005)	1,199,607	239,921	100.00%

To WP-F1-001

HAWAIIAN ELECTRIC CO., INC.
PRORATION ADJUSTMENT FOR NORMALIZATION COMPLIANCE
FEDERAL ADIT DR/(CR)

ADIT account 282 -- Federal accelerated depreciation	Federal ADIT DR/(CR)	January	February	March	April	May	June	July	August	September	October	November	December
Beginning balance	Sch D4	(208,749,171)											
Federal Tax Depreciation	Sch F	(20,239,341)											
Effective Federal Tax Rate		19.7368%											
Net ADIT accrued 2019		(3,994,598)											
Monthly Accrued evenly over 12 months		(332,883)											

WITHOUT PRORATION	Beg of Yr	January	February	March	April	May	June	July	August	September	October	November	December	End of Yr
Federal 282 ADIT Balance	(208,749,171)													
Monthly Additions		(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(3,994,598)
Cumulative Balance	(208,749,171)	(209,082,054)	(209,414,937)	(209,747,821)	(210,080,704)	(210,413,587)	(210,746,470)	(211,079,353)	(211,412,237)	(211,745,120)	(212,078,003)	(212,410,886)	(212,743,769)	(212,743,769)

Simple Year Average - Without Proration (210,746,470)

WITH PRORATION	6/1/2019	214												
Days new rates in effect														
Prorated additions		(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(287,773)	(239,551)	(191,330)	(144,664)	(96,443)	(49,777)	(1,556)	(2,675,510)
Cumulative ADIT balance with proration	(208,749,171)	(209,082,054)	(209,414,937)	(209,747,821)	(210,080,704)	(210,413,587)	(210,701,360)	(210,940,911)	(211,132,241)	(211,276,905)	(211,373,348)	(211,423,125)	(211,424,681)	(211,424,681)

Simple Year Average - With Proration (210,086,926)

Adjustment to rate base ADIT 659,544
To Schedule F

Days new rate in effect	335	307	276	246	215	185	154	123	93	62	32	1	
Days in the month	31	28	31	30	31	30	31	31	30	31	30	31	365

Note: Methodology based on IRS Private Letter Ruling 9313008

HAWAIIAN ELECTRIC COMPANY, INC.
AVERAGE RATE BASE AND RATE OF RETURN
(\$ Thousands)

RATE BASE	Month-End		REFERENCE
	Dec 2017	Dec 2018	
INVESTMENTS IN ASSETS SERVING CUSTOMERS			
NET COST OF PLANT IN SERVICE			
Total Utility Plant	3,330,923	3,523,249	Note 2
Adjustments:			
Construction Work in Progress	(245,995)	(550,571)	Note 2
Regulatory Asset - ARO	-	331	GL#18670151
Asset Retirement Obligation	(2,539)	(4,780)	GL#25301000
Regulatory Liability for Cost of Removal	(327,225)	(356,926)	GL#25400001
Plant - Tenant Allowance	(14,058)	(14,132)	GL#10100002
Acc Amort - Tenant Allowance	8,662	9,824	GL#11160000
Unbilled Pole Credits	-	(4,435)	within GL#25300000
	2,749,768	2,602,560	Note 1
FUEL INVENTORY	64,972	54,262	Note 2
MATERIALS & SUPPLIES INVENTORIES (excl Stores Expense)	26,517	27,953	GL#90154000, Note 2
UNAMORT NET ASC 740 REG ASSET	78,576	77,465	ADIT Tax Sch
PENSION TRACKING REG ASSET	115,531	96,993	GL#18676040
OPEB TRACKING REG ASSET	3,112	-	GL#18677040
PENION NON-SERVICE COST REG ASSET	-	883	GL#18676045
EOTP REG ASSET	89	20	GL#18670124/5/6
CIP CT-1 REG ASSET	1,352	795	GL#18670120/21/22
DEFERRED SYSTEM DEVELOPMENT COSTS			
OMS	746	445	GL#18607004
HR Suites-Phase 1	1,307	951	GL#18606004
HR Suites-Phase 2	512	384	GL#18606104
Budget System Replacement Project	885	739	GL#18607704
IVR	1,000	883	GL#18670400
CIS	9,046	7,827	Acctg Dept Amort Sch
	13,496	11,229	
RO WATER PIPELINE REG ASSET	4,842	4,725	GL#18670152
CONTRIB IN EXCESS OF NPPC	2,240	-	GL#18676030
TOTAL INVESTMENTS IN ASSETS	3,060,495	2,876,885	
FUNDS FROM NON-INVESTORS			
UNAMORTIZED CIAC	365,482	30,110	Note 5
CUSTOMER ADVANCES			
Customer Advances	4,239	6,392	GL#25200000
Developer Advances	33,884	21,345	Note 3
	38,123	27,737	
CUSTOMER DEPOSITS	11,113	10,409	GL#23501000
ACCUMULATED DEF INCOME TAXES	283,136	283,659	Schedule D4
EXCESS ACCUMULATED DEF INCOME TAXES	278,582	278,156	GL#25400023/24, Note 4
UNAMORTIZED ITC (GROSS)	57,594	58,897	GL#25520000/20004
UNAMORTIZED FEDERAL EV CREDIT	750	724	GL#25503000
UNAMORTIZED GAIN ON SALE	182	116	GL#25400101/02/09
PENSION TRACKING REG LIAB	-	3,478	GL#25400004
OPEB TRACKING REG LIAB	5,443	1,858	GL#25400002
TOTAL DEDUCTIONS	1,040,405	695,144	
WORKING CASH	7,068	11,027	HECO-WP-H-008
RATE BASE	2,027,158	2,192,768	
SIMPLE AVERAGE RATE BASE		2,109,963	To Schedule H

Footnotes:

- * Amounts may not add up due to rounding.
- 1 Includes Property Held for Future Use balance of \$0 for 2018 and 2017.
- 2 See Hawaiian Electric Company Inc. Monthly Financial Report - December 2018, filed February 28, 2019.
Note that Materials & Supplies Inventory include an adjustment of (\$1,116) and (\$1,489) representing payment lags in 2017 and 2018, respectively.
- 3 The Company reclassified cash received from Developers, subject to refund, to Customer Advances. Amount has been isolated for greater transparency within the rate base calculation. See further discussion at Schedule G.
- 4 As a result of the 2017 Tax Reform Act, Regulatory Liability accounts were created to isolate the impact of the 2017 excess accumulated deferred taxes effective in actuals as of December 2017. These Regulatory Liabilities have been included as a reduction to Rate Base. Deferred tax asset related to excess accumulated deferred taxes is included in Unamortized Net ASC 740 Reg Asset.
- 5 For 2018, CIAC is netted with Plant In Service, CWIP and Developer Advances, resulting from the Company's transition to FERC treatment in October 2018. See further discussion of the Company's treatment of CIAC at HECO-WP-D1-001.

HAWAIIAN ELECTRIC COMPANY, INC.
Ratemaking Adjustments For Incentive Compensation And Other Non-Recoverable Expenses
2018

Line	Account/Order No.	Description	2018	Tax @ 25.75%	Net of Tax	Rounded (000s)
1	<u>Executive Compensation and Incentive Compensation</u>					
2	70025/26/#60003110	LTIP and EICP expense	(a) 3,310,738			
3	70027/ #60004000	Other incentive awards	828,135			
4	Provided by HEI	HEI charges for incentive compensation	(a) 692,751			
5	Non-Executive Incentive Wksht	Non-executive incentive programs	(a) 457,781			
6	70028/ #60003110	Manager award plan	(a) 195,785			
7			5,485,190	1,412,540	4,072,650	4,073
						To Sch H, Line 2A
8	<u>Discretionary and Other Expenses Not Recoverable</u>					
9	#60004009	Executive life insurance(COLI) expense (credit) - <i>not tax deduct</i>	(442,516)			
10	Provided by HEI	EEL Dues (allowed portion) - <i>not tax deduct</i>	47,722			
11	70014/ #60004034	OPEB (Executive life portion only)	440,216			
12	70016	HEIRS	7,902			
13	Provided by HEI	HEI charges for non-incentive comp (salaries/benefits - Executives (labor)	(a) 524,810			
14	Provided by HEI	HEI charges for outside services (plan admin, legal fees, audit fees) - Executives (non-labor)	74,279			
15	70014/24/ #60004035/36	Non-qualified pension expense	475,342			
16	#60018015	Payroll taxes related to incentive compensation	173,390			
17	70011/70012	Service awards program	63,045			
18	Various	Community service admin - AUW (labor)	(a) 90,346			
19	50100	Community service admin - AUW (non-labor)	99,926			
20			1,554,462	501,970	1,052,492	1,052
						To Sch H, Line 2B
21	Total Adjustment to Operating Income		<u>7,039,652</u>	<u>1,914,510</u>	<u>5,125,142</u>	
				To HECO-WP-H-008, Pg 1		
		Labor	Σ(a) 5,272,211	To HECO-WP-H-008, Pg 1		
		Non-labor	1,767,441	To HECO-WP-H-008, Pg 1		
		Total adjustment to operating income	<u>7,039,652</u>			

HAWAIIAN ELECTRIC COMPANY, INC.
Income Tax On Items To Be Replaced By Synchronized Interest
2018

	<u>Source</u>	<u>YTD</u>	<u>Rounded (000s)</u>
Total Interest Charges	GL# RONE70	52,180,277	
Remove: RBA Interest Income	GL# 41900002	776,680	
Less: Int on Customer Deposits	GL# 60016050	(631,778)	
AFUDC-Debt	GL# RONE69	(4,018,998)	
Amort of Inv Inc Differential	within GL# 60001010	184,971	185 To Sch H, Line 2C
Equity in net income of trust	GL# 42107000	<u>(100,516)</u>	
		48,390,636	
	Tax rate	<u>25.75%</u>	
		<u><u>12,460,589</u></u>	(12,461) To Sch H, Line 2D

HAWAIIAN ELECTRIC COMPANY, INC.
Ratemaking Capitalization
2018

	Simple Average Balance*	Ratios	Cost Rate	Weighted Cost of Debt
Short-Term Debt	88,868	3.68%	2.54%	0.09%
Long-Term Debt	939,810	38.92%	5.03%	1.96%
Hybrid Securities	28,758	1.19%	7.16%	0.09%
Preferred Stock	21,192	0.88%	5.36%	0.05%
Common Equity	1,335,921	55.33%	9.50%	5.26%
	2,414,549	100.00%		7.45%

	NARUC/ GL Code	YTD Dec 2018	Rounded (000s)	Cost Rate
<u>Short-Term Debt:</u>				
Interest on Debt Assoc Co	60016060/61	2,108,154		
Less: Interest on QUIDS	QUIDS (see below)	(2,050,516)		
Int Exp-Commercial Paper	within 60016100	2,305,290		
Int Exp-SCF Loans		0		
Int Inc-Assoc Cos.	41908000	(176,391)		
Int Exp-Short Term	within 60016000	69,531		
		2,256,068	2,256	2.54%
<u>Long-Term Debt:</u>				
Amort of Debt Disc & Exp	60002100	1,641,364		
Less: Hybrid Sec Amort of Iss Exp	see a below	(109,414)		
Interest on Long-Term Debt	60016000	45,646,755		
Less: Int Exp-Short Term	see above	(69,531)		
Amort Inv Inc Differential	within 60001010	184,970		
		47,294,144	47,294	5.03%
<u>Hybrid Securities:</u>				
Interest on QUIDS	60016060	2,050,516		
Amort Exp-QUID1 Iss Exp	within 60002100	40,416		
Amort Exp-QUID2 Iss Exp	within 60002100	37,899		
Amort Exp-QUID3 Iss Exp	within 60002100	31,099		
Equity in Net Inc of Trust	42107000	(100,516)		
		2,059,414	2,059	7.16%
<u>Preferred Stock:</u>				
Amort of Pfd Stk Iss Exp	60002000	55,086		
Preferred Stock dividends	60016500	1,079,907		
		1,134,993	1,135	5.36%

* Short-Term Debt based on a 12 month average.

HAWAIIAN ELECTRIC COMPANY, INC.
Special Medical Needs Program Discount (net of tax)
2018
Amounts in (\$000s)

Special Medical Needs Program Discount	151	
Revenue Taxes @ 8.885%	<u>(13)</u>	
	138	
Income Taxes @ 25.75%	<u>(35)</u>	
Reduction to operating income	<u>102</u>	To Sch H, Line 2e

Source: CIS Special Medical Needs (SMN) report

HAWAIIAN ELECTRIC COMPANY, INC.
Performance Incentive Mechanism
2018
Amounts in (\$000s)

Gross (Reward) / Penalty Amount	GL#25400030	532	
Revenue Taxes @ 8.885%		(47)	
		<u>485</u>	
Income Taxes @ 25.75%		(125)	
Reduction to operating income		<u><u>360</u></u>	To Sch H, Line 2f

Note:

Subsequent to the December 2018 financial close, Hawaiian Electric revised its PIMS Regulatory Liability of \$531,871 to PIMS Regulatory Asset of \$537,856 as shown at Schedule M. The recorded PIMS Regulatory Liability balance of \$531,871 as of 12/31/18 was used to determine the 2018 Earnings Sharing Calculations at Schedule H.

The Company true-up the Regulatory Liability balance with the February 2019 financial close.

HAWAIIAN ELECTRIC COMPANY, INC.**Final Test Year Refund****2018****Amounts in (\$000s)**

2017 Test Year Rate Case Final D&O Refund	Note 1	48	
Revenue Taxes @ 8.885%		<u>(4)</u>	
		44	
Income Taxes @ 25.75%		<u>(11)</u>	
Reduction to operating income		<u>32</u>	To Sch H, Line 2g

Note 1:

2017 Final Test Year Rate Case Final D&O Refund calculation, filed in Docket No. 2016-0328 HECO Letter to the PUC, Exhibits 4 & 5, filed on July 23, 2018, and approved in Order No. 35661, filed August 30, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
WORKING CASH
2018

Line	Working Cash Items A	2018 B	(Note 1) Net Collection Lag Days C		Amount D = B/365xC
1	Fuel	523,706	B1	19.1	27,405
2	Purchased Power	494,450	B2	-5.4	(7,315)
3	O&M Labor	137,959	B3	25.5	9,638
4	O&M Non-Labor	165,521	B4	8.6	3,900
5	Revenue Taxes	160,276	B5	-50.9	(22,351)
6	Income Taxes	35,031	B6	-2.6	(250)
7	Working Cash				<u><u>11,027</u></u> To HECO-WP-H-001
8	Fuel Oil	B1 523,706	GL #90501000, 90547000, 90547100		
9	Purchased Power	B2 494,450	GL #90555000		
10	O&M Labor				
11	O&M Labor	145,473	Acct. Dept. O&M report		
12	Fuel O&M Labor	(2,242)	Acct. Dept. O&M report		
13	O&M Labor Excl Fuel Labor	143,231			
14	Disallowed O&M	(5,272)	HECO WP-H-002		
15	Total	B3 137,959			
16	O&M Non-Labor				
17	O&M Expense	1,333,535	PUC Monthly Report		
18	Less: Fuel Oil & PP Expense	(1,018,156)	Lines 8 + 9		
19	O&M Labor Excl Fuel Labor	(143,231)	(see O&M Labor Excl Fuel Labor above)		
20	Disallowed O&M Non-Labor	(1,767)	HECO WP-H-002		
21	Bad Debt Expense	(1,388)	GL #60010000		
22	Pension Reg Asset/Liab Amort	(11,456)	HECO WP-H-008 pg. 2		
23	OPEB Reg Asset/Liab Amort	376			
24	System Develop Amort	(2,267)			
25	Other Deferred Projects Amort	(742)			
26	Payroll Taxes	9,985	GL #60018000/001/015, 60019100, 60050001,		
27	Interest on Customer Deposits	632	60050001/238/242/245/251, 70000010/20/30		
28	Total	B4 165,521	GL #60016050		
29	Revenue Taxes				
30	Franchise	44,708	GL #60017000		
31	PSC	106,518	GL #60017002		
32	PUC Fee	9,050	GL #60017001		
33	Total	B5 160,276			
34	Current Income Taxes				
35	Income Tax	32,067	Dec. 2018 PUC Monthly Report		
36	Inc Tax on Disallowed Items	1,915	HECO WP-H-002		
37	Reversal of Tax Related to Interest Sync Replacement	12,461	Sch H, Line 2d		
38	Tax Eff of AFUDC Equity	(3,189)	GL #60020060		
39	Income Tax Adjustments	3,404	HEI worksheet		
40	Tax Related to Int Sync	(11,627)	Sch H, Line 13 - 13a		
41	Total	B6 35,031			

Note 1: See Final Decision and Order No. 35545, For Approval of General Rate Case and Revised Schedules/Rules, filed on June 22, 2018 in Docket No. 2016-0328, Exhibit B, Page 2 of 2.

HAWAIIAN ELECTRIC COMPANY, INC.
O&M Non-Labor Amortization
2018

Pension Regulatory Asset Amortization

Standard Journal Entry No.			(TY17) - Note 1	Annual 2018	Rounded 000s
<i>PAA202</i> Jan 2018	<i>PAA219</i> Feb-Dec 2018	Total	O&M % Portion 57.43%		
(45,851)	19,994,484	19,948,633	11,456,500	11,456,500	11,456 To Page 1

OPEB Regulatory Asset Amortization

Standard Journal Entry No.			(TY17) - Note 1	Annual 2018	Rounded 000s
<i>PAA203</i> Jan 2018	<i>PAA220</i> Feb-Dec 2018	Total	O&M % Portion 57.43%		
(159,067)	(495,069)	(654,136)	(375,670)	(375,670)	(376) To Page 1

System Development Amortization

Standard Journal Entry No.						2018	Rounded
<i>PAA109</i> 18607004	<i>PAA133</i> 18606004 HR Suites	<i>PAA143</i> 18606104 HR Suites	<i>PAA163</i> 18607704	<i>PAA195</i> 18670400 IVR System	<i>PAA177</i> 18605005 CIS		
OMS	Phase 1	Phase 2	Budget Replace	Replace			
300,940	356,462	127,940	145,469	116,500	1,219,715	2,267,026	2,267 To Page 1

Other Deferred Projects Amortization

Standard Journal Entry No.							Annual 2018	Rounded 000s
<i>PAA166</i> 18670124 EOTP	<i>PAA166</i> 18670125 EOTP	<i>PAA166</i> 18670126 EOTP AFUDC	<i>PAA176</i> 18670120 CIP CT-1	<i>PAA176</i> 18670121 CIP CT-1	<i>PAA176</i> 18670122 CIP CT-1	<i>PAA132</i> 18670152 RO		
Depreciation	AFUDC Debt	Equity	Depreciation	AFUDC Debt	AFUDC Equity	Pipeline		
18,219	15,342	35,441	146,605	123,526	286,584	116,436	742,153	742 To Page 1

NOTE:

- 1 See Parties' Stipulated Settlement Letter, filed November 15, 2017, in Docket No. 2016-0328, HECO T-16 Attachment 4, page 1. Approved in Final Decision and Order No. 35545, filed on June 22, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
MONTHLY FINANCIAL REPORT
December 2018

TO THE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII
OPERATING INCOME BEFORE RATEMAKING ADJUSTMENTS TO BE USED FOR THE EARNINGS SHARING CALCULATION
(in thousands)

Page 2a

Operating income per Monthly Financial Report	138,084	*3
Less: Interest on Customer Deposits	(632)	
Add: Adjustment to federal income tax to offset the DPAD benefit recognized at MECO *2	66	
Add: Gain on Sale Amortization	66	*4
Operating income before ratemaking adjustments & synchronized interest - earnings sharing calculation	<u>137,585</u>	*1
Income Tax Adjustments	<u>(3,404)</u>	
Adjusted Operating income before ratemaking adjustments & synchronized interest - earnings sharing calculation	<u>134,181</u>	

To Sch H

*1 Amounts may not add up due to rounding.

*2 An adjustment made to offset the benefit of the Domestic Production Activities Deduction (DPAD) recognized on a standalone basis at Maui Electric Company, Ltd. (MECO) and excluded the impact from the operating income before ratemaking adjustments & synchronized interest for Hawaiian Electric Company. This adjustment was made to eliminate the impact of the MECO's tax benefit from the Hawaiian Electric Company consolidated net income, and therefore should not have any impact on a standalone basis at Hawaiian Electric Company.

*3 Starting October 2018, Operating Income per the Monthly Financial Report includes income tax on AFUDC Equity.

*4 Included within Other Income and added back for ratemaking purposes.

Note:

Included to support Operating Income on Schedule H since PUC Page 2a was excluded from the December 2018 Monthly PUC Report submitted on February 27, 2019.

Hawaiian Electric Company, Inc.
 Schofield Generating Station
 Plant Addition
 As of December 31, 2018

Utility Account	(Note 1) PUC Approved Accrual Rate	(Note 2) Balance at 12/31/18	Depreciation 2019	Allocation %	(Note 3) Subject to Cap	Depreciation 2019 (at Cap)
	a	b	c = a x b	d	e = d x Cap	f = a x e
343	0.03260	142,147,612	4,634,012	98.2%	139,030,987	4,532,410
352	0.01600	2,003,490	32,056	1.4%	1,959,563	31,353
353	0.01860	352,190	6,551	0.2%	344,468	6,407
397	0.06670	240,250	16,025	0.2%	234,983	15,673
		144,743,542	4,688,643	100.0%	141,570,000	4,585,844
					To Sch L1	To Sch L1

Source: SAP and Powerplan WBS.

Note 1:

Depreciation rates approved in Docket No. 2010-0053, Decision and Order, filed May 12, 2011.

Note 2:

See details at HECO-WP-D2-001.

Note 3:

Decision and Order No. 33178, p. 84-85, Docket No. 2014-0113, For Approval to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the Purchase and Installation of Item P0001576, Schofield Generating Station Project, filed 09/29/2015. The Commission approved a cap on the amount of the total costs that may be recovered through any cost recovery mechanism other than base rates at 90% of the \$167 million cap. The \$167 million cap shall further be adjusted downward due to a reduction in the foreign exchange rate.

In the Letter to Commission Re: Docket No. 2014-0113, Schofield Generating Station; Notification of Euro Exchange Rate and Adjusted Project Cap, filed 01/27/2016, the Company locked in the foreign exchange rate at \$1.0928/euro which adjusted the project cap down from \$167 million to \$157.3 million. Revised cap on the amount of total costs allowed to be recovered through any cost recovery mechanism other than base rates is \$141.57 million (\$157.3 million x 90%).

DECEMBER 31, 2019									
source									
FEDERAL DEFERRED TAXES									
1	State Book/Tax Difference								
2	Book Depreciation	(6,706,173)	(11,702,627)	7,507,036	4,124,152	(185,002)	(6,962,615)	(12,753,951)	(19,716,566)
3	Subtotal	(6,706,173)	(11,702,627)	7,507,036	4,124,152	(185,002)	(6,962,615)	(8,168,107)	(15,543,137)
4	Effective Federal Tax Rate	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%
5	Federal Def Tax on State Book/Tax Diff	(1,323,584)	(2,309,724)	1,481,649	813,976	(36,513)	(1,374,197)	(1,612,123)	(3,067,718)
6	Addback State Book/Tax Difference	6,706,173	11,702,627	(7,507,036)	(4,124,152)	185,002	6,962,615	8,168,107	15,543,137
7	Federal Book/Tax Difference	(39,373,231)	(11,702,627)	7,507,036	4,124,152	(185,002)	(39,629,673)	(9,565,463)	(49,195,136)
8	Book Depreciation							4,585,844	4,173,428
9	Federal State Difference	(32,667,058)	-	-	-	-	(32,667,058)	3,188,488	(29,478,570)
10	Tax Rate on Federal Only Adjustment	21%	21%	21%	21%	21%	21%	21%	21%
11	Federal Deferred Tax Adjustment	(6,860,082)	-	-	-	-	(6,860,082)	669,582	(6,190,500)
12	Total Federal Deferred Taxes	(8,183,666)	(2,309,724)	1,481,649	813,976	(36,513)	(8,234,279)	(942,541)	(9,258,218)
STATE DEFERRED TAXES									
13	State Book/Tax Difference								
14	Book Depreciation	(6,706,173)	(11,702,627)	7,507,036	4,124,152	(185,002)	(6,962,615)	(12,753,951)	(19,716,566)
15	Subtotal	(6,706,173)	(11,702,627)	7,507,036	4,124,152	(185,002)	(6,962,615)	(8,168,107)	(15,543,137)
16	Effective State Tax Rate	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%
17	Total State Deferred Taxes	(403,379)	(703,917)	451,551	248,069	(11,128)	(418,804)	(491,315)	(934,926)
18	TOTAL DEFERRED TAXES	(8,587,045)	(3,013,641)	1,933,200	1,062,045	(47,641)	(8,653,083)	(1,433,856)	(10,193,144)
To Sch L1									
To Sch L1									
(1,540,061)									
To Sch L1									

HAWAIIAN ELECTRIC CO., INC.
TAX DEPRECIATION
SCHOFIELD GENERATION STATION

Project No.	Description	Book Basis	Less: AFUDC	Add: TCI	Tax Basis	Plant Acct	Life	Bonus	2018	2019	Net Book Value
FEDERAL											
P0001576	Schofield Generation Station	64,076,545	(5,275,285)	3,384,005	62,185,266	Oth Prod	15	50%	32,647,265	2,953,800	28,475,480
P0001576	Schofield Generation Station	64,076,545	(5,275,285)	3,384,005	62,185,266	Oth Prod	15	0%	3,109,263	5,907,600	55,059,682
P0001576	Schofield Generation Station	5,625,855	(510,973)	327,780	5,442,663	Trans	20	50%	2,823,381	196,453	2,606,021
P0001576	Schofield Generation Station	5,625,855	(510,973)	327,780	5,442,663	Trans	20	0%	204,100	392,906	5,028,849
P0001576	Schofield Generation Station	1,082,599	(65,056)	41,732	1,059,276	Comm	20	50%	549,499	38,235	494,865
P0001576	Schofield Generation Station	1,082,599	(65,056)	41,732	1,059,276	Comm	20	0%	39,723	76,469	966,407
Total		141,570,000	(11,702,627)	7,507,036	137,374,409						
Cumulative											
HAWAII											
P0001576	Schofield Generation Station	128,153,091	(10,550,569)	6,768,010	124,370,532	Oth Prod	15	0	6,218,527	11,815,201	110,119,363
P0001576	Schofield Generation Station	11,251,710	(1,021,945)	655,561	10,885,325	Trans	20	0	408,200	785,812	10,057,698
P0001576	Schofield Generation Station	2,165,199	(130,112)	83,465	2,118,551	Comm	20	0	79,446	152,938	1,932,815
Total		141,570,000	(11,702,627)	7,507,036	137,374,409						
Cumulative											
To page 1 of 5											

To page 1 of 5

To page 1 of 5

Hawaiian Electric Company, Inc.
Breakdown of SGS Costs by Major Area
Actuals through December 2018

TOTAL PLANT ADDITIONS:							(Note 1)	
	A	B	C	D	E=SUM(B:D)	F=A+E		
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	Allocation %	Subject to Cap
Labor	2,293,428	1,712,982	305,919	741,234	2,760,135	5,053,564	3.5%	4,942,763
Materials	32,932,285	1,523,772	545,040	512,566	2,581,378	35,513,663	24.5%	34,735,016
Vehicles	2,062	117,109	187	563	117,859	119,921	0.1%	117,292
Overheads	12,885,912	2,456,221	544,975	928,736	3,929,932	16,815,844	11.6%	16,447,152
AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962	8.3%	11,702,627
Outside Services-Construction	69,147,360	614,746	59,095	80,179	754,019	69,901,379	48.3%	68,368,772
Outside Services-Other	2,550,389	1,421,977	621,195	348,999	2,392,171	4,942,560	3.4%	4,834,193
Other	427,354	-	4,296	-	4,296	431,650	0.3%	422,186
	131,025,869	8,549,966	2,213,736	2,953,971	13,717,673	144,743,542	100.0%	141,570,000

BREAKDOWN SUBJECT TO (Note 1)								
	A1	B1	C1	D1	E1=SUM(B1:D1)	F1=A1+E1		
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	State ITC	
Labor	2,243,144	1,675,424	299,212	724,982	2,699,618	4,942,763		
Materials	32,210,236	1,490,363	533,090	501,328	2,524,781	34,735,016	34,735,016	
Vehicles	2,017	114,541	183	551	115,275	117,292		
Overheads	12,603,385	2,402,368	533,026	908,373	3,843,767	16,447,152		
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627		
Outside Services-Construction	67,631,285	601,267	57,799	78,421	737,487	68,368,772	68,368,772	
Outside Services-Other	2,494,471	1,390,800	607,576	341,347	2,339,722	4,834,193		
Other	417,984	-	4,202	-	4,202	422,186		
	128,153,091	8,362,506	2,165,199	2,889,204	13,416,909	141,570,000	(Note 1)	
Amount subject to bonus	50%	50%	50%	50%	50%	50%	103,103,789	
	64,076,545	4,181,253	1,082,599	1,444,602	6,708,455	70,785,000	4%	
			5,625,855				4,124,152	To page 1 of 5
Tie out of TCI:								
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627		To page 1 of 5
ratio - 5 year average	64.15%	64.15%	64.15%	64.15%	64.15%	64.15%		From page 4 of 5
TCI	6,768,010	441,175	83,465	214,385	739,025	7,507,036		To page 1 of 5
			655,561					

Source: Ellipse & SAP

Note 1:

Allocated 12/31/18 Plant Addition subject to the cap of \$141.57M. See further discussion at HECO-WP-L1-001.

Hawaiian Electric Company, Inc.
Annual - TCI Closed to AFUDC Closed Ratio

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>5 Yr Ave</u>
TCI	3,820,695	4,825,860	4,299,588	4,056,549	5,041,274	22,043,966
AFUDC	5,511,275	7,365,025	6,668,924	6,540,575	8,278,273	34,364,072
Ratio	0.693251	0.655240	0.644720	0.620213	0.608977	0.641483

To page 3 of 5

Hawaiian Electric Company, Inc.
MPIR Removal Costs
Actuals Through December 31, 2018

Row Labels	Sum of amount
Labor	90,530
Materials	46
Overheads	94,426
Grand Total	185,002

To page 1 of 5

SOURCE: Ellipse & SAP

Schedule L exhibit, with additional supporting workpapers

Excerpt from Docket No. 2017-0213 - Schofield Generating Station Cost Recovery through the Major Project Interim Recovery Adjustment Mechanism Hawaiian Electric's Update of Target Revenues and Updated Responses to the Commission's Information Requests, filed July 18, 2018. Approved in Order No. 35647, issued August 15, 2018. Effective July 1, 2018. Pages 1 through 9.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description (a)	Reference (b)	Docket No. 2010-0080 Amounts (e)	Docket No. 2010-0080 Amounts (f)	Docket No. 2010-0080 Amounts (g)	Docket No. 2010-0080 Amounts (h)	Docket No. 2016-0328 Amounts (i)	Docket No. 2016-0328 Amounts (j)	Docket No. 2016-0328 Amounts (k)	Docket No. 2016-0328 Amounts (l)	Docket No. 2016-0328 Amounts (m)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note (1), (5), (7), (7a)	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,581,445	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (5)	\$ -	\$ -	\$ -	\$ -	\$ (5,000)	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (5)	\$ -	\$ -	\$ -	\$ -	\$ (6,000)	\$ -	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (1), (5), (7), (7a)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (1), (5), (7), (7a)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rates)	Note (1), (5), (7), (7a)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1...4	\$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (2)	\$ -	\$ -	\$ 101,131	\$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ (8,986)	\$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$ -	\$ -	\$ 92,146	\$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Authorized MPR Revenues	Schedule L	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net MPR Adjustment	Lines 12 + 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	EARNINGS SHARING REVENUE CREDITS	Note (2), (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
16	Less: Revenue Taxes on Line 15 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17	Net Earnings Sharing Revenue Credits	Lines 15 + 16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18	PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:	Note (2), (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total Annual Target Revenues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	June 1, 2017 Annualized Revenues w/RAM Increase	Col (d), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	February 16, 2018 Annualized Revenues w/interim increase	Col (d), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April 13, 2018 Annualized Revenues w/2nd interim increase	Col (d), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	June 1, 2018 Annualized Revenues w/RAM Increase	Col (d), lines (5+9+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	June 1, 2018 Annualized Revenues w/RAM Increase & MPR, eff 7/1/18	Col (f), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Distribution of Target Revenues by Month:										
26	January	Note (3)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	February	8.10%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	March	7.26%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	April	8.10%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	May	7.84%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31	June	8.40%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
32	July	8.07%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33	August	8.70%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34	September	9.04%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
35	October	8.68%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36	November	8.78%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37	December	8.26%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
38	Total Distributed Target Revenues	100.00%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
39											

Footnotes:

- Docket No. 2010-0080 amounts derived from Order No. 30576, filed August 9, 2012, effective September 1, 2012, which implemented Decision and Order No. 30505, Exhibit A, page 1, filed June 28, 2012.
- Transmittal 17-02 filed March 31, 2017, establishing 2017 target revenue effective June 1, 2017.
- RBA Tariff Revised July 26, 2011 to reflect 2011 test year.
- RBA Tariff Effective February 16, 2018 to reflect 2017 test year.
- Test Year 2017 Interim Increase provided for in Interim Decision and Order 35100, issued December 15, 2017 in Docket No. 2016-0328:
- For the month of the initial implementation (Feb 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days:
- Test Year 2017 2nd Interim Increase provided for in Order No. 35335, issued March 9, 2018 in Docket No. 2016-0328:
- Reduction for tax Act implementation (April 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days:
- Transmittal 18-01 filed May 28, 2018, establishing 2018 target revenue effective June 1, 2018.

\$35,971
0.46429
-\$603
-\$2,143
0.60000

\$000s
\$000s
\$000s
\$000s

	2018	2019
	\$53,817,091	\$50,662,296
	\$55,301,701	\$46,950,773
	\$53,507,798	\$50,105,568
	\$54,663,113	\$49,363,263
	\$51,095,307	\$51,961,329
	\$51,219,025	\$51,961,329
	\$319,624,035	\$249,043,225

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
REVENUE REQUIREMENT AND DETERMINATION OF MAJOR PROJECT INTERIM RECOVERY
MPIR PROJECT
\$ in thousands

Line No.	Description (a)	Reference (b)	Recorded at 12/31/2017 (c)	Recorded at In Service Date (June 2018) (d)	Ending Balance as of 6/30/18 (e)	Average Balance (f)	MPIR (f)
	<u>Return on Investment</u>						
1	Gross Plant in Service (not to exceed PUC approved amount)	HECO-WP-L-001	-	141,275	141,275	70,638	
2	Accum Depreciation	Schedule TBD	-	-	-	-	
3	Net Cost of Plant in Service		-	141,275	141,275	70,638	
4	Fuel Inventory - Avoided	Note 3	-	(1,534)	(1,534)	(767)	
5	M&S Inventory	Note 3	-	100	100	50	
6	Total Additions		-	(1,434)	(1,434)	(717)	
7	CIAC	Schedule TBD, if needed	-	-	-	-	
8	ADIT	HECO-WP-L-002	-	(8,689)	(8,689)	(4,344)	
9	State ITC	HECO-WP-L-002	-	(4,147)	(4,147)	(2,074)	
10	Total Deductions		-	(12,836)	(12,836)	(6,418)	
11	Total Rate Base		\$ -	\$ 127,005	\$ 127,005	63,502	
12	Average Rate Base					\$ 63,502	
13	Rate of Return (grossed-up for income taxes, before revenue taxes)	Note 4				9.47%	
14	Annualized Return on Investment (before revenue taxes)						\$ 6,014
15	Depreciation Expense (Note 1)	Schedule E				-	
16	Operating & Maintenance Expense	Note 2				-	
16a	Prior year reconciliation of O&M to actuals	Note 2				-	
17	Amortization of State ITC	see line 6				-	
18	Lease Rent Expense	Schedule TBD, if needed				-	
19	Other Expense	Schedule TBD, if needed				-	
20	Total Expenses					\$ -	
21	Total Major Project Interim Recovery					\$ 6,014	
22	Revenue Tax Factor (1/(1-8.885%))						1.0975
23	2019 Annualized Revenue for Major Project Interim Recovery					\$ 6,600.0	

To Sch B & B1

Reconciliation to Schedule B1 (Info Only)

Sum of Monthly Factors for Jul-Dec 2018	51.67%
Prorated MPIR for Year 1	\$ 3,410
Rev Tax Adj	\$ (303)
Prorated MPIR for Year 1 excl Rev Tax	\$ 3,107

Note 1: Depreciation expense is recorded beginning in the year after an asset is placed in service, therefore, depreciation expense is zero in year 1. The revenue requirement for year 2 and thereafter will include depreciation expense at existing, approved depreciation accrual rates at the time of filing.

Note 2: Per Order No. 35556, page 74, Docket No. 2017-0213, For Approval to Recover Costs for Schofield Generating Station through the Major Project Interim Recovery Adjustment Mechanism, filed on June 27, 2018. Total estimated annual O&M expense will be excluded from the MPIR calculation until an acceptable business case study has been reviewed and approved by the Commission.

Note 3: Difference in fuel inventory and difference in materials & supplies inventory derived from the "with Schofield" and "without Schofield" rate bases in the HECO 2017 test year rate cases. See Docket No. 2016-0328 HECO-3201 p. 3 and HECO-3203 p. 3.

Note 4: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric's RBA Rate Adjustment, Schedule D, filed May 29, 2018.

Hawaiian Electric Company, Inc.
 MPIR Plant Additions
 Actuals Through June 30, 2018

Indicator Code	NI
Row Labels	Sum of amount
150: Labor Cost	4,542,416
155: Labor True-up	284,309
201: Matl-Issues/Purchases	33,529,637
205: Matl-Purchasing Card	63,740
301: Vehicles	112,180
404: Energy Delivery	1,758,310
405: Power Supply	10,752,643
406: Corp Admin Expense	929,503
421: Non-Productive Wages	610,417
422: Employee Benefits	1,348,674
423: Payroll Taxes	403,436
430: AFUDC-Debt	3,260,337
431: AFUDC-Equity	8,704,625
501: Outside Svcs-General	1,461,336
502: Outside Svcs-Legal	177,774
503: Outside Svcs-TempHire	2,916
505: Outside Svcs-Constr	70,093,402
506: Outside Svcs-Engr	1,596,895
508: Outside Svcs-Environ	1,213,832
520: Mainland Travel	90,358
522: Interisland Travel	1,706
570: Rents	9,300
521: Meals	13,202
900: Fin Stmt Items	314,048
Grand Total	141,274,996

SOURCE: UIPlanner Actual Data

HAWAIIAN ELECTRIC CO., INC.
SCHOFIELD GENERATING STATION
DECEMBER 31, 2018 (Based on Actuals Through June 30, 2018)

FEDERAL DEFERRED TAXES		source	Tax Depreciation	AFUDC	Tax Cap Interest	State ITC	Removal	Total
1	State Book/Tax Difference							
2			(6,714,039)	(11,964,962)	7,673,560	4,147,471	(185,002)	(7,042,972)
3	Subtotal	Line 1 + Line 2	(6,714,039)	(11,964,962)	7,673,560	4,147,471	(185,002)	(7,042,972)
4	Effective Federal Tax Rate		19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%
5	Federal Def Tax on State Book/Tax Diff	Line 3 * Line 4	(1,325,136)	(2,361,501)	1,514,515	818,578	(36,513)	(1,390,057)
6	Addback State Book/Tax Difference	Line 3	6,714,039	11,964,962	(7,673,560)	(4,147,471)	185,002	7,042,972
7	Federal Book/Tax Difference	Line 2	(39,452,276)	(11,964,962)	7,673,560	4,147,471	(185,002)	(39,781,209)
8			-					
9	Federal State Difference	Line 6 + 7 + 8	(32,738,237)	-	-	-	-	(32,738,237)
10	Tax Rate on Federal Only Adjustment		21%	21%	21%	21%	21%	21%
11	Federal Deferred Tax Adjustment	Line 9 * Line 10	(6,875,030)	-	-	-	-	(6,875,030)
12	Total Federal Deferred Taxes	Line 5 + Line 11	(8,200,166)	(2,361,501)	1,514,515	818,578	(36,513)	(8,265,087)
STATE DEFERRED TAXES								
13	State Book/Tax Difference	Line 1	(6,714,039)	(11,964,962)	7,673,560	4,147,471	(185,002)	(7,042,972)
14		Line 2	-	-	-	-	-	-
15	Subtotal	Line 1 + Line 2	(6,714,039)	(11,964,962)	7,673,560	4,147,471	(185,002)	(7,042,972)
16	Effective State Tax Rate		6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%
17	Total State Deferred Taxes	Line 15 * Line 16	(403,852)	(719,697)	461,568	249,472	(11,128)	(423,637)
18	TOTAL DEFERRED TAXES	Line 12 + Line 17	(8,604,018)	(3,081,198)	1,976,083	1,068,050	(47,641)	(8,688,724)

HAWAIIAN ELECTRIC CO., INC.
TAX DEPRECIATION
SCHOFIELD GENERATION STATION
(Based on Actuals Through June 30, 2018)

Project No.	Description	Book Basis	Less: AFUDC	Add: TCI	Tax Basis	Plant Acct	Life	(Note 1) Bonus	2018	Net Book Value
FEDERAL										
P0001576	Schofield Generation Station	63,995,593	(5,393,539)	3,459,071	62,061,124	Oth Prod	15	50%	32,582,090	31,413,503
P0001576	Schofield Generation Station	63,995,593	(5,393,539)	3,459,071	62,061,124	Oth Prod	15	0%	3,103,056	60,892,537
P0001576	Schofield Generation Station	5,661,768	(180,733)	335,052	5,816,087	Trans	20	50%	3,017,095	2,644,673
P0001576	Schofield Generation Station	5,661,768	(180,733)	335,052	5,816,087	Trans	20	0%	218,103	5,443,665
P0001576	Schofield Generation Station	980,137	(66,514)	42,658	956,281	Comm	20	50%	496,071	484,066
P0001576	Schofield Generation Station	980,137	(66,514)	42,658	956,281	Comm	20	0%	35,861	944,276
Total		141,274,996	(11,281,574)	7,673,560	137,666,982				39,452,276	101,822,720
HAWAII										
P0001576	Schofield Generation Station	127,991,185	(10,787,079)	6,918,141	124,122,248	Oth Prod	15	0	6,206,112	121,785,073
P0001576	Schofield Generation Station	11,323,536	(361,466)	670,103	11,632,173	Trans	20	0	436,206	10,887,330
P0001576	Schofield Generation Station	1,960,274	(133,029)	85,316	1,912,561	Comm	20	0	71,721	1,888,553
Total		141,274,996	(11,281,574)	7,673,560	137,666,982				6,714,039	134,560,957

Note 1:

The Tax Technical Corrections Act of 2018 made changes to the phase down rules of §168(k) as it existed just prior to the enactment of the 2017 Tax Reform Act. These changes indicated that 50% bonus depreciation (under the old law) would apply to longer production period property that was pursuant to a written binding contract entered into prior to September 28, 2017 but placed into service in 2018. Based on this statutory revision, the current best assessment is that one-half of the Schofield project components should meet the written binding contract requirements and will be grandfathered under the old law, which allowed 50% bonus depreciation on public utility property. The Company continues to monitor the tax developments for further guidance.

Hawaiian Electric Company, Inc.
Breakdown of SGS Costs by Major Area
Actuals through June 2018

SOURCE: PUC-HECO-IR-7 (Update of CA-IR-19)

Row	Expense Element	A		B		C		D		E = SUM(B:D)		F = A + E	
		Oth Prod	Generating Station and Switchyard	Trans	46KV Line	Telecom	Wahiawa Substation	Trans	Interconnection	Total	Total Project	State ITC	
1	150: Labor Cost	2,036,413		1,505,621	301,845	698,537			2,506,003	4,542,416			
2	155: Labor True-up	99,413		1,505,621	(2,583)	37,744			184,896	284,309			
3	201: Matl-Issues/Purchases	31,024,176		1,466,766	543,716	494,978			2,505,461	33,529,637			
4	205: Matl-Purchasing Card	5,329		39,500	1,323	17,588			58,411	63,740			
5	301: Vehicles	1,213		110,407	-	560			110,967	112,180			
6	404: Energy Delivery	52,075		1,108,794	238,053	359,388			1,706,235	1,758,310			
7	405: Power Supply	10,442,252		190,953	36,356	83,082			310,392	10,752,643			
8	406: Corp Admin Expense	414,446		310,795	63,083	141,180			515,057	929,503			
9	421: Non-Productive Wages	265,486		210,398	43,543	90,990			344,931	610,417			
10	422: Employee Benefits	627,481		441,079	94,973	185,141			721,193	1,348,674			
11	423: Payroll Taxes	181,698		133,734	25,350	62,654			221,738	403,436			
12	430: AFUDC-Debt	2,940,954		190,052	36,432	92,899			319,383	3,260,337			
13	431: AFUDC-Equity	7,846,125		513,108	96,597	248,795			838,500	8,704,625			
14	501: Outside Svcs-General	453,275		775,828	169,466	62,767			1,008,061	1,461,336			
15	502: Outside Svcs-Legal	136,675		41,099	-	-			41,099	177,774			
16	503: Outside Svcs-Temp/Hire	2,916							-	2,916			
17	505: Outside Svcs-Constr	69,339,679		614,746	59,095	79,883			753,723	70,093,402			
18	506: Outside Svcs-Engr	483,431		580,122	248,729	284,614			1,113,464	1,596,895			
19	508: Outside Svcs-Environ	1,213,832							-	1,213,832			
20	520: Mainland Travel	86,254		-	4,104	-			4,104	90,358			
21	522: Interisland Travel	1,706							-	1,706			
22	570: Rents	9,300							-	9,300			
23	521: Meals	13,010		-	192	-			192	13,202			
24	900: Fin Stmt Items	314,048							-	314,048			
25	Grand Total	127,991,185		8,382,735	1,960,274	2,940,801			13,283,810	141,274,996			
	Bonus Depr	50%		50%	50%	50%							4%
	To Tax Depr	63,995,593		4,191,368	980,137	1,470,400							

Note 1: Project was placed into service on June 7, 2018.

Note 2: To arrive at direct costs per categories listed in PUC-HECO-IR-7 Attachment 2:

26	Grand Total per Row 25	127,991,185	8,382,735	1,960,274	2,940,801	13,283,810	141,274,996
27	Less: Overheads (rows 6, 7, 8, 9, 10, 11)	11,983,438	2,395,752	501,358	922,436	3,819,546	15,802,984
28	Less: AFUDC (rows 12, 13)	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962
29	Total Direct Costs by Major Area	105,220,669	5,283,823	1,325,887	1,676,671	8,286,381	113,507,050

Note 3

Note 3: Agrees to 'Total Generating Station' per PUC-HECO-IR-7 Attachment 2 row 5

Note 4: Agrees to 'Total Interconnection' per PUC-HECO-IR-7 Attachment 2 row 10 (minor difference in total for 46KV, Telecom, and Wahiawa Sub due to Project Management costs being allocated in Attachment 1 vs. not allocated in Attachment 2).

Note 5: Agrees to 'Subtotal Direct Costs' per PUC-HECO-IR-7 Attachment 2 row 11.

Tie out of ITC:

AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962
ratio - 5 year average	64.13%	64.13%	64.13%	64.13%	64.13%	64.13%
TCI	6,918,141	450,962	85,316	219,141	755,419	7,673,560

Hawaiian Electric Company, Inc.
Annual - TCI Closed to AFUDC Closed Ratio

	2013	2014	2015	2016	2017	5 Yr Ave
TCI	3,820,695	4,825,860	4,299,588	4,056,549	5,036,221	22,038,913
AFUDC	5,511,275	7,365,025	6,668,924	6,540,575	8,278,273	34,364,072
Ratio	0.693251	0.655240	0.644720	0.620213	0.608366	0.641336

Hawaiian Electric Company, Inc.
MPIR Removal Costs
Actuals Through June 30, 2018

Indicator Code	NR
Row Labels	Sum of amount
150: Labor Cost	83,369
155: Labor True-up	7,161
205: Matl-Purchasing Card	46
404: Energy Delivery	38,302
406: Corp Admin Expense	15,495
421: Non-Productive Wages	10,390
422: Employee Benefits	22,600
423: Payroll Taxes	7,639
Grand Total	185,002

SOURCE: UIPlanner Actual Data

Exhibit C

Updated Schedule L

Excerpt from Docket No. 2017-0213 - Schofield Generating Station MPIR Adjustment Mechanism Cost Recovery Request Hawaiian Electric's Business Case Analysis Supporting Net O&M Project Costs and Update of Target Revenues, filed September 6, 2018. Approved in Order No. 35953, issued December 14, 2018. Effective October 1, 2018.
Pages 10 through 13.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
REVENUE REQUIREMENT AND DETERMINATION OF MAJOR PROJECT INTERIM RECOVERY
MPIR PROJECT
\$ in thousands

Line No.	Description (a)	Reference (b)	Recorded at 12/31/2017 (c)	Recorded at In Service Date (June 2018) (d)	Ending Balance as of 6/30/18 (e)	Average Balance (f)	MPIR (f)
	Return on Investment						
1	Gross Plant in Service (not to exceed PUC approved amount)	HECO-WP-L-001	-	141,275	141,275	70,638	
2	Accum Depreciation	Schedule TBD	-	-	-	-	
3	Net Cost of Plant in Service		-	141,275	141,275	70,638	
4	Fuel Inventory - Avoided	Note 3	-	(1,534)	(1,534)	(767)	
5	M&S Inventory	Note 3	-	100	100	50	
6	Total Additions		-	(1,434)	(1,434)	(717)	
7	CIAC	Schedule TBD, if needed	-	-	-	-	
8	ADIT	HECO-WP-L-002	-	(8,689)	(8,689)	(4,344)	
9	State ITC	HECO-WP-L-002	-	(4,147)	(4,147)	(2,074)	
10	Total Deductions		-	(12,836)	(12,836)	(6,418)	
11	Total Rate Base		\$ -	\$ 127,005	\$ 127,005	63,502	
12	Average Rate Base					\$ 63,502	
13	Rate of Return (grossed-up for income taxes, before revenue taxes)	Note 4				9.47%	
14	Annualized Return on Investment (before revenue taxes)						\$ 6,014
15	Depreciation Expense (Note 1)	Schedule E				-	
16	Operating & Maintenance Expense	Note 2				1,787	
16a	Prior year reconciliation of O&M to actuals	Note 2				-	
17	Amortization of State ITC	see line 6				-	
18	Lease Rent Expense	Schedule TBD, if needed				-	
19	Other Expense	Schedule TBD, if needed				-	
20	Total Expenses						\$ 1,787
21	Total Major Project Interim Recovery						\$ 7,801
22	Revenue Tax Factor (1/(1-8.885%))						1.0975
23	Annualized Revenue for Major Project Interim Recovery						\$ 8,561.2

To Sch B & B1

Reconciliation to Schedule B1 (Info Only)	
Sum of Monthly Factors for Jul-Dec 2018	51.67%
Prorated MPIR for Year 1	\$ 4,424
Rev Tax Adj	\$ (393)
Prorated MPIR for Year 1 excl Rev Tax	\$ 4,031

Note 1: Depreciation expense is recorded beginning in the year after an asset is placed in service, therefore, depreciation expense is zero in year 1. The revenue requirement for year 2 and thereafter will include depreciation expense at existing, approved depreciation accrual rates at the time of filing.

Note 2: Total O&M expense is estimated to cost \$1.787 million annually for year 1 (\$2.087 million annually during the interim period thereafter), as referenced within Attachment 1 - SGS Business Case Revenue Requirement Update.

Note 3: Difference in fuel inventory and difference in materials & supplies inventory derived from the "with Schofield" and "without Schofield" rate bases in the HECO 2017 test year rate cases. See Docket No. 2016-0328 HECO-3201 p. 3 and HECO-3203 p. 3.

Note 4: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric's RBA Rate Adjustment, Schedule D, filed May 29, 2018.

Exhibit D

Updated Schedule B1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description (a)	Reference (b)	Docket No. 2010-0080 Amounts (e)	Docket No. 2010-0080 Amounts (f)	Docket No. 2010-0080 Amounts (g)	Docket No. 2010-0080 Amounts (h)	Docket No. 2016-0328 Amounts (i)	Docket No. 2016-0328 Amounts (j)	Docket No. 2016-0328 Amounts (k)	Docket No. 2016-0328 Amounts (l)	Docket No. 2016-0328 Amounts (m)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note (1), (5), (7), (7a)	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (5)					\$ (5,000)	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (5)					\$ (6,000)	\$ -	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (1), (5), (7), (7a)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (1), (5), (7), (7a)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rates)		\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (139,534)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1..4	\$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (2)	\$ -	\$ -	\$ 101,131	\$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ (8,986)	\$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$ -	\$ -	\$ 92,146	\$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Authorized MPRI Revenues	Schedule L	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%	Lines 12 + 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net MPRI Adjustment		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Less: EARNINGS SHARING REVENUE CREDITS	Note (2), (9)	\$ -	\$ -	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ (16)
16	Less: Revenue Taxes on Line 15 at 8.885%		\$ -	\$ -	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1
17	Net Earnings Sharing Revenue Credits	Lines 15 + 16	\$ -	\$ -	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ (14)
18	PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:	Note (2), (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total Annual Target Revenues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	June 1, 2017 Annualized Revenues w/ RAM Increase	Col (g), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	February 16, 2018 Annualized Revenues w/ Interim Increase	Col (i), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April 13, 2018 Annualized Revenues w/ 2nd Interim Increase	Col (i), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	June 1, 2018 Annualized Revenues w/ RAM Increase	Col (k), lines (5+9+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	June 1, 2018 Annualized Revenues w/ RAM Increase & MPRI eff 7/1/18	Col (i), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Distribution of Target Revenues by Month:										
26	January	Note (3)	\$48,009,623	\$48,009,623	\$48,009,623	\$48,009,623	\$22,450,132	\$22,450,132	\$22,450,132	\$22,450,132	\$22,450,132
27	February	8.10%	\$43,030,848	\$43,030,848	\$43,030,848	\$43,030,848	\$51,603,222	\$51,603,222	\$51,603,222	\$51,603,222	\$51,603,222
28	March	7.26%	\$48,009,623	\$48,009,623	\$48,009,623	\$48,009,623	\$28,726,095	\$28,726,095	\$28,726,095	\$28,726,095	\$28,726,095
29	April	8.10%	\$46,468,574	\$46,468,574	\$46,468,574	\$46,468,574	\$50,396,658	\$50,396,658	\$50,396,658	\$50,396,658	\$50,396,658
30	May	7.98%	\$50,024,842	\$50,024,842	\$50,024,842	\$50,024,842	\$51,184,359	\$51,184,359	\$51,184,359	\$51,184,359	\$51,184,359
31	June	8.40%	\$50,202,656	\$50,202,656	\$50,202,656	\$50,202,656	\$52,957,265	\$52,957,265	\$52,957,265	\$52,957,265	\$52,957,265
32	July	8.07%	\$51,980,790	\$51,980,790	\$51,980,790	\$51,980,790	\$54,628,979	\$54,628,979	\$54,628,979	\$54,628,979	\$54,628,979
33	August	8.77%	\$53,581,111	\$53,581,111	\$53,581,111	\$53,581,111	\$52,453,393	\$52,453,393	\$52,453,393	\$52,453,393	\$52,453,393
34	September	9.04%	\$51,447,350	\$51,447,350	\$51,447,350	\$51,447,350	\$53,057,696	\$53,057,696	\$53,057,696	\$53,057,696	\$53,057,696
35	October	8.68%	\$52,040,061	\$52,040,061	\$52,040,061	\$52,040,061	\$49,915,326	\$49,915,326	\$49,915,326	\$49,915,326	\$49,915,326
36	November	8.78%	\$48,967,962	\$48,967,962	\$48,967,962	\$48,967,962	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243
37	December	8.26%	\$357,167,892	\$357,167,892	\$357,167,892	\$357,167,892	\$72,451,465	\$72,451,465	\$72,451,465	\$72,451,465	\$72,451,465
38	Total Distributed Target Revenues	100.00%	\$235,543,510	\$235,543,510	\$235,543,510	\$235,543,510	\$94,388,846	\$94,388,846	\$94,388,846	\$94,388,846	\$94,388,846
39											

Footnotes:

- Docket No. 2010-0080 amounts derived from Order No. 30576, filed August 9, 2012, effective September 1, 2012, which implemented Decision and Order No. 30505, Exhibit A, page 1, filed June 29, 2012.
- Transmittal 17-02 filed March 31, 2017, establishing 2017 target revenue effective June 1, 2017.
- RBA Tariff Revised July 26, 2011 to reflect 2011 test year.
- RBA Tariff Effective February 16, 2018 to reflect 2017 test year.
- Test Year 2017 Interim Increase provided for in Interim Decision and Order 35100, issued December 15, 2017 in Docket No. 2016-0328.
- For the month of the initial implementation (Feb 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days.
- Test Year 2017 2nd Interim Increase provided for in Order No. 35335, issued March 9, 2018 in Docket No. 2016-0328.
- Reduction for Tax Act Implementation Lag (March 2018 Settlement Tariff Sheets, Attachment 3, filed March 16, 2018, in accordance with Order No. 35335).
- For the month of the initial implementation (April 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days.
- Transmittal 18-01 filed May 29, 2018, establishing 2018 target revenue effective June 1, 2018.

\$35,971
0.46429
-\$603
-\$2,143
0.60000

\$000s
\$000s
\$000s
\$000s

\$50,808,650
\$47,086,404
\$50,250,313
\$49,505,864
\$52,111,435

\$53,972,558
\$55,461,456
\$53,682,371
\$54,841,062
\$51,242,912
\$320,547,365

\$620,374
\$620,374
\$620,374
\$620,374
\$620,374
\$620,374

\$8,561
\$761
\$7,801
\$8,561
\$761
\$7,801

ATTACHMENT 1

Schedule B1, Schedule L and Supporting Workpapers

HAWAIIAN ELECTRIC COMPANY, INC.

Excerpt from Transmittal No. 19-01 - Notice Transmittal to Update Target Revenue for Schofield Generating Station through the Major Project Interim Recovery Adjustment Mechanism, filed February 7, 2019 and effective January 1, 2019.
Pages 14 through 22.

SCHEDULE B1
(REVISED 02/07/19)
PAGE 1 OF 1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description (a)	Reference (b)	Docket No. 2010-0080 Amounts (e)	Docket No. 2010-0080 Amounts (f)	Docket No. 2010-0080 Amounts (g)	Docket No. 2010-0080 Amounts (h)	Docket No. 2016-0328 Amounts (i)	Docket No. 2016-0328 Amounts (j)	Docket No. 2016-0328 Amounts (k)	Docket No. 2016-0328 Amounts (l)	Docket No. 2016-0328 Amounts (m)	Docket No. 2016-0328 Amounts (n)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note (1), (5), (7), (7a)	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,581,445	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (5)	\$ -	\$ -	\$ -	\$ -	\$ (5,000)	\$ -	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (5)	\$ -	\$ -	\$ -	\$ -	\$ (6,000)	\$ -	\$ -	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (1), (5), (7), (7a)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (1), (5), (7), (7a)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rates)	Note (1), (5), (7), (7a)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (139,534)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1..4	\$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (2)	\$ -	\$ -	\$ 101,131	\$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%	Lines 6 + 7	\$ -	\$ -	\$ (8,986)	\$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6		\$ -	\$ -	\$ 92,146	\$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Less: Revenue Taxes on Line 9 at 8.885%	Lines 9 + 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Authorized MPIR Revenues	Schedule L	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%	Lines 12 + 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net MPIR Adjustment		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Less: EARNINGS SHARING REVENUE CREDITS	Note (2), (9)	\$ -	\$ -	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ -	\$ -	\$ -	\$ -
16	Less: Revenue Taxes on Line 15 at 8.885%	Lines 15 + 16	\$ -	\$ -	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ -	\$ -	\$ -	\$ -
17	Net Earnings Sharing Revenue Credits		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18	PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:	Note (2), (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total Annual Target Revenues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	June 1, 2017 Annualized Revenues w/ RAM Increase	Col (g), lines (5+8+17+18)	\$ -	\$ 604,302	\$ -	\$ 604,302	\$ 637,077	\$ 599,960	\$ 612,574	\$ 618,587	\$ 620,374	\$ 630,624
21	February 16, 2018 Annualized Revenues w/ Interim Increase	Col (i), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April 13, 2018 Annualized Revenues w/ 2nd Interim Increase	Col (j), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	June 1, 2018 Annualized Revenues w/ RAM Increase	Col (k), lines (5+9+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	June 1, 2018 Annualized Revenues w/ RAM Increase & MPIR eff 7/1/18	Col (l), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	June 1, 2018 Annualized Revenues w/ RAM Increase & MPIR eff 10/1/18	Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	June 1, 2018 Annualized Revenues w/ RAM Increase & MPIR eff 10/1/18	Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	June 1, 2018 Annualized Revenues w/ RAM Increase & MPIR eff 1/1/19	Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	Distribution of Target Revenues by Month:	Note (3)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	January	8.10%	\$48,009,623	\$48,009,623	\$51,184,359	\$48,948,443	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
30	February	7.26%	\$43,030,848	\$43,030,848	\$52,997,265	\$43,030,848	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
31	March	8.10%	\$48,009,623	\$48,009,623	\$52,997,265	\$43,030,848	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
32	April	7.84%	\$46,468,574	\$46,468,574	\$52,453,393	\$46,468,574	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
33	May	8.44%	\$50,024,842	\$50,024,842	\$52,453,393	\$50,024,842	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
34	June	8.47%	\$50,202,656	\$50,202,656	\$51,184,359	\$50,202,656	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
35	July	8.77%	\$51,980,790	\$51,980,790	\$52,997,265	\$51,980,790	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
36	August	9.04%	\$53,581,111	\$53,581,111	\$54,628,879	\$53,581,111	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
37	September	8.68%	\$51,447,350	\$51,447,350	\$52,453,393	\$51,447,350	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
38	October	8.78%	\$52,040,061	\$52,040,061	\$53,057,695	\$52,040,061	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
39	November	8.26%	\$48,957,962	\$48,957,962	\$49,915,326	\$48,957,962	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
40	December	8.26%	\$48,957,962	\$48,957,962	\$49,915,326	\$48,957,962	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
41	Total Distributed Target Revenues	100.00%	\$357,167,892	\$357,167,892	\$364,152,243	\$357,167,892	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243

Footnotes:

- Docket No. 2010-0080 amounts derived from Order No. 30576, filed August 9, 2012, effective September 1, 2012, which implemented Decision and Order No. 30505, Exhibit A, page 1, filed June 29, 2012.
- Transmittal 17-02 filed March 31, 2017, establishing 2017 target revenue effective June 1, 2017.
- RBA Tariff Revised July 26, 2011 to reflect 2011 test year.
- RBA Tariff Effective February 16, 2018 to reflect 2017 test year.
- Test Year 2017 Interim Increase provided for in Interim Decision and Order 35100, issued December 15, 2017 in Docket No. 2016-0328.
- For the month of the initial implementation (Feb. 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days.
- Test Year 2017 2nd Interim Increase provided for in Order No. 35335, issued March 9, 2018 in Docket No. 2016-0328.
- Reduction for Tax Act Implementation Lag (March 2018 Settlement Tariff Sheets, Attachment 3, filed March 16, 2018, in accordance with Order No. 35335).
- For the month of the initial implementation (April 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days.
- Transmittal 18-01 filed May 29, 2018, establishing 2018 target revenue effective June 1, 2018.
- MPIR Revenues effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018, in Docket No. 2017-0213.
- MPIR Revenues effective October 1, 2018 approved in Order No. 35953, issued December 14, 2018, in Docket No. 2017-0213.
- MPIR Revenues effective January 1, 2019 filed in Transmittal 19-01 on February 7, 2019.

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Note (10)
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HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
REVENUE REQUIREMENT AND DETERMINATION OF MAJOR PROJECT INTERIM RECOVERY
MPIR PROJECT
\$ in thousands

Line No.	Description	Reference	Recorded at 12/31/2018	2019 Activity	Ending Balance as of 12/31/19	Average Balance	MPIR
	(a)	(b)	(c)	(d)	(e)	(f) = ((c)+(e))/2	(g)
	Return on Investment - Schofield Generating Station						
1	Gross Plant in Service (not to exceed PUC approved amount)	HECO-WP-L-001	141,570	-	141,570	141,570	
2	Accum Depreciation	HECO-WP-L-001	-	(4,586)	(4,586)	(2,293)	
3	Net Cost of Plant in Service		141,570	(4,586)	136,984	139,277	
4	Fuel Inventory - Avoided	Note 3	(1,534)	-	(1,534)	(1,534)	
5	M&S Inventory	Note 3	100	-	100	100	
6	Total Additions		(1,434)	-	(1,434)	(1,434)	
7	CIAC	Not Applicable	-	-	-	-	
8	ADIT	HECO-WP-L-002	(8,653)	(1,540)	(10,193)	(9,423)	
9	State ITC	HECO-WP-L-002	(4,124)	412	(3,712)	(3,918)	
10	Total Deductions		(12,777)	(1,128)	(13,905)	(13,341)	
11	Total Rate Base		\$ 127,359	\$ (5,713)	\$ 121,646	124,502	
12	Average Rate Base					\$ 124,502	
13	Rate of Return (grossed-up for income taxes, before revenue taxes)	Note 4				9.47%	
14	Annualized Return on Investment (before revenue taxes)						\$ 11,790
15	Depreciation Expense (Note 1)	HECO-WP-L-001				4,586	
16	Operating & Maintenance Expense	Note 2				2,087	
16a	Prior year reconciliation of O&M to actuals	Note 2				-	
17	Amortization of State ITC	see line 6				(412)	
18	Lease Rent Expense	Not Applicable				-	
19	Other Expense	Not Applicable				-	
20	Total Expenses						\$ 6,260
21	Total Major Project Interim Recovery						\$ 18,051
22	Revenue Tax Factor (1/(1-8.885%))						1.0975
23	Annualized Revenue for Major Project Interim Recovery						\$ 19,810.8

To Sch B & B1

Reconciliation to Schedule B1 (Info Only)			
	Jul - Sep 2018	Oct - Dec 2018	2019
Annualized Revenue for MPIR	\$ 6,600	\$ 8,561	\$ 19,811
Rev Tax Adj	\$ (586)	\$ (761)	\$ (1,760)
Prorated MPIR for Year 1 excl Rev Tax	\$ 6,014	\$ 7,800	\$ 18,051
Incremental	\$ 6,014	\$ 1,787	\$ 10,250
	Note 5	Note 6	

Note 1: Depreciation expense is recorded beginning in the year after an asset is placed in service, therefore, depreciation expense is zero in year 1. The revenue requirement for year 2 and thereafter will include depreciation expense at existing, approved depreciation accrual rates at the time of filing.

Note 2: Total O&M expense is estimated to cost \$1.787 million annually for year 1 (\$2.087 million annually during the interim period thereafter), as referenced within Attachment 1 - SGS Business Case Revenue Requirement Update and approved in Order No. 35953, filed December 14, 2018.

Note 3: Decision and Order No. 35556 dated June 27, 2018 in Docket No. 2017-0213.

Note 4: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric's RBA Rate Adjustment, Schedule D, filed May 29, 2018.

Note 5: MPIR Revenues effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018 in Docket No. 2017-0213.

Note 6: MPIR Revenues effective October 1, 2018 filed December 21, 2018 in Docket No. 2017-0213.

Schofield Generating Station
 Plant Addition
 As of December 31, 2018

HECO-WP-L-001
 PAGE 1 OF 1

Utility Account	(Note 1) PUC Approved Accrual Rate	Balance at 12/31/18	Depreciation 2019	Allocation %	(Note 2) Subject to Cap	Depreciation 2019 (at Cap)
	a	b	c = a x b		e = d x Cap	f = a x e
343	0.03260	142,147,612	4,634,012	98.2%	139,030,987	4,532,410
352	0.01600	2,003,490	32,056	1.4%	1,959,563	31,353
353	0.01860	352,190	6,551	0.2%	344,468	6,407
397	0.06670	240,250	16,025	0.2%	234,983	15,673
		<u>144,743,542</u>	<u>4,688,643</u>	<u>100.0%</u>	<u>141,570,000</u>	<u>4,585,844</u>

Source: SAP and Powerplan WBS.

Note 1:

Depreciation rates approved in Docket No. 2010-0053, Decision and Order, filed May 12, 2011.

Note 2:

Decision and Order No. 33178, p. 84-85, Docket No. 2014-0113, For Approval to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the Purchase and Installation of Item P0001576, Schofield Generating Station Project, filed 09/29/2015. The Commission approved a cap on the amount of the total costs that may be recovered through any cost recovery mechanism other than base rates at 90% of the \$167 million cap. The \$167 million cap shall further be adjusted downward due to a reduction in the foreign exchange rate.

In the Letter to Commission Re: Docket No. 2014-0113, Schofield Generating Station; Notification of Euro Exchange Rate and Adjusted Project Cap, filed 01/27/2016, the Company locked in the foreign exchange rate at \$1.0928/euro which adjusted the project cap down from \$167 million to \$157.3 million. Revised cap on the amount of total costs allowed to be recovered through any cost recovery mechanism other than base rates is \$141.57 million (\$157.3 million x 90%).

HAWAIIAN ELECTRIC CO., INC.

SCHOFIELD GENERATING STATION - WITH BONUS

2019 Add

**HAWAIIAN ELECTRIC CO., INC.
TAX DEPRECIATION
SCHOFIELD GENERATION STATION**

Project No.	Description	Book Basis	Less: AFUDC	Add: TCI	Tax Basis	Plant Acct	Life	Bonus	2018	2019	Net Book Value
FEDERAL											
P0001576	Schofield Generation Station	64,076,545	(5,275,285)	3,384,005	62,185,266	Oth Prod	15	50%	32,647,265	2,953,800	28,475,480
P0001576	Schofield Generation Station	64,076,545	(5,275,285)	3,384,005	62,185,266	Oth Prod	15	0%	3,109,263	5,907,600	55,059,682
P0001576	Schofield Generation Station	5,625,855	(510,973)	327,780	5,442,663	Trans	20	50%	2,823,381	196,453	2,606,021
P0001576	Schofield Generation Station	5,625,855	(510,973)	327,780	5,442,663	Trans	20	0%	204,100	392,906	5,028,849
P0001576	Schofield Generation Station	1,082,599	(65,056)	41,732	1,059,276	Comm	20	50%	549,499	38,235	494,865
P0001576	Schofield Generation Station	1,082,599	(65,056)	41,732	1,059,276	Comm	20	0%	39,723	76,469	966,407
Total		141,570,000	(11,702,627)	7,507,036	137,374,409						
Cumulative									39,373,231	9,565,463	92,631,306
										48,938,694	
HAWAII											
P0001576	Schofield Generation Station	128,153,091	(10,550,569)	6,768,010	124,370,532	Oth Prod	15	0	6,218,527	11,815,201	110,119,363
P0001576	Schofield Generation Station	11,251,710	(1,021,945)	655,561	10,885,325	Trans	20	0	408,200	785,812	10,057,698
P0001576	Schofield Generation Station	2,165,199	(130,112)	83,465	2,118,551	Comm	20	0	79,446	152,938	1,932,815
Total		141,570,000	(11,702,627)	7,507,036	137,374,409						
Cumulative									6,706,173	12,753,951	122,109,876
										19,460,124	

Hawaiian Electric Company, Inc.
Breakdown of SGS Costs by Major Area
Actuals through December 2018

TOTAL PLANT ADDITIONS:							(Note 1)	
	A	B	C	D	E=SUM(B:D)	F=A+E		
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	Allocation %	Subject to Cap
Labor	2,293,428	1,712,982	305,919	741,234	2,760,135	5,053,564	3.5%	4,942,763
Materials	32,932,285	1,523,772	545,040	512,566	2,581,378	35,513,663	24.5%	34,735,016
Vehicles	2,062	117,109	187	563	117,859	119,921	0.1%	117,292
Overheads	12,885,912	2,456,221	544,975	928,736	3,929,932	16,815,844	11.6%	16,447,152
AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962	8.3%	11,702,627
Outside Services-Construction	69,147,360	614,746	59,095	80,179	754,019	69,901,379	48.3%	68,368,772
Outside Services-Other	2,550,389	1,421,977	621,195	348,999	2,392,171	4,942,560	3.4%	4,834,193
Other	427,354	-	4,296	-	4,296	431,650	0.3%	422,186
	131,025,869	8,549,966	2,213,736	2,953,971	13,717,673	144,743,542	100.0%	141,570,000

BREAKDOWN SUBJECT TO CAP:								
	A1	B1	C1	D1	E1=SUM(B1:D1)	F1=A1+E1		
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	State ITC	
Labor	2,243,144	1,675,424	299,212	724,982	2,699,618	4,942,763		
Materials	32,210,236	1,490,363	533,090	501,328	2,524,781	34,735,016	34,735,016	
Vehicles	2,017	114,541	183	551	115,275	117,292		
Overheads	12,603,385	2,402,368	533,026	908,373	3,843,767	16,447,152		
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627		
Outside Services-Construction	67,631,285	601,267	57,799	78,421	737,487	68,368,772	68,368,772	
Outside Services-Other	2,494,471	1,390,800	607,576	341,347	2,339,722	4,834,193		
Other	417,984	-	4,202	-	4,202	422,186		
	128,153,091	8,362,506	2,165,199	2,889,204	13,416,909	141,570,000	(Note 1)	
Amount subject to bonus	50%	50%	50%	50%	50%	50%	103,103,789	
	64,076,545	4,181,253	1,082,599	1,444,602	6,708,455	70,785,000	4%	
							4,124,152	
								5,625,855
Tie out of TCI:								
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627		
ratio - 5 year average	64.15%	64.15%	64.15%	64.15%	64.15%	64.15%		
TCI	6,768,010	441,175	83,465	214,385	739,025	7,507,036		
								655,561

Source: Ellipse & SAP

Note 1:

Allocated 12/31/18 Plant Addition subject to the cap of \$141.57M. See further discussion at HECO-WP-L-001.

Hawaiian Electric Company, Inc.**Annual - TCI Closed to AFUDC Closed Ratio**

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>5 Yr Ave</u>
TCI	3,820,695	4,825,860	4,299,588	4,056,549	5,041,274	22,043,966
AFUDC	5,511,275	7,365,025	6,668,924	6,540,575	8,278,273	34,364,072
Ratio	0.693251	0.655240	0.644720	0.620213	0.608977	0.641483

Hawaiian Electric Company, Inc.
MPIR Removal Costs
Actuals Through December 31, 2018

Row Labels	Sum of amount
Labor	90,530
Materials	46
Overheads	94,426
Grand Total	185,002

SOURCE: Ellipse & SAP

HAWAIIAN ELECTRIC COMPANY, INC.
2018 WEIGHTED AVERAGE PIM TARGET, DEADBAND, INCENTIVE CALCULATIONS

	Period	# of Days	Max Penalty	2018 Target	Deadband	Range for No Penalty		2018 Annual Total	Delta vs Target	(Penalty) / Reward
	(a)	(b)	(c)	(d)	(e)	Lower	Upper	(h)	(i) = (h) - (d)	(j)
SAIFI	1/1/18-2/15/18	46	2,039,094	1.116	0.090	1.026	1.206	Note 1 1.238	0.122	
	2/16/18-4/12/18	56	2,260,799	1.116	0.090	1.026	1.206	1.238	0.122	
	4/13/18-8/31/18	141	2,276,417	1.116	0.090	1.026	1.206	1.238	0.122	
	9/1/18-12/31/18	122	2,276,417	1.103	0.088	1.015	1.191	1.238	0.135	
	Annual (Weighted Avg)	365	2,244,112	1.112	0.089	1.022	1.201	1.238	0.126	(929,827) To Sch M
SAIDI	1/1/18-2/15/18	46	2,039,094	99.030	9.070	89.960	108.100	Note 1 106.410	7.380	
	2/16/18-4/12/18	56	2,260,799	99.030	9.070	89.960	108.100	106.410	7.380	
	4/13/18-8/31/18	141	2,276,417	99.030	9.070	89.960	108.100	106.410	7.380	
	9/1/18-12/31/18	122	2,276,417	99.230	8.960	90.270	108.190	106.410	7.180	
	Annual (Weighted Avg)	365	2,244,112	99.097	9.033	90.064	108.130	106.410	7.313	- To Sch M
Call Center	1/1/18-2/15/18	46	815,638	79.07%	3.00%	76.07%	82.07%	HECO-WP-M-004 83.97%		
	2/16/18-4/12/18	56	904,320	79.46%	3.00%	76.46%	82.46%	83.97%		
	4/13/18-8/31/18	141	910,567	79.56%	3.00%	76.56%	82.56%	83.97%		
	9/1/18-12/31/18	122	910,567	80.10%	3.00%	77.10%	83.10%	83.97%		
	Annual Totals	365	897,645	79.66%	3.00%	76.66%	82.66%	83.97%	4.31%	391,972 To Sch M

Reference: See Hawaiian Electric Company Proposed PIM Tariff Revisions, filed on July 23, 2018 in Docket No. 2016-0328. The PIM Tariff Revisions were approved by the Commission in Order No. 35661, filed on August 30, 2018.

Note 1 SAIDI and SAIFI Annual Totals exclude 25 kV Proactive Work (See HECO-WP-M-002):

	SAIDI	SAIFI	
Occurrences / Minutes	111.94	1.253	With 25kV Proactive Work
Less: Exclusion for 25kV work	-5.52	-0.015	
Annual Totals	106.41	1.238	Without 25kV Proactive Work

HAWAIIAN ELECTRIC COMPANY, INC.
2018 SAIDI and SAIFI Calculations
With and Without 25 kV Scheduled Work Outages

Without 25 kV Scheduled Work Outages													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Hours Interrupted	28,350.82	38,535.98	36,195.83	48,912.83	47,852.78	45,741.20	26,594.23	52,088.65	70,669.87	38,183.60	46,352.93	61,396.90	540,875.63
Customer Interruptions	19,170	25,947	26,983	49,443	27,712	34,644	21,028	29,939	46,557	24,863	21,382	49,779	377,447
SAIDI (Minutes)	5.58	7.58	7.12	9.62	9.41	9.00	5.23	10.25	13.90	7.51	9.12	12.08	106.41
SAIFI (Occurrences)	0.063	0.085	0.088	0.162	0.091	0.114	0.069	0.098	0.153	0.082	0.070	0.163	1.238

HECO-WP-M-001
HECO-WP-M-001

With 25 kV Scheduled Work Outages													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Hours Interrupted	28,350.82	38,535.98	36,195.83	48,912.83	47,852.78	45,741.20	54,673.72	52,088.65	70,669.87	38,183.60	46,352.93	61,396.90	568,955.12
Customer Interruptions	19,170	25,947	26,983	49,443	27,712	34,644	25,686	29,939	46,557	24,863	21,382	49,779	382,105
SAIDI (Minutes)	5.58	7.58	7.12	9.62	9.41	9.00	10.76	10.25	13.90	7.51	9.12	12.08	111.94
SAIFI (Occurrences)	0.063	0.085	0.088	0.162	0.091	0.114	0.084	0.098	0.153	0.082	0.070	0.163	1.253

HECO-WP-M-001
HECO-WP-M-001

Difference Between With and Without 25 kV Scheduled Work Outages (See Note Below)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Hours Interrupted	-	-	-	-	-	-	(28,079)	-	-	-	-	-	(28,079)
Customer Interruptions	-	-	-	-	-	-	(4,658)	-	-	-	-	-	(4,658)
SAIDI (Minutes)	-	-	-	-	-	-	5.52	-	-	-	-	-	5.52
SAIFI (Occurrences)	-	-	-	-	-	-	0.015	-	-	-	-	-	0.015

Note:

25 kV Schedule Work Outage Events
(see HECO-WP-M-003 for more details)

Date of exclusion event	Customer Interruptions	Customer Minutes Interrupted
7/5/2018	(329)	(138,838)
7/16/2018	(881)	(317,160)
7/17/2018	(1,003)	(399,020)
7/18/2018	(1,004)	(341,342)
7/19/2018	(585)	(192,357)
7/23/2018	(418)	(150,062)
7/24/2018	(418)	(138,610)
7/25/2018	(20)	(7,380)
Total	(4,658)	(1,684,769)

(28,079) Hours Interrupted

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Total Customer Minutes Interrupted without 25 kV Scheduled Work Outages	1,701,049	2,312,159	2,171,750	2,934,770	2,871,167	2,744,472	1,595,654	3,125,319	4,240,192	2,291,016	2,781,176	3,683,814	32,452,538
Total Customer Minutes Interrupted with 25 kV Scheduled Work Outages	1,701,049	2,312,159	2,171,750	2,934,770	2,871,167	2,744,472	3,280,423	3,125,319	4,240,192	2,291,016	2,781,176	3,683,814	34,137,307
Difference	-	-	-	-	-	-	(1,684,769)	-	-	-	-	-	(1,684,769)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
IWILEI 138KV 3 SUB IWILEI 9 25KV CKT CB-7754 BREAKER 7754	23:00			D-2	821 BETHEL ST V-8196, 821 BETHEL ST V-6645	1664	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN H/C NEAR V10308 PIER 12 AND H/C NEAR V10309 PIER 15 TO REPAIR A DEFECTIVE UNDERGROUND CABLE. IWILEI 13 CKT WAS ABNORMAL DUE TO HOT CAPS ON RO#125230 REQ#2054. E#259743. RELATED TO IR#1671. PTM: DELACRUZ, KEALI; ROSALES, RAY; PITT, ANTHONY; AHMOOK SANG, BRAD; PARK, JAMES; AHMOOK SANG, NATE; MOUNTHONGDY, PAT SIGN: OSHIRO, KELLY
BREAKER CB-7754		06:02 07/06/2018	7 HR 2 MIN		821 BETHEL ST V-8196, 821 BETHEL ST V-6645 CUST: 3		
IWILEI 138KV 4 SUB IWILEI 13 25KV CKT CB-7759 SECTIONALIZER CB7754	23:00			D-2	1020 MAUNAKEA ST V-7566, 60 NIMITZ N. HWY V-6646, 60 NIMITZ N. HWY V-6646B, 801 NUUANU AVE V-6936, 12 Pier V-10308, 15 Pier V-10309	1671	SECTIONALIZER ABC PHASE #CB7754 WAS OPENED IN IWILEI SUBSTATION DUE TO A SCHEDULED OUTAGE BETWEEN H/C NEAR SW V10309 AND H/C NEAR SW V10308 TO REPAIR A DEFECTIVE UNDERGROUND CABLE. SCHEDULED OUTAGE TO REPAIR FAULTED IWILEI 13 CKT RO#125230 REQ#2054. E#259743 RELATED TO IR#1664 REQ#2076 PTM: AHMOOK SANG, BRAD SIGN: MACEY, JENNIFER
BREAKER CB7754		06:02 07/06/2018	7 HR 2 MIN		1020 MAUNAKEA ST V-7566, 60 NIMITZ N. HWY V-6646B, 801 NUUANU AVE V-6936, 12 Pier V-10308, 15 Pier V-10309 CUST: 326		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Rearranged outage.
Class E: Affecting no cust.; parallel lines

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Type 1: COMPANY: Confined within HECO system
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Type 3: PUBILC: Caused by public/equip. not HECO Related
Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

HE No. 171 REV 4/99

Date: July 5, 2018 (Thursday)

PUC FORM GO No. 7-7.5C
System Operation Department
Interruption Report

Sheet 1 of 1

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TOTAL TIME		CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
	TIME OUT	TIME IN				
IWILEI 138KV 3 SUB IWILEI 9 25KV CKT CB-7754 BREAKER 7754	22:00		D-1	SECTIONS OF BETHEL ST	1748	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON IWILEI 9 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE 25KV CABLE SPLICES E#260398. RELATED TO E#260399 IR#1749 REQ#2150. PTM: AHMOOK SANG, NATE; CHING, THOMAS SIGN: MIYAKE, LANCE
BREAKER CB7754		04:00 07/17/2018		FROM CB7754 IWILEI SUBSTATION TO ALL TERMINATIONS CUST: 174		
IWILEI 138KV 4 SUB IWILEI 13 25KV CKT CB-7759 BREAKER 7759	22:00		D-1	KING, MAUNAKEA ST, NUUANU AVE, SECTIONS OF NIMITZ HWY	1749	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON IWILEI 13 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE 25KV CABLE SPLICES E#260399. RELATED TO E#260398 IR#1748 REQ#2149. PTM: DELACRUZ, KEALII; PITT, ANTHONY; WON, BRONSON; KAPOI, KALEI SIGN: MIYAKE, LANCE
BREAKER CB7759		04:00 07/17/2018		FROM CB7759 IWILEI SUB TO ALL TERMINATIONS CUST: 707		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Rearranged outage.
Class E: Affecting no cust.; parallel lines

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Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

HE No. 171 REV 4/99

Ran 02/06/2019 14:16.01

Date: July 16, 2018 (Monday)

System Operation Department
Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:04			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1757	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 5 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260487 REQ#2168. RELATED TO IR#1758 REQ#2169, IR#1759 REQ#2170, IR#1760 REQ#2171. PTM: AHMOOK SANG, NATE SIGN: MIYAKE, LANCE
BREAKER CB7706		04:39 07/18/2018	6 HR 35 MIN		FROM CB7706 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 335		
KEWALO T3 SUB KEWALO 6 25KV CKT CB-7707 BREAKER 7707	22:04			D-1	SECTIONS OF KEEAUMOKU ST, KAPIOLANI BLVD, AND WAIMANU ST	1758	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 6 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260501 REQ#2169. RELATED TO IR#1757 REQ#2168, IR#1759 REQ#2170, IR#1760 REQ#2171. PTM: DELACRUZ, KEALI SIGN: MIYAKE, LANCE
BREAKER CB7707		04:39 07/18/2018	6 HR 35 MIN		FROM CB7707 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 18		
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:04			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1759	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 9 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260499 REQ#2170. RELATED TO IR#1757 REQ#2168, IR#1758 REQ#2169, IR#1760 REQ#2171. PTM: MOUNTHONGDY, PAT SIGN: MIYAKE, LANCE
BREAKER CB8329		04:39 07/18/2018	6 HR 35 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Rearranged outage.
Class E: Affecting no cust.; parallel lines

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HE No. 171 REV 4/99

Ran 02/06/2019 14:16:01

Date: July 17, 2018 (Tuesday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 10 25KV CKT CB-8330 BREAKER 8330	22:04			D-1	ALA MOANA SC, SECTIONS OF KEEAUMOKU ST	1760	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 10 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260500 REQ#2171. RELATED TO IR#1757 REQ#2168, IR#1758 REQ#2169, IR#1759 REQ#2170. PTM: ROSALES, RAY SIGN: MIYAKE, LANCE
BREAKER CB8330		04:44 07/18/2018	6 HR 40 MIN		FROM CB8330 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 567		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Prearranged outage.
Class E: Affecting no cust.; parallel lines

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HE No. 171 REV 4/99

Ran 02/06/2019 14:16.01

Date: July 17, 2018

(Tuesday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:08			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1766	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 5 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260590 REQ#2179. RELATED TO IR#1767 REQ#2180, IR#1768 REQ#2181, IR#1769 REQ#2182. PTM: AHMOOK SANG, NATE SIGN: MIYAKE, LANCE
BREAKER CB7706		03:48 07/19/2018	5 HR 40 MIN		FROM CB7706 KEWALO SUB TO ALL TERMINATIONS CUST: 336		
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:08			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1768	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 9 25KV CKT TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260589 REQ#2181. RELATED TO IR#1766 REQ#2179, IR#1767 REQ#2180, IR#1769 REQ#2182. PTM: KAPOI, KALEI SIGN: MIYAKE, LANCE
BREAKER CB8329		03:48 07/19/2018	5 HR 40 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		
KEWALO T3 SUB KEWALO 6 25KV CKT CB-7707 BREAKER 7707	22:09			D-1	SECTIONS OF KEEAUMOKU ST, KAPIOLANI BLVD, AND WAIMANU ST	1767	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 6 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260601 REQ#2180. RELATED TO IR#1766 REQ#2179, IR#1768 REQ#2181, IR#1769 REQ#2182. PTM: DELACRUZ, KEALI SIGN: MIYAKE, LANCE
BREAKER CB7707		03:48 07/19/2018	5 HR 39 MIN		FROM CB7707 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 18		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Rearranged outage.
Class E: Affecting no cust.; parallel lines

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Type 3: PUBILC: Caused by public/equip. not HECO Related
Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 10 25KV CKT CB-8330 BREAKER 8330	22:09			D-1	ALA MOANA SC, SECTIONS OF KEEAUMOKU ST	1769	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 10 25KV CKT TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260601 REQ#2182. RELATED TO IR#1766 REQ#2179, IR#1767 REQ#2180, IR#1768 REQ#2181. PTM: MOUNTHONGDY, PAT SIGN: MIYAKE, LANCE
BREAKER CB8330		03:49 07/19/2018	5 HR 40 MIN		FROM CB8330 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 567		

Class A: Large areas; important Cust.; Transmission lines.
 Class B: Large group of cust.; junctions; circuits; tsfs.
 Class C: Small group of cust.; transformers; lines.
 Class D: Prearranged outage.
 Class E: Affecting no cust.; parallel lines

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Date: July 18, 2018

(Wednesday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 10 25KV CKT CB-8330 BREAKER 8330	22:00			D-1	ALA MOANA SC, SECTIONS OF KEEAUMOKU ST	1773	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 10 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260678 REQ#2197. RELATED TO IR#1774 REQ#2196. PTM: PITT, ANTHONY SIGN: MIYAKE, LANCE
BREAKER CB8330		03:29 07/20/2018	5 HR 29 MIN		FROM CB8330 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 567		
KEWALO T3 SUB KEWALO 6 25KV CKT CB-7707 BREAKER 7707	22:00			D-1	SECTIONS OF KEEAUMOKU ST, KAPIOLANI BLVD, AND WAIMANU ST	1774	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 6 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#?? REQ#2196. RELATED TO IR#1773 REQ#2197. PTM: ROSALES, RAY SIGN: MIYAKE, LANCE
BREAKER CB7707		03:23 07/20/2018	5 HR 23 MIN		FROM CB7707 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 18		

Class A: Large areas; important Cust.; Transmission lines.
 Class B: Large group of cust.; junctions; circuits; tsfs.
 Class C: Small group of cust.; transformers; lines.
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HE No. 171 REV 4/99

Ran 02/06/2019 14:16:01

Date: July 19, 2018

(Thursday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:03			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1805	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KEWALO SUBSTATION TO ALL TERMINATIONS TO REPLACE A DEFECTIVE AL/AL CONNECTOR. UG REPLACED 25KV SPLICES E#260897 REQ#2205. RELATED TO IR#1806 REQ#2206. PTM: PITT, ANTHONY; AHMOOK SANG, NATE; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB7706		04:02 07/24/2018	5 HR 59 MIN		FROM CB7706 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 335		
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:03			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1806	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KAMOKU SUBSTATION TO ALL TERMINATIONS TO REPLACE A DEFECTIVE AL/AL CONNECTOR. UG REPLACED 25KV SPLICES E#260897 REQ#2206. RELATED TO IR#1805 REQ#2205. PTM: PITT, ANTHONY; AHMOOK SANG, NATE; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB-8329		04:02 07/24/2018	5 HR 59 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		

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HE No. 171 REV 4/99

Ran 02/06/2019 14:16:02

Date: July 23, 2018

(Monday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:04			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1822	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KAMOKU SUBSTATION TO ALL TERMINATIONS. UG REPLACED SPLICES REQ#2208 E#261016. RELATED TO IR#1821 REQ#2207. PTM: MAKAIU, DAROL; KATADA, RANDY; RABE, JENSEN; KAPOI, KALEI; OKAGAWA, JON; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB-8329		03:34 07/25/2018	5 HR 30 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:05			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1821	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KEWALO SUBSTATION TO ALL TERMINATIONS. UG REPLACED SPLICES ON REQ#2207 E#261016. RELATED TO IR#1822 REQ#2208. PTM: MAKAIU, DAROL; KATADA, RANDY; RABE, JENSEN; OKAGAWA, JON; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB-7706		03:37 07/25/2018	5 HR 32 MIN		FROM CB7706 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 335		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Prearranged outage.
Class E: Affecting no cust.; parallel lines

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System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KEWALO T3 SUB KEWALO 7 25KV CKT CB-7708 BREAKER 7708	22:01			D-1	FROM CB7708 KEWALO SUBSTATION TO ALL TERMINATIONS	1830	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 7 25KV CKT TO REPLACE A DEFECTIVE AL/AL CONNECTOR. UG REPLACED SPLICES E#261078 PTM: KAPOI, KALEI; YAMANE, ROSS SIGN: MANZOKU, KEITH
SWITCH SW V10397		04:10 07/26/2018	6 HR 9 MIN		FROM CB7708 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 20		

Class A: Large areas; important Cust.; Transmission lines. Class B: Large group of cust.; junctions; circuits; tsfs. Class C: Small group of cust.; transformers; lines. Class D: Prearranged outage. Class E: Affecting no cust.; parallel lines Ran 02/06/2019 14:16:02	Type 1: COMPANY: Confined within HECO system Type 2: EQUIP: Failure of HECO equipment Type 3: PUBILC: Caused by public/equip. not HECO Related Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]	HE. No. 171 REV 4/99 Date: July 25, 2018 (Wednesday)
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HAWAIIAN ELECTRIC COMPANY, INC.
Call Center Performance (Service Level) Results
2018

Call Center Performance (Service Level)
Excludes Blocked Calls

Month	Total Calls Accepted *	Calls Answered Within 30 Seconds	Service Level	Weighted Total	Weighted Service Level
Jan-18	27,380	24,550	89.66%	8.37%	7.51%
Feb-18	22,944	20,577	89.68%	7.02%	6.29%
Mar-18	23,827	21,393	89.79%	7.29%	6.54%
Apr-18	26,277	23,095	87.89%	8.04%	7.06%
May-18	27,042	24,152	89.31%	8.27%	7.39%
Jun-18	27,941	22,446	80.33%	8.55%	6.86%
Jul-18	30,579	23,648	77.33%	9.35%	7.23%
Aug-18	31,082	23,749	76.41%	9.51%	7.26%
Sep-18	27,644	22,345	80.83%	8.45%	6.83%
Oct-18	30,957	25,586	82.65%	9.47%	7.82%
Nov-18	26,496	21,556	81.36%	8.10%	6.59%
Dec-18	24,817	21,460	86.47%	7.59%	6.56%

Total 83.97%

To HECO-WP-M-001

* All customer calls handled by a Customer Service Representative (including abandoned calls)

Source: Generated from Genesys Interactive Insights system.

HAWAIIAN ELECTRIC COMPANY, INC.
Phase 1 Renewable Energy RFP Performance Incentive Mechanism
2018

Line	Awarded Projects	Reference	BAFO Levelized Price (\$/MWh) <i>a</i>	Net Energy Potential (MWh) <i>b</i>	PIM Calculation <i>c = (x or y-a)*b</i>	PIM Calculation (20% utility share) <i>d = c * 20%</i>
1	Ho'ohana Solar 1 (O-2) (with battery storage)	Docket No. 2018-0431 D&O No. 36236	99.78 Note 3	114,481	\$ 1,742,401	\$ 348,480
2	Mililani Solar I (O-17) (with battery storage)	Docket No. 2018-0434 D&O No. 36232	88.16	93,121	\$ 2,499,368	\$ 499,874
3	Waiawa Solar (O-20) (with battery storage)	Docket No. 2018-0435 D&O No. 36231	95.93	87,927	\$ 1,676,768	\$ 335,354
4	Total Final Variable Requests for Proposals				\$ 5,918,536	\$ 1,183,707
5	50% Year 1				Note 2	<u>\$ 591,854</u> <i>To Sch M</i>

Note 1		
PIM Benchmark	¢/kWh	\$/MWh
Energy Only	9.5	95.00 <i>x</i>
Paired with Storage	11.5	115.00 <i>y</i>

Note 1 Per Order No. 35405, Docket No. 2017-0352, filed April 6, 2018, PIM benchmarks per pages 11 and 12.

Language from Order 35405:

The Companies share would be 20% of the estimated first-year savings compared to the applicable benchmark up to a cap of \$3,500,000.

The estimated first-year savings will be calculated by multiplying the forecasted first-year energy production (in kWh) of the project by the difference between the applicable benchmark price and the equivalent price (in cents per kWh).

The equivalent PPA price will be established by the levelized cost of the project computed by the Companies during the evaluation and selection process in the Phase I procurement effort.

Similarly, the forecasted first-year energy production will be determined by using the energy production estimated in the evaluation and selection process.

Per Order No. 35664, Docket No. 2017-0352, filed September 6, 2018:

The Commission ruled on the treatment of the Additional PPAs proposed in the Companies' June 20, 2018 Letter indicating that the additional PIM for these PPAs will function in a similar manner to the original PIM. The Companies shall receive a performance incentive equivalent to 20% of the estimated first-year savings compared to the applicable benchmark, up to a cap of \$3,000,000, for the Additional PPAs filed with the commission by December 31, 2018. For any Additional PPAs submitted after December 31, 2018, until March 31, 2019, the Companies' share of the savings pursuant to the PIM will be reduced in accordance with the proposal in the Companies' June 20, 2018 Letter.

Note 2 Per Decision and Order No. 35405, Docket No. 2017-0352, filed April 6, 2018, Timing of Incentive Award, p 14

First Allocation: The first allocation of the PIM will be shortly after the approval of the PPAs. At that time, the commission will allocate the first 50% of the total PIM to the Companies, based on the equivalent PPA prices and the forecasted first-year energy production. The commission intends that the applicable performance incentive would be awarded to the Companies through their respective Revenue Balancing Account Provision tariffs.

Second Allocation: Following the first year of commercial operations for each project, the Companies shall submit a report of the actual energy utilized for each of the PPAs approved by the Commission. The Commission will provide the Companies with a portion, or all, of the remaining 50% of the PIM, dependent upon the actual amount of energy output utilized.

Note 3: Ho'ohana Solar's Levelized Price (\$99.78/MWh) includes the unit price of \$0.098858/kWh and the \$0.00092/kWh.

CIAC Treatment
Resulting from FERC Adoption

Adoption of FERC USOA required a change in presentation change to Contributions in Aid of Construction (CIAC)

Prior to October 2018, and in establishing rates in previous test year rate cases, the Company's presentation of contributions in aid of construction ("CIAC") followed the guidelines of the National Associate of Regulatory Utility Commissioners Uniform System of Accounts (NARUC USOA). Under the NARUC reporting system, CIAC is reported under an exclusive account, account 271, which includes donations or contributions in cash, services or property from states, municipalities, or other governmental agencies, individuals and others for construction purposes. All CIAC was incorporated as a deduction in the calculation of rate base in part because the Companies' systems did not facilitate on-going reporting of CIAC related to plant in service separate from CIAC related to construction work in progress ("CWIP").

The Commission approved the Companies' request to change to Federal Energy Regulatory Commission Uniform System of Accounts (FERC USOA), beginning with the implementation of the Companies' new ERP/EAM, in Decision and Order No. 31757, issued December 19, 2013 in Docket No. 2013-0007.

Beginning in October 2018 with the transition to FERC, the net balance of CIAC in account 271 less the CIAC amortization to be recorded for October to December 2018, was credited against the account balances charged with the cost of construction, i.e., gross plant in service and CWIP, resulting in the account becoming zero (i.e. "0") at December 31, 2018.

Ratemaking treatment for CIAC

The Company's ratemaking treatment of contributions in aid of construction is summarized below:

- *CIAC associated with Plant in Service* – When a utility capital project is placed into service, the plant in service net of the associated CIAC is included as net cost of plant in service in rate base. The plant in service net of the CIAC is included as part of the basis for the depreciation accrual the year after it is placed into service (i.e. January 1 of the year after it is placed into service).
- *CIAC associated with CWIP* – For book purposes, CIAC that is received while projects are still under construction (i.e. in CWIP) will offset the costs incurred and is presented net in CWIP. The CWIP net of the associated CIAC is subject to the AFUDC accrual if there is a net CWIP balance. In the next rate case, the Company will request CIAC associated with CWIP be excluded from the rate base calculation since CWIP net of

CIAC earns AFUDC. CIAC associated with CWIP is however, included in rate base in this RAM calculation for consistency with the 2017 Test Year treatment. See further discussion of Company's requested treatment of CIAC associated with CWIP below.

- *Developer Advances* - Cash contributions received in advance of construction of a utility capital project that are temporarily not classified as CIAC because the funds received are in excess of the specific project expenditures. The balance of developer advances is presented as funds from non-investors, included in its own exclusive account, and deducted in the calculation of rate base. As project costs are incurred for a utility capital project, an equal portion of developer advances associated with the project will be reclassified as CIAC and credit the accounts charged with the cost of construction. Developer Advances were included as a part of CIAC as a reduction to rate base in the 2017 Test Year.

Treatment of CIAC within the 2019 Annual Decoupling Filing

For the 2019 Decoupling Filing, the Company treated CIAC consistently with prior filings resulting in no impact to rate base.

Schedule D1, Determination of Rate Base RAM Adjustment – Change in Rate Base

Plant in Service - There is no change in rate base for plant in service and CIAC associated with plant in service. Under NARUC, in rate base, plant in service was the gross cost of plant (net of accumulated depreciation), and CIAC was a separate reduction to rate base. Under FERC, the plant in service amounts are net of (i.e., already reduced by) CIAC, and presented net of accumulated depreciation in the calculation of rate base. There is no separate CIAC line item reducing rate base because it is already net in utility plant. Therefore, there is no net rate base impact. The difference between NARUC and FERC for plant in service is a matter of where the costs are classified in rate base, and not a matter of inclusion or exclusion of costs in rate base.

CIAC associated with CWIP - There is no change in rate base for CIAC associated with CWIP. Previously, presentation of CIAC aligned with NARUC and all CIAC, including amounts associated with projects in CWIP, were included as a reduction to rate base under account 271. The 2019 estimated balance continues the treatment of including the CIAC in CWIP to be consistent with the recorded balance at 2018 year-end because all 2019 estimated CIAC additions have been included at Schedule D2 and included as part of net cost of plant at Schedule D1. Although the treatment described above was used in the 2019 annual decoupling filing, see Company's requested treatment to exclude CIAC associated with CWIP from rate base in future filings in the discussion below.

Developer Advances - With the transition to FERC, CIAC is credited when received against the related project costs in CWIP. To the extent funds are not yet expended for a project in

CWIP, the CIAC will be classified as developer advances and deducted in the calculation of rate base at Schedule D1. The recorded balance at 2018 year-end is not adjusted for 2019 activity as it is incorporated in Schedule D2.

Schedule D2, Determination of Baseline Capital Projects Additions

Schedule D2 was revised to incorporate the baseline and major project CIAC (including Developer Advances) for 2014 to 2017 into the baseline average calculation of net plant in service, consistent with the presentation of rate base. The 2018 CIAC additions calculated at HECO-WP-D2-003 includes additions to CIAC from all sources, i.e. Plant, CWIP and Developer Advances, which were used in the 5-year baseline calculation. As a result, the estimated 2019 additions to CIAC in CWIP and Developer Advances balances at Schedule D1 for the Change in Rate Base are not required as they are already included in the net cost of plant line item.

Schedule E, Determination of Depreciation & Amortization RAM Adjustment

FERC Uniform System of Accounts Electric Plant Instructions, 2. Electric Plant To Be Recorded at Cost. D. states, "The electric plant accounts shall not include the cost or other value of electric plant contributed to the company." Therefore, the Recorded Depreciable/Amortizable Balances at December 31, 2018 in Schedule E represents plant in service net of CIAC which is used as the basis to estimate the 2019 annual accrual amount. In calculating the 2019 RAM Depreciation and Amortization, Depreciation and Amortization in Current Revenues also includes CIAC amortization approved in the 2017 Test Year.

Schedule F & F1, Determination of Change in Deferred Income Taxes & Tax Depreciation

The methodology for computing the deferred taxes related to RAM year tax depreciation was not changed within the 2019 annual decoupling filing. Gross plant additions are used as the basis for calculating tax depreciation. However, see the CIAC impact to ADIT section below for the Company's preferred treatment considering the effects of netting CIAC against plant in service.

Schedule G-series, CIAC

Schedule G, G1 and G2 were removed from the Decoupling filings and instead incorporated into either Plant in Service, CIAC in CWIP or Developer Advances. The December 31, 2018 balances for CIAC associated with CWIP and Developer Advances were extracted from PowerPlan. Additionally, as noted above, the calculation of the 5-year baseline average of CIAC and amortization was incorporated within Schedule D2 and Schedule E, respectively.

The Company will continue to include CIAC associated with CWIP and Developer Advances as a reduction to rate base until the FERC presentation of rate base is approved in the Company's next rate case.

Company's requested CIAC treatment

The Company requests to reflect the following changes to the treatment of CIAC within the annual decoupling filings.

CIAC associated with CWIP

In Mr. Franklin's T-12 direct testimony in Hawaii Electric Light's 2019 Test Year rate case, the Company proposes to remove CIAC associated with CWIP from the calculation of rate base due to the fact that CWIP net of associated CIAC earns AFUDC, therefore the CWIP and its associated CIAC should be excluded from rate base.

Excluding CWIP net of CIAC, to better align the source of funds with its use (i.e. the CIAC funds received were applied against the costs incurred for the project) and is therefore properly excluded from the calculation of rate base. In addition, and as mentioned previously, any material CIAC received in advance of construction expenditures will continue to be deductions in the calculation of rate base as Developer Advances.

CIAC impact to ADIT

ADIT associated with CIAC in CWIP should be divided between nontaxable and taxable CIAC. Nontaxable CIAC (primarily interconnection CIAC) is treated as a reduction in basis for both book and tax purposes. On the other hand, although taxable CIAC is also a reduction in basis for book purposes, for tax purposes, the receipt of taxable CIAC creates tax basis by way of the recognition of taxable income and reverses by way of tax depreciation.

Nontaxable CIAC does not create ADIT since there is no book tax difference. Consequently, the regulatory netting of nontaxable CIAC against the plant assets should not create any issue with respect to the ADIT beginning balance for the rate base RAM calculation

Taxable CIAC generates a Deferred Tax Asset (DTA) as it is received and recorded into CWIP under the new FERC accounting. Prior NARUC accounting treatment with account 271 created DTA as CIAC was booked to 271, which is equivalent to what is now booked to CWIP. The origination and timing of the DTA under the FERC method will be equivalent to the NARUC method. However, under the old method, the DTA was immediately recognized as part of rate base, consistent with the treatment of the account 271 inclusion. However, under the FERC method, the generation of the DTA must be inventoried and tracked to match up with the amount of CIAC in CWIP and the amounts closed to plant in service. This tracking is necessary to ensure that the amount of DTA related to CWIP is excluded from rate base. Once CWIP costs are closed to plant, the related DTA will be included in rate base and will begin reversal through tax depreciation taken on the CIAC tax basis.

FERC accounting imbeds the book treatment of CIAC within CWIP and the ultimate plant and related depreciation. The separation will disappear and the Company asserts that the ADIT

effects will be the same with respect to the beginning balance of ADIT for the annual decoupling filing except to the extent CIAC is still in CWIP. This issue will be addressed along with the rate base treatment of CIAC associated with CWIP as mentioned above.

FERC accounting nets CIAC against Plant in Service for purposes of computing baseline and major plant additions. For RAM year tax depreciation and the related ADIT calculated for the change in RAM year ADIT, adopting the net plant additions as the RAM year tax additions will be a change that will result in a smaller amount of tax depreciation and ADIT “change” since the Company previously has assumed the gross additions to be the RAM year tax depreciable base. The Company asserts this is reasonable for the following reasons:

- 1) Under the old method, to the extent nontaxable CIAC was included in the RAM year numbers (through major projects or baseline projects), tax depreciable basis was overstated since there is no tax basis for assets funded by nontaxable CIAC.
- 2) With respect to taxable CIAC, the funded assets do have depreciable tax basis and it is accounted for in the RAM year additions tax depreciation. However, the receipt of taxable CIAC generates taxable income and deferred tax assets that increase rate base. The effect of this DTA from taxable CIAC was never recognized in the RAM tariff, which resulted in an overstatement of RAM year ADIT change, as it related to the projected plant additions.

For purposes of the 2019 RAM calculation, ADIT has been calculated on gross plant additions, consistent with the 2017 Test Year treatment and prior decoupling filings, however the Company is requesting treatment of CIAC in deferred tax to follow FERC accounting.

Summary

In summary, Hawaiian Electric prepared the 2019 annual decoupling filings in accordance with the historical treatment of CIAC. Historically, due to system constraints, CIAC records were not maintained with matching of the separate components (plant in service, CWIP, developer advances). As a result, the entire amount of CIAC was treated as a reduction to rate base and the Return on Investment was understated. As stated in Mr. Franklin’s T-12 direct testimony in Hawaii Electric Light’s 2019 Test Year rate case, the Companies propose to exclude the CIAC associated with CWIP in its calculation of rate base in the rate base RAM filings. Should the Commission approve Hawaii Electric Light’s proposal, Hawaiian Electric will implement this change in the annual decoupling filing in the year following the Commission’s approval.

HAWAIIAN ELECTRIC

SCENARIO 2

WEST LOCH PV EXCLUDED FROM RAM
REVENUE ADJUSTMENT

25kV EXCLUDED FROM 2018 SAIDI AND
SAIFI PIM CALCULATIONS

HAWAIIAN ELECTRIC
ATTACHMENT 1

RATE SCHEDULES (continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
92	"RBA"	September 1, 2018	Revenue Balancing Account Provision
92A	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92A.1	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92B	"RBA"	February 16, 2018	Revenue Balancing Account Provision
92C	"RBA"	January 1, 2018	Revenue Balancing Account Provision
92D	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92E	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92F	"RBA"	June 1, 2019	Revenue Balancing Account Provision
93	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93A	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93B	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93C	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93D	"RAM"	June 1, 2017	Rate Adjustment Mechanism Provision
93E	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93F	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93G	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
93H	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
93I	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
94	"PPAC"	May 1, 2019	Purchased Power Adjustment Clause
94A	"PPAC"	May 1, 2019	Purchased Power Adjustment Clause
94B	"PPAC"	May 1, 2019	Purchased Power Adjustment Clause

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

RATE SCHEDULES (continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
95	EV-F	January 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
95A	EV-F	January 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
95B	EV-F	December 12, 2017	Commercial Public Electric Vehicle Charging Facility Service Pilot
96	EV-U	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
96A	EV-U	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
97	TOU-RI	October 18, 2018	Residential Interim Time-of-Use Service
97A	TOU-RI	January 1, 2019	Residential Interim Time-of-Use Service
97B	TOU-RI	October 18, 2018	Residential Interim Time-of-Use Service
97C	TOU-RI	January 1, 2019	Residential Interim Time-of-Use Service
98	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
98A	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
98B	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
98C	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
98D	"PIM"	June 1, 2019	Performance Incentive Mechanism Provision
98E	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
99	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99A	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99B	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99C	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service

HAWAIIAN ELECTRIC COMPANY, INC.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION

Supplement To:

Schedule R	- Residential Service
Schedule G	- General Service - Non-Demand
Schedule J	- General Service - Demand
Schedule DS	- Large Power Directly Served Service
Schedule P	- Large Power Service
Schedule F	- Public Street Lighting, Highway Lighting and Park and Playground Floodlighting
Schedule U	- Time-of-Use Service
Schedule TOU-R	- Residential Time-of-Use Service
Schedule TOU-G	- Small Commercial Time-of-Use Service
Schedule TOU-J	- Commercial Time-of-Use Service
Schedule TOU-P	- Large Commercial Time-of-Use Service
Schedule SS	- Standby Service
Schedule TOU EV-	Residential Time-of-Use Service with Electric Vehicle Pilot
Schedule EV-F	- Commercial Public Electric Vehicle Charging Facility Service Pilot
Schedule TOU-RI-	Residential Interim Time-of-Use Service

All terms and provisions of the above listed rate schedules applicable except that the total base rate charges for each billing period shall be adjusted by the Revenue Balancing Account Rate Adjustments shown below:

A: PURPOSE:

The purpose of the Revenue Balancing Account ("RBA") is to record: 1) the difference between the Hawaiian Electric Company's target revenue and recorded adjusted revenue, and 2) monthly interest applied to the simple average of the beginning and ending month balances in the RBA. In addition, the recovery provision of this tariff provides for collection or return of the calendar year-end balance in the RBA and recovery or refund of the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits provided in the Rate Adjustment Mechanism ("RAM") Provision, and any revenue adjustment provided in accordance with the Performance Incentive Mechanism Provision, over the subsequent June 1st through May 31st period. Tracking of target revenue and recorded adjusted revenue commenced on the effective date of the tariff that implemented the Final Decision and Order in Hawaiian Electric's 2009 test year rate case, Docket No. 2008-0083, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

HAWAIIAN ELECTRIC COMPANY, INC.

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018.

Transmittal Letter Dated July 23, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

B: TARGET REVENUE:

For the purpose of the RBA, the target revenue is the annual electric revenue approved by the Public Utilities Commission in the last issued Decision & Order in the Company's most recent test year general rate case, excluding revenue for fuel and purchased power expenses that are recovered either in base rates or in a purchased power adjustment clause; excluding revenue being separately tracked or recovered through any other surcharge or rate tracking mechanism; and excluding amounts for applicable revenue taxes;

Plus: Any effective RAM Revenue Adjustment calculated under the RAM provision for years subsequent to the most recent rate case test year for which the Commission has issued a Decision & Order; and any Performance Incentive Adjustment provided for in accordance with the Performance Incentive Mechanism Provision; and

Less: Any applicable Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits calculated under the RAM provision.

Adjusted by: Other adjustments, as applicable, in accordance with Commission's Order authorizing such adjustment. Other adjustments, if any, are shown in the table *Target Revenue Currently in Effect*, provided in section H.

The target revenue shall be revised to correct for any errors in the calculation of the RAM Revenue Adjustment, Performance Incentive Adjustment, recorded adjusted revenues or other RBA accounting determinations (collectively "target revenue determinations") for any previous period and for revisions to RAM Revenue Adjustments or Performance Incentive Adjustments as a result of subsequent Commission orders that change the basis of previously calculated RAM Revenue Adjustments and/or Performance Incentive Adjustments. For any corrections of errors in previously calculated target revenue determinations, the target revenue shall be adjusted as of the date that the correct determinations would have been reflected in target revenue. For changes in the RAM Revenue Adjustment and/or Performance Incentive Adjustments as a result of subsequently issued Commission orders, the target revenue shall be adjusted as of the effective date of changes that are implemented pursuant to the subsequently issued Commission order.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

The Commission and the Consumer Advocate will be notified of the target revenue revisions or corrections prior to implementation by the Company. There is no presumption that the target revenue changes are ultimately warranted or correct. In the annual RBA review transmittal ("RBA Review Transmittal") filed on or before March 31 of each year, the utility will have the burden to demonstrate that the interim changes for the previous calendar year are warranted and correctly applied. The Consumer Advocate will provide comments regarding the changes with its Statement of Position. The RBA balance and RBA Rate Adjustment for the following year will reflect any appropriate modifications to the change made by the utility in the prior year if necessary.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.19%
February	7.59%
March	8.10%
April	7.98%
May	8.40%
June	8.07%
July	8.70%
August	8.94%
September	8.65%
October	8.84%
November	8.26%
December	8.28%
Total	100.00%

These factors are based on the mWh sales forecast that is approved by the Commission in Hawaiian Electric's 2017 test year rate case and shall be updated in any subsequent test year rate case.

C: BALANCING ACCOUNT ENTRIES:

Entries to the RBA will be recorded monthly. A debit entry to the RBA will be made equal to the target revenue as defined in Section B. above, times the appropriate monthly allocation factor in the table above. A credit entry to the RBA will be made equal to the recorded adjusted revenue. The recorded adjusted revenue is defined to include the electric sales revenue from authorized base rates, plus revenue from any authorized interim rate increase, plus revenue from any RBA rate adjustment, but excluding revenue for fuel and purchased power expenses, IRP/DSM, any Commission Ordered one-time rate refunds or credits or other surcharges, and adjusted to remove amounts for applicable revenue taxes.

Interest will be recorded monthly to the RBA by multiplying the simple average of the beginning and ending month balance in the RBA times the Interest Rate divided by 12. The Interest Rate shall be the short term debt rate as established in deriving the consolidated cost of capital in the Company's last full rate case. The Interest Rate prior to March 1, 2014 shall be 6 percent.

D: RECOVERY OF BALANCING ACCOUNT AMOUNTS:

In its annual RBA Review Transmittal, the Company will file with the Commission a statement of the previous calendar year-end balance in the RBA and the RAM Revenue Adjustment for the current calendar year, along with supporting calculations.

HAWAIIAN ELECTRIC COMPANY, INC.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Both an amortization of the previous calendar year-end balance in the RBA, adjusted for any Earnings Sharing Revenue Credits or Major Capital Projects Credits, Baseline Capital Projects Credits or corrections, any Performance Incentive Adjustment provided in accordance with the Performance Incentive Mechanism Provision and the RAM Revenue Adjustment will be recovered through a per-kWh RBA rate adjustment, over the 12 months from June 1 of the current calendar year to May 31 of the succeeding calendar year. The recovery through the RBA Rate Adjustment of a RAM Revenue Adjustment calculated for a calendar year that is also a rate case test year shall terminate on the effective date of tariff rates that implement a Commission approved base revenue level authorized in the Company's test year rate case.

Revisions to Target Revenue based on corrections for errors and subsequently issued Commission orders, described in Section B above, will not be reflected in the RBA Rate Adjustment until a succeeding June 1 to May 31 period, unless otherwise ordered or approved by the Commission.

On or before March 31 of each year, the Company shall file with the Commission, the Consumer Advocate, and each party to the Company's most recent rate case proceeding, an RBA Review Transmittal supporting the implementation of the RBA Provision, including RBA reconciliation, implementation of applicable components of the RAM Provision and Performance Incentive Mechanism Provision, determination and adjustments of target revenues, determination of the RBA Rate Adjustment; and documenting any errors, corrections and adjustments to Target Revenues in the preceding calendar year and prior to the transmittal date.

Complete, indexed workpapers and electronic files supporting the previous year-end balance in the RBA and target revenue determinations shall be provided to the Commission, the Consumer Advocate and all other parties to the Utility's most recent rate case proceeding ("Other Rate Case Parties"), if any, as part of the annual RBA Review Transmittal filing. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, Other Rate Case Parties, and other interested persons that may propose any adjustments necessary to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications, Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

As described in Sections 6-61-61 and 6-61-111 of the Hawaii Administrative Rules, Title 6, Chapter 61, based upon the Company's filed schedules and in the absence of any protests submitted by the Consumer Advocate, Other Rate Case Parties, or other interested persons, not later than 15 days before June 1st, the RBA Rate Adjustment shall go into effect on June 1st, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

The RBA Rate Adjustment is comprised of the calculated values from Section D above, adjusted to include amounts for applicable revenue taxes, and calculated based on the Company's forecast of mWh sales over the RBA Rate Adjustment recovery period.

The RBA Rate Adjustment shall remain unchanged during the recovery period unless further modification is required by order or approval of the Commission, except as specifically provided above.

RBA Rate Adjustment

All Rate Schedules 0.9582 ¢/kWh

F. NOTICE

Notice of the annual Revenue Balancing Account Rate Adjustment filing shall be provided to all affected customers of the Utility in accordance with the provisions of this section by publication in newspapers of general circulation within 14 days and by including notification with its billing statements within 60 days after the Company makes its annual RBA Review Transmittal filing pursuant to this tariff. The notice to customers shall include the following information:

- a) A description of the proposed revision of revenues, Earnings Sharing Credits, and Major or Baseline Capital Projects Credits;
- b) The effect on the rates applicable to each customer class and on the typical bill for residential customers; and
- c) The Company's address, telephone number and website where information concerning the proposed Revenue Balancing Account Rate Adjustment may be obtained.

G: COMMISSION'S AUTHORITY

The Commission may modify or suspend any or all parts of this Revenue Balancing Account Provision. Such suspension shall remain in place until removed by Commission Order.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

H: TARGET REVENUE CURRENTLY IN EFFECT

Hawaiian Electric Company, Inc.
Annual Target Revenue (\$000s)

	<u>Description</u>	<u>Amount</u>
1	Electric Sales Revenue (Unadjusted)	\$1,531,852
2	Tax Act Implementation Lag	(\$2,143)
3	Electric Sales Revenue (Adjusted)	\$1,529,709
	Less:	
4	Fuel Expense	(\$327,609)
5	Purchase Power Expense	(\$466,211)
6	Revenue Tax on Electric Sales Revenue	(\$135,915)
7	Last Rate Order Target Revenues	\$599,974
8	Authorized RAM Revenues	\$20,364
9	Revenue Tax	(\$1,809)
10	Net RAM Adjustment	\$18,554
11	Authorized MPIR Revenues	\$19,811
12	Revenue Tax	(\$1,760)
13	Net MPIR Adjustment	\$18,051
14	Earnings Sharing Revenue Credits	\$0
15	Revenue Tax	\$0
16	Net Earnings Sharing Revenue Credits	\$0
17	Performance Incentive Mechansim (PIM)	\$54
18	Revenue Tax	(\$5)
19	Net PIM Reward (Penalty)	\$49
20	2017 Test Year Final D&O Refund	(\$48)
21	Revenue Tax	\$4
22	Net 2017 Test Year Final D&O Refund	(\$44)
23	On-Bill Financing Pgm Implementation Costs	\$844
24	Revenue Tax	(\$75)
25	Net On-Bill Financing Adjustment	\$769
26	Effective Target Revenue	\$637,353

Notes:

Totals may not add, due to rounding.

Lines 1,4,5: Final Decision and Order No. 35545, issued June 22, 2018 in Docket No. 2016-0328. Exhibit A.

Line 2: Hawaiian Electric March 2018 Settlement Tariff Sheets, Attachment 1, Line 2. Filed March 16, 2018 in Docket No. 2016-0328.

Lines 6,9,12,15,18,21,24: Revenue Tax based on 8.885% statutory rates.

Lines 8,11,14,17,20,23,26: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling) Schedule B1 (Scenario 2A), filed May 21, 2019.
Change in Effective Target Revenue for MPIR is effective January 1, 2019.
See Order 35556, filed June 27, 2018 in Docket No. 2017-0213.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

I: HISTORICAL REFERENCE

Category	Effective Period	Effective Target Revenue (\$000)	Change in Target Revenue (\$000)	Source
Annual Decoupling Filing	6/1/2017 thru 2/15/2018	\$604,302	N/A (1/1/2018 Baseline)	Schedule B1 filed in Transmittal No. 17-02 on 3/31/2017.
2017 Test Year Rate Case (Interim)	2/16/2018 thru 4/12/2018	\$637,077	\$32,775	Schedule B1 filed in Docket No. 2016-0328 on 1/19/2018.
2017 Test Year Rate Case (Interim)	4/13/2018 thru 5/31/2018	\$599,960	(37,117)	Schedule B1 filed in Docket No. 2016-0328 on 3/16/2018.
Annual Decoupling Filing	6/1/2018 thru 6/30/2018	\$612,574	\$12,614	Schedule B1 filed in Transmittal No. 18-01 on 3/29/2018.
MPIR (Schofield)	7/1/2018 thru 9/30/2018	\$618,587	\$6,013	Schedule B1 filed in Docket No. 2017-0213 on 7/18/2018.
MPIR (Schofield)	10/1/2018 thru 12/31/2018	\$620,374	\$1,787	Schedule B1 filed in Docket No. 2017-0213 on 12/21/2018.
MPIR (Schofield)	1/1/2019 thru 5/31/2019	\$630,624	\$10,250	Schedule B1 filed in Transmittal No. 19-01 on 2/7/2019.
Annual Decoupling Filing	6/1/2019 (current)	\$637,353	\$6,729	Schedule B1 (Scenario 2A) filed in Transmittal No. 19-01 on 5/21/2019.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

PERFORMANCE INCENTIVE MECHANISM PROVISION

Introduction

This Performance Incentive Mechanism ("PIM") Provision provides for the determination of a PIM Financial Incentive for each approved PIM for each Evaluation Period, based on Measured Performance compared to an established Performance Target for each PIM, as specified below.

The sum of the PIM Financial Incentives determined for all PIMs for the Evaluation Period will be the Performance Incentive Adjustment, which will be applied as an adjustment to the effective Target Revenue and will be recovered from or credited to customers through the RBA Rate Adjustment, as defined by and in accordance with the terms of the Revenue Balancing Account ("RBA") Provision.

Annual PIM Provision Transmittal

On or before March 31 of the year following an Evaluation Period, the Company shall file with the Commission, the Consumer Advocate, and each party to the Company's most recent rate case proceeding, a transmittal documenting the Measured Performance and calculation of the PIM Financial Incentives and Performance Incentive Adjustment for the Evaluation Period. Complete, indexed schedules, workpapers and electronic files supporting the transmittal shall be provided with the transmittal. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, other rate case parties, and other interested persons that may propose any adjustments necessary to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

The review of the annual PIM Provision transmittal will be conducted concurrent with and in conjunction with the annual RBA Review Transmittal. The Performance Incentive Adjustment will be determined annually based on the PIM Provision transmittal and, after review and subject to explicit approval by the Commission, will become effective on June 1 of the year following the Evaluation Period, concurrent and in conjunction with determination of Target Revenues and the RBA Rate Adjustment in accordance with the RBA Provision. Any approved Performance Incentive Adjustment will be applied as monthly adjustments to Target Revenues for the twelve month period commencing June 1 of the year following the Evaluation Period in accordance with the Monthly Allocation Factors identified in the RBA Provision.

The Performance Targets, Deadbands and the amount of Maximum Financial Incentives used to determine the PIM Financial Incentive

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications,
Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

levels for each of the PIMs shall be re-determined upon issuance of an interim or final order in a general rate case for each Company and shall remain constant in interim periods, unless otherwise amended, as necessary, by order of the Commission.

In the event that Performance Targets, Deadbands or the amounts of Maximum Financial Incentives are updated or amended by order of the Commission during the Evaluation Period, the Performance Targets, Deadbands and the amounts of Maximum Financial Incentives used in determining the amount of PIM Financial Incentives shall be a pro-rated weighted average based on the number of days of the Evaluation Period each parameter was effective.

Any revenue adjustments approved in accordance with this PIM Provision shall be excluded from the determination of Earnings Sharing Credits provided for in the Rate Adjustment Mechanism Provision ("RAM Provision").

The Performance Incentive Adjustment, and any prior year Performance Incentive Adjustment, shall be recalculated for errors in prior calculations and for subsequent Commission orders that change the basis for prior calculations. The effect of such changes shall be implemented as described in the RBA Provision, except that, the Performance Target, Deadband and Maximum Financial Incentive amounts determined in this PIM Provision shall not be recalculated based on errors in the calculation of these parameters and shall remain as specified unless and until changed by order of the Commission.

Evaluation Period

The Evaluation Period is defined as the annual twelve month calendar year period ending December 31, over which Measured Performance is determined and compared to the established Performance Target for each PIM described below. The first Evaluation Period shall begin January 1, 2018.

PIM Financial Incentive Calculation

For each PIM below, a Performance Target is specified, developed based on historical performance data. A Deadband is specified for each Performance Target in order to provide a satisfactory range of performance within which no reward or penalty amount is assessed.

A Maximum Financial Incentive amount is specified for each PIM with separate identification of a Maximum Reward Amount and a Maximum Penalty Amount.

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications,
Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Measured Performance for the Evaluation Period is compared to the Performance Target for each PIM. If the difference between Measured Performance and the Performance Target is less than or equal to the Deadband amount, no reward or penalty is awarded and the amount of the PIM Financial Incentive is zero. If the difference between Measured Performance and the Performance Target exceeds the Deadband amount, a reward or penalty ratio is calculated where the difference between Measured Performance and the Performance Target, less the Deadband amount, is the numerator and the Deadband amount is the denominator. This ratio is multiplied by either the Maximum Reward Amount or Maximum Penalty Amount, as applicable, to determine the PIM Financial Incentive for each PIM. The magnitude of the PIM Financial Incentive for each PIM shall not exceed 100% of the magnitude of the applicable Maximum Reward Amount or Maximum Penalty Amount established for each PIM.

Reliability Performance Incentive Mechanisms

There are two reliability PIMs: 1) System Average Interruption Frequency Index ("SAIFI"); and 2) System Average Interruption Duration Index ("SAIDI"). SAIFI is a measure of the average frequency of outages, defined as the annual total number of customer interruptions divided by the total number of customers served. SAIDI is a measure of the average duration of outage, defined as the sum of all customer interruption durations (in minutes) divided by the total number of customers served. The SAIFI and SAIDI Measured Performance and Performance Targets are determined using the IEEE Standard 1366 methodology.

For the Reliability Performance Incentive Mechanisms, the 2008-2017 record of historical performance data was used to establish the Performance Target and the Deadband. The Deadband was calculated as ± 1 standard deviation of the historical performance data. Accordingly, 100% of the penalty is achieved when Measured Performance is equal to or greater than 2 standard deviations from the Performance Target.

SAIFI:

Performance Target: 1.103 interruptions per customer during the one-year Evaluation Period

Deadband: ± 0.088 interruptions (1 Standard Deviation)

HAWAIIAN ELECTRIC COMPANY, INC

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Range for no penalty: 1.015 interruptions to 1.191 interruptions per customer (± 1 Standard Deviation from Target)

Rewards: Not Applicable

Penalties for greater than 1.191 interruptions per customer

Maximum Reward Amount: Not Applicable

Maximum Penalty Amount: \$2,276,417.

The Maximum Penalty Amount was determined to be equal to 0.20% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

SAIDI:

Target: 99.23 minutes per outage

Deadband: ± 8.96 minutes (1 Standard Deviation)

Range for no penalty: 90.27 minutes to 108.19 minutes per outage (± 1 Standard Deviation from Target)

Rewards: Not Applicable

Penalties for greater than 108.19 minutes per outage

Maximum Reward Amount: Not Applicable

Maximum Penalty Amount: \$2,276,417.

The Maximum Penalty Amount was determined to be equal to 0.20% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

Call Center Performance Incentive Mechanism

The Call Center Performance PIM measures the performance of the utility call center in terms of the percentage of calls answered within thirty (30) seconds. The calculation of the call center performance shall exclude blocked calls from the denominator.

The Performance Target for the Call Center Performance Incentive Mechanism was calculated based on the average of quarterly data from Quarter 3 of 2016 to Quarter 2 of 2018.

HAWAIIAN ELECTRIC COMPANY, INC

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Call Center Performance:

Performance Target: 80.10% of calls answered within 30 seconds

Deadband: +/- 3.00% of calls answered within 30 seconds

Range for no reward or penalty: 77.10 % of calls answered to 83.10% of calls answered.

Rewards apply for greater than 83.10 % of calls answered
Penalties apply for less than 77.10 % of calls answered

Maximum Reward Amount: \$910,567.

Maximum Penalty Amount: \$910,567.

The magnitude of the Maximum Reward Amount and Maximum Penalty Amount were determined to be equal to 0.08% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

Additional PIMs:

The Commission may order the establishment of one or more PIMs, and the targets, deadbands, rewards, penalties, and allocations for that PIM, as applicable, shall be implemented as specified in the Commission's order that approved the applicable PIM, and the applicable PIM Financial Incentive shall be included in the Performance Incentive Adjustment.

Commission's Authority

The Commission may suspend any or all parts of this PIM Provision. Such suspension shall remain in place until removed by Commission order.

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Historical Reference

The following table summarizes the prior PIMs in effect, as these values may be applicable during certain portions of the Evaluation Period.

PIM:	Effective Period:	Performance Target:	Deadband:	Maximum Reward:	Maximum Penalty:
SAIFI	1/1/2018 thru 2/15/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,039,094
SAIFI	2/16/2018 thru 4/12/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,260,799
SAIFI	4/13/2018 thru 8/31/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,276,417
SAIDI	1/1/2018 thru 2/15/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,039,094
SAIDI	2/16/2018 thru 4/12/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,260,799
SAIDI	4/13/2018 thru 8/31/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,276,417
Call Center	1/1/2018 thru 2/15/2018	79.07% of calls answered within 30 sec.	+/- 3.00%	\$815,638	\$815,638
Call Center	2/16/2018 thru 4/12/2018	79.46% of calls answered within 30 sec.	+/- 3.00%	\$904,320	\$904,320
Call Center	4/13/2018 thru 8/31/2018	79.56% of calls answered within 30 sec.	+/- 3.00%	\$910,567	\$910,567

HAWAIIAN ELECTRIC COMPANY, INC

HAWAIIAN ELECTRIC
ATTACHMENT 1A

Superseding Revised Sheet No. 50E
Effective May 1, 2019

REVISED SHEET NO. 50E
Effective June 1, 2019

Deleted: February 1, 2019

RATE SCHEDULES (continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
92	"RBA"	September 1, 2018	Revenue Balancing Account Provision
92A	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
92A.1	"RBA"	June 1, 2019	<u>Revenue Balancing Account Provision</u>
92B	"RBA"	February 16, 2018	Revenue Balancing Account Provision
92C	"RBA"	January 1, 2018	Revenue Balancing Account Provision
92D	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
92E	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
92F	"RBA"	June 1, 2019	<u>Revenue Balancing Account Provision</u>
93	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93A	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93B	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93C	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93D	"RAM"	June 1, 2017	Rate Adjustment Mechanism Provision
93E	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93F	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93G	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
93H	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
93I	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
94	"PPAC"	<u>May 1, 2019</u>	Purchased Power Adjustment Clause
94A	"PPAC"	<u>May 1, 2019</u>	Purchased Power Adjustment Clause
94B	"PPAC"	<u>May 1, 2019</u>	Purchased Power Adjustment Clause

Deleted: January 1, 2018

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HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019

Deleted: February 22, 2019

Superseding SHEET NO. 50F
Effective January 1, 2019

REVISED SHEET NO. 50F
Effective June 1, 2019

RATE SCHEDULES (continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
95	EV-F	January 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
95A	EV-F	January 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
95B	EV-F	December 12, 2017	Commercial Public Electric Vehicle Charging Facility Service Pilot
96	EV-U	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
96A	EV-U	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
97	TOU-RI	October 18, 2018	Residential Interim Time-of-Use Service
97A	TOU-RI	January 1, 2019	Residential Interim Time-of-Use Service
97B	TOU-RI	October 18, 2018	Residential Interim Time-of-Use Service
97C	TOU-RI	January 1, 2019	Residential Interim Time-of-Use Service
98	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
98A	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
98B	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
98C	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
98D	"PIM"	<u>June 1, 2019</u>	Performance Incentive Mechanism Provision
98E	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
99	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99A	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99B	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99C	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

Deleted: October 18

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Deleted: Docket No. 2016-0328; Order No. 35927,
Filed on December 7, 2018.

Superseding REVISED SHEET NO. 92
Effective January 1, 2018

REVISED SHEET NO. 92
Effective September 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION

Supplement To:

Schedule R	- Residential Service
Schedule G	- General Service - Non-Demand
Schedule J	- General Service - Demand
Schedule DS	- Large Power Directly Served Service
Schedule P	- Large Power Service
Schedule F	- Public Street Lighting, Highway Lighting and Park and Playground Floodlighting
Schedule U	- Time-of-Use Service
Schedule TOU-R	- Residential Time-of-Use Service
Schedule TOU-G	- Small Commercial Time-of-Use Service
Schedule TOU-J	- Commercial Time-of-Use Service
Schedule TOU-P	- Large Commercial Time-of-Use Service
Schedule SS	- Standby Service
Schedule TOU EV-	Residential Time-of-Use Service with Electric Vehicle Pilot
Schedule EV-F	- Commercial Public Electric Vehicle Charging Facility Service Pilot
Schedule TOU-RI-	Residential Interim Time-of-Use Service

All terms and provisions of the above listed rate schedules applicable except that the total base rate charges for each billing period shall be adjusted by the Revenue Balancing Account Rate Adjustments shown below:

A: PURPOSE:

The purpose of the Revenue Balancing Account ("RBA") is to record: 1) the difference between the Hawaiian Electric Company's target revenue and recorded adjusted revenue, and 2) monthly interest applied to the simple average of the beginning and ending month balances in the RBA. In addition, the recovery provision of this tariff provides for collection or return of the calendar year-end balance in the RBA and recovery or refund of the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits provided in the Rate Adjustment Mechanism ("RAM") Provision, and any revenue adjustment provided in accordance with the Performance Incentive Mechanism Provision, over the subsequent June 1st through May 31st period. Tracking of target revenue and recorded adjusted revenue commenced on the effective date of the tariff that implemented the Final Decision and Order in Hawaiian Electric's 2009 test year rate case, Docket No. 2008-0083, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

HAWAIIAN ELECTRIC COMPANY, INC.

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018.

Transmittal Letter Dated July 23, 2018

Superseding REVISED SHEET NO. 92A
Effective January 1, 2018

REVISED SHEET NO. 92A
Effective June 1, 2019

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

B: TARGET REVENUE:

For the purpose of the RBA, the target revenue is the annual electric revenue approved by the Public Utilities Commission in the last issued Decision & Order in the Company's most recent test year general rate case, excluding revenue for fuel and purchased power expenses that are recovered either in base rates or in a purchased power adjustment clause; excluding revenue being separately tracked or recovered through any other surcharge or rate tracking mechanism; and excluding amounts for applicable revenue taxes;

Plus: Any effective RAM Revenue Adjustment calculated under the RAM provision for years subsequent to the most recent rate case test year for which the Commission has issued a Decision & Order; and any Performance Incentive Adjustment provided for in accordance with the Performance Incentive Mechanism Provision; and

Less: Any applicable Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits calculated under the RAM provision.

Adjusted by: Other adjustments, as applicable, in accordance with Commission's Order authorizing such adjustment. Other adjustments, if any, are shown in the table Target Revenue Currently in Effect, provided in section H.

The target revenue shall be revised to correct for any errors in the calculation of the RAM Revenue Adjustment, Performance Incentive Adjustment, recorded adjusted revenues or other RBA accounting determinations (collectively "target revenue determinations") for any previous period and for revisions to RAM Revenue Adjustments or Performance Incentive Adjustments as a result of subsequent Commission orders that change the basis of previously calculated RAM Revenue Adjustments and/or Performance Incentive Adjustments. For any corrections of errors in previously calculated target revenue determinations, the target revenue shall be adjusted as of the date that the correct determinations would have been reflected in target revenue. For changes in the RAM Revenue Adjustment and/or Performance Incentive Adjustments as a result of subsequently issued Commission orders, the target revenue shall be adjusted as of the effective date of changes that are implemented pursuant to the subsequently issued Commission order.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

Deleted: Decision and Order No. 35165; Approving, With Modifications, Proposed Revisions To RBA Tariffs, Filed December 29, 2017.

Deleted: January 11, 2018

SHEET NO. 92A.1
Effective June 1, 2019

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

The Commission and the Consumer Advocate will be notified of the target revenue revisions or corrections prior to implementation by the Company. There is no presumption that the target revenue changes are ultimately warranted or correct. In the annual RBA review transmittal ("RBA Review Transmittal") filed on or before March 31 of each year, the utility will have the burden to demonstrate that the interim changes for the previous calendar year are warranted and correctly applied. The Consumer Advocate will provide comments regarding the changes with its Statement of Position. The RBA balance and RBA Rate Adjustment for the following year will reflect any appropriate modifications to the change made by the utility in the prior year if necessary.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

Superseding REVISED SHEET NO. 92B
Effective June 1, 2017

REVISED SHEET NO. 92B
Effective February 16, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.19%
February	7.59%
March	8.10%
April	7.98%
May	8.40%
June	8.07%
July	8.70%
August	8.94%
September	8.65%
October	8.84%
November	8.26%
December	8.28%
Total	100.00%

These factors are based on the mWh sales forecast that is approved by the Commission in Hawaiian Electric's 2017 test year rate case and shall be updated in any subsequent test year rate case.

C: BALANCING ACCOUNT ENTRIES:

Entries to the RBA will be recorded monthly. A debit entry to the RBA will be made equal to the target revenue as defined in Section B. above, times the appropriate monthly allocation factor in the table above. A credit entry to the RBA will be made equal to the recorded adjusted revenue. The recorded adjusted revenue is defined to include the electric sales revenue from authorized base rates, plus revenue from any authorized interim rate increase, plus revenue from any RBA rate adjustment, but excluding revenue for fuel and purchased power expenses, IRP/DSM, any Commission Ordered one-time rate refunds or credits or other surcharges, and adjusted to remove amounts for applicable revenue taxes.

Interest will be recorded monthly to the RBA by multiplying the simple average of the beginning and ending month balance in the RBA times the Interest Rate divided by 12. The Interest Rate shall be the short term debt rate as established in deriving the consolidated cost of capital in the Company's last full rate case. The Interest Rate prior to March 1, 2014 shall be 6 percent.

D: RECOVERY OF BALANCING ACCOUNT AMOUNTS:

In its annual RBA Review Transmittal, the Company will file with the Commission a statement of the previous calendar year-end balance in the RBA and the RAM Revenue Adjustment for the current calendar year, along with supporting calculations.

HAWAIIAN ELECTRIC COMPANY, INC.

Docket No. 2016-0328; Order No. 35280, issued February 9, 2018.
Transmittal Letter Dated February 12, 2018.

Superseding REVISED SHEET NO. 92C
Effective June 1, 2017

REVISED SHEET NO. 92C
Effective January 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Both an amortization of the previous calendar year-end balance in the RBA, adjusted for any Earnings Sharing Revenue Credits or Major Capital Projects Credits, Baseline Capital Projects Credits or corrections, any Performance Incentive Adjustment provided in accordance with the Performance Incentive Mechanism Provision and the RAM Revenue Adjustment will be recovered through a per-kWh RBA rate adjustment, over the 12 months from June 1 of the current calendar year to May 31 of the succeeding calendar year. The recovery through the RBA Rate Adjustment of a RAM Revenue Adjustment calculated for a calendar year that is also a rate case test year shall terminate on the effective date of tariff rates that implement a Commission approved base revenue level authorized in the Company's test year rate case.

Revisions to Target Revenue based on corrections for errors and subsequently issued Commission orders, described in Section B above, will not be reflected in the RBA Rate Adjustment until a succeeding June 1 to May 31 period, unless otherwise ordered or approved by the Commission.

On or before March 31 of each year, the Company shall file with the Commission, the Consumer Advocate, and each party to the Company's most recent rate case proceeding, an RBA Review Transmittal supporting the implementation of the RBA Provision, including RBA reconciliation, implementation of applicable components of the RAM Provision and Performance Incentive Mechanism Provision, determination and adjustments of target revenues, determination of the RBA Rate Adjustment; and documenting any errors, corrections and adjustments to Target Revenues in the preceding calendar year and prior to the transmittal date.

Complete, indexed workpapers and electronic files supporting the previous year-end balance in the RBA and target revenue determinations shall be provided to the Commission, the Consumer Advocate and all other parties to the Utility's most recent rate case proceeding ("Other Rate Case Parties"), if any, as part of the annual RBA Review Transmittal filing. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, Other Rate Case Parties, and other interested persons that may propose any adjustments necessary to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications, Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

Superseding REVISED SHEET NO. 92D
Effective June 1, 2018

REVISED SHEET NO. 92D
Effective June 1, 2019

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Deleted: February 16, 2018

Deleted: June 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

As described in Sections 6-61-61 and 6-61-111 of the Hawaii Administrative Rules, Title 6, Chapter 61, based upon the Company's filed schedules and in the absence of any protests submitted by the Consumer Advocate, Other Rate Case Parties, or other interested persons, not later than 15 days before June 1st, the RBA Rate Adjustment shall go into effect on June 1st, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

The RBA Rate Adjustment is comprised of the calculated values from Section D above, adjusted to include amounts for applicable revenue taxes, and calculated based on the Company's forecast of mWh sales over the RBA Rate Adjustment recovery period.

The RBA Rate Adjustment shall remain unchanged during the recovery period unless further modification is required by order or approval of the Commission, except as specifically provided above.

RBA Rate Adjustment

All Rate Schedules 0.9582 ¢/kWh

Deleted: 1.0350

F. NOTICE

Notice of the annual Revenue Balancing Account Rate Adjustment filing shall be provided to all affected customers of the Utility in accordance with the provisions of this section by publication in newspapers of general circulation within 14 days and by including notification with its billing statements within 60 days after the Company makes its annual RBA Review Transmittal filing pursuant to this tariff. The notice to customers shall include the following information:

- a) A description of the proposed revision of revenues, Earnings Sharing Credits, and Major or Baseline Capital Projects Credits;
- b) The effect on the rates applicable to each customer class and on the typical bill for residential customers; and
- c) The Company's address, telephone number and website where information concerning the proposed Revenue Balancing Account Rate Adjustment may be obtained.

G: COMMISSION'S AUTHORITY

The Commission may modify or suspend any or all parts of this Revenue Balancing Account Provision. Such suspension shall remain in place until removed by Commission Order.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

Deleted: May 29, 2018

Superseding REVISED SHEET NO. 92E
Effective January 1, 2019

REVISED SHEET NO. 92E
Effective June 1, 2019

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Deleted: August 17, 2018

Deleted: January 1, 2019

H: TARGET REVENUE CURRENTLY IN EFFECT

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Hawaiian Electric Company, Inc.

Annual Target Revenue (\$000s)

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	Description	Amount
1	Electric Sales Revenue (Unadjusted)	\$1,531,852
2	Tax Act Implementation Lag	(\$2,143)
3	Electric Sales Revenue (Adjusted)	\$1,529,709
	Less:	
4	Fuel Expense	(\$327,609)
5	Purchase Power Expense	(\$466,211)
6	Revenue Tax on Electric Sales Revenue	(\$135,915)
7	Last Rate Order Target Revenues	\$599,974
8	Authorized RAM Revenues	\$20,364
9	Revenue Tax	(\$1,809)
10	Net RAM Adjustment	\$18,554
11	Authorized MPIR Revenues	\$19,811
12	Revenue Tax	(\$1,760)
13	Net MPIR Adjustment	\$18,051
14	Earnings Sharing Revenue Credits	\$0
15	Revenue Tax	\$0
16	Net Earnings Sharing Revenue Credits	\$0
17	Performance Incentive Mechanism (PIM)	\$54
18	Revenue Tax	(\$5)
19	Net PIM Reward (Penalty)	\$49
20	2017 Test Year Final D&O Refund	(\$48)
21	Revenue Tax	\$4
22	Net 2017 Test Year Final D&O Refund	(\$44)
23	On-Bill Financing Pgm Implementation Costs	\$844
24	Revenue Tax	(\$75)
25	Net On-Bill Financing Adjustment	\$769
26	Effective Target Revenue	\$637,353

Notes:

Totals may not add, due to rounding.

Lines 1,4,5: Final Decision and Order No. 35545, issued June 22, 2018 in Docket No. 2016-0328. Exhibit A.

Line 2: Hawaiian Electric March 2018 Settlement Tariff Sheets, Attachment 1, Line 2. Filed March 16, 2018 in Docket No. 2016-0328.

Lines 6,9,12,15,18,21,24: Revenue Tax based on 8.885% statutory rates.

Lines 8,11,14,17,20,23,26: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling) Schedule B1 (Scenario 2A), filed May 21, 2019.
Change in Effective Target Revenue for MPIR is effective January 1, 2019.
See Order 35556, filed June 27, 2018 in Docket No. 2017-0213.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

Deleted: Docket No. 2017-0213; Order No. 35953, issued December 14, 2018.

Deleted: December 21, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

I: HISTORICAL REFERENCE

<u>Category</u>	<u>Effective Period</u>	<u>Effective Target Revenue (\$000)</u>	<u>Change in Target Revenue (\$000)</u>	<u>Source</u>
Annual Decoupling Filing	6/1/2017 thru 2/15/2018	\$604,302	N/A (1/1/2018 Baseline)	Schedule B1 filed in Transmittal No. 17-02 on 3/31/2017.
2017 Test Year Rate Case (Interim)	2/16/2018 thru 4/12/2018	\$637,077	\$32,775	Schedule B1 filed in Docket No. 2016-0328 on 1/19/2018.
2017 Test Year Rate Case (Interim)	4/13/2018 thru 5/31/2018	\$599,960	(37,117)	Schedule B1 filed in Docket No. 2016-0328 on 3/16/2018.
Annual Decoupling Filing	6/1/2018 thru 6/30/2018	\$612,574	\$12,614	Schedule B1 filed in Transmittal No. 18-01 on 3/29/2018.
MPiR (Schofield)	7/1/2018 thru 9/30/2018	\$618,587	\$6,013	Schedule B1 filed in Docket No. 2017-0213 on 7/18/2018.
MPiR (Schofield)	10/1/2018 thru 12/31/2018	\$620,374	\$1,787	Schedule B1 filed in Docket No. 2017-0213 on 12/21/2018.
MPiR (Schofield)	1/1/2019 thru 5/31/2019	\$630,624	\$10,250	Schedule B1 filed in Transmittal No. 19-01 on 2/7/2019.
Annual Decoupling Filing	6/1/2019 (current)	\$637,353	\$6,729	Schedule B1 (Scenario 2A) filed in Transmittal No. 19-01 on 5/21/2019.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

PERFORMANCE INCENTIVE MECHANISM PROVISION

Introduction

This Performance Incentive Mechanism ("PIM") Provision provides for the determination of a PIM Financial Incentive for each approved PIM for each Evaluation Period, based on Measured Performance compared to an established Performance Target for each PIM, as specified below.

The sum of the PIM Financial Incentives determined for all PIMs for the Evaluation Period will be the Performance Incentive Adjustment, which will be applied as an adjustment to the effective Target Revenue and will be recovered from or credited to customers through the RBA Rate Adjustment, as defined by and in accordance with the terms of the Revenue Balancing Account ("RBA") Provision.

Annual PIM Provision Transmittal

On or before March 31 of the year following an Evaluation Period, the Company shall file with the Commission, the Consumer Advocate, and each party to the Company's most recent rate case proceeding, a transmittal documenting the Measured Performance and calculation of the PIM Financial Incentives and Performance Incentive Adjustment for the Evaluation Period. Complete, indexed schedules, workpapers and electronic files supporting the transmittal shall be provided with the transmittal. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, other rate case parties, and other interested persons that may propose any adjustments necessary to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

The review of the annual PIM Provision transmittal will be conducted concurrent with and in conjunction with the annual RBA Review Transmittal. The Performance Incentive Adjustment will be determined annually based on the PIM Provision transmittal and, after review and subject to explicit approval by the Commission, will become effective on June 1 of the year following the Evaluation Period, concurrent and in conjunction with determination of Target Revenues and the RBA Rate Adjustment in accordance with the RBA Provision. Any approved Performance Incentive Adjustment will be applied as monthly adjustments to Target Revenues for the twelve month period commencing June 1 of the year following the Evaluation Period in accordance with the Monthly Allocation Factors identified in the RBA Provision.

The Performance Targets, Deadbands and the amount of Maximum Financial Incentives used to determine the PIM Financial Incentive

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications,
Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

SHEET NO. 98A
Effective January 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

levels for each of the PIMs shall be re-determined upon issuance of an interim or final order in a general rate case for each Company and shall remain constant in interim periods, unless otherwise amended, as necessary, by order of the Commission.

In the event that Performance Targets, Deadbands or the amounts of Maximum Financial Incentives are updated or amended by order of the Commission during the Evaluation Period, the Performance Targets, Deadbands and the amounts of Maximum Financial Incentives used in determining the amount of PIM Financial Incentives shall be a pro-rated weighted average based on the number of days of the Evaluation Period each parameter was effective.

Any revenue adjustments approved in accordance with this PIM Provision shall be excluded from the determination of Earnings Sharing Credits provided for in the Rate Adjustment Mechanism Provision ("RAM Provision").

The Performance Incentive Adjustment, and any prior year Performance Incentive Adjustment, shall be recalculated for errors in prior calculations and for subsequent Commission orders that change the basis for prior calculations. The effect of such changes shall be implemented as described in the RBA Provision, except that, the Performance Target, Deadband and Maximum Financial Incentive amounts determined in this PIM Provision shall not be recalculated based on errors in the calculation of these parameters and shall remain as specified unless and until changed by order of the Commission.

Evaluation Period

The Evaluation Period is defined as the annual twelve month calendar year period ending December 31, over which Measured Performance is determined and compared to the established Performance Target for each PIM described below. The first Evaluation Period shall begin January 1, 2018.

PIM Financial Incentive Calculation

For each PIM below, a Performance Target is specified, developed based on historical performance data. A Deadband is specified for each Performance Target in order to provide a satisfactory range of performance within which no reward or penalty amount is assessed.

A Maximum Financial Incentive amount is specified for each PIM with separate identification of a Maximum Reward Amount and a Maximum Penalty Amount.

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications,
Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

Superseding Sheet no. 98B
Effective January 1, 2018

REVISED SHEET NO. 98B
Effective September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Measured Performance for the Evaluation Period is compared to the Performance Target for each PIM. If the difference between Measured Performance and the Performance Target is less than or equal to the Deadband amount, no reward or penalty is awarded and the amount of the PIM Financial Incentive is zero. If the difference between Measured Performance and the Performance Target exceeds the Deadband amount, a reward or penalty ratio is calculated where the difference between Measured Performance and the Performance Target, less the Deadband amount, is the numerator and the Deadband amount is the denominator. This ratio is multiplied by either the Maximum Reward Amount or Maximum Penalty Amount, as applicable, to determine the PIM Financial Incentive for each PIM. The magnitude of the PIM Financial Incentive for each PIM shall not exceed 100% of the magnitude of the applicable Maximum Reward Amount or Maximum Penalty Amount established for each PIM.

Reliability Performance Incentive Mechanisms

There are two reliability PIMs: 1) System Average Interruption Frequency Index ("SAIFI"); and 2) System Average Interruption Duration Index ("SAIDI"). SAIFI is a measure of the average frequency of outages, defined as the annual total number of customer interruptions divided by the total number of customers served. SAIDI is a measure of the average duration of outage, defined as the sum of all customer interruption durations (in minutes) divided by the total number of customers served. The SAIFI and SAIDI Measured Performance and Performance Targets are determined using the IEEE Standard 1366 methodology.

For the Reliability Performance Incentive Mechanisms, the 2008-2017 record of historical performance data was used to establish the Performance Target and the Deadband. The Deadband was calculated as ± 1 standard deviation of the historical performance data. Accordingly, 100% of the penalty is achieved when Measured Performance is equal to or greater than 2 standard deviations from the Performance Target.

SAIFI:

Performance Target: 1.103 interruptions per customer during the one-year Evaluation Period

Deadband: ± 0.088 interruptions (1 Standard Deviation)

HAWAIIAN ELECTRIC COMPANY, INC

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018. Transmittal Letter Dated July 23, 2018.

Superseding Sheet No. 98C
Effective January 1, 2018

REVISED SHEET NO. 98C
Effective September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Range for no penalty: 1.015 interruptions to 1.191
interruptions per customer (\pm 1 Standard Deviation from Target)

Rewards: Not Applicable
Penalties for greater than 1.191 interruptions per customer

Maximum Reward Amount: Not Applicable
Maximum Penalty Amount: \$2,276,417.

The Maximum Penalty Amount was determined to be equal to 0.20% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

SAIDI:

Target: 99.23 minutes per outage

Deadband: \pm 8.96 minutes (1 Standard Deviation)

Range for no penalty: 90.27 minutes to 108.19 minutes per outage (\pm 1 Standard Deviation from Target)

Rewards: Not Applicable
Penalties for greater than 108.19 minutes per outage

Maximum Reward Amount: Not Applicable
Maximum Penalty Amount: \$2,276,417.

The Maximum Penalty Amount was determined to be equal to 0.20% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

Call Center Performance Incentive Mechanism

The Call Center Performance PIM measures the performance of the utility call center in terms of the percentage of calls answered within thirty (30) seconds. The calculation of the call center performance shall exclude blocked calls from the denominator.

The Performance Target for the Call Center Performance Incentive Mechanism was calculated based on the average of quarterly data from Quarter 3 of 2016 to Quarter 2 of 2018.

HAWAIIAN ELECTRIC COMPANY, INC

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018. Transmittal Letter Dated July 23, 2018.

Superseding Sheet No. 98D
Effective September 1, 2018

REVISED SHEET NO. 98D
Effective June 1, 2019

Deleted: January

Deleted: September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Call Center Performance:

Performance Target: 80.10% of calls answered within 30 seconds

Deadband: +/- 3.00% of calls answered within 30 seconds

Range for no reward or penalty: 77.10 % of calls answered to 83.10% of calls answered.

Rewards apply for greater than 83.10 % of calls answered
Penalties apply for less than 77.10 % of calls answered

Maximum Reward Amount: \$910,567.

Maximum Penalty Amount: \$910,567.

The magnitude of the Maximum Reward Amount and Maximum Penalty Amount were determined to be equal to 0.08% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

Additional PIMs:

The Commission may order the establishment of one or more PIMs, and the targets, deadbands, rewards, penalties, and allocations for that PIM, as applicable, shall be implemented as specified in the Commission's order that approved the applicable PIM, and the applicable PIM Financial Incentive shall be included in the Performance Incentive Adjustment.

Commission's Authority

The Commission may suspend any or all parts of this PIM Provision. Such suspension shall remain in place until removed by Commission order.

Deleted: Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018. Transmittal Letter Dated July 23, 2018.¶

HAWAIIAN ELECTRIC COMPANY, INC

Transmittal Letter dated May 21, 2019.

SHEET NO. 98E
Effective September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Historical Reference

The following table summarizes the prior PIMs in effect, as these values may be applicable during certain portions of the Evaluation Period.

PIM:	Effective Period:	Performance Target:	Deadband:	Maximum Reward:	Maximum Penalty:
SAIFI	1/1/2018 thru 2/15/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,039,094
SAIFI	2/16/2018 thru 4/12/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,260,799
SAIFI	4/13/2018 thru 8/31/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,276,417
SAIDI	1/1/2018 thru 2/15/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,039,094
SAIDI	2/16/2018 thru 4/12/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,260,799
SAIDI	4/13/2018 thru 8/31/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,276,417
Call Center	1/1/2018 thru 2/15/2018	79.07% of calls answered within 30 sec.	+/- 3.00%	\$815,638	\$815,638
Call Center	2/16/2018 thru 4/12/2018	79.46% of calls answered within 30 sec.	+/- 3.00%	\$904,320	\$904,320
Call Center	4/13/2018 thru 8/31/2018	79.56% of calls answered within 30 sec.	+/- 3.00%	\$910,567	\$910,567

HAWAIIAN ELECTRIC COMPANY, INC

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018. Transmittal Letter Dated July 23, 2018.

Attachment 2A – List of Schedules and Workpapers

Schedule A (REVISED)	HECO-WP-A-001
Schedule A1 (REVISED)	HECO-WP-B-001
Schedule B (REVISED)	HECO-WP-C-001
Schedule B1 (REVISED)	HECO-WP-C-002
Schedule B2	HECO-WP-C-003
Schedule C	HECO-WP-D1-001
Schedule C1	HECO-WP-D2-001
Schedule C2	HECO-WP-D2-002
Schedule D (REVISED)	HECO-WP-D2-003
Schedule D1 (REVISED)	HECO-WP-D2-004
Schedule D2	HECO-WP-D3-001
Schedule D3	HECO-WP-D4-001
Schedule D4	HECO-WP-D4-002
Schedule D5 (REVISED)	HECO-WP-D4-003
Schedule E (REVISED)	HECO-WP-E-001
Schedule F (REVISED)	HECO-WP-F-001
Schedule F1	HECO-WP-F1-001
Schedule F2	HECO-WP-F1-002
Schedule G	HECO-WP-F1-003
Schedule H (REVISED)	HECO-WP-H-001
Schedule I	HECO-WP-H-002
Schedule J	HECO-WP-H-003
Schedule K	HECO-WP-H-004
Schedule L	HECO-WP-H-005
Schedule L1	HECO-WP-H-006
Schedule M	HECO-WP-H-007
Schedule N	HECO-WP-H-008
	HECO-WP-H-009
	HECO-WP-L1-001
	HECO-WP-L1-002
	HECO-WP-L1-003
	HECO-WP-M-001
	HECO-WP-M-002
	HECO-WP-M-003
	HECO-WP-M-004
	HECO-WP-M-005

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF 2019 REVENUE BALANCING ACCOUNT RATE ADJUSTMENT
SCENARIO 2 - WEST LOCH PV EXCLUDED FROM RAM REVENUE ADJUSTMENT /
25 KV EXCLUDED FROM 2018 SAIDI AND SAIFI PIM CALCULATIONS

Line No.	Description	Reference	Amount	6/1/2019 Rate Amount		
	(a)	(b)	(c)	(d)		
<u>RECONCILIATION OF RBA BALANCE:</u>						
1	RBA Prior calendar year-end balance	Schedule B	\$ 37,331,443			
1a	OBF Program Implementation Cost Recovery - Year 1 of 2	Schedule N	\$ 768,575			
			\$ 38,100,018			
2	Revenue Tax Factor	Schedule C	1.0975			
3	Revenue for RBA Balance			\$ 41,814,770		
<u>RATE ADJUSTMENT MECHANISM "RAM" AMOUNT:</u>						
4	Total RAM Revenue Adjustment Allowed (Note 2)	Schedule A1		\$ 20,363,688		
5	<u>EARNINGS SHARING REVENUE CREDITS - 2019 ROE:</u>	Schedule H		\$ -		
6	<u>PERFORMANCE INCENTIVE MECHANISM REWARD (PENALTY)</u>	Schedule M		\$ 53,998		
7	<u>2017 TEST YEAR RATE CASE FINAL D&O REFUND</u>	Note (3)		\$ (48,000)		
8	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS</u>	Schedule I		\$ -		
9	TOTAL RBA REVENUE ADJUSTMENT	Sum Col. (d)		\$ 62,184,456		
10	GWH SALES VOLUME ESTIMATE JUNE 2019 - MAY 2020	HECO-WP-A-001		6,489,900		
11	RBA RATE ADJUSTMENT - cents per kWh	Note (1)		0.9582	6/1/2018 1.0350	Incremental (0.0768)
12	MONTHLY BILL IMPACT @ 600 KWH			\$ 5.75	\$ 6.21	\$ (0.46)
	MONTHLY BILL IMPACT @ 500 KWH			\$ 4.79	\$ 5.18	\$ (0.38)

Note (1): 2019 RBA Rate Adjustment Breakdown

	Col. (d)	Rate Adjustment cents per kWh	Percentage Share
RBA Balance	\$ 41,814,770	0.64430530	67.2431%
RAM Amount	\$ 20,363,688	0.31377507	32.7472%
Earnings Sharing Revenue Credits	\$ -	0.00000000	0.0000%
Performance Incentive Mechanism Reward (Penalty)	\$ 53,998	0.00083204	0.0868%
2017 Test Year Rate Case Final D&O Refund	\$ (48,000)	-0.00073961	-0.0772%
Major or Baseline Capital Projects Credits	\$ -	0.00000000	0.0000%
	\$ 62,184,456	0.95817279	100.0000%

Note (2): Total RAM Revenue Adjustment Allowed is the sum of the RAM Cap + Exceptional and Other Projects. See Order No. 32735, filed March 31, 2015, paragraph 107, page 94, which states that the Total RAM Revenue Adjustment is to be comprised of the RAM Cap plus recovery of Exceptional And Other Matters.

Note (3): Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case Hawaiian Electric Proposed PIM Tariff Revisions and Refund Calculation, Exhibit 4, filed July 23, 2018, and approved by the Commission in Order No. 35661, filed August 30, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TOTAL RAM REVENUE ADJUSTMENT ALLOWED

Line No.	Description (a)	Reference (b)	Amount (c)
RAM REVENUE ADJUSTMENT DETERMINED ACCORDING TO EXISTING TARIFFS AND PROCEDURES			
1	O&M RAM	Schedule C	\$ 8,622,195
2	Rate Base RAM - Return on Investment	Schedule D	\$ 8,801,777
3	Depreciation & Amortization RAM Expense	Schedule E	\$ 2,939,716
4	Total RAM Revenue Adjustment		\$ 20,363,688
RAM REVENUE ADJUSTMENT CAP			
5	RAM Cap for 2019 RAM Revenue Adjustment	Schedule J	\$ 27,945,687
6	Plus: Exceptional and Other Matters	Schedule K	\$ -
7	2019 Cap - Total RAM Revenue Adjustment (Note 2)		\$ 27,945,687
8	Total RAM Revenue Adjustment Allowed (Note 1)	Lesser of Line 4 or Line 7	\$ 20,363,688

To Sch A

Note 1 RAM Revenue Adjustment Allowed:

See Order No. 32735, filed March 31, 2015, paragraph 106, page 94:

"The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the lesser of (a) the RAM Revenue Adjustment determined according to existing tariffs and procedures or (b) a RAM Revenue Adjustment Cap ("RAM Cap) to be calculated as specified."

Note 2 Total RAM Cap:

See Order No. 32735, filed March 31, 2015, paragraph 110, page 96:

"The RAM Cap will apply to the entire RAM Revenue Adjustment including the O&M RAM, Rate Base RAM (including Major Capital Projects and Baseline Projects), and the Depreciation and Amortization RAM."

Note 3 See Decision and Order No. 35768, Docket No. 2018-0075 filed October 16, 2018. Commission approved the Asset Transfer, Pole Licensing and Amended Joint Pole Agreements and the accounting and ratemaking treatment described in Exhibit E of the Application. The negotiated settlement over a ten year period for attachment fees, inclusive of revenue taxes, is \$2,371,930 per year.

For ratemaking purposes, attachment and ancillary revenues received from Hawaiian Telcom and other third party attachers for use of the poles are reflected in other operating revenue and will offset any depreciation costs of transferred poles and related equipment, and the authorized return to the Companies shareholders.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
SUMMARY OF ACCUMULATED REVENUE BALANCING ACCOUNT

Line No.	Month	Beginning Balance	Target Revenues	Recorded Adjusted Revenue	Variance to RBA	Adjustment for prior year RBA accrual	Tax-effected Balance Subject to Interest	Interest at 1.75%/year	Ending Balance
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Monthly RBA Balance and Activity (Monthly PUC Rpt)									
		\$ 18,013,624							
1	2017 December	\$ 46,306,327	\$ 49,915,326	\$ 43,730,598	\$ 6,184,728	\$ (3,302,057)	29,169,047	\$ 42,538	\$ 49,231,536
2									
3	2018 January	\$ 49,231,536	\$ 48,948,443	\$ 43,871,232	\$ 5,077,211	\$ (3,369,650)	\$ 37,188,347	\$ 54,233	\$ 50,993,330
4	February	\$ 50,993,330	\$ 45,953,154	\$ 40,430,219	\$ 5,522,935	\$ (4,185,853)	\$ 38,358,939	\$ 55,940	\$ 52,386,352
5	March	\$ 52,386,352	\$ 51,603,222	\$ 46,365,780	\$ 5,237,442	\$ (3,345,112)	\$ 39,599,394	\$ 57,749	\$ 54,336,431
6	April	\$ 54,336,431	\$ 49,061,587	\$ 45,638,864	\$ 3,422,723	\$ (3,430,466)	\$ 40,341,925	\$ 58,832	\$ 54,387,520
7	May	\$ 54,387,520	\$ 50,396,658	\$ 43,802,261	\$ 6,594,397	\$ (3,440,553)	\$ 41,553,464	\$ 60,599	\$ 57,601,782
8	June	\$ 57,601,782	\$ 49,434,694	\$ 46,747,403	\$ 2,687,291	\$ (4,129,862)	\$ 42,233,769	\$ 61,591	\$ 56,220,802
9	July	\$ 56,220,802	\$ 53,817,091	\$ 50,144,604	\$ 3,672,487	\$ (4,451,628)	\$ 41,454,689	\$ 60,455	\$ 55,502,116
10	August	\$ 55,502,116	\$ 55,301,701	\$ 50,148,289	\$ 5,153,412	\$ (4,546,694)	\$ 41,435,565	\$ 60,427	\$ 56,169,261
11	September	\$ 56,169,261	\$ 53,507,798	\$ 54,077,963	\$ (570,165)	\$ (4,315,858)	\$ 39,891,740	\$ 58,175	\$ 51,341,413
12	October	\$ 51,341,413	\$ 54,683,113	\$ 56,214,832	\$ (1,531,719)	\$ (4,543,142)	\$ 35,865,707	\$ 52,304	\$ 45,318,856
13	November	\$ 45,318,856	\$ 51,095,307	\$ 51,711,892	\$ (616,585)	\$ (4,111,538)	\$ 31,893,935	\$ 46,512	\$ 40,637,245
14	Oct/Nov True-Up		\$ 305,574		\$ 305,574			\$ 453	\$ 40,943,272
15	December	\$ 40,943,272	\$ 51,366,986	\$ 51,070,061	\$ 296,925	\$ (3,951,109)	\$ 29,043,764	\$ 42,355	\$ 37,331,443
16			\$ 615,475,328	\$ 580,223,400	\$ 35,251,928	\$ (47,821,465)		\$ 669,625	
17									
18									
19	2019 January	\$ -	\$ 51,648,125	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	February	\$ -	\$ 47,864,379	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	March	\$ -	\$ 51,080,563	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April	\$ -	\$ 50,323,814	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	May	\$ -	\$ 52,972,435	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	OBF Recovery	\$ 1,537,150							\$ -
24a	June	\$ -	\$ 51,434,414	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	July	\$ -	\$ 55,449,740	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	August	\$ -	\$ 56,979,388	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	September	\$ -	\$ 55,131,064	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	October	\$ -	\$ 56,342,035	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	November	\$ -	\$ 52,645,386	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	December	\$ -	\$ 52,772,856	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31									
Sources of Data:			Sch. B1 Note (3)	Sch B2	Cols (c)-(d)	Note (1)	Col ((b)+((e)+(f))/2)/(k) (Note 2)		Cols (b)+(e)+ (f)+(h)

Note (1):

Amounts represent recovery of prior years' RBA balance through the RBA rate adjustment effective June 1, 2017 for the period June 2017 through May 2018 and June 1, 2018 for the period June 2018 through May 2019.

Note (2):

In May 2018, the Company identified an inadvertent transposition error in the DSM adjustment (\$67,965) used to derive Recorded Adjusted Revenues. May 2018 Recorded Adjusted Revenues includes a true-up of -\$135,930 (-\$123,853 net of revenue taxes) to properly state the RBA Balance as of May 2018. The May 2018 balance includes an adjustment of -\$181 related to interest resulting from this correction.

Note (3):

In December 2018, the Company recorded a RBA Target true-up adjustment resulting from the Schofield Generating Station MPIR Order No. 35953, issued 12/14/18 in Docket No. 2017-0213, effective October 1, 2018. The RBA balance includes an adjustment of \$306,027 related to the incremental Target Revenues (\$305,574) and related interest (\$453) to properly state the RBA balance as of December 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description	Reference	Docket No. 2010-0080 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	
1	Last Rate Case Annual Electric Revenue at Approved Rate I	Note (3), (5), (5a)	\$000s \$ 1,765,954	\$ 1,581,445	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	
1a	Less: Holdback of Interim Revenues	Note (3)	\$000s \$ -	\$ (5,000)	\$ -	\$ -	\$ -	\$ -	
1b	Less: Customer Benefit Adjustment	Note (3)	\$000s \$ -	\$ (6,000)	\$ -	\$ -	\$ -	\$ -	
2	Less: Fuel Expense	Note (3), (5), (5a)	\$000s \$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	
3	Purchased Power Expense	Note (3), (5), (5a)	\$000s \$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rate)		\$000s \$ (156,905)	\$ (139,534)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)	
5	Last Rate Order Target Annual Revenues	Sum Lines 1...4	\$000s \$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974	
6	Authorized RAM Revenues	Note (1a)	\$000s \$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -	
7	Less: Revenue Taxes on Line 6 at 8.885%		\$000s \$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -	
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$000s \$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -	
9	Authorized RAM Revenues	Note (7)	\$000s \$ -	\$ -	\$ -	\$ 13,828	\$ 13,828	\$ 13,828	
10	Less: Revenue Taxes on Line 9 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ (1,229)	\$ (1,229)	\$ (1,229)	
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$000s \$ -	\$ -	\$ -	\$ 12,599	\$ 12,599	\$ 12,599	
12	Authorized RAM Revenues	Sch A, Line 4	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
13	Less: Revenue Taxes on Line 12 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
14	Net RAM Adjustment - Test Year +2	Lines 12 + 13	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
15	Authorized MPIR Revenues	Schedule L	\$000s \$ -	\$ -	\$ -	\$ -	\$ 6,600	\$ 8,561	
16	Less: Revenue Taxes on Line 15 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ (586)	\$ (761)	
17	Net MPIR Adjustment	Lines 15 + 16	\$000s \$ -	\$ -	\$ -	\$ -	\$ 6,014	\$ 7,800	
18	Less: EARNINGS SHARING REVENUE CREDITS	Note (1a)	\$000s \$ (16)	\$ (16)	\$ (16)	\$ -	\$ -	\$ -	
19	Less: Revenue Taxes on Line 18 at 8.885%		\$000s \$ 1	\$ 1	\$ 1	\$ -	\$ -	\$ -	
20	Net Earnings Sharing Revenue Credits	Lines 18 + 19	\$000s \$ (14)	\$ (14)	\$ (14)	\$ -	\$ -	\$ -	
21	Less: PERFORMANCE INCENTIVE MECHANISM	Sch A, Line 6	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
22	Less: Revenue Taxes on Line 24 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
23	Net Performance Incentive Mechanism	Lines 21 + 2	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
24	Less: 2017 TEST YEAR FINAL D&O REFUND	Sch A, Line 8	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
25	Less: Revenue Taxes on Line 27 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
26	Net 2017 Test Year Final D&O Refund	Lines 24 + 25	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
27	Add: OBF PROGRAM IMPLEMENTATION COSTS	Sch A, Line 1a * 1.0975	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
28	Less: Revenue Taxes on Line 21 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
29	Net OBF Program Implementation Costs	Lines 27 + 28	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
30	PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:	Note (1a)	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
31	Total Annual Target Revenues								
32	June 1, 2017 Annualized Revenues w/RAM Increase	Col (c), lines (5+8+20+30)	\$000s \$ 604,302						
33	February 16, 2018 Annualized Revenues w/Interim Increase	Col (d), lines (5+8+20+30)	\$000s	\$ 637,077					
34	April 13, 2018 Annualized Revenues w/2nd Interim Increase	Col (e), lines (5+11+20+30)	\$000s		\$ 599,960				
35	June 1, 2018 Annualized Revenues w/RAM Increase	Col (f), lines (5+11+20+30)	\$000s			\$ 612,574			
36	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 7/1/18	Col (g), lines (5+11+17+20+30)	\$000s				\$ 618,587		
37	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 10/1/18	Col (h), lines (5+11+17+20+30)	\$000s					\$ 620,374	
38	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (i), lines (5+11+17+20+30)	\$000s						
39	June 1, 2019 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (j), lines (5+14+17+20+23+26+29+30)	\$000s						
40	Distribution of Target Revenues by Month:	Note (1)	Note (2)	Note (4) 2018	Note (4), (6) 2018	Note (6) 2018	2018	Note (8) 2018	Note (8a) 2018
41	January	8.10%	8.19%	\$48,948,443					
42	February	7.26%	7.59%	\$23,503,022	\$22,450,132				
43	March	8.10%	8.10%		\$51,603,222				
44	April	7.84%	7.98%		\$20,335,492	\$28,726,095			
45	May	8.44%	8.40%			\$50,396,658			
46	June	8.47%	8.07%				\$49,434,694		
47	July	8.77%	8.70%					\$53,817,090	
48	August	9.04%	8.94%					\$55,301,700	
49	September	8.68%	8.65%					\$53,507,797	
50	October	8.78%	8.84%						\$54,841,062
51	November	8.26%	8.26%						\$51,242,893
52	December	8.26%	8.28%						\$51,366,968
53	Total Distributed Target Revenues	100.00%	100.00%	\$72,451,465	\$94,388,846	\$79,122,753	\$49,434,694	\$162,626,587	\$157,450,923

Footnotes:

- 1 RBA Tariff Revised July 26, 2011 to reflect 2011 test year.
- 1a Transmittal 17-02 filed March 31, 2017, establishing 2017 target revenue effective June 1, 2017.
- 2 RBA Tariff Effective February 16, 2018 to reflect 2017 test year.
- 3 Test Year 2017 Interim Increase provided for in Interim Decision and Order 35100, issued December 15, 2017 in Docket No. 2016-0328:
- 4 For the month of the initial implementation (Feb 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days: \$35,971 \$000s
- 5 Test Year 2017 2nd Interim Increase provided for in Order No. 35335, issued March 9, 2018 in Docket No. 2016-0328: 0.46429
- 5a Reduction for Tax Act Implementation Lag (March 2018 Settlement Tariff Sheets, Attachment 3, filed March 16, 2018, in accordance with Order No. 35335): -\$603 \$000s
- 6 For the month of the initial implementation (April 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days: -\$2,143 \$000s
- 7 Transmittal 18-01 filed May 29, 2018, establishing 2018 target revenue effective June 1, 2018. 0.60000
- 8 MPIR Revenue accrual starting effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018 in Docket No. 2017-0213. Excerpt filed at HECO-WP-L1-003.
- 8a MPIR Revenue accrual starting October 1, 2018 approved in Order No. 35953, issued December 14, 2018 in Docket No. 2017-0213. Excerpt filed at HECO-WP-L1-003.
- 8b MPIR Revenue accrual starting January 1, 2019 filed in Transmittal 19-01, filed February 7, 2019. Excerpt filed at HECO-WP-L1-003.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description (a)	Reference (b)		Docket No. 2016-0328 Amounts (i)	Docket No. 2016-0328 Amounts (j)	Docket No. 2016-0328 Amounts (k)
1	<u>Last Rate Case Annual Electric Revenue at Approved Rate I</u>	Note (3), (5), (5a)	\$000s	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (3)	\$000s	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (3)	\$000s	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (3), (5), (5a)	\$000s	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (3), (5), (5a)	\$000s	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rate)		\$000s	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1...4	\$000s	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (1a)	\$000s	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%		\$000s	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$000s	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (7)	\$000s	\$ 13,828	\$ -	\$ -
10	Less: Revenue Taxes on Line 9 at 8.885%		\$000s	\$ (1,229)	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$000s	\$ 12,599	\$ -	\$ -
12	Authorized RAM Revenues	Sch A, Line 4	\$000s	\$ -	\$ 20,364	\$ 20,364
13	Less: Revenue Taxes on Line 12 at 8.885%		\$000s	\$ -	\$ (1,809)	\$ (1,809)
14	Net RAM Adjustment - Test Year +2	Lines 12 + 13	\$000s	\$ -	\$ 18,554	\$ 18,554
15	Authorized MPIR Revenues	Schedule L	\$000s	\$ 19,811	\$ 19,811	\$ 19,811
16	Less: Revenue Taxes on Line 15 at 8.885%		\$000s	\$ (1,760)	\$ (1,760)	\$ (1,760)
17	Net MPIR Adjustment	Lines 15 + 16	\$000s	\$ 18,051	\$ 18,051	\$ 18,051
18	Less: <u>EARNINGS SHARING REVENUE CREDITS</u>	Note (1a)	\$000s	\$ -	\$ -	\$ -
19	Less: Revenue Taxes on Line 18 at 8.885%		\$000s	\$ -	\$ -	\$ -
20	Net Earnings Sharing Revenue Credits	Lines 18 + 19	\$000s	\$ -	\$ -	\$ -
21	Less: <u>PERFORMANCE INCENTIVE MECHANISM</u>	Sch A, Line 6	\$000s	\$ -	\$ 54	\$ 54
22	Less: Revenue Taxes on Line 24 at 8.885%		\$000s	\$ -	\$ (5)	\$ (5)
23	Net Performance Incentive Mechanism	Lines 21 + 2	\$000s	\$ -	\$ 49	\$ 49
24	Less: <u>2017 TEST YEAR FINAL D&O REFUND</u>	Sch A, Line 8	\$000s	\$ -	\$ (48)	\$ (48)
25	Less: Revenue Taxes on Line 27 at 8.885%		\$000s	\$ -	\$ 4	\$ 4
26	Net 2017 Test Year Final D&O Refund	Lines 24 + 25	\$000s	\$ -	\$ (44)	\$ (44)
27	Add: <u>OBF PROGRAM IMPLEMENTATION COSTS</u>	Sch A, Line 1a * 1.0975	\$000s	\$ -	\$ 844	\$ 844
28	Less: Revenue Taxes on Line 21 at 8.885%		\$000s	\$ -	\$ (75)	\$ (75)
29	Net OBF Program Implementation Costs	Lines 27 + 28	\$000s	\$ -	\$ 769	\$ 769
30	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:</u>	Note (1a)	\$000s	\$ -	\$ -	\$ -
31	Total Annual Target Revenues					
32	June 1, 2017 Annualized Revenues w/RAM Increase	Col (c), lines (5+8+20+30)	\$000s			
33	February 16, 2018 Annualized Revenues w/Interim Increase	Col (d), lines (5+8+20+30)	\$000s			
34	April 13, 2018 Annualized Revenues w/2nd Interim Increase	Col (e), lines (5+11+20+30)	\$000s			
35	June 1, 2018 Annualized Revenues w/RAM Increase	Col (f), lines (5+11+20+30)	\$000s			
36	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 7/1/18	Col (g), lines (5+11+17+20+30)	\$000s			
37	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 10/1/18	Col (h), lines (5+11+17+20+30)	\$000s			
38	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (i), lines (5+11+17+20+30)	\$000s	\$ 630,624		
39	June 1, 2019 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (j), lines (5+14+17 +20+23+26+29+30)	\$000s		\$ 637,353	\$ 637,353
40	<u>Distribution of Target Revenues by Month:</u>	Note (1)	Note (2)	Note (8b) 2019	Note (8b) 2019	Note (8b) 2020
41	January	8.10%	8.19%	\$51,648,125		\$52,199,238
42	February	7.26%	7.59%	\$47,864,379		\$48,375,118
43	March	8.10%	8.10%	\$51,080,563		\$51,625,620
44	April	7.84%	7.98%	\$50,323,814		\$50,860,796
45	May	8.44%	8.40%	\$52,972,435		\$53,537,680
46	June	8.47%	8.07%		\$51,434,414	
47	July	8.77%	8.70%		\$55,449,740	
48	August	9.04%	8.94%		\$56,979,388	
49	September	8.68%	8.65%		\$55,131,064	
50	October	8.78%	8.84%		\$56,342,035	
51	November	8.26%	8.26%		\$52,645,386	
52	December	8.26%	8.28%		\$52,772,856	
53	Total Distributed Target Revenues	100.00%	100.00%	\$253,889,316	\$380,754,883	\$256,598,452

**HAWAIIAN ELECTRIC COMPANY
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RECORDED ADJUSTED REVENUES**

Line No.	Description (a)	January 2018 (b)	February 2018 (c)	March 2018 (d)	April 2018 (e)	May 2018 (f)	June 2018 (g)	July 2018 (h)	August 2018 (i)	September 2018 (j)	October 2018 (k)	November 2018 (l)	December 2018 (m)	Total
BILLED REVENUES:														
1	Current months billed revenues (SAF014w)	131,367,405	134,781,670	138,532,755	139,891,016	136,565,143	148,254,104	155,912,953	166,208,215	166,774,673	179,719,396	165,592,723	159,911,354	1,823,511,027
2	Remove PBF revenues	(1,218,709)	(1,201,960)	(1,194,318)	(1,182,968)	(1,182,968)	(1,265,642)	(1,382,251)	(1,590,817)	(1,573,332)	(1,655,808)	(1,506,750)	(1,423,869)	(16,407,468)
3	Remove Solar Saver non-revenues	-	-	-	58,286	67,403	-	-	-	-	-	-	-	125,689
4	City & County traffic signal revenue adjustments	-	-	(10,230)	-	-	(10,310)	-	-	(10,911)	-	-	(11,330)	(42,781)
5 =		-	-	-	-	-	-	-	-	-	-	-	-	-
sum 1-4		130,148,696	133,579,710	137,327,827	138,738,278	135,449,578	146,978,152	154,530,702	164,617,398	165,190,410	178,063,588	164,085,973	158,476,155	1,807,186,467
UNBILLED REVENUES														
6	Current months unbilled revenues (Unbilled Sales and Revenue Est)	78,387,084	70,879,493	70,665,761	70,377,168	76,196,920	80,293,995	90,404,928	92,787,255	95,015,547	90,754,173	87,978,477	88,120,287	991,861,088
7	Reverse prior months unbilled revenues (Unbilled Sales and Revenue Est)	(77,212,019)	(78,387,084)	(70,879,493)	(70,377,168)	(70,665,761)	(80,293,995)	(90,404,928)	(92,787,255)	(95,015,547)	(90,754,173)	(87,978,477)	(88,120,287)	(980,952,820)
8 = 6-7	Unbilled revenues per Unbilled Sales and Revenue Estimate	1,175,065	(7,507,591)	(213,732)	(288,593)	5,819,752	4,097,075	10,110,933	2,382,337	2,228,292	(4,261,374)	(2,754,096)	(141,810)	10,908,268
9	Recovery of 12-31-16 RBA balance through RBA Rate Adjustment beginning 6-1-17	(3,698,239)	(4,594,033)	(3,671,308)	(3,776,056)	(3,776,056)	(4,532,582)	(4,885,725)	(4,990,061)	(4,736,715)	(4,986,163)	-	-	(19,504,621)
10	Recovery of 12-31-17 RBA balance through RBA Rate Adjustment beginning 6-1-18	-	-	-	-	-	-	-	-	-	-	-	-	HECO-WP-B-001 p. 1
11	Accrual and reversal of ESM refund	1,258	1,127	1,258	1,217	1,310	-	-	-	(4,736,715)	(4,986,163)	(4,512,471)	(4,336,398)	(32,980,115)
12	Accrual of Performance Incentive Mechanism	-	-	-	-	-	-	-	-	-	-	-	-	HECO-WP-B-001 p. 2
13	Accrual of Test Year Rate Case Refund	-	-	-	-	-	-	-	-	-	-	-	-	61.70
14	Accrual of EECAC adjustment	3,370,200	1,909,100	2,951,000	5,038,900	(1,598,200)	(2,982,800)	3,568,600	2,029,500	(1,810,600)	1,430,100	3,000,000	4,585,500	(531,871)
15	Reversal of EECAC accrual	(361,600)	(2,429,267)	(2,429,267)	(2,743,434)	(2,743,434)	(2,743,434)	(2,743,434)	(152,634)	(152,634)	(152,634)	(126,201)	(126,201)	(48,000)
16	Accrual of PPAC adjustment	2,919,500	757,800	3,515,100	2,401,700	4,654,200	4,647,800	1,320,900	1,157,600	(1,315,800)	(3,152,800)	(123,800)	123,800	(18,862,602)
17	Reversal of PPAC accrual	(822,234)	(1,534,900)	(1,534,900)	(1,534,900)	(2,154,801)	(2,154,801)	(2,154,900)	(3,901,233)	(3,901,233)	(3,901,234)	(3,875,568)	(387,568)	(14,976,700)
18	Reclass excess DSMAC revenues	(33,721)	(49,801)	11,448	163,556	172,002	184,046	80,370	75,572	79,569	(17,328)	(15,121)	(81,576)	815,796
19	Reclass excess DRAC revenues	(12,490)	(96,264)	(79,581)	(115,027)	(131,987)	(173,171)	(162,078)	(162,078)	(162,078)	(162,078)	(162,078)	(162,078)	(1,250,499)
20	Tax Reform Act adjustments	(2,265,026)	(2,099,090)	(1,309,124)	(649,271)	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	(2,060,606)
21	Other unbilled adjustments	5,077,211	5,222,935	5,222,935	3,422,723	6,594,397	2,687,291	3,672,487	5,153,412	(570,165)	(1,531,719)	(616,585)	602,499	35,251,928
22	Accrual of current month's RBA (PUC Monthly Financial Report pg. 9A)	405,099	538,563	510,274	333,763	643,046	265,048	358,119	502,530	(55,599)	(149,536)	(60,126)	58,752	3,437,555
23	RBA gross up for revenue taxes	-	-	-	-	-	-	-	-	-	-	-	-	-
24 =	Miscellaneous unbilled accruals	3,954,097	(1,990,056)	2,946,704	2,446,176	439,741	(4,597,861)	(722,372)	(103,992)	(12,498,748)	(12,273,990)	(5,109,091)	(1,059,668)	(28,568,160)
sum 9-23		5,130,062	(9,497,647)	2,732,972	2,157,583	6,259,493	(500,786)	9,388,561	2,278,335	(10,270,456)	(16,535,564)	(7,884,787)	(917,858)	(17,659,892)
25 = 8+24		135,278,758	124,082,063	140,060,798	140,895,862	141,709,071	146,477,366	163,919,264	166,895,733	154,919,954	161,538,223	156,201,186	157,558,297	1,789,526,575
26 = 5+25	TOTAL REVENUES PER G/L (PUC Monthly Financial Report)													
Unbilled Adjustments to Determine Adjusted Revenues for RBA:														
27	Add back C&C unpermitted revenue	323	312	10,230	-	297	10,310	742	351	10,911	-	-	11,330	42,781
28	Add back diplomatic tax exemption (excl. exempted rev taxes on PBF surcharge)	7,436,356	4,121,689	1,715,933	2,282,011	(962,632)	(6,550,979)	(7,637,339)	(6,113,486)	(13,243,448)	(25,453,166)	(28,571,616)	(28,571,616)	3,933
29	Remove EECAC revenues	(13,915,656)	(14,192,358)	(14,513,240)	(14,719,197)	(12,339,728)	(11,177,856)	(7,619,433)	(18,062,549)	(19,621,783)	(21,968,249)	(18,435,053)	(15,583,999)	(97,786,084)
30	Remove PPAC revenues	-	-	-	-	-	-	-	-	-	-	-	-	(188,442,852)
31	Remove REIP revenues	(357,105)	(321,161)	(68,674)	(67,965)	275,965	150,334	153,540	124,173	66,280	70,534	24,118	(25,119)	24,920
32	Remove DSM revenues	(83,120)	(81,978)	(81,456)	(82,596)	(80,682)	(86,323)	(94,272)	(108,499)	(107,308)	(112,032)	(102,768)	(97,111)	(1,119,045)
33	Remove Solar Saver revenues	-	-	-	-	-	-	-	-	-	-	-	-	7,928
34	Remove revenue taxes on billed revenues	(10,948,941)	(10,937,987)	(11,052,098)	(11,208,828)	(10,870,536)	(11,490,407)	(11,820,594)	(12,479,665)	(11,754,399)	(11,633,204)	(10,672,582)	(10,175,477)	(135,044,718)
35	Remove base fuel (adjusted for revenue taxes)	(45,592,364)	(45,532,869)	(44,984,425)	(45,711,413)	(44,832,955)	(47,622,032)	(48,663,614)	(52,260,945)	(41,614,714)	(30,245,267)	(27,651,766)	(26,028,373)	(500,740,737)
36	Remove power purchase energy (adjusted for revenue taxes)	(19,235,019)	(19,209,918)	(18,978,535)	(19,285,245)	(18,914,631)	(20,091,318)	(20,530,752)	(22,048,435)	(23,218,962)	(27,055,291)	(24,735,328)	(23,283,155)	(256,586,589)
37	Other operating revenue - EV-U revenue net of revenue taxes	8,735	7,570	8,289	7,811	9,331	8,857	9,382	10,487	9,761	8,408	8,222	8,222	106,229
38	Other operating revenue - SMNP revenue net of revenue taxes	10,372	10,091	10,724	10,775	10,473	10,868	11,357	11,803	12,350	12,566	12,950	13,235	137,544
39		-	-	-	-	-	-	-	-	-	-	-	-	-
Unbilled Adjustments to Determine Adjusted Revenues for RBA:														
40	Remove ESM refund accrual & reversal	(1,258)	(1,127)	(1,258)	(1,217)	(1,310)	-	-	-	-	-	-	-	(61,700)
41	Remove accrual of Performance Incentive Mechanism	-	-	-	-	-	-	-	-	-	-	-	-	531,871
42	Remove accrual of Test Year rate case refund	-	-	-	-	-	-	-	-	-	-	-	-	48,000
43	Remove EECAC revenues	(1,486,257)	(2,862,578)	303,420	280,965	(3,957,819)	(1,816,018)	500,913	1,265,450	(10,925,845)	1,035,980	(2,713,315)	(892,545)	(21,267,649)
44	Remove EECAC accrual	(3,008,600)	520,167	(521,733)	(2,609,634)	4,341,634	5,726,234	(825,168)	(1,876,866)	1,963,234	(1,277,468)	(1,737,499)	(3,322,999)	(2,628,698)
45	Remove PPAC revenues	(1,369,266)	777,100	83,023	(190,441)	1,925,917	(585,389)	(3,208,412)	(1,255,537)	(926,779)	502,842	2,437,748	175,715	(249,795)
46	Remove PPAC accrual	-	-	-	-	-	-	-	-	-	-	-	-	9,393,470
47	Remove DSM revenues	123	146,685	67,590	75,567	4,644	1,691	10,508	2,743,633	52,170,333	7,054,034	1,712,668	263,768	(28,943)
48	Remove excess DSM revenues	33,772	12,490	96,264	79,581	115,027	(164,655)	(80,370)	(75,572)	(79,569)	(17,328)	(15,121)	(81,576)	815,796
49	Remove excess DRAC revenues	2,265,026	2,099,090	1,309,124	649,271	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	4,893,695
50	Remove Tax Reform Act adjustments	-	-	-	-	-	-	-	-	-	-	-	-	-
51	Remove other unbilled adjustments	(5,077,211)	(5,222,935)	(5,222,935)	(3,422,723)	6,594,397	(2,687,291)	3,672,487	5,153,412	(570,165)	(1,531,719)	(616,585)	(602,499)	(35,251,928)
52	Remove RBA accruals	(405,099)	538,563	510,274	333,763	643,046	265,048	358,119	502,530	(55,599)	(149,536)	(60,126)	58,752	3,437,555
53	Remove RBA gross up for revenue taxes	-	-	-	-	-	-	-	-	-	-	-	-	-
54	Remove revenue taxes on unbilled revenues	36,828	4,056,143	67,966	(553,246)	(1,436,497)	(568,898)	(2,957,080)	(792,084)	13,775,971	644,413	813,770	270,673	12,957,959
55	Remove base fuel (adjusted for revenue taxes)	-	-	-	-	-	-	-	-	-	-	-	-	-
56	Remove power purchase energy (adjusted for revenue taxes)	-	-	-	-	-	-	-	-	-	-	-	-	-
57 =		91,407,526	(83,651,844)	(93,695,018)	(95,256,998)	(97,906,810)	(99,729,963)	(113,774,660)	(116,747,444)	(100,841,991)	(105,313,391)	(104,489,294)	(106,488,236)	(1,209,303,175)
sum 27-56	Total billed and unbilled adjustments to determine adjusted revenues for RBA													
58 = 26+57	RECORDED ADJUSTED REVENUES FOR RBA DETERMINATION	43,871,232	40,430,219	46,365,780	45,638,864	43,802,261	46,747,403	50,144,604	50,148,289	54,077,963	56,214,832	51,711,892	51,070,061	580,223,400
Note: Amounts may not add exactly due to rounding.														

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF O&M RAM ADJUSTMENT
(\$ in Thousands)

Line No.	Decryption	Reference	Docket No. 2016-0328 Approved	Footnote 4 Previously Approved RAM	O&M Subject to Escalation Col (c) + (d)	Net Inflation Indices Footnote 2	2019 O&M RAM Adjustment Col (e) * (f)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base BU Labor Expenses	Schedule C1	\$ 47,048		\$ 47,048	4.19%	\$ 1,973
2	Base Non-Labor Expense	Schedule C2	\$ 134,734		\$ 134,734	4.24%	\$ 5,718
3	Payroll Taxes	Footnote 1	\$ 3,943		\$ 3,943	4.19%	\$ 165
4	Subtotal Expense Increase - RAM Adjustment before revenue taxes						\$ 7,856
5	Revenue Tax Factor (Footnote 3)						1.0975
6	O&M RAM (SubTotal Expenses x Rev Tax Factor)						\$ 8,622 To Sch A1

Footnotes:

1: Payroll Taxes per Stipulated Settlement Letter, filed March 5, 2018 in Docket No. 2016-0328, Exhibit 2C, page 6, approved in Order No. 35545, filed June 22, 2018.
Less: Portion of payroll taxes related to non-BU labor^A (57.79% * 9,342) \$ (5,399)
Payroll Taxes related to Bargaining Unit labor \$ 3,943

^A See Schedule C1 for calculation of percentage related to non-BU labor.

2: Escalation Rates

Labor:	2018	2019	
Bargaining Unit Wage Increase	2.67%	3.00%	(See HECO-WP-C-001)
Less: Labor Productivity Offset	0.76%	0.76%	Approved in Final D&O in Docket No. 2008- 0274, page 51, filed on August 31, 2010
Labor Cost Escalation Rate	1.91%	2.24%	

Calculation of 2018 Compounded Labor Cost Escalation

2018 Labor Cost Escalation	1.0191	A (2018 labor escalation plus 1)
2019 Labor Cost Escalation	1.0224	B (2019 labor escalation plus 1)
2018-2019 Compounded Labor Cost Escalation	1.0419	C = A * B
2018-2019 Compounded Labor Cost %	0.0419	D = C - 1

Non-Labor:

	2018	2019	
GDP Price Index	2.10%	2.10%	(See HECO-WP-C-002)

Calculation of 2018 Compounded Non-Labor Cost Escalation

2018 Non-Labor Cost Escalation	1.0210	A (2018 non-labor escalation plus 1)
2019 Non-Labor Cost Escalation	1.0210	B (2019 non-labor escalation plus 1)
2018-2019 Compounded Non-Labor Cost Escalation	1.0424	C = A * B
2018-2019 Compounded Non-Labor Cost %	0.0424	D = C - 1

3: Computation of Revenue Tax Factor

Public Service Tax Rate	0.05885	
PUC Fees Rate	0.00500	
Franchise Tax Rate	0.02500	
Total Revenue Tax Rate	0.08885	Revenue Tax Factor = 1 / (1 - Total Revenue Tax Rate) 1.0975

4: Column d "Previously Approved RAM" is not used as the labor and non-labor escalation is accomplished through the use of a compounded escalation rate in column f, as shown in footnote 2.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKSHEET
RATE ADJUSTMENT MECHANISM SUMMARY OF
OPERATIONS AND MAINTENANCE LABOR AND NON-LABOR EXPENSE
BY BLOCK OF ACCOUNTS
Interim D&O - Docket No. 2016-0328
(\$ in Thousands)

DESCRIPTION	Footnote 1		Footnote 2		
	(a)	(b)	(c)=(a)+(b) TOTAL	(d)	(e)
	BU LABOR	NON-BU LABOR	LABOR	NON-LABOR	TOTAL
Production	21,744	13,212	34,956	44,350	79,306
Transmission	2,420	2,933	5,353	10,454	15,807
Distribution	12,086	7,321	19,407	27,418	46,825
Customer Accounts	8,258	3,618	11,876	8,478	20,354
Allowance for Uncoll Accounts	-	-	-	732	732
Customer Service	134	5,582	5,716	9,936	15,652
Administrative & General	2,406	31,769	34,175	85,583	119,758
Customer Benefit Adjustment (Footnote 3)	-	-	-	(10,023)	(10,023)
Operation and Maintenance	47,048	64,435	111,483	176,928	288,411
	To Sch C			To Sch C2	X
Percentage of Total O&M Labor	42.20%	57.79%	100%		
* amounts may not add due to rounding					

Footnotes:

1 SOURCE: 2017 test year breakdown of BU and non-BU labor obtained from UI Planner Budget files.

2 O&M breakdown below includes fuel and purchase power expenses consistent with the presentation in the Results of Operations.

	Footnote 2a			Footnote 2b	
	LABOR	NON-LABOR	TOTAL	ADJUST- MENT	STIPULATED SETTLEMENT
FUEL	-	327,609	327,609		327,609
PURCHASE POWER	-	466,211	466,211		466,211
PRODUCTION	34,956	44,350	79,306		79,306
TRANSMISSION	5,354	10,454	15,808		15,808
DISTRIBUTION	19,407	27,418	46,825		46,825
CUSTOMER ACCOUNTS	11,876	8,478	20,354		20,354
UNCOLLECTIBLE ACCOUNTS	-	732	732		732
CUSTOMER SERVICE	5,715	9,936	15,651		15,651
ADMIN & GENERAL	34,265	85,945	120,210	(452)	119,758
CUSTOMER BENEFIT ADJUSTMENTS	-	-	-	(10,023)	(10,023)
TOTAL	111,573	981,133	1,092,706	(10,475)	1,082,231
TOTAL O&M EXPENSE (Excl Fuel & Purch Po	111,573	187,313	298,886	(10,475)	288,411

2a See Order No. 35280, For Approval of General Rate Case and Revised Schedules/Rules, filed on February 9, 2018, in which the Commission approved the revised schedules or operations and tariff sheets filed January 19, 2018, Exhibit A, Page 1 of 4.
See Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case Revised Schedules Resulting from Interim Decision and Order No. 35100 as modified by Order No. 35229 and Order No. 35220, filed January 19, 2018, Exhibit 2, Attachment 1, Page 1 for Labor/Non-Labor breakdown.

2b See Order No. 35335, For Approval of General Rate Case and Revised Schedules/Rules, filed on March 9, 2018, in which the Commission accepted the Parties' Stipulated Settlement on Remaining Issues filed March 5, 2018, Exhibit 2C, Page 1 of 13.

3 Customer Benefit Adjustments identified in the Results of Operations have been included as a reduction to O&M non-labor subject to escalation. See Order No. 35545, For Approval of General Rate Case and Revised Schedules/Rules, Appendix A, page 1 of 4, filed on June 22, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK

Non-Labor Exclusion
Adjustment for O&M RAM
(\$ thousands)

<u>Line No.</u>	<u>Description</u>	<u>Amount</u>	<u>Reference</u>
	(a)	(b)	(c)
1	Pension Expense	73,940	Note 1
2			
3			
4	OPEB Expense	(470)	Note 1
5			
6			
7	Total before amounts transferred	73,470	
8			
9	O&M %	57.43%	See Parties' Stipulated Settlement
10	(1- transfer rate of 42.57%)		Letter, filed November 15, 2017, in
11			Docket No. 2016-0328, HECO T-16
12			Attachment 4, page 1
13	Adjustment to Non-Labor O&M Expense		
14	for O&M RAM base	42,194	
15			
16			
17	Non-Labor O&M Expense per Interim D&O	176,928	Schedule C1
18			
19			
20	Non-Labor O&M Expense Base for		
21	O&M RAM base	<u>134,734</u>	Schedule C

Note 1: See Parties' Stipulated Settlement Letter, filed November 15, 2017 in Docket No. 2016-0328, Exhibit 1, page 63 for the summary of the pension and OPEB cost the Parties agreed to. In Parties' Stipulated Settlement Letter on Remaining Issues, filed March 5, 2018 in Docket No. 2016-0328, Exhibit 1, page 4, amortization of the excess pension contribution from the test year was reduced to zero. Approved in Final Decision and Order No. 35545, filed on June 22, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RATE BASE RAM ADJUSTMENT - RETURN ON INVESTMENT

Line No.	Description	AMOUNTS IN THOUSANDS	PERCENT OF TOTAL	COST RATE	POST TAX WEIGHTED EARNINGS REQMTS	INCOME TAX FACTOR (Note 1)	PRETAX WEIGHTED EARNINGS REQMTS
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	PUC APPROVED CAPITAL STRUCTURE & COSTS (Note 2):						
2	Short-Term Debt	\$ 27,770	1.18%	1.75%	0.02%	1.000000	0.02%
3	Long-Term Debt	928,748	39.59%	5.03%	1.99%	1.000000	1.99%
4	Hybrid Securities	28,651	1.22%	7.19%	0.09%	1.000000	0.09%
5	Preferred Stock	21,137	0.90%	5.37%	0.05%	1.346835	0.07%
6	Common Equity	1,339,335	57.10%	9.50%	5.42%	1.346835	7.31%
7	Total Capitalization	<u>\$ 2,345,641</u>	<u>100.00%</u>		<u>7.57%</u>		<u>9.47%</u>
8	RAM CHANGE IN RATE BASE \$000 (From Schedule D1)						<u>\$ 84,687</u>
9	PRETAX RATE OF RETURN (Line 7, Col g)						<u>9.47%</u>
10	PRETAX RETURN REQUIREMENT						<u>\$ 8,019.8</u>
11	REVENUE TAX FACTOR (1/(1-8.885%))						<u>1.0975</u>
12	RATE BASE RAM - RETURN ON INVESTMENT \$000						<u>\$ 8,801.8</u>
							To Sch A1

Footnotes:

1 Composite Federal & State Income Tax Rate 25.75% See HECO-WP-F-001
Income Tax Factor (1 / 1-tax rate) 1.346835

2 See Order No. 35335, For Approval of General Rate Case and Revised Schedules/Rules, filed on March 9, 2018, in which the Commission accepted the Parties' Stipulated Settlement on Remaining Issues filed March 5, 2018, Exhibit 2C, Page 2 of 13. Approved in Final Decision and Order No. 35545 filed June 22, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RATE BASE RAM ADJUSTMENT - CHANGE IN RATE BASE
\$ in thousands

Line No.	Description (a)	HECO 2017 Test Year Rate Base (Note 2)		HECO 2019 RAM Rate Base			
		Beg. Balance 12/31/2017 (b)	Budgeted Balance 12/31/2017 (c)	Adjusted Recorded at 12/31/2018 (d) (Note 1)	RAM Projected Amounts (e) See Detail Below	Estimated at 12/31/2019 (f)	
1	Net Cost of Plant in Service, Net of CIAC	\$ 2,595,452	\$ 2,770,695	\$ 2,437,105	\$ 77,804	\$ 2,514,909	(Note 3)
2	Property Held for Future Use	-	-	-	-	-	
3	Fuel Inventory	46,200	46,200	These Elements of Rate Base are Not Updated for RAM Purposes			(Note 5)
4	Materials & Supplies Inventories	28,427	28,427				
5	Unamort Net ASC 740 Reg Asset	70,144	74,887				
6	Unamort EOTF Reg Asset	444	89				
7	CIP CT-1 Reg Asset	2,306	1,352				
8	Unamort Sys Dev Costs	15,932	13,496				
9	RO Pipeline Reg Asset	4,958	4,842				
10	Pension Tracking	97,620	113,828				
11	Contrib in Excess of NPPC	6,470	6,470				
12	Total Additions	\$ 2,867,953	\$ 3,060,286	\$ 2,718,151	\$ 77,804	\$ 2,795,955	
13	Unamortized CIAC/CIAC in CWIP	\$ (347,826)	\$ (395,134)	\$ (30,110)	\$ -	\$ (30,110)	(Note 3)
13a	Developer Advances	-	-	\$ (21,345)	\$ -	\$ (21,345)	(Note 3)
14	Customer Advances	(3,581)	(3,925)	Not Updated			(Note 3)
15	Customer Deposits	(12,101)	(12,005)				(Note 3)
16	Accumulated Def Income Taxes	(520,643)	(333,360)	(282,714)	(4,637)	(287,351)	(Note 4)
17	ADIT Excess Reg Liability	-	(203,950)	(277,406)	10,381	(267,025)	(Note 4), Sch D5
18	Unamortized State ITC (Gross)	(56,323)	(54,903)	Not Updated			
19	Unamortized Gain on Sale	(248)	(182)				
20	Pension Reg Liability	-	-				
21	OPEB Reg Liability	(2,817)	(2,331)				
22	Total Deductions	\$ (943,539)	\$ (1,005,790)	\$ (685,783)	\$ 5,743	\$ (680,039)	
23	Working Cash	3,904	3,904	3,904	Not Updated	3,904	
24	Rate Base at Proposed Rates	\$ 1,928,318	\$ 2,058,400	\$ 2,036,272		\$ 2,119,819	
25	Average Rate Base		\$ 1,993,359			\$ 2,078,046	
26	Change in Rate Base					\$ 84,687	
						To Schedule D	
27	Column (e) Projected Changes to Rate Base:		Reference	Amount \$000			
28	Plant - Baseline Capital Project Additions, Net of CIAC		Schedule D2	200,583			
29	Major Project Additions, Net of CIAC		Schedule D3	16,895			
30	Accumulated Depreciation/Amortization Change		Schedule E	(139,674)			
31	Net Plant		Sum: Lines 28-30	77,804			
32	ADIT - Baseline and Major Capital Projects		Schedule F	(4,881)			
33	ADIT - Joint Pole Capital Transfer Price		Note 6	243			
34	ADIT Excluding Joint Pole		Sum: Line 32-33	(4,637)			
35	Excess ADIT Reg Liability Amortization (Plant 282 excess def amort beginning 6/1/2019)		Schedule D5	10,381			

Footnotes:

- 1 Amounts are recorded, except for the following adjustments:

	Plant in Service	Acc. Depr.	Schedule D4 ADIT
[A] Unadjusted Balance	\$ 4,496,539	\$ (1,565,762)	\$ (283,658)
Add:			
[A] RWIP		41,901	
[A] Asset Retirement Obligation		(4,780)	
[A] Reg Liab-Cost of Removal (net salvage)		(356,926)	
Tenant Improvement Allowance (Sch E)	(14,132)	9,824	
Major Project Adjustments:	HECO-WP-D2-001	HECO-WP-E-001	HECO-WP-D4-002
ERP EAM Hardware	(14)	3	2
Koolau-Wailupe #1 Str 30 P9 Replace	(142)	4	14
Total Adjustments	\$ (156)	\$ 7	\$ 16
			Schedule D4
Major Project Interim Recovery Adjustments:	HECO-WP-D2-001	HECO-WP-E-001	HECO-WP-D4-003
Schofield Generation Station	(144,744)	-	1,832
Total Adjustments	\$ (144,744)	\$ -	\$ 1,832
Joint Pole Capital Transfer Price	Note 6	\$ (24,666)	\$ (904)
Adjusted Balance	\$ 4,312,841	\$ (1,875,736)	\$ (282,714)

- 2 See Final Decision and Order No. 35545, For Approval of General Rate Case and Revised Schedules/Rules, filed on June 22, 2018, Exhibit B, Page 1 of 2. Revised for presentation purposes only to properly reflect the Unamortized Net ASC 740 Reg Asset, ADIT, and ADIT Excess Reg Liability balances. No change to Total Average Rate Base.
- 3 Per PowerPlan extract. Effective October 2018, the Company reclassified CIAC to Plant in Service or CWIP consistent with FERC guidelines. In 2018, CIAC has been netted with either Plant in Service or CWIP and Developer Advances (Cash CIAC received from developers, subject to refund) which has been included as a reduction to rate base. See further discussion of the Company's treatment of CIAC at HECO-WP-D1-001.
- 4 As a result of the 2017 Tax Reform Act, Regulatory Liability accounts were created and recorded as of December 31, 2017 to isolate the 2017 excess accumulated deferred taxes resulting from the lower federal tax rate. The bifurcated Regulatory Liabilities are included as a reduction to Rate Base. See further discussion at Schedule F.
- 5 HECO 2017 Test Year Rate Base includes CIS deferred costs in Unamortized System Development Costs. See detail in November 15, 2017, Stipulated Settlement Letter, HECO T-17, Attachment 1, Page 2.
- 6 See Decision and Order No. 35768, Docket No. 2018-0075 filed October 16, 2018. Commission approved the Asset Transfer, Pole Licensing and Amended Joint Pole Agreements and the accounting and ratemaking treatment described in Exhibit E of the Application. The change in ADIT represents the tax effect of the book - tax difference on depreciation for the Joint Pole assets.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF BASELINE CAPITAL PROJECTS ADDITIONS, NET OF CIAC

Source: Docket No. 03-0257 General Order No. 7 Plant Additions Annual Reports filed with the PUC dated:

Line No.	Description		3/27/2015	3/29/2016	3/30/2017	3/27/2018	NOTE (1)
	(a)		2014	2015	2016	2017	2018
			(c)	(d)	(e)	(f)	(f)
1	Total Plant Additions		269,326,250	266,537,660	241,294,569	276,754,129	358,703,631
2	Less: Non-Utility Plant Additions	NOTE (2)	-	(63)	(3,954)	-	-
3	Adjusted Total Plant Additions		269,326,250	266,537,597	241,290,615	276,754,129	358,703,631
4							
5	<u>Less Major Projects: (+\$2.5 Million)</u>	<u>Dkt No.</u> <u>Item No.</u>					
6	W8 Boiler Controls Upgrade	2007-0365 P7650000	18,503	(70)			
7	EOTP Ph. 2 (Subs/Switch Stations)	2010-0062 Y48500	(7,357)	(55,681)	(682)		
8	W7 Controls Upgrade	2009-0195 P7590000	(8,237)	(35)			
9							
10	<u>2012 In-Service:</u>						
11	Kapolei Substation	2011-0026 Y00127	(6,459)				
12							
13	<u>2013 In-Service:</u>						
14	Pukele 80MVA Tsf #3	2011-0156 P0001494	(28,327)	15,611			
15	Kakaako Makai-Iwilei 25kV DL	2009-0042 Y00038	(485,650)	(496,818)		400,000	
16	North South Road 46kV Line	2008-0070 Y00119		(3,488)			
17							
18	<u>2014 In-Service:</u>						
19	Kaloi Substation	2008-0070 Y00119	(6,548,755)	(925)			
20	Kaloi Sub 46kV & 12kV Distr	2008-0070 Y00119	(1,218,895)				
21	Kaloi Telecomm	2008-0070 Y00119	(171,237)				
22	Kaloi Sub 12kV Work	2008-0070 Y00119	(25,906)				
23	Kakaako Makai-Kewalo 25kV DL	2009-0042 Y00038	(4,958,840)	(464,900)	(111)	400,000	
24	Kakaako Makai DOT Queen-Cook	2009-0042 Y00038	(1,961,600)	(418,816)	(2,890,742)	476,166	
25	BPT Tank 133 Improvements	2010-0318 P0000900	(6,095,787)	(1,092,308)			
26	Pukele 80MVA Tsf #2	2011-0156 P0001492	(3,449,859)	(40,084)			
27	DOT Airport DSG	2008-0329 P0001370	(4,965,396)	(97,130)	(172,652)	(94,001)	3,516
28							
29	<u>2016 In-Service:</u>						
30	Pukele 80MVA Tsf #1	2011-0156 P0002264			(3,839,121)	(7,612)	
31							
32	<u>2017 In-Service:</u>						
33	ERP EAM Hardware	2014-0170 PE.000003 (Y00168)				(2,604,146)	
34	Koolau-Wailupe #1 Str 30 P9 Replace	PE.000104 (P0003465)				(2,684,387)	(13,203)
35							
36	<u>2018 In-Service:</u>						
37	MPIR-Schofield Generating Station	2017-0213 PZ.000016/ PZ.001002 (P0001576)					(144,743,542)
38	Joint Pole Capital Transfer Price	2018-0075 PE.005155					(24,665,897)
39	Total Net Plant Additions (excluding major projects)		239,412,448	263,882,953	234,387,307	272,640,149	189,284,505
40							
41	Last Five-Year Average - Plant Additions						239,921,472
42							
43	Less: CIAC, including Developer Advances	NOTE (3)	(31,803,050)	(42,140,722)	(36,314,281)	(59,849,268)	(29,568,427)
44							
45	EOTP Ph. 2 (Subs/Switch Stations)-CIAC	2010-0062 Y48500	43,725	15,232	718		
46	Kakaako Makai DOT Queen-Cook-CIAC	2009-0042 Y00038			2,825,023		
47	DOT Airport DSG-CIAC	2008-0329 P0001370					96,602
48	Total CIAC Additions (excluding major projects)		(31,759,325)	(42,125,490)	(33,488,540)	(59,849,268)	(29,471,825)
49							
50	Total Net Plant Additions, Net of CIAC (excluding major projects)		207,653,123	221,757,463	200,898,767	212,790,881	159,812,680
51							
52	Last Five-Year Average - Plant Additions, Net of CIAC						200,582,583

To Sch D1

NOTE (1): Amounts per HECO-WP-D2-002 and the Hawaiian Electric Companies' *Exemption From and Modification of General Order No. 7 Paragraph No. 2.3(g), Relating to Capital Improvements Capital Projects Completed in 2017*, in Docket No. 03-0257, filed on March 27, 2019.

NOTE (2): Source: UI Planner Budget files: Actuals Scenario. Adjustment to remove non-utility plant additions from utility plant. Chapin UG Duct Line is a non-utility asset. It is a contributed asset that was given to the Company. It is not being used and there are currently no plans to use it.

NOTE (3): See HECO-WP-D2-001 for line 47 - 2018 Major Project CIAC additions, HECO-WP-D2-003 for 2018 CIAC Additions, HECO-WP-D2-004 for 2014 to 2017 CIAC Additions and WP-D1-001 for treatment of CIAC.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF MAJOR CAPITAL PROJECT ADDITIONS, NET OF CIAC

Line No.	Description (a)	PUC Docket Reference (b)	Estimated In Service Date (c)	Plant Addition Amount (d)	CIAC Amount (e)
1	AES-CEIP #2 138kV OH Trans	Docket No. 2016-0439			
2	Line Relocation	(Decision & Order dated 03/02/2018)	Feb-19	3,007,232	
		UI Planner Budget files			
3	Ala Wai Canal-46kV Relocation	Docket No. 2016-0416			
4		(Decision & Order dated 09/01/2017)	Jun-19	13,910,207	
		UI Planner Budget files			
5	Kakaako Makai	Docket No. 2009-0042			
6		(Decision & Order dated 06/12/2009)	Apr-14		(22,683)
		UI Planner Budget files			
7	Total Major Capital Projects Qualifying for 2019 RAM, Net of CIAC			\$ 16,917,439	\$ (22,683)
8				To Sch D1	\$ 16,894,756

Source: HECO-WP-D3-001

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF ADJUSTED RECORDED DEFERRED INCOME TAXES

Line No.	NARUC Account (a)	Reference (b)	DR/(CR) Federal ADIT (c)	DR/(CR) State ADIT (d)	DR/(CR) Total ADIT (e)	
1	Recorded Deferred Income Tax Balances December 31, 2018 Recorded Balances					
2	Depreciation Related Account 282	HECO-WP-D4-001	(208,764,869)	(35,223,942)	(243,988,811)	
3	Other Deferred Income Taxes	HECO-WP-D4-001	(33,950,451)	(5,718,989)	(39,669,440)	
4	Total Recorded Deferred Income Taxes		<u>(242,715,320)</u>	<u>(40,942,931)</u>	<u>(283,658,251)</u>	To Sch D1 To HECO-WP-H-001
5	<u>Adjustments to Recorded Balances:</u>					
6	ADIT on Major Project excess depreciation	HECO-WP-D4-002	15,698	898	16,596	
7	ADIT on Major Project Interim Recovery	HECO-WP-D4-003	1,404,184	427,943	1,832,127	To Sch D1
8	Total Adjustments to Recorded ADIT Balances		<u>1,419,882</u>	<u>428,841</u>	<u>1,848,723</u>	To Sch D1
9	Adjusted Recorded ADIT Balances -12/31/18		<u>(241,295,438)</u>	<u>(40,514,090)</u>	<u>\$ (281,809,528)</u>	To Sch D1
10	282 ADIT adjusted for ADIT on Major Project excess depreciation	Line 2 + Line 6	(208,749,171)			To HECO-WP-F1-003

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF ADJUSTED RECORDED EXCESS ADIT REGULATORY LIABILITY

Line	NARUC Account (a)	Reference (b)	DR/(CR) Balance at 12/31/17 (c)	DR/(CR) Adjustments	DR/(CR) Amortization (d)	DR/(CR) Balance at 12/31/18 (e) = (c) + (d)	Life (f)	Amortization (g)	Est Bal at 12/31/19 (h) = (e) + (g)
1	Plant 282 - protected		(215,702,497)	(7,803,210)		(223,505,707)	40	5,587,643	(220,246,249)
2	Plant 283 - unprotected		(35,065,867)		1,668,881	(33,396,986)	15	2,337,723	(31,059,263)
3	Nonplant 283 - unprotected		(23,918,454)		3,415,029	(20,503,425)	5	4,783,679	(15,719,746)
	Total Excess ADIT								
4	Regulatory Liability		<u>(274,686,818)</u>	<u>(7,803,210)</u>	<u>5,083,910</u>	<u>(277,406,118)</u>		<u>12,709,045</u>	<u>(267,025,258)</u>
			Note 1			To Sch D1		To Sch E	To Sch D1
									Note 3

Reconciliation of 12/31/18 Balance:

Regulatory Liability in GL	GL#25400023/24	(278,155,753)
Regulatory Asset in GL	GL#18673900	34,112,667
2018 Amortization		<u>587,116</u>
		<u>34,699,783</u>
		(243,455,970)
Add: FAS 109	Note 1	<u>(33,950,008)</u>
Total Excess ADIT		(277,405,978)
Total Excess ADIT	Line 4	<u>(277,406,118)</u>
Remaining Difference		140

Note 1: The 12/31/17 balances represent the amortization base presented in Docket 2016-0328 Hawaiian Electric's 2017 Test Year Rate Case Revised Attachment to the Parties' Stipulated Settlement on Remaining Issues, Attachment 2A, filed March 8, 2018. However, this amortization base inadvertently excluded reclassifications recorded at December 31, 2017 between the 2017 unprotected plant 283 excess net regulatory liability and the portion of ASC 740 regulatory assets/liabilities offsetting the related excess deferred income taxes.

Note 2: Amortization began 4/14/2018.

Note 3: Line 1: Plant 282-protected excess deferred balance calculated as follows: [col (e)/col (f)] * (7 months/12 months) + col (e)
Amortization begins on 6/1/2019.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF DEPRECIATION & AMORTIZATION RATE ADJUSTMENT

Line No.	FERC Account	Recorded Depreciable/Amort. Balance (Footnote 3)	Adjustments (Footnote 1)	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate	Annual Accrual
	(a)	(b)	(c)	(d)	(e)	(f)
1	<u>Depreciable Plant</u>					
2	311	107,116,270		107,116,270	0.01600	1,713,860
3	312	407,080,257	(3,423,000)	403,657,257	0.02030	8,194,242
4	314	194,394,996		194,394,996	0.01540	2,993,683
5	315	83,448,693		83,448,693	0.02430	2,027,803
6	Tot - Steam	792,040,216	(3,423,000)	788,617,216	0.01885	14,929,589
7						
8	341	38,255,922		38,255,922	0.00770	294,571
9	342	17,647,714		17,647,714	0.02580	455,311
10	343	212,348,035	(142,147,612)	70,200,423	0.03260	2,288,534
11	344	32,411,015		32,411,015	0.01010	327,351
12	345	34,684,516		34,684,516	0.02510	870,581
13	Tot - Gas Turb	335,347,202	(142,147,612)	193,199,590	0.01263	4,236,348
14						
15	Tot - Prod	1,127,387,418	(145,570,612)	981,816,806		19,165,937
16						
17	3501	3,033,447		3,033,447	-	-
18	352	41,371,948	(2,003,490)	39,368,458	0.01600	629,895
19	353	316,099,319	(352,190)	315,747,129	0.01860	5,872,897
20	354	15,336,208		15,336,208	0.01480	226,976
21	355	377,095,780		377,095,780	0.03240	12,217,903
22	356	184,909,083	(141,971)	184,767,112	0.03270	6,041,885
23	357	60,113,518		60,113,518	0.01590	955,805
24	358	66,198,742		66,198,742	0.01730	1,145,238
25	359	3,235,054		3,235,054	0.01490	48,202
26	Tot - Transm	1,067,393,099	(2,497,651)	1,064,895,448	0.02543	27,138,801
27						
28	3601	2,599,051		2,599,051	0.02340	60,818
29	361	26,265,151		26,265,151	0.01080	283,664
30	362	273,453,197		273,453,197	0.02020	5,523,755
31	363	2,957,666		2,957,666	0.03740	110,617
32	364	245,168,525	(24,665,897)	220,502,628	0.03390	7,475,039
33	365	105,897,935		105,897,935	0.04190	4,437,123
34	366	270,101,616		270,101,616	0.02190	5,915,225
35	367	405,492,451		405,492,451	0.04980	20,193,524
36	368	220,837,260		220,837,260	0.05200	11,483,538
37	369.1	59,534,914		59,534,914	0.05250	3,125,583
38	369.2	174,898,002		174,898,002	0.04070	7,118,349
39	370	40,383,030		40,383,030	0.02660	1,074,189
40	Tot - Distr	1,827,588,798	(24,665,897)	1,802,922,901	0.03655	66,801,423
41						
42	Tot - T & D	2,894,981,897	(27,163,548)	2,867,818,349		93,940,224
43						
44	390	67,940,630		67,940,630	0.02450	1,664,545
45	Tot - General	67,940,630	-	67,940,630	0.02450	1,664,545
46						
47	Sub-Total	4,090,309,945	(172,734,160)	3,917,575,785		114,770,706
48						
49	3902 (King)	8,011,075		8,011,075	0.03010	241,114
50	3902 (CPP)	2,115,809		2,115,809	0.00417	8,814
51	3902 (Waterhouse)	1,517,450		1,517,450	0.00000	-
52	3902 (Hon Cl)	523,097		523,097	0.07824	40,929
53	3902 (ASB)	1,463,127		1,463,127	0.06133	89,738
54	3902 (Shinco)	939,475		939,475	0.00000	-
55	3902 (PPP)	372,940		372,940	0.11111	41,438
	3902 (Pauahi)	50,376		50,376	0.33333	16,792
56	3902 (Tenant Allowance)	14,131,757	(14,131,757)	-	-	-
57	Tot- LH Impr	29,125,106	(14,131,757)	14,993,349		438,824
58						
59	392	59,063,238		59,063,238	0.06130	3,620,576
60						
61	Utility Total Depreciation	4,178,498,289	(186,865,917)	3,991,632,372	0.02844	118,830,107

Line No.	FERC Account (a)	Recorded Depreciable/Amort. Balance (Footnote 3) (b)	Adjustments (Footnote 1) (c)	Adjusted Depreciable/Amort. Balance (d)	PUC Approved Accrual Rate (e)	Annual Accrual (f)
61	Amortizable Plant					
62	316	26,291,658		26,291,658	0.05000	1,314,583
63	Tot - Steam	26,291,658	-	26,291,658	0.05000	1,314,583
64						
65	346	20,326,815		20,326,815	0.05000	1,016,341
66	Tot - Gas Turb	20,326,815	-	20,326,815	0.05000	1,016,341
67						
68	Tot - Prod	46,618,473	-	46,618,473	0.05000	2,330,924
69						
70	3911	30,764,654	(14,146)	30,750,508	0.20000	6,150,102
71	3912	3,172,052		3,172,052	0.10000	317,205
72	3913	16,599,312		16,599,312	0.06670	1,107,174
73	393	1,478,752		1,478,752	0.04000	59,150
74	394	39,001,211		39,001,211	0.04000	1,560,048
75	395	879,317		879,317	0.06670	58,650
76	396	4,479		4,479	0.05560	249
77	397	130,589,670	(240,250)	130,349,420	0.06670	8,694,306
78	398	8,483,472		8,483,472	0.06670	565,848
79	Tot - General	230,972,919	(254,396)	230,718,523	0.08015	18,512,733
80						
81						
82						
83	Utility Total Amortization	277,591,392	(254,396)	277,336,996	0.07509	\$ 20,843,656
84						
85	TOTAL RAM DEPRECIATION / AMORTIZATION				Line 61 + Line 83	\$ 139,673,763
86	LESS: Vehicle Depreciation (A/C 392 above)				Line 59	\$ (3,620,576)
87	LESS: ADIT Excess Amortization				Schedule D5	(12,709,045)
88	LESS: Depreciation & Amortization in Current Revenues				Footnote 2	\$ (120,665,585)
89						
90	RAM Adjustment for Depreciation & Amortization					\$ 2,678,556
91	RAM Adjustment for CIAC Amortization				Note 5	\$ -
92	Total RAM Adjustment for Depreciation & Amortization					\$ 2,678,556
93	Times: Factor for Revenue Taxes				Schedule C Line 5	1.0975
94						
95	RAM DEPRECIATION & AMORTIZATION					\$ 2,939,716

To Sch A1

Footnotes:

1	Amounts are recorded (in \$000s), except for the following adjustments (see HECO-WP-D2-001):	Plant in Service From D1	
	ERP EAM Hardware	HECO-WP-D2-001	\$ (14)
	Koolau-Wailupe #1 Str 30 P9 Replace		(142)
	MPIR - Schofield Generating Station		(144,744)
	Joint Pole Capital Transfer Price	HECO-WP-D1-002	(24,666)
	Tenant Improvement Allowance (see Footnote 4)		(14,132)
	ARO Assets included in Depreciable Plant	GL# 10100001	(3,423)
	Total		\$ (187,121)
2	Depreciation & Amortization in Current Revenues*:	Depr/Amort Expense	
	Total Depreciation	\$	139,686,000
	LESS: Vehicle Depreciation (A/C 392)		(3,590,000)
	LESS: Amortization of Excess ADIT		(7,121,415)
	Total Depreciation in Current Revenues	\$	128,974,585
	ADD: CIAC Amortization	Note 5	(8,309,000)
	Total Depreciation & Amortization in Current Revenues		120,665,585

To Line 88

*See Order No. 35335, in Docket No. 2016-0328, For Approval of General Rate Case and Revised Schedules/Rules, filed on March 9, 2018, in which the Commission accepted the Parties' Stipulated Settlement on Remaining Issues filed March 5, 2018, HECO T-25, Attachment 1, Page 1 and the Revised Attachment to the Parties Stipulated Settlement on Remaining Issues, filed March 8, 2018, HECO T-26, Attachment 2A, Page 1. Approved in Final Decision and Order No. 35545, filed June 22, 2018.

- 3 Per Accounting records, does not include land amounting to \$40,449,426 as of December 31, 2018.
- 4 Amount represents tenant improvement allowances paid by the lessors and excluded from the RAM calculation.
- 5 Effective October 2018, the Company reclassified CIAC to Plant in Service or CWIP consistent with FERC guidelines. Amounts shown in this Schedule represent balances net of CIAC.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF CHANGE IN DEFERRED INCOME TAXES

Line No.	NARUC Account (a)	Reference (b)	Projected ADIT Change (c)
1	State Tax Depreciation	Schedule F1	9,813,741
2	Amortization of Excess Deferreds (Note 3)	Schedule D5	10,380,860
3	Subtotal		20,194,601
4	Effective Federal Tax Rate	HECO-WP-F-001	19.7368%
5	Federal Deferred Tax on State Tax Depreciation		3,985,777
6	Add back State Tax Depreciation	Line 1	(9,813,741)
7	Federal Tax Depreciation	Schedule F1	9,813,741
8	Federal/State Difference		-
9	Tax Rate on Federal Only Adjustment	HECO-WP-F-001	21%
10	Federal Deferred Tax Adjustment		-
11	Total Federal Deferred Taxes Before Proration		3,985,777
12	Proration Adjustment	HECO-WP-F1-003	(319,803)
13	Total Federal Deferred Taxes After Proration		3,665,974
STATE DEFERRED TAXES			
14	State Tax Depreciation	Line 1	9,813,741
15	Amortization of Excess Deferreds (Note 3)	Line 2	10,380,860
16	Subtotal		20,194,601
17	Effective State Tax Rate	HECO-WP-F-001	6.0150%
18	Total State Deferred Taxes		1,214,713
19	TOTAL FED AND STATE DEFERRED TAXES		4,880,686
			To Sch D1

NOTE 1: In accordance with the tariff, the change in ADIT in the RAM year is based on the temporary book/tax depreciation differences associated with the RAM year plant additions (major capital projects and baseline plant additions). It does not include any estimated ADIT related to the repairs deduction or CIAC on RAM year plant additions.

NOTE 2: The change in ADIT includes the tax effect of the amortization of the regulatory liability associated with the excess deferred taxes resulting from the tax rate change from the Tax Cuts and Jobs Act of 2017. This is consistent with the inclusion of the regulatory liability and the related amortization in rate base RAM.

NOTE 3: The amortization of excess deferreds was adjusted from Schedule D5 to properly reflect the ending balance of ADIT at 12/31/2019. The amortization of the Plant 282 excess deferred amortization begins on 6/1/2019; the 12/31/2019 balance therefore reflects 7/12ths of this component in the ending ADIT balance.

Calculation of Excess Deferred Amortization			
Plant 282 - protected	5,587,643	Schedule D5	
Proration Percentage (7 months/12 months)	58.33%		
			3,259,458
Plant 283 - unprotected			2,337,723
Nonplant 283 - unprotected			4,783,679
Amortization of Excess Deferreds, as Adjusted			10,380,860
			Schedule D1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TAX DEPRECIATION

Line No.	LIFE	HECO-WP-F1-002				PROJECTS PROGRAMS				TOTAL
		(a)	(b)	(c)	(d)	(c)	(f)	(g)		
1	Computers/PV	5	6,092		6,092	2.54%		2.54%		
2	Communication	20	5,920		5,920	2.47%		2.47%		
3	Off/Furn/Tools	7	5,022		5,022	2.09%		2.09%		
4	Distribution	20	130,472		130,472	54.38%		54.38%		
5	Land	-	816		816	0.34%		0.34%		
6	Non-Steam Production	15	3,713		3,713	1.55%		1.55%		
7	Steam Production	20	22,905		22,905	9.55%		9.55%		
8	Structural	39	3,265		3,265	1.36%		1.36%		
9	Transmission	20	21,834		21,834	9.10%		9.10%		
10	Transmission	15	34,674		34,674	14.45%		14.45%		
11	Vehicles	-	5,209		5,209	2.17%		2.17%		
12	TOTAL		239,922	-	239,922	100.00%	0.00%	100.00%		
From Sch D2										
Vintage 2019 - Regular Depreciation										
Basis subject to regular depreciation (Total less amounts subject to 40% bonus)										
		5 yr			5 yr	2.54%		2.54%	1,042,304	
		7 yr			7 yr	2.09%		2.09%	613,922	
		15 yr			15 yr	16.00%		16.00%	1,641,945	
		20 yr			20 yr	75.50%		75.50%	5,810,700	
		39 yr			39 yr	1.36%		1.36%	32,875	
		Land			Land	0.34%		0.34%		
		Vehicles			Vehicles	2.17%		2.17%		
		Total			Total	100.00%	0.00%	100.00%		
TOTAL ASSETS										
Net Depreciable Baseline Plant Adds										
Major Capital Projects from Schedule F2										
Total Depreciable Plant Adds										
Reconciliation from Baseline Plant Adds to Net Depreciable Plant Adds :										
Baseline Capital Projects Plant Adds (rounded)										
Less: Repairs deduction										
Net plant add basis										
Less: Land and Vehicles (2.46% x 209,209,559)										
Schedule D2										
<<supported by Special Study each year.										
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NOTE (1) The Tax Cut and Jobs Act removed bonus depreciation for public utility property.

NOTE (2) The numbers in columns b, c, d are rounded to the nearest thousand.

NOTE (3) Totals may not add exactly due to rounding.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
TAX DEPRECIATION ON MAJOR CAPITAL PROJECTS ADDITIONS

Line No.	Description	PUC Docket	Estimated In Service Date	Amount	
	(a)	(b)	(c)	(d)	(e)
1	Assumed Value of 2019 Major Capital Projects Plant Items			\$ 16,917,439	Schedule D3
2	Assumed Value of 2019 Major Capital Projects - CIAC nontaxable			\$ -	Schedule D3
3	Assumed Value of 2019 Major Capital Projects - Total			<u>\$ 16,917,439</u>	
	Tax Classification of	FED	FED	STATE	STATE
	Major Capital Project Additions	YR 1	YR 1	YR 1	YR 1
4		Tax Basis	DEPR RATE	TAX DEPR	DEPR RATE
5	5 yr	-	20.00%	-	20.00%
6	7 yr	-	14.29%	-	14.29%
7	15 yr	3,007,232	5.00%	150,362	5.00%
8	20 yr	13,910,207	3.75%	521,633	3.75%
9	39 yr	-			
10	Land	-			
11	Vehicles	-			
	Total	<u>\$ 16,917,439</u>		<u>\$ 671,995</u>	<u>\$ 671,995</u>
		To Sch F1		To Sch F1	To Sch F1

* Adjustment only for non-taxable CIAC.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
CIAC SUMMARY

Line No.	Description	Reference	Unamortized CIAC	CIAC Amortization
	(a)	(b)	(c)	(d)

Schedule not applicable.

See HECO-WP-D1-001 for further discussion on the Company's treatment of CIAC within the Annual Decoupling filing.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
EARNINGS SHARING CALCULATIONS
All Amounts \$000 (Except %)

Line No.	Description	Reference	Ratemaking Basis Return on Equity		
			Operating Income	Rate Base	Rate of Return
	(a)	(b)	(c)	(d)	(e)
1	Reported Operating Income before ratemaking adjustment	HECO-WP-H-009 & HECO-WP-H-001	\$ 134,181	\$ 2,109,963	
1a	Settlement of prior Joint Pole Accounts Receivable	Note 3	697		
2	Ratemaking Adjustments to Line 1:				
2a	Incentive Compensation Expenses (net of tax)	HECO-WP-H-002	4,073		
2b	Discretionary and Other Expenses Not Recoverable (net of tax)	HECO-WP-H-002	1,052		
2c	Amortization of investment income differential	HECO-WP-H-003	185		
2d	Income tax on items to be replaced by synchronized interest	HECO-WP-H-003	(12,461)		
2e	Special Medical Needs Program discount (net of tax)	HECO-WP-H-005	102		
2f	Performance Incentive Mechanism (net of tax)	HECO-WP-H-006	360		
2g	Final Test Year Refund (net of tax)	HECO-WP-H-007	32		
3	Ratemaking Basis Amounts - Post Tax	Sum Lines 1 & 2	\$ 128,221	\$ 2,109,963	
4	Ratemaking Capitalization				
		Balances	Ratios	Cost Rate	Weighted Cost
5	Short-Term Debt (12 mo. Avg)	\$ 88,868	3.68%	2.54%	0.09%
6	Long-Term Debt (Simple Avg)	\$ 939,810	38.92%	5.03%	1.96%
7	Hybrid Securities (Simple Avg)	\$ 28,758	1.19%	7.16%	0.09%
8	Preferred Stock (Simple Avg)	\$ 21,192	0.88%	5.36%	0.05%
9	Common Equity (Simple Avg)	\$ 1,335,921	55.33%	9.50%	5.26%
10	Total Capitalization	HECO-WP-H-004	\$ 2,414,549	100.00%	7.45%
11	Line 3 Rate Base Amount			\$ 2,109,963	
12	Weighted Cost of Debt (Sum Lines 5-7)			2.14%	
13	Synchronized Interest Expense			\$ 45,153	
	Income Tax Factor (Note 1)			1.346801347	
13a	Synchronized Interest Expense, net of tax			\$ 33,526	
14	Post Tax Income Available for Preferred & Common (Line 3 - Line 13a)				\$ 94,695
17	Less: Preferred Income Requirement (Line 8 Weighted Cost times Rate Base)				1,055
18	Income Available for Common Stock				\$ 93,640
19	Ratemaking Equity Investment (Line 9 Ratio times Rate Base)				1,167,400
20	Return on Equity for Decoupling Earnings Sharing (Line 18/Line 19)				8.02%
21	Earnings Sharing Revenue Credits:	Basis Points			
22	Achieved ROE (basis points)	802			
23	Authorized Return (basis points)	950			
24	ROE for sharing (basis points)	-			
25	Sharing Grid per RAM Provision	First 100 bp	Next 200 bp	All over 300 bp	Ratepayer Total
26	Distribution of Excess ROE (basis points)	0	0	0	
27	Ratepayer Share of Excess Earnings	25%	50%	90%	
28	Ratepayer Earnings Share - Basis Points	-	-	-	-
29	Revenue Credit per Basis Point (Note 2)				\$ 173
30	Earnings Sharing Revenue Credits (thousands)				0
					To Sch A Line 5

Footnotes:

- Composite Federal & State Income Tax Rate 25.75%
Income Tax Factor (1 / 1-tax rate) 1.346801347
- Ratemaking Equity Investment (line 19) \$ 1,167,400
Basis Point = 1/100 of a percent 0.01%
Earnings Required per Basis Point (thousands) \$ 116.74
Times: Income Tax Conversion Factor 1.346801347
Pretax Income Required per Basis Point (thousands) \$ 157
Times: Revenue Tax Conversion Factor 1.0975
Revenue Requirement per Basis Point (thousands) \$ 173
- Per Docket No. 2018-0075, Decision and Order No. 35768, the Commission approved the Asset Transfer, Pole Licensing and Amended Joint Pole agreements. The settlement recovery of prior joint pole accounts receivables previously written-off was recorded to interest income (and excluded from Operating Income) in 2018. Upon further consideration, the recovery should have been recorded to Uncollectible Accounts (904) and included in Operating Income in 2018. (Taxes on the Joint Pole interest income was already included in Operating Income as of December 31, 2018.) Accordingly, an upward adjustment of \$696,636 is being made to Operating Income in the earnings sharing mechanism calculation.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS

Line No.	Description	Reference	Amount \$000
	(a)	(b)	(c)

This Schedule has not been developed yet and will be developed only when/as needed.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RAM CAP

Line No.	Description (a)	Reference (b)	Amount \$000 (c)
1	Last Rate Order Target Annual Revenues	Schedule B1	599,974
2	2018 RAM Cap Increase excluding Exceptional & Other Matters (net of Revenue Tax)	Note 2	12,599
3	2018 Target Revenues Subject to Escalation	Line 1 + Line 2	612,573
4	2019 GDP Price Index	HECO-WP-C-002	2.10%
5	2019 RAM Cap Increase Excluding Exceptional & Other Matters		12,864
6	RAM Cap for 2018 RAM Revenue Adjustment	Line 2	12,599
7	RAM Cap for 2019 RAM Revenue Adjustment	Line 5 + Line 6	25,463
8	Revenue Tax Factor (1/(1-8.885%))		1.0975
9	RAM Cap for 2019 RAM Revenue Adjustment	Line 7 x Line 8	27,946
			To Sch A1

Note 1 **Target Revenues:**

See Decision and Order No. 32735, filed March 31, 2015, paragraph 107, page 94:

"The RAM Cap shall be based on the Target Revenues determined in accordance with the RBA and RAM tariffs as provided below ("Basis"), times the cumulative annually compounded increase(s) in GDPPI for intervening years, adjusted to include applicable revenue taxes."

The RAM basis for the calculation of the RAM Revenue Adjustment cap shall be the target revenues determined in accordance with the RBA tariff based on the results of the Company's most recent interim or final rate case decision.

Note 2 See Transmittal No. 18-01 (Decoupling) - Hawaiian Electric Company RBA Rate Adjustment, Schedule J for 2018 RAM Revenue Adjustment Cap of \$13,828 (\$12,599 net of revenue tax).

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
EXCEPTIONAL & OTHER MATTERS

Line No.	Description (a)	Reference (b)	Amount \$000 (c)
1	None		-
2	2019 Revenue Adjustment for Exceptional & Other Matters		\$ -
			To Sch A1

Note 1 Exceptional and Other Matters:
 See Order No. 32735, filed March 31, 2015, paragraph 107, page 94 - 95:
 "The Basis used in determining the RAM Cap shall be adjusted to exclude or otherwise appropriately account for adjustments for the recovery of revenues for previously explicitly stipulated and approved exceptional matters or other matters specifically ordered by the commission, which shall, in any event, be recovered fully without respect to any limitations resulting from application of the RAM Cap."

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
MAJOR PROJECT INTERIM RECOVERY

Line No.	Description	Reference	Amount \$000
	(a)	(b)	(c)
1	Schofield Generating Station	Schedule L1	\$ 18,051
2	Docket No. 2017-0213		
3	Revenue Tax Factor (1/(1-8.885%))		<u>1.0975</u>
4	Major Project Interim Recovery Total		<u>\$ 19,811</u>
			To Sch B1, line 15

Note: Per Notice Transmittal to Update Target Revenue for Schofield Generating Station through the Major Project Interim Recovery Adjustment Recovery Mechanism, filed February 7, 2019, Transmittal No. 19-01 effective January 1, 2019. See Schedule L1.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
REVENUE REQUIREMENT AND DETERMINATION OF MAJOR PROJECT INTERIM RECOVERY
MPIR PROJECT
\$ in thousands

Line No.	Description (a)	Reference (b)	Recorded at 12/31/2018 (c)	2019 Activity (d)	Ending Balance as of 12/31/19 (e)	Average Balance (f)=((c)+(e))/2 (g)	MPIR (g)
	<u>Return on Investment - Schofield Generating Station</u>						
1	Gross Plant in Service (not to exceed PUC approved amount)	HECO-WP-L-001	141,570	-	141,570	141,570	
2	Accum Depreciation	HECO-WP-L-001	-	(4,586)	(4,586)	(2,293)	
3	Net Cost of Plant in Service		141,570	(4,586)	136,984	139,277	
4	Fuel Inventory - Avoided	Note 3	(1,534)	-	(1,534)	(1,534)	
5	M&S Inventory	Note 3	100	-	100	100	
6	Total Additions		(1,434)	-	(1,434)	(1,434)	
7	CIAC	Not Applicable	-	-	-	-	
8	ADIT	HECO-WP-L-002	(8,653)	(1,540)	(10,193)	(9,423)	
9	State ITC	HECO-WP-L-002	(4,124)	412	(3,712)	(3,918)	
10	Total Deductions		(12,777)	(1,128)	(13,905)	(13,341)	
11	Total Rate Base		\$ 127,359	\$ (5,713)	\$ 121,646	124,502	
12	Average Rate Base					\$ 124,502	
13	Rate of Return (grossed-up for income taxes, before revenue ta	Note 4				9.47%	
14	Annualized Return on Investment (before revenue taxes)						\$ 11,790
15	Depreciation Expense (Note 1)	HECO-WP-L-001				4,586	
16	Operating & Maintenance Expense	Note 2				2,087	
16a	Prior year reconciliation of O&M to actuals	Note 2				-	
17	Amortization of State ITC	see line 6				(412)	
18	Lease Rent Expense	Not Applicable				-	
19	Other Expense	Not Applicable				-	
20	Total Expenses						\$ 6,260
21	Total Major Project Interim Recovery						\$ 18,051
22	Revenue Tax Factor (1/(1-8.885%))						1.0975
23	Annualized Revenue for Major Project Interim Recovery						<u>\$ 19,810.8</u>

To Sch B & B1

Reconciliation to Schedule B1 (Info Only)			
	Jul - Sep 18	Oct - Dec 18	2019
Annualized Revenue for MPIR	\$ 6,600	\$ 8,561	\$ 19,811
Rev Tax Adj	\$ (586)	\$ (761)	\$ (1,760)
Prorated MPIR for Year 1 excl Rev Tax	\$ 6,014	\$ 7,800	\$ 18,051
Incremental	\$ 6,014	\$ 1,787	\$ 10,250
	Note 5	Note 6	

Note 1: Depreciation expense is recorded beginning in the year after an asset is placed in service, therefore, depreciation expense is zero in year 1. The revenue requirement for year 2 and thereafter will include depreciation expense at existing, approved depreciation accrual rates at the time of filing.

Note 2: Total O&M expense is estimated to cost \$1.787 million annually for year 1 (\$2.087 million annually during the interim period thereafter), as referenced within Attachment 1 - SGS Business Case Revenue Requirement Update and approved in Order No. 35953, filed December 14, 2018.

Note 3: Decision and Order No. 35556 dated June 27, 2018 in Docket No. 2017-0213.

Note 4: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric's RBA Rate Adjustment, Schedule D, filed May 29, 2018.

Note 5: MPIR Revenues effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018 in Docket No. 2017-0213.

Note 6: MPIR Revenues effective October 1, 2018 filed December 21, 2018 in Docket No. 2017-0213.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
2018 SERVICE QUALITY PIMS

	2018 Annual Total *	2018 Target **	Variance (c)=(a)-(b)	Deadband ** (d)	Maximum \$ ** (e)	(Penalty) / Reward Amount 1.0 * (((b - a) / d) * e + e)
<u>Service Quality:</u>	(a)	(b)	(c)=(a)-(b)	(d)	(e)	
Normalized T&D SAIFI						
Without Exclusion	1.253	1.112	0.141	0.089	\$ 2,244,112	\$ (1,306,645)
With Exclusion	1.238	1.112	0.126	0.089	\$ 2,244,112	\$ (929,827)
Normalized T&D SAIDI						
Without Exclusion	111.94	99.10	12.84	9.033	2,244,112	\$ (946,492)
With Exclusion	106.41	99.10	7.31	9.033	2,244,112	\$ -
Call Center Performance (Excludes Blocked Calls)						
	83.97%	79.66%	4.31%	3.00%	\$ 897,645	\$ 391,972
<u>Phase 1 Renewable Energy RFP PIM</u>						
First Allocation ***						\$ 591,854
					Total Without Exclusion	\$ (1,269,311)
					Total With Exclusion	\$ 53,998
						To Sch A

Notes:

Exclusion represents 25kV Proactive Work, filed in Transmittal No. 18-05, Hawaiian Electric's Letter Request for Exclusion of 25kV Splice Replacement Work from Performance Incentive Mechanism Provision's SAIDI and SAIFI 2018 Calculation, filed December 18, 2018.

* See HECO-WP-M-002

** See HECO-WP-M-001

*** See HECO-WP-M-005

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
ON-BILL FINANCING COST RECOVERY

Note 1				Cost Recovery (excluding Rev Tax)			Cost Recovery (including Rev Tax)		
Line	Company	Customer Count	Allocation	Total Recovery	2019 Recovery	2020 Recovery	Total Recovery with Rev Tax	2019 Recovery with Rev Tax	2020 Recovery with Rev Tax
		a	b = a/total a	c = \$2,330,408 allowed x b			d = c * 1.0975		
1	HE	305,456	66%	1,537,150 To Sch B	768,575 To Sch A	768,575	1,687,022	843,511 To Sch B1	843,511
2	HL	85,758	19%	431,561	215,780	215,781	473,638	236,819	236,819
3	ME	71,875	16%	361,697	180,849	180,848	396,963	198,481	198,482
4	Total	463,089	100%	2,330,408	1,165,204	1,165,204	2,557,623	1,278,811	1,278,812

Note 1: Statistical Report as of December 31, 2018.

Note 2: See Decision and Order No. 36212, Docket No. 2017-0102, filed March 11, 2019, pages 18-19. The Commission allowed the Companies to recover Program implementation costs over a period of two years, commencing with the 2019 RBA Rate Adjustment which will, if there are no major issues with the standard RBA Review Transmittal process, become effective on June 1, 2019.

Hawaiian Electric Company, Inc.
Sales Forecast for June 2019 to May 2020
in GWh

	2019							2020					
	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Total</u>
R	126.7	141.7	151.2	146.2	143.0	131.9	130.4	132.1	118.6	120.1	116.7	121.7	1,580.3
G	24.2	25.6	26.5	25.3	26.0	23.9	24.1	22.6	22.8	23.9	23.7	24.6	293.2
J	148.0	159.0	160.8	157.3	158.4	145.6	139.3	139.4	140.8	141.7	144.9	152.0	1,787.2
P	233.6	250.5	261.0	246.4	249.4	230.6	225.1	219.6	214.0	223.5	225.2	232.1	2,811.0
F	<u>1.8</u>	<u>1.9</u>	<u>1.7</u>	<u>1.6</u>	<u>1.6</u>	<u>1.4</u>	<u>1.4</u>	<u>1.3</u>	<u>1.3</u>	<u>1.5</u>	<u>1.3</u>	<u>1.4</u>	<u>18.2</u>
Total	534.3	578.7	601.2	576.8	578.4	533.4	520.3	515.0	497.5	510.7	511.8	531.8	6,489.9

Source: Hawaiian Electric Company, Inc. February 2019 Sales Forecast Update.

Hawaiian Electric Company, Inc.
Adjustment For Prior Year RBA Accrual
Recovery of 12/31/16 RBA Balance

		2018					
		January	February	March	April	May	Total
Billed RBA Revenues	Note 1	11,581,297	10,784,945	5,161,437	3,718,306	3,653,460	34,899,445
Net Unbilled Revenues	Note 1	(834)	(3,556,154)	(1,491,331)	45,447	121,360	(4,881,511)
Total Billed + Unbilled		11,580,464	7,228,791	3,670,106	3,763,752	3,774,820	30,017,934
x % Share for RBA	Note 2 & 3	31.9352%	63.5519%	100.0327%	100.0327%	100.0327%	
RBA Revenues (Recovery of 12/31/16 RBA balance)		3,698,239	4,594,033	3,671,308	3,764,985	3,776,056	19,504,621
		← Schedule B2 →					
Less: Revenue Taxes	0.08885	(328,589)	(408,180)	(326,196)	(334,519)	(335,503)	(1,732,987)
RBA Revenues (Recovery of 12/31/16 RBA balance)		3,369,650	4,185,853	3,345,112	3,430,466	3,440,553	17,771,634
net of Revenue Taxes		← Schedule B →					

* Differences are due to rounding

Note 1: RBA rate adjustment revenues per the Billed reports and Unbilled reports include both RBA and RAM revenues. Therefore, an allocation % is utilized to determine RBA revenues.

Note 2: RBA Rate Adjustment Allocation for January 1, 2018 to February 15, 2018 is per Transmittal No. 17-02 (Decoupling) - RBA Rate Adjustment (filed March 31, 2017), Schedule A, Note (1). RBA Rate Adjustment Allocation for February 16, 2018 to May 31, 2018 is per Hawaiian Electric Revised Schedules Resulting from Interim Decision and Order No. 35100 as modified by Order No. 35229, and Order No. 35220, Exhibit 7, filed on January 19, 2018, which was approved by Order No. 35280, issued on February 9, 2018. See Note 3 below for prorated % share for RBA for February 2018.

Note 3: Prorated % Share for RBA by day resulting from 2017 Test Year Interim Rates, effective February 16, 2018, per Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case Hawaiian Electric Revised Schedules Resulting from Interim Decision and Order No. 35100 as modified by Order No. 35229 and Order No. 35220, Exhibit 7, filed on January 19, 2018. As approved by the Commission in Order No. 35280, Approving Revised Schedules of Operations and Tariff Sheets, filed on February 9, 2018.

	RBA %	No of Days	Prorated RBA %
Feb 1-Feb 15	31.9352%	53.6%	17.1081%
Feb 16-Feb 28	100.0327%	46.4%	46.4438%
			<u>63.5519%</u>

Hawaiian Electric Company, Inc.
Adjustment For Prior Year RBA Accrual
Recovery of 12/31/17 RBA Balance

		2018							
		June	July	August	September	October	November	December	Total
Billed RBA Revenues	Note 1	4,701,823	5,771,562	6,185,543	6,034,935	6,400,115	5,842,574	5,503,361	40,439,912
Net Unbilled Revenues	Note 1	990,752	364,534	81,590	(85,985)	(137,876)	(175,257)	(57,177)	980,581
Total Billed + Unbilled		5,692,575	6,136,096	6,267,133	5,948,950	6,262,238	5,667,317	5,446,183	41,420,493
x % Share for RBA	Note 2	79.6227%	79.6227%	79.6227%	79.6227%	79.6227%	79.6227%	79.6227%	
RBA Revenues (Recovery of 12/31/17 RBA balance)		4,532,582	4,885,725	4,990,061	4,736,715	4,986,163	4,512,471	4,336,398	32,980,115
		← Schedule B2 →							
Less: Revenue Taxes	0.08885	(402,720)	(434,097)	(443,367)	(420,857)	(443,021)	(400,933)	(385,289)	(2,930,284)
RBA Revenues (Recovery of 12/31/17 RBA balance)		4,129,862	4,451,628	4,546,694	4,315,858	4,543,142	4,111,538	3,951,109	30,049,831
net of Revenue Taxes		← Schedule B →							

* Differences are due to rounding

Note 1: RBA rate adjustment revenues per the Billed reports and Unbilled reports include both RBA and RAM revenues. Therefore, an allocation % is utilized to determine RBA revenues.

Note 2: RBA Rate Adjustment Allocation for June 1, 2018 - May 31, 2019 is per Transmittal No. 18-01 (Decoupling) - RBA Rate Adjustment (Filed May, 29, 2018), Schedule A , Note (1).

Hawaiian Electric Company, Inc.

Bargaining Unit Wage Increase per Collective Bargaining Agreements

Wage Increases:	1/1/2014	3.00%	(Note 1)
(non-compounded)	1/1/2015	3.00%	(Note 1)
	1/1/2016	3.25%	(Note 1)
	1/1/2017	3.00%	(Note 1)
	1/1/2018	3.00%	(Note 1)
	1/1/2019	3.00%	(Note 2)
	1/1/2020	3.00%	(Note 2)
	1/1/2021	3.00%	(Note 2)

Increase effective			Increase Amount	Wage Rate With Increase	Labor Cost Escalation Rate	
			(a)	(b) or prev (b) + (a)	(c) (b) / prev (b) -1	
1.00	3.00%	1/1/2014	0.0300	1.0300		
	3.00%	1/1/2015	0.0300	1.0600	0.0291	2.91%
	3.25%	1/1/2016	0.0325	1.0925	0.0307	3.07%
	3.00%	1/1/2017	0.0300	1.1225	0.0275	2.75%
	3.00%	1/1/2018	0.0300	1.1525	0.0267	2.67%
1.00	3.00%	1/1/2019	0.0300	1.0300		
	3.00%	1/1/2020	0.0300	1.0600	0.0291	2.91%
	3.00%	1/1/2021	0.0300	1.0900	0.0283	2.83%

Note 1: Agreement ratified by the IBEW, Local 1260 on November 1, 2012, reflects a 3.00% increase effective 1/1/2014, 1/1/2015, 1/1/2017 and 1/1/2018 and a 3.25% increase effective 1/1/2016, based on 1/1/2013 rates.

Note 2: Agreement ratified by the IBEW, Local 1260 on July 31, 2018, reflects a 3.00% increase effective 1/1/2019, 1/1/2020 and 1/1/2021 based on 1/1/2018 rates. See also HECO-WP-C-003.

Blue Chip Economic Indicators®

Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead
Vol. 44, No. 2, February 10, 2019

2019 Real GDP Forecast Drops to 2.5%

FEBRUARY 2019 Forecast For 2019 SOURCE:	Percent Change 2019 From 2018 (Full Year-Over-Prior Year)										Average For 2019			Total Units-2019		2019
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	Real GDP (Chained (2012\$) Index	GDP Price (Cur.\$) Index	Nominal GDP (Cur.\$) Index	Consumer Price Index	Indust. Prod. (Total)	Dis. Pers. Income (2012\$)	Personal Cons. Exp. (2012\$)	Non-Res. Fix. Inv. (2012\$)	Corp. Profits (Cur.\$)	Treas. Bills 3-mo.	Treas. Notes 10-Year	Unempl. Rate (Civ.)	Housing Starts (Mil.)	Auto & Light Truck Sales (Mil.)	Net Exports (2012\$)	
Action Economics	2.9 H	2.0	5.0	1.9	3.5	2.8	3.1 H	4.9	7.5	2.7	3.0	3.7	1.28	17.1	-967.9	
Amherst Pierpont Securities	2.9 H	2.4	5.4 H	2.5 H	3.5	2.8	3.1 H	4.8	7.5	2.6	3.2	3.6	1.29	16.9	-960.0	
MUFG Union Bank	2.9 H	2.4	5.3	1.8	3.2	na	2.9	3.8	5.5	2.4	3.0	3.7	1.29	17.2 H	-960.0	
Barclays, US*	2.8	1.9	4.8	1.4	2.8	na	2.9	5.1	na	na	na	3.7	na	na	-1024.5	
RDQ Economics	2.8	2.0	4.9	2.1	3.7 H	2.5	2.9	5.6	8.5 H	2.7	3.1	3.5	1.30	17.2 H	-1021.6	
SOM Economics, Inc.	2.8	2.0	4.8	2.0	3.1	2.5	2.5	4.2	5.0	2.6	2.9	3.6	1.25	16.8	-938.0	
U.S. Chamber of Commerce	2.8	2.1	4.9	2.1	3.2	2.6	2.9	5.2	4.5	2.6	2.9	3.9	1.30	na	-932.7	
Credit Suisse	2.7	2.0	4.7	1.8	na	na	2.9	3.0	na	na	na	3.7	na	na	-966.2	
Moody's Analytics, US	2.7	2.3	5.1	2.1	2.9	2.2	2.8	5.3	6.1	2.6	3.1	3.6	1.38 H	17.0	-1080.7 L	
NatWest Markets	2.7	2.0	4.8	1.8	2.4	2.5	3.0	5.8 H	5.0	2.7	2.8	3.5	1.20	16.5	-980.0	
PNC Financial Services Group	2.7	1.7	4.4	1.8	2.9	1.3 L	2.7	4.6	na	2.5	2.9	3.6	1.30	17.0	-1013.0	
RBC Capital Markets	2.7	2.1	4.8	1.7	na	na	2.9	5.2	na	na	3.1	3.6	1.28	17.0	-980.0	
The Conference Board, US*	2.7	na	4.8	2.1	na	2.5	2.8	4.4	6.2	2.5	2.8	3.7	1.24	17.2 H	-1020.3	
Comerica**	2.6	2.0	4.6	1.9	3.5	2.9	2.6	4.1	na	2.5	2.9	3.7	1.24	16.6	-942.4	
Georgia State University*	2.6	2.4	5.0	2.0	2.6	2.5	2.8	5.1	4.4	2.5	3.2	4.1	1.24	16.3	-1021.3	
High Frequency Economics	2.6	2.0	4.7	1.9	2.8	2.9	3.0	3.3	1.7	2.4	2.9	3.8	1.22	16.9	-953.1	
Naroff Economic Advisors*	2.6	2.1	4.8	2.0	2.6	2.3	2.6	2.9	4.3	2.8	3.2	3.7	1.30	16.7	-977.0	
Point72 Asset Management*	2.6	1.9	4.5	1.9	3.1	2.3	2.8	5.4	6.2	2.5	2.8	3.7	1.20	16.7	-1058.8	
Regions Financial Corporation	2.6	2.5 H	5.1	1.7	2.9	2.3	3.0	4.4	4.5	2.6	2.8	3.7	1.25	16.9	-954.4	
Turning Points (Micrometrics)	2.6	2.4	5.0	2.1	2.6	2.4	2.7	4.5	2.8	2.8	3.4 H	3.8	1.18 L	16.7	-985.0	
ACT Research	2.5	2.0	4.5	1.9	2.8	3.0	2.7	5.0	na	2.4	2.8	3.7	1.31	16.6	-1012.7	
Bank of America-Merrill Lynch, US**	2.5	2.0	4.6	1.6	2.7	na	2.6	3.4	na	2.4	2.8	3.7	1.29	16.6	-969.1	
Eaton Corporation	2.5	2.3	4.8	2.0	2.5	2.7	2.6	4.1	na	2.6	3.0	3.7	1.30	16.8	-1006.2	
Econoclast	2.5	2.0	4.5	2.0	2.8	2.2	2.8	3.5	5.2	2.4	2.8	3.8	1.25	16.3	-989.0	
Fannie Mae	2.5	2.3	4.8	2.0	2.5	2.4	2.6	3.9	1.5	2.5	2.7	3.7	1.26	16.7	-1020.9	
FedEx Corporation, US	2.5	2.1	4.5	1.9	2.7	2.5	2.6	4.6	3.9	2.6	3.0	3.6	1.27	16.8	-1008.0	
Ford Motor Company*	2.5	2.1	4.5	2.2	2.6	2.5	2.5	3.9	na	na	2.7	3.7	1.27	na	-1003.0	
General Motors Corporation, US	2.5	2.1	4.6	2.0	2.8	2.6	2.7	3.8	1.8	2.6	2.9	3.6	1.28	na	-857.3	
Inform - Univ. of Maryland	2.5	2.1	4.7	2.0	2.7	2.4	2.6	4.3	4.5	2.7	3.0	3.7	1.27	16.7	-980.4	
Moody's Capital Markets, US*	2.5	1.9	4.5	1.6	3.5	2.6	2.8	3.8	4.3	2.4	2.8	3.6	1.28	16.9	-967.7	
National Assn. of Home Builders	2.5	2.3	4.5	2.0	1.7 L	2.6	2.6	4.0	na	2.7	3.0	3.6	1.27	16.8	-1020.0	
UCLA Business Forecasting Proj.*	2.5	2.2	4.7	2.2	2.5	2.5	2.6	4.3	4.0	2.5	3.0	3.6	1.31	16.6	-1035.0	
Wells Fargo, US	2.5	1.9	4.4	2.1	3.0	2.9	2.9	3.8	4.4	2.6	3.0	3.7	1.30	16.7	-1010.7	
AIG	2.4	2.3	4.7	2.0	2.5	2.7	2.5	3.8	4.8	2.4	2.8	3.5	1.27	16.7	-1009.2	
BMO Capital Markets*	2.4	2.1	4.5	2.0	3.3	2.1	2.7	3.3	5.9	2.5	2.8	3.6	1.24	16.4	-1009.0	
Daiwa Capital Markets America	2.4	2.0	4.5	1.9	2.5	2.2	2.9	3.6	5.0	2.4	2.8	3.8	1.19	16.7	-1012.0	
Goldman Sachs & Co.**	2.4	2.0	4.3	1.8	1.7 L	3.4 H	2.8	3.3	na	2.7	2.9	3.7	1.27	na	-975.5	
Macroeconomic Advisers by IHS Markit**	2.4	2.1	4.5	2.0	2.7	2.5	2.6	3.6	1.5	2.6	2.9	3.6	1.28	16.8	-1021.1	
MacroFin Analytics & Rutgers Bus School	2.4	2.2	4.6	2.0	3.1	2.3	2.5	3.8	4.7	2.6	2.9	3.9	1.26	16.8	-943.8	
Nomura Securities, US	2.4	2.3	4.7	1.7	2.7	2.1	2.9	2.7	na	na	2.7	3.4 L	1.25	16.9	-1044.3	
Northern Trust Company*	2.4	1.8	4.2	2.0	2.7	2.2	2.7	3.1	4.1	2.7	3.2	3.6	1.28	16.6	-989.9	
Oxford Economics, US	2.4	1.7	4.2	1.7	2.9	2.4	2.8	3.3	-2.4 L	2.5	2.8	3.7	1.29	17.0	-996.9	
Societe Generale	2.4	1.9	4.3	1.6	na	2.5	2.8	4.1	3.2	2.6	2.8	3.6	1.23	16.7	-1011.4	
UBS	2.4	2.0	4.5	1.5	2.4	3.2	2.4	3.0	na	2.5	na	3.7	1.33	na	-1010.9	
Economist Intelligence Unit, UK	2.3	1.8	4.1	2.2	2.6	2.0	2.3	3.0	na	2.6	2.7	4.1	1.26	16.2	-915.0	
Grant Thornton/Diane Swonk	2.3	2.1	4.4	1.9	2.6	2.5	2.6	3.4	1.2	2.4	2.8	3.7	1.24	16.6	-1010.4	
JP MorganChase, US	2.3	1.8	4.1	1.4	2.0	2.7	2.9	3.4	3.5	na	3.1	3.7	1.28	17.0	-1058.0	
MacroPolicy Perspectives	2.3	1.7	4.0	1.3 L	na	na	2.9	3.6	2.0	2.6	2.8	3.8	1.22	16.7	-1051.0	
Morgan Stanley, US**	2.3	2.0	4.3	1.8	3.4	2.6	2.5	2.6	na	2.9 H	2.5	3.5	1.28	na	-988.4	
S&P Global, US*	2.3	2.1	4.4	2.2	2.5	1.8	2.6	3.5	0.7	2.7	3.0	3.6	1.30	16.8	-1006.3	
Swiss Re	2.2	1.6 L	3.8 L	1.9	2.4	2.8	2.7	3.2	4.5	2.5	3.0	3.9	1.27	16.9	-1019.1	
BNP Paribas North America	2.1	na	na	1.4	2.4	2.6	2.5	3.0	na	2.8	3.4 H	3.6	na	na	-1008.0	
ACIMA Private Wealth, US	1.7 L	2.1	3.8 L	1.8	2.0	1.5	1.5 L	1.6 L	na	2.1 L	2.3 L	4.2 H	1.20	15.7 L	-832.5 H	
2019 Consensus: February Avg.	2.5	2.1	4.6	1.9	2.8	2.5	2.7	3.9	4.1	2.6	2.9	3.7	1.27	16.7	-991.1	
Top 10 Avg.	2.8	2.4	5.1	2.2	3.4	2.9	3.0	5.3	6.4	2.8	3.2	3.9	1.31	17.1	-922.9	
Bottom 10 Avg.	2.2	1.8	4.1	1.5	2.2	2.0	2.4	2.8	1.4	2.4	2.7	3.5	1.21	16.4	-1041.6	
January Avg.	2.6	2.1	4.7	1.9	2.7	2.5	2.7	4.1	4.6	2.6	3.0	3.6	1.27	16.8	-989.7	
Historical data	2015	2.9	1.0	4.0	0.1	-1.0	4.1	3.7	1.8	-2.9	0.1	2.1	5.3	1.11	17.4	-724.9
	2016	1.6	1.1	2.7	1.3	-1.9	1.7	2.7	0.5	-1.1	0.3	1.8	4.9	1.17	17.5	-786.2
	2017	2.2	1.9	4.2	2.1	1.6	2.6	2.5	5.3	3.2	0.9	2.3	4.4	1.20	17.1	-858.7
	2018	2.9 f	2.2 f	5.2 f	2.4	4.1	2.8 f	2.7 f	6.8 f	7.8 f	2.0	2.9	3.9	1.26 f	17.2	-908.4 f
<i>f=Dec 2018 Consensus Forecasts</i>																
Number of Forecasts Changed From a Month Ago:																
Down	18	17	26	18	10	8	14	19	12	25	26	6	9	13	14	
Same	28	24	14	17	13	26	31	20	16	16	15	23	30	23	21	
Up	3	6	8	14	22	11	4	9	3	2	2	20	6	1	13	
February Median	2.5	2.0	4.6	1.9	2.7	2.5	2.7	3.8	4.5	2.6	2.9	3.7	1.27	16.8	-1006.2	
February Diffusion Index	35 %	38 %	31 %	46 %	63 %	53 %	40 %	40 %	35 %	23 %	22 %	64 %	47 %	34 %	49 %	

*Former winner of annual Lawrence R. Klein Award for Blue Chip Forecast Accuracy. **Denotes two-time winner.

HAWAIIAN ELECTRIC COMPANY, INC.

EXHIBIT A 3.00% 3.00% 3.00%

JOB CODE	JOB TITLE	1/1/2019	1/1/2020	1/1/2021	
CL829	CASHIER				
	1st 3 mos.	24.19	24.89	25.59	
	Next 3 mos.	25.31	26.05	26.79	
	Next 3 mos.	26.60	27.37	28.14	
	Next 6 mos.	27.91	28.72	29.53	
	Next 6 mos.	29.26	30.11	30.96	
	Thereafter	30.71	31.60	32.49	
CLC05	SR INFORMATION STORAGE EQUIPMENT OPERATOR				
CL18	SYSTEM OPERATION CLERK				
CL20	TEST AND SUBSTATION CLERK				
CL22	DESKTOP PUBLISHING OPERATOR				
CL104	POWER PLANT CLERK				
CL257	MOTOR FLEET CLERK				
CL328	METER CLERK				
CL21	PRINT PRODUCTION OPERATOR				
CL684	COMPUTER SYSTEMS OPERATOR TRAINEE				
	1st 3 mos.	24.71	25.43	26.15	
	Next 3 mos.	25.95	26.71	27.47	
	Next 3 mos.	27.20	27.99	28.78	
	Next 6 mos.	28.55	29.38	30.21	
	Next 6 mos.	29.99	30.86	31.73	
	Thereafter	31.40	32.31	33.22	
TL180	CONDENSER CLEANER				
	1st 6 mos.	27.20	27.99	28.78	
	Next 6 mos.	28.55	29.38	30.21	
	Next 6 mos.	29.99	30.86	31.73	
	Thereafter	31.40	32.31	33.22	
CLA49	PROJECT CLERK				
CLA81	STANDARDS CLERK				
CL12	JOINT POLE AIDE				
CL13	PROJECT CLERK				
CL15	FIELD SERVICE CLERK				
	1st 3 mos.	25.31	26.05	26.79	
	Next 3 mos.	26.60	27.37	28.14	
	Next 3 mos.	27.91	28.72	29.53	
	Next 6 mos.	29.26	30.11	30.96	
	Next 6 mos.	30.71	31.60	32.49	
	Thereafter	32.27	33.21	34.15	
T335	TRUCK DRIVER A	1/1/2018	32.31	33.25	34.19
CL406	METER READER				
	1st 3 mos.	23.99	24.71	25.43	26.15
	Next 3 mos.	25.19	25.95	26.71	27.47
	Next 6 mos.	27.72	28.55	29.38	30.21
	Next 6 mos.	29.12	29.99	30.86	31.73
	Next 6 mos.	30.49	31.40	32.31	33.22
	Thereafter	32.03	32.99	33.95	34.91
			x 1.03	x 1.0291	x 1.0283

CIAC Treatment
Resulting from FERC Adoption

Adoption of FERC USOA required a change in presentation change to Contributions in Aid of Construction (CIAC)

Prior to October 2018, and in establishing rates in previous test year rate cases, the Company's presentation of contributions in aid of construction ("CIAC") followed the guidelines of the National Associate of Regulatory Utility Commissioners Uniform System of Accounts (NARUC USOA). Under the NARUC reporting system, CIAC is reported under an exclusive account, account 271, which includes donations or contributions in cash, services or property from states, municipalities, or other governmental agencies, individuals and others for construction purposes. All CIAC was incorporated as a deduction in the calculation of rate base in part because the Companies' systems did not facilitate on-going reporting of CIAC related to plant in service separate from CIAC related to construction work in progress ("CWIP").

The Commission approved the Companies' request to change to Federal Energy Regulatory Commission Uniform System of Accounts (FERC USOA), beginning with the implementation of the Companies' new ERP/EAM, in Decision and Order No. 31757, issued December 19, 2013 in Docket No. 2013-0007.

Beginning in October 2018 with the transition to FERC, the net balance of CIAC in account 271 less the CIAC amortization to be recorded for October to December 2018, was credited against the account balances charged with the cost of construction, i.e., gross plant in service and CWIP, resulting in the account becoming zero (i.e. "0") at December 31, 2018.

Ratemaking treatment for CIAC

The Company's ratemaking treatment of contributions in aid of construction is summarized below:

- *CIAC associated with Plant in Service* – When a utility capital project is placed into service, the plant in service net of the associated CIAC is included as net cost of plant in service in rate base. The plant in service net of the CIAC is included as part of the basis for the depreciation accrual the year after it is placed into service (i.e. January 1 of the year after it is placed into service).
- *CIAC associated with CWIP* – For book purposes, CIAC that is received while projects are still under construction (i.e. in CWIP) will offset the costs incurred and is presented net in CWIP. The CWIP net of the associated CIAC is subject to the AFUDC accrual if there is a net CWIP balance. In the next rate case, the Company will request CIAC associated with CWIP be excluded from the rate base calculation since CWIP net of

CIAC earns AFUDC. CIAC associated with CWIP is however, included in rate base in this RAM calculation for consistency with the 2017 Test Year treatment. See further discussion of Company's requested treatment of CIAC associated with CWIP below.

- *Developer Advances* - Cash contributions received in advance of construction of a utility capital project that are temporarily not classified as CIAC because the funds received are in excess of the specific project expenditures. The balance of developer advances is presented as funds from non-investors, included in its own exclusive account, and deducted in the calculation of rate base. As project costs are incurred for a utility capital project, an equal portion of developer advances associated with the project will be reclassified as CIAC and credit the accounts charged with the cost of construction. Developer Advances were included as a part of CIAC as a reduction to rate base in the 2017 Test Year.

Treatment of CIAC within the 2019 Annual Decoupling Filing

For the 2019 Decoupling Filing, the Company treated CIAC consistently with prior filings resulting in no impact to rate base.

Schedule D1, Determination of Rate Base RAM Adjustment – Change in Rate Base

Plant in Service - There is no change in rate base for plant in service and CIAC associated with plant in service. Under NARUC, in rate base, plant in service was the gross cost of plant (net of accumulated depreciation), and CIAC was a separate reduction to rate base. Under FERC, the plant in service amounts are net of (i.e., already reduced by) CIAC, and presented net of accumulated depreciation in the calculation of rate base. There is no separate CIAC line item reducing rate base because it is already net in utility plant. Therefore, there is no net rate base impact. The difference between NARUC and FERC for plant in service is a matter of where the costs are classified in rate base, and not a matter of inclusion or exclusion of costs in rate base.

CIAC associated with CWIP - There is no change in rate base for CIAC associated with CWIP. Previously, presentation of CIAC aligned with NARUC and all CIAC, including amounts associated with projects in CWIP, were included as a reduction to rate base under account 271. The 2019 estimated balance continues the treatment of including the CIAC in CWIP to be consistent with the recorded balance at 2018 year-end because all 2019 estimated CIAC additions have been included at Schedule D2 and included as part of net cost of plant at Schedule D1. Although the treatment described above was used in the 2019 annual decoupling filing, see Company's requested treatment to exclude CIAC associated with CWIP from rate base in future filings in the discussion below.

Developer Advances - With the transition to FERC, CIAC is credited when received against the related project costs in CWIP. To the extent funds are not yet expended for a project in

CWIP, the CIAC will be classified as developer advances and deducted in the calculation of rate base at Schedule D1. The recorded balance at 2018 year-end is not adjusted for 2019 activity as it is incorporated in Schedule D2.

Schedule D2, Determination of Baseline Capital Projects Additions

Schedule D2 was revised to incorporate the baseline and major project CIAC (including Developer Advances) for 2014 to 2017 into the baseline average calculation of net plant in service, consistent with the presentation of rate base. The 2018 CIAC additions calculated at HECO-WP-D2-003 includes additions to CIAC from all sources, i.e. Plant, CWIP and Developer Advances, which were used in the 5-year baseline calculation. As a result, the estimated 2019 additions to CIAC in CWIP and Developer Advances balances at Schedule D1 for the Change in Rate Base are not required as they are already included in the net cost of plant line item.

Schedule E, Determination of Depreciation & Amortization RAM Adjustment

FERC Uniform System of Accounts Electric Plant Instructions, 2. Electric Plant To Be Recorded at Cost. D. states, “The electric plant accounts shall not include the cost or other value of electric plant contributed to the company.” Therefore, the Recorded Depreciable/Amortizable Balances at December 31, 2018 in Schedule E represents plant in service net of CIAC which is used as the basis to estimate the 2019 annual accrual amount. In calculating the 2019 RAM Depreciation and Amortization, Depreciation and Amortization in Current Revenues also includes CIAC amortization approved in the 2017 Test Year.

Schedule F & F1, Determination of Change in Deferred Income Taxes & Tax Depreciation

The methodology for computing the deferred taxes related to RAM year tax depreciation was not changed within the 2019 annual decoupling filing. Gross plant additions are used as the basis for calculating tax depreciation. However, see the CIAC impact to ADIT section below for the Company’s preferred treatment considering the effects of netting CIAC against plant in service.

Schedule G-series, CIAC

Schedule G, G1 and G2 were removed from the Decoupling filings and instead incorporated into either Plant in Service, CIAC in CWIP or Developer Advances. The December 31, 2018 balances for CIAC associated with CWIP and Developer Advances were extracted from PowerPlan. Additionally, as noted above, the calculation of the 5-year baseline average of CIAC and amortization was incorporated within Schedule D2 and Schedule E, respectively.

The Company will continue to include CIAC associated with CWIP and Developer Advances as a reduction to rate base until the FERC presentation of rate base is approved in the Company’s next rate case.

Company's requested CIAC treatment

The Company requests to reflect the following changes to the treatment of CIAC within the annual decoupling filings.

CIAC associated with CWIP

In Mr. Franklin's T-12 direct testimony in Hawaii Electric Light's 2019 Test Year rate case, the Company proposes to remove CIAC associated with CWIP from the calculation of rate base due to the fact that CWIP net of associated CIAC earns AFUDC, therefore the CWIP and its associated CIAC should be excluded from rate base.

Excluding CWIP net of CIAC, to better align the source of funds with its use (i.e. the CIAC funds received were applied against the costs incurred for the project) and is therefore properly excluded from the calculation of rate base. In addition, and as mentioned previously, any material CIAC received in advance of construction expenditures will continue to be deductions in the calculation of rate base as Developer Advances.

CIAC impact to ADIT

ADIT associated with CIAC in CWIP should be divided between nontaxable and taxable CIAC. Nontaxable CIAC (primarily interconnection CIAC) is treated as a reduction in basis for both book and tax purposes. On the other hand, although taxable CIAC is also a reduction in basis for book purposes, for tax purposes, the receipt of taxable CIAC creates tax basis by way of the recognition of taxable income and reverses by way of tax depreciation.

Nontaxable CIAC does not create ADIT since there is no book tax difference. Consequently, the regulatory netting of nontaxable CIAC against the plant assets should not create any issue with respect to the ADIT beginning balance for the rate base RAM calculation

Taxable CIAC generates a Deferred Tax Asset (DTA) as it is received and recorded into CWIP under the new FERC accounting. Prior NARUC accounting treatment with account 271 created DTA as CIAC was booked to 271, which is equivalent to what is now booked to CWIP. The origination and timing of the DTA under the FERC method will be equivalent to the NARUC method. However, under the old method, the DTA was immediately recognized as part of rate base, consistent with the treatment of the account 271 inclusion. However, under the FERC method, the generation of the DTA must be inventoried and tracked to match up with the amount of CIAC in CWIP and the amounts closed to plant in service. This tracking is necessary to ensure that the amount of DTA related to CWIP is excluded from rate base. Once CWIP costs are closed to plant, the related DTA will be included in rate base and will begin reversal through tax depreciation taken on the CIAC tax basis.

FERC accounting imbeds the book treatment of CIAC within CWIP and the ultimate plant and related depreciation. The separation will disappear and the Company asserts that the ADIT

effects will be the same with respect to the beginning balance of ADIT for the annual decoupling filing except to the extent CIAC is still in CWIP. This issue will be addressed along with the rate base treatment of CIAC associated with CWIP as mentioned above.

FERC accounting nets CIAC against Plant in Service for purposes of computing baseline and major plant additions. For RAM year tax depreciation and the related ADIT calculated for the change in RAM year ADIT, adopting the net plant additions as the RAM year tax additions will be a change that will result in a smaller amount of tax depreciation and ADIT “change” since the Company previously has assumed the gross additions to be the RAM year tax depreciable base. The Company asserts this is reasonable for the following reasons:

- 1) Under the old method, to the extent nontaxable CIAC was included in the RAM year numbers (through major projects or baseline projects), tax depreciable basis was overstated since there is no tax basis for assets funded by nontaxable CIAC.
- 2) With respect to taxable CIAC, the funded assets do have depreciable tax basis and it is accounted for in the RAM year additions tax depreciation. However, the receipt of taxable CIAC generates taxable income and deferred tax assets that increase rate base. The effect of this DTA from taxable CIAC was never recognized in the RAM tariff, which resulted in an overstatement of RAM year ADIT change, as it related to the projected plant additions.

For purposes of the 2019 RAM calculation, ADIT has been calculated on gross plant additions, consistent with the 2017 Test Year treatment and prior decoupling filings, however the Company is requesting treatment of CIAC in deferred tax to follow FERC accounting.

Summary

In summary, Hawaiian Electric prepared the 2019 annual decoupling filings in accordance with the historical treatment of CIAC. Historically, due to system constraints, CIAC records were not maintained with matching of the separate components (plant in service, CWIP, developer advances). As a result, the entire amount of CIAC was treated as a reduction to rate base and the Return on Investment was understated. As stated in Mr. Franklin’s T-12 direct testimony in Hawaii Electric Light’s 2019 Test Year rate case, the Companies propose to exclude the CIAC associated with CWIP in its calculation of rate base in the rate base RAM filings. Should the Commission approve Hawaii Electric Light’s proposal, Hawaiian Electric will implement this change in the annual decoupling filing in the year following the Commission’s approval.

**Hawaiian Electric Company, Inc.
Revenue Decoupling - Rate Base RAM
2018 Major Projects and Other Plant Additions, Net of CIAC**

NET CALCULATION

Grand parent	Project #	Project	Plant Addition Date	[1]	[2]	2018 Plant Additions, Net of CIAC				[3]	Over/(Under) Net PUC Approved (E) - (F)	Functional Plant Category	
				Net Plant Adds Thru 12/31/17	Total Project Cost	CIAC & Adjs	Net Project Cost	Net Plant Adds Thru 12/31/18	Net PUC Approved				
				(A)	(B)	(C)	(D) = (B) + (C)	(E) = (A) + (D)	(F)				
<u>2018 Major Projects</u>													
1	-	P0001370 DOT Airport DSG	2018 straggling	3,336,179	(3,516)	(96,602)	(100,118)	3,236,061	3,400,139	[3a]	(164,078)	Production Other	
2	-	P0002264 Pukele 80MVA Tsf #1	2018 straggling	3,846,733	-	-	-	3,846,733	3,846,733	[3a]	-	Transmission	
3	Y00038	(P0000783) Kakaako Makai-Iwilei 25kV DL	2018 straggling	7,243,799	-	-	-	7,243,799					
		(P0000672) Kakaako Makai-Kewalo 25kV DL	2018 straggling	5,023,851	-	-	-	5,023,851					
		(P0001579) Kakaako Makai DOT Queen-Cook	2018 straggling	1,969,969	-	-	-	1,969,969					
		PZ.000001		14,237,619				14,237,619	14,537,623	[3a]	(300,004)	Distribution	
4	Y00168	PZ.000003 (P0003205) ERP EAM Hardware	2018 straggling	2,604,146	-	-	-	2,604,146	2,590,000	[3b]	14,146	Computers	To Sch D1
5		PE.005155 Joint Pole Capital Transfer Price	201812	-	24,665,897	-	24,665,897	24,665,897	24,665,897	[3c]	-	Distribution	
<u>Other</u>													
6	-	PE.000104 (P0003465) Koolau-Wailupe #1 Str 30 P9 Replace	2018 straggling	2,684,387	13,203	-	13,203	2,697,590	2,555,619	[3d]	141,971	Transmission	To Sch D1
<u>Major Project Interim Recovery (MPIR) Projects</u>													
7	-	PZ.000016/ PZ001002 (P0001576) Schofield Generation Station	201806	-	144,743,542	-	144,743,542	144,743,542	-	[4]	144,743,542	Production Other	To Sch D1

[1] Transmittal No. 18-01 (Decoupling) - Hawaiian Electric Company RBA Rate Adjustment, HECO-WP-D2-001, filed on May 29, 2018.

[2] Hawaiian Electric Companies' *Exemption From and Modification of General Order No. 7 Paragraph No. 2.3(g), Relating to Capital Improvements Capital Projects Completed in 2018*, in Docket No. 03-0257, filed on March 27, 2019. See HECO-WP-D2-002.

[3] Per the *Final Decision & Order and Dissenting Opinion of Leslie H. Kondo, Commissioner*, filed on August 31, 2010, in Docket No. 2008-0274, on page 54, "for purposes of calculating the Rate Base for the RAM, the costs on Major Capital Projects shall be limited to those amounts most recently approved, e.g., when authorized in the commission's decision approving the HECO Companies' application in compliance with General Order No. 7 or in an interim or final decision and order issued by the commission in the HECO companies' rate cases."

[3a] Net PUC Approved amount was derived from the Hawaiian Electric 2017 Test Year Rate Case, filed in Docket No. 2016-0328, in response to CA-IR-303 and CA-IR-304 which updated 2016 Plant Additions and CIAC for actuals through December 31, 2016 and revised forecast for 2017. See calculation below:

	DOT Airport DSG			Pukele 80MVA Tsf #1			Kakaako Makai		
	Gross	CIAC	Net	Gross	CIAC	Net	Gross	CIAC	Net
Gross/Net Plant Adds Thru 12/31/16) - column [1]	5,235,178	(1,993,000)	3,242,178	3,839,121	-	3,839,121	18,338,808	(2,825,023)	15,513,785
2017 Plant Addition (CA-IR-303, Att 2)	157,961	-	157,961	7,612	-	7,612	(76,162)	-	(76,162)
2017 CIAC Estimate (CA-IR-304, Att 2)	-	-	-	-	-	-	-	(900,000)	(900,000)
Derived PUC Approved	5,393,139	(1,993,000)	3,400,139	3,846,733	-	3,846,733	18,262,646	(3,725,023)	14,537,623

[3b] Per Decision and Order No. 33861, page 4, Docket No. 2014-0170, For Approval of an Enterprise Resource Planning and Enterprise Asset Management System Implementation Project and Related Accounting Treatment, filed August 11, 2016.

[3c] Per Decision and Order No. 35768, Docket No. 2018-0075, For Approval of the Transfer of Equity Ownership Interest in Certain Joint Poles, to Commit Funds in Excess of \$2,500,000, Accounting and Ratemaking Treatment, Amendments to Joint Pole Agreements Between the Applicants, Asset Transfer Agreement, and Pole Licensing Agreement, file October 16, 2018. The Commission approved the acquisition of Hawaiian Telcom's joint pole equity ownership shares, valued at \$47,970,092, of which \$24,665,897 was related to Hawaiian Electric.

[3d] In the 2017 Fourth Quarter Capital Projects Status Report filed on February 28, 2018, Hawaiian Electric identified that the project costs had unexpectedly exceeded \$2,500,000 and provided an explanation for the higher costs. Project cost is limited for rate base RAM recovery to the amount identified in Hawaiian Electric's response to CA-IR-303, Attachment 2, page 3 of 7), filed in Docket No. 2016-0328, Hawaiian Electric 2017 Test Year Rate Case.

[4] Project to be recovered through the MPIR mechanism and therefore the entire project will be removed from the RAM Revenue Adjustment Calculation. See Notice Transmittal to Update Target Revenue for Schofield Generating Station through the Major Project Interim Recovery Adjustment Recovery Mechanism, filed February 7, 2019, Transmittal No. 19-01 effective January 1, 2019. MPIR Recovery calculated at the Schedule L series.

2018 General Order No. 7 (GO7) Report Summary

Plant Additions

Projects	2018 Plant Addition (1)
Less than \$2.5M	189,284,505
Greater than \$2.5M	169,419,126
Total Plant Additions - Gross	358,703,631
	To Sch D2, line 1
Less: Major Project additions in 2018	
DOT Airport DSG	3,516
Koolau-Wailupe #1 Str 30 P9 Replace	(13,203)
Schofield Generation Station	(144,743,542)
Joint Pole Transfer Price	(24,665,897)
	(169,419,126)
Baseline Plant Additions - Gross	189,284,505

(1) Source: Hawaiian Electric Companies' Exemption From and Modification General Order No. 7 Paragraph No. 2.3(g), Relating to Capital Improvements Capital Projects Completed in 2018, in Docket No. 03-0257 filed on March 27, 2019.

Hawaiian Electric Company, Inc.
CIAC Reconciliation
As of December 31, 2018

Line No.	Description (a)	Reference (b)	CIAC, Including Developer Advances (c)
1	12/31/17 Balance	5/29/18 Decoupling, Sch G1	(366,100,380)
2	Exclude: Non-Utility CIAC		618,464
3	Add: Developer Advances		(33,883,949)
4	12/31/17 Balance - Utility CIAC		(399,365,865)
5	9/30/18 Balance	GL #271	(378,238,665)
6	Exclude: Non-Utility CIAC	Line 2	618,464
7	Add: Developer Advances	GL #2520300	(34,163,852)
8	9/30/18 Balance - Utility CIAC	Line 4 + Line 5	(411,784,053)
9	CIAC Change Thru 9/30/18 - Utility	Line 6 - Line 3	(12,418,188)
10	Add Back: 2018 CIAC Amortization thru 9/30/18	5/29/18 Decoupling, Sch G3 (8,818,605 x 9/12)	8,818,605 (6,613,954)
11	CIAC Additions Thru 9/30/18		(19,032,141)
12	<u>Oct to Dec 2018 Activity</u>		
13	CIAC-Cash Tax	GL #60005200	(6,435,124)
14	CIAC-Cash Non-Tax	GL #60005201	(831,921)
15	CIAC-Settlement	GL #60050221	174,515
16	CIAC-In-Kind	GL #60005206	(3,443,756)
17			(10,536,286)
18	2018 CIAC Additions, included within Plant in Service, CWIP, Developer Advances		(29,568,427) To Sch D2

Purpose:

Starting October 1, 2018, the Company adopted FERC guidelines resulting in CIAC being netted with Plant via Plant Additions or CWIP. This workpaper calculates the 2018 CIAC additions by summing the CIAC activity from January 1 to September 30, 2018 (per Ellipse) with the CIAC activity from October 1 to December 31, 2018 (per SAP and Powerplan WBS) for inclusion in the Baseline Plant Additions calculation at Schedule D2. Beginning with calendar year 2019, Baseline Plant Additions will be shown net of CIAC.

Note 1:

See HECO-WP-D1-001 for documentation on the treatment of CIAC in the 2019 Decoupling Filing.

EXCERPT: Transmittal 18-01, Schedule G1, filed 5/29/18.

SCHEDULE G1
PAGE 1 OF 1**HAWAIIAN ELECTRIC COMPANY, INC.**
DECOUPLING CALCULATION WORKBOOK
BASELINE CAPITAL PROJECTS CIAC ADDITIONS**Source of CIAC balance and amort.: December Monthly Reports filed (non-confidential basis) with the PUC dated:**

Line No.	Description (a)		2/21/2014	2/26/2015	2/23/2016	2/24/2017	3/1/2018
			2013 (b)	2014 (c)	2015 (d)	2016 (e)	2017 (f)
1	CIAC Balance, January 1 (Dec Rpt. pg. 10)		(238,510,104)	(258,084,169)	(283,739,660)	(319,727,698)	(348,444,542)
2	Less: Non-Utility CIAC	NOTE (3)				618,464	618,464
3	Adjusted CIAC Balance, January 1		(238,510,104)	(258,084,169)	(283,739,660)	(319,109,234)	(347,826,078)
4	Less: CIAC Amortization (Dec Rpt. pg. 2)		5,652,912	6,147,559	6,771,148	7,597,437	8,309,481
5	CIAC Balance, December 31 (Dec Rpt. pg. 10)		258,084,169	283,739,660	319,727,698	348,444,542	366,100,380
6	Less: Non-Utility CIAC	NOTE (3)			(618,464)	(618,464)	(618,464)
7	Adjusted CIAC Balance, December 31		258,084,169	283,739,660	319,109,234	347,826,078	365,481,916
8	Total Adjusted CIAC Additions	(Sum Line 3, 4 & 7)	25,226,977	31,803,050	42,140,722	36,314,281	25,965,319
9	Add Developer Advances:	NOTE (4)	-	-	-	-	33,883,949
19	Total Adjusted CIAC & Developer Advance Additions		25,226,977	31,803,050	42,140,722	36,314,281	59,849,268
20	<u>Less Major Projects:</u>	<u>Dkt No.</u> <u>Item No.</u>					
21							
22	<u>2008 In-service:</u>						
23	CIP Generating Unit	05-0145 Y49000					
24							
25	<u>2010 In-service:</u>						
26	K3 Biofuel Co-Firing	2009-0155 P0001577					
27							
28	<u>2011 In-Service:</u>						
29	W8 Boiler Controls Upgrade	2007-0365 P7650000					
30	EOTF Ph. 2 (Subs/Switch Stations)	2010-0062 Y48500	(87,994)	(43,725)	(15,232)	(718)	
31	W7 Controls Upgrade	2009-0195 P7590000					
32	W8 Main Transformer Replace	P0001399					
33							
34	<u>2012 In-Service:</u>						
35	K1 Condenser Tube Replace	2010-0126 P0000681					
36	BPT Tank 132 Improvements	2010-0286 P0000899					
37	Mobile Radio Replacement	2010-0162 P0001595					
38	Kapolei Substation	2011-0026 Y00127					
39							
40	<u>2013 In-Service:</u>						
41	Pukele 80MVA Tsf #3	2011-0156 P0001494					
42	Kakaako Makai-Iwilei 25kV DL	2009-0042 Y00038					
43	Kaloi Substation - Land - NOTE (2)	2008-0070 Y00119					
44	North South Road 46kV Line	2008-0070 Y00119					
45							
46	<u>2014 In-Service:</u>						
47	Kaloi Substation	2008-0070 Y00119					
48	Kaloi Sub 46kV & 12kV Distr	2008-0070 Y00119					
49	Kaloi Telecomm	2008-0070 Y00119					
50	Kaloi Sub 12kV Work	2008-0070 Y00119					
51	Kakaako Makai-Kewalo 25kV DL	2009-0042 Y00038					
52	Kakaako Makai DOT Queen-Cook	2009-0042 Y00038				(2,825,023)	
53	BPT Tank 133 Improvements	2010-0318 P0000900					
54	Pukele 80MVA Tsf #2	2011-0156 P0001492					
55	DOT Airport DSG	2008-0329 P0001370					
56							
57	<u>2016 In-Service:</u>						
58	Pukele 80MVA Tsf #1	2011-0156 P0002264					
59							
60	<u>2017 In-Service:</u>						
61	ERP EAM Hardware	2014-0170 Y00168					
62							
63	Total Net CIAC & Developer Advance Additions		25,138,983	31,759,325	42,125,490	33,488,540	59,849,268
64							
65	Last Five-Year Average						38,472,321
							To Sch G

Schedule D2

Schedule D2

(2,825,023) Schedule D2

NOTE (1): The CIAC amounts of the major projects are reflected in the year that they were received. In previous Decoupling filings these amounts were from the respective year's GO7 plant addition annual reports which reports the CIAC in the year the project closed to plant. In the past, the total CIAC additions, which reflect actual contributions received in the year, may not have included the total major project CIAC from the GO7 report to the extent that the CIAC was received in advance, or in multiple payments over a span of more than one year. Source: UI Planner files: Actuals Scenario.

NOTE (2): CIAC received for this project was not reflected in the 2012 and 2013 Decoupling filings as previous filings reported the CIAC amounts of the major projects from the respective year's GO7 plant addition annual report which reports the CIAC in the year the project closed to plant. See GENERAL NOTE.

NOTE (3): Adjustment to remove non-utility project related CIAC from the general ledger balance. Chapin UG Duct Line is a non-utility asset. It is a contributed asset that was given to the Company. It is not being used and there are currently no plans to use it. See Schedule G3, Line 96. Adjusted CIAC Additions for 2016 was corrected to exclude the non-utility plant balance from the beginning balance.

NOTE (4): In 2017, the Company reclassified the portion of CIAC for projects where the cash balance received was in excess of total incurred costs since the project agreements include provisions which allow for instances that unapplied funds received in advance would be subject to refunds. The true-up provision allows for any excess funds not expended to be refunded back to the developer. Furthermore, between the timing of the cash receipt to the project completion date, the project could be terminated, which would then result in refund of the unapplied funds. See below for a reconciliation of the Customer Advance balance at December 31, 2017:

Customer Advance (#25200000)	4,239,163
Developer Advances (#25203000)	33,883,949
Customer Advances	38,123,112

SOURCE: HECO Monthly Financial Report - December 2017, page 10, filed March 1, 2018.

The unapplied developer funds received in advance (Developer Advances) are excluded from the CIAC balance subject to amortization until they are reclassified to CIAC as costs are incurred. Developer Advances are included in the calculation of the Last Five-Year Average because they represent funds received in advance and are expected to be reclassified to CIAC as costs are incurred in the current year. Developer advances were also included in the Unamortized CIAC balance (See "Average Rate Base" from HECO Decision and Order No 35280, filed 2/9/2018 of Docket No. 2016-0328).

Hawaiian Electric Company
2019 Plant Additions Net of CIAC - Major Projects Support

Grand-parent	Project	Functional Category	Plant Addition Date	Net PUC Approved [1]	Net Plant Adds thru 12/31/18 [2]	2019 Net Plant Additions [3]	2019 CIAC Additions [3]	2019 Net Project Costs $F = D + E$	Estimated Net Plant Adds thru 12/31/19 $G = C + F$	Over/ (Under) Net PUC Approved $H = A - G$	2019 Net Plant Addition Qualifying for RB RAM (Note A)
				<i>A</i>	<i>C</i>	<i>D</i>	<i>E</i>	$F = D + E$	$G = C + F$	$H = A - G$	
	PE.000209 (P0003975): AES-CEIP #2 138kV OH Trans Line Relocation	Transmission ≥69kV	2019/02	3,007,232 [1a]	-	4,091,987		4,091,987	4,091,987	1,084,755	3,007,232
	PG.000005/PZ.001001 (P0003966): West Loch Utility Scale PV	Production-Photovoltaic	2019/05	62,400,000 [1b]	-	52,128,000		52,128,000	52,128,000	(10,272,000)	52,128,000
	PZ.000015 (P0000974, P0003977): Ala Wai Canal 46kV Relocation	Transmission <69kV	2019/06	13,910,207 [1c]	-	20,300,268		20,300,268	20,300,268	6,390,061	13,910,207
Y00038	P0000672: Kakaako Makai-Kewalo 25kV DL		2014/04	7,243,799	7,243,799						
	P0000783: Kakaako Makai-Iwilei 25kV DL		2013/07	5,023,851	5,023,851						
	P0001579: Kakaako Makai DOT Queen-Cook		2014/04	1,969,969	1,969,969						
		Distribution		14,237,619 [1d]	14,237,619	-	(22,683)	(22,683)	14,214,936	(22,683)	(22,683)
											69,022,756
											To Sch D3

NOTE A: Amount qualifying for 2019 rate base RAM recovery is limited to the lower of the net plant addition (column D) or the net PUC approved amount (column A). In the case of straggling costs, the amount qualifying for 2019 rate base RAM recovery is limited to the lower of the 2019 net plant addition (column D) or the remaining unused balance of the net PUC approved amount.

[1] Per the Final Decision & Order and Dissenting Opinion of Leslie H. Kondo, Commissioner, filed on August 31, 2010, in Docket No. 2008-0274, on page 54, "for purposes of calculating the Rate Base for the RAM, the costs on Major Capital Projects shall be limited to those amounts most recently approved, e.g., when authorized in the commission's decision approving the HECO Companies' application in compliance with General Order No. 7 or in an interim or final decision and order issued by the commission in the HECO companies' rate cases."

[1a] Decision and Order No. 35312 in Docket No. 2016-0439, For Approval to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the P0003975 - AES-CEIP 2 138 kV Overhead Transmission Line Relocation Project, filed March 2, 2018.

[1b] Decision and Order No. 34676 in Docket No. 2016-0342, For Approval of Waiver from the Framework for Competitive Bidding and to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the Purchase and Installation of Item P0003966 - West Loch PV Project, filed June 30, 2017.

[1c] Decision and Order No. 34788 in Docket No. 2016-0416, For Approval to Commit Funds in Excess of \$2,500,000 for Item P0000974, Ala Wai Canal 46 kV Underground Line Construction and Item P0003977, Ala Wai Canal Easement Acquisition and Related Requests, filed September 1, 2017.

[1d] See HECO-WP-D2-001, Note [3a].

[2] Source: HECO-WP-D2-001.

[3] Source: UIPlanner Budget files. Forecast as of February 15, 2019.

HAWAIIAN ELECTRIC CO., INC.					
DEFERRED INCOME TAXES					
FEDERAL		DR / (CR)	DR / (CR)	DR / (CR)	
		HECO	HECO	HECO	
		FEDERAL	STATE	TOTAL	
DR / (CR)		LIABILITY	LIABILITY	LIABILITY	
LIAB	DESCRIPTION	12/31/2018	12/31/2018	12/31/2018	
28311	Unearned Lease	-	-	-	
28312	Accrued Vacation	(247,391.60)	(81,566.84)	(328,958.44)	
28313	Uncollectible Acct	365,876.81	111,502.91	477,379.72	
28314	Directors Def Comp	8,117.74	1,571.96	9,689.70	
28317	Discounted Work Comp	313,824.26	95,894.48	409,718.74	
28319	Cap to Construct (Cost of Removal)	71,429,406.70	21,769,003.09	93,198,409.79	
28321	Pension	(15.02)	0.31	(14.71)	
28323	Excess Benefit Plan	566,372.66	168,081.11	734,453.77	
28326	Def Exec Comp (Def EICP<IP)	35,031.69	10,677.39	45,709.08	
28327	Software (no APPRISE & e business	88,753.66	52,874.74	141,628.40	
28328	G/L ACRS Retirements	(12,405,681.27)	(4,236,659.06)	(16,642,340.33)	
28330	EICP	(358,728.30)	(125,497.81)	(484,226.11)	
28331	CIAC	20,071,371.03	10,206,246.04	30,277,617.07	
28332	Customer Advances	1,077,639.88	327,760.03	1,405,399.91	
28333	Capitalized Interest	9,984,224.16	3,836,301.98	13,820,526.14	
28335	Connection Fees	(9,611.91)	(8,444.14)	(18,056.05)	
28336	Nondeductible Interest	19,016.26	5,795.04	24,811.30	
28337	Supplemt Benefits - SERP	272,295.28	72,700.74	344,996.02	
28340	LTIP	822,110.82	250,548.14	1,072,658.96	
28341	Waipahu Baseyard Int	67,116.93	20,452.91	87,569.84	
28347	Waiau Water Well Pmts	79,910.90	24,369.66	104,280.56	
28350	Outage Loss Adj Exp	-	(24,509.00)	(24,509.00)	
28401	Genl/Auto (& Accidents)	248,241.27	75,654.04	323,895.31	
28403	CWIP Debt Transition	(160,324.76)	(48,863.15)	(209,187.91)	
28404	CWIP Equity Trans	(404,087.01)	(123,151.30)	(527,238.31)	
28405	Iolani Ct Plaza Sale	17,071.33	(6,033.56)	11,037.77	
28406	Kaonohi Sale	(22,651.01)	(6,942.61)	(29,593.62)	
28408	Plant Transition	(3,997,395.48)	(1,218,288.67)	(5,215,684.15)	
28409	CWIP Equity Net	(17,671,614.37)	(5,385,620.77)	(23,057,235.14)	
28410	CWIP Equity Grossup	(10,862,867.25)	(3,310,577.99)	(14,173,445.23)	
28411	CWIP Debt	(9,399,038.35)	(2,868,001.13)	(12,267,039.48)	
28412	Genl/Auto Liability - Legal	0.21	(2,428.89)	(2,428.68)	
28413	Post Retirement Ben	(875,563.84)	(246,873.67)	(1,122,437.51)	
28414	Reg Liab Federal ITC	172,357.16	53,366.18	225,723.34	
28418	IRP Costs	(25,223.69)	(8,107.96)	(33,331.65)	
28419	Reg Liab Excess 283	115,881.47	35,956.40	151,837.87	
28422	Miscellaneous	17,106.97	(16,969.99)	136.98	
28427	Prepaid Expenses	(915,615.83)	(279,043.26)	(1,194,659.09)	
28432	Coal Gasif Costs	-	(11,273.00)	(11,273.00)	
28434	EEO Claims	452.80	138.01	590.81	
28435	Rev Bond Differential	(106,539.65)	(32,468.74)	(139,008.39)	
28436	TIP/Rewards Programs	119,814.53	36,774.90	156,589.43	
28441	Sun Power	12,330.63	3,757.91	16,088.54	
28512	Revenue Bond Cost Amort.	(678,674.71)	(206,833.19)	(885,507.90)	
28514	Software (APPRISE only)	-	(22,551.00)	(22,551.00)	
28516	Honolulu Harbor Reserve	879,610.69	268,072.02	1,147,682.71	
28520	Deferred Comp - restricted stock	141,231.75	43,041.58	184,273.33	
28522	Perry reserve	64,996.20	19,808.00	84,804.20	
28526	Emissions Fees	331,750.98	101,105.19	432,856.17	
28530	AES Hawaii PPA	26,904.63	8,199.90	35,104.53	
28532	CIS Project	(48,966.54)	(14,316.02)	(63,282.56)	
28538	Rate Case Costs	(287,342.77)	(87,571.54)	(374,914.31)	
28542	QUIPS amortization	(140,608.50)	(42,852.44)	(183,460.94)	
28544	OPEB Exec Life	2,641,514.13	805,101.19	3,446,615.32	
28546	Percentage Repairs Allowance	(1,466,861.75)	(556,699.86)	(2,023,561.61)	
28548	Cap interest (D&T)	(2,603,450.33)	(1,054,919.70)	(3,658,370.03)	
28550	E-Business hardware	(19,730.68)	(8,206.93)	(27,937.61)	
28552	OMS project costs	262,187.44	81,204.84	343,392.28	
28558	Substation Land - Aiea	-	(2,073.65)	(2,073.65)	
28560	Solar tax credit	630.40	192.12	822.52	
28564	HR Suites project costs	(213,369.94)	(67,275.43)	(280,645.37)	
28568	Solar Saver Program	43,008.71	13,107.14	56,115.85	
28570	Pension Tracker	(18,456,906.96)	(5,624,946.08)	(24,081,853.04)	
28572	OPEB Tracker	1,198,564.16	365,276.00	1,563,840.16	
28580	Blue Earth reserve	(2,163.55)	(659.33)	(2,822.88)	
28584	RO Water Pipeline	215,900.82	65,798.23	281,699.05	
28590	Repairs Adjustment	(74,909,026.37)	(22,228,032.86)	(97,137,059.23)	
28592	Stimulus Funds	200.17	60.96	261.13	
28594	Budget System Replacement	(135,405.78)	(41,265.98)	(176,671.76)	
28596	EOTF interest / amort	(2,972.01)	(906.02)	(3,878.03)	
28598	CIP interest	(116,247.60)	(35,427.08)	(151,674.68)	
28600	ERP project costs	(1,035,960.90)	(315,721.84)	(1,351,682.74)	

HAWAIIAN ELECTRIC CO., INC.					
DEFERRED INCOME TAXES					
FEDERAL		DR / (CR)	DR / (CR)	DR / (CR)	
		HECO	HECO	HECO	
		FEDERAL	STATE	TOTAL	
DR / (CR)		LIABILITY	LIABILITY	LIABILITY	
LIAB	DESCRIPTION	12/31/2018	12/31/2018	12/31/2018	
28602	Reg Liab Federal PV/EV	192,541.81	58,679.74	251,221.54	
28604	IVR project costs	(174,366.73)	(53,140.93)	(227,507.66)	
28608	Franchise Tax	1,013,344.05	308,828.44	1,322,172.49	
28614	RBA revenues	(7,287,568.48)	(2,220,971.56)	(9,508,540.04)	
28618	NOL - charitable	(6,347.36)	-	(6,347.36)	
28620	G/L Lauula	8,240.41	(41.55)	8,198.86	
28626	Reg Asset - 2017 Excess-other	(3,312,656.78)	(5,623,166.16)	(8,935,822.94)	
28628	Reg Liab - 2017 Excess-other	7,289,541.76	6,835,162.29	14,124,704.06	
28630	Reg Liab - TRA revenues	965,858.79	294,357.59	1,260,216.38	
28632	PSC/PUC tax	5,781,313.48	1,761,927.88	7,543,241.36	
28634	Waianae Solar	1,774,655.94	540,848.68	2,315,504.62	
28636	HT joint pole unbilled	875,228.59	266,736.90	1,141,965.49	
AOCINQ	AOCI - NQ Pension	624,198.92	190,228.31	814,427.23	
AOCIOPEB	AOCI - OPEB Exec Life	(538,268.59)	(164,045.19)	(702,313.78)	
48000	FIN 48 tax	368,936.00	661,176.00	1,030,112.00	
48002	FIN 48 interest	41,253.93	12,572.63	53,826.56	
50000	Rounding	(709.37)	364.13	(345.24)	
FED ACCOUNT 283, excluding state ITC		(38,254,016.15)	(6,551,668.15)	(44,805,684.30)	
28310	State ITC	11,655,223.12	3,534,658.68	15,189,881.80	
TOTAL ACCOUNT 283		(26,598,793.02)	(3,017,009.47)	(29,615,802.50)	
28210000	Accelerated Depreciation	(252,669,067.47)	(48,604,627.78)	(301,273,695.25)	
28210100	Accel. Depr. - Excess	44,073,568.30	13,431,888.93	57,505,457.23	
28210200	Accel. Depr. - Deficit	(169,370.14)	(51,202.87)	(220,573.02)	
TOTAL ACCOUNT 282		(208,764,869.31)	(35,223,941.72)	(243,988,811.04)	To Sch D4
TOTAL DEF INCOME TAX - UTILITY		(235,363,662.34)	(38,240,951.20)	(273,604,613.53)	
28210300	Nonutility Depreciation	555,767.33	265,376.64	821,143.97	
28301001	Nonutility - Other	1,029,315.35	316,263.16	1,345,578.51	
28301002	RHI Tax Allocation	-	-	-	
28301003	UBC Tax Allocation	-	-	-	
50001	Rounding	(2.67)	-	(2.67)	
TOTAL DEF INCOME TAX - NONUTILITY		1,585,080.02	581,639.80	2,166,719.82	
TOTAL DEF INCOME TAX		(233,778,582.32)	(37,659,311.40)	(271,437,893.72)	
RATE BASE CALCULATION					
TOTAL ACCOUNT 283		(26,598,793.02)	(3,017,009.47)	(29,615,802.50)	
Less:					
28312	Accrued Vacation	(247,391.60)	(81,566.84)	(328,958.44)	
28313	Uncollectible Acct	365,876.81	111,502.91	477,379.72	
28314	Directors Def Comp	8,117.74	1,571.96	9,689.70	
28317	Discounted Work Comp	313,824.26	95,894.48	409,718.74	
28323	Excess Benefit Plan	566,372.66	168,081.11	734,453.77	
28326	Def Exec Comp (Def EICP<IP)	35,031.69	10,677.39	45,709.08	
28330	EICP	(358,728.30)	(125,497.81)	(484,226.11)	
28336	Nondeductible Interest	19,016.26	5,795.04	24,811.30	
28337	Supplemt Benefits - SERP	272,295.28	72,700.74	344,996.02	
28340	LTIP	822,110.82	250,548.14	1,072,658.96	
28341	Waipahu Baseyard Int	67,116.93	20,452.91	87,569.84	
28347	Waiau Water Well Pmts	79,910.90	24,369.66	104,280.56	
28350	Outage Loss Adj Exp	-	(24,509.00)	(24,509.00)	
28401	Genl/Auto (& Accidents)	248,241.27	75,654.04	323,895.31	
28412	Genl/Auto Liability - Legal	0.21	(2,428.89)	(2,428.68)	
28418	IRP Costs	(25,223.69)	(8,107.96)	(33,331.65)	
28422	Miscellaneous	17,106.97	(16,969.99)	136.98	
28434	EEO Claims	452.80	138.01	590.81	
28436	TIP/Rewards Programs	119,814.53	36,774.90	156,589.43	
28516	Honolulu Harbor Reserve	879,610.69	268,072.02	1,147,682.71	
28520	Deferred Comp - restricted stock	141,231.75	43,041.58	184,273.33	
28522	Perry reserve	64,996.20	19,808.00	84,804.20	
28538	Rate Case Costs	(287,342.77)	(87,571.54)	(374,914.31)	
28544	OPEB Exec Life	2,641,514.13	805,101.19	3,446,615.32	
28550	E-Business hardware	(19,730.68)	(8,206.93)	(27,937.61)	
28568	Solar Saver Program	43,008.71	13,107.14	56,115.85	

HAWAIIAN ELECTRIC CO., INC.					
DEFERRED INCOME TAXES					
FEDERAL		DR / (CR)	DR / (CR)	DR / (CR)	
		HECO	HECO	HECO	
		FEDERAL	STATE	TOTAL	
DR / (CR)		LIABILITY	LIABILITY	LIABILITY	
LIAB	DESCRIPTION	12/31/2018	12/31/2018	12/31/2018	
28580	Blue Earth reserve	(2,163.55)	(659.33)	(2,822.88)	
28600	ERP project costs	(1,035,960.90)	(315,721.84)	(1,351,682.74)	
28608	Franchise Tax	1,013,344.05	308,828.44	1,322,172.49	
28614	RBA revenues	(7,287,568.48)	(2,220,971.56)	(9,508,540.04)	
28618	NOL - charitable	(6,347.36)	-	(6,347.36)	
28630	Reg Liab - TRA revenues	965,858.79	294,357.59	1,260,216.38	
28632	PSC/PUC tax	5,781,313.48	1,761,927.88	7,543,241.36	
28634	Waianae Solar	1,774,655.94	540,848.68	2,315,504.62	
AOCINQ	AOCI - NQ Pension	624,198.92	190,228.31	814,427.23	
AOCIOPEB	AOCI - OPEB Exec Life	(538,268.59)	(164,045.19)	(702,313.78)	
48000	FIN 48 tax	368,936.00	661,176.00	1,030,112.00	
48002	FIN 48 interest	41,253.93	12,572.63	53,826.56	
	Adjustment for EOTP, CIS and CIP	(114,827.94)	(34,994.66)	(149,822.60)	
Total Exclusions		7,351,657.84	2,701,979.21	10,053,637.05	
Total 283 Deferred Taxes for Rate Base		(33,950,450.87)	(5,718,988.68)	(39,669,439.55)	To Sch D4
Total 282 Deferred Taxes for Rate Base		(208,764,869.31)	(35,223,941.72)	(243,988,811.04)	
TOTAL DEF INCOME TAX - RATE BASE		(242,715,320.18)	(40,942,930.41)	(283,658,250.59)	To Sch D4

HAWAIIAN ELECTRIC CO., INC.
ADIT ON EXCESS DEPRECIATION
DECEMBER 31, 2018

FEDERAL DEFERRED TAXES		ERP/EAM HARDWARE		KOOLAU- WAILUPE #1	TOTAL
	source				
1	State Tax Depreciation				
2	Book Depreciation		7,356	14,620	21,976
3	Subtotal		(2,829)	(4,211)	(7,040)
			4,527	10,409	14,936
4	Effective Federal Tax Rate		19.7368%	19.7368%	19.7368%
5	Federal Deferred Tax on State Depreciation		893	2,054	2,948
6	Addback State Tax Depreciation		(4,527)	(10,409)	(14,936)
7	Federal Tax Depreciation		10,751	71,941	82,692
8	Book Depreciation		(2,829)	(4,211)	(7,040)
9	Federal State Difference		3,395	57,321	60,716
10	Tax Rate on Federal Only Adjustment		21%	21%	21%
11	Federal Deferred Tax Adjustment		713	12,037	12,750
12	Total Federal Deferred Taxes		1,606	14,091	15,698
					to Sch D4
STATE DEFERRED TAXES					
13	State Tax Depreciation		7,356	14,620	21,976
14	Book Depreciation		(2,829)	(4,211)	(7,040)
15	Subtotal		4,527	10,409	14,936
16	Effective State Tax Rate		6.0150376%	6.0150376%	6.0150376%
17	Total State Deferred Taxes		272	626	898
					to Sch D4
18	TOTAL DEFERRED TAXES		1,878	14,717	16,596
			to Sch D1	to Sch D1	to Sch D4

FEDERAL

HAWAII

HECO-WP-D4-002
PAGE 2 OF 3

**HAWAIIAN ELECTRIC CO., INC.
EXCESS TAX DEPRECIATION
ERP/EAM HARDWARE**

Project No.	DIS	Description	Total Basis	Less PUC Approved Amt	Disallowed Costs	Plant Acct	Life	Bonus	2017	2018
FEDERAL										
P0003205	v2017	ERP/EAM Hardware	HECO-WP-D2-001 2,604,146	2,590,000	14,146	Computer	5	50	8,488	2,263
Total			2,604,146	2,590,000	14,146					
Cumulative										

HAWAIIAN ELECTRIC CO., INC.
 MPIR ADIT - SCHOFIELD GENERATING STATION
 DECEMBER 31, 2018

	source	Tax Depreciation (page 2 of 5)	AFUDC (page 3 of 5)	Tax Cap Interest (page 3 of 5)	State ITC (page 3 of 5)	Removal (page 5 of 5)	2018 Total
FEDERAL DEFERRED TAXES							
1 State Book/Tax Difference		(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
2 Book Depreciation	HECO-WP-L-001						
3 Subtotal	Line 1 + Line 2	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
4 Effective Federal Tax Rate		19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%
5 Federal Def Tax on State Book/Tax Diff	Line 3 * Line 4	(1,353,254)	(2,361,501)	1,514,862	832,222	(36,513)	(1,404,184)
6 Addback State Book/Tax Difference	Line 3	6,856,503	11,964,962	(7,675,319)	(4,216,602)	185,002	7,114,546
7 Federal Book/Tax Difference		(6,856,502)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,545)
8 Book Depreciation	Line 2						
9 Federal State Difference	Line 6 + 7 + 8	1	-	-	-	-	1
10 Tax Rate on Federal Only Adjustment		21%	21%	21%	21%	21%	21%
11 Federal Deferred Tax Adjustment	Line 9 * Line 10	-	-	-	-	-	-
12 Total Federal Deferred Taxes	Line 5 + Line 11	(1,353,254)	(2,361,501)	1,514,862	832,222	(36,513)	(1,404,184)
							To Sch D4
STATE DEFERRED TAXES							
13 State Book/Tax Difference	Line 1	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
14 Book Depreciation	Line 2	-	-	-	-	-	-
15 Subtotal	Line 13 + Line 14	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
16 Effective State Tax Rate		6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%
17 Total State Deferred Taxes	Line 15 * Line 16	(412,421)	(719,697)	461,673	253,630	(11,128)	(427,943)
							To Sch D4
18 TOTAL DEFERRED TAXES	Line 12 + Line 17	(1,765,675)	(3,081,198)	1,976,535	1,085,852	(47,641)	(1,832,127)
							To Sch D4

HAWAIIAN ELECTRIC CO., INC.
TAX DEPRECIATION
SCHOFIELD GENERATION STATION

Project No.	Description	Book Basis	Less: AFUDC	Add: TCI	Tax Basis	Plant Acct	Life	Bonus	2018
FEDERAL									
P0001576	Schofield Generation Station	65,512,935	(5,393,539)	3,459,864	63,579,259	Oth Prod	15	0%	3,178,963
P0001576	Schofield Generation Station	65,512,935	(5,393,539)	3,459,864	63,579,259	Oth Prod	15	0%	3,178,963
P0001576	Schofield Generation Station	5,751,969	(522,427)	335,128	5,564,670	Trans	20	0%	208,675
P0001576	Schofield Generation Station	5,751,969	(522,427)	335,128	5,564,670	Trans	20	0%	208,675
P0001576	Schofield Generation Station	1,106,868	(66,514)	42,668	1,083,021	Comm	20	0%	40,613
P0001576	Schofield Generation Station	1,106,868	(66,514)	42,668	1,083,021	Comm	20	0%	40,613
Total		144,743,542	(11,964,962)	7,675,319	140,453,899	6,856,502			
Cumulative						To page 1 of 5			

HAWAII									
P0001576	Schofield Generation Station	131,025,869	(10,787,079)	6,919,727	127,158,518	Oth Prod	15	0	6,357,926
P0001576	Schofield Generation Station	11,503,937	(1,044,854)	670,256	11,129,339	Trans	20	0	417,350
P0001576	Schofield Generation Station	2,213,736	(133,029)	85,336	2,166,043	Comm	20	0	81,227
Total		144,743,542	(11,964,962)	7,675,319	140,453,899	6,856,503			
Cumulative						To page 1 of 5			

Hawaiian Electric Company, Inc.
Breakdown of SGS Costs by Major Area
Actuals through December 2018

TOTAL PLANT ADDITIONS:	A	B	C	D	E=SUM(B:D)	F=A+E	
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	State ITC
Labor	2,293,428	1,712,982	305,919	741,234	2,760,135	5,053,564	
Materials	32,932,285	1,523,772	545,040	512,566	2,581,378	35,513,663	35,513,663
Vehicles	2,062	117,109	187	563	117,859	119,921	
Overheads	12,885,912	2,456,221	544,975	928,736	3,929,932	16,815,844	
AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962	
Outside Services-Construction	69,147,360	614,746	59,095	80,179	754,019	69,901,379	69,901,379
Outside Services-Other	2,550,389	1,421,977	621,195	348,999	2,392,171	4,942,560	
Other	427,354	-	4,296	-	4,296	431,650	
	131,025,869	8,549,966	2,213,736	2,953,971	13,717,673	144,743,542	
Amount subject to bonus (A)	50%	50%	50%	50%	50%	50%	105,415,043
	65,512,935	4,274,983	1,106,868	1,476,985	6,858,836	72,371,771	4%
							4,216,602
			5,751,969				To page 1 of 5
Tie out of TCI:							
AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962	To page 1 of 5
ratio - 5 year average	64.15%	64.15%	64.15%	64.15%	64.15%	64.15%	From page 4 of 5
TCI	6,919,727	451,065	85,336	219,191	755,592	7,675,319	To page 1 of 5
			670,256				

Source: Ellipse & SAP

(A) - At year end, no bonus depreciation was taken for Schofield Generation Station. See page 2 for tax depreciation calculation.

Hawaiian Electric Company, Inc.
Annual - TCI Closed to AFUDC Closed Ratio

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>5 Yr Ave</u>
TCI	3,820,695	4,825,860	4,299,588	4,056,549	5,041,274	22,043,966
AFUDC	5,511,275	7,365,025	6,668,924	6,540,575	8,278,273	34,364,072
Ratio	0.693251	0.655240	0.644720	0.620213	0.608977	0.641483

To page 3 of 5

Hawaiian Electric Company, Inc.
MPIR Removal Costs
Actuals Through December 31, 2018

Row Labels	Sum of amount
Labor	90,530
Materials	46
Overheads	94,426
Grand Total	185,002

To page 1 of 5

SOURCE: Ellipse & SAP

Hawaiian Electric Company, Inc.
2018 Major Projects Excess Cost, Net of CIAC

[1]	[1]		[2]	[1]					[1]	[2]	[1]	[3]	[2]	To Sch D1	
Grandparent # or Project #	Project	Date In Service	Net Plant Adds Thru 12/31/17	Net Plant Adds Thru 12/31/18	Plant Acct	Docket No 2010-0053 Depr Rate	2018 Depr	2019 Depr	Net PUC Approved	2017 Net Cost in Excess of Docket	2018 Net Cost in Excess of Docket	Prior Years Depr Related to Excess	2018 Depr Related to Excess	Cumulative Depr Related to Excess	2019 Depr Related to Excess
			(A)	(B)		(C)	(D) = (A) * (C)	(E) = (B) * (C)	(F)	(G)	(H) = (B) - (F)	(I)	(J) = (G) / (A) * (D)	(K) = (I) + (J)	(L) = (H) / (B) * (E)
PZ.000003/ (P0003205)	ERP EAM Hardware	2017/06	2,604,146	2,604,146	391.1	0.20000	520,829	520,829	2,590,000	14,146	14,146	-	2,829	2,829	2,829
PE.000104 (P0003465)	Koolau-Waiupe #1 Str 30 P9 Replace	2017/07	2,684,387	2,697,590	356	0.03270	87,779	88,211	2,555,619	128,768	141,971	-	4,211	4,211	4,642
PZ.000016/ PZ001002 (P0001576)	Schofield Generation Station - Note [4]	2018/06	-	142,147,612	343	0.03260	-	4,634,012							
			-	2,003,490	352	0.01600	-	32,056							
			-	352,190	353	0.01860	-	6,551							
			-	240,250	397	0.06670	-	16,025							
			-	144,743,542				4,688,643	-	-	144,743,542	-	-	-	4,688,643

[1] Source: HECO-WP-D2-001

[2] Source: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric Company RBA Rate Adjustment, HECO-WP-E-001, filed on May 29, 2018.

[3] Source: Transmittal No. 18-01 (Decoupling) - RBA Rate Adjustment (Filed May 29, 2018), HECO-WP-E-001, column (L), "Cumulative Depr Related to Excess".

[4] The Schofield Generation Station project is recovered via the Major Project Interim Recovery (MPIR) mechanism at the Schedule L series. As such, the entire project related costs will be excluded from all Decoupling calculations.

Hawaiian Electric Company
Calculation of Composite Effective Income Tax Rates
Federal and State

Composite Federal and State Effective Income Tax Rate

	<u>Eff 1/1/2018</u>	<u>2017 & Prior</u>
Federal Effective Income Tax Rate	19.7368421%	32.8947368%
State Effective Income Tax Rate	6.0150376%	6.0150376%
	<u>25.7518797%</u>	<u>38.9097744%</u>

Calculation of Effective Rates

Assumptions:

ST = State Income Tax Expense

FT = Federal Income Tax Expense

Pre-Tax Income = \$1.00

	<u>Eff 1/1/2018</u>	<u>2017 & Prior</u>
--	---------------------	-------------------------

State Statutory Income Tax Rate*	6.4%	6.4%
----------------------------------	------	------

Federal Statutory Income Tax Rate**	21.0%	35.0%
-------------------------------------	-------	-------

Calculation of State Effective Income Tax Rate

State Income Tax Expense = Statutory Rate x (Pre-Tax Income - State Income Tax Expense)

ST = .064 x (1 - ST)

ST = .064 - .064(ST)

1.064(ST) = .064

ST = .060150376 or 6.0150376% of Pre-Tax Income

Calculation of Federal Effective Income Tax Rate

Federal Income Tax Expense = Statutory Rate x (Pre-Tax Income - State Income Tax Expense)

Effective 1/1/18

FT = .21 x (1 - ST)

FT = .21 x (1 - .060150376)

FT = .21 - .01263157896

FT = .197368421 or 19.7368421% of Pre-Tax Income

2017 & Prior

FT = .35 x (1 - ST)

FT = .35 x (1 - .060150376)

FT = .35 - .01263157896

FT = .328947368 or 32.8947368% of Pre-Tax Income

* Hawaii Revised Statutes §235.71 was amended for tax years beginning after 1986.

** The Tax Cuts and Jobs Act changed the Federal tax rate for tax years ending after December 31, 2017.

HAWAIIAN ELECTRIC COMPANY, INC.
TAX REPAIRS ADJUSTMENT
2018

			A	B	C = A x B	D = A - C
		HECO-WP- F1-002 5 YR LIFE AVERAGE	Plant Adds	HECO-WP- F1-001, pg 2 Repairs Allocation	Repairs Deduction	Depreciable Basis
Computers/PV	5	6,092				
Communication	20	5,920				
Off/Furn/Tools	7	5,022				
Distribution	20	130,472	130,472,000	19.67%	25,659,352	104,812,648
Land	-	816				
Non-Steam Production	15	3,713	3,713,000	0.04%	1,582	3,711,418
Steam Production	20	22,905	22,905,000	28.28%	6,477,859	16,427,141
Structural	39	3,265				
Transmission	20	21,834	21,834,000	4.49%	980,382	20,853,618
Transmission	15	34,674	34,674,000	4.49%	1,556,918	33,117,082
Vehicles	-	5,209				
TOTAL		<u>239,922</u>	<u>213,598,000</u>		<u>34,676,093</u>	<u>178,921,907</u>
					To Sch F1	

NOTE 1> This schedule computes the estimated amount of deductible tax repairs related to the baseline plant additions for the RAM year. The deductible tax repairs amounts are carried forward to Schedule F1 and serve to reduce the depreciable tax basis for the baseline plant additions. The repairs percentages (Column B) are calculated on HECO-WP-F1-001, page 2.

NOTE 2> The numbers (excluding %s) are rounded to the nearest thousand.

HAWAIIAN ELECTRIC COMPANY, INC.
REPAIRS DEDUCTION

		Distribution	Non Steam	Steam	Transmission
Repairs %:					
Total book basis repairs					
2014		40,010,784		8,698,003	1,620,540
2015		28,855,969		8,823,262	3,152,508
2016		19,906,067		6,512,311	2,697,168
2017		24,350,324	71,857	5,491,680	4,271,225
2018		23,503,387		4,894,363	1,396,139
		136,626,531	71,857	34,419,619	13,137,580
Total book basis adds					
2014	HECO-WP-F1-002	139,366,000	12,311,000	30,119,000	57,957,000
2015	HECO-WP-F1-002	150,513,000	5,613,000	25,823,000	48,871,000
2016	HECO-WP-F1-002	117,566,000	268,000	24,812,000	79,269,000
2017	HECO-WP-F1-002	147,966,000	1,658,000	22,867,000	73,183,000
2018	HECO-WP-F1-002	139,304,000	148,783,000	18,083,000	33,306,000
		694,715,000	168,633,000	121,704,000	292,586,000
AVERAGE %		19.666558%	0.042611%	28.281420%	4.490160%

NOTE 1> With the assistance of Price Waterhouse Coopers, the repairs deduction analysis was performed in 2010, 2012, 2015 and 2016 in connection with changing HECO's method of identifying deductible repairs for tax accounting purposes. The repairs percentage for each functional group represents the five year weighted average of the identified repairs costs.

NOTE 2> The numbers (excluding %s) are rounded to the nearest thousand.

HAWAIIAN ELECTRIC COMPANY, INC.
BASELINE PLANT ADDS

		LESS: MAJOR								%
	LIFE	2014	2015	2016	2017	2018	PROJECTS	TOTAL	AVERAGE	AVERAGE
Computers/PV	5	6,681	8,980	5,219	7,587	4,596	(2,604)	30,459	6,092	2.54%
Communication	20	5,340	5,183	5,870	7,349	6,611	(754)	29,599	5,920	2.47%
Off/Furn/Tools	7	8,242	4,315	2,964	5,204	4,384		25,109	5,022	2.09%
Distribution	20	139,366	150,513	117,566	147,966	139,304	(42,353)	652,362	130,472	54.38%
Land	-	1,729	1,233	11	262	847		4,082	816	0.34%
Non-Steam Production	15	12,311	5,613	268	1,658	148,783	(150,069)	18,564	3,713	1.55%
Steam Production	20	30,119	25,823	24,812	22,867	18,083	(7,178)	114,526	22,905	9.55%
Structural	39	2,899	5,468	1,647	5,217	1,092		16,323	3,265	1.36%
Transmission	20	13,295	21,461	38,676	29,442	8,994	(2,698)	109,170	21,834	9.10%
Transmission > 69kv	15	44,662	27,410	40,593	43,741	24,312	(7,349)	173,369	34,674	14.45%
		57,957	48,871	79,269	73,183	33,306	(10,047)	282,539	56,508	23.55%
Vehicles	-	4,682	10,540	3,665	5,460	1,697		26,044	5,209	2.17%
TOTAL		269,326	266,539	241,291	276,753	358,703	(213,005)	1,199,607	239,921	100.00%

To WP-F1-001

HAWAIIAN ELECTRIC CO., INC.
PRORATION ADJUSTMENT FOR NORMALIZATION COMPLIANCE
FEDERAL ADIT DR/(CR)

ADIT account 282 -- Federal accelerated depreciation	Federal ADIT DR/(CR)	January	February	March	April	May	June	July	August	September	October	November	December
Beginning balance	Sch D4	(208,749,171)											
Federal Tax Depreciation	Sch F	(20,239,341)											
Effective Federal Tax Rate		19.7368%											
Net ADIT accrued 2019		(3,994,598)											
Monthly Accrued evenly over 12 months		(332,883)											

WITHOUT PRORATION	Beg of Yr	January	February	March	April	May	June	July	August	September	October	November	December	End of Yr
Federal 282 ADIT Balance	(208,749,171)													
Monthly Additions		(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(3,994,598)
Cumulative Balance	(208,749,171)	(209,082,054)	(209,414,937)	(209,747,821)	(210,080,704)	(210,413,587)	(210,746,470)	(211,079,353)	(211,412,237)	(211,745,120)	(212,078,003)	(212,410,886)	(212,743,769)	(212,743,769)

Simple Year Average - Without Proration (210,746,470)

WITH PRORATION	6/1/2019	214												
Days new rates in effect														
Prorated additions		(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(287,773)	(239,551)	(191,330)	(144,664)	(96,443)	(49,777)	(1,556)	(2,675,510)
Cumulative ADIT balance with proration	(208,749,171)	(209,082,054)	(209,414,937)	(209,747,821)	(210,080,704)	(210,413,587)	(210,701,360)	(210,940,911)	(211,132,241)	(211,276,905)	(211,373,348)	(211,423,125)	(211,424,681)	(211,424,681)

Simple Year Average - With Proration (210,086,926)

Adjustment to rate base ADIT 659,544
To Schedule F

Days new rate in effect	335	307	276	246	215	185	154	123	93	62	32	1	
Days in the month	31	28	31	30	31	30	31	31	30	31	30	31	365

Note: Methodology based on IRS Private Letter Ruling 9313008

HAWAIIAN ELECTRIC COMPANY, INC.
AVERAGE RATE BASE AND RATE OF RETURN
(\$ Thousands)

RATE BASE	Month-End		REFERENCE
	Dec 2017	Dec 2018	
INVESTMENTS IN ASSETS SERVING CUSTOMERS			
NET COST OF PLANT IN SERVICE			
Total Utility Plant	3,330,923	3,523,249	Note 2
Adjustments:			
Construction Work in Progress	(245,995)	(550,571)	Note 2
Regulatory Asset - ARO	-	331	GL#18670151
Asset Retirement Obligation	(2,539)	(4,780)	GL#25301000
Regulatory Liability for Cost of Removal	(327,225)	(356,926)	GL#25400001
Plant - Tenant Allowance	(14,058)	(14,132)	GL#10100002
Acc Amort - Tenant Allowance	8,662	9,824	GL#11160000
Unbilled Pole Credits	-	(4,435)	within GL#25300000
	2,749,768	2,602,560	Note 1
FUEL INVENTORY	64,972	54,262	Note 2
MATERIALS & SUPPLIES INVENTORIES (excl Stores Expense)	26,517	27,953	GL#90154000, Note 2
UNAMORT NET ASC 740 REG ASSET	78,576	77,465	ADIT Tax Sch
PENSION TRACKING REG ASSET	115,531	96,993	GL#18676040
OPEB TRACKING REG ASSET	3,112	-	GL#18677040
PENION NON-SERVICE COST REG ASSET	-	883	GL#18676045
EOTP REG ASSET	89	20	GL#18670124/5/6
CIP CT-1 REG ASSET	1,352	795	GL#18670120/21/22
DEFERRED SYSTEM DEVELOPMENT COSTS			
OMS	746	445	GL#18607004
HR Suites-Phase 1	1,307	951	GL#18606004
HR Suites-Phase 2	512	384	GL#18606104
Budget System Replacement Project	885	739	GL#18607704
IVR	1,000	883	GL#18670400
CIS	9,046	7,827	Acctg Dept Amort Sch
	13,496	11,229	
RO WATER PIPELINE REG ASSET	4,842	4,725	GL#18670152
CONTRIB IN EXCESS OF NPPC	2,240	-	GL#18676030
TOTAL INVESTMENTS IN ASSETS	3,060,495	2,876,885	
FUNDS FROM NON-INVESTORS			
UNAMORTIZED CIAC	365,482	30,110	Note 5
CUSTOMER ADVANCES			
Customer Advances	4,239	6,392	GL#25200000
Developer Advances	33,884	21,345	Note 3
	38,123	27,737	
CUSTOMER DEPOSITS	11,113	10,409	GL#23501000
ACCUMULATED DEF INCOME TAXES	283,136	283,659	Schedule D4
EXCESS ACCUMULATED DEF INCOME TAXES	278,582	278,156	GL#25400023/24, Note 4
UNAMORTIZED ITC (GROSS)	57,594	58,897	GL#25520000/20004
UNAMORTIZED FEDERAL EV CREDIT	750	724	GL#25503000
UNAMORTIZED GAIN ON SALE	182	116	GL#25400101/02/09
PENSION TRACKING REG LIAB	-	3,478	GL#25400004
OPEB TRACKING REG LIAB	5,443	1,858	GL#25400002
TOTAL DEDUCTIONS	1,040,405	695,144	
WORKING CASH	7,068	11,027	HECO-WP-H-008
RATE BASE	2,027,158	2,192,768	
SIMPLE AVERAGE RATE BASE		2,109,963	To Schedule H

Footnotes:

- * Amounts may not add up due to rounding.
- 1 Includes Property Held for Future Use balance of \$0 for 2018 and 2017.
- 2 See Hawaiian Electric Company Inc. Monthly Financial Report - December 2018, filed February 28, 2019.
Note that Materials & Supplies Inventory include an adjustment of (\$1,116) and (\$1,489) representing payment lags in 2017 and 2018, respectively.
- 3 The Company reclassified cash received from Developers, subject to refund, to Customer Advances. Amount has been isolated for greater transparency within the rate base calculation. See further discussion at Schedule G.
- 4 As a result of the 2017 Tax Reform Act, Regulatory Liability accounts were created to isolate the impact of the 2017 excess accumulated deferred taxes effective in actuals as of December 2017. These Regulatory Liabilities have been included as a reduction to Rate Base. Deferred tax asset related to excess accumulated deferred taxes is included in Unamortized Net ASC 740 Reg Asset.
- 5 For 2018, CIAC is netted with Plant In Service, CWIP and Developer Advances, resulting from the Company's transition to FERC treatment in October 2018. See further discussion of the Company's treatment of CIAC at HECO-WP-D1-001.

HAWAIIAN ELECTRIC COMPANY, INC.
Ratemaking Adjustments For Incentive Compensation And Other Non-Recoverable Expenses
2018

Line	Account/Order No.	Description	2018	Tax @ 25.75%	Net of Tax	Rounded (000s)
1	<u>Executive Compensation and Incentive Compensation</u>					
2	70025/26/#60003110	LTIP and EICP expense	(a) 3,310,738			
3	70027/ #60004000	Other incentive awards	828,135			
4	Provided by HEI	HEI charges for incentive compensation	(a) 692,751			
5	Non-Executive Incentive Wksht	Non-executive incentive programs	(a) 457,781			
6	70028/ #60003110	Manager award plan	(a) 195,785			
7			5,485,190	1,412,540	4,072,650	4,073
						To Sch H, Line 2A
8	<u>Discretionary and Other Expenses Not Recoverable</u>					
9	#60004009	Executive life insurance(COLI) expense (credit) - <i>not tax deduct</i>	(442,516)			
10	Provided by HEI	EEL Dues (allowed portion) - <i>not tax deduct</i>	47,722			
11	70014/ #60004034	OPEB (Executive life portion only)	440,216			
12	70016	HEIRS	7,902			
13	Provided by HEI	HEI charges for non-incentive comp (salaries/benefits - Executives (labor)	(a) 524,810			
14	Provided by HEI	HEI charges for outside services (plan admin, legal fees, audit fees) - Executives (non-labor)	74,279			
15	70014/24/ #60004035/36	Non-qualified pension expense	475,342			
16	#60018015	Payroll taxes related to incentive compensation	173,390			
17	70011/70012	Service awards program	63,045			
18	Various	Community service admin - AUW (labor)	(a) 90,346			
19	50100	Community service admin - AUW (non-labor)	99,926			
20			1,554,462	501,970	1,052,492	1,052
						To Sch H, Line 2B
21	Total Adjustment to Operating Income		<u>7,039,652</u>	<u>1,914,510</u>	<u>5,125,142</u>	
				To HECO-WP-H-008, Pg 1		
		Labor	Σ(a) 5,272,211	To HECO-WP-H-008, Pg 1		
		Non-labor	1,767,441	To HECO-WP-H-008, Pg 1		
		Total adjustment to operating income	<u>7,039,652</u>			

HAWAIIAN ELECTRIC COMPANY, INC.
Income Tax On Items To Be Replaced By Synchronized Interest
2018

	<u>Source</u>	<u>YTD</u>	<u>Rounded (000s)</u>
Total Interest Charges	GL# RONE70	52,180,277	
Remove: RBA Interest Income	GL# 41900002	776,680	
Less: Int on Customer Deposits	GL# 60016050	(631,778)	
AFUDC-Debt	GL# RONE69	(4,018,998)	
Amort of Inv Inc Differential	within GL# 60001010	184,971	185 To Sch H, Line 2C
Equity in net income of trust	GL# 42107000	<u>(100,516)</u>	
		48,390,636	
	Tax rate	<u>25.75%</u>	
		<u><u>12,460,589</u></u>	(12,461) To Sch H, Line 2D

HAWAIIAN ELECTRIC COMPANY, INC.
Ratemaking Capitalization
2018

	Simple Average Balance*	Ratios	Cost Rate	Weighted Cost of Debt
Short-Term Debt	88,868	3.68%	2.54%	0.09%
Long-Term Debt	939,810	38.92%	5.03%	1.96%
Hybrid Securities	28,758	1.19%	7.16%	0.09%
Preferred Stock	21,192	0.88%	5.36%	0.05%
Common Equity	1,335,921	55.33%	9.50%	5.26%
	2,414,549	100.00%		7.45%

	NARUC/ GL Code	YTD Dec 2018	Rounded (000s)	Cost Rate
<u>Short-Term Debt:</u>				
Interest on Debt Assoc Co	60016060/61	2,108,154		
Less: Interest on QUIDS	QUIDS (see below)	(2,050,516)		
Int Exp-Commercial Paper	within 60016100	2,305,290		
Int Exp-SCF Loans		0		
Int Inc-Assoc Cos.	41908000	(176,391)		
Int Exp-Short Term	within 60016000	69,531		
		2,256,068	2,256	2.54%
<u>Long-Term Debt:</u>				
Amort of Debt Disc & Exp	60002100	1,641,364		
Less: Hybrid Sec Amort of Iss Exp	see a below	(109,414)		
Interest on Long-Term Debt	60016000	45,646,755		
Less: Int Exp-Short Term	see above	(69,531)		
Amort Inv Inc Differential	within 60001010	184,970		
		47,294,144	47,294	5.03%
<u>Hybrid Securities:</u>				
Interest on QUIDS	60016060	2,050,516		
Amort Exp-QUID1 Iss Exp	within 60002100	40,416		
Amort Exp-QUID2 Iss Exp	within 60002100	37,899		
Amort Exp-QUID3 Iss Exp	within 60002100	31,099		
Equity in Net Inc of Trust	42107000	(100,516)		
		2,059,414	2,059	7.16%
<u>Preferred Stock:</u>				
Amort of Pfd Stk Iss Exp	60002000	55,086		
Preferred Stock dividends	60016500	1,079,907		
		1,134,993	1,135	5.36%

* Short-Term Debt based on a 12 month average.

HAWAIIAN ELECTRIC COMPANY, INC.
Special Medical Needs Program Discount (net of tax)
2018
Amounts in (\$000s)

Special Medical Needs Program Discount	151	
Revenue Taxes @ 8.885%	<u>(13)</u>	
	138	
Income Taxes @ 25.75%	<u>(35)</u>	
Reduction to operating income	<u><u>102</u></u>	To Sch H, Line 2e

Source: CIS Special Medical Needs (SMN) report

HAWAIIAN ELECTRIC COMPANY, INC.
Performance Incentive Mechanism
2018
Amounts in (\$000s)

Gross (Reward) / Penalty Amount	GL#25400030	532	
Revenue Taxes @ 8.885%		(47)	
		<u>485</u>	
Income Taxes @ 25.75%		(125)	
Reduction to operating income		<u><u>360</u></u>	To Sch H, Line 2f

Note:

Subsequent to the December 2018 financial close, Hawaiian Electric revised its PIMS Regulatory Liability of \$531,871 to PIMS Regulatory Asset of \$537,856 as shown at Schedule M. The recorded PIMS Regulatory Liability balance of \$531,871 as of 12/31/18 was used to determine the 2018 Earnings Sharing Calculations at Schedule H.

The Company trued-up the Regulatory Liability balance with the February 2019 financial close.

HAWAIIAN ELECTRIC COMPANY, INC.**Final Test Year Refund****2018****Amounts in (\$000s)**

2017 Test Year Rate Case Final D&O Refund	Note 1	48	
Revenue Taxes @ 8.885%		<u>(4)</u>	
		44	
Income Taxes @ 25.75%		<u>(11)</u>	
Reduction to operating income		<u><u>32</u></u>	To Sch H, Line 2g

Note 1:

2017 Final Test Year Rate Case Final D&O Refund calculation, filed in Docket No. 2016-0328 HECO Letter to the PUC, Exhibits 4 & 5, filed on July 23, 2018, and approved in Order No. 35661, filed August 30, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
WORKING CASH
2018

Line	Working Cash Items A	2018 B	(Note 1) Net Collection Lag Days C		Amount D = B/365xC
1	Fuel	523,706	B1	19.1	27,405
2	Purchased Power	494,450	B2	-5.4	(7,315)
3	O&M Labor	137,959	B3	25.5	9,638
4	O&M Non-Labor	165,521	B4	8.6	3,900
5	Revenue Taxes	160,276	B5	-50.9	(22,351)
6	Income Taxes	35,031	B6	-2.6	(250)
7	Working Cash				<u><u>11,027</u></u> To HECO-WP-H-001
8	Fuel Oil	B1 523,706	GL #90501000, 90547000, 90547100		
9	Purchased Power	B2 494,450	GL #90555000		
10	O&M Labor				
11	O&M Labor	145,473	Acct. Dept. O&M report		
12	Fuel O&M Labor	(2,242)	Acct. Dept. O&M report		
13	O&M Labor Excl Fuel Labor	143,231			
14	Disallowed O&M	(5,272)	HECO WP-H-002		
15	Total	B3 137,959			
16	O&M Non-Labor				
17	O&M Expense	1,333,535	PUC Monthly Report		
18	Less: Fuel Oil & PP Expense	(1,018,156)	Lines 8 + 9		
19	O&M Labor Excl Fuel Labor	(143,231)	(see O&M Labor Excl Fuel Labor above)		
20	Disallowed O&M Non-Labor	(1,767)	HECO WP-H-002		
21	Bad Debt Expense	(1,388)	GL #60010000		
22	Pension Reg Asset/Liab Amort	(11,456)	HECO WP-H-008 pg. 2		
23	OPEB Reg Asset/Liab Amort	376			
24	System Develop Amort	(2,267)			
25	Other Deferred Projects Amort	(742)			
26	Payroll Taxes	9,985	GL #60018000/001/015, 60019100, 60050001,		
27	Interest on Customer Deposits	632	60050001/238/242/245/251, 70000010/20/30		
28	Total	B4 165,521	GL #60016050		
29	Revenue Taxes				
30	Franchise	44,708	GL #60017000		
31	PSC	106,518	GL #60017002		
32	PUC Fee	9,050	GL #60017001		
33	Total	B5 160,276			
34	Current Income Taxes				
35	Income Tax	32,067	Dec. 2018 PUC Monthly Report		
36	Inc Tax on Disallowed Items	1,915	HECO WP-H-002		
37	Reversal of Tax Related to Interest Sync Replacement	12,461	Sch H, Line 2d		
38	Tax Eff of AFUDC Equity	(3,189)	GL #60020060		
39	Income Tax Adjustments	3,404	HEI worksheet		
40	Tax Related to Int Sync	(11,627)	Sch H, Line 13 - 13a		
41	Total	B6 35,031			

Note 1: See Final Decision and Order No. 35545, For Approval of General Rate Case and Revised Schedules/Rules, filed on June 22, 2018 in Docket No. 2016-0328, Exhibit B, Page 2 of 2.

HAWAIIAN ELECTRIC COMPANY, INC.
O&M Non-Labor Amortization
2018

Pension Regulatory Asset Amortization

Standard Journal Entry No.			(TY17) - Note 1	Annual 2018	Rounded 000s
<i>PAA202</i> Jan 2018	<i>PAA219</i> Feb-Dec 2018	Total	O&M % Portion 57.43%		
(45,851)	19,994,484	19,948,633	11,456,500	11,456,500	11,456 To Page 1

OPEB Regulatory Asset Amortization

Standard Journal Entry No.			(TY17) - Note 1	Annual 2018	Rounded 000s
<i>PAA203</i> Jan 2018	<i>PAA220</i> Feb-Dec 2018	Total	O&M % Portion 57.43%		
(159,067)	(495,069)	(654,136)	(375,670)	(375,670)	(376) To Page 1

System Development Amortization

Standard Journal Entry No.						2018	Rounded
<i>PAA109</i> 18607004	<i>PAA133</i> 18606004 HR Suites	<i>PAA143</i> 18606104 HR Suites	<i>PAA163</i> 18607704	<i>PAA195</i> 18670400 IVR System	<i>PAA177</i> 18605005 CIS		
OMS	Phase 1	Phase 2	Budget Replace	Replace			
300,940	356,462	127,940	145,469	116,500	1,219,715	2,267,026	2,267 To Page 1

Other Deferred Projects Amortization

Standard Journal Entry No.							Annual 2018	Rounded 000s
<i>PAA166</i> 18670124 EOTP	<i>PAA166</i> 18670125 EOTP	<i>PAA166</i> 18670126 EOTP AFUDC	<i>PAA176</i> 18670120 CIP CT-1	<i>PAA176</i> 18670121 CIP CT-1	<i>PAA176</i> 18670122 CIP CT-1	<i>PAA132</i> 18670152 RO		
Depreciation	AFUDC Debt	Equity	Depreciation	AFUDC Debt	AFUDC Equity	Pipeline		
18,219	15,342	35,441	146,605	123,526	286,584	116,436	742,153	742 To Page 1

NOTE:

- 1 See Parties' Stipulated Settlement Letter, filed November 15, 2017, in Docket No. 2016-0328, HECO T-16 Attachment 4, page 1. Approved in Final Decision and Order No. 35545, filed on June 22, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
MONTHLY FINANCIAL REPORT
December 2018

TO THE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII
OPERATING INCOME BEFORE RATEMAKING ADJUSTMENTS TO BE USED FOR THE EARNINGS SHARING CALCULATION
(in thousands)

Page 2a

Operating income per Monthly Financial Report	138,084	*3
Less: Interest on Customer Deposits	(632)	
Add: Adjustment to federal income tax to offset the DPAD benefit recognized at MECO *2	66	
Add: Gain on Sale Amortization	66	*4
Operating income before ratemaking adjustments & synchronized interest - earnings sharing calculation	<u>137,585</u>	*1
Income Tax Adjustments	<u>(3,404)</u>	
Adjusted Operating income before ratemaking adjustments & synchronized interest - earnings sharing calculation	<u>134,181</u>	

To Sch H

*1 Amounts may not add up due to rounding.

*2 An adjustment made to offset the benefit of the Domestic Production Activities Deduction (DPAD) recognized on a standalone basis at Maui Electric Company, Ltd. (MECO) and excluded the impact from the operating income before ratemaking adjustments & synchronized interest for Hawaiian Electric Company. This adjustment was made to eliminate the impact of the MECO's tax benefit from the Hawaiian Electric Company consolidated net income, and therefore should not have any impact on a standalone basis at Hawaiian Electric Company.

*3 Starting October 2018, Operating Income per the Monthly Financial Report includes income tax on AFUDC Equity.

*4 Included within Other Income and added back for ratemaking purposes.

Note:

Included to support Operating Income on Schedule H since PUC Page 2a was excluded from the December 2018 Monthly PUC Report submitted on February 27, 2019.

Hawaiian Electric Company, Inc.
 Schofield Generating Station
 Plant Addition
 As of December 31, 2018

Utility Account	(Note 1) PUC Approved Accrual Rate	(Note 2) Balance at 12/31/18	Depreciation 2019	Allocation %	(Note 3) Subject to Cap	Depreciation 2019 (at Cap)
	a	b	c = a x b	d	e = d x Cap	f = a x e
343	0.03260	142,147,612	4,634,012	98.2%	139,030,987	4,532,410
352	0.01600	2,003,490	32,056	1.4%	1,959,563	31,353
353	0.01860	352,190	6,551	0.2%	344,468	6,407
397	0.06670	240,250	16,025	0.2%	234,983	15,673
		144,743,542	4,688,643	100.0%	141,570,000	4,585,844
					To Sch L1	To Sch L1

Source: SAP and Powerplan WBS.

Note 1:

Depreciation rates approved in Docket No. 2010-0053, Decision and Order, filed May 12, 2011.

Note 2:

See details at HECO-WP-D2-001.

Note 3:

Decision and Order No. 33178, p. 84-85, Docket No. 2014-0113, For Approval to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the Purchase and Installation of Item P0001576, Schofield Generating Station Project, filed 09/29/2015. The Commission approved a cap on the amount of the total costs that may be recovered through any cost recovery mechanism other than base rates at 90% of the \$167 million cap. The \$167 million cap shall further be adjusted downward due to a reduction in the foreign exchange rate.

In the Letter to Commission Re: Docket No. 2014-0113, Schofield Generating Station; Notification of Euro Exchange Rate and Adjusted Project Cap, filed 01/27/2016, the Company locked in the foreign exchange rate at \$1.0928/euro which adjusted the project cap down from \$167 million to \$157.3 million. Revised cap on the amount of total costs allowed to be recovered through any cost recovery mechanism other than base rates is \$141.57 million (\$157.3 million x 90%).

[illegible]

(1,540,061)
To Sch LI

HAWAIIAN ELECTRIC CO., INC.
TAX DEPRECIATION
SCHOFIELD GENERATION STATION

Project No.	Description	Book Basis	Less: AFUDC	Add: TCI	Tax Basis	Plant Acct	Life	Bonus	2018	2019	Net Book Value
FEDERAL											
P0001576	Schofield Generation Station	64,076,545	(5,275,285)	3,384,005	62,185,266	Oth Prod	15	50%	32,647,265	2,953,800	28,475,480
P0001576	Schofield Generation Station	64,076,545	(5,275,285)	3,384,005	62,185,266	Oth Prod	15	0%	3,109,263	5,907,600	55,059,682
P0001576	Schofield Generation Station	5,625,855	(510,973)	327,780	5,442,663	Trans	20	50%	2,823,381	196,453	2,606,021
P0001576	Schofield Generation Station	5,625,855	(510,973)	327,780	5,442,663	Trans	20	0%	204,100	392,906	5,028,849
P0001576	Schofield Generation Station	1,082,599	(65,056)	41,732	1,059,276	Comm	20	50%	549,499	38,235	494,865
P0001576	Schofield Generation Station	1,082,599	(65,056)	41,732	1,059,276	Comm	20	0%	39,723	76,469	966,407
Total		141,570,000	(11,702,627)	7,507,036	137,374,409						
Cumulative											
HAWAII											
P0001576	Schofield Generation Station	128,153,091	(10,550,569)	6,768,010	124,370,532	Oth Prod	15	0	6,218,527	11,815,201	110,119,363
P0001576	Schofield Generation Station	11,251,710	(1,021,945)	655,561	10,885,325	Trans	20	0	408,200	785,812	10,057,698
P0001576	Schofield Generation Station	2,165,199	(130,112)	83,465	2,118,551	Comm	20	0	79,446	152,938	1,932,815
Total		141,570,000	(11,702,627)	7,507,036	137,374,409						
Cumulative											
To page 1 of 5											

To page 1 of 5

To page 1 of 5

Hawaiian Electric Company, Inc.
Breakdown of SGS Costs by Major Area
Actuals through December 2018

TOTAL PLANT ADDITIONS:							(Note 1)	
	A	B	C	D	E=SUM(B:D)	F=A+E		
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	Allocation %	Subject to Cap
Labor	2,293,428	1,712,982	305,919	741,234	2,760,135	5,053,564	3.5%	4,942,763
Materials	32,932,285	1,523,772	545,040	512,566	2,581,378	35,513,663	24.5%	34,735,016
Vehicles	2,062	117,109	187	563	117,859	119,921	0.1%	117,292
Overheads	12,885,912	2,456,221	544,975	928,736	3,929,932	16,815,844	11.6%	16,447,152
AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962	8.3%	11,702,627
Outside Services-Construction	69,147,360	614,746	59,095	80,179	754,019	69,901,379	48.3%	68,368,772
Outside Services-Other	2,550,389	1,421,977	621,195	348,999	2,392,171	4,942,560	3.4%	4,834,193
Other	427,354	-	4,296	-	4,296	431,650	0.3%	422,186
	131,025,869	8,549,966	2,213,736	2,953,971	13,717,673	144,743,542	100.0%	141,570,000

BREAKDOWN SUBJECT TO (Note 1)								
	A1	B1	C1	D1	E1=SUM(B1:D1)	F1=A1+E1		
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	State ITC	
Labor	2,243,144	1,675,424	299,212	724,982	2,699,618	4,942,763		
Materials	32,210,236	1,490,363	533,090	501,328	2,524,781	34,735,016	34,735,016	
Vehicles	2,017	114,541	183	551	115,275	117,292		
Overheads	12,603,385	2,402,368	533,026	908,373	3,843,767	16,447,152		
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627		
Outside Services-Construction	67,631,285	601,267	57,799	78,421	737,487	68,368,772	68,368,772	
Outside Services-Other	2,494,471	1,390,800	607,576	341,347	2,339,722	4,834,193		
Other	417,984	-	4,202	-	4,202	422,186		
	128,153,091	8,362,506	2,165,199	2,889,204	13,416,909	141,570,000	(Note 1)	
Amount subject to bonus	50%	50%	50%	50%	50%	50%	103,103,789	
	64,076,545	4,181,253	1,082,599	1,444,602	6,708,455	70,785,000	4%	
			5,625,855				4,124,152	To page 1 of 5
Tie out of TCI:								
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627		To page 1 of 5
ratio - 5 year average	64.15%	64.15%	64.15%	64.15%	64.15%	64.15%		From page 4 of 5
TCI	6,768,010	441,175	83,465	214,385	739,025	7,507,036		To page 1 of 5
			655,561					

Source: Ellipse & SAP

Note 1:

Allocated 12/31/18 Plant Addition subject to the cap of \$141.57M. See further discussion at HECO-WP-L1-001.

Hawaiian Electric Company, Inc.
Annual - TCI Closed to AFUDC Closed Ratio

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>5 Yr Ave</u>
TCI	3,820,695	4,825,860	4,299,588	4,056,549	5,041,274	22,043,966
AFUDC	5,511,275	7,365,025	6,668,924	6,540,575	8,278,273	34,364,072
Ratio	0.693251	0.655240	0.644720	0.620213	0.608977	0.641483

To page 3 of 5

Hawaiian Electric Company, Inc.
MPIR Removal Costs
Actuals Through December 31, 2018

Row Labels	Sum of amount
Labor	90,530
Materials	46
Overheads	94,426
Grand Total	185,002

To page 1 of 5

SOURCE: Ellipse & SAP

Schedule L exhibit, with additional supporting workpapers

Excerpt from Docket No. 2017-0213 - Schofield Generating Station Cost Recovery through the Major Project Interim Recovery Adjustment Mechanism Hawaiian Electric's Update of Target Revenues and Updated Responses to the Commission's Information Requests, filed July 18, 2018. Approved in Order No. 35647, issued August 15, 2018. Effective July 1, 2018. Pages 1 through 9.

Line No.	Description	Reference	Amounts 2016-0000	Amounts 2017-0000	Amounts 2018-0000	Amounts 2019-0000	Amounts 2016-0026	Amounts 2017-0026	Amounts 2018-0026	Amounts 2019-0026
	(a)	(b)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note (1), (5), (7), (7a)	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,581,445	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (5)	\$ -	-	-	-	\$ (5,000)	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (5)	\$ -	-	-	-	\$ (6,000)	\$ -	\$ -	\$ -
2	Less:		\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (1), (5), (7), (7a)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to b (8.865% statutory rates)	Note (1), (5), (7), (7a)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (139,534)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1....4	\$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (2)	\$ -	-	\$ 101,131	\$ 101,131	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 12 at 8.865%		\$ -	-	\$ (8,986)	\$ (8,986)	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$ -	-	\$ 92,146	\$ 92,146	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (9)	\$ -	-	\$ -	\$ -	\$ -	\$ 13,828	\$ 13,828	\$ 13,828
10	Less: Revenue Taxes on Line 12 at 8.865%		\$ -	-	\$ -	\$ -	\$ -	\$ (1,229)	\$ (1,229)	\$ (1,229)
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$ -	-	\$ -	\$ -	\$ -	\$ 12,599	\$ 12,599	\$ 12,599
12	Authorized MPIR Revenues	Schedule L	\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ 6,800	\$ 6,800
13	Less: Revenue Taxes on Line 12 at 8.865%		\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ (586)	\$ (586)
14	Net MPIR Adjustment	Lines 12 + 13	\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ 6,014	\$ 6,014
15	Less: EARNINGS SHARING REVENUE CREDITS	Note (2), (9)	\$ -	-	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ -	\$ -
16	Less: Revenue Taxes on Line 15 at 8.865%		\$ -	-	\$ 1	\$ 1	\$ 1	\$ -	\$ -	\$ -
17	Net Earnings Sharing Revenue Credits	Lines 15 + 16	\$ -	-	\$ (14)	\$ (14)	\$ (14)	\$ -	\$ -	\$ -
18	PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:	Note (2), (9)	\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total Annual Target Revenues		\$ -	-	\$ 604,302	\$ 604,302	\$ 637,077	\$ 599,960	\$ 612,574	\$ 618,587
20	June 1, 2017 Annualized Revenues w/PIRAM Increase	Col (g), lines (5+8+17+18)	\$ -	\$ 604,302	\$ 604,302	\$ 604,302	\$ -	\$ -	\$ -	\$ -
21	February 16, 2018 Annualized Revenues w/Interim Increase	Col (f), lines (5+8+17+18)	\$ -	\$ 443,030,848	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April 13, 2018 Annualized Revenues w/2nd Interim Increase	Col (j), lines (5+8+17+18)	\$ -	\$ 448,009,623	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	June 1, 2018 Annualized Revenues w/PIRAM Increase	Col (k), lines (5+9+17+18)	\$ -	\$ 446,668,574	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	June 1, 2018 Annualized Revenues w/PIRAM Increase & MPIR off 7/1/18	Col (l), lines (5+11+14+17+18)	\$ -	\$ 550,024,942	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Distribution of Target Revenues by Month:	Note (3)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	January	Note (3)	\$ -	\$ 446,009,623	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	February	8.10%	\$ -	\$ 443,030,848	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	March	7.59%	\$ -	\$ 443,030,848	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	April	8.10%	\$ -	\$ 448,009,623	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	May	7.84%	\$ -	\$ 446,668,574	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31	June	8.40%	\$ -	\$ 550,024,942	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
32	July	8.47%	\$ 50,202,656	\$ -	\$ 51,184,359	\$ -	\$ -	\$ -	\$ -	\$ -
33	August	8.77%	\$ 51,980,790	\$ -	\$ 52,997,265	\$ -	\$ -	\$ -	\$ -	\$ -
34	September	8.94%	\$ 53,581,111	\$ -	\$ 54,628,879	\$ -	\$ -	\$ -	\$ -	\$ -
35	October	8.65%	\$ 51,447,350	\$ -	\$ 52,453,393	\$ -	\$ -	\$ -	\$ -	\$ -
36	November	8.84%	\$ 52,040,061	\$ -	\$ 53,057,695	\$ -	\$ -	\$ -	\$ -	\$ -
37	December	8.26%	\$ 48,957,962	\$						

Footnotes:

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
REVENUE REQUIREMENT AND DETERMINATION OF MAJOR PROJECT INTERIM RECOVERY
MPIR PROJECT
\$ in thousands

Line No.	Description (a)	Reference (b)	Recorded at 12/31/2017 (c)	Recorded at In Service Date (June 2018) (d)	Ending Balance as of 6/30/18 (e)	Average Balance (f)	MPIR (f)
Return on Investment							
1	Gross Plant in Service (not to exceed PUC approved amount)	HECO-WP-L-001	-	141,275	141,275	70,638	
2	Accum Depreciation	Schedule TBD	-	-	-	-	
3	Net Cost of Plant in Service		-	141,275	141,275	70,638	
4	Fuel Inventory - Avoided	Note 3	-	(1,534)	(1,534)	(767)	
5	M&S Inventory	Note 3	-	100	100	50	
6	Total Additions		-	(1,434)	(1,434)	(717)	
7	CIAC	Schedule TBD, if needed	-	-	-	-	
8	ADIT	HECO-WP-L-002	-	(8,689)	(8,689)	(4,344)	
9	State ITC	HECO-WP-L-002	-	(4,147)	(4,147)	(2,074)	
10	Total Deductions		-	(12,836)	(12,836)	(6,418)	
11	Total Rate Base		\$ -	\$ 127,005	\$ 127,005	63,502	
12	Average Rate Base					\$ 63,502	
13	Rate of Return (grossed-up for income taxes, before revenue taxes)	Note 4				9.47%	
14	Annualized Return on Investment (before revenue taxes)						\$ 6,014
15	Depreciation Expense (Note 1)	Schedule E				-	
16	Operating & Maintenance Expense	Note 2				-	
16a	Prior year reconciliation of O&M to actuals	Note 2				-	
17	Amortization of State ITC	see line 6				-	
18	Lease Rent Expense	Schedule TBD, if needed				-	
19	Other Expense	Schedule TBD, if needed				-	
20	Total Expenses					\$ -	
21	Total Major Project Interim Recovery					\$ 6,014	
22	Revenue Tax Factor (1/(1-8.885%))						1.0975
23	2019 Annualized Revenue for Major Project Interim Recovery					\$ 6,600.0	

To Sch B & B1

Reconciliation to Schedule B1 (Info Only)

Sum of Monthly Factors for Jul-Dec 2018	51.67%
Prorated MPIR for Year 1	\$ 3,410
Rev Tax Adj	\$ (303)
Prorated MPIR for Year 1 excl Rev Tax	\$ 3,107

Note 1: Depreciation expense is recorded beginning in the year after an asset is placed in service, therefore, depreciation expense is zero in year 1. The revenue requirement for year 2 and thereafter will include depreciation expense at existing, approved depreciation accrual rates at the time of filing.

Note 2: Per Order No. 35556, page 74, Docket No. 2017-0213, For Approval to Recover Costs for Schofield Generating Station through the Major Project Interim Recovery Adjustment Mechanism, filed on June 27, 2018. Total estimated annual O&M expense will be excluded from the MPIR calculation until an acceptable business case study has been reviewed and approved by the Commission.

Note 3: Difference in fuel inventory and difference in materials & supplies inventory derived from the "with Schofield" and "without Schofield" rate bases in the HECO 2017 test year rate cases. See Docket No. 2016-0328 HECO-3201 p. 3 and HECO-3203 p. 3.

Note 4: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric's RBA Rate Adjustment, Schedule D, filed May 29, 2018.

Hawaiian Electric Company, Inc.
 MPIR Plant Additions
 Actuals Through June 30, 2018

Indicator Code	NI
Row Labels	Sum of amount
150: Labor Cost	4,542,416
155: Labor True-up	284,309
201: Matl-Issues/Purchases	33,529,637
205: Matl-Purchasing Card	63,740
301: Vehicles	112,180
404: Energy Delivery	1,758,310
405: Power Supply	10,752,643
406: Corp Admin Expense	929,503
421: Non-Productive Wages	610,417
422: Employee Benefits	1,348,674
423: Payroll Taxes	403,436
430: AFUDC-Debt	3,260,337
431: AFUDC-Equity	8,704,625
501: Outside Svcs-General	1,461,336
502: Outside Svcs-Legal	177,774
503: Outside Svcs-TempHire	2,916
505: Outside Svcs-Constr	70,093,402
506: Outside Svcs-Engr	1,596,895
508: Outside Svcs-Environ	1,213,832
520: Mainland Travel	90,358
522: Interisland Travel	1,706
570: Rents	9,300
521: Meals	13,202
900: Fin Stmt Items	314,048
Grand Total	141,274,996

SOURCE: UIPlanner Actual Data

HAWAIIAN ELECTRIC CO., INC.
SCHOFIELD GENERATING STATION
DECEMBER 31, 2018 (Based on Actuals Through June 30, 2018)

FEDERAL DEFERRED TAXES		source	Tax Depreciation	AFUDC	Tax Cap Interest	State ITC	Removal	Total
1	State Book/Tax Difference							
2			(6,714,039)	(11,964,962)	7,673,560	4,147,471	(185,002)	(7,042,972)
3	Subtotal	Line 1 + Line 2	(6,714,039)	(11,964,962)	7,673,560	4,147,471	(185,002)	(7,042,972)
4	Effective Federal Tax Rate		19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%
5	Federal Def Tax on State Book/Tax Diff	Line 3 * Line 4	(1,325,136)	(2,361,501)	1,514,515	818,578	(36,513)	(1,390,057)
6	Addback State Book/Tax Difference	Line 3	6,714,039	11,964,962	(7,673,560)	(4,147,471)	185,002	7,042,972
7	Federal Book/Tax Difference	Line 2	(39,452,276)	(11,964,962)	7,673,560	4,147,471	(185,002)	(39,781,209)
8			-					
9	Federal State Difference	Line 6 + 7 + 8	(32,738,237)	-	-	-	-	(32,738,237)
10	Tax Rate on Federal Only Adjustment		21%	21%	21%	21%	21%	21%
11	Federal Deferred Tax Adjustment	Line 9 * Line 10	(6,875,030)	-	-	-	-	(6,875,030)
12	Total Federal Deferred Taxes	Line 5 + Line 11	(8,200,166)	(2,361,501)	1,514,515	818,578	(36,513)	(8,265,087)
STATE DEFERRED TAXES								
13	State Book/Tax Difference	Line 1	(6,714,039)	(11,964,962)	7,673,560	4,147,471	(185,002)	(7,042,972)
14		Line 2	-	-	-	-	-	-
15	Subtotal	Line 1 + Line 2	(6,714,039)	(11,964,962)	7,673,560	4,147,471	(185,002)	(7,042,972)
16	Effective State Tax Rate		6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%
17	Total State Deferred Taxes	Line 15 * Line 16	(403,852)	(719,697)	461,568	249,472	(11,128)	(423,637)
18	TOTAL DEFERRED TAXES	Line 12 + Line 17	(8,604,018)	(3,081,198)	1,976,083	1,068,050	(47,641)	(8,688,724)

HAWAIIAN ELECTRIC CO., INC.
TAX DEPRECIATION
SCHOFIELD GENERATION STATION
(Based on Actuals Through June 30, 2018)

Project No.	Description	Book Basis	Less: AFUDC	Add: TCI	Tax Basis	Plant Acct	Life	(Note 1) Bonus	2018	Net Book Value
FEDERAL										
P0001576	Schofield Generation Station	63,995,593	(5,393,539)	3,459,071	62,061,124	Oth Prod	15	50%	32,582,090	31,413,503
P0001576	Schofield Generation Station	63,995,593	(5,393,539)	3,459,071	62,061,124	Oth Prod	15	0%	3,103,056	60,892,537
P0001576	Schofield Generation Station	5,661,768	(180,733)	335,052	5,816,087	Trans	20	50%	3,017,095	2,644,673
P0001576	Schofield Generation Station	5,661,768	(180,733)	335,052	5,816,087	Trans	20	0%	218,103	5,443,665
P0001576	Schofield Generation Station	980,137	(66,514)	42,658	956,281	Comm	20	50%	496,071	484,066
P0001576	Schofield Generation Station	980,137	(66,514)	42,658	956,281	Comm	20	0%	35,861	944,276
Total		141,274,996	(11,281,574)	7,673,560	137,666,982				39,452,276	101,822,720
HAWAII										
P0001576	Schofield Generation Station	127,991,185	(10,787,079)	6,918,141	124,122,248	Oth Prod	15	0	6,206,112	121,785,073
P0001576	Schofield Generation Station	11,323,536	(361,466)	670,103	11,632,173	Trans	20	0	436,206	10,887,330
P0001576	Schofield Generation Station	1,960,274	(133,029)	85,316	1,912,561	Comm	20	0	71,721	1,888,553
Total		141,274,996	(11,281,574)	7,673,560	137,666,982				6,714,039	134,560,957

Note 1:

The Tax Technical Corrections Act of 2018 made changes to the phase down rules of §168(k) as it existed just prior to the enactment of the 2017 Tax Reform Act. These changes indicated that 50% bonus depreciation (under the old law) would apply to longer production period property that was pursuant to a written binding contract entered into prior to September 28, 2017 but placed into service in 2018. Based on this statutory revision, the current best assessment is that one-half of the Schofield project components should meet the written binding contract requirements and will be grandfathered under the old law, which allowed 50% bonus depreciation on public utility property. The Company continues to monitor the tax developments for further guidance.

Hawaiian Electric Company, Inc.
Breakdown of SGS Costs by Major Area
Actuals through June 2018

SOURCE: PUC-HECO-IR-7 (Update of CA-IR-19)

Row	Expense Element	A		B		C		D		E = SUM(B:D)		F = A + E	
		Oth Prod	Generating Station and Switchyard	Trans	46KV Line	Telecom	Wahiawa Substation	Trans	Interconnection	Total	Total Project	State ITC	
1	150: Labor Cost	2,036,413		1,505,621	301,845	698,537			2,506,003	4,542,416			
2	155: Labor True-up	99,413		1,505,621	(2,583)	37,744			184,896	284,309			
3	201: Matl-Issues/Purchases	31,024,176		1,466,766	543,716	494,978			2,505,461	33,529,637			
4	205: Matl-Purchasing Card	5,329		39,500	1,323	17,588			58,411	63,740			
5	301: Vehicles	1,213		110,407	-	560			110,967	112,180			
6	404: Energy Delivery	52,075		1,108,794	238,053	359,388			1,706,235	1,758,310			
7	405: Power Supply	10,442,252		190,953	36,356	83,082			310,392	10,752,643			
8	406: Corp Admin Expense	414,446		310,795	63,083	141,180			515,057	929,503			
9	421: Non-Productive Wages	265,486		210,398	43,543	90,990			344,931	610,417			
10	422: Employee Benefits	627,481		441,079	94,973	185,141			721,193	1,348,674			
11	423: Payroll Taxes	181,698		133,734	25,350	62,654			221,738	403,436			
12	430: AFUDC-Debt	2,940,954		190,052	36,432	92,899			319,383	3,260,337			
13	431: AFUDC-Equity	7,846,125		513,108	96,597	248,795			838,500	8,704,625			
14	501: Outside Svcs-General	453,275		775,828	169,466	62,767			1,008,061	1,461,336			
15	502: Outside Svcs-Legal	136,675		41,099	-	-			41,099	177,774			
16	503: Outside Svcs-Temp/Hire	2,916							-	2,916			
17	505: Outside Svcs-Constr	69,339,679		614,746	59,095	79,883			753,723	70,093,402			
18	506: Outside Svcs-Engr	483,431		580,122	248,729	284,614			1,113,464	1,596,895			
19	508: Outside Svcs-Environ	1,213,832							-	1,213,832			
20	520: Mainland Travel	86,254		-	4,104	-			4,104	90,358			
21	522: Interisland Travel	1,706							-	1,706			
22	570: Rents	9,300							-	9,300			
23	521: Meals	13,010		-	192	-			192	13,202			
24	900: Fin Stmt Items	314,048							-	314,048			
25	Grand Total	127,991,185		8,382,735	1,960,274	2,940,801			13,283,810	141,274,996			
	Bonus Depr	50%		50%	50%	50%							4%
	To Tax Depr	63,995,593		4,191,368	980,137	1,470,400							

Note 1: Project was placed into service on June 7, 2018.

Note 2: To arrive at direct costs per categories listed in PUC-HECO-IR-7 Attachment 2:

26	Grand Total per Row 25	127,991,185	8,382,735	1,960,274	2,940,801	13,283,810	141,274,996
27	Less: Overheads (rows 6, 7, 8, 9, 10, 11)	11,983,438	2,395,752	501,358	922,436	3,819,546	15,802,984
28	Less: AFUDC (rows 12, 13)	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962
29	Total Direct Costs by Major Area	105,220,669	5,283,823	1,325,887	1,676,671	8,286,381	113,507,050

Note 3: Agrees to 'Total Generating Station' per PUC-HECO-IR-7 Attachment 2 row 5

Note 4: Agrees to 'Total Interconnection' per PUC-HECO-IR-7 Attachment 2 row 10 (minor difference in total for 46KV, Telecom, and Wahiawa Sub due to Project Management costs being allocated in Attachment 1 vs. not allocated in Attachment 2).

Note 5: Agrees to 'Subtotal Direct Costs' per PUC-HECO-IR-7 Attachment 2 row 11.

Tie out of ITC:

AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962
ratio - 5 year average	64.13%	64.13%	64.13%	64.13%	64.13%	64.13%
TCI	6,918,141	450,962	85,316	219,141	755,419	7,673,560

Hawaiian Electric Company, Inc.
Annual - TCI Closed to AFUDC Closed Ratio

	2013	2014	2015	2016	2017	5 Yr Ave
TCI	3,820,695	4,825,860	4,299,588	4,056,549	5,036,221	22,038,913
AFUDC	5,511,275	7,365,025	6,668,924	6,540,575	8,278,273	34,364,072
Ratio	0.693251	0.655240	0.644720	0.620213	0.608366	0.641336

Hawaiian Electric Company, Inc.
MPIR Removal Costs
Actuals Through June 30, 2018

Indicator Code	NR
Row Labels	Sum of amount
150: Labor Cost	83,369
155: Labor True-up	7,161
205: Matl-Purchasing Card	46
404: Energy Delivery	38,302
406: Corp Admin Expense	15,495
421: Non-Productive Wages	10,390
422: Employee Benefits	22,600
423: Payroll Taxes	7,639
Grand Total	185,002

SOURCE: UIPlanner Actual Data

Exhibit C

Updated Schedule L

Excerpt from Docket No. 2017-0213 - Schofield Generating Station MPIR Adjustment Mechanism Cost Recovery Request Hawaiian Electric's Business Case Analysis Supporting Net O&M Project Costs and Update of Target Revenues, filed September 6, 2018. Approved in Order No. 35953, issued December 14, 2018. Effective October 1, 2018.
Pages 10 through 13.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
REVENUE REQUIREMENT AND DETERMINATION OF MAJOR PROJECT INTERIM RECOVERY
MPIR PROJECT
\$ in thousands

Line No.	Description (a)	Reference (b)	Recorded at 12/31/2017 (c)	Recorded at In Service Date (June 2018) (d)	Ending Balance as of 6/30/18 (e)	Average Balance (f)	MPIR (f)
	Return on Investment						
1	Gross Plant in Service (not to exceed PUC approved amount)	HECO-WP-L-001	-	141,275	141,275	70,638	
2	Accum Depreciation	Schedule TBD	-	-	-	-	
3	Net Cost of Plant in Service		-	141,275	141,275	70,638	
4	Fuel Inventory - Avoided	Note 3	-	(1,534)	(1,534)	(767)	
5	M&S Inventory	Note 3	-	100	100	50	
6	Total Additions		-	(1,434)	(1,434)	(717)	
7	CIAC	Schedule TBD, if needed	-	-	-	-	
8	ADIT	HECO-WP-L-002	-	(8,689)	(8,689)	(4,344)	
9	State ITC	HECO-WP-L-002	-	(4,147)	(4,147)	(2,074)	
10	Total Deductions		-	(12,836)	(12,836)	(6,418)	
11	Total Rate Base		\$ -	\$ 127,005	\$ 127,005	63,502	
12	Average Rate Base					\$ 63,502	
13	Rate of Return (grossed-up for income taxes, before revenue taxes)	Note 4				9.47%	
14	Annualized Return on Investment (before revenue taxes)						\$ 6,014
15	Depreciation Expense (Note 1)	Schedule E				-	
16	Operating & Maintenance Expense	Note 2				1,787	
16a	Prior year reconciliation of O&M to actuals	Note 2				-	
17	Amortization of State ITC	see line 6				-	
18	Lease Rent Expense	Schedule TBD, if needed				-	
19	Other Expense	Schedule TBD, if needed				-	
20	Total Expenses						\$ 1,787
21	Total Major Project Interim Recovery						\$ 7,801
22	Revenue Tax Factor (1/(1-8.885%))						1.0975
23	Annualized Revenue for Major Project Interim Recovery						\$ 8,561.2

To Sch B & B1

Reconciliation to Schedule B1 (Info Only)	
Sum of Monthly Factors for Jul-Dec 2018	51.67%
Prorated MPIR for Year 1	\$ 4,424
Rev Tax Adj	\$ (393)
Prorated MPIR for Year 1 excl Rev Tax	\$ 4,031

Note 1: Depreciation expense is recorded beginning in the year after an asset is placed in service, therefore, depreciation expense is zero in year 1. The revenue requirement for year 2 and thereafter will include depreciation expense at existing, approved depreciation accrual rates at the time of filing.

Note 2: Total O&M expense is estimated to cost \$1.787 million annually for year 1 (\$2.087 million annually during the interim period thereafter), as referenced within Attachment 1 - SGS Business Case Revenue Requirement Update.

Note 3: Difference in fuel inventory and difference in materials & supplies inventory derived from the "with Schofield" and "without Schofield" rate bases in the HECO 2017 test year rate cases. See Docket No. 2016-0328 HECO-3201 p. 3 and HECO-3203 p. 3.

Note 4: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric's RBA Rate Adjustment, Schedule D, filed May 29, 2018.

Exhibit D

Updated Schedule B1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description (a)	Reference (b)	Docket No. 2010-0080 Amounts (e)	Docket No. 2010-0080 Amounts (f)	Docket No. 2010-0080 Amounts (g)	Docket No. 2010-0080 Amounts (h)	Docket No. 2016-0328 Amounts (i)	Docket No. 2016-0328 Amounts (j)	Docket No. 2016-0328 Amounts (k)	Docket No. 2016-0328 Amounts (l)	Docket No. 2016-0328 Amounts (m)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note (1), (5), (7), (7a)	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (5)					\$ (5,000)	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (5)					\$ (6,000)	\$ -	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (1), (5), (7), (7a)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (1), (5), (7), (7a)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rates)		\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (139,534)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1..4	\$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (2)	\$ -	\$ -	\$ 101,131	\$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ (8,986)	\$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$ -	\$ -	\$ 92,146	\$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Authorized MPRI Revenues	Schedule L	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%	Lines 12 + 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net MPRI Adjustment		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Less: EARNINGS SHARING REVENUE CREDITS	Note (2), (9)	\$ -	\$ -	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ (16)
16	Less: Revenue Taxes on Line 15 at 8.885%		\$ -	\$ -	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1
17	Net Earnings Sharing Revenue Credits	Lines 15 + 16	\$ -	\$ -	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ (14)
18	PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:	Note (2), (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total Annual Target Revenues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	June 1, 2017 Annualized Revenues w/ RAM Increase	Col (g), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	February 16, 2018 Annualized Revenues w/ Interim Increase	Col (i), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April 13, 2018 Annualized Revenues w/ 2nd Interim Increase	Col (i), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	June 1, 2018 Annualized Revenues w/ RAM Increase	Col (k), lines (5+9+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	June 1, 2018 Annualized Revenues w/ RAM Increase & MPRI eff 7/1/18	Col (i), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Distribution of Target Revenues by Month:										
26	January	Note (3)	\$48,009,623	\$48,009,623	\$48,009,623	\$48,009,623	\$22,450,132	\$22,450,132	\$22,450,132	\$22,450,132	\$22,450,132
27	February	8.10%	\$43,030,848	\$43,030,848	\$43,030,848	\$43,030,848	\$51,603,222	\$51,603,222	\$51,603,222	\$51,603,222	\$51,603,222
28	March	7.26%	\$48,009,623	\$48,009,623	\$48,009,623	\$48,009,623	\$28,726,095	\$28,726,095	\$28,726,095	\$28,726,095	\$28,726,095
29	April	8.10%	\$46,468,574	\$46,468,574	\$46,468,574	\$46,468,574	\$50,396,658	\$50,396,658	\$50,396,658	\$50,396,658	\$50,396,658
30	May	7.98%	\$50,024,842	\$50,024,842	\$50,024,842	\$50,024,842	\$49,434,694	\$49,434,694	\$49,434,694	\$49,434,694	\$49,434,694
31	June	8.40%	\$50,202,656	\$50,202,656	\$50,202,656	\$50,202,656	\$53,972,558	\$53,972,558	\$53,972,558	\$53,972,558	\$53,972,558
32	July	8.07%	\$51,980,790	\$51,980,790	\$51,980,790	\$51,980,790	\$55,461,456	\$55,461,456	\$55,461,456	\$55,461,456	\$55,461,456
33	August	8.77%	\$53,581,111	\$53,581,111	\$53,581,111	\$53,581,111	\$53,682,371	\$53,682,371	\$53,682,371	\$53,682,371	\$53,682,371
34	September	9.04%	\$51,447,350	\$51,447,350	\$51,447,350	\$51,447,350	\$54,841,062	\$54,841,062	\$54,841,062	\$54,841,062	\$54,841,062
35	October	8.68%	\$52,040,061	\$52,040,061	\$52,040,061	\$52,040,061	\$51,242,912	\$51,242,912	\$51,242,912	\$51,242,912	\$51,242,912
36	November	8.78%	\$48,967,962	\$48,967,962	\$48,967,962	\$48,967,962	\$320,547,365	\$320,547,365	\$320,547,365	\$320,547,365	\$320,547,365
37	December	8.26%	\$357,167,892	\$357,167,892	\$357,167,892	\$357,167,892	\$249,434,694	\$249,434,694	\$249,434,694	\$249,434,694	\$249,434,694
38	Total Distributed Target Revenues	100.00%	\$235,543,510	\$235,543,510	\$235,543,510	\$235,543,510	\$79,122,753	\$79,122,753	\$79,122,753	\$79,122,753	\$79,122,753
39											

Footnotes:

- Docket No. 2010-0080 amounts derived from Order No. 30576, filed August 9, 2012, effective September 1, 2012, which implemented Decision and Order No. 30505, Exhibit A, page 1, filed June 29, 2012.
- Transmittal 17-02 filed March 31, 2017, establishing 2017 target revenue effective June 1, 2017.
- RBA Tariff Revised July 26, 2011, to reflect 2011 test year.
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\$35,971
0.46429
-\$603
-\$2,143
0.60000

\$000s
\$000s
\$000s
\$000s

\$50,808,650
\$47,086,404
\$50,250,313
\$49,505,864
\$52,111,435

ATTACHMENT 1

Schedule B1, Schedule L and Supporting Workpapers

HAWAIIAN ELECTRIC COMPANY, INC.

Excerpt from Transmittal No. 19-01 - Notice Transmittal to Update Target Revenue for Schofield Generating Station through the Major Project Interim Recovery Adjustment Mechanism, filed February 7, 2019 and effective January 1, 2019.
Pages 14 through 22.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description (a)	Reference (b)	Docket No. 2010-0080 Amounts (e)	Docket No. 2010-0080 Amounts (f)	Docket No. 2010-0080 Amounts (g)	Docket No. 2010-0080 Amounts (h)	Docket No. 2016-0328 Amounts (i)	Docket No. 2016-0328 Amounts (j)	Docket No. 2016-0328 Amounts (k)	Docket No. 2016-0328 Amounts (l)	Docket No. 2016-0328 Amounts (m)	Docket No. 2016-0328 Amounts (n)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note (1), (5), (7), (7a)	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,581,445	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (5)	\$ -	\$ -	\$ -	\$ -	\$ (5,000)	\$ -	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (5)	\$ -	\$ -	\$ -	\$ -	\$ (6,000)	\$ -	\$ -	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (1), (5), (7), (7a)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (1), (5), (7), (7a)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rates)	Note (1), (5), (7), (7a)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (139,534)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1..4	\$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (2)	\$ -	\$ -	\$ 101,131	\$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%	Note (2)	\$ -	\$ -	\$ (8,986)	\$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$ -	\$ -	\$ 92,146	\$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Less: Revenue Taxes on Line 9 at 8.885%	Lines 9 + 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Authorized MPIR Revenues	Schedule L	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%	Lines 12 + 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net MPIR Adjustment	Lines 12 + 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Less: EARNINGS SHARING REVENUE CREDITS	Note (2), (9)	\$ -	\$ -	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ -	\$ -	\$ -	\$ -
16	Less: Revenue Taxes on Line 15 at 8.885%	Lines 15 + 16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17	Net Earnings Sharing Revenue Credits	Lines 15 + 16	\$ -	\$ -	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ -	\$ -	\$ -	\$ -
18	PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:	Note (2), (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total Annual Target Revenues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	June 1, 2017 Annualized Revenues w/RAM Increase	Col (g), lines (5+8+17+18)	\$ -	\$ 604,302	\$ -	\$ 604,302	\$ 637,077	\$ 599,960	\$ 612,574	\$ 618,587	\$ 620,374	\$ 630,624
21	February 16, 2018 Annualized Revenues w/Interim Increase	Col (i), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April 13, 2018 Annualized Revenues w/2nd Interim Increase	Col (j), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	June 1, 2018 Annualized Revenues w/RAM Increase	Col (k), lines (5+9+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 7/1/18	Col (l), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 10/1/18	Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 10/1/18	Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 1/1/19	Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	Distribution of Target Revenues by Month:	Note (3)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	January	8.10%	\$48,009,623	\$48,009,623	\$51,184,359	\$48,009,623	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$51,648,125
30	February	7.26%	\$43,030,848	\$43,030,848	\$52,997,265	\$43,030,848	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$51,648,125
31	March	8.10%	\$48,009,623	\$48,009,623	\$52,997,265	\$48,009,623	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$51,648,125
32	April	7.84%	\$46,468,574	\$46,468,574	\$52,453,393	\$46,468,574	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$51,648,125
33	May	8.44%	\$50,024,842	\$50,024,842	\$52,453,393	\$50,024,842	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$51,648,125
34	June	8.47%	\$50,202,656	\$50,202,656	\$52,453,393	\$50,202,656	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$51,648,125
35	July	8.77%	\$51,980,790	\$51,980,790	\$52,997,265	\$51,980,790	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$51,648,125
36	August	9.04%	\$53,581,111	\$53,581,111	\$54,628,879	\$53,581,111	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$51,648,125
37	September	8.68%	\$51,447,350	\$51,447,350	\$52,453,393	\$51,447,350	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$51,648,125
38	October	8.78%	\$52,040,061	\$52,040,061	\$53,057,695	\$52,040,061	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$51,648,125
39	November	8.26%	\$48,957,962	\$48,957,962	\$49,915,326	\$48,957,962	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$51,648,125
40	December	8.26%	\$48,957,962	\$48,957,962	\$49,915,326	\$48,957,962	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$51,648,125
41	Total Distributed Target Revenues	100.00%	\$357,167,892	\$357,167,892	\$364,152,243	\$357,167,892	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243

Footnotes:

- Docket No. 2010-0080 amounts derived from Order No. 30576, filed August 9, 2012, effective September 1, 2012, which implemented Decision and Order No. 30505, Exhibit A, page 1, filed June 29, 2012.
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- For the month of the initial implementation (April 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days.
- Transmittal 18-01 filed May 29, 2018, establishing 2018 target revenue effective June 1, 2018.
- MPIR Revenues effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018, in Docket No. 2017-0213.
- MPIR Revenues effective January 1, 2019 approved in Order No. 35953, issued December 14, 2018 in Docket No. 2017-0213.
- MPIR Revenues effective October 1, 2019 filed in Transmittal 19-01 on February 7, 2019.

\$35,971
0.46429
-\$603
-\$2,143
0.60000

\$000s
\$000s
\$000s

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
REVENUE REQUIREMENT AND DETERMINATION OF MAJOR PROJECT INTERIM RECOVERY
MPIR PROJECT
\$ in thousands

Line No.	Description	Reference	Recorded at 12/31/2018	2019 Activity	Ending Balance as of 12/31/19	Average Balance	MPIR
	(a)	(b)	(c)	(d)	(e)	(f) = ((c)+(e))/2	(g)
	Return on Investment - Schofield Generating Station						
1	Gross Plant in Service (not to exceed PUC approved amount)	HECO-WP-L-001	141,570	-	141,570	141,570	
2	Accum Depreciation	HECO-WP-L-001	-	(4,586)	(4,586)	(2,293)	
3	Net Cost of Plant in Service		141,570	(4,586)	136,984	139,277	
4	Fuel Inventory - Avoided	Note 3	(1,534)	-	(1,534)	(1,534)	
5	M&S Inventory	Note 3	100	-	100	100	
6	Total Additions		(1,434)	-	(1,434)	(1,434)	
7	CIAC	Not Applicable	-	-	-	-	
8	ADIT	HECO-WP-L-002	(8,653)	(1,540)	(10,193)	(9,423)	
9	State ITC	HECO-WP-L-002	(4,124)	412	(3,712)	(3,918)	
10	Total Deductions		(12,777)	(1,128)	(13,905)	(13,341)	
11	Total Rate Base		\$ 127,359	\$ (5,713)	\$ 121,646	124,502	
12	Average Rate Base					\$ 124,502	
13	Rate of Return (grossed-up for income taxes, before revenue taxes)	Note 4				9.47%	
14	Annualized Return on Investment (before revenue taxes)						\$ 11,790
15	Depreciation Expense (Note 1)	HECO-WP-L-001				4,586	
16	Operating & Maintenance Expense	Note 2				2,087	
16a	Prior year reconciliation of O&M to actuals	Note 2				-	
17	Amortization of State ITC	see line 6				(412)	
18	Lease Rent Expense	Not Applicable				-	
19	Other Expense	Not Applicable				-	
20	Total Expenses						\$ 6,260
21	Total Major Project Interim Recovery						\$ 18,051
22	Revenue Tax Factor (1/(1-8.885%))						1.0975
23	Annualized Revenue for Major Project Interim Recovery						<u>\$ 19,810.8</u>
							To Sch B & B1

Reconciliation to Schedule B1 (Info Only)			
	Jul - Sep 2018	Oct - Dec 2018	2019
Annualized Revenue for MPIR	\$ 6,600	\$ 8,561	\$ 19,811
Rev Tax Adj	\$ (586)	\$ (761)	\$ (1,760)
Prorated MPIR for Year 1 excl Rev Tax	\$ 6,014	\$ 7,800	\$ 18,051
Incremental	\$ 6,014	\$ 1,787	\$ 10,250
	Note 5	Note 6	

Note 1: Depreciation expense is recorded beginning in the year after an asset is placed in service, therefore, depreciation expense is zero in year 1. The revenue requirement for year 2 and thereafter will include depreciation expense at existing, approved depreciation accrual rates at the time of filing.

Note 2: Total O&M expense is estimated to cost \$1.787 million annually for year 1 (\$2.087 million annually during the interim period thereafter), as referenced within Attachment 1 - SGS Business Case Revenue Requirement Update and approved in Order No. 35953, filed December 14, 2018.

Note 3: Decision and Order No. 35556 dated June 27, 2018 in Docket No. 2017-0213.

Note 4: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric's RBA Rate Adjustment, Schedule D, filed May 29, 2018.

Note 5: MPIR Revenues effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018 in Docket No. 2017-0213.

Note 6: MPIR Revenues effective October 1, 2018 filed December 21, 2018 in Docket No. 2017-0213.

Schofield Generating Station
 Plant Addition
 As of December 31, 2018

HECO-WP-L-001
 PAGE 1 OF 1

Utility Account	(Note 1) PUC Approved Accrual Rate	Balance at 12/31/18	Depreciation 2019	Allocation %	(Note 2) Subject to Cap	Depreciation 2019 (at Cap)
	a	b	c = a x b	d	e = d x Cap	f = a x e
343	0.03260	142,147,612	4,634,012	98.2%	139,030,987	4,532,410
352	0.01600	2,003,490	32,056	1.4%	1,959,563	31,353
353	0.01860	352,190	6,551	0.2%	344,468	6,407
397	0.06670	240,250	16,025	0.2%	234,983	15,673
		<u>144,743,542</u>	<u>4,688,643</u>	<u>100.0%</u>	<u>141,570,000</u>	<u>4,585,844</u>

Source: SAP and Powerplan WBS.

Note 1:

Depreciation rates approved in Docket No. 2010-0053, Decision and Order, filed May 12, 2011.

Note 2:

Decision and Order No. 33178, p. 84-85, Docket No. 2014-0113, For Approval to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the Purchase and Installation of Item P0001576, Schofield Generating Station Project, filed 09/29/2015. The Commission approved a cap on the amount of the total costs that may be recovered through any cost recovery mechanism other than base rates at 90% of the \$167 million cap. The \$167 million cap shall further be adjusted downward due to a reduction in the foreign exchange rate.

In the Letter to Commission Re: Docket No. 2014-0113, Schofield Generating Station; Notification of Euro Exchange Rate and Adjusted Project Cap, filed 01/27/2016, the Company locked in the foreign exchange rate at \$1.0928/euro which adjusted the project cap down from \$167 million to \$157.3 million. Revised cap on the amount of total costs allowed to be recovered through any cost recovery mechanism other than base rates is \$141.57 million (\$157.3 million x 90%).

HAWAIIAN ELECTRIC CO., INC.
SCHOFIELD GENERATING STATION - WITH BONUS
DECEMBER 31, 2019

FEDERAL DEFERRED TAXES		source	Tax Depreciation	AFUDC	Tax Cap Interest	State ITC	Removal	Total	Depr	Amort	Total
1	State Book/Tax Difference	HECO-WP-L-001 Line 1 + Line 2	(6,706,173)	(11,702,627)	7,507,036	4,124,152	(185,002)	(6,962,615)	(12,753,951)	(412,415)	(19,716,566)
2	Book Depreciation								4,585,844	(412,415)	4,173,428
3	Subtotal			(6,706,173)	(11,702,627)	7,507,036	4,124,152	(185,002)	(6,962,615)	(8,168,107)	(412,415)
4	Effective Federal Tax Rate		19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%
5	Federal Def Tax on State Book/Tax Diff	Line 3 * Line 4	(1,323,584)	(2,309,724)	1,481,649	813,976	(36,513)	(1,374,197)	(1,612,123)	(81,398)	(3,067,718)
6	Addback State Book/Tax Difference	Line 3	6,706,173	11,702,627	(7,507,036)	(4,124,152)	185,002	6,962,615	8,168,107	412,415	15,543,137
7	Federal Book/Tax Difference		(39,373,231)	(11,702,627)	7,507,036	4,124,152	(185,002)	(39,629,673)	(9,565,463)	(412,415)	(49,195,136)
8	Book Depreciation	Line 2							4,585,844	(412,415)	4,173,428
9	Federal State Difference	Line 6 + 7 + 8	(32,667,058)	-	-	-	-	(32,667,058)	3,188,488	-	(29,478,570)
10	Tax Rate on Federal Only Adjustment		21%	21%	21%	21%	21%	21%	21%	21%	21%
11	Federal Deferred Tax Adjustment	Line 9 * Line 10	(6,860,082)	-	-	-	-	(6,860,082)	669,582	-	(6,190,500)
12	Total Federal Deferred Taxes	Line 5 + Line 11	(8,183,666)	(2,309,724)	1,481,649	813,976	(36,513)	(8,234,279)	(942,541)	(81,398)	(9,258,218)
STATE DEFERRED TAXES											
13	State Book/Tax Difference	Line 1	(6,706,173)	(11,702,627)	7,507,036	4,124,152	(185,002)	(6,962,615)	(12,753,951)	-	(19,716,566)
14	Book Depreciation	Line 2							4,585,844	(412,415)	4,173,428
15	Subtotal	Line 1 + Line 2	(6,706,173)	(11,702,627)	7,507,036	4,124,152	(185,002)	(6,962,615)	(8,168,107)	(412,415)	(15,543,137)
16	Effective State Tax Rate		6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%
17	Total State Deferred Taxes	Line 15 * Line 16	(403,379)	(703,917)	451,551	248,069	(11,128)	(418,804)	(491,315)	(24,807)	(934,926)
18	TOTAL DEFERRED TAXES	Line 12 + Line 17	(8,587,045)	(3,013,641)	1,933,200	1,062,045	(47,641)	(8,653,083)	(1,433,856)	(106,205)	(10,193,144)

**HAWAIIAN ELECTRIC CO., INC.
TAX DEPRECIATION
SCHOFIELD GENERATION STATION**

Project No.	Description	Book Basis	Less: AFUDC	Add: TCI	Tax Basis	Plant Acct	Life	Bonus	2018	2019	Net Book Value
FEDERAL											
P0001576	Schofield Generation Station	64,076,545	(5,275,285)	3,384,005	62,185,266	Oth Prod	15	50%	32,647,265	2,953,800	28,475,480
P0001576	Schofield Generation Station	64,076,545	(5,275,285)	3,384,005	62,185,266	Oth Prod	15	0%	3,109,263	5,907,600	55,059,682
P0001576	Schofield Generation Station	5,625,855	(510,973)	327,780	5,442,663	Trans	20	50%	2,823,381	196,453	2,606,021
P0001576	Schofield Generation Station	5,625,855	(510,973)	327,780	5,442,663	Trans	20	0%	204,100	392,906	5,028,849
P0001576	Schofield Generation Station	1,082,599	(65,056)	41,732	1,059,276	Comm	20	50%	549,499	38,235	494,865
P0001576	Schofield Generation Station	1,082,599	(65,056)	41,732	1,059,276	Comm	20	0%	39,723	76,469	966,407
Total		141,570,000	(11,702,627)	7,507,036	137,374,409						
Cumulative									39,373,231	9,565,463	92,631,306
										48,938,694	
HAWAII											
P0001576	Schofield Generation Station	128,153,091	(10,550,569)	6,768,010	124,370,532	Oth Prod	15	0	6,218,527	11,815,201	110,119,363
P0001576	Schofield Generation Station	11,251,710	(1,021,945)	655,561	10,885,325	Trans	20	0	408,200	785,812	10,057,698
P0001576	Schofield Generation Station	2,165,199	(130,112)	83,465	2,118,551	Comm	20	0	79,446	152,938	1,932,815
Total		141,570,000	(11,702,627)	7,507,036	137,374,409						
Cumulative									6,706,173	12,753,951	122,109,876
										19,460,124	

Hawaiian Electric Company, Inc.
Breakdown of SGS Costs by Major Area
Actuals through December 2018

TOTAL PLANT ADDITIONS:							(Note 1)	
	A	B	C	D	E=SUM(B:D)	F=A+E		
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	Allocation %	Subject to Cap
Labor	2,293,428	1,712,982	305,919	741,234	2,760,135	5,053,564	3.5%	4,942,763
Materials	32,932,285	1,523,772	545,040	512,566	2,581,378	35,513,663	24.5%	34,735,016
Vehicles	2,062	117,109	187	563	117,859	119,921	0.1%	117,292
Overheads	12,885,912	2,456,221	544,975	928,736	3,929,932	16,815,844	11.6%	16,447,152
AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962	8.3%	11,702,627
Outside Services-Construction	69,147,360	614,746	59,095	80,179	754,019	69,901,379	48.3%	68,368,772
Outside Services-Other	2,550,389	1,421,977	621,195	348,999	2,392,171	4,942,560	3.4%	4,834,193
Other	427,354	-	4,296	-	4,296	431,650	0.3%	422,186
	131,025,869	8,549,966	2,213,736	2,953,971	13,717,673	144,743,542	100.0%	141,570,000

BREAKDOWN SUBJECT TO CAP:								
	A1	B1	C1	D1	E1=SUM(B1:D1)	F1=A1+E1		
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	State ITC	
Labor	2,243,144	1,675,424	299,212	724,982	2,699,618	4,942,763		
Materials	32,210,236	1,490,363	533,090	501,328	2,524,781	34,735,016	34,735,016	
Vehicles	2,017	114,541	183	551	115,275	117,292		
Overheads	12,603,385	2,402,368	533,026	908,373	3,843,767	16,447,152		
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627		
Outside Services-Construction	67,631,285	601,267	57,799	78,421	737,487	68,368,772	68,368,772	
Outside Services-Other	2,494,471	1,390,800	607,576	341,347	2,339,722	4,834,193		
Other	417,984	-	4,202	-	4,202	422,186		
	128,153,091	8,362,506	2,165,199	2,889,204	13,416,909	141,570,000	(Note 1)	
Amount subject to bonus	50%	50%	50%	50%	50%	50%	103,103,789	
	64,076,545	4,181,253	1,082,599	1,444,602	6,708,455	70,785,000	4%	
							4,124,152	
								5,625,855
Tie out of TCI:								
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627		
ratio - 5 year average	64.15%	64.15%	64.15%	64.15%	64.15%	64.15%		
TCI	6,768,010	441,175	83,465	214,385	739,025	7,507,036		
								655,561

Source: Ellipse & SAP

Note 1:

Allocated 12/31/18 Plant Addition subject to the cap of \$141.57M. See further discussion at HECO-WP-L-001.

Hawaiian Electric Company, Inc.**Annual - TCI Closed to AFUDC Closed Ratio**

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>5 Yr Ave</u>
TCI	3,820,695	4,825,860	4,299,588	4,056,549	5,041,274	22,043,966
AFUDC	5,511,275	7,365,025	6,668,924	6,540,575	8,278,273	34,364,072
Ratio	0.693251	0.655240	0.644720	0.620213	0.608977	0.641483

Hawaiian Electric Company, Inc.
MPIR Removal Costs
Actuals Through December 31, 2018

Row Labels	Sum of amount
Labor	90,530
Materials	46
Overheads	94,426
Grand Total	185,002

SOURCE: Ellipse & SAP

HAWAIIAN ELECTRIC COMPANY, INC.
2018 WEIGHTED AVERAGE PIM TARGET, DEADBAND, INCENTIVE CALCULATIONS

	Period	# of Days	Max Penalty	2018 Target	Deadband	Range for No Penalty		2018 Annual Total	Delta vs Target	(Penalty) / Reward
	(a)	(b)	(c)	(d)	(e)	Lower	Upper	(h)	(i) = (h) - (d)	(j)
SAIFI	1/1/18-2/15/18	46	2,039,094	1.116	0.090	1.026	1.206	Note 1 1.238	0.122	
	2/16/18-4/12/18	56	2,260,799	1.116	0.090	1.026	1.206	1.238	0.122	
	4/13/18-8/31/18	141	2,276,417	1.116	0.090	1.026	1.206	1.238	0.122	
	9/1/18-12/31/18	122	2,276,417	1.103	0.088	1.015	1.191	1.238	0.135	
	Annual (Weighted Avg)	365	2,244,112	1.112	0.089	1.022	1.201	1.238	0.126	(929,827) To Sch M
SAIDI	1/1/18-2/15/18	46	2,039,094	99.030	9.070	89.960	108.100	Note 1 106.410	7.380	
	2/16/18-4/12/18	56	2,260,799	99.030	9.070	89.960	108.100	106.410	7.380	
	4/13/18-8/31/18	141	2,276,417	99.030	9.070	89.960	108.100	106.410	7.380	
	9/1/18-12/31/18	122	2,276,417	99.230	8.960	90.270	108.190	106.410	7.180	
	Annual (Weighted Avg)	365	2,244,112	99.097	9.033	90.064	108.130	106.410	7.313	- To Sch M
Call Center	1/1/18-2/15/18	46	815,638	79.07%	3.00%	76.07%	82.07%	HECO-WP-M-004 83.97%		
	2/16/18-4/12/18	56	904,320	79.46%	3.00%	76.46%	82.46%	83.97%		
	4/13/18-8/31/18	141	910,567	79.56%	3.00%	76.56%	82.56%	83.97%		
	9/1/18-12/31/18	122	910,567	80.10%	3.00%	77.10%	83.10%	83.97%		
	Annual Totals	365	897,645	79.66%	3.00%	76.66%	82.66%	83.97%	4.31%	391,972 To Sch M

Reference: See Hawaiian Electric Company Proposed PIM Tariff Revisions, filed on July 23, 2018 in Docket No. 2016-0328. The PIM Tariff Revisions were approved by the Commission in Order No. 35661, filed on August 30, 2018.

Note 1 SAIDI and SAIFI Annual Totals exclude 25 kV Proactive Work (See HECO-WP-M-002):

	SAIDI	SAIFI	
Occurrences / Minutes	111.94	1.253	With 25kV Proactive Work
Less: Exclusion for 25kV work	-5.52	-0.015	
Annual Totals	106.41	1.238	Without 25kV Proactive Work

HAWAIIAN ELECTRIC COMPANY, INC.
2018 SAIDI and SAIFI Calculations
With and Without 25 kV Scheduled Work Outages

Without 25 kV Scheduled Work Outages												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	YTD
Hours Interrupted	28,350.82	38,535.98	36,195.83	48,912.83	47,852.78	45,741.20	26,594.23	52,088.65	70,669.87	38,183.60	46,352.93	540,875.63
Customer Interruptions	19,170	25,947	26,983	49,443	27,712	34,644	21,028	29,939	46,557	24,863	21,382	377,447
SAIDI (Minutes)	5.58	7.58	7.12	9.62	9.41	9.00	5.23	10.25	13.90	7.51	9.12	106.41
SAIFI (Occurrences)	0.063	0.085	0.088	0.162	0.091	0.114	0.069	0.098	0.153	0.082	0.070	1.238

HECO-WP-M-001
HECO-WP-M-001

With 25 kV Scheduled Work Outages												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	YTD
Hours Interrupted	28,350.82	38,535.98	36,195.83	48,912.83	47,852.78	45,741.20	54,673.72	52,088.65	70,669.87	38,183.60	46,352.93	568,955.12
Customer Interruptions	19,170	25,947	26,983	49,443	27,712	34,644	25,686	29,939	46,557	24,863	21,382	382,105
SAIDI (Minutes)	5.58	7.58	7.12	9.62	9.41	9.00	10.76	10.25	13.90	7.51	9.12	111.94
SAIFI (Occurrences)	0.063	0.085	0.088	0.162	0.091	0.114	0.084	0.098	0.153	0.082	0.070	1.253

HECO-WP-M-001
HECO-WP-M-001

Difference Between With and Without 25 kV Scheduled Work Outages (See Note Below)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	YTD
Hours Interrupted	-	-	-	-	-	-	(28,079)	-	-	-	-	(28,079)
Customer Interruptions	-	-	-	-	-	-	(4,658)	-	-	-	-	(4,658)
SAIDI (Minutes)	-	-	-	-	-	-	5.52	-	-	-	-	5.52
SAIFI (Occurrences)	-	-	-	-	-	-	0.015	-	-	-	-	0.015

Note:

25 kV Schedule Work Outage Events
(see HECO-WP-M-003 for more details)

Date of exclusion event	Customer Interruptions	Customer Minutes Interrupted
7/5/2018	(329)	(138,838)
7/16/2018	(881)	(317,160)
7/17/2018	(1,003)	(399,020)
7/18/2018	(1,004)	(341,342)
7/19/2018	(585)	(192,357)
7/23/2018	(418)	(150,062)
7/24/2018	(418)	(138,610)
7/25/2018	(20)	(7,380)
Total	(4,658)	(1,684,769)

(28,079) Hours Interrupted

Total Customer Minutes Interrupted without 25 kV Scheduled Work Outages												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	YTD
Total Customer Minutes Interrupted without 25 kV Scheduled Work Outages	1,701,049	2,312,159	2,171,750	2,934,770	2,871,167	2,744,472	1,595,654	3,125,319	4,240,192	2,291,016	2,781,176	32,452,538
Total Customer Minutes Interrupted with 25 kV Scheduled Work Outages												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	YTD
Total Customer Minutes Interrupted with 25 kV Scheduled Work Outages	1,701,049	2,312,159	2,171,750	2,934,770	2,871,167	2,744,472	3,280,423	3,125,319	4,240,192	2,291,016	2,781,176	34,137,307
Difference	-	-	-	-	-	-	(1,684,769)	-	-	-	-	(1,684,769)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
IWILEI 138KV 3 SUB IWILEI 9 25KV CKT CB-7754 BREAKER 7754	23:00			D-2	821 BETHEL ST V-8196, 821 BETHEL ST V-6645	1664	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN H/C NEAR V10308 PIER 12 AND H/C NEAR V10309 PIER 15 TO REPAIR A DEFECTIVE UNDERGROUND CABLE. IWILEI 13 CKT WAS ABNORMAL DUE TO HOT CAPS ON RO#125230 REQ#2054. E#259743. RELATED TO IR#1671. PTM: DELACRUZ, KEALI; ROSALES, RAY; PITT, ANTHONY; AHMOOK SANG, BRAD; PARK, JAMES; AHMOOK SANG, NATE; MOUNTHONGDY, PAT SIGN: OSHIRO, KELLY
BREAKER CB-7754		06:02 07/06/2018	7 HR 2 MIN		821 BETHEL ST V-8196, 821 BETHEL ST V-6645 CUST: 3		
IWILEI 138KV 4 SUB IWILEI 13 25KV CKT CB-7759 SECTIONALIZER CB7754	23:00			D-2	1020 MAUNAKEA ST V-7566, 60 NIMITZ N. HWY V-6646, 60 NIMITZ N. HWY V-6646B, 801 NUUANU AVE V-6936, 12 Pier V-10308, 15 Pier V-10309	1671	SECTIONALIZER ABC PHASE #CB7754 WAS OPENED IN IWILEI SUBSTATION DUE TO A SCHEDULED OUTAGE BETWEEN H/C NEAR SW V10309 AND H/C NEAR SW V10308 TO REPAIR A DEFECTIVE UNDERGROUND CABLE. SCHEDULED OUTAGE TO REPAIR FAULTED IWILEI 13 CKT RO#125230 REQ#2054. E#259743 RELATED TO IR#1664 REQ#2076 PTM: AHMOOK SANG, BRAD SIGN: MACEY, JENNIFER
BREAKER CB7754		06:02 07/06/2018	7 HR 2 MIN		1020 MAUNAKEA ST V-7566, 60 NIMITZ N. HWY V-6646B, 801 NUUANU AVE V-6936, 12 Pier V-10308, 15 Pier V-10309 CUST: 326		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Rearranged outage.
Class E: Affecting no cust.; parallel lines

Ran 02/06/2019 14:16:01

Type 1: COMPANY: Confined within HECO system
Type 2: EQUIP: Failure of HECO equipment
Type 3: PUBILC: Caused by public/equip. not HECO Related
Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

HE No. 171 REV 4/99

Date: July 5, 2018 (Thursday)

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
IWILEI 138KV 3 SUB IWILEI 9 25KV CKT CB-7754 BREAKER 7754	22:00			D-1	SECTIONS OF BETHEL ST	1748	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON IWILEI 9 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE 25KV CABLE SPLICES E#260398. RELATED TO E#260399 IR#1749 REQ#2150. PTM: AHMOOK SANG, NATE; CHING, THOMAS SIGN: MIYAKE, LANCE
BREAKER CB7754		04:00 07/17/2018	6 HR 0 MIN		FROM CB7754 IWILEI SUBSTATION TO ALL TERMINATIONS CUST: 174		
IWILEI 138KV 4 SUB IWILEI 13 25KV CKT CB-7759 BREAKER 7759	22:00			D-1	KING, MAUNAKEA ST, NUUANU AVE, SECTIONS OF NIMITZ HWY	1749	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON IWILEI 13 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE 25KV CABLE SPLICES E#260399. RELATED TO E#260398 IR#1748 REQ#2149. PTM: DELACRUZ, KEALI; PITT, ANTHONY; WON, BRONSON; KAPOI, KALEI SIGN: MIYAKE, LANCE
BREAKER CB7759		04:00 07/17/2018	6 HR 0 MIN		FROM CB7759 IWILEI SUB TO ALL TERMINATIONS CUST: 707		

Class A: Large areas; important Cust.; Transmission lines.

Class B: Large group of cust.; junctions; circuits; tsfs.

Class C: Small group of cust.; transformers; lines.

Class D: Prearranged outage.

Class E: Affecting no cust.; parallel lines

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Type 3: PUBILC: Caused by public/equip. not HECO Related

Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

HE No. 171 REV 4/99

Date: July 16, 2018 (Monday)

Ran 02/06/2019 14:16.01

**System Operation Department
Interruption Report**

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:04			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1757	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 5 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260487 REQ#2168. RELATED TO IR#1758 REQ#2169, IR#1759 REQ#2170, IR#1760 REQ#2171. PTM: AHMOOK SANG, NATE SIGN: MIYAKE, LANCE
BREAKER CB7706		04:39 07/18/2018	6 HR 35 MIN		FROM CB7706 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 335		
KEWALO T3 SUB KEWALO 6 25KV CKT CB-7707 BREAKER 7707	22:04			D-1	SECTIONS OF KEEAUMOKU ST, KAPIOLANI BLVD, AND WAIMANU ST	1758	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 6 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260501 REQ#2169. RELATED TO IR#1757 REQ#2168, IR#1759 REQ#2170, IR#1760 REQ#2171. PTM: DELACRUZ, KEALI SIGN: MIYAKE, LANCE
BREAKER CB7707		04:39 07/18/2018	6 HR 35 MIN		FROM CB7707 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 18		
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:04			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1759	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 9 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260499 REQ#2170. RELATED TO IR#1757 REQ#2168, IR#1758 REQ#2169, IR#1760 REQ#2171. PTM: MOUNTHONGDY, PAT SIGN: MIYAKE, LANCE
BREAKER CB8329		04:39 07/18/2018	6 HR 35 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Rearranged outage.
Class E: Affecting no cust.; parallel lines

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HE No. 171 REV 4/99

Ran 02/06/2019 14:16:01

Date: July 17, 2018

(Tuesday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 10 25KV CKT CB-8330 BREAKER 8330	22:04			D-1	ALA MOANA SC, SECTIONS OF KEEAUMOKU ST	1760	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 10 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260500 REQ#2171. RELATED TO IR#1757 REQ#2168, IR#1758 REQ#2169, IR#1759 REQ#2170. PTM: ROSALES, RAY SIGN: MIYAKE, LANCE
BREAKER CB8330		04:44 07/18/2018	6 HR 40 MIN		FROM CB8330 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 567		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Prearranged outage.
Class E: Affecting no cust.; parallel lines

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HE No. 171 REV 4/99

Ran 02/06/2019 14:16.01

Date: July 17, 2018

(Tuesday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:08			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1766	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 5 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260590 REQ#2179. RELATED TO IR#1767 REQ#2180, IR#1768 REQ#2181, IR#1769 REQ#2182. PTM: AHMOOK SANG, NATE SIGN: MIYAKE, LANCE
BREAKER CB7706		03:48 07/19/2018	5 HR 40 MIN		FROM CB7706 KEWALO SUB TO ALL TERMINATIONS CUST: 336		
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:08			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1768	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 9 25KV CKT TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260589 REQ#2181. RELATED TO IR#1766 REQ#2179, IR#1767 REQ#2180, IR#1769 REQ#2182. PTM: KAPOI, KALEI SIGN: MIYAKE, LANCE
BREAKER CB8329		03:48 07/19/2018	5 HR 40 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		
KEWALO T3 SUB KEWALO 6 25KV CKT CB-7707 BREAKER 7707	22:09			D-1	SECTIONS OF KEEAUMOKU ST, KAPIOLANI BLVD, AND WAIMANU ST	1767	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 6 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260601 REQ#2180. RELATED TO IR#1766 REQ#2179, IR#1768 REQ#2181, IR#1769 REQ#2182. PTM: DELACRUZ, KEALI SIGN: MIYAKE, LANCE
BREAKER CB7707		03:48 07/19/2018	5 HR 39 MIN		FROM CB7707 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 18		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Rearranged outage.
Class E: Affecting no cust.; parallel lines

Type 1: COMPANY: Confined within HECO system
Type 2: EQUIP: Failure of HECO equipment
Type 3: PUBILC: Caused by public/equip. not HECO Related
Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 10 25KV CKT CB-8330 BREAKER 8330	22:09			D-1	ALA MOANA SC, SECTIONS OF KEEAUMOKU ST	1769	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 10 25KV CKT TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260601 REQ#2182. RELATED TO IR#1766 REQ#2179, IR#1767 REQ#2180, IR#1768 REQ#2181. PTM: MOUNTHONGDY, PAT SIGN: MIYAKE, LANCE
BREAKER CB8330		03:49 07/19/2018	5 HR 40 MIN		FROM CB8330 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 567		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Prearranged outage.
Class E: Affecting no cust.; parallel lines

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HE No. 171 REV 4/99

Ran 02/06/2019 14:16:01

Date: July 18, 2018

(Wednesday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 10 25KV CKT CB-8330 BREAKER 8330	22:00			D-1	ALA MOANA SC, SECTIONS OF KEEAUMOKU ST	1773	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 10 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260678 REQ#2197. RELATED TO IR#1774 REQ#2196. PTM: PITT, ANTHONY SIGN: MIYAKE, LANCE
BREAKER CB8330		03:29 07/20/2018	5 HR 29 MIN		FROM CB8330 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 567		
KEWALO T3 SUB KEWALO 6 25KV CKT CB-7707 BREAKER 7707	22:00			D-1	SECTIONS OF KEEAUMOKU ST, KAPIOLANI BLVD, AND WAIMANU ST	1774	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 6 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#?? REQ#2196. RELATED TO IR#1773 REQ#2197. PTM: ROSALES, RAY SIGN: MIYAKE, LANCE
BREAKER CB7707		03:23 07/20/2018	5 HR 23 MIN		FROM CB7707 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 18		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
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HE No. 171 REV 4/99

Ran 02/06/2019 14:16:01

Date: July 19, 2018

(Thursday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:03			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1805	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KEWALO SUBSTATION TO ALL TERMINATIONS TO REPLACE A DEFECTIVE AL/AL CONNECTOR. UG REPLACED 25KV SPLICES E#260897 REQ#2205. RELATED TO IR#1806 REQ#2206. PTM: PITT, ANTHONY; AHMOOK SANG, NATE; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB7706		04:02 07/24/2018	5 HR 59 MIN		FROM CB7706 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 335		
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:03			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1806	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KAMOKU SUBSTATION TO ALL TERMINATIONS TO REPLACE A DEFECTIVE AL/AL CONNECTOR. UG REPLACED 25KV SPLICES E#260897 REQ#2206. RELATED TO IR#1805 REQ#2205. PTM: PITT, ANTHONY; AHMOOK SANG, NATE; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB-8329		04:02 07/24/2018	5 HR 59 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		

Class A: Large areas; important Cust.; Transmission lines.
 Class B: Large group of cust.; junctions; circuits; tsfs.
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HE No. 171 REV 4/99

Ran 02/06/2019 14:16:02

Date: July 23, 2018

(Monday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:04			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1822	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KAMOKU SUBSTATION TO ALL TERMINATIONS. UG REPLACED SPLICES REQ#2208 E#261016. RELATED TO IR#1821 REQ#2207. PTM: MAKAIU, DAROL; KATADA, RANDY; RABE, JENSEN; KAPOI, KALEI; OKAGAWA, JON; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB-8329		03:34 07/25/2018	5 HR 30 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:05			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1821	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KEWALO SUBSTATION TO ALL TERMINATIONS. UG REPLACED SPLICES ON REQ#2207 E#261016. RELATED TO IR#1822 REQ#2208. PTM: MAKAIU, DAROL; KATADA, RANDY; RABE, JENSEN; OKAGAWA, JON; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB-7706		03:37 07/25/2018	5 HR 32 MIN		FROM CB7706 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 335		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Prearranged outage.
Class E: Affecting no cust.; parallel lines

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System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KEWALO T3 SUB KEWALO 7 25KV CKT CB-7708 BREAKER 7708	22:01			D-1	FROM CB7708 KEWALO SUBSTATION TO ALL TERMINATIONS	1830	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 7 25KV CKT TO REPLACE A DEFECTIVE AL/AL CONNECTOR. UG REPLACED SPLICES E#261078 PTM: KAPOI, KALEI; YAMANE, ROSS SIGN: MANZOKU, KEITH
SWITCH SW V10397		04:10 07/26/2018	6 HR 9 MIN		FROM CB7708 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 20		

Class A: Large areas; important Cust.; Transmission lines. Class B: Large group of cust.; junctions; circuits; tsfs. Class C: Small group of cust.; transformers; lines. Class D: Prearranged outage. Class E: Affecting no cust.; parallel lines	Type 1: COMPANY: Confined within HECO system Type 2: EQUIP: Failure of HECO equipment Type 3: PUBILC: Caused by public/equip. not HECO Related Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]	HE No. 171 REV 4/99
Ran 02/06/2019 14:16:02	Date: July 25, 2018 (Wednesday)	

HAWAIIAN ELECTRIC COMPANY, INC.
Call Center Performance (Service Level) Results
2018

Call Center Performance (Service Level)
Excludes Blocked Calls

Month	Total Calls Accepted *	Calls Answered Within 30 Seconds	Service Level	Weighted Total	Weighted Service Level
Jan-18	27,380	24,550	89.66%	8.37%	7.51%
Feb-18	22,944	20,577	89.68%	7.02%	6.29%
Mar-18	23,827	21,393	89.79%	7.29%	6.54%
Apr-18	26,277	23,095	87.89%	8.04%	7.06%
May-18	27,042	24,152	89.31%	8.27%	7.39%
Jun-18	27,941	22,446	80.33%	8.55%	6.86%
Jul-18	30,579	23,648	77.33%	9.35%	7.23%
Aug-18	31,082	23,749	76.41%	9.51%	7.26%
Sep-18	27,644	22,345	80.83%	8.45%	6.83%
Oct-18	30,957	25,586	82.65%	9.47%	7.82%
Nov-18	26,496	21,556	81.36%	8.10%	6.59%
Dec-18	24,817	21,460	86.47%	7.59%	6.56%

Total 83.97%

To HECO-WP-M-001

* All customer calls handled by a Customer Service Representative (including abandoned calls)

Source: Generated from Genesys Interactive Insights system.

HAWAIIAN ELECTRIC COMPANY, INC.
Phase 1 Renewable Energy RFP Performance Incentive Mechanism
2018

Line	Awarded Projects	Reference	BAFO Levelized Price (\$/MWh) <i>a</i>	Net Energy Potential (MWh) <i>b</i>	PIM Calculation <i>c = (x or y-a)*b</i>	PIM Calculation (20% utility share) <i>d = c * 20%</i>
1	Ho'ohana Solar 1 (O-2) (with battery storage)	Docket No. 2018-0431 D&O No. 36236	99.78 Note 3	114,481	\$ 1,742,401	\$ 348,480
2	Mililani Solar I (O-17) (with battery storage)	Docket No. 2018-0434 D&O No. 36232	88.16	93,121	\$ 2,499,368	\$ 499,874
3	Waiawa Solar (O-20) (with battery storage)	Docket No. 2018-0435 D&O No. 36231	95.93	87,927	\$ 1,676,768	\$ 335,354
4	Total Final Variable Requests for Proposals				\$ 5,918,536	\$ 1,183,707
5	50% Year 1				Note 2	<u>\$ 591,854</u> <i>To Sch M</i>

Note 1		
PIM Benchmark	¢/kWh	\$/MWh
Energy Only	9.5	95.00 <i>x</i>
Paired with Storage	11.5	115.00 <i>y</i>

Note 1 Per Order No. 35405, Docket No. 2017-0352, filed April 6, 2018, PIM benchmarks per pages 11 and 12.

Language from Order 35405:

The Companies share would be 20% of the estimated first-year savings compared to the applicable benchmark up to a cap of \$3,500,000.

The estimated first-year savings will be calculated by multiplying the forecasted first-year energy production (in kWh) of the project by the difference between the applicable benchmark price and the equivalent price (in cents per kWh).

The equivalent PPA price will be established by the levelized cost of the project computed by the Companies during the evaluation and selection process in the Phase I procurement effort.

Similarly, the forecasted first-year energy production will be determined by using the energy production estimated in the evaluation and selection process.

Per Order No. 35664, Docket No. 2017-0352, filed September 6, 2018:

The Commission ruled on the treatment of the Additional PPAs proposed in the Companies' June 20, 2018 Letter indicating that the additional PIM for these PPAs will function in a similar manner to the original PIM. The Companies shall receive a performance incentive equivalent to 20% of the estimated first-year savings compared to the applicable benchmark, up to a cap of \$3,000,000, for the Additional PPAs filed with the commission by December 31, 2018. For any Additional PPAs submitted after December 31, 2018, until March 31, 2019, the Companies' share of the savings pursuant to the PIM will be reduced in accordance with the proposal in the Companies' June 20, 2018 Letter.

Note 2 Per Decision and Order No. 35405, Docket No. 2017-0352, filed April 6, 2018, Timing of Incentive Award, p 14

First Allocation: The first allocation of the PIM will be shortly after the approval of the PPAs. At that time, the commission will allocate the first 50% of the total PIM to the Companies, based on the equivalent PPA prices and the forecasted first-year energy production. The commission intends that the applicable performance incentive would be awarded to the Companies through their respective Revenue Balancing Account Provision tariffs.

Second Allocation: Following the first year of commercial operations for each project, the Companies shall submit a report of the actual energy utilized for each of the PPAs approved by the Commission. The Commission will provide the Companies with a portion, or all, of the remaining 50% of the PIM, dependent upon the actual amount of energy output utilized.

Note 3: Ho'ohana Solar's Levelized Price (\$99.78/MWh) includes the unit price of \$0.098858/kWh and the \$0.00092/kWh.

CIAC Treatment
Resulting from FERC Adoption

Adoption of FERC USOA required a change in presentation change to Contributions in Aid of Construction (CIAC)

Prior to October 2018, and in establishing rates in previous test year rate cases, the Company's presentation of contributions in aid of construction ("CIAC") followed the guidelines of the National Associate of Regulatory Utility Commissioners Uniform System of Accounts (NARUC USOA). Under the NARUC reporting system, CIAC is reported under an exclusive account, account 271, which includes donations or contributions in cash, services or property from states, municipalities, or other governmental agencies, individuals and others for construction purposes. All CIAC was incorporated as a deduction in the calculation of rate base in part because the Companies' systems did not facilitate on-going reporting of CIAC related to plant in service separate from CIAC related to construction work in progress ("CWIP").

The Commission approved the Companies' request to change to Federal Energy Regulatory Commission Uniform System of Accounts (FERC USOA), beginning with the implementation of the Companies' new ERP/EAM, in Decision and Order No. 31757, issued December 19, 2013 in Docket No. 2013-0007.

Beginning in October 2018 with the transition to FERC, the net balance of CIAC in account 271 less the CIAC amortization to be recorded for October to December 2018, was credited against the account balances charged with the cost of construction, i.e., gross plant in service and CWIP, resulting in the account becoming zero (i.e. "0") at December 31, 2018.

Ratemaking treatment for CIAC

The Company's ratemaking treatment of contributions in aid of construction is summarized below:

- *CIAC associated with Plant in Service* – When a utility capital project is placed into service, the plant in service net of the associated CIAC is included as net cost of plant in service in rate base. The plant in service net of the CIAC is included as part of the basis for the depreciation accrual the year after it is placed into service (i.e. January 1 of the year after it is placed into service).
- *CIAC associated with CWIP* – For book purposes, CIAC that is received while projects are still under construction (i.e. in CWIP) will offset the costs incurred and is presented net in CWIP. The CWIP net of the associated CIAC is subject to the AFUDC accrual if there is a net CWIP balance. In the next rate case, the Company will request CIAC associated with CWIP be excluded from the rate base calculation since CWIP net of

CIAC earns AFUDC. CIAC associated with CWIP is however, included in rate base in this RAM calculation for consistency with the 2017 Test Year treatment. See further discussion of Company's requested treatment of CIAC associated with CWIP below.

- *Developer Advances* - Cash contributions received in advance of construction of a utility capital project that are temporarily not classified as CIAC because the funds received are in excess of the specific project expenditures. The balance of developer advances is presented as funds from non-investors, included in its own exclusive account, and deducted in the calculation of rate base. As project costs are incurred for a utility capital project, an equal portion of developer advances associated with the project will be reclassified as CIAC and credit the accounts charged with the cost of construction. Developer Advances were included as a part of CIAC as a reduction to rate base in the 2017 Test Year.

Treatment of CIAC within the 2019 Annual Decoupling Filing

For the 2019 Decoupling Filing, the Company treated CIAC consistently with prior filings resulting in no impact to rate base.

Schedule D1, Determination of Rate Base RAM Adjustment – Change in Rate Base

Plant in Service - There is no change in rate base for plant in service and CIAC associated with plant in service. Under NARUC, in rate base, plant in service was the gross cost of plant (net of accumulated depreciation), and CIAC was a separate reduction to rate base. Under FERC, the plant in service amounts are net of (i.e., already reduced by) CIAC, and presented net of accumulated depreciation in the calculation of rate base. There is no separate CIAC line item reducing rate base because it is already net in utility plant. Therefore, there is no net rate base impact. The difference between NARUC and FERC for plant in service is a matter of where the costs are classified in rate base, and not a matter of inclusion or exclusion of costs in rate base.

CIAC associated with CWIP - There is no change in rate base for CIAC associated with CWIP. Previously, presentation of CIAC aligned with NARUC and all CIAC, including amounts associated with projects in CWIP, were included as a reduction to rate base under account 271. The 2019 estimated balance continues the treatment of including the CIAC in CWIP to be consistent with the recorded balance at 2018 year-end because all 2019 estimated CIAC additions have been included at Schedule D2 and included as part of net cost of plant at Schedule D1. Although the treatment described above was used in the 2019 annual decoupling filing, see Company's requested treatment to exclude CIAC associated with CWIP from rate base in future filings in the discussion below.

Developer Advances - With the transition to FERC, CIAC is credited when received against the related project costs in CWIP. To the extent funds are not yet expended for a project in

CWIP, the CIAC will be classified as developer advances and deducted in the calculation of rate base at Schedule D1. The recorded balance at 2018 year-end is not adjusted for 2019 activity as it is incorporated in Schedule D2.

Schedule D2, Determination of Baseline Capital Projects Additions

Schedule D2 was revised to incorporate the baseline and major project CIAC (including Developer Advances) for 2014 to 2017 into the baseline average calculation of net plant in service, consistent with the presentation of rate base. The 2018 CIAC additions calculated at HECO-WP-D2-003 includes additions to CIAC from all sources, i.e. Plant, CWIP and Developer Advances, which were used in the 5-year baseline calculation. As a result, the estimated 2019 additions to CIAC in CWIP and Developer Advances balances at Schedule D1 for the Change in Rate Base are not required as they are already included in the net cost of plant line item.

Schedule E, Determination of Depreciation & Amortization RAM Adjustment

FERC Uniform System of Accounts Electric Plant Instructions, 2. Electric Plant To Be Recorded at Cost. D. states, "The electric plant accounts shall not include the cost or other value of electric plant contributed to the company." Therefore, the Recorded Depreciable/Amortizable Balances at December 31, 2018 in Schedule E represents plant in service net of CIAC which is used as the basis to estimate the 2019 annual accrual amount. In calculating the 2019 RAM Depreciation and Amortization, Depreciation and Amortization in Current Revenues also includes CIAC amortization approved in the 2017 Test Year.

Schedule F & F1, Determination of Change in Deferred Income Taxes & Tax Depreciation

The methodology for computing the deferred taxes related to RAM year tax depreciation was not changed within the 2019 annual decoupling filing. Gross plant additions are used as the basis for calculating tax depreciation. However, see the CIAC impact to ADIT section below for the Company's preferred treatment considering the effects of netting CIAC against plant in service.

Schedule G-series, CIAC

Schedule G, G1 and G2 were removed from the Decoupling filings and instead incorporated into either Plant in Service, CIAC in CWIP or Developer Advances. The December 31, 2018 balances for CIAC associated with CWIP and Developer Advances were extracted from PowerPlan. Additionally, as noted above, the calculation of the 5-year baseline average of CIAC and amortization was incorporated within Schedule D2 and Schedule E, respectively.

The Company will continue to include CIAC associated with CWIP and Developer Advances as a reduction to rate base until the FERC presentation of rate base is approved in the Company's next rate case.

Company's requested CIAC treatment

The Company requests to reflect the following changes to the treatment of CIAC within the annual decoupling filings.

CIAC associated with CWIP

In Mr. Franklin's T-12 direct testimony in Hawaii Electric Light's 2019 Test Year rate case, the Company proposes to remove CIAC associated with CWIP from the calculation of rate base due to the fact that CWIP net of associated CIAC earns AFUDC, therefore the CWIP and its associated CIAC should be excluded from rate base.

Excluding CWIP net of CIAC, to better align the source of funds with its use (i.e. the CIAC funds received were applied against the costs incurred for the project) and is therefore properly excluded from the calculation of rate base. In addition, and as mentioned previously, any material CIAC received in advance of construction expenditures will continue to be deductions in the calculation of rate base as Developer Advances.

CIAC impact to ADIT

ADIT associated with CIAC in CWIP should be divided between nontaxable and taxable CIAC. Nontaxable CIAC (primarily interconnection CIAC) is treated as a reduction in basis for both book and tax purposes. On the other hand, although taxable CIAC is also a reduction in basis for book purposes, for tax purposes, the receipt of taxable CIAC creates tax basis by way of the recognition of taxable income and reverses by way of tax depreciation.

Nontaxable CIAC does not create ADIT since there is no book tax difference. Consequently, the regulatory netting of nontaxable CIAC against the plant assets should not create any issue with respect to the ADIT beginning balance for the rate base RAM calculation

Taxable CIAC generates a Deferred Tax Asset (DTA) as it is received and recorded into CWIP under the new FERC accounting. Prior NARUC accounting treatment with account 271 created DTA as CIAC was booked to 271, which is equivalent to what is now booked to CWIP. The origination and timing of the DTA under the FERC method will be equivalent to the NARUC method. However, under the old method, the DTA was immediately recognized as part of rate base, consistent with the treatment of the account 271 inclusion. However, under the FERC method, the generation of the DTA must be inventoried and tracked to match up with the amount of CIAC in CWIP and the amounts closed to plant in service. This tracking is necessary to ensure that the amount of DTA related to CWIP is excluded from rate base. Once CWIP costs are closed to plant, the related DTA will be included in rate base and will begin reversal through tax depreciation taken on the CIAC tax basis.

FERC accounting imbeds the book treatment of CIAC within CWIP and the ultimate plant and related depreciation. The separation will disappear and the Company asserts that the ADIT

effects will be the same with respect to the beginning balance of ADIT for the annual decoupling filing except to the extent CIAC is still in CWIP. This issue will be addressed along with the rate base treatment of CIAC associated with CWIP as mentioned above.

FERC accounting nets CIAC against Plant in Service for purposes of computing baseline and major plant additions. For RAM year tax depreciation and the related ADIT calculated for the change in RAM year ADIT, adopting the net plant additions as the RAM year tax additions will be a change that will result in a smaller amount of tax depreciation and ADIT “change” since the Company previously has assumed the gross additions to be the RAM year tax depreciable base. The Company asserts this is reasonable for the following reasons:

- 1) Under the old method, to the extent nontaxable CIAC was included in the RAM year numbers (through major projects or baseline projects), tax depreciable basis was overstated since there is no tax basis for assets funded by nontaxable CIAC.
- 2) With respect to taxable CIAC, the funded assets do have depreciable tax basis and it is accounted for in the RAM year additions tax depreciation. However, the receipt of taxable CIAC generates taxable income and deferred tax assets that increase rate base. The effect of this DTA from taxable CIAC was never recognized in the RAM tariff, which resulted in an overstatement of RAM year ADIT change, as it related to the projected plant additions.

For purposes of the 2019 RAM calculation, ADIT has been calculated on gross plant additions, consistent with the 2017 Test Year treatment and prior decoupling filings, however the Company is requesting treatment of CIAC in deferred tax to follow FERC accounting.

Summary

In summary, Hawaiian Electric prepared the 2019 annual decoupling filings in accordance with the historical treatment of CIAC. Historically, due to system constraints, CIAC records were not maintained with matching of the separate components (plant in service, CWIP, developer advances). As a result, the entire amount of CIAC was treated as a reduction to rate base and the Return on Investment was understated. As stated in Mr. Franklin’s T-12 direct testimony in Hawaii Electric Light’s 2019 Test Year rate case, the Companies propose to exclude the CIAC associated with CWIP in its calculation of rate base in the rate base RAM filings. Should the Commission approve Hawaii Electric Light’s proposal, Hawaiian Electric will implement this change in the annual decoupling filing in the year following the Commission’s approval.

HAWAIIAN ELECTRIC

SCENARIO 3

WEST LOCH PV INCLUDED IN RAM

REVENUE ADJUSTMENT

25kV INCLUDED IN 2018 SAIDI AND SAIFI

PIM CALCULATIONS

HAWAIIAN ELECTRIC
ATTACHMENT 1

RATE SCHEDULES (continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
92	"RBA"	September 1, 2018	Revenue Balancing Account Provision
92A	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92A.1	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92B	"RBA"	February 16, 2018	Revenue Balancing Account Provision
92C	"RBA"	January 1, 2018	Revenue Balancing Account Provision
92D	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92E	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92F	"RBA"	June 1, 2019	Revenue Balancing Account Provision
93	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93A	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93B	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93C	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93D	"RAM"	June 1, 2017	Rate Adjustment Mechanism Provision
93E	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
93F	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93G	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
93H	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
93I	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
94	"PPAC"	May 1, 2019	Purchased Power Adjustment Clause
94A	"PPAC"	May 1, 2019	Purchased Power Adjustment Clause
94B	"PPAC"	May 1, 2019	Purchased Power Adjustment Clause

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

RATE SCHEDULES (continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
95	EV-F	January 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
95A	EV-F	January 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
95B	EV-F	December 12, 2017	Commercial Public Electric Vehicle Charging Facility Service Pilot
96	EV-U	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
96A	EV-U	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
97	TOU-RI	October 18, 2018	Residential Interim Time-of-Use Service
97A	TOU-RI	January 1, 2019	Residential Interim Time-of-Use Service
97B	TOU-RI	October 18, 2018	Residential Interim Time-of-Use Service
97C	TOU-RI	January 1, 2019	Residential Interim Time-of-Use Service
98	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
98A	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
98B	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
98C	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
98D	"PIM"	June 1, 2019	Performance Incentive Mechanism Provision
98E	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
99	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99A	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99B	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99C	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service

HAWAIIAN ELECTRIC COMPANY, INC.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION

Supplement To:

Schedule R	- Residential Service
Schedule G	- General Service - Non-Demand
Schedule J	- General Service - Demand
Schedule DS	- Large Power Directly Served Service
Schedule P	- Large Power Service
Schedule F	- Public Street Lighting, Highway Lighting and Park and Playground Floodlighting
Schedule U	- Time-of-Use Service
Schedule TOU-R	- Residential Time-of-Use Service
Schedule TOU-G	- Small Commercial Time-of-Use Service
Schedule TOU-J	- Commercial Time-of-Use Service
Schedule TOU-P	- Large Commercial Time-of-Use Service
Schedule SS	- Standby Service
Schedule TOU EV-	Residential Time-of-Use Service with Electric Vehicle Pilot
Schedule EV-F	- Commercial Public Electric Vehicle Charging Facility Service Pilot
Schedule TOU-RI-	Residential Interim Time-of-Use Service

All terms and provisions of the above listed rate schedules applicable except that the total base rate charges for each billing period shall be adjusted by the Revenue Balancing Account Rate Adjustments shown below:

A: PURPOSE:

The purpose of the Revenue Balancing Account ("RBA") is to record: 1) the difference between the Hawaiian Electric Company's target revenue and recorded adjusted revenue, and 2) monthly interest applied to the simple average of the beginning and ending month balances in the RBA. In addition, the recovery provision of this tariff provides for collection or return of the calendar year-end balance in the RBA and recovery or refund of the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits provided in the Rate Adjustment Mechanism ("RAM") Provision, and any revenue adjustment provided in accordance with the Performance Incentive Mechanism Provision, over the subsequent June 1st through May 31st period. Tracking of target revenue and recorded adjusted revenue commenced on the effective date of the tariff that implemented the Final Decision and Order in Hawaiian Electric's 2009 test year rate case, Docket No. 2008-0083, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

HAWAIIAN ELECTRIC COMPANY, INC.

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018.

Transmittal Letter Dated July 23, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

B: TARGET REVENUE:

For the purpose of the RBA, the target revenue is the annual electric revenue approved by the Public Utilities Commission in the last issued Decision & Order in the Company's most recent test year general rate case, excluding revenue for fuel and purchased power expenses that are recovered either in base rates or in a purchased power adjustment clause; excluding revenue being separately tracked or recovered through any other surcharge or rate tracking mechanism; and excluding amounts for applicable revenue taxes;

Plus: Any effective RAM Revenue Adjustment calculated under the RAM provision for years subsequent to the most recent rate case test year for which the Commission has issued a Decision & Order; and any Performance Incentive Adjustment provided for in accordance with the Performance Incentive Mechanism Provision; and

Less: Any applicable Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits calculated under the RAM provision.

Adjusted by: Other adjustments, as applicable, in accordance with Commission's Order authorizing such adjustment. Other adjustments, if any, are shown in the table *Target Revenue Currently in Effect*, provided in section H.

The target revenue shall be revised to correct for any errors in the calculation of the RAM Revenue Adjustment, Performance Incentive Adjustment, recorded adjusted revenues or other RBA accounting determinations (collectively "target revenue determinations") for any previous period and for revisions to RAM Revenue Adjustments or Performance Incentive Adjustments as a result of subsequent Commission orders that change the basis of previously calculated RAM Revenue Adjustments and/or Performance Incentive Adjustments. For any corrections of errors in previously calculated target revenue determinations, the target revenue shall be adjusted as of the date that the correct determinations would have been reflected in target revenue. For changes in the RAM Revenue Adjustment and/or Performance Incentive Adjustments as a result of subsequently issued Commission orders, the target revenue shall be adjusted as of the effective date of changes that are implemented pursuant to the subsequently issued Commission order.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

The Commission and the Consumer Advocate will be notified of the target revenue revisions or corrections prior to implementation by the Company. There is no presumption that the target revenue changes are ultimately warranted or correct. In the annual RBA review transmittal ("RBA Review Transmittal") filed on or before March 31 of each year, the utility will have the burden to demonstrate that the interim changes for the previous calendar year are warranted and correctly applied. The Consumer Advocate will provide comments regarding the changes with its Statement of Position. The RBA balance and RBA Rate Adjustment for the following year will reflect any appropriate modifications to the change made by the utility in the prior year if necessary.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.19%
February	7.59%
March	8.10%
April	7.98%
May	8.40%
June	8.07%
July	8.70%
August	8.94%
September	8.65%
October	8.84%
November	8.26%
December	8.28%
Total	100.00%

These factors are based on the mWh sales forecast that is approved by the Commission in Hawaiian Electric's 2017 test year rate case and shall be updated in any subsequent test year rate case.

C: BALANCING ACCOUNT ENTRIES:

Entries to the RBA will be recorded monthly. A debit entry to the RBA will be made equal to the target revenue as defined in Section B. above, times the appropriate monthly allocation factor in the table above. A credit entry to the RBA will be made equal to the recorded adjusted revenue. The recorded adjusted revenue is defined to include the electric sales revenue from authorized base rates, plus revenue from any authorized interim rate increase, plus revenue from any RBA rate adjustment, but excluding revenue for fuel and purchased power expenses, IRP/DSM, any Commission Ordered one-time rate refunds or credits or other surcharges, and adjusted to remove amounts for applicable revenue taxes.

Interest will be recorded monthly to the RBA by multiplying the simple average of the beginning and ending month balance in the RBA times the Interest Rate divided by 12. The Interest Rate shall be the short term debt rate as established in deriving the consolidated cost of capital in the Company's last full rate case. The Interest Rate prior to March 1, 2014 shall be 6 percent.

D: RECOVERY OF BALANCING ACCOUNT AMOUNTS:

In its annual RBA Review Transmittal, the Company will file with the Commission a statement of the previous calendar year-end balance in the RBA and the RAM Revenue Adjustment for the current calendar year, along with supporting calculations.

HAWAIIAN ELECTRIC COMPANY, INC.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Both an amortization of the previous calendar year-end balance in the RBA, adjusted for any Earnings Sharing Revenue Credits or Major Capital Projects Credits, Baseline Capital Projects Credits or corrections, any Performance Incentive Adjustment provided in accordance with the Performance Incentive Mechanism Provision and the RAM Revenue Adjustment will be recovered through a per-kWh RBA rate adjustment, over the 12 months from June 1 of the current calendar year to May 31 of the succeeding calendar year. The recovery through the RBA Rate Adjustment of a RAM Revenue Adjustment calculated for a calendar year that is also a rate case test year shall terminate on the effective date of tariff rates that implement a Commission approved base revenue level authorized in the Company's test year rate case.

Revisions to Target Revenue based on corrections for errors and subsequently issued Commission orders, described in Section B above, will not be reflected in the RBA Rate Adjustment until a succeeding June 1 to May 31 period, unless otherwise ordered or approved by the Commission.

On or before March 31 of each year, the Company shall file with the Commission, the Consumer Advocate, and each party to the Company's most recent rate case proceeding, an RBA Review Transmittal supporting the implementation of the RBA Provision, including RBA reconciliation, implementation of applicable components of the RAM Provision and Performance Incentive Mechanism Provision, determination and adjustments of target revenues, determination of the RBA Rate Adjustment; and documenting any errors, corrections and adjustments to Target Revenues in the preceding calendar year and prior to the transmittal date.

Complete, indexed workpapers and electronic files supporting the previous year-end balance in the RBA and target revenue determinations shall be provided to the Commission, the Consumer Advocate and all other parties to the Utility's most recent rate case proceeding ("Other Rate Case Parties"), if any, as part of the annual RBA Review Transmittal filing. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, Other Rate Case Parties, and other interested persons that may propose any adjustments necessary to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications, Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

As described in Sections 6-61-61 and 6-61-111 of the Hawaii Administrative Rules, Title 6, Chapter 61, based upon the Company's filed schedules and in the absence of any protests submitted by the Consumer Advocate, Other Rate Case Parties, or other interested persons, not later than 15 days before June 1st, the RBA Rate Adjustment shall go into effect on June 1st, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

The RBA Rate Adjustment is comprised of the calculated values from Section D above, adjusted to include amounts for applicable revenue taxes, and calculated based on the Company's forecast of mWh sales over the RBA Rate Adjustment recovery period.

The RBA Rate Adjustment shall remain unchanged during the recovery period unless further modification is required by order or approval of the Commission, except as specifically provided above.

RBA Rate Adjustment

All Rate Schedules 0.9776 ¢/kWh

F. NOTICE

Notice of the annual Revenue Balancing Account Rate Adjustment filing shall be provided to all affected customers of the Utility in accordance with the provisions of this section by publication in newspapers of general circulation within 14 days and by including notification with its billing statements within 60 days after the Company makes its annual RBA Review Transmittal filing pursuant to this tariff. The notice to customers shall include the following information:

- a) A description of the proposed revision of revenues, Earnings Sharing Credits, and Major or Baseline Capital Projects Credits;
- b) The effect on the rates applicable to each customer class and on the typical bill for residential customers; and
- c) The Company's address, telephone number and website where information concerning the proposed Revenue Balancing Account Rate Adjustment may be obtained.

G: COMMISSION'S AUTHORITY

The Commission may modify or suspend any or all parts of this Revenue Balancing Account Provision. Such suspension shall remain in place until removed by Commission Order.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

H: TARGET REVENUE CURRENTLY IN EFFECT

Hawaiian Electric Company, Inc.
Annual Target Revenue (\$000s)

	<u>Description</u>	<u>Amount</u>
1	Electric Sales Revenue (Unadjusted)	\$1,531,852
2	Tax Act Implementation Lag	(\$2,143)
3	Electric Sales Revenue (Adjusted)	\$1,529,709
	Less:	
4	Fuel Expense	(\$327,609)
5	Purchase Power Expense	(\$466,211)
6	Revenue Tax on Electric Sales Revenue	(\$135,915)
7	Last Rate Order Target Revenues	\$599,974
8	Authorized RAM Revenues	\$22,951
9	Revenue Tax	(\$2,039)
10	Net RAM Adjustment	\$20,912
11	Authorized MPIR Revenues	\$19,811
12	Revenue Tax	(\$1,760)
13	Net MPIR Adjustment	\$18,051
14	Earnings Sharing Revenue Credits	\$0
15	Revenue Tax	\$0
16	Net Earnings Sharing Revenue Credits	\$0
17	Performance Incentive Mechansim (PIM)	(\$1,269)
18	Revenue Tax	\$113
19	Net PIM Reward (Penalty)	(\$1,157)
20	2017 Test Year Final D&O Refund	(\$48)
21	Revenue Tax	\$4
22	Net 2017 Test Year Final D&O Refund	(\$44)
23	On-Bill Financing Pgm Implementation Costs	\$844
24	Revenue Tax	(\$75)
25	Net On-Bill Financing Adjustment	\$769
26	Effective Target Revenue	\$638,505

Notes:

Totals may not add, due to rounding.

Lines 1,4,5: Final Decision and Order No. 35545, issued June 22, 2018 in Docket No. 2016-0328. Exhibit A.

Line 2: Hawaiian Electric March 2018 Settlement Tariff Sheets, Attachment 1, Line 2. Filed March 16, 2018 in Docket No. 2016-0328.

Lines 6,9,12,15,18,21,24: Revenue Tax based on 8.885% statutory rates.

Lines 8,11,14,17,20,23,26: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling) Schedule B1 (Scenario 2B), filed May 21, 2019.
Change in Effective Target Revenue for MPIR is effective January 1, 2019.
See Order 35556, filed June 27, 2018 in Docket No. 2017-0213.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

I: HISTORICAL REFERENCE

Category	Effective Period	Effective Target Revenue (\$000)	Change in Target Revenue (\$000)	Source
Annual Decoupling Filing	6/1/2017 thru 2/15/2018	\$604,302	N/A (1/1/2018 Baseline)	Schedule B1 filed in Transmittal No. 17-02 on 3/31/2017.
2017 Test Year Rate Case (Interim)	2/16/2018 thru 4/12/2018	\$637,077	\$32,775	Schedule B1 filed in Docket No. 2016-0328 on 1/19/2018.
2017 Test Year Rate Case (Interim)	4/13/2018 thru 5/31/2018	\$599,960	(37,117)	Schedule B1 filed in Docket No. 2016-0328 on 3/16/2018.
Annual Decoupling Filing	6/1/2018 thru 6/30/2018	\$612,574	\$12,614	Schedule B1 filed in Transmittal No. 18-01 on 3/29/2018.
MPIR (Schofield)	7/1/2018 thru 9/30/2018	\$618,587	\$6,013	Schedule B1 filed in Docket No. 2017-0213 on 7/18/2018.
MPIR (Schofield)	10/1/2018 thru 12/31/2018	\$620,374	\$1,787	Schedule B1 filed in Docket No. 2017-0213 on 12/21/2018.
MPIR (Schofield)	1/1/2019 thru 5/31/2019	\$630,624	\$10,250	Schedule B1 filed in Transmittal No. 19-01 on 2/7/2019.
Annual Decoupling Filing	6/1/2019 (current)	\$638,505	\$7,881	Schedule B1 (Scenario 2B) filed in Transmittal No. 19-01 on 5/21/2019.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

PERFORMANCE INCENTIVE MECHANISM PROVISION

Introduction

This Performance Incentive Mechanism ("PIM") Provision provides for the determination of a PIM Financial Incentive for each approved PIM for each Evaluation Period, based on Measured Performance compared to an established Performance Target for each PIM, as specified below.

The sum of the PIM Financial Incentives determined for all PIMs for the Evaluation Period will be the Performance Incentive Adjustment, which will be applied as an adjustment to the effective Target Revenue and will be recovered from or credited to customers through the RBA Rate Adjustment, as defined by and in accordance with the terms of the Revenue Balancing Account ("RBA") Provision.

Annual PIM Provision Transmittal

On or before March 31 of the year following an Evaluation Period, the Company shall file with the Commission, the Consumer Advocate, and each party to the Company's most recent rate case proceeding, a transmittal documenting the Measured Performance and calculation of the PIM Financial Incentives and Performance Incentive Adjustment for the Evaluation Period. Complete, indexed schedules, workpapers and electronic files supporting the transmittal shall be provided with the transmittal. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, other rate case parties, and other interested persons that may propose any adjustments necessary to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

The review of the annual PIM Provision transmittal will be conducted concurrent with and in conjunction with the annual RBA Review Transmittal. The Performance Incentive Adjustment will be determined annually based on the PIM Provision transmittal and, after review and subject to explicit approval by the Commission, will become effective on June 1 of the year following the Evaluation Period, concurrent and in conjunction with determination of Target Revenues and the RBA Rate Adjustment in accordance with the RBA Provision. Any approved Performance Incentive Adjustment will be applied as monthly adjustments to Target Revenues for the twelve month period commencing June 1 of the year following the Evaluation Period in accordance with the Monthly Allocation Factors identified in the RBA Provision.

The Performance Targets, Deadbands and the amount of Maximum Financial Incentives used to determine the PIM Financial Incentive

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications,
Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

levels for each of the PIMs shall be re-determined upon issuance of an interim or final order in a general rate case for each Company and shall remain constant in interim periods, unless otherwise amended, as necessary, by order of the Commission.

In the event that Performance Targets, Deadbands or the amounts of Maximum Financial Incentives are updated or amended by order of the Commission during the Evaluation Period, the Performance Targets, Deadbands and the amounts of Maximum Financial Incentives used in determining the amount of PIM Financial Incentives shall be a pro-rated weighted average based on the number of days of the Evaluation Period each parameter was effective.

Any revenue adjustments approved in accordance with this PIM Provision shall be excluded from the determination of Earnings Sharing Credits provided for in the Rate Adjustment Mechanism Provision ("RAM Provision").

The Performance Incentive Adjustment, and any prior year Performance Incentive Adjustment, shall be recalculated for errors in prior calculations and for subsequent Commission orders that change the basis for prior calculations. The effect of such changes shall be implemented as described in the RBA Provision, except that, the Performance Target, Deadband and Maximum Financial Incentive amounts determined in this PIM Provision shall not be recalculated based on errors in the calculation of these parameters and shall remain as specified unless and until changed by order of the Commission.

Evaluation Period

The Evaluation Period is defined as the annual twelve month calendar year period ending December 31, over which Measured Performance is determined and compared to the established Performance Target for each PIM described below. The first Evaluation Period shall begin January 1, 2018.

PIM Financial Incentive Calculation

For each PIM below, a Performance Target is specified, developed based on historical performance data. A Deadband is specified for each Performance Target in order to provide a satisfactory range of performance within which no reward or penalty amount is assessed.

A Maximum Financial Incentive amount is specified for each PIM with separate identification of a Maximum Reward Amount and a Maximum Penalty Amount.

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications,
Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Measured Performance for the Evaluation Period is compared to the Performance Target for each PIM. If the difference between Measured Performance and the Performance Target is less than or equal to the Deadband amount, no reward or penalty is awarded and the amount of the PIM Financial Incentive is zero. If the difference between Measured Performance and the Performance Target exceeds the Deadband amount, a reward or penalty ratio is calculated where the difference between Measured Performance and the Performance Target, less the Deadband amount, is the numerator and the Deadband amount is the denominator. This ratio is multiplied by either the Maximum Reward Amount or Maximum Penalty Amount, as applicable, to determine the PIM Financial Incentive for each PIM. The magnitude of the PIM Financial Incentive for each PIM shall not exceed 100% of the magnitude of the applicable Maximum Reward Amount or Maximum Penalty Amount established for each PIM.

Reliability Performance Incentive Mechanisms

There are two reliability PIMs: 1) System Average Interruption Frequency Index ("SAIFI"); and 2) System Average Interruption Duration Index ("SAIDI"). SAIFI is a measure of the average frequency of outages, defined as the annual total number of customer interruptions divided by the total number of customers served. SAIDI is a measure of the average duration of outage, defined as the sum of all customer interruption durations (in minutes) divided by the total number of customers served. The SAIFI and SAIDI Measured Performance and Performance Targets are determined using the IEEE Standard 1366 methodology.

For the Reliability Performance Incentive Mechanisms, the 2008-2017 record of historical performance data was used to establish the Performance Target and the Deadband. The Deadband was calculated as ± 1 standard deviation of the historical performance data. Accordingly, 100% of the penalty is achieved when Measured Performance is equal to or greater than 2 standard deviations from the Performance Target.

SAIFI:

Performance Target: 1.103 interruptions per customer during the one-year Evaluation Period

Deadband: ± 0.088 interruptions (1 Standard Deviation)

HAWAIIAN ELECTRIC COMPANY, INC

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Range for no penalty: 1.015 interruptions to 1.191 interruptions per customer (\pm 1 Standard Deviation from Target)

Rewards: Not Applicable

Penalties for greater than 1.191 interruptions per customer

Maximum Reward Amount: Not Applicable

Maximum Penalty Amount: \$2,276,417.

The Maximum Penalty Amount was determined to be equal to 0.20% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

SAIDI:

Target: 99.23 minutes per outage

Deadband: \pm 8.96 minutes (1 Standard Deviation)

Range for no penalty: 90.27 minutes to 108.19 minutes per outage (\pm 1 Standard Deviation from Target)

Rewards: Not Applicable

Penalties for greater than 108.19 minutes per outage

Maximum Reward Amount: Not Applicable

Maximum Penalty Amount: \$2,276,417.

The Maximum Penalty Amount was determined to be equal to 0.20% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

Call Center Performance Incentive Mechanism

The Call Center Performance PIM measures the performance of the utility call center in terms of the percentage of calls answered within thirty (30) seconds. The calculation of the call center performance shall exclude blocked calls from the denominator.

The Performance Target for the Call Center Performance Incentive Mechanism was calculated based on the average of quarterly data from Quarter 3 of 2016 to Quarter 2 of 2018.

HAWAIIAN ELECTRIC COMPANY, INC

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Call Center Performance:

Performance Target: 80.10% of calls answered within 30 seconds

Deadband: +/- 3.00% of calls answered within 30 seconds

Range for no reward or penalty: 77.10 % of calls answered to 83.10% of calls answered.

Rewards apply for greater than 83.10 % of calls answered
Penalties apply for less than 77.10 % of calls answered

Maximum Reward Amount: \$910,567.

Maximum Penalty Amount: \$910,567.

The magnitude of the Maximum Reward Amount and Maximum Penalty Amount were determined to be equal to 0.08% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

Additional PIMs:

The Commission may order the establishment of one or more PIMs, and the targets, deadbands, rewards, penalties, and allocations for that PIM, as applicable, shall be implemented as specified in the Commission's order that approved the applicable PIM, and the applicable PIM Financial Incentive shall be included in the Performance Incentive Adjustment.

Commission's Authority

The Commission may suspend any or all parts of this PIM Provision. Such suspension shall remain in place until removed by Commission order.

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Historical Reference

The following table summarizes the prior PIMs in effect, as these values may be applicable during certain portions of the Evaluation Period.

PIM:	Effective Period:	Performance Target:	Deadband:	Maximum Reward:	Maximum Penalty:
SAIFI	1/1/2018 thru 2/15/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,039,094
SAIFI	2/16/2018 thru 4/12/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,260,799
SAIFI	4/13/2018 thru 8/31/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,276,417
SAIDI	1/1/2018 thru 2/15/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,039,094
SAIDI	2/16/2018 thru 4/12/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,260,799
SAIDI	4/13/2018 thru 8/31/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,276,417
Call Center	1/1/2018 thru 2/15/2018	79.07% of calls answered within 30 sec.	+/- 3.00%	\$815,638	\$815,638
Call Center	2/16/2018 thru 4/12/2018	79.46% of calls answered within 30 sec.	+/- 3.00%	\$904,320	\$904,320
Call Center	4/13/2018 thru 8/31/2018	79.56% of calls answered within 30 sec.	+/- 3.00%	\$910,567	\$910,567

HAWAIIAN ELECTRIC COMPANY, INC

HAWAIIAN ELECTRIC
ATTACHMENT 1A

Superseding Revised Sheet No. 50E
Effective May 1, 2019

REVISED SHEET NO. 50E
Effective June 1, 2019

Deleted: February 1, 2019

RATE SCHEDULES (continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
92	"RBA"	September 1, 2018	Revenue Balancing Account Provision
92A	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
92A.1	"RBA"	June 1, 2019	<u>Revenue Balancing Account Provision</u>
92B	"RBA"	February 16, 2018	Revenue Balancing Account Provision
92C	"RBA"	January 1, 2018	Revenue Balancing Account Provision
92D	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
92E	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
92F	"RBA"	June 1, 2019	<u>Revenue Balancing Account Provision</u>
93	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93A	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
93B	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
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93G	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
93H	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
93I	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
94	"PPAC"	<u>May 1, 2019</u>	Purchased Power Adjustment Clause
94A	"PPAC"	<u>May 1, 2019</u>	Purchased Power Adjustment Clause
94B	"PPAC"	<u>May 1, 2019</u>	Purchased Power Adjustment Clause

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HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019

Deleted: February 22, 2019

Superseding SHEET NO. 50F
Effective January 1, 2019

REVISED SHEET NO. 50F
Effective June 1, 2019

RATE SCHEDULES (continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
95	EV-F	January 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
95A	EV-F	January 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
95B	EV-F	December 12, 2017	Commercial Public Electric Vehicle Charging Facility Service Pilot
96	EV-U	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
96A	EV-U	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
97	TOU-RI	October 18, 2018	Residential Interim Time-of-Use Service
97A	TOU-RI	January 1, 2019	Residential Interim Time-of-Use Service
97B	TOU-RI	October 18, 2018	Residential Interim Time-of-Use Service
97C	TOU-RI	January 1, 2019	Residential Interim Time-of-Use Service
98	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
98A	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
98B	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
98C	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
98D	"PIM"	<u>June 1, 2019</u>	Performance Incentive Mechanism Provision
98E	"PIM"	September 1, 2018	Performance Incentive Mechanism Provision
99	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99A	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99B	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service
99C	TOU-P	January 1, 2019	Large Commercial Time-Of-Use Service

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

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Deleted: Docket No. 2016-0328; Order No. 35927,
Filed on December 7, 2018.

Superseding REVISED SHEET NO. 92
Effective January 1, 2018

REVISED SHEET NO. 92
Effective September 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION

Supplement To:

Schedule R	- Residential Service
Schedule G	- General Service - Non-Demand
Schedule J	- General Service - Demand
Schedule DS	- Large Power Directly Served Service
Schedule P	- Large Power Service
Schedule F	- Public Street Lighting, Highway Lighting and Park and Playground Floodlighting
Schedule U	- Time-of-Use Service
Schedule TOU-R	- Residential Time-of-Use Service
Schedule TOU-G	- Small Commercial Time-of-Use Service
Schedule TOU-J	- Commercial Time-of-Use Service
Schedule TOU-P	- Large Commercial Time-of-Use Service
Schedule SS	- Standby Service
Schedule TOU EV-	Residential Time-of-Use Service with Electric Vehicle Pilot
Schedule EV-F	- Commercial Public Electric Vehicle Charging Facility Service Pilot
Schedule TOU-RI-	Residential Interim Time-of-Use Service

All terms and provisions of the above listed rate schedules applicable except that the total base rate charges for each billing period shall be adjusted by the Revenue Balancing Account Rate Adjustments shown below:

A: PURPOSE:

The purpose of the Revenue Balancing Account ("RBA") is to record: 1) the difference between the Hawaiian Electric Company's target revenue and recorded adjusted revenue, and 2) monthly interest applied to the simple average of the beginning and ending month balances in the RBA. In addition, the recovery provision of this tariff provides for collection or return of the calendar year-end balance in the RBA and recovery or refund of the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits provided in the Rate Adjustment Mechanism ("RAM") Provision, and any revenue adjustment provided in accordance with the Performance Incentive Mechanism Provision, over the subsequent June 1st through May 31st period. Tracking of target revenue and recorded adjusted revenue commenced on the effective date of the tariff that implemented the Final Decision and Order in Hawaiian Electric's 2009 test year rate case, Docket No. 2008-0083, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

HAWAIIAN ELECTRIC COMPANY, INC.

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018.

Transmittal Letter Dated July 23, 2018

Superseding REVISED SHEET NO. 92A
Effective January 1, 2018

REVISED SHEET NO. 92A
Effective June 1, 2019

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

B: TARGET REVENUE:

For the purpose of the RBA, the target revenue is the annual electric revenue approved by the Public Utilities Commission in the last issued Decision & Order in the Company's most recent test year general rate case, excluding revenue for fuel and purchased power expenses that are recovered either in base rates or in a purchased power adjustment clause; excluding revenue being separately tracked or recovered through any other surcharge or rate tracking mechanism; and excluding amounts for applicable revenue taxes;

Plus: Any effective RAM Revenue Adjustment calculated under the RAM provision for years subsequent to the most recent rate case test year for which the Commission has issued a Decision & Order; and any Performance Incentive Adjustment provided for in accordance with the Performance Incentive Mechanism Provision; and

Less: Any applicable Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits calculated under the RAM provision.

Adjusted by: Other adjustments, as applicable, in accordance with Commission's Order authorizing such adjustment. Other adjustments, if any, are shown in the table Target Revenue Currently in Effect, provided in section H.

The target revenue shall be revised to correct for any errors in the calculation of the RAM Revenue Adjustment, Performance Incentive Adjustment, recorded adjusted revenues or other RBA accounting determinations (collectively "target revenue determinations") for any previous period and for revisions to RAM Revenue Adjustments or Performance Incentive Adjustments as a result of subsequent Commission orders that change the basis of previously calculated RAM Revenue Adjustments and/or Performance Incentive Adjustments. For any corrections of errors in previously calculated target revenue determinations, the target revenue shall be adjusted as of the date that the correct determinations would have been reflected in target revenue. For changes in the RAM Revenue Adjustment and/or Performance Incentive Adjustments as a result of subsequently issued Commission orders, the target revenue shall be adjusted as of the effective date of changes that are implemented pursuant to the subsequently issued Commission order.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

Deleted: Decision and Order No. 35165; Approving, With Modifications, Proposed Revisions To RBA Tariffs, Filed December 29, 2017.

Deleted: January 11, 2018

SHEET NO. 92A.1
Effective June 1, 2019

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

The Commission and the Consumer Advocate will be notified of the target revenue revisions or corrections prior to implementation by the Company. There is no presumption that the target revenue changes are ultimately warranted or correct. In the annual RBA review transmittal ("RBA Review Transmittal") filed on or before March 31 of each year, the utility will have the burden to demonstrate that the interim changes for the previous calendar year are warranted and correctly applied. The Consumer Advocate will provide comments regarding the changes with its Statement of Position. The RBA balance and RBA Rate Adjustment for the following year will reflect any appropriate modifications to the change made by the utility in the prior year if necessary.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 21, 2019.

Superseding REVISED SHEET NO. 92B
Effective June 1, 2017

REVISED SHEET NO. 92B
Effective February 16, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.19%
February	7.59%
March	8.10%
April	7.98%
May	8.40%
June	8.07%
July	8.70%
August	8.94%
September	8.65%
October	8.84%
November	8.26%
December	8.28%
Total	100.00%

These factors are based on the mWh sales forecast that is approved by the Commission in Hawaiian Electric's 2017 test year rate case and shall be updated in any subsequent test year rate case.

C: BALANCING ACCOUNT ENTRIES:

Entries to the RBA will be recorded monthly. A debit entry to the RBA will be made equal to the target revenue as defined in Section B. above, times the appropriate monthly allocation factor in the table above. A credit entry to the RBA will be made equal to the recorded adjusted revenue. The recorded adjusted revenue is defined to include the electric sales revenue from authorized base rates, plus revenue from any authorized interim rate increase, plus revenue from any RBA rate adjustment, but excluding revenue for fuel and purchased power expenses, IRP/DSM, any Commission Ordered one-time rate refunds or credits or other surcharges, and adjusted to remove amounts for applicable revenue taxes.

Interest will be recorded monthly to the RBA by multiplying the simple average of the beginning and ending month balance in the RBA times the Interest Rate divided by 12. The Interest Rate shall be the short term debt rate as established in deriving the consolidated cost of capital in the Company's last full rate case. The Interest Rate prior to March 1, 2014 shall be 6 percent.

D: RECOVERY OF BALANCING ACCOUNT AMOUNTS:

In its annual RBA Review Transmittal, the Company will file with the Commission a statement of the previous calendar year-end balance in the RBA and the RAM Revenue Adjustment for the current calendar year, along with supporting calculations.

HAWAIIAN ELECTRIC COMPANY, INC.

Docket No. 2016-0328; Order No. 35280, issued February 9, 2018.
Transmittal Letter Dated February 12, 2018.

Superseding REVISED SHEET NO. 92C
Effective June 1, 2017

REVISED SHEET NO. 92C
Effective January 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

Both an amortization of the previous calendar year-end balance in the RBA, adjusted for any Earnings Sharing Revenue Credits or Major Capital Projects Credits, Baseline Capital Projects Credits or corrections, any Performance Incentive Adjustment provided in accordance with the Performance Incentive Mechanism Provision and the RAM Revenue Adjustment will be recovered through a per-kWh RBA rate adjustment, over the 12 months from June 1 of the current calendar year to May 31 of the succeeding calendar year. The recovery through the RBA Rate Adjustment of a RAM Revenue Adjustment calculated for a calendar year that is also a rate case test year shall terminate on the effective date of tariff rates that implement a Commission approved base revenue level authorized in the Company's test year rate case.

Revisions to Target Revenue based on corrections for errors and subsequently issued Commission orders, described in Section B above, will not be reflected in the RBA Rate Adjustment until a succeeding June 1 to May 31 period, unless otherwise ordered or approved by the Commission.

On or before March 31 of each year, the Company shall file with the Commission, the Consumer Advocate, and each party to the Company's most recent rate case proceeding, an RBA Review Transmittal supporting the implementation of the RBA Provision, including RBA reconciliation, implementation of applicable components of the RAM Provision and Performance Incentive Mechanism Provision, determination and adjustments of target revenues, determination of the RBA Rate Adjustment; and documenting any errors, corrections and adjustments to Target Revenues in the preceding calendar year and prior to the transmittal date.

Complete, indexed workpapers and electronic files supporting the previous year-end balance in the RBA and target revenue determinations shall be provided to the Commission, the Consumer Advocate and all other parties to the Utility's most recent rate case proceeding ("Other Rate Case Parties"), if any, as part of the annual RBA Review Transmittal filing. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, Other Rate Case Parties, and other interested persons that may propose any adjustments necessary to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications, Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

Superseding REVISED SHEET NO. 92D
Effective June 1, 2018

REVISED SHEET NO. 92D
Effective June 1, 2019

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

As described in Sections 6-61-61 and 6-61-111 of the Hawaii Administrative Rules, Title 6, Chapter 61, based upon the Company's filed schedules and in the absence of any protests submitted by the Consumer Advocate, Other Rate Case Parties, or other interested persons, not later than 15 days before June 1st, the RBA Rate Adjustment shall go into effect on June 1st, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

The RBA Rate Adjustment is comprised of the calculated values from Section D above, adjusted to include amounts for applicable revenue taxes, and calculated based on the Company's forecast of mWh sales over the RBA Rate Adjustment recovery period.

The RBA Rate Adjustment shall remain unchanged during the recovery period unless further modification is required by order or approval of the Commission, except as specifically provided above.

RBA Rate Adjustment

All Rate Schedules 0.9776 ¢/kWh

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F. NOTICE

Notice of the annual Revenue Balancing Account Rate Adjustment filing shall be provided to all affected customers of the Utility in accordance with the provisions of this section by publication in newspapers of general circulation within 14 days and by including notification with its billing statements within 60 days after the Company makes its annual RBA Review Transmittal filing pursuant to this tariff. The notice to customers shall include the following information:

- a) A description of the proposed revision of revenues, Earnings Sharing Credits, and Major or Baseline Capital Projects Credits;
- b) The effect on the rates applicable to each customer class and on the typical bill for residential customers; and
- c) The Company's address, telephone number and website where information concerning the proposed Revenue Balancing Account Rate Adjustment may be obtained.

G: COMMISSION'S AUTHORITY

The Commission may modify or suspend any or all parts of this Revenue Balancing Account Provision. Such suspension shall remain in place until removed by Commission Order.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

Deleted: May 29, 2018

Superseding REVISED SHEET NO. 92E
Effective January 1, 2019

REVISED SHEET NO. 92E
Effective June 1, 2019

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

H: TARGET REVENUE CURRENTLY IN EFFECT

Hawaiian Electric Company, Inc.
Annual Target Revenue (\$000s)

	Description	Amount
1	Electric Sales Revenue (Unadjusted)	\$1,531,852
2	Tax Act Implementation Lag	(\$2,143)
3	Electric Sales Revenue (Adjusted)	\$1,529,709
	Less:	
4	Fuel Expense	(\$327,609)
5	Purchase Power Expense	(\$466,211)
6	Revenue Tax on Electric Sales Revenue	(\$135,915)
7	Last Rate Order Target Revenues	\$599,974
8	Authorized RAM Revenues	\$22,951
9	Revenue Tax	(\$2,039)
10	Net RAM Adjustment	\$20,912
11	Authorized MPIR Revenues	\$19,811
12	Revenue Tax	(\$1,760)
13	Net MPIR Adjustment	\$18,051
14	Earnings Sharing Revenue Credits	\$0
15	Revenue Tax	\$0
16	Net Earnings Sharing Revenue Credits	\$0
17	Performance Incentive Mechansim (PIM)	(\$1,269)
18	Revenue Tax	\$113
19	Net PIM Reward (Penalty)	(\$1,157)
20	2017 Test Year Final D&O Refund	(\$48)
21	Revenue Tax	\$4
22	Net 2017 Test Year Final D&O Refund	(\$44)
23	On-Bill Financing Pgm Implementation Costs	\$844
24	Revenue Tax	(\$75)
25	Net On-Bill Financing Adjustment	\$769
26	Effective Target Revenue	\$638,505

Notes:

Totals may not add, due to rounding.

Lines 1,4,5: Final Decision and Order No. 35545, issued June 22, 2018 in Docket No. 2016-0328. Exhibit A.

Line 2: Hawaiian Electric March 2018 Settlement Tariff Sheets, Attachment 1, Line 2. Filed March 16, 2018 in Docket No. 2016-0328.

Lines 6,9,12,15,18,21,24: Revenue Tax based on 8.885% statutory rates.

Lines 8,11,14,17,20,23,26: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling) Schedule B1 (Scenario 2B), filed May 21, 2019.
Change in Effective Target Revenue for MPIR is effective January 1, 2019.
See Order 35556, filed June 27, 2018 in Docket No. 2017-0213.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

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issued December 14, 2018.

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SHEET NO. 92F
Effective June 1, 2019

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)

I: HISTORICAL REFERENCE

<u>Category</u>	<u>Effective Period</u>	<u>Effective Target Revenue (\$000)</u>	<u>Change in Target Revenue (\$000)</u>	<u>Source</u>
Annual Decoupling Filing	6/1/2017 thru 2/15/2018	\$604,302	N/A (1/1/2018 Baseline)	Schedule B1 filed in Transmittal No. 17-02 on 3/31/2017.
2017 Test Year Rate Case (Interim)	2/16/2018 thru 4/12/2018	\$637,077	\$32,775	Schedule B1 filed in Docket No. 2016-0328 on 1/19/2018.
2017 Test Year Rate Case (Interim)	4/13/2018 thru 5/31/2018	\$599,960	(37,117)	Schedule B1 filed in Docket No. 2016-0328 on 3/16/2018.
Annual Decoupling Filing	6/1/2018 thru 6/30/2018	\$612,574	\$12,614	Schedule B1 filed in Transmittal No. 18-01 on 3/29/2018.
MPiR (Schofield)	7/1/2018 thru 9/30/2018	\$618,587	\$6,013	Schedule B1 filed in Docket No. 2017-0213 on 7/18/2018.
MPiR (Schofield)	10/1/2018 thru 12/31/2018	\$620,374	\$1,787	Schedule B1 filed in Docket No. 2017-0213 on 12/21/2018.
MPiR (Schofield)	1/1/2019 thru 5/31/2019	\$630,624	\$10,250	Schedule B1 filed in Transmittal No. 19-01 on 2/7/2019.
Annual Decoupling Filing	6/1/2019 (current)	\$638,505	\$7,881	Schedule B1 (Scenario 2B) filed in Transmittal No. 19-01 on 5/21/2019.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 21, 2019.

PERFORMANCE INCENTIVE MECHANISM PROVISION

Introduction

This Performance Incentive Mechanism ("PIM") Provision provides for the determination of a PIM Financial Incentive for each approved PIM for each Evaluation Period, based on Measured Performance compared to an established Performance Target for each PIM, as specified below.

The sum of the PIM Financial Incentives determined for all PIMs for the Evaluation Period will be the Performance Incentive Adjustment, which will be applied as an adjustment to the effective Target Revenue and will be recovered from or credited to customers through the RBA Rate Adjustment, as defined by and in accordance with the terms of the Revenue Balancing Account ("RBA") Provision.

Annual PIM Provision Transmittal

On or before March 31 of the year following an Evaluation Period, the Company shall file with the Commission, the Consumer Advocate, and each party to the Company's most recent rate case proceeding, a transmittal documenting the Measured Performance and calculation of the PIM Financial Incentives and Performance Incentive Adjustment for the Evaluation Period. Complete, indexed schedules, workpapers and electronic files supporting the transmittal shall be provided with the transmittal. The Company will be prepared to provide information as may be requested to ensure adequate review by the Commission, Consumer Advocate, other rate case parties, and other interested persons that may propose any adjustments necessary to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

The review of the annual PIM Provision transmittal will be conducted concurrent with and in conjunction with the annual RBA Review Transmittal. The Performance Incentive Adjustment will be determined annually based on the PIM Provision transmittal and, after review and subject to explicit approval by the Commission, will become effective on June 1 of the year following the Evaluation Period, concurrent and in conjunction with determination of Target Revenues and the RBA Rate Adjustment in accordance with the RBA Provision. Any approved Performance Incentive Adjustment will be applied as monthly adjustments to Target Revenues for the twelve month period commencing June 1 of the year following the Evaluation Period in accordance with the Monthly Allocation Factors identified in the RBA Provision.

The Performance Targets, Deadbands and the amount of Maximum Financial Incentives used to determine the PIM Financial Incentive

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications,
Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

SHEET NO. 98A
Effective January 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

levels for each of the PIMs shall be re-determined upon issuance of an interim or final order in a general rate case for each Company and shall remain constant in interim periods, unless otherwise amended, as necessary, by order of the Commission.

In the event that Performance Targets, Deadbands or the amounts of Maximum Financial Incentives are updated or amended by order of the Commission during the Evaluation Period, the Performance Targets, Deadbands and the amounts of Maximum Financial Incentives used in determining the amount of PIM Financial Incentives shall be a pro-rated weighted average based on the number of days of the Evaluation Period each parameter was effective.

Any revenue adjustments approved in accordance with this PIM Provision shall be excluded from the determination of Earnings Sharing Credits provided for in the Rate Adjustment Mechanism Provision ("RAM Provision").

The Performance Incentive Adjustment, and any prior year Performance Incentive Adjustment, shall be recalculated for errors in prior calculations and for subsequent Commission orders that change the basis for prior calculations. The effect of such changes shall be implemented as described in the RBA Provision, except that, the Performance Target, Deadband and Maximum Financial Incentive amounts determined in this PIM Provision shall not be recalculated based on errors in the calculation of these parameters and shall remain as specified unless and until changed by order of the Commission.

Evaluation Period

The Evaluation Period is defined as the annual twelve month calendar year period ending December 31, over which Measured Performance is determined and compared to the established Performance Target for each PIM described below. The first Evaluation Period shall begin January 1, 2018.

PIM Financial Incentive Calculation

For each PIM below, a Performance Target is specified, developed based on historical performance data. A Deadband is specified for each Performance Target in order to provide a satisfactory range of performance within which no reward or penalty amount is assessed.

A Maximum Financial Incentive amount is specified for each PIM with separate identification of a Maximum Reward Amount and a Maximum Penalty Amount.

HAWAIIAN ELECTRIC COMPANY, INC.

Decision and Order No. 35165; Approving, With Modifications,
Proposed Revisions To RBA Tariffs, Filed December 29, 2017.
Transmittal Letter dated January 11, 2018.

Superseding Sheet no. 98B
Effective January 1, 2018

REVISED SHEET NO. 98B
Effective September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Measured Performance for the Evaluation Period is compared to the Performance Target for each PIM. If the difference between Measured Performance and the Performance Target is less than or equal to the Deadband amount, no reward or penalty is awarded and the amount of the PIM Financial Incentive is zero. If the difference between Measured Performance and the Performance Target exceeds the Deadband amount, a reward or penalty ratio is calculated where the difference between Measured Performance and the Performance Target, less the Deadband amount, is the numerator and the Deadband amount is the denominator. This ratio is multiplied by either the Maximum Reward Amount or Maximum Penalty Amount, as applicable, to determine the PIM Financial Incentive for each PIM. The magnitude of the PIM Financial Incentive for each PIM shall not exceed 100% of the magnitude of the applicable Maximum Reward Amount or Maximum Penalty Amount established for each PIM.

Reliability Performance Incentive Mechanisms

There are two reliability PIMs: 1) System Average Interruption Frequency Index ("SAIFI"); and 2) System Average Interruption Duration Index ("SAIDI"). SAIFI is a measure of the average frequency of outages, defined as the annual total number of customer interruptions divided by the total number of customers served. SAIDI is a measure of the average duration of outage, defined as the sum of all customer interruption durations (in minutes) divided by the total number of customers served. The SAIFI and SAIDI Measured Performance and Performance Targets are determined using the IEEE Standard 1366 methodology.

For the Reliability Performance Incentive Mechanisms, the 2008-2017 record of historical performance data was used to establish the Performance Target and the Deadband. The Deadband was calculated as ± 1 standard deviation of the historical performance data. Accordingly, 100% of the penalty is achieved when Measured Performance is equal to or greater than 2 standard deviations from the Performance Target.

SAIFI:

Performance Target: 1.103 interruptions per customer during the one-year Evaluation Period

Deadband: ± 0.088 interruptions (1 Standard Deviation)

HAWAIIAN ELECTRIC COMPANY, INC

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018. Transmittal Letter Dated July 23, 2018.

Superseding Sheet No. 98C
Effective January 1, 2018

REVISED SHEET NO. 98C
Effective September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Range for no penalty: 1.015 interruptions to 1.191
interruptions per customer (\pm 1 Standard Deviation from Target)

Rewards: Not Applicable
Penalties for greater than 1.191 interruptions per customer

Maximum Reward Amount: Not Applicable
Maximum Penalty Amount: \$2,276,417.

The Maximum Penalty Amount was determined to be equal to 0.20% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

SAIDI:

Target: 99.23 minutes per outage

Deadband: \pm 8.96 minutes (1 Standard Deviation)

Range for no penalty: 90.27 minutes to 108.19 minutes per outage (\pm 1 Standard Deviation from Target)

Rewards: Not Applicable
Penalties for greater than 108.19 minutes per outage

Maximum Reward Amount: Not Applicable
Maximum Penalty Amount: \$2,276,417.

The Maximum Penalty Amount was determined to be equal to 0.20% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

Call Center Performance Incentive Mechanism

The Call Center Performance PIM measures the performance of the utility call center in terms of the percentage of calls answered within thirty (30) seconds. The calculation of the call center performance shall exclude blocked calls from the denominator.

The Performance Target for the Call Center Performance Incentive Mechanism was calculated based on the average of quarterly data from Quarter 3 of 2016 to Quarter 2 of 2018.

HAWAIIAN ELECTRIC COMPANY, INC

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018. Transmittal Letter Dated July 23, 2018.

Superseding Sheet No. 98D
Effective September 1, 2018

REVISED SHEET NO. 98D
Effective June 1, 2019

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PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Call Center Performance:

Performance Target: 80.10% of calls answered within 30 seconds

Deadband: +/- 3.00% of calls answered within 30 seconds

Range for no reward or penalty: 77.10 % of calls answered to 83.10% of calls answered.

Rewards apply for greater than 83.10 % of calls answered
Penalties apply for less than 77.10 % of calls answered

Maximum Reward Amount: \$910,567.

Maximum Penalty Amount: \$910,567.

The magnitude of the Maximum Reward Amount and Maximum Penalty Amount were determined to be equal to 0.08% of Common Equity Share of Approved Average Test Year Rate Base determined in the most recent interim or final order in a general rate case for each Company.

Additional PIMs:

The Commission may order the establishment of one or more PIMs, and the targets, deadbands, rewards, penalties, and allocations for that PIM, as applicable, shall be implemented as specified in the Commission's order that approved the applicable PIM, and the applicable PIM Financial Incentive shall be included in the Performance Incentive Adjustment.

Commission's Authority

The Commission may suspend any or all parts of this PIM Provision. Such suspension shall remain in place until removed by Commission order.

Deleted: Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018. Transmittal Letter Dated July 23, 2018.¶

HAWAIIAN ELECTRIC COMPANY, INC

Transmittal Letter dated May 21, 2019.

SHEET NO. 98E
Effective September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Historical Reference

The following table summarizes the prior PIMs in effect, as these values may be applicable during certain portions of the Evaluation Period.

PIM:	Effective Period:	Performance Target:	Deadband:	Maximum Reward:	Maximum Penalty:
SAIFI	1/1/2018 thru 2/15/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,039,094
SAIFI	2/16/2018 thru 4/12/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,260,799
SAIFI	4/13/2018 thru 8/31/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,276,417
SAIDI	1/1/2018 thru 2/15/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,039,094
SAIDI	2/16/2018 thru 4/12/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,260,799
SAIDI	4/13/2018 thru 8/31/2018	99.03 minutes Per outage	+/- 9.07	N/A	\$2,276,417
Call Center	1/1/2018 thru 2/15/2018	79.07% of calls answered within 30 sec.	+/- 3.00%	\$815,638	\$815,638
Call Center	2/16/2018 thru 4/12/2018	79.46% of calls answered within 30 sec.	+/- 3.00%	\$904,320	\$904,320
Call Center	4/13/2018 thru 8/31/2018	79.56% of calls answered within 30 sec.	+/- 3.00%	\$910,567	\$910,567

HAWAIIAN ELECTRIC COMPANY, INC

Docket No. 2016-0328; Final Decision And Order No. 35545, Filed on June 22, 2018. Transmittal Letter Dated July 23, 2018.

Attachment 2B – List of Schedules and Workpapers

Schedule A (REVISED)	HECO-WP-A-001
Schedule A1 (REVISED)	HECO-WP-B-001
Schedule B (REVISED)	HECO-WP-C-001
Schedule B1 (REVISED)	HECO-WP-C-002
Schedule B2	HECO-WP-C-003
Schedule C	HECO-WP-D1-001
Schedule C1	HECO-WP-D2-001
Schedule C2	HECO-WP-D2-002
Schedule D (REVISED)	HECO-WP-D2-003
Schedule D1 (REVISED)	HECO-WP-D2-004
Schedule D2	HECO-WP-D3-001
Schedule D3	HECO-WP-D4-001
Schedule D4	HECO-WP-D4-002
Schedule D5 (REVISED)	HECO-WP-D4-003
Schedule E (REVISED)	HECO-WP-E-001
Schedule F (REVISED)	HECO-WP-F-001
Schedule F1	HECO-WP-F1-001
Schedule F2	HECO-WP-F1-002
Schedule G	HECO-WP-F1-003
Schedule H (REVISED)	HECO-WP-H-001
Schedule I	HECO-WP-H-002
Schedule J	HECO-WP-H-003
Schedule K	HECO-WP-H-004
Schedule L	HECO-WP-H-005
Schedule L1	HECO-WP-H-006 (REVISED)
Schedule M (REVISED)	HECO-WP-H-007
Schedule N	HECO-WP-H-008
	HECO-WP-H-009
	HECO-WP-L1-001
	HECO-WP-L1-002
	HECO-WP-L1-003
	HECO-WP-M-001 (REVISED)
	HECO-WP-M-002
	HECO-WP-M-003
	HECO-WP-M-004
	HECO-WP-M-005

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF 2019 REVENUE BALANCING ACCOUNT RATE ADJUSTMENT
SCENARIO 3 - WEST LOCH PV INCLUDED IN RAM REVENUE ADJUSTMENT /
25 KV INCLUDED IN 2018 SAIDI AND SAIFI PIM CALCULATIONS

Line No.	Description (a)	Reference (b)	Amount (c)	6/1/2019 Rate Amount (d)		
RECONCILIATION OF RBA BALANCE:						
1	RBA Prior calendar year-end balance	Schedule B	\$ 37,331,443			
1a	OBF Program Implementation Cost Recovery - Year 1 of 2	Schedule N	\$ 768,575			
			\$ 38,100,018			
2	Revenue Tax Factor	Schedule C	1.0975			
3	Revenue for RBA Balance			\$ 41,814,770		
RATE ADJUSTMENT MECHANISM "RAM" AMOUNT:						
4	Total RAM Revenue Adjustment Allowed (Note 2)	Schedule A1		\$ 22,950,740		
5	<u>EARNINGS SHARING REVENUE CREDITS - 2019 ROE:</u>	Schedule H		\$ -		
6	<u>PERFORMANCE INCENTIVE MECHANISM REWARD (PENALTY)</u>	Schedule M		\$ (1,269,311)		
7	<u>2017 TEST YEAR RATE CASE FINAL D&O REFUND</u>	Note (3)		\$ (48,000)		
8	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS</u>	Schedule I		\$ -		
9	TOTAL RBA REVENUE ADJUSTMENT	Sum Col. (d)		\$ 63,448,199		
10	GWH SALES VOLUME ESTIMATE JUNE 2019 - MAY 2020	HECO-WP-A-001		6,489.900		
11	RBA RATE ADJUSTMENT - cents per kWh	Note (1)		<u>0.9776</u>	6/1/2018 <u>1.0350</u>	Incremental <u>(0.0574)</u>
12	MONTHLY BILL IMPACT @ 600 KWH			<u>\$ 5.87</u>	<u>\$ 6.21</u>	<u>\$ (0.34)</u>
	MONTHLY BILL IMPACT @ 500 KWH			<u>\$ 4.89</u>	<u>\$ 5.18</u>	<u>\$ (0.29)</u>
Note (1): 2019 RBA Rate Adjustment Breakdown						
		Col. (d)	Rate Adjustment cents per kWh	Percentage Share		
	RBA Balance	\$ 41,814,770	0.64430530	65.9038%		
	RAM Amount	\$ 22,950,740	0.35363781	36.1724%		
	Earnings Sharing Revenue Credits	\$ -	0.00000000	0.0000%		
	Performance Incentive Mechanism Reward (Penalty)	\$ (1,269,311)	-0.01955825	-2.0005%		
	2017 Test Year Rate Case Final D&O Refund	\$ (48,000)	-0.00073961	-0.0757%		
	Major or Baseline Capital Projects Credits	\$ -	0.00000000	0.0000%		
		<u>\$ 63,448,199</u>	<u>0.97764524</u>	<u>100.0000%</u>		

Note (2): Total RAM Revenue Adjustment Allowed is the sum of the RAM Cap + Exceptional and Other Projects. See Order No. 32735, filed March 31, 2015, paragraph 107, page 94, which states that the Total RAM Revenue Adjustment is to be comprised of the RAM Cap plus recovery of Exceptional And Other Matters.

Note (3): Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case Hawaiian Electric Proposed PIM Tariff Revisions and Refund Calculation, Exhibit 4, filed July 23, 2018, and approved by the Commission in Order No. 35661, filed August 30, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TOTAL RAM REVENUE ADJUSTMENT ALLOWED

Line No.	Description (a)	Reference (b)	Amount (c)
RAM REVENUE ADJUSTMENT DETERMINED ACCORDING TO EXISTING TARIFFS AND PROCEDURES			
1	O&M RAM	Schedule C	\$ 8,622,195
2	Rate Base RAM - Return on Investment	Schedule D	\$ 11,388,829
3	Depreciation & Amortization RAM Expense	Schedule E	\$ 2,939,716
4	Total RAM Revenue Adjustment		\$ 22,950,740
RAM REVENUE ADJUSTMENT CAP			
5	RAM Cap for 2019 RAM Revenue Adjustment	Schedule J	\$ 27,945,687
6	Plus: Exceptional and Other Matters	Schedule K	\$ -
7	2019 Cap - Total RAM Revenue Adjustment (Note 2)		\$ 27,945,687
8	Total RAM Revenue Adjustment Allowed (Note 1)	Lesser of Line 4 or Line 7	\$ 22,950,740
			To Sch A

- Note 1 RAM Revenue Adjustment Allowed:
See Order No. 32735, filed March 31, 2015, paragraph 106, page 94:
"The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the lesser of (a) the RAM Revenue Adjustment determined according to existing tariffs and procedures or (b) a RAM Revenue Adjustment Cap ("RAM Cap) to be calculated as specified."
- Note 2 Total RAM Cap:
See Order No. 32735, filed March 31, 2015, paragraph 110, page 96:
"The RAM Cap will apply to the entire RAM Revenue Adjustment including the O&M RAM, Rate Base RAM (including Major Capital Projects and Baseline Projects), and the Depreciation and Amortization RAM."

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
SUMMARY OF ACCUMULATED REVENUE BALANCING ACCOUNT

[illegible]

Sources of Data:	Sch. B1 Note (3)	Sch B2	Cols (c)-(d)	Note (1)	Col ((b)+((e)+(f))/2)/(k) (Note 2)	Cols (b)+(e)+ (f)+(h)
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Composite Federal & State Income Tax Rate	25.75%	(j)
Income Tax Factor (1 / 1-tax rate)	1.346801347	(k)

Note (1):

Amounts represent recovery of prior years' RBA balance through the RBA rate adjustment effective June 1, 2017 for the period June 2017 through May 2018 and June 1, 2018 for the period June 2018 through May 2019.

Note (2):

In May 2018, the Company identified an inadvertent transposition error in the DSM adjustment (\$67,965) used to derive Recorded Adjusted Revenues. May 2018 Recorded Adjusted Revenues includes a true-up of -\$135,930 (-\$123,853 net of revenue taxes) to properly state the RBA Balance as of May 2018. The May 2018 balance includes an adjustment of -\$181 related to interest resulting from this correction.

Note (3):

In December 2018, the Company recorded a RBA Target true-up adjustment resulting from the Schofield Generating Station MPR Order No. 35953, issued 12/14/18 in Docket No. 2017-0213, effective October 1, 2018. The RBA balance includes an adjustment of \$306,027 related to the incremental Target Revenues (\$305,574) and related interest (\$453) to properly state the RBA balance as of December 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description	Reference	Docket No. 2010-0080 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Last Rate Case Annual Electric Revenue at Approved Rate I	Note (3), (5), (5a)	\$000s \$ 1,765,954	\$ 1,581,445	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (3)	\$000s \$ (5,000)	\$ (5,000)	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (3)	\$000s \$ (6,000)	\$ (6,000)	\$ -	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (3), (5), (5a)	\$000s \$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (3), (5), (5a)	\$000s \$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rate)		\$000s \$ (156,905)	\$ (139,534)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1...4	\$000s \$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (1a)	\$000s \$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%		\$000s \$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$000s \$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (7)	\$000s \$ -	\$ -	\$ -	\$ 13,828	\$ 13,828	\$ 13,828
10	Less: Revenue Taxes on Line 9 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ (1,229)	\$ (1,229)	\$ (1,229)
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$000s \$ -	\$ -	\$ -	\$ 12,599	\$ 12,599	\$ 12,599
12	Authorized RAM Revenues	Sch A, Line 4	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net RAM Adjustment - Test Year +2	Lines 12 + 13	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Authorized MPIR Revenues	Schedule L	\$000s \$ -	\$ -	\$ -	\$ -	\$ 6,600	\$ 8,561
16	Less: Revenue Taxes on Line 15 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ (586)	\$ (761)
17	Net MPIR Adjustment	Lines 15 + 16	\$000s \$ -	\$ -	\$ -	\$ -	\$ 6,014	\$ 7,800
18	Less: <u>EARNINGS SHARING REVENUE CREDITS</u>	Note (1a)	\$000s \$ (16)	\$ (16)	\$ (16)	\$ -	\$ -	\$ -
19	Less: Revenue Taxes on Line 18 at 8.885%		\$000s \$ 1	\$ 1	\$ 1	\$ -	\$ -	\$ -
20	Net Earnings Sharing Revenue Credits	Lines 18 + 19	\$000s \$ (14)	\$ (14)	\$ (14)	\$ -	\$ -	\$ -
21	Less: <u>PERFORMANCE INCENTIVE MECHANISM</u>	Sch A, Line 6	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	Less: Revenue Taxes on Line 24 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	Net Performance Incentive Mechanism	Lines 21 + 2	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	Less: <u>2017 TEST YEAR FINAL D&O REFUND</u>	Sch A, Line 8	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Less: Revenue Taxes on Line 27 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	Net 2017 Test Year Final D&O Refund	Lines 24 + 25	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	Add: <u>OBF PROGRAM IMPLEMENTATION COSTS</u>	Sch A, Line 1a * 1.0975	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	Less: Revenue Taxes on Line 21 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	Net OBF Program Implementation Costs	Lines 27 + 28	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:</u>	Note (1a)	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31	Total Annual Target Revenues							
32	June 1, 2017 Annualized Revenues w/RAM Increase	Col (c), lines (5+8+20+30)	\$000s \$ 604,302					
33	February 16, 2018 Annualized Revenues w/Interim Increase	Col (d), lines (5+8+20+30)	\$000s	\$ 637,077				
34	April 13, 2018 Annualized Revenues w/2nd Interim Increase	Col (e), lines (5+11+20+30)	\$000s		\$ 599,960			
35	June 1, 2018 Annualized Revenues w/RAM Increase	Col (f), lines (5+11+20+30)	\$000s			\$ 612,574		
36	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 7/1/18	Col (g), lines (5+11+17+20+30)	\$000s				\$ 618,587	
37	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 10/1/18	Col (h), lines (5+11+17+20+30)	\$000s					\$ 620,374
38	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (i), lines (5+11+17+20+30)	\$000s					
39	June 1, 2019 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (j), lines (5+14+17+20+23+26+29+30)	\$000s					
40	Distribution of Target Revenues by Month:	Note (1)	Note (2)	Note (4) 2018	Note (4), (6) 2018	Note (6) 2018	Note (8) 2018	Note (8a) 2018
41	January	8.10%	8.19%	\$48,948,443	\$22,450,132			
42	February	7.26%	7.59%	\$23,503,022	\$51,603,222			
43	March	8.10%	8.10%		\$28,726,095			
44	April	7.84%	7.98%		\$50,396,658			
45	May	8.44%	8.40%					
46	June	8.47%	8.07%			\$49,434,694		
47	July	8.77%	8.70%				\$53,817,090	
48	August	9.04%	8.94%				\$55,301,700	
49	September	8.68%	8.65%				\$53,507,797	
50	October	8.78%	8.84%					\$54,841,062
51	November	8.26%	8.26%					\$51,242,893
52	December	8.26%	8.28%					\$51,366,968
53	Total Distributed Target Revenues	100.00%	100.00%	\$72,451,465	\$94,388,846	\$79,122,753	\$49,434,694	\$162,626,587
								\$157,450,923

Footnotes:

- 1 RBA Tariff Revised July 26, 2011 to reflect 2011 test year.
- 1a Transmittal 17-02 filed March 31, 2017, establishing 2017 target revenue effective June 1, 2017.
- 2 RBA Tariff Effective February 16, 2018 to reflect 2017 test year.
- 3 Test Year 2017 Interim Increase provided for in Interim Decision and Order 35100, issued December 15, 2017 in Docket No. 2016-0328: \$35,971 \$000s
- 4 For the month of the initial implementation (Feb 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days: 0.46429
- 5 Test Year 2017 2nd Interim Increase provided for in Order No. 35335, issued March 9, 2018 in Docket No. 2016-0328: -\$603 \$000s
- 5a Reduction for Tax Act Implementation Lag (March 2018 Settlement Tariff Sheets, Attachment 3, filed March 16, 2018, in accordance with Order No. 35335): -\$2,143 \$000s
- 6 For the month of the initial implementation (April 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days: 0.60000
- 7 Transmittal 18-01 filed May 29, 2018, establishing 2018 target revenue effective June 1, 2018.
- 8 MPIR Revenue accrual starting effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018 in Docket No. 2017-0213. Excerpt filed at HECO-WP-L1-003.
- 8a MPIR Revenue accrual starting October 1, 2018 approved in Order No. 35953, issued December 14, 2018 in Docket No. 2017-0213. Excerpt filed at HECO-WP-L1-003.
- 8b MPIR Revenue accrual starting January 1, 2019 filed in Transmittal 19-01, filed February 7, 2019. Excerpt filed at HECO-WP-L1-003.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description	Reference		Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts	Docket No. 2016-0328 Amounts
	(a)	(b)		(i)	(j)	(k)
1	Last Rate Case Annual Electric Revenue at Approved Rate I	Note (3), (5), (5a)	\$000s	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (3)	\$000s	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (3)	\$000s	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (3), (5), (5a)	\$000s	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (3), (5), (5a)	\$000s	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rate)		\$000s	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1...4	\$000s	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (1a)	\$000s	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%		\$000s	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$000s	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (7)	\$000s	\$ 13,828	\$ -	\$ -
10	Less: Revenue Taxes on Line 9 at 8.885%		\$000s	\$ (1,229)	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$000s	\$ 12,599	\$ -	\$ -
12	Authorized RAM Revenues	Sch A, Line 4	\$000s	\$ -	\$ 22,951	\$ 22,951
13	Less: Revenue Taxes on Line 12 at 8.885%		\$000s	\$ -	\$ (2,039)	\$ (2,039)
14	Net RAM Adjustment - Test Year +2	Lines 12 + 13	\$000s	\$ -	\$ 20,912	\$ 20,912
15	Authorized MPIR Revenues	Schedule L	\$000s	\$ 19,811	\$ 19,811	\$ 19,811
16	Less: Revenue Taxes on Line 15 at 8.885%		\$000s	\$ (1,760)	\$ (1,760)	\$ (1,760)
17	Net MPIR Adjustment	Lines 15 + 16	\$000s	\$ 18,051	\$ 18,051	\$ 18,051
18	Less: <u>EARNINGS SHARING REVENUE CREDITS</u>	Note (1a)	\$000s	\$ -	\$ -	\$ -
19	Less: Revenue Taxes on Line 18 at 8.885%		\$000s	\$ -	\$ -	\$ -
20	Net Earnings Sharing Revenue Credits	Lines 18 + 19	\$000s	\$ -	\$ -	\$ -
21	Less: <u>PERFORMANCE INCENTIVE MECHANISM</u>	Sch A, Line 6	\$000s	\$ -	\$ (1,269)	\$ (1,269)
22	Less: Revenue Taxes on Line 24 at 8.885%		\$000s	\$ -	\$ 113	\$ 113
23	Net Performance Incentive Mechanism	Lines 21 + 2	\$000s	\$ -	\$ (1,157)	\$ (1,157)
24	Less: <u>2017 TEST YEAR FINAL D&O REFUND</u>	Sch A, Line 8	\$000s	\$ -	\$ (48)	\$ (48)
25	Less: Revenue Taxes on Line 27 at 8.885%		\$000s	\$ -	\$ 4	\$ 4
26	Net 2017 Test Year Final D&O Refund	Lines 24 + 25	\$000s	\$ -	\$ (44)	\$ (44)
27	Add: <u>OBF PROGRAM IMPLEMENTATION COSTS</u>	Sch A, Line 1a * 1.0975	\$000s	\$ -	\$ 844	\$ 844
28	Less: Revenue Taxes on Line 21 at 8.885%		\$000s	\$ -	\$ (75)	\$ (75)
29	Net OBF Program Implementation Costs	Lines 27 + 28	\$000s	\$ -	\$ 769	\$ 769
30	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:</u>	Note (1a)	\$000s	\$ -	\$ -	\$ -
31	Total Annual Target Revenues					
32	June 1, 2017 Annualized Revenues w/RAM Increase	Col (c), lines (5+8+20+30)	\$000s			
33	February 16, 2018 Annualized Revenues w/Interim Increase	Col (d), lines (5+8+20+30)	\$000s			
34	April 13, 2018 Annualized Revenues w/2nd Interim Increase	Col (e), lines (5+11+20+30)	\$000s			
35	June 1, 2018 Annualized Revenues w/RAM Increase	Col (f), lines (5+11+20+30)	\$000s			
36	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 7/1/18	Col (g), lines (5+11+17+20+30)	\$000s			
37	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 10/1/18	Col (h), lines (5+11+17+20+30)	\$000s			
38	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (i), lines (5+11+17+20+30)	\$000s	\$ 630,624		
39	June 1, 2019 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (j), lines (5+14+17 +20+23+26+29+30)	\$000s		\$ 638,505	\$ 638,505
40	Distribution of Target Revenues by Month:	Note (1)	Note (2)	Note (8b) 2019	Note (8b) 2019	Note (8b) 2020
41	January	8.10%	8.19%	\$51,648,125		\$52,293,543
42	February	7.26%	7.59%	\$47,864,379		\$48,462,514
43	March	8.10%	8.10%	\$51,080,563		\$51,718,889
44	April	7.84%	7.98%	\$50,323,814		\$50,952,683
45	May	8.44%	8.40%	\$52,972,435		\$53,634,403
46	June	8.47%	8.07%		\$51,527,337	
47	July	8.77%	8.70%		\$55,549,917	
48	August	9.04%	8.94%		\$57,082,329	
49	September	8.68%	8.65%		\$55,230,665	
50	October	8.78%	8.84%		\$56,443,824	
51	November	8.26%	8.26%		\$52,740,496	
52	December	8.26%	8.28%		\$52,868,197	
53	Total Distributed Target Revenues	100.00%	100.00%	\$253,889,316	\$381,442,765	\$257,062,032

Note: Amounts may not add exactly due to rounding.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF O&M RAM ADJUSTMENT
(\$ in Thousands)

Line No.	Decryption	Reference	Docket No. 2016-0328 Approved	Footnote 4 Previously Approved RAM	O&M Subject to Escalation Col (c) + (d)	Net Inflation Indices Footnote 2	2019 O&M RAM Adjustment Col (e) * (f)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base BU Labor Expenses	Schedule C1	\$ 47,048		\$ 47,048	4.19%	\$ 1,973
2	Base Non-Labor Expense	Schedule C2	\$ 134,734		\$ 134,734	4.24%	\$ 5,718
3	Payroll Taxes	Footnote 1	\$ 3,943		\$ 3,943	4.19%	\$ 165
4	Subtotal Expense Increase - RAM Adjustment before revenue taxes						\$ 7,856
5	Revenue Tax Factor (Footnote 3)						1.0975
6	O&M RAM (SubTotal Expenses x Rev Tax Factor)						\$ 8,622 To Sch A1

Footnotes:

1: Payroll Taxes per Stipulated Settlement Letter, filed March 5, 2018 in Docket No. 2016-0328, Exhibit 2C, page 6, approved in Order No. 35545, filed June 22, 2018.

Less: Portion of payroll taxes related to non-BU labor ^A (57.79% * 9,342)	\$ (5,399)
Payroll Taxes related to Bargaining Unit labor	\$ 3,943

^A See Schedule C1 for calculation of percentage related to non-BU labor.

2: Escalation Rates

Labor:	2018	2019	
Bargaining Unit Wage Increase	2.67%	3.00%	(See HECO-WP-C-001)
Less: Labor Productivity Offset	0.76%	0.76%	Approved in Final D&O in Docket No. 2008- 0274, page 51, filed on August 31, 2010
Labor Cost Escalation Rate	1.91%	2.24%	

Calculation of 2018 Compounded Labor Cost Escalation

2018 Labor Cost Escalation	1.0191	A (2018 labor escalation plus 1)
2019 Labor Cost Escalation	1.0224	B (2019 labor escalation plus 1)
2018-2019 Compounded Labor Cost Escalation	1.0419	C = A * B
2018-2019 Compounded Labor Cost %	0.0419	D = C - 1

Non-Labor:

	2018	2019	
GDP Price Index	2.10%	2.10%	(See HECO-WP-C-002)

Calculation of 2018 Compounded Non-Labor Cost Escalation

2018 Non-Labor Cost Escalation	1.0210	A (2018 non-labor escalation plus 1)
2019 Non-Labor Cost Escalation	1.0210	B (2019 non-labor escalation plus 1)
2018-2019 Compounded Non-Labor Cost Escalation	1.0424	C = A * B
2018-2019 Compounded Non-Labor Cost %	0.0424	D = C - 1

3: Computation of Revenue Tax Factor

Public Service Tax Rate	0.05885	
PUC Fees Rate	0.00500	
Franchise Tax Rate	0.02500	
Total Revenue Tax Rate	0.08885	Revenue Tax Factor = 1 / (1 - Total Revenue Tax Rate) 1.0975

4: Column d "Previously Approved RAM" is not used as the labor and non-labor escalation is accomplished through the use of a compounded escalation rate in column f, as shown in footnote 2.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKSHEET
RATE ADJUSTMENT MECHANISM SUMMARY OF
OPERATIONS AND MAINTENANCE LABOR AND NON-LABOR EXPENSE
BY BLOCK OF ACCOUNTS
Interim D&O - Docket No. 2016-0328
(\$ in Thousands)

DESCRIPTION	Footnote 1		Footnote 2		
	(a)	(b)	(c)=(a)+(b) TOTAL	(d)	(e)
	BU LABOR	NON-BU LABOR	LABOR	NON-LABOR	TOTAL
Production	21,744	13,212	34,956	44,350	79,306
Transmission	2,420	2,933	5,353	10,454	15,807
Distribution	12,086	7,321	19,407	27,418	46,825
Customer Accounts	8,258	3,618	11,876	8,478	20,354
Allowance for Uncoll Accounts	-	-	-	732	732
Customer Service	134	5,582	5,716	9,936	15,652
Administrative & General	2,406	31,769	34,175	85,583	119,758
Customer Benefit Adjustment (Footnote 3)	-	-	-	(10,023)	(10,023)
Operation and Maintenance	47,048	64,435	111,483	176,928	288,411
	To Sch C			To Sch C2	X
Percentage of Total O&M Labor	42.20%	57.79%	100%		
* amounts may not add due to rounding					

Footnotes:

1 SOURCE: 2017 test year breakdown of BU and non-BU labor obtained from UI Planner Budget files.

2 O&M breakdown below includes fuel and purchase power expenses consistent with the presentation in the Results of Operations.

	Footnote 2a			Footnote 2b	
	LABOR	NON-LABOR	TOTAL	ADJUST- MENT	STIPULATED SETTLEMENT
FUEL	-	327,609	327,609		327,609
PURCHASE POWER	-	466,211	466,211		466,211
PRODUCTION	34,956	44,350	79,306		79,306
TRANSMISSION	5,354	10,454	15,808		15,808
DISTRIBUTION	19,407	27,418	46,825		46,825
CUSTOMER ACCOUNTS	11,876	8,478	20,354		20,354
UNCOLLECTIBLE ACCOUNTS	-	732	732		732
CUSTOMER SERVICE	5,715	9,936	15,651		15,651
ADMIN & GENERAL	34,265	85,945	120,210	(452)	119,758
CUSTOMER BENEFIT ADJUSTMENTS	-	-	-	(10,023)	(10,023)
TOTAL	111,573	981,133	1,092,706	(10,475)	1,082,231
TOTAL O&M EXPENSE (Excl Fuel & Purch Po	111,573	187,313	298,886	(10,475)	288,411

2a See Order No. 35280, For Approval of General Rate Case and Revised Schedules/Rules, filed on February 9, 2018, in which the Commission approved the revised schedules or operations and tariff sheets filed January 19, 2018, Exhibit A, Page 1 of 4.
See Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case Revised Schedules Resulting from Interim Decision and Order No. 35100 as modified by Order No. 35229 and Order No. 35220, filed January 19, 2018, Exhibit 2, Attachment 1, Page 1 for Labor/Non-Labor breakdown.

2b See Order No. 35335, For Approval of General Rate Case and Revised Schedules/Rules, filed on March 9, 2018, in which the Commission accepted the Parties' Stipulated Settlement on Remaining Issues filed March 5, 2018, Exhibit 2C, Page 1 of 13.

3 Customer Benefit Adjustments identified in the Results of Operations have been included as a reduction to O&M non-labor subject to escalation. See Order No. 35545, For Approval of General Rate Case and Revised Schedules/Rules, Appendix A, page 1 of 4, filed on June 22, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK

Non-Labor Exclusion
Adjustment for O&M RAM
(\$ thousands)

<u>Line No.</u>	<u>Decription</u>	<u>Amount</u>	<u>Reference</u>
	(a)	(b)	(c)
1	Pension Expense	73,940	Note 1
2			
3			
4	OPEB Expense	(470)	Note 1
5			
6			
7	Total before amounts transferred	73,470	
8			
9	O&M %	57.43%	See Parties' Stipulated Settlement Letter, filed November 15, 2017, in Docket No. 2016-0328, HECO T-16 Attachment 4, page 1
10	(1- transfer rate of 42.57%)		
11			
12			
13	Adjustment to Non-Labor O&M Expense		
14	for O&M RAM base	42,194	
15			
16			
17	Non-Labor O&M Expense per Interim D&O	176,928	Schedule C1
18			
19			
20	Non-Labor O&M Expense Base for		
21	O&M RAM base	<u>134,734</u>	Schedule C

Note 1: See Parties' Stipulated Settlement Letter, filed November 15, 2017 in Docket No. 2016-0328, Exhibit 1, page 63 for the summary of the pension and OPEB cost the Parties agreed to. In Parties' Stipulated Settlement Letter on Remaining Issues, filed March 5, 2018 in Docket No. 2016-0328, Exhibit 1, page 4, amortization of the excess pension contribution from the test year was reduced to zero. Approved in Final Decision and Order No. 35545, filed on June 22, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RATE BASE RAM ADJUSTMENT - RETURN ON INVESTMENT

Line No.	Description	AMOUNTS IN THOUSANDS	PERCENT OF TOTAL	COST RATE	POST TAX WEIGHTED EARNINGS REQMTS	INCOME TAX FACTOR (Note 1)	PRETAX WEIGHTED EARNINGS REQMTS
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	PUC APPROVED CAPITAL STRUCTURE & COSTS (Note 2):						
2	Short-Term Debt	\$ 27,770	1.18%	1.75%	0.02%	1.000000	0.02%
3	Long-Term Debt	928,748	39.59%	5.03%	1.99%	1.000000	1.99%
4	Hybrid Securities	28,651	1.22%	7.19%	0.09%	1.000000	0.09%
5	Preferred Stock	21,137	0.90%	5.37%	0.05%	1.346835	0.07%
6	Common Equity	1,339,335	57.10%	9.50%	5.42%	1.346835	7.31%
7	Total Capitalization	<u>\$ 2,345,641</u>	<u>100.00%</u>		<u>7.57%</u>		<u>9.47%</u>
8	RAM CHANGE IN RATE BASE \$000 (From Schedule D1)						<u>\$ 109,578</u>
9	PRETAX RATE OF RETURN (Line 7, Col g)						<u>9.47%</u>
10	PRETAX RETURN REQUIREMENT						<u>\$ 10,377.1</u>
11	REVENUE TAX FACTOR (1/(1-8.885%))						<u>1.0975</u>
12	RATE BASE RAM - RETURN ON INVESTMENT \$000						<u>\$ 11,388.8</u>
							To Sch A1

Footnotes:

1 Composite Federal & State Income Tax Rate 25.75% See HECO-WP-F-001
Income Tax Factor (1 / 1-tax rate) 1.346835

2 See Order No. 35335, For Approval of General Rate Case and Revised Schedules/Rules, filed on March 9, 2018, in which the Commission accepted the Parties' Stipulated Settlement on Remaining Issues filed March 5, 2018, Exhibit 2C, Page 2 of 13. Approved in Final Decision and Order No. 35545 filed June 22, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RATE BASE RAM ADJUSTMENT - CHANGE IN RATE BASE
\$ in thousands

HECO 2017 Test Year Rate Base (Note 2)				HECO 2019 RAM Rate Base					
Line No.	Description	Beg. Balance 12/31/2017	Budgeted Balance 12/31/2017	Adjusted Recorded at 12/31/2018	RAM Projected Amounts	Estimated at 12/31/2019			
	(a)	(b)	(c)	(d) (Note 1)	(e) See Detail Below	(f)			
1	Net Cost of Plant in Service, Net of CIAC	\$ 2,595,452	\$ 2,770,695	\$ 2,437,105	\$ 129,932	\$ 2,567,037			
2	Property Held for Future Use	-	-	-	-	-			
3	Fuel Inventory	46,200	46,200	These Elements of Rate Base are Not Updated for RAM Purposes					
4	Materials & Supplies Inventories	28,427	28,427						
5	Unamort Net ASC 740 Reg Asset	70,144	74,887						
6	Unamort EOTP Reg Asset	444	89						
7	CIP CT-1 Reg Asset	2,306	1,352						
8	Unamort Sys Dev Costs	15,932	13,496						
9	RO Pipeline Reg Asset	4,958	4,842						
10	Pension Tracking	97,620	113,828						
11	Contrib in Excess of NPPC	6,470	6,470	These Elements of Rate Base are Not Updated for RAM Purposes					
12	Total Additions	\$ 2,867,953	\$ 3,060,286				\$ 2,718,151	\$ 129,932	\$ 2,848,083
13	Unamortized CIAC/CIAC in CWIP	\$ (347,826)	\$ (395,134)				\$ (30,110)	\$ -	\$ (30,110)
13a	Developer Advances	-	-				\$ (21,345)	\$ -	\$ (21,345)
14	Customer Advances	(3,581)	(3,925)				Not Updated		
15	Customer Deposits	(12,101)	(12,005)						
16	Accumulated Def Income Taxes	(520,643)	(333,360)				(282,714)	(6,983)	(289,696)
17	ADIT Excess Reg Liability	-	(203,950)				(277,406)	10,381	(267,025)
18	Unamortized State ITC (Gross)	(56,323)	(54,903)	Not Updated					
19	Unamortized Gain on Sale	(248)	(182)						
20	Pension Reg Liability	-	-						
21	OPEB Reg Liability	(2,817)	(2,331)						
22	Total Deductions	\$ (943,539)	\$ (1,005,790)	\$ (685,783)	\$ 3,398	\$ (682,384)			
23	Working Cash	3,904	3,904	3,904	Not Updated	3,904			
24	Rate Base at Proposed Rates	\$ 1,928,318	\$ 2,058,400	\$ 2,036,272		\$ 2,169,602			
25	Average Rate Base		\$ 1,993,359			\$ 2,102,937			
26	Change in Rate Base					\$ 109,578			
						To Schedule D			
27	Column (e) Projected Changes to Rate Base:		Reference	Amount \$000					
28	Plant - Baseline Capital Project Additions, Net of CIAC		Schedule D2	200,583					
29	Major Project Additions, Net of CIAC		Schedule D3	69,023					
30	Accumulated Depreciation/Amortization Change		Schedule E	(139,674)					
31	Net Plant		Sum: Lines 28-30	129,932					
32	ADIT - Baseline and Major Capital Projects		Schedule F	(7,226)					
33	ADIT - Joint Pole Capital Transfer Price		Note 6	243					
34	ADIT Excluding Joint Pole		Sum: Line 32-33	(6,983)					
35	Excess ADIT Reg Liability Amortization (Plant 282 excess def amort beginning 6/1/2019)		Schedule D5	10,381					

Footnotes:

1 Amounts are recorded, except for the following adjustments:

	Plant in Service	Acc. Depr.	Schedule D4 ADIT
[A] Unadjusted Balance	\$ 4,496,539	\$ (1,565,762)	\$ (283,658)
Add:			
[A] RWIP		41,901	
[A] Asset Retirement Obligation		(4,780)	
[A] Reg Liab-Cost of Removal (net salvage)		(356,926)	
Tenant Improvement Allowance (Sch E)	(14,132)	9,824	
Major Project Adjustments:	HECO-WP-D2-001	HECO-WP-E-001	HECO-WP-D4-002
ERP EAM Hardware	(14)	3	2
Koolau-Wailupe #1 Str 30 P9 Replace	(142)	4	14
Total Adjustments	\$ (156)	\$ 7	\$ 16
Major Project Interim Recovery Adjustments:	HECO-WP-D2-001	HECO-WP-E-001	HECO-WP-D4-003
Schofield Generation Station	(144,744)	-	1,832
Total Adjustments	\$ (144,744)	\$ -	\$ 1,832
Joint Pole Capital Transfer Price	Note 6		
Adjusted Balance	\$ 4,312,841	\$ (1,875,736)	\$ (282,714)

2 See Final Decision and Order No. 35545, For Approval of General Rate Case and Revised Schedules/Rules, filed on June 22, 2018, Exhibit B, Page 1 of 2. Revised for presentation purposes only to properly reflect the Unamortized Net ASC 740 Reg Asset, ADIT, and ADIT Excess Reg Liability balances. No change to Total Average Rate Base.

3 Per PowerPlan extract. Effective October 2018, the Company reclassified CIAC to Plant in Service or CWIP consistent with FERC guidelines. In 2018, CIAC has been netted with either Plant in Service or CWIP and Developer Advances (Cash CIAC received from developers, subject to refund) which has been included as a reduction to rate base. See further discussion of the Company's treatment of CIAC at HECO-WP-D1-001.

4 As a result of the 2017 Tax Reform Act, Regulatory Liability accounts were created and recorded as of December 31, 2017 to isolate the 2017 excess accumulated deferred taxes resulting from the lower federal tax rate. The bifurcated Regulatory Liabilities are included as a reduction to Rate Base. See further discussion at Schedule F.

5 HECO 2017 Test Year Rate Base includes CIS deferred costs in Unamortized System Development Costs. See detail in November 15, 2017, Stipulated Settlement Letter, HECO T-17, Attachment 1, Page 2.

6 See Decision and Order No. 35768, Docket No. 2018-0075 filed October 16, 2018. Commission approved the Asset Transfer, Pole Licensing and Amended Joint Pole Agreements and the accounting and ratemaking treatment described in Exhibit E of the Application. The change in ADIT represents the tax effect of the book - tax difference on depreciation for the Joint Pole assets.

[A] SOURCE: Hawaiian Electric Company, Inc. Monthly Financial Report - December 2018, filed February 28, 2019.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF BASELINE CAPITAL PROJECTS ADDITIONS, NET OF CIAC

Source: Docket No. 03-0257 General Order No. 7 Plant Additions Annual Reports filed with the PUC dated:

Line No.	Description		3/27/2015	3/29/2016	3/30/2017	3/27/2018	NOTE (1)
	(a)		2014	2015	2016	2017	2018
			(c)	(d)	(e)	(f)	(f)
1	Total Plant Additions		269,326,250	266,537,660	241,294,569	276,754,129	358,703,631
2	Less: Non-Utility Plant Additions	NOTE (2)	-	(63)	(3,954)	-	-
3	Adjusted Total Plant Additions		269,326,250	266,537,597	241,290,615	276,754,129	358,703,631
4							
5	<u>Less Major Projects: (+\$2.5 Million)</u>	<u>Dkt No.</u> <u>Item No.</u>					
6	W8 Boiler Controls Upgrade	2007-0365 P7650000	18,503	(70)			
7	EOTP Ph. 2 (Subs/Switch Stations)	2010-0062 Y48500	(7,357)	(55,681)	(682)		
8	W7 Controls Upgrade	2009-0195 P7590000	(8,237)	(35)			
9							
10	<u>2012 In-Service:</u>						
11	Kapolei Substation	2011-0026 Y00127	(6,459)				
12							
13	<u>2013 In-Service:</u>						
14	Pukele 80MVA Tsf #3	2011-0156 P0001494	(28,327)	15,611			
15	Kakaako Makai-Iwilei 25kV DL	2009-0042 Y00038	(485,650)	(496,818)		400,000	
16	North South Road 46kV Line	2008-0070 Y00119		(3,488)			
17							
18	<u>2014 In-Service:</u>						
19	Kaloi Substation	2008-0070 Y00119	(6,548,755)	(925)			
20	Kaloi Sub 46kV & 12kV Distr	2008-0070 Y00119	(1,218,895)				
21	Kaloi Telecomm	2008-0070 Y00119	(171,237)				
22	Kaloi Sub 12kV Work	2008-0070 Y00119	(25,906)				
23	Kakaako Makai-Kewalo 25kV DL	2009-0042 Y00038	(4,958,840)	(464,900)	(111)	400,000	
24	Kakaako Makai DOT Queen-Cook	2009-0042 Y00038	(1,961,600)	(418,816)	(2,890,742)	476,166	
25	BPT Tank 133 Improvements	2010-0318 P0000900	(6,095,787)	(1,092,308)			
26	Pukele 80MVA Tsf #2	2011-0156 P0001492	(3,449,859)	(40,084)			
27	DOT Airport DSG	2008-0329 P0001370	(4,965,396)	(97,130)	(172,652)	(94,001)	3,516
28							
29	<u>2016 In-Service:</u>						
30	Pukele 80MVA Tsf #1	2011-0156 P0002264			(3,839,121)	(7,612)	
31							
32	<u>2017 In-Service:</u>						
33	ERP EAM Hardware	2014-0170 PE.000003 (Y00168)				(2,604,146)	
34	Koolau-Wailupe #1 Str 30 P9 Replace	PE.000104 (P0003465)				(2,684,387)	(13,203)
35							
36	<u>2018 In-Service:</u>						
37	MPIR-Schofield Generating Station	2017-0213 PZ.000016/ PZ.001002 (P0001576)					(144,743,542)
38	Joint Pole Capital Transfer Price	2018-0075 PE.005155					(24,665,897)
39	Total Net Plant Additions (excluding major projects)		239,412,448	263,882,953	234,387,307	272,640,149	189,284,505
40							
41	Last Five-Year Average - Plant Additions					<i>To Sch F1</i>	239,921,472
42							
43	Less: CIAC, including Developer Advances	NOTE (3)	(31,803,050)	(42,140,722)	(36,314,281)	(59,849,268)	(29,568,427)
44							
45	EOTP Ph. 2 (Subs/Switch Stations)-CIAC	2010-0062 Y48500	43,725	15,232	718		
46	Kakaako Makai DOT Queen-Cook-CIAC	2009-0042 Y00038			2,825,023		
47	DOT Airport DSG-CIAC	2008-0329 P0001370					96,602
48	Total CIAC Additions (excluding major projects)		(31,759,325)	(42,125,490)	(33,488,540)	(59,849,268)	(29,471,825)
49							
50	Total Net Plant Additions, Net of CIAC (excluding major projects)		207,653,123	221,757,463	200,898,767	212,790,881	159,812,680
51							
52	Last Five-Year Average - Plant Additions, Net of CIAC					<i>To Sch D1</i>	200,582,583

NOTE (1): Amounts per HECO-WP-D2-002 and the Hawaiian Electric Companies' *Exemption From and Modification of General Order No. 7 Paragraph No. 2.3(g), Relating to Capital Improvements Capital Projects Completed in 2017*, in Docket No. 03-0257, filed on March 27, 2019.

NOTE (2): Source: UI Planner Budget files: Actuals Scenario. Adjustment to remove non-utility plant additions from utility plant. Chapin UG Duct Line is a non-utility asset. It is a contributed asset that was given to the Company. It is not being used and there are currently no plans to use it.

NOTE (3): See HECO-WP-D2-001 for line 47 - 2018 Major Project CIAC additions, HECO-WP-D2-003 for 2018 CIAC Additions, HECO-WP-D2-004 for 2014 to 2017 CIAC Additions and WP-D1-001 for treatment of CIAC.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF MAJOR CAPITAL PROJECT ADDITIONS, NET OF CIAC

<u>Line No.</u>	<u>Description</u> (a)	<u>PUC Docket Reference</u> (b)	<u>Estimated In Service Date</u> (c)	<u>Plant Addition Amount</u> (d)	<u>CIAC Amount</u> (e)
1 2	AES-CEIP #2 138kV OH Trans Line Relocation	Docket No. 2016-0439 (Decision & Order dated 03/02/2018) UI Planner Budget files	Feb-19	3,007,232	
3 4	West Loch Utility Scale PV	Docket No. 2016-0342 (Decision & Order dated 06/30/2017) UI Planner Budget files	Jun-19	52,128,000	
5 6	Ala Wai Canal-46kV Relocation	Docket No. 2016-0416 (Decision & Order dated 09/01/2017) UI Planner Budget files	Jun-19	13,910,207	
7 8	Kakaako Makai	Docket No. 2009-0042 (Decision & Order dated 06/12/2009) UI Planner Budget files	Apr-14		(22,683)
9	Total Major Capital Projects Qualifying for 2019 RAM, Net of CIAC			<u>\$ 69,045,439</u>	<u>\$ (22,683)</u>
10				<i>To Sch D1 & F2</i>	<u>\$ 69,022,756</u>

Source: HECO-WP-D3-001

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF ADJUSTED RECORDED DEFERRED INCOME TAXES

Line No.	NARUC Account (a)	Reference (b)	DR/(CR) Federal ADIT (c)	DR/(CR) State ADIT (d)	DR/(CR) Total ADIT (e)	
1	Recorded Deferred Income Tax Balances December 31, 2018 Recorded Balances					
2	Depreciation Related Account 282	HECO-WP-D4-001	(208,764,869)	(35,223,942)	(243,988,811)	
3	Other Deferred Income Taxes	HECO-WP-D4-001	(33,950,451)	(5,718,989)	(39,669,440)	
4	Total Recorded Deferred Income Taxes		<u>(242,715,320)</u>	<u>(40,942,931)</u>	<u>(283,658,251)</u>	To Sch D1 To HECO-WP-H-001
5	<u>Adjustments to Recorded Balances:</u>					
6	ADIT on Major Project excess depreciation	HECO-WP-D4-002	15,698	898	16,596	
7	ADIT on Major Project Interim Recovery	HECO-WP-D4-003	1,404,184	427,943	1,832,127	To Sch D1
8	Total Adjustments to Recorded ADIT Balances		<u>1,419,882</u>	<u>428,841</u>	<u>1,848,723</u>	To Sch D1
9	Adjusted Recorded ADIT Balances -12/31/18		<u>(241,295,438)</u>	<u>(40,514,090)</u>	<u>\$ (281,809,528)</u>	To Sch D1
10	282 ADIT adjusted for ADIT on Major Project excess depreciation	Line 2 + Line 6	(208,749,171)			To HECO-WP-F1-003

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF ADJUSTED RECORDED EXCESS ADIT REGULATORY LIABILITY

Line	NARUC Account (a)	Reference (b)	DR/(CR) Balance at 12/31/17 (c)	DR/(CR) Adjustments	DR/(CR) Amortization (d)	DR/(CR) Balance at 12/31/18 (e) = (c) + (d)	Life (f)	Amortization (g)	Est Bal at 12/31/19 (h) = (e) + (g)
1	Plant 282 - protected		(215,702,497)	(7,803,210)		(223,505,707)	40	5,587,643	(220,246,249)
2	Plant 283 - unprotected		(35,065,867)		1,668,881	(33,396,986)	15	2,337,723	(31,059,263)
3	Nonplant 283 - unprotected		(23,918,454)		3,415,029	(20,503,425)	5	4,783,679	(15,719,746)
	Total Excess ADIT								
4	Regulatory Liability		<u>(274,686,818)</u>	<u>(7,803,210)</u>	<u>5,083,910</u>	<u>(277,406,118)</u>		<u>12,709,045</u>	<u>(267,025,258)</u>
			Note 1			To Sch D1		To Sch E	To Sch D1
									Note 3

Reconciliation of 12/31/18 Balance:

Regulatory Liability in GL	GL#25400023/24	(278,155,753)
Regulatory Asset in GL	GL#18673900	34,112,667
2018 Amortization		<u>587,116</u>
		<u>34,699,783</u>
		(243,455,970)
Add: FAS 109	Note 1	<u>(33,950,008)</u>
Total Excess ADIT		(277,405,978)
Total Excess ADIT	Line 4	<u>(277,406,118)</u>
Remaining Difference		140

Note 1: The 12/31/17 balances represent the amortization base presented in Docket 2016-0328 Hawaiian Electric's 2017 Test Year Rate Case Revised Attachment to the Parties' Stipulated Settlement on Remaining Issues, Attachment 2A, filed March 8, 2018. However, this amortization base inadvertently excluded reclassifications recorded at December 31, 2017 between the 2017 unprotected plant 283 excess net regulatory liability and the portion of ASC 740 regulatory assets/liabilities offsetting the related excess deferred income taxes.

Note 2: Amortization began 4/14/2018.

Note 3: Line 1: Plant 282-protected excess deferred balance calculated as follows: [col (e)/col (f)] * (7 months/12 months) + col (e)
Amortization begins on 6/1/2019.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF DEPRECIATION & AMORTIZATION RAM ADJUSTMENT

Line No.	FERC Account	Recorded Depreciable/Amort. Balance (Footnote 3)	Adjustments (Footnote 1)	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate	Annual Accrual
	(a)	(b)	(c)	(d)	(e)	(f)
1	<u>Depreciable Plant</u>					
2	311	107,116,270		107,116,270	0.01600	1,713,860
3	312	407,080,257	(3,423,000)	403,657,257	0.02030	8,194,242
4	314	194,394,996		194,394,996	0.01540	2,993,683
5	315	83,448,693		83,448,693	0.02430	2,027,803
6	Tot - Steam	792,040,216	(3,423,000)	788,617,216	0.01885	14,929,589
7						
8	341	38,255,922		38,255,922	0.00770	294,571
9	342	17,647,714		17,647,714	0.02580	455,311
10	343	212,348,035	(142,147,612)	70,200,423	0.03260	2,288,534
11	344	32,411,015		32,411,015	0.01010	327,351
12	345	34,684,516		34,684,516	0.02510	870,581
13	Tot - Gas Turb	335,347,202	(142,147,612)	193,199,590	0.01263	4,236,348
14						
15	Tot - Prod	1,127,387,418	(145,570,612)	981,816,806		19,165,937
16						
17	3501	3,033,447		3,033,447	-	-
18	352	41,371,948	(2,003,490)	39,368,458	0.01600	629,895
19	353	316,099,319	(352,190)	315,747,129	0.01860	5,872,897
20	354	15,336,208		15,336,208	0.01480	226,976
21	355	377,095,780		377,095,780	0.03240	12,217,903
22	356	184,909,083	(141,971)	184,767,112	0.03270	6,041,885
23	357	60,113,518		60,113,518	0.01590	955,805
24	358	66,198,742		66,198,742	0.01730	1,145,238
25	359	3,235,054		3,235,054	0.01490	48,202
26	Tot - Transm	1,067,393,099	(2,497,651)	1,064,895,448	0.02543	27,138,801
27						
28	3601	2,599,051		2,599,051	0.02340	60,818
29	361	26,265,151		26,265,151	0.01080	283,664
30	362	273,453,197		273,453,197	0.02020	5,523,755
31	363	2,957,666		2,957,666	0.03740	110,617
32	364	245,168,525	(24,665,897)	220,502,628	0.03390	7,475,039
33	365	105,897,935		105,897,935	0.04190	4,437,123
34	366	270,101,616		270,101,616	0.02190	5,915,225
35	367	405,492,451		405,492,451	0.04980	20,193,524
36	368	220,837,260		220,837,260	0.05200	11,483,538
37	369.1	59,534,914		59,534,914	0.05250	3,125,583
38	369.2	174,898,002		174,898,002	0.04070	7,118,349
39	370	40,383,030		40,383,030	0.02660	1,074,189
40	Tot - Distr	1,827,588,798	(24,665,897)	1,802,922,901	0.03655	66,801,423
41						
42	Tot - T & D	2,894,981,897	(27,163,548)	2,867,818,349		93,940,224
43						
44	390	67,940,630		67,940,630	0.02450	1,664,545
45	Tot - General	67,940,630	-	67,940,630	0.02450	1,664,545
46						
47	Sub-Total	4,090,309,945	(172,734,160)	3,917,575,785		114,770,706
48						
49	3902 (King)	8,011,075		8,011,075	0.03010	241,114
50	3902 (CPP)	2,115,809		2,115,809	0.00417	8,814
51	3902 (Waterhouse)	1,517,450		1,517,450	0.00000	-
52	3902 (Hon CI)	523,097		523,097	0.07824	40,929
53	3902 (ASB)	1,463,127		1,463,127	0.06133	89,738
54	3902 (Shinco)	939,475		939,475	0.00000	-
55	3902 (PPP)	372,940		372,940	0.11111	41,438
	3902 (Pauahi)	50,376		50,376	0.33333	16,792
56	3902 (Tenant Allowance)	14,131,757	(14,131,757)	-	-	-
57	Tot - LH Impr	29,125,106	(14,131,757)	14,993,349		438,824
58						
59	392	59,063,238		59,063,238	0.06130	3,620,576
60						
61	Utility Total Depreciation	4,178,498,289	(186,865,917)	3,991,632,372	0.02844	118,830,107

Line No.	FERC Account	Recorded Depreciable/Amort. Balance (Footnote 3)	Adjustments (Footnote 1)	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate	Annual Accrual
	(a)	(b)	(c)	(d)	(e)	(f)
61	Amortizable Plant					
62	316	26,291,658		26,291,658	0.05000	1,314,583
63	Tot - Steam	26,291,658	-	26,291,658	0.05000	1,314,583
64						
65	346	20,326,815		20,326,815	0.05000	1,016,341
66	Tot - Gas Turb	20,326,815	-	20,326,815	0.05000	1,016,341
67						
68	Tot - Prod	46,618,473	-	46,618,473	0.05000	2,330,924
69						
70	3911	30,764,654	(14,146)	30,750,508	0.20000	6,150,102
71	3912	3,172,052		3,172,052	0.10000	317,205
72	3913	16,599,312		16,599,312	0.06670	1,107,174
73	393	1,478,752		1,478,752	0.04000	59,150
74	394	39,001,211		39,001,211	0.04000	1,560,048
75	395	879,317		879,317	0.06670	58,650
76	396	4,479		4,479	0.05560	249
77	397	130,589,670	(240,250)	130,349,420	0.06670	8,694,306
78	398	8,483,472		8,483,472	0.06670	565,848
79	Tot - General	230,972,919	(254,396)	230,718,523	0.08015	18,512,733
80						
81						
82						
83	Utility Total Amortization	277,591,392	(254,396)	277,336,996	0.07509	\$ 20,843,656
84						
85	TOTAL RAM DEPRECIATION / AMORTIZATION				Line 61 + Line 83	\$ 139,673,763
86	LESS: Vehicle Depreciation (A/C 392 above)				Line 59	\$ (3,620,576)
87	LESS: ADIT Excess Amortization				Schedule D5	(12,709,045)
88	LESS: Depreciation & Amortization in Current Revenues				Footnote 2	\$ (120,665,585)
89						
90	RAM Adjustment for Depreciation & Amortization					\$ 2,678,556
91	RAM Adjustment for CIAC Amortization				Note 5	\$ -
92	Total RAM Adjustment for Depreciation & Amortization					\$ 2,678,556
93	Times: Factor for Revenue Taxes				Schedule C Line 5	1.0975
94						
95	RAM DEPRECIATION & AMORTIZATION					\$ 2,939,716

To Sch A1

Footnotes:

1	Amounts are recorded (in \$000s), except for the following adjustments (see HECO-WP-D2-001):	Plant in Service From D1	
	ERP EAM Hardware	HECO-WP-D2-001	\$ (14)
	Koolau-Wailupe #1 Str 30 P9 Replace		(142)
	MPIR - Schofield Generating Station		(144,744)
	Joint Pole Capital Transfer Price		(24,666)
	Tenant Improvement Allowance (see Footnote 4)		(14,132)
	ARO Assets included in Depreciable Plant	GL# 10100001	(3,423)
	Total		\$ (187,121)
2	Depreciation & Amortization in Current Revenues*:	Depr/Amort Expense	
	Total Depreciation	\$	139,686,000
	LESS: Vehicle Depreciation (A/C 392)		(3,590,000)
	LESS: Amortization of Excess ADIT		(7,121,415)
	Total Depreciation in Current Revenues	\$	128,974,585
	ADD: CIAC Amortization	Note 5	(8,309,000)
	Total Depreciation & Amortization in Current Revenues		120,665,585

Linked from Sch D1

See Decision and Order No. 35768, Docket No. 2018-0075 filed October 16, 2018

To Line 88

*See Order No. 35335, in Docket No. 2016-0328, For Approval of General Rate Case and Revised Schedules/Rules, filed on March 9, 2018, in which the Commission accepted the Parties' Stipulated Settlement on Remaining Issues filed March 5, 2018, HECO T-25, Attachment 1, Page 1 and the Revised Attachment to the Parties Stipulated Settlement on Remaining Issues, filed March 8, 2018, HECO T-26, Attachment 2A, Page 1. Approved in Final Decision and Order No. 35545, filed June 22, 2018.

3 Per Accounting records, does not include land amounting to \$40,449,426 as of December 31, 2018.

4 Amount represents tenant improvement allowances paid by the lessors and excluded from the RAM calculation.

5 Effective October 2018, the Company reclassified CIAC to Plant in Service or CWIP consistent with FERC guidelines. Amounts shown in this Schedule represent balances net of CIAC.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF CHANGE IN DEFERRED INCOME TAXES

Line No.	NARUC Account (a)	Reference (b)	Projected ADIT Change (c)
1	State Tax Depreciation	Schedule F1	20,239,341
2	Amortization of Excess Deferreds	Schedule D5	10,380,860
3	Subtotal		30,620,201
4	Effective Federal Tax Rate	HECO-WP-F-001	19.7368%
5	Federal Deferred Tax on State Tax Depreciation		6,043,461
6	Add back State Tax Depreciation	Line 1	(20,239,341)
7	Federal Tax Depreciation	Schedule F1	20,239,341
8	Federal/State Difference		-
9	Tax Rate on Federal Only Adjustment	HECO-WP-F-001	21%
10	Federal Deferred Tax Adjustment		-
11	Total Federal Deferred Taxes Before Proration		6,043,461
12	Proration Adjustment	HECO-WP-F1-003	(659,544)
13	Total Federal Deferred Taxes After Proration		5,383,917
STATE DEFERRED TAXES			
14	State Tax Depreciation	Line 1	20,239,341
15	Amortization of Excess Deferreds	Line 2	10,380,860
16	Subtotal		30,620,201
17	Effective State Tax Rate	HECO-WP-F-001	6.0150%
18	Total State Deferred Taxes		1,841,817
19	TOTAL FED AND STATE DEFERRED TAXES		7,225,733
			To Sch D1

NOTE 1: In accordance with the tariff, the change in ADIT in the RAM year is based on the temporary book/tax depreciation differences associated with the RAM year plant additions (major capital projects and baseline plant additions). It does not include any estimated ADIT related to the repairs deduction or CIAC on RAM year plant additions.

NOTE 2: The change in ADIT includes the tax effect of the amortization of the regulatory liability associated with the excess deferred taxes resulting from the tax rate change from the Tax Cuts and Jobs Act of 2017. This is consistent with the inclusion of the regulatory liability and the related amortization in rate base RAM.

NOTE 3: The amortization of excess deferreds was adjusted from Schedule D5 to properly reflect the ending balance of ADIT at 12/31/2019. The amortization of the Plant 282 excess deferred amortization begins on 6/1/2019; the 12/31/2019 balance therefore reflects 7/12ths of this component in the ending ADIT balance.

Calculation of Excess Deferred Amortization

Plant 282 - protected	5,587,643	Schedule D5	
Proration Percentage (7 months/12 months)	58.33%		
			3,259,458
Plant 283 - unprotected			2,337,723
Nonplant 283 - unprotected			4,783,679
Amortization of Excess Deferreds, as Adjusted			10,380,860
			Schedule D1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TAX DEPRECIATION

Line No.	LIFE	HECO-WP-F1-002				PROJECTS PROGRAMS TOTAL					
		(a)	(b)	(c)	(d)	(e)	(f)	(g)			
1	Computers/PV	5	6,092		6,092	2.54%		2.54%			
2	Communication	20	5,920		5,920	2.47%		2.47%			
3	Off/Furn/Tools	7	5,022		5,022	2.09%		2.09%			
4	Distribution	20	130,472		130,472	54.38%		54.38%			
5	Land	-	816		816	0.34%		0.34%			
6	Non-Steam Production	15	3,713		3,713	1.55%		1.55%			
7	Steam Production	20	22,905		22,905	9.55%		9.55%			
8	Structural	39	3,265		3,265	1.36%		1.36%			
9	Transmission	20	21,834		21,834	9.10%		9.10%			
10	Transmission	15	34,674		34,674	14.45%		14.45%			
11	Vehicles	-	5,209		5,209	2.17%		2.17%			
12	TOTAL		239,922	-	239,922	100.00%	0.00%	100.00%			
From Sch D2											
Basis subject to regular depreciation											
Vintage 2019 - Regular Depreciation											
		5 yr			5 yr	2.54%		2.54%	1,042,304	20.00%	1,042,304
		7 yr			7 yr	2.09%		2.09%	4,296,167	14.29%	613,922
		15 yr			15 yr	16.00%		16.00%	32,838,900	5.00%	1,641,945
		20 yr			20 yr	75.50%		75.50%	154,952,011	3.75%	5,810,700
		39 yr			39 yr	1.36%		1.36%	2,793,107	1.177%	32,875
		Land			Land	0.34%		0.34%			
		Vehicles			Vehicles	2.17%		2.17%			
		Total			Total	100.00%	0.00%	100.00%			
TOTAL ASSETS											
		97.49%			97.49%	0.00%		97.49%	9,141,746		9,141,746
Net Depreciable Baseline Plant Adds											
		Major Capital Projects from Schedule F2			69,045,439				11,097,595		11,097,595
		Total Depreciable Plant Adds			269,137,143				20,239,341		20,239,341
Reconciliation from Baseline Plant Adds to Net Depreciable Plant Adds :											
		Baseline Capital Projects Plant Adds (rounded)			239,922,000			Schedule D2			
		Less: Repairs deduction			34,676,093			HECO-WP-F1-001 pg 1			
		Net plant add basis			205,245,907						
		Less: Land and Vehicles (2.51% x 205,245,907)			5,154,203						
					200,091,704						

Fed Tax Depreciation
to Schedule F

St. Tax Depreciation
to Schedule F

NOTE (1) The Tax Cut and Jobs Act removed bonus depreciation for public utility property.

NOTE (2) The numbers in columns b, c, d are rounded to the nearest thousand.

NOTE (3) Totals may not add exactly due to rounding.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
TAX DEPRECIATION ON MAJOR CAPITAL PROJECTS ADDITIONS

Line No.	Description	PUC Docket	Estimated In Service Date	Amount	
	(a)	(b)	(c)	(d)	(e)
1	Assumed Value of 2019 Major Capital Projects Plant Items			\$ 69,045,439	Schedule D3
2	Assumed Value of 2019 Major Capital Projects - CIAC nontaxable			\$ -	Schedule D3
3	Assumed Value of 2019 Major Capital Projects - Total			<u>\$ 69,045,439</u>	
	Tax Classification of	FED	FED	STATE	STATE
		YR 1	YR 1	YR 1	YR 1
4	Major Capital Project Additions	Tax Basis	DEPR RATE	TAX DEPR	DEPR RATE
5	5 yr	52,128,000	20.00%	10,425,600	20.00%
6	7 yr	-	14.29%	-	14.29%
7	15 yr	3,007,232	5.00%	150,362	5.00%
8	20 yr	13,910,207	3.75%	521,633	3.75%
9	39 yr	-			
10	Land	-			
11	Vehicles	-			
	Total	<u>\$ 69,045,439</u>		<u>\$ 11,097,595</u>	<u>\$ 11,097,595</u>
		To Sch F1		To Sch F1	To Sch F1

* Adjustment only for non-taxable CIAC.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
CIAC SUMMARY

Line No.	Description	Reference	Unamortized CIAC	CIAC Amortization
	(a)	(b)	(c)	(d)

Schedule not applicable.
See HECO-WP-D1-001 for further discussion on the Company's treatment of CIAC within the Annual Decoupling filing.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
EARNINGS SHARING CALCULATIONS

All Amounts \$000 (Except %)

Line No.	Description	Reference	Ratemaking Basis Return on Equity		
			Operating Income	Rate Base	Rate of Return
	(a)	(b)	(c)	(d)	(e)
1	Reported Operating Income before ratemaking adjustment	HECO-WP-H-009 & HECO-WP-H-001	\$ 134,181	\$ 2,109,963	
1a	Settlement of prior Joint Pole Accounts Receivable	Note 3	697		
2	<u>Ratemaking Adjustments to Line 1:</u>				
2a	Incentive Compensation Expenses (net of tax)	HECO-WP-H-002	4,073		
2b	Discretionary and Other Expenses Not Recoverable (net of tax)	HECO-WP-H-002	1,052		
2c	Amortization of investment income differential	HECO-WP-H-003	185		
2d	Income tax on items to be replaced by synchronized interest	HECO-WP-H-003	(12,461)		
2e	Special Medical Needs Program discount (net of tax)	HECO-WP-H-005	102		
2f	Performance Incentive Mechanism (net of tax)	HECO-WP-H-006	360		
2g	Final Test Year Refund (net of tax)	HECO-WP-H-007	32		
3	Ratemaking Basis Amounts - Post Tax	Sum Lines 1 & 2	\$ 128,221	\$ 2,109,963	
4	<u>Ratemaking Capitalization</u>				
5	Short-Term Debt (12 mo. Avg)	Balances Ratios Cost Rate Weighted Cost	\$ 88,868 3.68% 2.54%		0.09%
6	Long-Term Debt (Simple Avg)	\$ 939,810 38.92% 5.03%			1.96%
7	Hybrid Securities (Simple Avg)	\$ 28,758 1.19% 7.16%			0.09%
8	Preferred Stock (Simple Avg)	\$ 21,192 0.88% 5.36%			0.05%
9	Common Equity (Simple Avg)	\$ 1,335,921 55.33% 9.50%			5.26%
10	Total Capitalization	HECO-WP-H-004	\$ 2,414,549	100.00%	7.45%
11	Line 3 Rate Base Amount			\$ 2,109,963	
12	Weighted Cost of Debt (Sum Lines 5-7)			2.14%	
13	Synchronized Interest Expense			\$ 45,153	
	Income Tax Factor (Note 1)			1.346801347	
13a	Synchronized Interest Expense, net of tax			\$ 33,526	
14	Post Tax Income Available for Preferred & Common (Line 3 - Line 13a)				\$ 94,695
17	Less: Preferred Income Requirement (Line 8 Weighted Cost times Rate Base)				1,055
18	Income Available for Common Stock				\$ 93,640
19	Ratemaking Equity Investment (Line 9 Ratio times Rate Base)				1,167,400
20	Return on Equity for Decoupling Earnings Sharing (Line 18/Line 19)				8.02%
21	<u>Earnings Sharing Revenue Credits:</u>	Basis Points			
22	Achieved ROE (basis points)	802			
23	Authorized Return (basis points)	950			
24	ROE for sharing (basis points)	-			
25	Sharing Grid per RAM Provision	First 100 bp Next 200 bp All over 300 bp Ratepayer Total			
26	Distribution of Excess ROE (basis points)	0 0 0			
27	Ratepayer Share of Excess Earnings	25% 50% 90%			
28	Ratepayer Earnings Share - Basis Points	- - -			-
29	Revenue Credit per Basis Point (Note 2)				\$ 173
30	Earnings Sharing Revenue Credits (thousands)				0

To Sch A Line 5

Footnotes:

- Composite Federal & State Income Tax Rate 25.75%
Income Tax Factor (1 / 1-tax rate) 1.346801347
- Ratemaking Equity Investment (line 19) \$ 1,167,400
Basis Point = 1/100 of a percent 0.01%
Earnings Required per Basis Point (thousands) \$ 116.74
Times: Income Tax Conversion Factor 1.346801347
Pretax Income Required per Basis Point (thousands) \$ 157
Times: Revenue Tax Conversion Factor 1.0975
Revenue Requirement per Basis Point (thousands) \$ 173
- Per Docket No. 2018-0075, Decision and Order No. 35768, the Commission approved the Asset Transfer, Pole Licensing and Amended Joint Pole agreements. The settlement recovery of prior joint pole accounts receivables previously written-off was recorded to interest income (and excluded from Operating Income) in 2018. Upon further consideration, the recovery should have been recorded to Uncollectible Accounts (904) and included in Operating Income in 2018. (Taxes on the Joint Pole interest income was already included in Operating Income as of December 31, 2018.) Accordingly, an upward adjustment of \$696,636 is being made to Operating Income in the earnings sharing mechanism calculation.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS

Line No.	Description	Reference	Amount \$000
	(a)	(b)	(c)

This Schedule has not been developed yet and will be developed only when/as needed.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RAM CAP

Line No.	Description (a)	Reference (b)	Amount \$000 (c)
1	Last Rate Order Target Annual Revenues	Schedule B1	\$ 599,974
2	2018 RAM Cap Increase excluding Exceptional & Other Matters (net of Revenue Tax)	Note 2	12,599
3	2018 Target Revenues Subject to Escalation	Line 1 + Line 2	612,573
4	2019 GDP Price Index	HECO-WP-C-002	2.10%
5	2019 RAM Cap Increase Excluding Exceptional & Other Matters		12,864
6	RAM Cap for 2018 RAM Revenue Adjustment	Line 2	12,599
7	RAM Cap for 2019 RAM Revenue Adjustment	Line 5 + Line 6	25,463
8	Revenue Tax Factor (1/(1-8.885%))		1.0975
9	RAM Cap for 2019 RAM Revenue Adjustment	Line 7 x Line 8	\$ 27,946
			To Sch A1

Note 1 **Target Revenues:**

See Decision and Order No. 32735, filed March 31, 2015, paragraph 107, page 94:

"The RAM Cap shall be based on the Target Revenues determined in accordance with the RBA and RAM tariffs as provided below ("Basis"), times the cumulative annually compounded increase(s) in GDPPI for intervening years, adjusted to include applicable revenue taxes."

The RAM basis for the calculation of the RAM Revenue Adjustment cap shall be the target revenues determined in accordance with the RBA tariff based on the results of the Company's most recent interim or final rate case decision.

Note 2 See Transmittal No. 18-01 (Decoupling) - Hawaiian Electric Company RBA Rate Adjustment, Schedule J for 2018 RAM Revenue Adjustment Cap of \$13,828 (\$12,599 net of revenue tax).

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
EXCEPTIONAL & OTHER MATTERS

Line No.	Description	Reference	Amount \$000
	(a)	(b)	(c)
1	None		-
2	2019 Revenue Adjustment for Exceptional & Other Matters		\$ -
			To Sch A1

Note 1 Exceptional and Other Matters:
See Order No. 32735, filed March 31, 2015, paragraph 107, page 94 - 95:
"The Basis used in determining the RAM Cap shall be adjusted to exclude or otherwise appropriately account for adjustments for the recovery of revenues for previously explicitly stipulated and approved exceptional matters or other matters specifically ordered by the commission, which shall, in any event, be recovered fully without respect to any limitations resulting from application of the RAM Cap."

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
MAJOR PROJECT INTERIM RECOVERY

Line No.	Description	Reference	Amount \$000
	(a)	(b)	(c)
1	Schofield Generating Station	Schedule L1	\$ 18,051
2	Docket No. 2017-0213		
3	Revenue Tax Factor (1/(1-8.885%))		1.0975
4	Major Project Interim Recovery Total		\$ 19,811
			To Sch B1, line 15

Note: Per Notice Transmittal to Update Target Revenue for Schofield Generating Station through the Major Project Interim Recovery Adjustment Recovery Mechanism, filed February 7, 2019, Transmittal No. 19-01 effective January 1, 2019. See Schedule L1.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
REVENUE REQUIREMENT AND DETERMINATION OF MAJOR PROJECT INTERIM RECOVERY
MPIR PROJECT
\$ in thousands

Line No.	Description (a)	Reference (b)	Recorded at 12/31/2018 (c)	2019 Activity (d)	Ending Balance as of 12/31/19 (e)	Average Balance (f)=((c)+(e))/2 (g)	MPIR (g)
	<u>Return on Investment - Schofield Generating Station</u>						
1	Gross Plant in Service (not to exceed PUC approved amount)	HECO-WP-L-001	141,570	-	141,570	141,570	
2	Accum Depreciation	HECO-WP-L-001	-	(4,586)	(4,586)	(2,293)	
3	Net Cost of Plant in Service		141,570	(4,586)	136,984	139,277	
4	Fuel Inventory - Avoided	Note 3	(1,534)	-	(1,534)	(1,534)	
5	M&S Inventory	Note 3	100	-	100	100	
6	Total Additions		(1,434)	-	(1,434)	(1,434)	
7	CIAC	Not Applicable	-	-	-	-	
8	ADIT	HECO-WP-L-002	(8,653)	(1,540)	(10,193)	(9,423)	
9	State ITC	HECO-WP-L-002	(4,124)	412	(3,712)	(3,918)	
10	Total Deductions		(12,777)	(1,128)	(13,905)	(13,341)	
11	Total Rate Base		\$ 127,359	\$ (5,713)	\$ 121,646	124,502	
12	Average Rate Base					\$ 124,502	
13	Rate of Return (grossed-up for income taxes, before revenue ta	Note 4				9.47%	
14	Annualized Return on Investment (before revenue taxes)						\$ 11,790
15	Depreciation Expense (Note 1)	HECO-WP-L-001				4,586	
16	Operating & Maintenance Expense	Note 2				2,087	
16a	Prior year reconciliation of O&M to actuals	Note 2				-	
17	Amortization of State ITC	see line 6				(412)	
18	Lease Rent Expense	Not Applicable				-	
19	Other Expense	Not Applicable				-	
20	Total Expenses						\$ 6,260
21	Total Major Project Interim Recovery						\$ 18,051
22	Revenue Tax Factor (1/(1-8.885%))						1.0975
23	Annualized Revenue for Major Project Interim Recovery						<u>\$ 19,810.8</u>

To Sch B & B1

Reconciliation to Schedule B1 (Info Only)			
	Jul - Sep 18	Oct - Dec 18	2019
Annualized Revenue for MPIR	\$ 6,600	\$ 8,561	\$ 19,811
Rev Tax Adj	\$ (586)	\$ (761)	\$ (1,760)
Prorated MPIR for Year 1 excl Rev Tax	\$ 6,014	\$ 7,800	\$ 18,051
Incremental	\$ 6,014	\$ 1,787	\$ 10,250
	Note 5	Note 6	

Note 1: Depreciation expense is recorded beginning in the year after an asset is placed in service, therefore, depreciation expense is zero in year 1. The revenue requirement for year 2 and thereafter will include depreciation expense at existing, approved depreciation accrual rates at the time of filing.

Note 2: Total O&M expense is estimated to cost \$1.787 million annually for year 1 (\$2.087 million annually during the interim period thereafter), as referenced within Attachment 1 - SGS Business Case Revenue Requirement Update and approved in Order No. 35953, filed December 14, 2018.

Note 3: Decision and Order No. 35556 dated June 27, 2018 in Docket No. 2017-0213.

Note 4: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric's RBA Rate Adjustment, Schedule D, filed May 29, 2018.

Note 5: MPIR Revenues effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018 in Docket No. 2017-0213.

Note 6: MPIR Revenues effective October 1, 2018 filed December 21, 2018 in Docket No. 2017-0213.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
2018 PERFORMANCE INCENTIVE MECHANISMS

	2018 Annual Total *	2018 Target **	Variance (c)=(a)-(b)	Deadband ** (d)	Maximum \$ ** (e)	(Penalty) / Reward Amount 1.0 * (((b - a) / d) * e + e)
<u>Service Quality:</u>						
Normalized T&D SAIFI						
Without Exclusion	1.253	1.112	0.141	0.089	\$ 2,244,112	\$ (1,306,645)
With Exclusion	1.238	1.112	0.126	0.089	\$ 2,244,112	\$ (929,827)
Normalized T&D SAIDI						
Without Exclusion	111.94	99.10	12.84	9.033	2,244,112	\$ (946,492)
With Exclusion	106.41	99.10	7.31	9.033	2,244,112	\$ -
Call Center Performance (Excludes Blocked Calls)						
	83.97%	79.66%	4.31%	3.00%	\$ 897,645	\$ 391,972
<u>Phase 1 Renewable Energy RFP PIM</u>						
First Allocation ***						\$ 591,854
Total Without Exclusion						\$ (1,269,311)
						To Sch A
Total With Exclusion						\$ 53,998

Notes:

Exclusion represents 25kV Proactive Work, filed in Transmittal No. 18-05, Hawaiian Electric's Letter Request for Exclusion of 25kV Splice Replacement Work from Performance Incentive Mechanism Provision's SAIDI and SAIFI 2018 Calculation, filed December 18, 2018.

Recalculated 2019 PIMS to include 25kV Proactive Work.

* See HECO-WP-M-002

** See HECO-WP-M-001 (revised 05-21-19)

*** See HECO-WP-M-005

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
ON-BILL FINANCING COST RECOVERY

Note 1				Cost Recovery (excluding Rev Tax)			Cost Recovery (including Rev Tax)		
Line	Company	Customer Count	Allocation	Total Recovery	2019 Recovery	2020 Recovery	Total Recovery with Rev Tax	2019 Recovery with Rev Tax	2020 Recovery with Rev Tax
		a	b = a/total a	c = \$2,330,408 allowed x b			d = c * 1.0975		
1	HE	305,456	66%	1,537,150 To Sch B	768,575 To Sch A	768,575	1,687,022	843,511 To Sch B1	843,511
2	HL	85,758	19%	431,561	215,780	215,781	473,638	236,819	236,819
3	ME	71,875	16%	361,697	180,849	180,848	396,963	198,481	198,482
4	Total	463,089	100%	2,330,408	1,165,204	1,165,204	2,557,623	1,278,811	1,278,812

Note 1: Statistical Report as of December 31, 2018.

Note 2: See Decision and Order No. 36212, Docket No. 2017-0102, filed March 11, 2019, pages 18-19. The Commission allowed the Companies to recover Program implementation costs over a period of two years, commencing with the 2019 RBA Rate Adjustment which will, if there are no major issues with the standard RBA Review Transmittal process, become effective on June 1, 2019.

Hawaiian Electric Company, Inc.
Sales Forecast for June 2019 to May 2020
in GWh

	2019							2020					
	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Total</u>
R	126.7	141.7	151.2	146.2	143.0	131.9	130.4	132.1	118.6	120.1	116.7	121.7	1,580.3
G	24.2	25.6	26.5	25.3	26.0	23.9	24.1	22.6	22.8	23.9	23.7	24.6	293.2
J	148.0	159.0	160.8	157.3	158.4	145.6	139.3	139.4	140.8	141.7	144.9	152.0	1,787.2
P	233.6	250.5	261.0	246.4	249.4	230.6	225.1	219.6	214.0	223.5	225.2	232.1	2,811.0
F	<u>1.8</u>	<u>1.9</u>	<u>1.7</u>	<u>1.6</u>	<u>1.6</u>	<u>1.4</u>	<u>1.4</u>	<u>1.3</u>	<u>1.3</u>	<u>1.5</u>	<u>1.3</u>	<u>1.4</u>	<u>18.2</u>
Total	534.3	578.7	601.2	576.8	578.4	533.4	520.3	515.0	497.5	510.7	511.8	531.8	6,489.9

Source: Hawaiian Electric Company, Inc. February 2019 Sales Forecast Update.

Hawaiian Electric Company, Inc.
Adjustment For Prior Year RBA Accrual
Recovery of 12/31/16 RBA Balance

		2018					
		January	February	March	April	May	Total
Billed RBA Revenues	Note 1	11,581,297	10,784,945	5,161,437	3,718,306	3,653,460	34,899,445
Net Unbilled Revenues	Note 1	(834)	(3,556,154)	(1,491,331)	45,447	121,360	(4,881,511)
Total Billed + Unbilled		11,580,464	7,228,791	3,670,106	3,763,752	3,774,820	30,017,934
x % Share for RBA	Note 2 & 3	31.9352%	63.5519%	100.0327%	100.0327%	100.0327%	
RBA Revenues (Recovery of 12/31/16 RBA balance)		3,698,239	4,594,033	3,671,308	3,764,985	3,776,056	19,504,621
		← Schedule B2 →					
Less: Revenue Taxes	0.08885	(328,589)	(408,180)	(326,196)	(334,519)	(335,503)	(1,732,987)
RBA Revenues (Recovery of 12/31/16 RBA balance)		3,369,650	4,185,853	3,345,112	3,430,466	3,440,553	17,771,634
net of Revenue Taxes		← Schedule B →					

* Differences are due to rounding

Note 1: RBA rate adjustment revenues per the Billed reports and Unbilled reports include both RBA and RAM revenues. Therefore, an allocation % is utilized to determine RBA revenues.

Note 2: RBA Rate Adjustment Allocation for January 1, 2018 to February 15, 2018 is per Transmittal No. 17-02 (Decoupling) - RBA Rate Adjustment (filed March 31, 2017), Schedule A, Note (1). RBA Rate Adjustment Allocation for February 16, 2018 to May 31, 2018 is per Hawaiian Electric Revised Schedules Resulting from Interim Decision and Order No. 35100 as modified by Order No. 35229, and Order No. 35220, Exhibit 7, filed on January 19, 2018, which was approved by Order No. 35280, issued on February 9, 2018. See Note 3 below for prorated % share for RBA for February 2018.

Note 3: Prorated % Share for RBA by day resulting from 2017 Test Year Interim Rates, effective February 16, 2018, per Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case Hawaiian Electric Revised Schedules Resulting from Interim Decision and Order No. 35100 as modified by Order No. 35229 and Order No. 35220, Exhibit 7, filed on January 19, 2018. As approved by the Commission in Order No. 35280, Approving Revised Schedules of Operations and Tariff Sheets, filed on February 9, 2018.

	RBA %	No of Days	Prorated RBA %
Feb 1-Feb 15	31.9352%	53.6%	17.1081%
Feb 16-Feb 28	100.0327%	46.4%	46.4438%
			<u>63.5519%</u>

Hawaiian Electric Company, Inc.
Adjustment For Prior Year RBA Accrual
Recovery of 12/31/17 RBA Balance

		2018							
		June	July	August	September	October	November	December	Total
Billed RBA Revenues	Note 1	4,701,823	5,771,562	6,185,543	6,034,935	6,400,115	5,842,574	5,503,361	40,439,912
Net Unbilled Revenues	Note 1	990,752	364,534	81,590	(85,985)	(137,876)	(175,257)	(57,177)	980,581
Total Billed + Unbilled		5,692,575	6,136,096	6,267,133	5,948,950	6,262,238	5,667,317	5,446,183	41,420,493
x % Share for RBA	Note 2	79.6227%	79.6227%	79.6227%	79.6227%	79.6227%	79.6227%	79.6227%	
RBA Revenues (Recovery of 12/31/17 RBA balance)		4,532,582	4,885,725	4,990,061	4,736,715	4,986,163	4,512,471	4,336,398	32,980,115
		← Schedule B2 →							
Less: Revenue Taxes	0.08885	(402,720)	(434,097)	(443,367)	(420,857)	(443,021)	(400,933)	(385,289)	(2,930,284)
RBA Revenues (Recovery of 12/31/17 RBA balance)		4,129,862	4,451,628	4,546,694	4,315,858	4,543,142	4,111,538	3,951,109	30,049,831
net of Revenue Taxes		← Schedule B →							

* Differences are due to rounding

Note 1: RBA rate adjustment revenues per the Billed reports and Unbilled reports include both RBA and RAM revenues. Therefore, an allocation % is utilized to determine RBA revenues.

Note 2: RBA Rate Adjustment Allocation for June 1, 2018 - May 31, 2019 is per Transmittal No. 18-01 (Decoupling) - RBA Rate Adjustment (Filed May, 29, 2018), Schedule A , Note (1).

Hawaiian Electric Company, Inc.

Bargaining Unit Wage Increase per Collective Bargaining Agreements

Wage Increases:	1/1/2014	3.00%	(Note 1)
(non-compounded)	1/1/2015	3.00%	(Note 1)
	1/1/2016	3.25%	(Note 1)
	1/1/2017	3.00%	(Note 1)
	1/1/2018	3.00%	(Note 1)
	1/1/2019	3.00%	(Note 2)
	1/1/2020	3.00%	(Note 2)
	1/1/2021	3.00%	(Note 2)

Increase effective			Increase Amount	Wage Rate With Increase	Labor Cost Escalation Rate	
			(a)	(b) or prev (b) + (a)	(c) (b) / prev (b) -1	
1.00	3.00%	1/1/2014	0.0300	1.0300		
	3.00%	1/1/2015	0.0300	1.0600	0.0291	2.91%
	3.25%	1/1/2016	0.0325	1.0925	0.0307	3.07%
	3.00%	1/1/2017	0.0300	1.1225	0.0275	2.75%
	3.00%	1/1/2018	0.0300	1.1525	0.0267	2.67%
1.00	3.00%	1/1/2019	0.0300	1.0300		
	3.00%	1/1/2020	0.0300	1.0600	0.0291	2.91%
	3.00%	1/1/2021	0.0300	1.0900	0.0283	2.83%

Note 1: Agreement ratified by the IBEW, Local 1260 on November 1, 2012, reflects a 3.00% increase effective 1/1/2014, 1/1/2015, 1/1/2017 and 1/1/2018 and a 3.25% increase effective 1/1/2016, based on 1/1/2013 rates.

Note 2: Agreement ratified by the IBEW, Local 1260 on July 31, 2018, reflects a 3.00% increase effective 1/1/2019, 1/1/2020 and 1/1/2021 based on 1/1/2018 rates. See also HECO-WP-C-003.

Blue Chip Economic Indicators®

Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead
Vol. 44, No. 2, February 10, 2019

2019 Real GDP Forecast Drops to 2.5%

FEBRUARY 2019 Forecast For 2019 SOURCE:	Percent Change 2019 From 2018 (Full Year-Over-Prior Year)										Average For 2019			Total Units-2019		2019
	1	2	3	4	5	6	7	8	9		10	11	12	13	14	15
	Real GDP (Chained (2012\$) Index	GDP Price (Cur.\$) Index	Nominal GDP (Cur.\$) Index	Consumer Price Index	Indust. Prod. (Total)	Dis. Pers. Income (2012\$)	Personal Cons. Exp. (2012\$)	Non-Res. Fix. Inv. (2012\$)	Corp. Profits (Cur.\$)		Treas. Bills 3-mo.	Treas. Notes 10-Year	Unempl. Rate (Civ.)	Housing Starts (Mil.)	Auto&Light Truck Sales (Mil.)	Net Exports (2012\$)
Action Economics	2.9 H	2.0	5.0	1.9	3.5	2.8	3.1 H	4.9	7.5		2.7	3.0	3.7	1.28	17.1	-967.9
Amherst Pierpont Securities	2.9 H	2.4	5.4 H	2.5 H	3.5	2.8	3.1 H	4.8	7.5		2.6	3.2	3.6	1.29	16.9	-960.0
MUFG Union Bank	2.9 H	2.4	5.3	1.8	3.2	na	2.9	3.8	5.5		2.4	3.0	3.7	1.29	17.2 H	-960.0
Barclays, US*	2.8	1.9	4.8	1.4	2.8	na	2.9	5.1	na		na	na	3.7	na	na	-1024.5
RDQ Economics	2.8	2.0	4.9	2.1	3.7 H	2.5	2.9	5.6	8.5 H		2.7	3.1	3.5	1.30	17.2 H	-1021.6
SOM Economics, Inc.	2.8	2.0	4.8	2.0	3.1	2.5	2.5	4.2	5.0		2.6	2.9	3.6	1.25	16.8	-938.0
U.S. Chamber of Commerce	2.8	2.1	4.9	2.1	3.2	2.6	2.9	5.2	4.5		2.6	2.9	3.9	1.30	na	-932.7
Credit Suisse	2.7	2.0	4.7	1.8	na	na	2.9	3.0	na		na	na	3.7	na	na	-966.2
Moody's Analytics, US	2.7	2.3	5.1	2.1	2.9	2.2	2.8	5.3	6.1		2.6	3.1	3.6	1.38 H	17.0	-1080.7 L
NatWest Markets	2.7	2.0	4.8	1.8	2.4	2.5	3.0	5.8 H	5.0		2.7	2.8	3.5	1.20	16.5	-980.0
PNC Financial Services Group	2.7	1.7	4.4	1.8	2.9	1.3 L	2.7	4.6	na		2.5	2.9	3.6	1.30	17.0	-1013.0
RBC Capital Markets	2.7	2.1	4.8	1.7	na	na	2.9	5.2	na		na	3.1	3.6	1.28	17.0	-980.0
The Conference Board, US*	2.7	na	4.8	2.1	na	2.5	2.8	4.4	6.2		2.5	2.8	3.7	1.24	17.2 H	-1020.3
Comerica**	2.6	2.0	4.6	1.9	3.5	2.9	2.6	4.1	na		2.5	2.9	3.7	1.24	16.6	-942.4
Georgia State University*	2.6	2.4	5.0	2.0	2.6	2.5	2.8	5.1	4.4		2.5	3.2	4.1	1.24	16.3	-1021.3
High Frequency Economics	2.6	2.0	4.7	1.9	2.8	2.9	3.0	3.3	1.7		2.4	2.9	3.8	1.22	16.9	-953.1
Naroff Economic Advisors*	2.6	2.1	4.8	2.0	2.6	2.3	2.6	2.9	4.3		2.8	3.2	3.7	1.30	16.7	-977.0
Point72 Asset Management*	2.6	1.9	4.5	1.9	3.1	2.3	2.8	5.4	6.2		2.5	2.8	3.7	1.20	16.7	-1058.8
Regions Financial Corporation	2.6	2.5 H	5.1	1.7	2.9	2.3	3.0	4.4	4.5		2.6	2.8	3.7	1.25	16.9	-954.4
Turning Points (Micrometrics)	2.6	2.4	5.0	2.1	2.6	2.4	2.7	4.5	2.8		2.8	3.4 H	3.8	1.18 L	16.7	-985.0
ACT Research	2.5	2.0	4.5	1.9	2.8	3.0	2.7	5.0	na		2.4	2.8	3.7	1.31	16.6	-1012.7
Bank of America-Merrill Lynch, US**	2.5	2.0	4.6	1.6	2.7	na	2.6	3.4	na		2.4	2.8	3.7	1.29	16.6	-969.1
Eaton Corporation	2.5	2.3	4.8	2.0	2.5	2.7	2.6	4.1	na		2.6	3.0	3.7	1.30	16.8	-1006.2
Econoclast	2.5	2.0	4.5	2.0	2.8	2.2	2.8	3.5	5.2		2.4	2.8	3.8	1.25	16.3	-989.0
Fannie Mae	2.5	2.3	4.8	2.0	2.5	2.4	2.6	3.9	1.5		2.5	2.7	3.7	1.26	16.7	-1020.9
FedEx Corporation, US	2.5	2.1	4.5	1.9	2.7	2.5	2.6	4.6	3.9		2.6	3.0	3.6	1.27	16.8	-1008.0
Ford Motor Company*	2.5	2.1	4.5	2.2	2.6	2.5	2.5	3.9	na		na	2.7	3.7	1.27	na	-1003.0
General Motors Corporation, US	2.5	2.1	4.6	2.0	2.8	2.6	2.7	3.8	1.8		2.6	2.9	3.6	1.28	na	-857.3
Inform - Univ. of Maryland	2.5	2.1	4.7	2.0	2.7	2.4	2.6	4.3	4.5		2.7	3.0	3.7	1.27	16.7	-980.4
Moody's Capital Markets, US*	2.5	1.9	4.5	1.6	3.5	2.6	2.8	3.8	4.3		2.4	2.8	3.6	1.28	16.9	-967.7
National Assn. of Home Builders	2.5	2.3	4.5	2.0	1.7 L	2.6	2.6	4.0	na		2.7	3.0	3.6	1.27	16.8	-1020.0
UCLA Business Forecasting Proj.*	2.5	2.2	4.7	2.2	2.5	2.5	2.6	4.3	4.0		2.5	3.0	3.6	1.31	16.6	-1035.0
Wells Fargo, US	2.5	1.9	4.4	2.1	3.0	2.9	2.9	3.8	4.4		2.6	3.0	3.7	1.30	16.7	-1010.7
AIG	2.4	2.3	4.7	2.0	2.5	2.7	2.5	3.8	4.8		2.4	2.8	3.5	1.27	16.7	-1009.2
BMO Capital Markets*	2.4	2.1	4.5	2.0	3.3	2.1	2.7	3.3	5.9		2.5	2.8	3.6	1.24	16.4	-1009.0
Daiwa Capital Markets America	2.4	2.0	4.5	1.9	2.5	2.2	2.9	3.6	5.0		2.4	2.8	3.8	1.19	16.7	-1012.0
Goldman Sachs & Co.**	2.4	2.0	4.3	1.8	1.7 L	3.4 H	2.8	3.3	na		2.7	2.9	3.7	1.27	na	-975.5
Macroeconomic Advisers by IHS Markit**	2.4	2.1	4.5	2.0	2.7	2.5	2.6	3.6	1.5		2.6	2.9	3.6	1.28	16.8	-1021.1
MacroFin Analytics & Rutgers Bus School	2.4	2.2	4.6	2.0	3.1	2.3	2.5	3.8	4.7		2.6	2.9	3.9	1.26	16.8	-943.8
Nomura Securities, US	2.4	2.3	4.7	1.7	2.7	2.1	2.9	2.7	na		na	2.7	3.4 L	1.25	16.9	-1044.3
Northern Trust Company*	2.4	1.8	4.2	2.0	2.7	2.2	2.7	3.1	4.1		2.7	3.2	3.6	1.28	16.6	-989.9
Oxford Economics, US	2.4	1.7	4.2	1.7	2.9	2.4	2.8	3.3	-2.4 L		2.5	2.8	3.7	1.29	17.0	-996.9
Societe Generale	2.4	1.9	4.3	1.6	na	2.5	2.8	4.1	3.2		2.6	2.8	3.6	1.23	16.7	-1011.4
UBS	2.4	2.0	4.5	1.5	2.4	3.2	2.4	3.0	na		2.5	na	3.7	1.33	na	-1010.9
Economist Intelligence Unit, UK	2.3	1.8	4.1	2.2	2.6	2.0	2.3	3.0	na		2.6	2.7	4.1	1.26	16.2	-915.0
Grant Thornton/Diane Swonk	2.3	2.1	4.4	1.9	2.6	2.5	2.6	3.4	1.2		2.4	2.8	3.7	1.24	16.6	-1010.4
JP MorganChase, US	2.3	1.8	4.1	1.4	2.0	2.7	2.9	3.4	3.5		na	3.1	3.7	1.28	17.0	-1058.0
MacroPolicy Perspectives	2.3	1.7	4.0	1.3 L	na	na	2.9	3.6	2.0		2.6	2.8	3.8	1.22	16.7	-1051.0
Morgan Stanley, US**	2.3	2.0	4.3	1.8	3.4	2.6	2.5	2.6	na		2.9 H	2.5	3.5	1.28	na	-988.4
S&P Global, US*	2.3	2.1	4.4	2.2	2.5	1.8	2.6	3.5	0.7		2.7	3.0	3.6	1.30	16.8	-1006.3
Swiss Re	2.2	1.6 L	3.8 L	1.9	2.4	2.8	2.7	3.2	4.5		2.5	3.0	3.9	1.27	16.9	-1019.1
BNP Paribas North America	2.1	na	na	1.4	2.4	2.6	2.5	3.0	na		2.8	3.4 H	3.6	na	na	-1008.0
ACIMA Private Wealth, US	1.7 L	2.1	3.8 L	1.8	2.0	1.5	1.5 L	1.6 L	na		2.1 L	2.3 L	4.2 H	1.20	15.7 L	-832.5 H
2019 Consensus: February Avg.	2.5	2.1	4.6	1.9	2.8	2.5	2.7	3.9	4.1		2.6	2.9	3.7	1.27	16.7	-991.1
Top 10 Avg.	2.8	2.4	5.1	2.2	3.4	2.9	3.0	5.3	6.4		2.8	3.2	3.9	1.31	17.1	-922.9
Bottom 10 Avg.	2.2	1.8	4.1	1.5	2.2	2.0	2.4	2.8	1.4		2.4	2.7	3.5	1.21	16.4	-1041.6
January Avg.	2.6	2.1	4.7	1.9	2.7	2.5	2.7	4.1	4.6		2.6	3.0	3.6	1.27	16.8	-989.7
Historical data	2015	2.9	1.0	4.0	0.1	-1.0	4.1	3.7	1.8	-2.9	0.1	2.1	5.3	1.11	17.4	-724.9
	2016	1.6	1.1	2.7	1.3	-1.9	1.7	2.7	0.5	-1.1	0.3	1.8	4.9	1.17	17.5	-786.2
	2017	2.2	1.9	4.2	2.1	1.6	2.6	2.5	5.3	3.2	0.9	2.3	4.4	1.20	17.1	-858.7
	2018	2.9 f	2.2 f	5.2 f	2.4	4.1	2.8 f	2.7 f	6.8 f	7.8 f	2.0	2.9	3.9	1.26 f	17.2	-908.4 f
<i>f=Dec 2018 Consensus Forecasts</i>																
Number of Forecasts Changed From a Month Ago:																
Down	18	17	26	18	10	8	14	19	12		25	26	6	9	13	14
Same	28	24	14	17	13	26	31	20	16		16	15	23	30	23	21
Up	3	6	8	14	22	11	4	9	3		2	2	20	6	1	13
February Median	2.5	2.0	4.6	1.9	2.7	2.5	2.7	3.8	4.5		2.6	2.9	3.7	1.27	16.8	-1006.2
February Diffusion Index	35 %	38 %	31 %	46 %	63 %	53 %	40 %	40 %	35 %		23 %	22 %	64 %	47 %	34 %	49 %

*Former winner of annual Lawrence R. Klein Award for Blue Chip Forecast Accuracy. **Denotes two-time winner.

HAWAIIAN ELECTRIC COMPANY, INC.

EXHIBIT A 3.00% 3.00% 3.00%

JOB CODE	JOB TITLE	1/1/2019	1/1/2020	1/1/2021	
CL829	CASHIER				
	1st 3 mos.	24.19	24.89	25.59	
	Next 3 mos.	25.31	26.05	26.79	
	Next 3 mos.	26.60	27.37	28.14	
	Next 6 mos.	27.91	28.72	29.53	
	Next 6 mos.	29.26	30.11	30.96	
	Thereafter	30.71	31.60	32.49	
CLC05	SR INFORMATION STORAGE EQUIPMENT OPERATOR				
CL18	SYSTEM OPERATION CLERK				
CL20	TEST AND SUBSTATION CLERK				
CL22	DESKTOP PUBLISHING OPERATOR				
CL104	POWER PLANT CLERK				
CL257	MOTOR FLEET CLERK				
CL328	METER CLERK				
CL21	PRINT PRODUCTION OPERATOR				
CL684	COMPUTER SYSTEMS OPERATOR TRAINEE				
	1st 3 mos.	24.71	25.43	26.15	
	Next 3 mos.	25.95	26.71	27.47	
	Next 3 mos.	27.20	27.99	28.78	
	Next 6 mos.	28.55	29.38	30.21	
	Next 6 mos.	29.99	30.86	31.73	
	Thereafter	31.40	32.31	33.22	
TL180	CONDENSER CLEANER				
	1st 6 mos.	27.20	27.99	28.78	
	Next 6 mos.	28.55	29.38	30.21	
	Next 6 mos.	29.99	30.86	31.73	
	Thereafter	31.40	32.31	33.22	
CLA49	PROJECT CLERK				
CLA81	STANDARDS CLERK				
CL12	JOINT POLE AIDE				
CL13	PROJECT CLERK				
CL15	FIELD SERVICE CLERK				
	1st 3 mos.	25.31	26.05	26.79	
	Next 3 mos.	26.60	27.37	28.14	
	Next 3 mos.	27.91	28.72	29.53	
	Next 6 mos.	29.26	30.11	30.96	
	Next 6 mos.	30.71	31.60	32.49	
	Thereafter	32.27	33.21	34.15	
T335	TRUCK DRIVER A	1/1/2018	32.31	33.25	34.19
CL406	METER READER				
	1st 3 mos.	23.99	24.71	25.43	26.15
	Next 3 mos.	25.19	25.95	26.71	27.47
	Next 6 mos.	27.72	28.55	29.38	30.21
	Next 6 mos.	29.12	29.99	30.86	31.73
	Next 6 mos.	30.49	31.40	32.31	33.22
	Thereafter	32.03	32.99	33.95	34.91
			x 1.03	x 1.0291	x 1.0283

CIAC Treatment
Resulting from FERC Adoption

Adoption of FERC USOA required a change in presentation change to Contributions in Aid of Construction (CIAC)

Prior to October 2018, and in establishing rates in previous test year rate cases, the Company's presentation of contributions in aid of construction ("CIAC") followed the guidelines of the National Associate of Regulatory Utility Commissioners Uniform System of Accounts (NARUC USOA). Under the NARUC reporting system, CIAC is reported under an exclusive account, account 271, which includes donations or contributions in cash, services or property from states, municipalities, or other governmental agencies, individuals and others for construction purposes. All CIAC was incorporated as a deduction in the calculation of rate base in part because the Companies' systems did not facilitate on-going reporting of CIAC related to plant in service separate from CIAC related to construction work in progress ("CWIP").

The Commission approved the Companies' request to change to Federal Energy Regulatory Commission Uniform System of Accounts (FERC USOA), beginning with the implementation of the Companies' new ERP/EAM, in Decision and Order No. 31757, issued December 19, 2013 in Docket No. 2013-0007.

Beginning in October 2018 with the transition to FERC, the net balance of CIAC in account 271 less the CIAC amortization to be recorded for October to December 2018, was credited against the account balances charged with the cost of construction, i.e., gross plant in service and CWIP, resulting in the account becoming zero (i.e. "0") at December 31, 2018.

Ratemaking treatment for CIAC

The Company's ratemaking treatment of contributions in aid of construction is summarized below:

- *CIAC associated with Plant in Service* – When a utility capital project is placed into service, the plant in service net of the associated CIAC is included as net cost of plant in service in rate base. The plant in service net of the CIAC is included as part of the basis for the depreciation accrual the year after it is placed into service (i.e. January 1 of the year after it is placed into service).
- *CIAC associated with CWIP* – For book purposes, CIAC that is received while projects are still under construction (i.e. in CWIP) will offset the costs incurred and is presented net in CWIP. The CWIP net of the associated CIAC is subject to the AFUDC accrual if there is a net CWIP balance. In the next rate case, the Company will request CIAC associated with CWIP be excluded from the rate base calculation since CWIP net of

CIAC earns AFUDC. CIAC associated with CWIP is however, included in rate base in this RAM calculation for consistency with the 2017 Test Year treatment. See further discussion of Company's requested treatment of CIAC associated with CWIP below.

- *Developer Advances* - Cash contributions received in advance of construction of a utility capital project that are temporarily not classified as CIAC because the funds received are in excess of the specific project expenditures. The balance of developer advances is presented as funds from non-investors, included in its own exclusive account, and deducted in the calculation of rate base. As project costs are incurred for a utility capital project, an equal portion of developer advances associated with the project will be reclassified as CIAC and credit the accounts charged with the cost of construction. Developer Advances were included as a part of CIAC as a reduction to rate base in the 2017 Test Year.

Treatment of CIAC within the 2019 Annual Decoupling Filing

For the 2019 Decoupling Filing, the Company treated CIAC consistently with prior filings resulting in no impact to rate base.

Schedule D1, Determination of Rate Base RAM Adjustment – Change in Rate Base

Plant in Service - There is no change in rate base for plant in service and CIAC associated with plant in service. Under NARUC, in rate base, plant in service was the gross cost of plant (net of accumulated depreciation), and CIAC was a separate reduction to rate base. Under FERC, the plant in service amounts are net of (i.e., already reduced by) CIAC, and presented net of accumulated depreciation in the calculation of rate base. There is no separate CIAC line item reducing rate base because it is already net in utility plant. Therefore, there is no net rate base impact. The difference between NARUC and FERC for plant in service is a matter of where the costs are classified in rate base, and not a matter of inclusion or exclusion of costs in rate base.

CIAC associated with CWIP - There is no change in rate base for CIAC associated with CWIP. Previously, presentation of CIAC aligned with NARUC and all CIAC, including amounts associated with projects in CWIP, were included as a reduction to rate base under account 271. The 2019 estimated balance continues the treatment of including the CIAC in CWIP to be consistent with the recorded balance at 2018 year-end because all 2019 estimated CIAC additions have been included at Schedule D2 and included as part of net cost of plant at Schedule D1. Although the treatment described above was used in the 2019 annual decoupling filing, see Company's requested treatment to exclude CIAC associated with CWIP from rate base in future filings in the discussion below.

Developer Advances - With the transition to FERC, CIAC is credited when received against the related project costs in CWIP. To the extent funds are not yet expended for a project in

CWIP, the CIAC will be classified as developer advances and deducted in the calculation of rate base at Schedule D1. The recorded balance at 2018 year-end is not adjusted for 2019 activity as it is incorporated in Schedule D2.

Schedule D2, Determination of Baseline Capital Projects Additions

Schedule D2 was revised to incorporate the baseline and major project CIAC (including Developer Advances) for 2014 to 2017 into the baseline average calculation of net plant in service, consistent with the presentation of rate base. The 2018 CIAC additions calculated at HECO-WP-D2-003 includes additions to CIAC from all sources, i.e. Plant, CWIP and Developer Advances, which were used in the 5-year baseline calculation. As a result, the estimated 2019 additions to CIAC in CWIP and Developer Advances balances at Schedule D1 for the Change in Rate Base are not required as they are already included in the net cost of plant line item.

Schedule E, Determination of Depreciation & Amortization RAM Adjustment

FERC Uniform System of Accounts Electric Plant Instructions, 2. Electric Plant To Be Recorded at Cost. D. states, “The electric plant accounts shall not include the cost or other value of electric plant contributed to the company.” Therefore, the Recorded Depreciable/Amortizable Balances at December 31, 2018 in Schedule E represents plant in service net of CIAC which is used as the basis to estimate the 2019 annual accrual amount. In calculating the 2019 RAM Depreciation and Amortization, Depreciation and Amortization in Current Revenues also includes CIAC amortization approved in the 2017 Test Year.

Schedule F & F1, Determination of Change in Deferred Income Taxes & Tax Depreciation

The methodology for computing the deferred taxes related to RAM year tax depreciation was not changed within the 2019 annual decoupling filing. Gross plant additions are used as the basis for calculating tax depreciation. However, see the CIAC impact to ADIT section below for the Company’s preferred treatment considering the effects of netting CIAC against plant in service.

Schedule G-series, CIAC

Schedule G, G1 and G2 were removed from the Decoupling filings and instead incorporated into either Plant in Service, CIAC in CWIP or Developer Advances. The December 31, 2018 balances for CIAC associated with CWIP and Developer Advances were extracted from PowerPlan. Additionally, as noted above, the calculation of the 5-year baseline average of CIAC and amortization was incorporated within Schedule D2 and Schedule E, respectively.

The Company will continue to include CIAC associated with CWIP and Developer Advances as a reduction to rate base until the FERC presentation of rate base is approved in the Company’s next rate case.

Company's requested CIAC treatment

The Company requests to reflect the following changes to the treatment of CIAC within the annual decoupling filings.

CIAC associated with CWIP

In Mr. Franklin's T-12 direct testimony in Hawaii Electric Light's 2019 Test Year rate case, the Company proposes to remove CIAC associated with CWIP from the calculation of rate base due to the fact that CWIP net of associated CIAC earns AFUDC, therefore the CWIP and its associated CIAC should be excluded from rate base.

Excluding CWIP net of CIAC, to better align the source of funds with its use (i.e. the CIAC funds received were applied against the costs incurred for the project) and is therefore properly excluded from the calculation of rate base. In addition, and as mentioned previously, any material CIAC received in advance of construction expenditures will continue to be deductions in the calculation of rate base as Developer Advances.

CIAC impact to ADIT

ADIT associated with CIAC in CWIP should be divided between nontaxable and taxable CIAC. Nontaxable CIAC (primarily interconnection CIAC) is treated as a reduction in basis for both book and tax purposes. On the other hand, although taxable CIAC is also a reduction in basis for book purposes, for tax purposes, the receipt of taxable CIAC creates tax basis by way of the recognition of taxable income and reverses by way of tax depreciation.

Nontaxable CIAC does not create ADIT since there is no book tax difference. Consequently, the regulatory netting of nontaxable CIAC against the plant assets should not create any issue with respect to the ADIT beginning balance for the rate base RAM calculation

Taxable CIAC generates a Deferred Tax Asset (DTA) as it is received and recorded into CWIP under the new FERC accounting. Prior NARUC accounting treatment with account 271 created DTA as CIAC was booked to 271, which is equivalent to what is now booked to CWIP. The origination and timing of the DTA under the FERC method will be equivalent to the NARUC method. However, under the old method, the DTA was immediately recognized as part of rate base, consistent with the treatment of the account 271 inclusion. However, under the FERC method, the generation of the DTA must be inventoried and tracked to match up with the amount of CIAC in CWIP and the amounts closed to plant in service. This tracking is necessary to ensure that the amount of DTA related to CWIP is excluded from rate base. Once CWIP costs are closed to plant, the related DTA will be included in rate base and will begin reversal through tax depreciation taken on the CIAC tax basis.

FERC accounting imbeds the book treatment of CIAC within CWIP and the ultimate plant and related depreciation. The separation will disappear and the Company asserts that the ADIT

effects will be the same with respect to the beginning balance of ADIT for the annual decoupling filing except to the extent CIAC is still in CWIP. This issue will be addressed along with the rate base treatment of CIAC associated with CWIP as mentioned above.

FERC accounting nets CIAC against Plant in Service for purposes of computing baseline and major plant additions. For RAM year tax depreciation and the related ADIT calculated for the change in RAM year ADIT, adopting the net plant additions as the RAM year tax additions will be a change that will result in a smaller amount of tax depreciation and ADIT “change” since the Company previously has assumed the gross additions to be the RAM year tax depreciable base. The Company asserts this is reasonable for the following reasons:

- 1) Under the old method, to the extent nontaxable CIAC was included in the RAM year numbers (through major projects or baseline projects), tax depreciable basis was overstated since there is no tax basis for assets funded by nontaxable CIAC.
- 2) With respect to taxable CIAC, the funded assets do have depreciable tax basis and it is accounted for in the RAM year additions tax depreciation. However, the receipt of taxable CIAC generates taxable income and deferred tax assets that increase rate base. The effect of this DTA from taxable CIAC was never recognized in the RAM tariff, which resulted in an overstatement of RAM year ADIT change, as it related to the projected plant additions.

For purposes of the 2019 RAM calculation, ADIT has been calculated on gross plant additions, consistent with the 2017 Test Year treatment and prior decoupling filings, however the Company is requesting treatment of CIAC in deferred tax to follow FERC accounting.

Summary

In summary, Hawaiian Electric prepared the 2019 annual decoupling filings in accordance with the historical treatment of CIAC. Historically, due to system constraints, CIAC records were not maintained with matching of the separate components (plant in service, CWIP, developer advances). As a result, the entire amount of CIAC was treated as a reduction to rate base and the Return on Investment was understated. As stated in Mr. Franklin’s T-12 direct testimony in Hawaii Electric Light’s 2019 Test Year rate case, the Companies propose to exclude the CIAC associated with CWIP in its calculation of rate base in the rate base RAM filings. Should the Commission approve Hawaii Electric Light’s proposal, Hawaiian Electric will implement this change in the annual decoupling filing in the year following the Commission’s approval.

**Hawaiian Electric Company, Inc.
Revenue Decoupling - Rate Base RAM
2018 Major Projects and Other Plant Additions, Net of CIAC**

NET CALCULATION

Grand parent	Project #	Project	Plant Addition Date	[1]	[2]	2018 Plant Additions, Net of CIAC				[3]	Over/(Under) Net PUC Approved (E) - (F)	Functional Plant Category	
				Net Plant Adds Thru 12/31/17	Total Project Cost	CIAC & Adjs	Net Project Cost	Net Plant Adds Thru 12/31/18	Net PUC Approved				
				(A)	(B)	(C)	(D) = (B) + (C)	(E) = (A) + (D)	(F)				
<u>2018 Major Projects</u>													
1	-	P0001370 DOT Airport DSG	2018 straggling	3,336,179	(3,516)	(96,602)	(100,118)	3,236,061	3,400,139	[3a]	(164,078)	Production Other	
2	-	P0002264 Pukele 80MVA Tsf #1	2018 straggling	3,846,733	-	-	-	3,846,733	3,846,733	[3a]	-	Transmission	
3	Y00038	(P0000783) Kakaako Makai-Iwilei 25kV DL	2018 straggling	7,243,799	-	-	-	7,243,799					
		(P0000672) Kakaako Makai-Kewalo 25kV DL	2018 straggling	5,023,851	-	-	-	5,023,851					
		(P0001579) Kakaako Makai DOT Queen-Cook	2018 straggling	1,969,969	-	-	-	1,969,969					
		PZ.000001		14,237,619				14,237,619	14,537,623	[3a]	(300,004)	Distribution	
4	Y00168	PZ.000003 (P0003205) ERP EAM Hardware	2018 straggling	2,604,146	-	-	-	2,604,146	2,590,000	[3b]	14,146	Computers	To Sch D1
5		PE.005155 Joint Pole Capital Transfer Price	201812	-	24,665,897	-	24,665,897	24,665,897	24,665,897	[3c]	-	Distribution	
<u>Other</u>													
6	-	PE.000104 (P0003465) Koolau-Wailupe #1 Str 30 P9 Replace	2018 straggling	2,684,387	13,203	-	13,203	2,697,590	2,555,619	[3d]	141,971	Transmission	To Sch D1
<u>Major Project Interim Recovery (MPIR) Projects</u>													
7	-	PZ.000016/ PZ001002 (P0001576) Schofield Generation Station	201806	-	144,743,542	-	144,743,542	144,743,542	-	[4]	144,743,542	Production Other	To Sch D1

[1] Transmittal No. 18-01 (Decoupling) - Hawaiian Electric Company RBA Rate Adjustment, HECO-WP-D2-001, filed on May 29, 2018.

[2] Hawaiian Electric Companies' *Exemption From and Modification of General Order No. 7 Paragraph No. 2.3(g), Relating to Capital Improvements Capital Projects Completed in 2018*, in Docket No. 03-0257, filed on March 27, 2019. See HECO-WP-D2-002.

[3] Per the *Final Decision & Order and Dissenting Opinion of Leslie H. Kondo, Commissioner*, filed on August 31, 2010, in Docket No. 2008-0274, on page 54, "for purposes of calculating the Rate Base for the RAM, the costs on Major Capital Projects shall be limited to those amounts most recently approved, e.g., when authorized in the commission's decision approving the HECO Companies' application in compliance with General Order No. 7 or in an interim or final decision and order issued by the commission in the HECO companies' rate cases."

[3a] Net PUC Approved amount was derived from the Hawaiian Electric 2017 Test Year Rate Case, filed in Docket No. 2016-0328, in response to CA-IR-303 and CA-IR-304 which updated 2016 Plant Additions and CIAC for actuals through December 31, 2016 and revised forecast for 2017. See calculation below:

	DOT Airport DSG			Pukele 80MVA Tsf #1			Kakaako Makai		
	Gross	CIAC	Net	Gross	CIAC	Net	Gross	CIAC	Net
Gross/Net Plant Adds Thru 12/31/16) - column [1]	5,235,178	(1,993,000)	3,242,178	3,839,121	-	3,839,121	18,338,808	(2,825,023)	15,513,785
2017 Plant Addition (CA-IR-303, Att 2)	157,961	-	157,961	7,612	-	7,612	(76,162)	-	(76,162)
2017 CIAC Estimate (CA-IR-304, Att 2)	-	-	-	-	-	-	-	(900,000)	(900,000)
Derived PUC Approved	5,393,139	(1,993,000)	3,400,139	3,846,733	-	3,846,733	18,262,646	(3,725,023)	14,537,623

[3b] Per Decision and Order No. 33861, page 4, Docket No. 2014-0170, For Approval of an Enterprise Resource Planning and Enterprise Asset Management System Implementation Project and Related Accounting Treatment, filed August 11, 2016.

[3c] Per Decision and Order No. 35768, Docket No. 2018-0075, For Approval of the Transfer of Equity Ownership Interest in Certain Joint Poles, to Commit Funds in Excess of \$2,500,000, Accounting and Ratemaking Treatment, Amendments to Joint Pole Agreements Between the Applicants, Asset Transfer Agreement, and Pole Licensing Agreement, file October 16, 2018. The Commission approved the acquisition of Hawaiian Telcom's joint pole equity ownership shares, valued at \$47,970,092, of which \$24,665,897 was related to Hawaiian Electric.

[3d] In the 2017 Fourth Quarter Capital Projects Status Report filed on February 28, 2018, Hawaiian Electric identified that the project costs had unexpectedly exceeded \$2,500,000 and provided an explanation for the higher costs. Project cost is limited for rate base RAM recovery to the amount identified in Hawaiian Electric's response to CA-IR-303, Attachment 2, page 3 of 7), filed in Docket No. 2016-0328, Hawaiian Electric 2017 Test Year Rate Case.

[4] Project to be recovered through the MPIR mechanism and therefore the entire project will be removed from the RAM Revenue Adjustment Calculation. See Notice Transmittal to Update Target Revenue for Schofield Generating Station through the Major Project Interim Recovery Adjustment Recovery Mechanism, filed February 7, 2019, Transmittal No. 19-01 effective January 1, 2019. MPIR Recovery calculated at the Schedule L series.

2018 General Order No. 7 (GO7) Report Summary

Plant Additions

Projects	2018 Plant Addition (1)
Less than \$2.5M	189,284,505
Greater than \$2.5M	169,419,126
Total Plant Additions - Gross	358,703,631
	To Sch D2, line 1
Less: Major Project additions in 2018	
DOT Airport DSG	3,516
Koolau-Wailupe #1 Str 30 P9 Replace	(13,203)
Schofield Generation Station	(144,743,542)
Joint Pole Transfer Price	(24,665,897)
	(169,419,126)
Baseline Plant Additions - Gross	189,284,505

(1) Source: Hawaiian Electric Companies' Exemption From and Modification General Order No. 7 Paragraph No. 2.3(g), Relating to Capital Improvements Capital Projects Completed in 2018, in Docket No. 03-0257 filed on March 27, 2019.

Hawaiian Electric Company, Inc.
CIAC Reconciliation
As of December 31, 2018

Line No.	Description (a)	Reference (b)	CIAC, Including Developer Advances (c)
1	12/31/17 Balance	5/29/18 Decoupling, Sch G1	(366,100,380)
2	Exclude: Non-Utility CIAC		618,464
3	Add: Developer Advances		(33,883,949)
4	12/31/17 Balance - Utility CIAC		(399,365,865)
5	9/30/18 Balance	GL #271	(378,238,665)
6	Exclude: Non-Utility CIAC	Line 2	618,464
7	Add: Developer Advances	GL #2520300	(34,163,852)
8	9/30/18 Balance - Utility CIAC	Line 4 + Line 5	(411,784,053)
9	CIAC Change Thru 9/30/18 - Utility	Line 6 - Line 3	(12,418,188)
10	Add Back: 2018 CIAC Amortization thru 9/30/18	5/29/18 Decoupling, Sch G3 (8,818,605 x 9/12)	8,818,605 (6,613,954)
11	CIAC Additions Thru 9/30/18		(19,032,141)
12	<u>Oct to Dec 2018 Activity</u>		
13	CIAC-Cash Tax	GL #60005200	(6,435,124)
14	CIAC-Cash Non-Tax	GL #60005201	(831,921)
15	CIAC-Settlement	GL #60050221	174,515
16	CIAC-In-Kind	GL #60005206	(3,443,756)
17			(10,536,286)
18	2018 CIAC Additions, included within Plant in Service, CWIP, Developer Advances		(29,568,427) To Sch D2

Purpose:

Starting October 1, 2018, the Company adopted FERC guidelines resulting in CIAC being netted with Plant via Plant Additions or CWIP. This workpaper calculates the 2018 CIAC additions by summing the CIAC activity from January 1 to September 30, 2018 (per Ellipse) with the CIAC activity from October 1 to December 31, 2018 (per SAP and Powerplan WBS) for inclusion in the Baseline Plant Additions calculation at Schedule D2. Beginning with calendar year 2019, Baseline Plant Additions will be shown net of CIAC.

Note 1:

See HECO-WP-D1-001 for documentation on the treatment of CIAC in the 2019 Decoupling Filing.

EXCERPT: Transmittal 18-01, Schedule G1, filed 5/29/18.

SCHEDULE G1
PAGE 1 OF 1**HAWAIIAN ELECTRIC COMPANY, INC.**
DECOUPLING CALCULATION WORKBOOK
BASELINE CAPITAL PROJECTS CIAC ADDITIONS**Source of CIAC balance and amort.: December Monthly Reports filed (non-confidential basis) with the PUC dated:**

Line No.	Description (a)		2/21/2014	2/26/2015	2/23/2016	2/24/2017	3/1/2018
			2013 (b)	2014 (c)	2015 (d)	2016 (e)	2017 (f)
1	CIAC Balance, January 1 (Dec Rpt. pg. 10)		(238,510,104)	(258,084,169)	(283,739,660)	(319,727,698)	(348,444,542)
2	Less: Non-Utility CIAC	NOTE (3)				618,464	618,464
3	Adjusted CIAC Balance, January 1		(238,510,104)	(258,084,169)	(283,739,660)	(319,109,234)	(347,826,078)
4	Less: CIAC Amortization (Dec Rpt. pg. 2)		5,652,912	6,147,559	6,771,148	7,597,437	8,309,481
5	CIAC Balance, December 31 (Dec Rpt. pg. 10)		258,084,169	283,739,660	319,727,698	348,444,542	366,100,380
6	Less: Non-Utility CIAC	NOTE (3)			(618,464)	(618,464)	(618,464)
7	Adjusted CIAC Balance, December 31		258,084,169	283,739,660	319,109,234	347,826,078	365,481,916
8	Total Adjusted CIAC Additions	(Sum Line 3, 4 & 7)	25,226,977	31,803,050	42,140,722	36,314,281	25,965,319
9	Add Developer Advances:	NOTE (4)	-	-	-	-	33,883,949
19	Total Adjusted CIAC & Developer Advance Additions		25,226,977	31,803,050	42,140,722	36,314,281	59,849,268
20	<u>Less Major Projects:</u>	<u>Dkt No.</u> <u>Item No.</u>					
21							
22	<u>2008 In-service:</u>						
23	CIP Generating Unit	05-0145 Y49000					
24							
25	<u>2010 In-service:</u>						
26	K3 Biofuel Co-Firing	2009-0155 P0001577					
27							
28	<u>2011 In-Service:</u>						
29	W8 Boiler Controls Upgrade	2007-0365 P7650000					
30	EOTF Ph. 2 (Subs/Switch Stations)	2010-0062 Y48500	(87,994)	(43,725)	(15,232)	(718)	
31	W7 Controls Upgrade	2009-0195 P7590000					
32	W8 Main Transformer Replace	P0001399					
33							
34	<u>2012 In-Service:</u>						
35	K1 Condenser Tube Replace	2010-0126 P0000681					
36	BPT Tank 132 Improvements	2010-0286 P0000899					
37	Mobile Radio Replacement	2010-0162 P0001595					
38	Kapolei Substation	2011-0026 Y00127					
39							
40	<u>2013 In-Service:</u>						
41	Pukele 80MVA Tsf #3	2011-0156 P0001494					
42	Kakaako Makai-Iwilei 25kV DL	2009-0042 Y00038					
43	Kaloi Substation - Land - NOTE (2)	2008-0070 Y00119					
44	North South Road 46kV Line	2008-0070 Y00119					
45							
46	<u>2014 In-Service:</u>						
47	Kaloi Substation	2008-0070 Y00119					
48	Kaloi Sub 46kV & 12kV Distr	2008-0070 Y00119					
49	Kaloi Telecomm	2008-0070 Y00119					
50	Kaloi Sub 12kV Work	2008-0070 Y00119					
51	Kakaako Makai-Kewalo 25kV DL	2009-0042 Y00038					
52	Kakaako Makai DOT Queen-Cook	2009-0042 Y00038				(2,825,023)	
53	BPT Tank 133 Improvements	2010-0318 P0000900					
54	Pukele 80MVA Tsf #2	2011-0156 P0001492					
55	DOT Airport DSG	2008-0329 P0001370					
56							
57	<u>2016 In-Service:</u>						
58	Pukele 80MVA Tsf #1	2011-0156 P0002264					
59							
60	<u>2017 In-Service:</u>						
61	ERP EAM Hardware	2014-0170 Y00168					
62							
63	Total Net CIAC & Developer Advance Additions		25,138,983	31,759,325	42,125,490	33,488,540	59,849,268
64							
65	Last Five-Year Average						38,472,321
							To Sch G

Schedule D2

Schedule D2

(2,825,023) Schedule D2

NOTE (1): The CIAC amounts of the major projects are reflected in the year that they were received. In previous Decoupling filings these amounts were from the respective year's GO7 plant addition annual reports which reports the CIAC in the year the project closed to plant. In the past, the total CIAC additions, which reflect actual contributions received in the year, may not have included the total major project CIAC from the GO7 report to the extent that the CIAC was received in advance, or in multiple payments over a span of more than one year. Source: UI Planner files: Actuals Scenario.

NOTE (2): CIAC received for this project was not reflected in the 2012 and 2013 Decoupling filings as previous filings reported the CIAC amounts of the major projects from the respective year's GO7 plant addition annual report which reports the CIAC in the year the project closed to plant. See GENERAL NOTE.

NOTE (3): Adjustment to remove non-utility project related CIAC from the general ledger balance. Chapin UG Duct Line is a non-utility asset. It is a contributed asset that was given to the Company. It is not being used and there are currently no plans to use it. See Schedule G3, Line 96. Adjusted CIAC Additions for 2016 was corrected to exclude the non-utility plant balance from the beginning balance.

NOTE (4): In 2017, the Company reclassified the portion of CIAC for projects where the cash balance received was in excess of total incurred costs since the project agreements include provisions which allow for instances that unapplied funds received in advance would be subject to refunds. The true-up provision allows for any excess funds not expended to be refunded back to the developer. Furthermore, between the timing of the cash receipt to the project completion date, the project could be terminated, which would then result in refund of the unapplied funds. See below for a reconciliation of the Customer Advance balance at December 31, 2017:

Customer Advance (#25200000)	4,239,163
Developer Advances (#25203000)	33,883,949
Customer Advances	38,123,112

SOURCE: HECO Monthly Financial Report - December 2017, page 10, filed March 1, 2018.

The unapplied developer funds received in advance (Developer Advances) are excluded from the CIAC balance subject to amortization until they are reclassified to CIAC as costs are incurred. Developer Advances are included in the calculation of the Last Five-Year Average because they represent funds received in advance and are expected to be reclassified to CIAC as costs are incurred in the current year. Developer advances were also included in the Unamortized CIAC balance (See "Average Rate Base" from HECO Decision and Order No 35280, filed 2/9/2018 of Docket No. 2016-0328).

Hawaiian Electric Company
2019 Plant Additions Net of CIAC - Major Projects Support

Grand-parent	Project	Functional Category	Plant Addition Date	Net PUC Approved [1]	Net Plant Adds thru 12/31/18 [2]	2019 Net Plant Additions [3]	2019 CIAC Additions [3]	2019 Net Project Costs <i>F = D + E</i>	Estimated Net Plant Adds thru 12/31/19 <i>G = C + F</i>	Over/ (Under) Net PUC Approved <i>H = A - G</i>	2019 Net Plant Addition Qualifying for RB RAM (Note A)
				<i>A</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F = D + E</i>	<i>G = C + F</i>	<i>H = A - G</i>	
	PE.000209 (P0003975): AES-CEIP #2 138kV OH Trans Line Relocation	Transmission ≥69kV	2019/02	3,007,232 [1a]	-	4,091,987		4,091,987	4,091,987	1,084,755	3,007,232
	PG.000005/PZ.001001 (P0003966): West Loch Utility Scale PV	Production-Photovoltaic	2019/05	62,400,000 [1b]	-	52,128,000		52,128,000	52,128,000	(10,272,000)	52,128,000
	PZ.000015 (P0000974, P0003977): Ala Wai Canal 46kV Relocation	Transmission <69kV	2019/06	13,910,207 [1c]	-	20,300,268		20,300,268	20,300,268	6,390,061	13,910,207
Y00038	P0000672: Kakaako Makai-Kewalo 25kV DL		2014/04	7,243,799	7,243,799						
	P0000783: Kakaako Makai-Iwilei 25kV DL		2013/07	5,023,851	5,023,851						
	P0001579: Kakaako Makai DOT Queen-Cook		2014/04	1,969,969	1,969,969						
		Distribution		14,237,619 [1d]	14,237,619	-	(22,683)	(22,683)	14,214,936	(22,683)	(22,683)
											69,022,756
											To Sch D3

NOTE A: Amount qualifying for 2019 rate base RAM recovery is limited to the lower of the net plant addition (column D) or the net PUC approved amount (column A). In the case of straggling costs, the amount qualifying for 2019 rate base RAM recovery is limited to the lower of the 2019 net plant addition (column D) or the remaining unused balance of the net PUC approved amount.

[1] Per the Final Decision & Order and Dissenting Opinion of Leslie H. Kondo, Commissioner, filed on August 31, 2010, in Docket No. 2008-0274, on page 54, "for purposes of calculating the Rate Base for the RAM, the costs on Major Capital Projects shall be limited to those amounts most recently approved, e.g., when authorized in the commission's decision approving the HECO Companies' application in compliance with General Order No. 7 or in an interim or final decision and order issued by the commission in the HECO companies' rate cases."

[1a] Decision and Order No. 35312 in Docket No. 2016-0439, For Approval to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the P0003975 - AES-CEIP 2 138 kV Overhead Transmission Line Relocation Project, filed March 2, 2018.

[1b] Decision and Order No. 34676 in Docket No. 2016-0342, For Approval of Waiver from the Framework for Competitive Bidding and to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the Purchase and Installation of Item P0003966 - West Loch PV Project, filed June 30, 2017.

[1c] Decision and Order No. 34788 in Docket No. 2016-0416, For Approval to Commit Funds in Excess of \$2,500,000 for Item P0000974, Ala Wai Canal 46 kV Underground Line Construction and Item P0003977, Ala Wai Canal Easement Acquisition and Related Requests, filed September 1, 2017.

[1d] See HECO-WP-D2-001, Note [3a].

[2] Source: HECO-WP-D2-001.

[3] Source: UIPlanner Budget files. Forecast as of February 15, 2019.

HAWAIIAN ELECTRIC CO., INC.					
DEFERRED INCOME TAXES					
FEDERAL		DR / (CR)	DR / (CR)	DR / (CR)	
		HECO	HECO	HECO	
		FEDERAL	STATE	TOTAL	
DR / (CR)		LIABILITY	LIABILITY	LIABILITY	
LIAB	DESCRIPTION	12/31/2018	12/31/2018	12/31/2018	
28311	Unearned Lease	-	-	-	
28312	Accrued Vacation	(247,391.60)	(81,566.84)	(328,958.44)	
28313	Uncollectible Acct	365,876.81	111,502.91	477,379.72	
28314	Directors Def Comp	8,117.74	1,571.96	9,689.70	
28317	Discounted Work Comp	313,824.26	95,894.48	409,718.74	
28319	Cap to Construct (Cost of Removal)	71,429,406.70	21,769,003.09	93,198,409.79	
28321	Pension	(15.02)	0.31	(14.71)	
28323	Excess Benefit Plan	566,372.66	168,081.11	734,453.77	
28326	Def Exec Comp (Def EICP<IP)	35,031.69	10,677.39	45,709.08	
28327	Software (no APPRISE & e business	88,753.66	52,874.74	141,628.40	
28328	G/L ACRS Retirements	(12,405,681.27)	(4,236,659.06)	(16,642,340.33)	
28330	EICP	(358,728.30)	(125,497.81)	(484,226.11)	
28331	CIAC	20,071,371.03	10,206,246.04	30,277,617.07	
28332	Customer Advances	1,077,639.88	327,760.03	1,405,399.91	
28333	Capitalized Interest	9,984,224.16	3,836,301.98	13,820,526.14	
28335	Connection Fees	(9,611.91)	(8,444.14)	(18,056.05)	
28336	Nondeductible Interest	19,016.26	5,795.04	24,811.30	
28337	Supplemt Benefits - SERP	272,295.28	72,700.74	344,996.02	
28340	LTIP	822,110.82	250,548.14	1,072,658.96	
28341	Waipahu Baseyard Int	67,116.93	20,452.91	87,569.84	
28347	Waiau Water Well Pmts	79,910.90	24,369.66	104,280.56	
28350	Outage Loss Adj Exp	-	(24,509.00)	(24,509.00)	
28401	Genl/Auto (& Accidents)	248,241.27	75,654.04	323,895.31	
28403	CWIP Debt Transition	(160,324.76)	(48,863.15)	(209,187.91)	
28404	CWIP Equity Trans	(404,087.01)	(123,151.30)	(527,238.31)	
28405	Iolani Ct Plaza Sale	17,071.33	(6,033.56)	11,037.77	
28406	Kaonohi Sale	(22,651.01)	(6,942.61)	(29,593.62)	
28408	Plant Transition	(3,997,395.48)	(1,218,288.67)	(5,215,684.15)	
28409	CWIP Equity Net	(17,671,614.37)	(5,385,620.77)	(23,057,235.14)	
28410	CWIP Equity Grossup	(10,862,867.25)	(3,310,577.99)	(14,173,445.23)	
28411	CWIP Debt	(9,399,038.35)	(2,868,001.13)	(12,267,039.48)	
28412	Genl/Auto Liability - Legal	0.21	(2,428.89)	(2,428.68)	
28413	Post Retirement Ben	(875,563.84)	(246,873.67)	(1,122,437.51)	
28414	Reg Liab Federal ITC	172,357.16	53,366.18	225,723.34	
28418	IRP Costs	(25,223.69)	(8,107.96)	(33,331.65)	
28419	Reg Liab Excess 283	115,881.47	35,956.40	151,837.87	
28422	Miscellaneous	17,106.97	(16,969.99)	136.98	
28427	Prepaid Expenses	(915,615.83)	(279,043.26)	(1,194,659.09)	
28432	Coal Gasif Costs	-	(11,273.00)	(11,273.00)	
28434	EEO Claims	452.80	138.01	590.81	
28435	Rev Bond Differential	(106,539.65)	(32,468.74)	(139,008.39)	
28436	TIP/Rewards Programs	119,814.53	36,774.90	156,589.43	
28441	Sun Power	12,330.63	3,757.91	16,088.54	
28512	Revenue Bond Cost Amort.	(678,674.71)	(206,833.19)	(885,507.90)	
28514	Software (APPRISE only)	-	(22,551.00)	(22,551.00)	
28516	Honolulu Harbor Reserve	879,610.69	268,072.02	1,147,682.71	
28520	Deferred Comp - restricted stock	141,231.75	43,041.58	184,273.33	
28522	Perry reserve	64,996.20	19,808.00	84,804.20	
28526	Emissions Fees	331,750.98	101,105.19	432,856.17	
28530	AES Hawaii PPA	26,904.63	8,199.90	35,104.53	
28532	CIS Project	(48,966.54)	(14,316.02)	(63,282.56)	
28538	Rate Case Costs	(287,342.77)	(87,571.54)	(374,914.31)	
28542	QUIPS amortization	(140,608.50)	(42,852.44)	(183,460.94)	
28544	OPEB Exec Life	2,641,514.13	805,101.19	3,446,615.32	
28546	Percentage Repairs Allowance	(1,466,861.75)	(556,699.86)	(2,023,561.61)	
28548	Cap interest (D&T)	(2,603,450.33)	(1,054,919.70)	(3,658,370.03)	
28550	E-Business hardware	(19,730.68)	(8,206.93)	(27,937.61)	
28552	OMS project costs	262,187.44	81,204.84	343,392.28	
28558	Substation Land - Aiea	-	(2,073.65)	(2,073.65)	
28560	Solar tax credit	630.40	192.12	822.52	
28564	HR Suites project costs	(213,369.94)	(67,275.43)	(280,645.37)	
28568	Solar Saver Program	43,008.71	13,107.14	56,115.85	
28570	Pension Tracker	(18,456,906.96)	(5,624,946.08)	(24,081,853.04)	
28572	OPEB Tracker	1,198,564.16	365,276.00	1,563,840.16	
28580	Blue Earth reserve	(2,163.55)	(659.33)	(2,822.88)	
28584	RO Water Pipeline	215,900.82	65,798.23	281,699.05	
28590	Repairs Adjustment	(74,909,026.37)	(22,228,032.86)	(97,137,059.23)	
28592	Stimulus Funds	200.17	60.96	261.13	
28594	Budget System Replacement	(135,405.78)	(41,265.98)	(176,671.76)	
28596	EOTF interest / amort	(2,972.01)	(906.02)	(3,878.03)	
28598	CIP interest	(116,247.60)	(35,427.08)	(151,674.68)	
28600	ERP project costs	(1,035,960.90)	(315,721.84)	(1,351,682.74)	

HAWAIIAN ELECTRIC CO., INC.					
DEFERRED INCOME TAXES					
FEDERAL		DR / (CR)	DR / (CR)	DR / (CR)	
		HECO	HECO	HECO	
		FEDERAL	STATE	TOTAL	
DR / (CR)		LIABILITY	LIABILITY	LIABILITY	
LIAB	DESCRIPTION	12/31/2018	12/31/2018	12/31/2018	
28602	Reg Liab Federal PV/EV	192,541.81	58,679.74	251,221.54	
28604	IVR project costs	(174,366.73)	(53,140.93)	(227,507.66)	
28608	Franchise Tax	1,013,344.05	308,828.44	1,322,172.49	
28614	RBA revenues	(7,287,568.48)	(2,220,971.56)	(9,508,540.04)	
28618	NOL - charitable	(6,347.36)	-	(6,347.36)	
28620	G/L Lauula	8,240.41	(41.55)	8,198.86	
28626	Reg Asset - 2017 Excess-other	(3,312,656.78)	(5,623,166.16)	(8,935,822.94)	
28628	Reg Liab - 2017 Excess-other	7,289,541.76	6,835,162.29	14,124,704.06	
28630	Reg Liab - TRA revenues	965,858.79	294,357.59	1,260,216.38	
28632	PSC/PUC tax	5,781,313.48	1,761,927.88	7,543,241.36	
28634	Waianae Solar	1,774,655.94	540,848.68	2,315,504.62	
28636	HT joint pole unbilled	875,228.59	266,736.90	1,141,965.49	
AOCINQ	AOCI - NQ Pension	624,198.92	190,228.31	814,427.23	
AOCIOPEB	AOCI - OPEB Exec Life	(538,268.59)	(164,045.19)	(702,313.78)	
48000	FIN 48 tax	368,936.00	661,176.00	1,030,112.00	
48002	FIN 48 interest	41,253.93	12,572.63	53,826.56	
50000	Rounding	(709.37)	364.13	(345.24)	
FED ACCOUNT 283, excluding state ITC		(38,254,016.15)	(6,551,668.15)	(44,805,684.30)	
28310	State ITC	11,655,223.12	3,534,658.68	15,189,881.80	
TOTAL ACCOUNT 283		(26,598,793.02)	(3,017,009.47)	(29,615,802.50)	
28210000	Accelerated Depreciation	(252,669,067.47)	(48,604,627.78)	(301,273,695.25)	
28210100	Accel. Depr. - Excess	44,073,568.30	13,431,888.93	57,505,457.23	
28210200	Accel. Depr. - Deficit	(169,370.14)	(51,202.87)	(220,573.02)	
TOTAL ACCOUNT 282		(208,764,869.31)	(35,223,941.72)	(243,988,811.04)	To Sch D4
TOTAL DEF INCOME TAX - UTILITY		(235,363,662.34)	(38,240,951.20)	(273,604,613.53)	
28210300	Nonutility Depreciation	555,767.33	265,376.64	821,143.97	
28301001	Nonutility - Other	1,029,315.35	316,263.16	1,345,578.51	
28301002	RHI Tax Allocation	-	-	-	
28301003	UBC Tax Allocation	-	-	-	
50001	Rounding	(2.67)	-	(2.67)	
TOTAL DEF INCOME TAX - NONUTILITY		1,585,080.02	581,639.80	2,166,719.82	
TOTAL DEF INCOME TAX		(233,778,582.32)	(37,659,311.40)	(271,437,893.72)	
RATE BASE CALCULATION					
TOTAL ACCOUNT 283		(26,598,793.02)	(3,017,009.47)	(29,615,802.50)	
Less:					
28312	Accrued Vacation	(247,391.60)	(81,566.84)	(328,958.44)	
28313	Uncollectible Acct	365,876.81	111,502.91	477,379.72	
28314	Directors Def Comp	8,117.74	1,571.96	9,689.70	
28317	Discounted Work Comp	313,824.26	95,894.48	409,718.74	
28323	Excess Benefit Plan	566,372.66	168,081.11	734,453.77	
28326	Def Exec Comp (Def EICP<IP)	35,031.69	10,677.39	45,709.08	
28330	EICP	(358,728.30)	(125,497.81)	(484,226.11)	
28336	Nondeductible Interest	19,016.26	5,795.04	24,811.30	
28337	Supplemt Benefits - SERP	272,295.28	72,700.74	344,996.02	
28340	LTIP	822,110.82	250,548.14	1,072,658.96	
28341	Waipahu Baseyard Int	67,116.93	20,452.91	87,569.84	
28347	Waiau Water Well Pmts	79,910.90	24,369.66	104,280.56	
28350	Outage Loss Adj Exp	-	(24,509.00)	(24,509.00)	
28401	Genl/Auto (& Accidents)	248,241.27	75,654.04	323,895.31	
28412	Genl/Auto Liability - Legal	0.21	(2,428.89)	(2,428.68)	
28418	IRP Costs	(25,223.69)	(8,107.96)	(33,331.65)	
28422	Miscellaneous	17,106.97	(16,969.99)	136.98	
28434	EEO Claims	452.80	138.01	590.81	
28436	TIP/Rewards Programs	119,814.53	36,774.90	156,589.43	
28516	Honolulu Harbor Reserve	879,610.69	268,072.02	1,147,682.71	
28520	Deferred Comp - restricted stock	141,231.75	43,041.58	184,273.33	
28522	Perry reserve	64,996.20	19,808.00	84,804.20	
28538	Rate Case Costs	(287,342.77)	(87,571.54)	(374,914.31)	
28544	OPEB Exec Life	2,641,514.13	805,101.19	3,446,615.32	
28550	E-Business hardware	(19,730.68)	(8,206.93)	(27,937.61)	
28568	Solar Saver Program	43,008.71	13,107.14	56,115.85	

HAWAIIAN ELECTRIC CO., INC.					
DEFERRED INCOME TAXES					
FEDERAL		DR / (CR)	DR / (CR)	DR / (CR)	
		HECO	HECO	HECO	
		FEDERAL	STATE	TOTAL	
DR / (CR)		LIABILITY	LIABILITY	LIABILITY	
LIAB	DESCRIPTION	12/31/2018	12/31/2018	12/31/2018	
28580	Blue Earth reserve	(2,163.55)	(659.33)	(2,822.88)	
28600	ERP project costs	(1,035,960.90)	(315,721.84)	(1,351,682.74)	
28608	Franchise Tax	1,013,344.05	308,828.44	1,322,172.49	
28614	RBA revenues	(7,287,568.48)	(2,220,971.56)	(9,508,540.04)	
28618	NOL - charitable	(6,347.36)	-	(6,347.36)	
28630	Reg Liab - TRA revenues	965,858.79	294,357.59	1,260,216.38	
28632	PSC/PUC tax	5,781,313.48	1,761,927.88	7,543,241.36	
28634	Waianae Solar	1,774,655.94	540,848.68	2,315,504.62	
AOCINQ	AOCI - NQ Pension	624,198.92	190,228.31	814,427.23	
AOCIOPEB	AOCI - OPEB Exec Life	(538,268.59)	(164,045.19)	(702,313.78)	
48000	FIN 48 tax	368,936.00	661,176.00	1,030,112.00	
48002	FIN 48 interest	41,253.93	12,572.63	53,826.56	
	Adjustment for EOTP, CIS and CIP	(114,827.94)	(34,994.66)	(149,822.60)	
Total Exclusions		7,351,657.84	2,701,979.21	10,053,637.05	
Total 283 Deferred Taxes for Rate Base		(33,950,450.87)	(5,718,988.68)	(39,669,439.55)	To Sch D4
Total 282 Deferred Taxes for Rate Base		(208,764,869.31)	(35,223,941.72)	(243,988,811.04)	
TOTAL DEF INCOME TAX - RATE BASE		(242,715,320.18)	(40,942,930.41)	(283,658,250.59)	To Sch D4

HAWAIIAN ELECTRIC CO., INC.
ADIT ON EXCESS DEPRECIATION
DECEMBER 31, 2018

FEDERAL DEFERRED TAXES		ERP/EAM HARDWARE		KOOLAU- WAILUPE #1		TOTAL
	source					
1	State Tax Depreciation					
2	Book Depreciation		7,356	14,620	21,976	
3	Subtotal		(2,829)	(4,211)	(7,040)	
			4,527	10,409	14,936	
4	Effective Federal Tax Rate		19.7368%	19.7368%	19.7368%	
5	Federal Deferred Tax on State Depreciation		893	2,054	2,948	
6	Addback State Tax Depreciation		(4,527)	(10,409)	(14,936)	
7	Federal Tax Depreciation		10,751	71,941	82,692	
8	Book Depreciation		(2,829)	(4,211)	(7,040)	
9	Federal State Difference		3,395	57,321	60,716	
10	Tax Rate on Federal Only Adjustment		21%	21%	21%	
11	Federal Deferred Tax Adjustment		713	12,037	12,750	
12	Total Federal Deferred Taxes		1,606	14,091	15,698	
					to Sch D4	
STATE DEFERRED TAXES						
13	State Tax Depreciation					
14	Book Depreciation		7,356	14,620	21,976	
15	Subtotal		(2,829)	(4,211)	(7,040)	
			4,527	10,409	14,936	
16	Effective State Tax Rate		6.0150376%	6.0150376%	6.0150376%	
17	Total State Deferred Taxes		272	626	898	
					to Sch D4	
18	TOTAL DEFERRED TAXES		1,878	14,717	16,596	
			to Sch D1	to Sch D1	to Sch D4	

FEDERAL

HAWAII

PE000104	v2017	Koolau-Waiupe #1	2,684,387	2,555,619	128,768	Trans	20	0	4,829	9,296
	v2018	Koolau-Waiupe #1	13,203	-	13,203	Trans	20	0		495
Total			2,697,590	2,555,619	141,971					
Cumulative										

**HAWAIIAN ELECTRIC CO., INC.
EXCESS TAX DEPRECIATION
ERP/EAM HARDWARE**

Project No.	DIS	Description	Total Basis	Less PUC Approved Amt	Disallowed Costs	Plant Acct	Life	Bonus	2017	2018
FEDERAL										
P0003205	v2017	ERP/EAM Hardware	HECO-WP-D2-001 2,604,146	2,590,000	14,146	Computer	5	50	8,488	2,263
Total			2,604,146	2,590,000	14,146					
Cumulative										
			8,488	10,751	To page 1					
HAWAII										
P0003205	v2017	ERP/EAM Hardware	2,604,146	2,590,000	14,146	Computer	5	0	2,829	4,527
Total			2,604,146	2,590,000	14,146					
Cumulative										
			2,829	7,356	To page 1					

HAWAIIAN ELECTRIC CO., INC.
 MPIR ADIT - SCHOFIELD GENERATING STATION
 DECEMBER 31, 2018

	source	Tax Depreciation (page 2 of 5)	AFUDC (page 3 of 5)	Tax Cap Interest (page 3 of 5)	State ITC (page 3 of 5)	Removal (page 5 of 5)	2018 Total
FEDERAL DEFERRED TAXES							
1 State Book/Tax Difference		(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
2 Book Depreciation	HECO-WP-L-001						
3 Subtotal	Line 1 + Line 2	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
4 Effective Federal Tax Rate		19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%
5 Federal Def Tax on State Book/Tax Diff	Line 3 * Line 4	(1,353,254)	(2,361,501)	1,514,862	832,222	(36,513)	(1,404,184)
6 Addback State Book/Tax Difference	Line 3	6,856,503	11,964,962	(7,675,319)	(4,216,602)	185,002	7,114,546
7 Federal Book/Tax Difference		(6,856,502)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,545)
8 Book Depreciation	Line 2						
9 Federal State Difference	Line 6 + 7 + 8	1	-	-	-	-	1
10 Tax Rate on Federal Only Adjustment		21%	21%	21%	21%	21%	21%
11 Federal Deferred Tax Adjustment	Line 9 * Line 10	-	-	-	-	-	-
12 Total Federal Deferred Taxes	Line 5 + Line 11	(1,353,254)	(2,361,501)	1,514,862	832,222	(36,513)	(1,404,184)
							To Sch D4
STATE DEFERRED TAXES							
13 State Book/Tax Difference	Line 1	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
14 Book Depreciation	Line 2	-	-	-	-	-	-
15 Subtotal	Line 13 + Line 14	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
16 Effective State Tax Rate		6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%
17 Total State Deferred Taxes	Line 15 * Line 16	(412,421)	(719,697)	461,673	253,630	(11,128)	(427,943)
							To Sch D4
18 TOTAL DEFERRED TAXES	Line 12 + Line 17	(1,765,675)	(3,081,198)	1,976,535	1,085,852	(47,641)	(1,832,127)
							To Sch D4

HAWAIIAN ELECTRIC CO., INC.
TAX DEPRECIATION
SCHOFIELD GENERATION STATION

Project No.	Description	Book Basis	Less: AFUDC	Add: TCI	Tax Basis	Plant Acct	Life	Bonus	2018
FEDERAL									
P0001576	Schofield Generation Station	65,512,935	(5,393,539)	3,459,864	63,579,259	Oth Prod	15	0%	3,178,963
P0001576	Schofield Generation Station	65,512,935	(5,393,539)	3,459,864	63,579,259	Oth Prod	15	0%	3,178,963
P0001576	Schofield Generation Station	5,751,969	(522,427)	335,128	5,564,670	Trans	20	0%	208,675
P0001576	Schofield Generation Station	5,751,969	(522,427)	335,128	5,564,670	Trans	20	0%	208,675
P0001576	Schofield Generation Station	1,106,868	(66,514)	42,668	1,083,021	Comm	20	0%	40,613
P0001576	Schofield Generation Station	1,106,868	(66,514)	42,668	1,083,021	Comm	20	0%	40,613
Total		144,743,542	(11,964,962)	7,675,319	140,453,899				
Cumulative									

6,856,502

To page 1 of 5

HAWAII

P0001576	Schofield Generation Station	131,025,869	(10,787,079)	6,919,727	127,158,518	Oth Prod	15	0	6,357,926
P0001576	Schofield Generation Station	11,503,937	(1,044,854)	670,256	11,129,339	Trans	20	0	417,350
P0001576	Schofield Generation Station	2,213,736	(133,029)	85,336	2,166,043	Comm	20	0	81,227
Total		144,743,542	(11,964,962)	7,675,319	140,453,899				
Cumulative									

6,856,503

To page 1 of 5

Hawaiian Electric Company, Inc.
Breakdown of SGS Costs by Major Area
Actuals through December 2018

TOTAL PLANT ADDITIONS:	A	B	C	D	E=SUM(B:D)	F=A+E	
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	State ITC
Labor	2,293,428	1,712,982	305,919	741,234	2,760,135	5,053,564	
Materials	32,932,285	1,523,772	545,040	512,566	2,581,378	35,513,663	35,513,663
Vehicles	2,062	117,109	187	563	117,859	119,921	
Overheads	12,885,912	2,456,221	544,975	928,736	3,929,932	16,815,844	
AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962	
Outside Services-Construction	69,147,360	614,746	59,095	80,179	754,019	69,901,379	69,901,379
Outside Services-Other	2,550,389	1,421,977	621,195	348,999	2,392,171	4,942,560	
Other	427,354	-	4,296	-	4,296	431,650	
	131,025,869	8,549,966	2,213,736	2,953,971	13,717,673	144,743,542	
Amount subject to bonus (A)	50%	50%	50%	50%	50%	50%	105,415,043
	65,512,935	4,274,983	1,106,868	1,476,985	6,858,836	72,371,771	4%
							4,216,602
			5,751,969				To page 1 of 5
Tie out of TCI:							
AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962	To page 1 of 5
ratio - 5 year average	64.15%	64.15%	64.15%	64.15%	64.15%	64.15%	From page 4 of 5
TCI	6,919,727	451,065	85,336	219,191	755,592	7,675,319	To page 1 of 5
			670,256				

Source: Ellipse & SAP

(A) - At year end, no bonus depreciation was taken for Schofield Generation Station. See page 2 for tax depreciation calculation.

Hawaiian Electric Company, Inc.
Annual - TCI Closed to AFUDC Closed Ratio

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>5 Yr Ave</u>
TCI	3,820,695	4,825,860	4,299,588	4,056,549	5,041,274	22,043,966
AFUDC	5,511,275	7,365,025	6,668,924	6,540,575	8,278,273	34,364,072
Ratio	0.693251	0.655240	0.644720	0.620213	0.608977	0.641483

To page 3 of 5

Hawaiian Electric Company, Inc.
MPIR Removal Costs
Actuals Through December 31, 2018

Row Labels	Sum of amount
Labor	90,530
Materials	46
Overheads	94,426
Grand Total	185,002

To page 1 of 5

SOURCE: Ellipse & SAP

Hawaiian Electric Company, Inc.
2018 Major Projects Excess Cost, Net of CIAC

[1]	[1]		[2]	[1]					[1]	[2]	[1]	[3]	[2]	To Sch D1	
Grandparent # or Project #	Project	Date In Service	Net Plant Adds Thru 12/31/17 (A)	Net Plant Adds Thru 12/31/18 (B)	Plant Acct	Docket No 2010-0053 Depr Rate (C)	2018 Depr (D) = (A) * (C)	2019 Depr (E) = (B) * (C)	Net PUC Approved (F)	2017 Net Cost in Excess of Docket (G)	2018 Net Cost in Excess of Docket (H) = (B) - (F)	Prior Years Depr Related to Excess (I)	2018 Depr Related to Excess (J) = (G) / (A) * (D)	Cumulative Depr Related to Excess (K) = (I) + (J)	2019 Depr Related to Excess (L) = (H) / (B) * (E)
PZ.000003/ (P0003205)	ERP EAM Hardware	2017/06	2,604,146	2,604,146	391.1	0.20000	520,829	520,829	2,590,000	14,146	14,146	-	2,829	2,829	2,829
PE.000104 (P0003465)	Koolau-Waiupe #1 Str 30 P9 Replace	2017/07	2,684,387	2,697,590	356	0.03270	87,779	88,211	2,555,619	128,768	141,971	-	4,211	4,211	4,642
PZ.000016/ PZ001002 (P0001576)	Schofield Generation Station - Note [4]	2018/06	-	142,147,612	343	0.03260	-	4,634,012							
			-	2,003,490	352	0.01600	-	32,056							
			-	352,190	353	0.01860	-	6,551							
			-	240,250	397	0.06670	-	16,025							
			-	144,743,542				4,688,643	-	-	144,743,542	-	-	-	4,688,643

[1] Source: HECO-WP-D2-001

[2] Source: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric Company RBA Rate Adjustment, HECO-WP-E-001, filed on May 29, 2018.

[3] Source: Transmittal No. 18-01 (Decoupling) - RBA Rate Adjustment (Filed May 29, 2018), HECO-WP-E-001, column (L), "Cumulative Depr Related to Excess".

[4] The Schofield Generation Station project is recovered via the Major Project Interim Recovery (MPIR) mechanism at the Schedule L series. As such, the entire project related costs will be excluded from all Decoupling calculations.

Hawaiian Electric Company
Calculation of Composite Effective Income Tax Rates
Federal and State

Composite Federal and State Effective Income Tax Rate

	<u>Eff 1/1/2018</u>	<u>2017 & Prior</u>
Federal Effective Income Tax Rate	19.7368421%	32.8947368%
State Effective Income Tax Rate	6.0150376%	6.0150376%
	<u>25.7518797%</u>	<u>38.9097744%</u>

Calculation of Effective Rates

Assumptions:

ST = State Income Tax Expense

FT = Federal Income Tax Expense

Pre-Tax Income = \$1.00

	<u>Eff 1/1/2018</u>	<u>2017 & Prior</u>
--	---------------------	-------------------------

State Statutory Income Tax Rate*	6.4%	6.4%
----------------------------------	------	------

Federal Statutory Income Tax Rate**	21.0%	35.0%
-------------------------------------	-------	-------

Calculation of State Effective Income Tax Rate

State Income Tax Expense = Statutory Rate x (Pre-Tax Income - State Income Tax Expense)

ST = .064 x (1 - ST)

ST = .064 - .064(ST)

1.064(ST) = .064

ST = .060150376 or 6.0150376% of Pre-Tax Income

Calculation of Federal Effective Income Tax Rate

Federal Income Tax Expense = Statutory Rate x (Pre-Tax Income - State Income Tax Expense)

Effective 1/1/18

FT = .21 x (1 - ST)

FT = .21 x (1 - .060150376)

FT = .21 - .01263157896

FT = .197368421 or 19.7368421% of Pre-Tax Income

2017 & Prior

FT = .35 x (1 - ST)

FT = .35 x (1 - .060150376)

FT = .35 - .01263157896

FT = .328947368 or 32.8947368% of Pre-Tax Income

* Hawaii Revised Statutes §235.71 was amended for tax years beginning after 1986.

** The Tax Cuts and Jobs Act changed the Federal tax rate for tax years ending after December 31, 2017.

HAWAIIAN ELECTRIC COMPANY, INC.
TAX REPAIRS ADJUSTMENT
2018

			A	B	C = A x B	D = A - C
		HECO-WP- F1-002 5 YR LIFE AVERAGE	Plant Adds	HECO-WP- F1-001, pg 2 Repairs Allocation	Repairs Deduction	Depreciable Basis
Computers/PV	5	6,092				
Communication	20	5,920				
Off/Furn/Tools	7	5,022				
Distribution	20	130,472	130,472,000	19.67%	25,659,352	104,812,648
Land	-	816				
Non-Steam Production	15	3,713	3,713,000	0.04%	1,582	3,711,418
Steam Production	20	22,905	22,905,000	28.28%	6,477,859	16,427,141
Structural	39	3,265				
Transmission	20	21,834	21,834,000	4.49%	980,382	20,853,618
Transmission	15	34,674	34,674,000	4.49%	1,556,918	33,117,082
Vehicles	-	5,209				
TOTAL		<u>239,922</u>	<u>213,598,000</u>		<u>34,676,093</u>	<u>178,921,907</u>
					To Sch F1	

NOTE 1> This schedule computes the estimated amount of deductible tax repairs related to the baseline plant additions for the RAM year. The deductible tax repairs amounts are carried forward to Schedule F1 and serve to reduce the depreciable tax basis for the baseline plant additions. The repairs percentages (Column B) are calculated on HECO-WP-F1-001, page 2.

NOTE 2> The numbers (excluding %s) are rounded to the nearest thousand.

HAWAIIAN ELECTRIC COMPANY, INC.
REPAIRS DEDUCTION

		Distribution	Non Steam	Steam	Transmission
Repairs %:					
Total book basis repairs					
2014		40,010,784		8,698,003	1,620,540
2015		28,855,969		8,823,262	3,152,508
2016		19,906,067		6,512,311	2,697,168
2017		24,350,324	71,857	5,491,680	4,271,225
2018		23,503,387		4,894,363	1,396,139
		136,626,531	71,857	34,419,619	13,137,580
Total book basis adds					
2014	HECO-WP-F1-002	139,366,000	12,311,000	30,119,000	57,957,000
2015	HECO-WP-F1-002	150,513,000	5,613,000	25,823,000	48,871,000
2016	HECO-WP-F1-002	117,566,000	268,000	24,812,000	79,269,000
2017	HECO-WP-F1-002	147,966,000	1,658,000	22,867,000	73,183,000
2018	HECO-WP-F1-002	139,304,000	148,783,000	18,083,000	33,306,000
		694,715,000	168,633,000	121,704,000	292,586,000
AVERAGE %		19.666558%	0.042611%	28.281420%	4.490160%

NOTE 1> With the assistance of Price Waterhouse Coopers, the repairs deduction analysis was performed in 2010, 2012, 2015 and 2016 in connection with changing HECO's method of identifying deductible repairs for tax accounting purposes. The repairs percentage for each functional group represents the five year weighted average of the identified repairs costs.

NOTE 2> The numbers (excluding %s) are rounded to the nearest thousand.

HAWAIIAN ELECTRIC COMPANY, INC.
BASELINE PLANT ADDS

		LESS: MAJOR								%
	LIFE	2014	2015	2016	2017	2018	PROJECTS	TOTAL	AVERAGE	AVERAGE
Computers/PV	5	6,681	8,980	5,219	7,587	4,596	(2,604)	30,459	6,092	2.54%
Communication	20	5,340	5,183	5,870	7,349	6,611	(754)	29,599	5,920	2.47%
Off/Furn/Tools	7	8,242	4,315	2,964	5,204	4,384		25,109	5,022	2.09%
Distribution	20	139,366	150,513	117,566	147,966	139,304	(42,353)	652,362	130,472	54.38%
Land	-	1,729	1,233	11	262	847		4,082	816	0.34%
Non-Steam Production	15	12,311	5,613	268	1,658	148,783	(150,069)	18,564	3,713	1.55%
Steam Production	20	30,119	25,823	24,812	22,867	18,083	(7,178)	114,526	22,905	9.55%
Structural	39	2,899	5,468	1,647	5,217	1,092		16,323	3,265	1.36%
Transmission	20	13,295	21,461	38,676	29,442	8,994	(2,698)	109,170	21,834	9.10%
Transmission > 69kv	15	44,662	27,410	40,593	43,741	24,312	(7,349)	173,369	34,674	14.45%
		57,957	48,871	79,269	73,183	33,306	(10,047)	282,539	56,508	23.55%
Vehicles	-	4,682	10,540	3,665	5,460	1,697		26,044	5,209	2.17%
TOTAL		269,326	266,539	241,291	276,753	358,703	(213,005)	1,199,607	239,921	100.00%

To WP-F1-001

HAWAIIAN ELECTRIC CO., INC.
PRORATION ADJUSTMENT FOR NORMALIZATION COMPLIANCE
FEDERAL ADIT DR/(CR)

ADIT account 282 --		Federal ADIT													
Federal accelerated depreciation		DR/(CR)	January	February	March	April	May	June	July	August	September	October	November	December	
Beginning balance	Sch D4	(208,749,171)													
Federal Tax Depreciation	Sch F	(20,239,341)													
Effective Federal Tax Rate		19.7368%													
Net ADIT accrued 2019		(3,994,598)													
Monthly Accrued evenly over 12 months		(332,883)													
WITHOUT PRORATION		Beg of Yr	January	February	March	April	May	June	July	August	September	October	November	December	End of Yr
Federal 282 ADIT Balance		(208,749,171)													
Monthly Additions			(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(3,994,598)
Cumulative Balance		(208,749,171)	(209,082,054)	(209,414,937)	(209,747,821)	(210,080,704)	(210,413,587)	(210,746,470)	(211,079,353)	(211,412,237)	(211,745,120)	(212,078,003)	(212,410,886)	(212,743,769)	(212,743,769)
Simple Year Average - Without Proration															(210,746,470)
WITH PRORATION															
Days new rates in effect	6/1/2019	214													
Prorated additions			(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(287,773)	(239,551)	(191,330)	(144,664)	(96,443)	(49,777)	(1,556)	(2,675,510)
Cumulative ADIT balance with proration		(208,749,171)	(209,082,054)	(209,414,937)	(209,747,821)	(210,080,704)	(210,413,587)	(210,701,360)	(210,940,911)	(211,132,241)	(211,276,905)	(211,373,348)	(211,423,125)	(211,424,681)	(211,424,681)
Simple Year Average - With Proration															(210,086,926)
Adjustment to rate base ADIT															659,544
															To Schedule F
Days new rate in effect			335	307	276	246	215	185	154	123	93	62	32	1	
Days in the month			31	28	31	30	31	30	31	31	30	31	30	31	365

Note: Methodology based on IRS Private Letter Ruling 9313008

HAWAIIAN ELECTRIC COMPANY, INC.
AVERAGE RATE BASE AND RATE OF RETURN
(\$ Thousands)

RATE BASE	Month-End		REFERENCE
	Dec 2017	Dec 2018	
INVESTMENTS IN ASSETS SERVING CUSTOMERS			
NET COST OF PLANT IN SERVICE			
Total Utility Plant	3,330,923	3,523,249	Note 2
Adjustments:			
Construction Work in Progress	(245,995)	(550,571)	Note 2
Regulatory Asset - ARO	-	331	GL#18670151
Asset Retirement Obligation	(2,539)	(4,780)	GL#25301000
Regulatory Liability for Cost of Removal	(327,225)	(356,926)	GL#25400001
Plant - Tenant Allowance	(14,058)	(14,132)	GL#10100002
Acc Amort - Tenant Allowance	8,662	9,824	GL#11160000
Unbilled Pole Credits	-	(4,435)	within GL#25300000
	2,749,768	2,602,560	Note 1
FUEL INVENTORY	64,972	54,262	Note 2
MATERIALS & SUPPLIES INVENTORIES (excl Stores Expense)	26,517	27,953	GL#90154000, Note 2
UNAMORT NET ASC 740 REG ASSET	78,576	77,465	ADIT Tax Sch
PENSION TRACKING REG ASSET	115,531	96,993	GL#18676040
OPEB TRACKING REG ASSET	3,112	-	GL#18677040
PENION NON-SERVICE COST REG ASSET	-	883	GL#18676045
EOTP REG ASSET	89	20	GL#18670124/5/6
CIP CT-1 REG ASSET	1,352	795	GL#18670120/21/22
DEFERRED SYSTEM DEVELOPMENT COSTS			
OMS	746	445	GL#18607004
HR Suites-Phase 1	1,307	951	GL#18606004
HR Suites-Phase 2	512	384	GL#18606104
Budget System Replacement Project	885	739	GL#18607704
IVR	1,000	883	GL#18670400
CIS	9,046	7,827	Acctg Dept Amort Sch
	13,496	11,229	
RO WATER PIPELINE REG ASSET	4,842	4,725	GL#18670152
CONTRIB IN EXCESS OF NPPC	2,240	-	GL#18676030
TOTAL INVESTMENTS IN ASSETS	3,060,495	2,876,885	
FUNDS FROM NON-INVESTORS			
UNAMORTIZED CIAC	365,482	30,110	Note 5
CUSTOMER ADVANCES			
Customer Advances	4,239	6,392	GL#25200000
Developer Advances	33,884	21,345	Note 3
	38,123	27,737	
CUSTOMER DEPOSITS	11,113	10,409	GL#23501000
ACCUMULATED DEF INCOME TAXES	283,136	283,659	Schedule D4
EXCESS ACCUMULATED DEF INCOME TAXES	278,582	278,156	GL#25400023/24, Note 4
UNAMORTIZED ITC (GROSS)	57,594	58,897	GL#25520000/20004
UNAMORTIZED FEDERAL EV CREDIT	750	724	GL#25503000
UNAMORTIZED GAIN ON SALE	182	116	GL#25400101/02/09
PENSION TRACKING REG LIAB	-	3,478	GL#25400004
OPEB TRACKING REG LIAB	5,443	1,858	GL#25400002
TOTAL DEDUCTIONS	1,040,405	695,144	
WORKING CASH	7,068	11,027	HECO-WP-H-008
RATE BASE	2,027,158	2,192,768	
SIMPLE AVERAGE RATE BASE		2,109,963	To Schedule H

Footnotes:

- * Amounts may not add up due to rounding.
- 1 Includes Property Held for Future Use balance of \$0 for 2018 and 2017.
- 2 See Hawaiian Electric Company Inc. Monthly Financial Report - December 2018, filed February 28, 2019.
Note that Materials & Supplies Inventory include an adjustment of (\$1,116) and (\$1,489) representing payment lags in 2017 and 2018, respectively.
- 3 The Company reclassified cash received from Developers, subject to refund, to Customer Advances. Amount has been isolated for greater transparency within the rate base calculation. See further discussion at Schedule G.
- 4 As a result of the 2017 Tax Reform Act, Regulatory Liability accounts were created to isolate the impact of the 2017 excess accumulated deferred taxes effective in actuals as of December 2017. These Regulatory Liabilities have been included as a reduction to Rate Base. Deferred tax asset related to excess accumulated deferred taxes is included in Unamortized Net ASC 740 Reg Asset.
- 5 For 2018, CIAC is netted with Plant In Service, CWIP and Developer Advances, resulting from the Company's transition to FERC treatment in October 2018. See further discussion of the Company's treatment of CIAC at HECO-WP-D1-001.

HAWAIIAN ELECTRIC COMPANY, INC.
Ratemaking Adjustments For Incentive Compensation And Other Non-Recoverable Expenses
2018

Line	Account/Order No.	Description	2018	Tax @ 25.75%	Net of Tax	Rounded (000s)
1	<u>Executive Compensation and Incentive Compensation</u>					
2	70025/26/#60003110	LTIP and EICP expense	(a) 3,310,738			
3	70027/ #60004000	Other incentive awards	828,135			
4	Provided by HEI	HEI charges for incentive compensation	(a) 692,751			
5	Non-Executive Incentive Wksht	Non-executive incentive programs	(a) 457,781			
6	70028/ #60003110	Manager award plan	(a) 195,785			
7			5,485,190	1,412,540	4,072,650	4,073
						To Sch H, Line 2A
8	<u>Discretionary and Other Expenses Not Recoverable</u>					
9	#60004009	Executive life insurance(COLI) expense (credit) - <i>not tax deduct</i>	(442,516)			
10	Provided by HEI	EEL Dues (allowed portion) - <i>not tax deduct</i>	47,722			
11	70014/ #60004034	OPEB (Executive life portion only)	440,216			
12	70016	HEIRS	7,902			
13	Provided by HEI	HEI charges for non-incentive comp (salaries/benefits - Executives (labor)	(a) 524,810			
14	Provided by HEI	HEI charges for outside services (plan admin, legal fees, audit fees) - Executives (non-labor)	74,279			
15	70014/24/ #60004035/36	Non-qualified pension expense	475,342			
16	#60018015	Payroll taxes related to incentive compensation	173,390			
17	70011/70012	Service awards program	63,045			
18	Various	Community service admin - AUW (labor)	(a) 90,346			
19	50100	Community service admin - AUW (non-labor)	99,926			
20			1,554,462	501,970	1,052,492	1,052
						To Sch H, Line 2B
21	Total Adjustment to Operating Income		<u>7,039,652</u>	<u>1,914,510</u>	<u>5,125,142</u>	
				To HECO-WP-H-008, Pg 1		
		Labor	Σ(a) 5,272,211	To HECO-WP-H-008, Pg 1		
		Non-labor	1,767,441	To HECO-WP-H-008, Pg 1		
		Total adjustment to operating income	<u>7,039,652</u>			

HAWAIIAN ELECTRIC COMPANY, INC.
Income Tax On Items To Be Replaced By Synchronized Interest
2018

	<u>Source</u>	<u>YTD</u>	<u>Rounded (000s)</u>
Total Interest Charges	GL# RONE70	52,180,277	
Remove: RBA Interest Income	GL# 41900002	776,680	
Less: Int on Customer Deposits	GL# 60016050	(631,778)	
AFUDC-Debt	GL# RONE69	(4,018,998)	
Amort of Inv Inc Differential	within GL# 60001010	184,971	185 To Sch H, Line 2C
Equity in net income of trust	GL# 42107000	<u>(100,516)</u>	
		48,390,636	
	Tax rate	<u>25.75%</u>	
		<u><u>12,460,589</u></u>	(12,461) To Sch H, Line 2D

HAWAIIAN ELECTRIC COMPANY, INC.
Ratemaking Capitalization
2018

	Simple Average Balance*	Ratios	Cost Rate	Weighted Cost of Debt
Short-Term Debt	88,868	3.68%	2.54%	0.09%
Long-Term Debt	939,810	38.92%	5.03%	1.96%
Hybrid Securities	28,758	1.19%	7.16%	0.09%
Preferred Stock	21,192	0.88%	5.36%	0.05%
Common Equity	1,335,921	55.33%	9.50%	5.26%
	2,414,549	100.00%		7.45%

	NARUC/ GL Code	YTD Dec 2018	Rounded (000s)	Cost Rate
<u>Short-Term Debt:</u>				
Interest on Debt Assoc Co	60016060/61	2,108,154		
Less: Interest on QUIDS	QUIDS (see below)	(2,050,516)		
Int Exp-Commercial Paper	within 60016100	2,305,290		
Int Exp-SCF Loans		0		
Int Inc-Assoc Cos.	41908000	(176,391)		
Int Exp-Short Term	within 60016000	69,531		
		2,256,068	2,256	2.54%
<u>Long-Term Debt:</u>				
Amort of Debt Disc & Exp	60002100	1,641,364		
Less: Hybrid Sec Amort of Iss Exp	see a below	(109,414)		
Interest on Long-Term Debt	60016000	45,646,755		
Less: Int Exp-Short Term	see above	(69,531)		
Amort Inv Inc Differential	within 60001010	184,970		
		47,294,144	47,294	5.03%
<u>Hybrid Securities:</u>				
Interest on QUIDS	60016060	2,050,516		
Amort Exp-QUID1 Iss Exp	within 60002100	40,416		
Amort Exp-QUID2 Iss Exp	within 60002100	37,899		
Amort Exp-QUID3 Iss Exp	within 60002100	31,099		
Equity in Net Inc of Trust	42107000	(100,516)		
		2,059,414	2,059	7.16%
<u>Preferred Stock:</u>				
Amort of Pfd Stk Iss Exp	60002000	55,086		
Preferred Stock dividends	60016500	1,079,907		
		1,134,993	1,135	5.36%

* Short-Term Debt based on a 12 month average.

HAWAIIAN ELECTRIC COMPANY, INC.
Special Medical Needs Program Discount (net of tax)
2018
Amounts in (\$000s)

Special Medical Needs Program Discount	151	
Revenue Taxes @ 8.885%	<u>(13)</u>	
	138	
Income Taxes @ 25.75%	<u>(35)</u>	
Reduction to operating income	<u><u>102</u></u>	To Sch H, Line 2e

Source: CIS Special Medical Needs (SMN) report

HAWAIIAN ELECTRIC COMPANY, INC.
Performance Incentive Mechanism
2018
Amounts in (\$000s)

Gross (Reward) / Penalty Amount	GL#25400030	532	
Revenue Taxes @ 8.885%		(47)	
		<u>485</u>	
Income Taxes @ 25.75%		(125)	
Reduction to operating income		<u><u>360</u></u>	To Sch H, Line 2f

Note:

Subsequent to the December 2018 financial close, Hawaiian Electric revised its PIMS Regulatory Liability of \$531,871 to \$1,269,311 as shown at Schedule M (revised 05-20-19). The recorded PIMS Regulatory Liability balance of \$531,871 as of 12/31/18 was used to determine the 2018 Earnings Sharing Calculations at Schedule H.

The Company made adjustments to PIMS Regulatory Asset and Liability balances with the February and March 2019 financial closes.

HAWAIIAN ELECTRIC COMPANY, INC.**Final Test Year Refund****2018****Amounts in (\$000s)**

2017 Test Year Rate Case Final D&O Refund	Note 1	48	
Revenue Taxes @ 8.885%		<u>(4)</u>	
		44	
Income Taxes @ 25.75%		<u>(11)</u>	
Reduction to operating income		<u>32</u>	To Sch H, Line 2g

Note 1:

2017 Final Test Year Rate Case Final D&O Refund calculation, filed in Docket No. 2016-0328 HECO Letter to the PUC, Exhibits 4 & 5, filed on July 23, 2018, and approved in Order No. 35661, filed August 30, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
WORKING CASH
2018

Line	Working Cash Items A	2018 B	(Note 1) Net Collection Lag Days C		Amount D = B/365xC
1	Fuel	523,706	B1	19.1	27,405
2	Purchased Power	494,450	B2	-5.4	(7,315)
3	O&M Labor	137,959	B3	25.5	9,638
4	O&M Non-Labor	165,521	B4	8.6	3,900
5	Revenue Taxes	160,276	B5	-50.9	(22,351)
6	Income Taxes	35,031	B6	-2.6	(250)
7	Working Cash				<u><u>11,027</u></u> To HECO-WP-H-001
8	Fuel Oil	B1 523,706	GL #90501000, 90547000, 90547100		
9	Purchased Power	B2 494,450	GL #90555000		
10	O&M Labor				
11	O&M Labor	145,473	Acct. Dept. O&M report		
12	Fuel O&M Labor	(2,242)	Acct. Dept. O&M report		
13	O&M Labor Excl Fuel Labor	143,231			
14	Disallowed O&M	(5,272)	HECO WP-H-002		
15	Total	B3 137,959			
16	O&M Non-Labor				
17	O&M Expense	1,333,535	PUC Monthly Report		
18	Less: Fuel Oil & PP Expense	(1,018,156)	Lines 8 + 9		
19	O&M Labor Excl Fuel Labor	(143,231)	(see O&M Labor Excl Fuel Labor above)		
20	Disallowed O&M Non-Labor	(1,767)	HECO WP-H-002		
21	Bad Debt Expense	(1,388)	GL #60010000		
22	Pension Reg Asset/Liab Amort	(11,456)	HECO WP-H-008 pg. 2		
23	OPEB Reg Asset/Liab Amort	376	↓ GL #60018000/001/015, 60019100, 60050001, 60050001/238/242/245/251, 70000010/20/30 GL #60016050		
24	System Develop Amort	(2,267)			
25	Other Deferred Projects Amort	(742)			
26	Payroll Taxes	9,985			
27	Interest on Customer Deposits	632			
28	Total	B4 165,521			
29	Revenue Taxes				
30	Franchise	44,708	GL #60017000		
31	PSC	106,518	GL #60017002		
32	PUC Fee	9,050	GL #60017001		
33	Total	B5 160,276			
34	Current Income Taxes				
35	Income Tax	32,067	Dec. 2018 PUC Monthly Report		
36	Inc Tax on Disallowed Items	1,915	HECO WP-H-002		
37	Reversal of Tax Related to Interest Sync Replacement	12,461	Sch H, Line 2d		
38	Tax Eff of AFUDC Equity	(3,189)	GL #60020060		
39	Income Tax Adjustments	3,404	HEI worksheet		
40	Tax Related to Int Sync	(11,627)	Sch H, Line 13 - 13a		
41	Total	B6 35,031			

Note 1: See Final Decision and Order No. 35545, For Approval of General Rate Case and Revised Schedules/Rules, filed on June 22, 2018 in Docket No. 2016-0328, Exhibit B, Page 2 of 2.

HAWAIIAN ELECTRIC COMPANY, INC.
O&M Non-Labor Amortization
2018

Pension Regulatory Asset Amortization

Standard Journal Entry No.			(TY17) - Note 1	Annual 2018	Rounded 000s
PAA202	PAA219	Total	O&M % Portion		
Jan 2018	Feb-Dec 2018		57.43%		
(45,851)	19,994,484	19,948,633	11,456,500	11,456,500	11,456 To Page 1

OPEB Regulatory Asset Amortization

Standard Journal Entry No.			(TY17) - Note 1	Annual 2018	Rounded 000s
PAA203	PAA220	Total	O&M % Portion		
Jan 2018	Feb-Dec 2018		57.43%		
(159,067)	(495,069)	(654,136)	(375,670)	(375,670)	(376) To Page 1

System Development Amortization

Standard Journal Entry No.						2018	Rounded
PAA109	PAA133	PAA143	PAA163	PAA195	PAA177		
18607004	18606004	18606104	18607704	18670400	18605005		
OMS	HR Suites	HR Suites	Budget Replace	IVR System	CIS		
	Phase 1	Phase 2		Replace			
300,940	356,462	127,940	145,469	116,500	1,219,715	2,267,026	2,267 To Page 1

Other Deferred Projects Amortization

Standard Journal Entry No.							Annual 2018	Rounded 000s
PAA166	PAA166	PAA166	PAA176	PAA176	PAA176	PAA132		
18670124	18670125	18670126	18670120	18670121	18670122	18670152		
EOTP	EOTP	EOTP	CIP CT-1	CIP CT-1	CIP CT-1	RO		
		AFUDC						
Depreciation	AFUDC Debt	Equity	Depreciation	AFUDC Debt	AFUDC Equity	Pipeline		
18,219	15,342	35,441	146,605	123,526	286,584	116,436	742,153	742 To Page 1

NOTE:

- 1 See Parties' Stipulated Settlement Letter, filed November 15, 2017, in Docket No. 2016-0328, HECO T-16 Attachment 4, page 1. Approved in Final Decision and Order No. 35545, filed on June 22, 2018.

HAWAIIAN ELECTRIC COMPANY, INC.
MONTHLY FINANCIAL REPORT
December 2018

TO THE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII
OPERATING INCOME BEFORE RATEMAKING ADJUSTMENTS TO BE USED FOR THE EARNINGS SHARING CALCULATION
(in thousands)

Page 2a

Operating income per Monthly Financial Report	138,084	*3
Less: Interest on Customer Deposits	(632)	
Add: Adjustment to federal income tax to offset the DPAD benefit recognized at MECO *2	66	
Add: Gain on Sale Amortization	66	*4
Operating income before ratemaking adjustments & synchronized interest - earnings sharing calculation	<u>137,585</u>	*1
Income Tax Adjustments	<u>(3,404)</u>	
Adjusted Operating income before ratemaking adjustments & synchronized interest - earnings sharing calculation	<u>134,181</u>	

To Sch H

*1 Amounts may not add up due to rounding.

*2 An adjustment made to offset the benefit of the Domestic Production Activities Deduction (DPAD) recognized on a standalone basis at Maui Electric Company, Ltd. (MECO) and excluded the impact from the operating income before ratemaking adjustments & synchronized interest for Hawaiian Electric Company. This adjustment was made to eliminate the impact of the MECO's tax benefit from the Hawaiian Electric Company consolidated net income, and therefore should not have any impact on a standalone basis at Hawaiian Electric Company.

*3 Starting October 2018, Operating Income per the Monthly Financial Report includes income tax on AFUDC Equity.

*4 Included within Other Income and added back for ratemaking purposes.

Note:

Included to support Operating Income on Schedule H since PUC Page 2a was excluded from the December 2018 Monthly PUC Report submitted on February 27, 2019.

Hawaiian Electric Company, Inc.
 Schofield Generating Station
 Plant Addition
 As of December 31, 2018

Utility Account	(Note 1) PUC Approved Accrual Rate	(Note 2) Balance at 12/31/18	Depreciation 2019	Allocation %	(Note 3) Subject to Cap	Depreciation 2019 (at Cap)
	a	b	c = a x b	d	e = d x Cap	f = a x e
343	0.03260	142,147,612	4,634,012	98.2%	139,030,987	4,532,410
352	0.01600	2,003,490	32,056	1.4%	1,959,563	31,353
353	0.01860	352,190	6,551	0.2%	344,468	6,407
397	0.06670	240,250	16,025	0.2%	234,983	15,673
		144,743,542	4,688,643	100.0%	141,570,000	4,585,844
					To Sch L1	To Sch L1

Source: SAP and Powerplan WBS.

Note 1:

Depreciation rates approved in Docket No. 2010-0053, Decision and Order, filed May 12, 2011.

Note 2:

See details at HECO-WP-D2-001.

Note 3:

Decision and Order No. 33178, p. 84-85, Docket No. 2014-0113, For Approval to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the Purchase and Installation of Item P0001576, Schofield Generating Station Project, filed 09/29/2015. The Commission approved a cap on the amount of the total costs that may be recovered through any cost recovery mechanism other than base rates at 90% of the \$167 million cap. The \$167 million cap shall further be adjusted downward due to a reduction in the foreign exchange rate.

In the Letter to Commission Re: Docket No. 2014-0113, Schofield Generating Station; Notification of Euro Exchange Rate and Adjusted Project Cap, filed 01/27/2016, the Company locked in the foreign exchange rate at \$1.0928/euro which adjusted the project cap down from \$167 million to \$157.3 million. Revised cap on the amount of total costs allowed to be recovered through any cost recovery mechanism other than base rates is \$141.57 million (\$157.3 million x 90%).

[illegible]

(1,540,061)
To Sch LI

HAWAIIAN ELECTRIC CO., INC.
TAX DEPRECIATION
SCHOFIELD GENERATION STATION

Project No.	Description	Book Basis	Less: AFUDC	Add: TCI	Tax Basis	Plant Acct	Life	Bonus	2018	2019	Net Book Value
FEDERAL											
P0001576	Schofield Generation Station	64,076,545	(5,275,285)	3,384,005	62,185,266	Oth Prod	15	50%	32,647,265	2,953,800	28,475,480
P0001576	Schofield Generation Station	64,076,545	(5,275,285)	3,384,005	62,185,266	Oth Prod	15	0%	3,109,263	5,907,600	55,059,682
P0001576	Schofield Generation Station	5,625,855	(510,973)	327,780	5,442,663	Trans	20	50%	2,823,381	196,453	2,606,021
P0001576	Schofield Generation Station	5,625,855	(510,973)	327,780	5,442,663	Trans	20	0%	204,100	392,906	5,028,849
P0001576	Schofield Generation Station	1,082,599	(65,056)	41,732	1,059,276	Comm	20	50%	549,499	38,235	494,865
P0001576	Schofield Generation Station	1,082,599	(65,056)	41,732	1,059,276	Comm	20	0%	39,723	76,469	966,407
Total		141,570,000	(11,702,627)	7,507,036	137,374,409						
Cumulative											
HAWAII											
P0001576	Schofield Generation Station	128,153,091	(10,550,569)	6,768,010	124,370,532	Oth Prod	15	0	6,218,527	11,815,201	110,119,363
P0001576	Schofield Generation Station	11,251,710	(1,021,945)	655,561	10,885,325	Trans	20	0	408,200	785,812	10,057,698
P0001576	Schofield Generation Station	2,165,199	(130,112)	83,465	2,118,551	Comm	20	0	79,446	152,938	1,932,815
Total		141,570,000	(11,702,627)	7,507,036	137,374,409						
Cumulative											
To page 1 of 5											

To page 1 of 5

To page 1 of 5

Hawaiian Electric Company, Inc.
Breakdown of SGS Costs by Major Area
Actuals through December 2018

TOTAL PLANT ADDITIONS:							(Note 1)	
	A	B	C	D	E=SUM(B:D)	F=A+E		
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	Allocation %	Subject to Cap
Labor	2,293,428	1,712,982	305,919	741,234	2,760,135	5,053,564	3.5%	4,942,763
Materials	32,932,285	1,523,772	545,040	512,566	2,581,378	35,513,663	24.5%	34,735,016
Vehicles	2,062	117,109	187	563	117,859	119,921	0.1%	117,292
Overheads	12,885,912	2,456,221	544,975	928,736	3,929,932	16,815,844	11.6%	16,447,152
AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962	8.3%	11,702,627
Outside Services-Construction	69,147,360	614,746	59,095	80,179	754,019	69,901,379	48.3%	68,368,772
Outside Services-Other	2,550,389	1,421,977	621,195	348,999	2,392,171	4,942,560	3.4%	4,834,193
Other	427,354	-	4,296	-	4,296	431,650	0.3%	422,186
	131,025,869	8,549,966	2,213,736	2,953,971	13,717,673	144,743,542	100.0%	141,570,000

BREAKDOWN SUBJECT TO (Note 1)							
	A1	B1	C1	D1	E1=SUM(B1:D1)	F1=A1+E1	
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	State ITC
Labor	2,243,144	1,675,424	299,212	724,982	2,699,618	4,942,763	
Materials	32,210,236	1,490,363	533,090	501,328	2,524,781	34,735,016	34,735,016
Vehicles	2,017	114,541	183	551	115,275	117,292	
Overheads	12,603,385	2,402,368	533,026	908,373	3,843,767	16,447,152	
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627	
Outside Services-Construction	67,631,285	601,267	57,799	78,421	737,487	68,368,772	68,368,772
Outside Services-Other	2,494,471	1,390,800	607,576	341,347	2,339,722	4,834,193	
Other	417,984	-	4,202	-	4,202	422,186	
	128,153,091	8,362,506	2,165,199	2,889,204	13,416,909	141,570,000	(Note 1)
Amount subject to bonus	50%	50%	50%	50%	50%	50%	103,103,789
	64,076,545	4,181,253	1,082,599	1,444,602	6,708,455	70,785,000	4%
			5,625,855				4,124,152
Tie out of TCI:							To page 1 of 5
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627	To page 1 of 5
ratio - 5 year average	64.15%	64.15%	64.15%	64.15%	64.15%	64.15%	From page 4 of 5
TCI	6,768,010	441,175	83,465	214,385	739,025	7,507,036	To page 1 of 5
			655,561				

Source: Ellipse & SAP

Note 1:

Allocated 12/31/18 Plant Addition subject to the cap of \$141.57M. See further discussion at HECO-WP-L1-001.

Hawaiian Electric Company, Inc.
Annual - TCI Closed to AFUDC Closed Ratio

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>5 Yr Ave</u>
TCI	3,820,695	4,825,860	4,299,588	4,056,549	5,041,274	22,043,966
AFUDC	5,511,275	7,365,025	6,668,924	6,540,575	8,278,273	34,364,072
Ratio	0.693251	0.655240	0.644720	0.620213	0.608977	0.641483

To page 3 of 5

Hawaiian Electric Company, Inc.
MPIR Removal Costs
Actuals Through December 31, 2018

Row Labels	Sum of amount
Labor	90,530
Materials	46
Overheads	94,426
Grand Total	185,002

To page 1 of 5

SOURCE: Ellipse & SAP

Schedule L exhibit, with additional supporting workpapers

Excerpt from Docket No. 2017-0213 - Schofield Generating Station Cost Recovery through the Major Project Interim Recovery Adjustment Mechanism Hawaiian Electric's Update of Target Revenues and Updated Responses to the Commission's Information Requests, filed July 18, 2018. Approved in Order No. 35647, issued August 15, 2018. Effective July 1, 2018. Pages 1 through 9.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description (a)	Reference (b)	Docket No. 2010-0080 Amounts (e)	Docket No. 2010-0080 Amounts (f)	Docket No. 2010-0080 Amounts (g)	Docket No. 2010-0080 Amounts (h)	Docket No. 2016-0328 Amounts (i)	Docket No. 2016-0328 Amounts (j)	Docket No. 2016-0328 Amounts (k)	Docket No. 2016-0328 Amounts (l)	Docket No. 2016-0328 Amounts (m)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note (1), (5), (7), (7a)	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,581,445	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (5)	\$ -	\$ -	\$ -	\$ -	\$ (5,000)	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (5)	\$ -	\$ -	\$ -	\$ -	\$ (6,000)	\$ -	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (1), (5), (7), (7a)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (1), (5), (7), (7a)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rates)	Note (1), (5), (7), (7a)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1...4	\$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (2)	\$ -	\$ -	\$ 101,131	\$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ (8,986)	\$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$ -	\$ -	\$ 92,146	\$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Authorized MPR Revenues	Schedule L	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net MPR Adjustment	Lines 12 + 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Less: EARNINGS SHARING REVENUE CREDITS	Note (2), (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
16	Less: Revenue Taxes on Line 15 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17	Net Earnings Sharing Revenue Credits	Lines 15 + 16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18	PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:	Note (2), (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total Annual Target Revenues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	June 1, 2017 Annualized Revenues w/RAM Increase	Col (d), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	February 16, 2018 Annualized Revenues w/interim increase	Col (d), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April 13, 2018 Annualized Revenues w/2nd interim increase	Col (d), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	June 1, 2018 Annualized Revenues w/RAM Increase	Col (d), lines (5+9+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	June 1, 2018 Annualized Revenues w/RAM Increase & MPR, eff 7/1/18	Col (f), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Distribution of Target Revenues by Month:										
26	January	Note (3)	2016	2017	2018	Note (6)	Note (6), (8)	Note (8)	2018	2018	2019
27	February	8.10%	\$48,009,623	\$48,009,623	\$48,948,443	\$22,450,132	\$22,450,132	\$22,450,132	\$22,450,132	\$22,450,132	\$22,450,132
28	March	7.26%	\$43,030,848	\$43,030,848	\$43,030,848	\$51,603,222	\$51,603,222	\$51,603,222	\$51,603,222	\$51,603,222	\$51,603,222
29	April	8.10%	\$48,009,623	\$48,009,623	\$48,009,623	\$20,335,492	\$20,335,492	\$20,335,492	\$20,335,492	\$20,335,492	\$20,335,492
30	May	7.84%	\$46,468,574	\$46,468,574	\$46,468,574	\$28,726,095	\$28,726,095	\$28,726,095	\$28,726,095	\$28,726,095	\$28,726,095
31	June	8.40%	\$50,024,842	\$50,024,842	\$50,024,842	\$50,386,658	\$50,386,658	\$50,386,658	\$50,386,658	\$50,386,658	\$50,386,658
32	July	8.07%	\$50,202,656	\$50,202,656	\$50,202,656	\$51,184,359	\$51,184,359	\$51,184,359	\$51,184,359	\$51,184,359	\$51,184,359
33	August	8.70%	\$51,980,780	\$51,980,780	\$51,980,780	\$52,997,265	\$52,997,265	\$52,997,265	\$52,997,265	\$52,997,265	\$52,997,265
34	September	9.04%	\$53,581,111	\$53,581,111	\$53,581,111	\$54,628,879	\$54,628,879	\$54,628,879	\$54,628,879	\$54,628,879	\$54,628,879
35	October	8.68%	\$51,447,350	\$51,447,350	\$51,447,350	\$52,453,393	\$52,453,393	\$52,453,393	\$52,453,393	\$52,453,393	\$52,453,393
36	November	8.78%	\$52,040,061	\$52,040,061	\$52,040,061	\$53,057,695	\$53,057,695	\$53,057,695	\$53,057,695	\$53,057,695	\$53,057,695
37	December	8.26%	\$48,957,962	\$48,957,962	\$48,957,962	\$49,915,326	\$49,915,326	\$49,915,326	\$49,915,326	\$49,915,326	\$49,915,326
38	Total Distributed Target Revenues	100.00%	\$357,167,892	\$357,167,892	\$357,167,892	\$357,167,892	\$357,167,892	\$357,167,892	\$357,167,892	\$357,167,892	\$357,167,892
39											

Footnotes:

- Docket No. 2010-0080 amounts derived from Order No. 30576, filed August 9, 2012, effective September 1, 2012, which implemented Decision and Order No. 30505, Exhibit A, page 1, filed June 28, 2012.
- Transmittal 17-02 filed March 31, 2017, establishing 2017 target revenue effective June 1, 2017.
- RBA Tariff Revised July 26, 2011 to reflect 2011 test year.
- RBA Tariff Effective February 16, 2018 to reflect 2017 test year.
- Test Year 2017 Interim Increase provided for in Interim Decision and Order 35100, issued December 15, 2017 in Docket No. 2016-0328.
- For the month of the initial implementation (Feb 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days: \$35,971
- Test Year 2017 2nd Interim Increase provided for in Order No. 35335, issued March 9, 2018 in Docket No. 2016-0328: 0.46429
- Reduction for tax Act Implementation Lag (March 2018 Settlement Tariff Sheets, Attachment 3, filed March 16, 2018, in accordance with Order No. 35335): -\$603
- For the month of the initial implementation (April 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days: -\$2,143
- Transmittal 18-01 filed May 28, 2018, establishing 2018 target revenue effective June 1, 2018. 0.60000

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
REVENUE REQUIREMENT AND DETERMINATION OF MAJOR PROJECT INTERIM RECOVERY
MPIR PROJECT
\$ in thousands

Line No.	Description (a)	Reference (b)	Recorded at 12/31/2017 (c)	Recorded at In Service Date (June 2018) (d)	Ending Balance as of 6/30/18 (e)	Average Balance (f)	MPIR (f)
Return on Investment							
1	Gross Plant in Service (not to exceed PUC approved amount)	HECO-WP-L-001	-	141,275	141,275	70,638	
2	Accum Depreciation	Schedule TBD	-	-	-	-	
3	Net Cost of Plant in Service		-	141,275	141,275	70,638	
4	Fuel Inventory - Avoided	Note 3	-	(1,534)	(1,534)	(767)	
5	M&S Inventory	Note 3	-	100	100	50	
6	Total Additions		-	(1,434)	(1,434)	(717)	
7	CIAC	Schedule TBD, if needed	-	-	-	-	
8	ADIT	HECO-WP-L-002	-	(8,689)	(8,689)	(4,344)	
9	State ITC	HECO-WP-L-002	-	(4,147)	(4,147)	(2,074)	
10	Total Deductions		-	(12,836)	(12,836)	(6,418)	
11	Total Rate Base		\$ -	\$ 127,005	\$ 127,005	63,502	
12	Average Rate Base					\$ 63,502	
13	Rate of Return (grossed-up for income taxes, before revenue taxes)	Note 4				9.47%	
14	Annualized Return on Investment (before revenue taxes)						\$ 6,014
15	Depreciation Expense (Note 1)	Schedule E				-	
16	Operating & Maintenance Expense	Note 2				-	
16a	Prior year reconciliation of O&M to actuals	Note 2				-	
17	Amortization of State ITC	see line 6				-	
18	Lease Rent Expense	Schedule TBD, if needed				-	
19	Other Expense	Schedule TBD, if needed				-	
20	Total Expenses					\$ -	
21	Total Major Project Interim Recovery					\$ 6,014	
22	Revenue Tax Factor (1/(1-8.885%))						1.0975
23	2019 Annualized Revenue for Major Project Interim Recovery					\$ 6,600.0	

To Sch B & B1

Reconciliation to Schedule B1 (Info Only)

Sum of Monthly Factors for Jul-Dec 2018	51.67%
Prorated MPIR for Year 1	\$ 3,410
Rev Tax Adj	\$ (303)
Prorated MPIR for Year 1 excl Rev Tax	\$ 3,107

Note 1: Depreciation expense is recorded beginning in the year after an asset is placed in service, therefore, depreciation expense is zero in year 1. The revenue requirement for year 2 and thereafter will include depreciation expense at existing, approved depreciation accrual rates at the time of filing.

Note 2: Per Order No. 35556, page 74, Docket No. 2017-0213, For Approval to Recover Costs for Schofield Generating Station through the Major Project Interim Recovery Adjustment Mechanism, filed on June 27, 2018. Total estimated annual O&M expense will be excluded from the MPIR calculation until an acceptable business case study has been reviewed and approved by the Commission.

Note 3: Difference in fuel inventory and difference in materials & supplies inventory derived from the "with Schofield" and "without Schofield" rate bases in the HECO 2017 test year rate cases. See Docket No. 2016-0328 HECO-3201 p. 3 and HECO-3203 p. 3.

Note 4: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric's RBA Rate Adjustment, Schedule D, filed May 29, 2018.

Hawaiian Electric Company, Inc.
 MPIR Plant Additions
 Actuals Through June 30, 2018

Indicator Code	NI
Row Labels	Sum of amount
150: Labor Cost	4,542,416
155: Labor True-up	284,309
201: Matl-Issues/Purchases	33,529,637
205: Matl-Purchasing Card	63,740
301: Vehicles	112,180
404: Energy Delivery	1,758,310
405: Power Supply	10,752,643
406: Corp Admin Expense	929,503
421: Non-Productive Wages	610,417
422: Employee Benefits	1,348,674
423: Payroll Taxes	403,436
430: AFUDC-Debt	3,260,337
431: AFUDC-Equity	8,704,625
501: Outside Svcs-General	1,461,336
502: Outside Svcs-Legal	177,774
503: Outside Svcs-TempHire	2,916
505: Outside Svcs-Constr	70,093,402
506: Outside Svcs-Engr	1,596,895
508: Outside Svcs-Environ	1,213,832
520: Mainland Travel	90,358
522: Interisland Travel	1,706
570: Rents	9,300
521: Meals	13,202
900: Fin Stmt Items	314,048
Grand Total	141,274,996

SOURCE: UIPlanner Actual Data

HAWAIIAN ELECTRIC CO., INC.
SCHOFIELD GENERATING STATION
DECEMBER 31, 2018 (Based on Actuals Through June 30, 2018)

FEDERAL DEFERRED TAXES		source	Tax Depreciation	AFUDC	Tax Cap Interest	State ITC	Removal	Total
1	State Book/Tax Difference							
2			(6,714,039)	(11,964,962)	7,673,560	4,147,471	(185,002)	(7,042,972)
3	Subtotal	Line 1 + Line 2	(6,714,039)	(11,964,962)	7,673,560	4,147,471	(185,002)	(7,042,972)
4	Effective Federal Tax Rate		19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%
5	Federal Def Tax on State Book/Tax Diff	Line 3 * Line 4	(1,325,136)	(2,361,501)	1,514,515	818,578	(36,513)	(1,390,057)
6	Addback State Book/Tax Difference	Line 3	6,714,039	11,964,962	(7,673,560)	(4,147,471)	185,002	7,042,972
7	Federal Book/Tax Difference	Line 2	(39,452,276)	(11,964,962)	7,673,560	4,147,471	(185,002)	(39,781,209)
8			-					
9	Federal State Difference	Line 6 + 7 + 8	(32,738,237)	-	-	-	-	(32,738,237)
10	Tax Rate on Federal Only Adjustment		21%	21%	21%	21%	21%	21%
11	Federal Deferred Tax Adjustment	Line 9 * Line 10	(6,875,030)	-	-	-	-	(6,875,030)
12	Total Federal Deferred Taxes	Line 5 + Line 11	(8,200,166)	(2,361,501)	1,514,515	818,578	(36,513)	(8,265,087)
STATE DEFERRED TAXES								
13	State Book/Tax Difference	Line 1	(6,714,039)	(11,964,962)	7,673,560	4,147,471	(185,002)	(7,042,972)
14		Line 2	-	-	-	-	-	-
15	Subtotal	Line 1 + Line 2	(6,714,039)	(11,964,962)	7,673,560	4,147,471	(185,002)	(7,042,972)
16	Effective State Tax Rate		6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%
17	Total State Deferred Taxes	Line 15 * Line 16	(403,852)	(719,697)	461,568	249,472	(11,128)	(423,637)
18	TOTAL DEFERRED TAXES	Line 12 + Line 17	(8,604,018)	(3,081,198)	1,976,083	1,068,050	(47,641)	(8,688,724)

HAWAIIAN ELECTRIC CO., INC.
TAX DEPRECIATION
SCHOFIELD GENERATION STATION
(Based on Actuals Through June 30, 2018)

Project No.	Description	Book Basis	Less: AFUDC	Add: TCI	Tax Basis	Plant Acct	Life	(Note 1) Bonus	2018	Net Book Value
FEDERAL										
P0001576	Schofield Generation Station	63,995,593	(5,393,539)	3,459,071	62,061,124	Oth Prod	15	50%	32,582,090	31,413,503
P0001576	Schofield Generation Station	63,995,593	(5,393,539)	3,459,071	62,061,124	Oth Prod	15	0%	3,103,056	60,892,537
P0001576	Schofield Generation Station	5,661,768	(180,733)	335,052	5,816,087	Trans	20	50%	3,017,095	2,644,673
P0001576	Schofield Generation Station	5,661,768	(180,733)	335,052	5,816,087	Trans	20	0%	218,103	5,443,665
P0001576	Schofield Generation Station	980,137	(66,514)	42,658	956,281	Comm	20	50%	496,071	484,066
P0001576	Schofield Generation Station	980,137	(66,514)	42,658	956,281	Comm	20	0%	35,861	944,276
Total		141,274,996	(11,281,574)	7,673,560	137,666,982				39,452,276	101,822,720
HAWAII										
P0001576	Schofield Generation Station	127,991,185	(10,787,079)	6,918,141	124,122,248	Oth Prod	15	0	6,206,112	121,785,073
P0001576	Schofield Generation Station	11,323,536	(361,466)	670,103	11,632,173	Trans	20	0	436,206	10,887,330
P0001576	Schofield Generation Station	1,960,274	(133,029)	85,316	1,912,561	Comm	20	0	71,721	1,888,553
Total		141,274,996	(11,281,574)	7,673,560	137,666,982				6,714,039	134,560,957

Note 1:

The Tax Technical Corrections Act of 2018 made changes to the phase down rules of §168(k) as it existed just prior to the enactment of the 2017 Tax Reform Act. These changes indicated that 50% bonus depreciation (under the old law) would apply to longer production period property that was pursuant to a written binding contract entered into prior to September 28, 2017 but placed into service in 2018. Based on this statutory revision, the current best assessment is that one-half of the Schofield project components should meet the written binding contract requirements and will be grandfathered under the old law, which allowed 50% bonus depreciation on public utility property. The Company continues to monitor the tax developments for further guidance.

Hawaiian Electric Company, Inc.
Breakdown of SGS Costs by Major Area
Actuals through June 2018

SOURCE: PUC-HECO-IR-7 (Update of CA-IR-19)

Row	Expense Element	A		B		C		D		E = SUM(B:D)		F = A + E	
		Oth Prod	Generating Station and Switchyard	Trans	46KV Line	Telecom	Wahiawa Substation	Trans	Interconnection	Total	Total Project	State ITC	
1	150: Labor Cost	2,036,413		1,505,621	301,845	698,537			2,506,003	4,542,416			
2	155: Labor True-up	99,413		1,505,621	(2,583)	37,744			184,896	284,309			
3	201: Matl-Issues/Purchases	31,024,176		1,466,766	543,716	494,978			2,505,461	33,529,637			
4	205: Matl-Purchasing Card	5,329		39,500	1,323	17,588			58,411	63,740			
5	301: Vehicles	1,213		110,407	-	560			110,967	112,180			
6	404: Energy Delivery	52,075		1,108,794	238,053	359,388			1,706,235	1,758,310			
7	405: Power Supply	10,442,252		190,953	36,356	83,082			310,392	10,752,643			
8	406: Corp Admin Expense	414,446		310,795	63,083	141,180			515,057	929,503			
9	421: Non-Productive Wages	265,486		210,398	43,543	90,990			344,931	610,417			
10	422: Employee Benefits	627,481		441,079	94,973	185,141			721,193	1,348,674			
11	423: Payroll Taxes	181,698		133,734	25,350	62,654			221,738	403,436			
12	430: AFUDC-Debt	2,940,954		190,052	36,432	92,899			319,383	3,260,337			
13	431: AFUDC-Equity	7,846,125		513,108	96,597	248,795			838,500	8,704,625			
14	501: Outside Svcs-General	453,275		775,828	169,466	62,767			1,008,061	1,461,336			
15	502: Outside Svcs-Legal	136,675		41,099	-	-			41,099	177,774			
16	503: Outside Svcs-Temp/Hire	2,916							-	2,916			
17	505: Outside Svcs-Constr	69,339,679		614,746	59,095	79,883			753,723	70,093,402			
18	506: Outside Svcs-Engr	483,431		580,122	248,729	284,614			1,113,464	1,596,895			
19	508: Outside Svcs-Environ	1,213,832							-	1,213,832			
20	520: Mainland Travel	86,254		-	4,104	-			4,104	90,358			
21	522: Interisland Travel	1,706							-	1,706			
22	570: Rents	9,300							-	9,300			
23	521: Meals	13,010		-	192	-			192	13,202			
24	900: Fin Stmt Items	314,048							-	314,048			
25	Grand Total	127,991,185		8,382,735	1,960,274	2,940,801			13,283,810	141,274,996			
	Bonus Depr	50%		50%	50%	50%							4%
	To Tax Depr	63,995,593		4,191,368	980,137	1,470,400							4%

Note 1: Project was placed into service on June 7, 2018.

Note 2: To arrive at direct costs per categories listed in PUC-HECO-IR-7 Attachment 2:

26	Grand Total per Row 25	127,991,185	8,382,735	1,960,274	2,940,801	13,283,810	141,274,996
27	Less: Overheads (rows 6, 7, 8, 9, 10, 11)	11,983,438	2,395,752	501,358	922,436	3,819,546	15,802,984
28	Less: AFUDC (rows 12, 13)	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962
29	Total Direct Costs by Major Area	105,220,669	5,283,823	1,325,887	1,676,671	8,286,381	113,507,050

Note 3

Note 3: Agrees to 'Total Generating Station' per PUC-HECO-IR-7 Attachment 2 row 5

Note 4: Agrees to 'Total Interconnection' per PUC-HECO-IR-7 Attachment 2 row 10 (minor difference in total for 46kV, Telecom, and Wahiawa Sub due to Project Management costs being allocated in Attachment 1 vs. not allocated in Attachment 2).

Note 5: Agrees to 'Subtotal Direct Costs' per PUC-HECO-IR-7 Attachment 2 row 11.

Tie out of TCI:

AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962
ratio - 5 year average	64.13%	64.13%	64.13%	64.13%	64.13%	64.13%
TCI	6,918,141	450,962	85,316	219,141	755,419	7,673,560

Hawaiian Electric Company, Inc.
Annual - TCI Closed to AFUDC Closed Ratio

	2013	2014	2015	2016	2017	5 Yr Ave
TCI	3,820,695	4,825,860	4,299,588	4,056,549	5,036,221	22,038,913
AFUDC	5,511,275	7,365,025	6,668,924	6,540,575	8,278,273	34,364,072
Ratio	0.693251	0.655240	0.644720	0.620213	0.608366	0.641336

Hawaiian Electric Company, Inc.
MPIR Removal Costs
Actuals Through June 30, 2018

Indicator Code	NR
Row Labels	Sum of amount
150: Labor Cost	83,369
155: Labor True-up	7,161
205: Matl-Purchasing Card	46
404: Energy Delivery	38,302
406: Corp Admin Expense	15,495
421: Non-Productive Wages	10,390
422: Employee Benefits	22,600
423: Payroll Taxes	7,639
Grand Total	185,002

SOURCE: UIPlanner Actual Data

Exhibit C

Updated Schedule L

Excerpt from Docket No. 2017-0213 - Schofield Generating Station MPIR Adjustment Mechanism Cost Recovery Request Hawaiian Electric's Business Case Analysis Supporting Net O&M Project Costs and Update of Target Revenues, filed September 6, 2018. Approved in Order No. 35953, issued December 14, 2018. Effective October 1, 2018.
Pages 10 through 13.

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
REVENUE REQUIREMENT AND DETERMINATION OF MAJOR PROJECT INTERIM RECOVERY
MPIR PROJECT
\$ in thousands

Line No.	Description (a)	Reference (b)	Recorded at 12/31/2017 (c)	Recorded at In Service Date (June 2018) (d)	Ending Balance as of 6/30/18 (e)	Average Balance (f)	MPIR (f)
	Return on Investment						
1	Gross Plant in Service (not to exceed PUC approved amount)	HECO-WP-L-001	-	141,275	141,275	70,638	
2	Accum Depreciation	Schedule TBD	-	-	-	-	
3	Net Cost of Plant in Service		-	141,275	141,275	70,638	
4	Fuel Inventory - Avoided	Note 3	-	(1,534)	(1,534)	(767)	
5	M&S Inventory	Note 3	-	100	100	50	
6	Total Additions		-	(1,434)	(1,434)	(717)	
7	CIAC	Schedule TBD, if needed	-	-	-	-	
8	ADIT	HECO-WP-L-002	-	(8,689)	(8,689)	(4,344)	
9	State ITC	HECO-WP-L-002	-	(4,147)	(4,147)	(2,074)	
10	Total Deductions		-	(12,836)	(12,836)	(6,418)	
11	Total Rate Base		\$ -	\$ 127,005	\$ 127,005	63,502	
12	Average Rate Base					\$ 63,502	
13	Rate of Return (grossed-up for income taxes, before revenue taxes)	Note 4				9.47%	
14	Annualized Return on Investment (before revenue taxes)						\$ 6,014
15	Depreciation Expense (Note 1)	Schedule E				-	
16	Operating & Maintenance Expense	Note 2				1,787	
16a	Prior year reconciliation of O&M to actuals	Note 2				-	
17	Amortization of State ITC	see line 6				-	
18	Lease Rent Expense	Schedule TBD, if needed				-	
19	Other Expense	Schedule TBD, if needed				-	
20	Total Expenses						\$ 1,787
21	Total Major Project Interim Recovery						\$ 7,801
22	Revenue Tax Factor (1/(1-8.885%))						1.0975
23	Annualized Revenue for Major Project Interim Recovery						\$ 8,561.2

To Sch B & B1

Reconciliation to Schedule B1 (Info Only)	
Sum of Monthly Factors for Jul-Dec 2018	51.67%
Prorated MPIR for Year 1	\$ 4,424
Rev Tax Adj	\$ (393)
Prorated MPIR for Year 1 excl Rev Tax	\$ 4,031

Note 1: Depreciation expense is recorded beginning in the year after an asset is placed in service, therefore, depreciation expense is zero in year 1. The revenue requirement for year 2 and thereafter will include depreciation expense at existing, approved depreciation accrual rates at the time of filing.

Note 2: Total O&M expense is estimated to cost \$1.787 million annually for year 1 (\$2.087 million annually during the interim period thereafter), as referenced within Attachment 1 - SGS Business Case Revenue Requirement Update.

Note 3: Difference in fuel inventory and difference in materials & supplies inventory derived from the "with Schofield" and "without Schofield" rate bases in the HECO 2017 test year rate cases. See Docket No. 2016-0328 HECO-3201 p. 3 and HECO-3203 p. 3.

Note 4: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric's RBA Rate Adjustment, Schedule D, filed May 29, 2018.

Exhibit D

Updated Schedule B1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description (a)	Reference (b)	Docket No. 2010-0080 Amounts (e)	Docket No. 2010-0080 Amounts (f)	Docket No. 2010-0080 Amounts (g)	Docket No. 2010-0080 Amounts (h)	Docket No. 2016-0328 Amounts (i)	Docket No. 2016-0328 Amounts (j)	Docket No. 2016-0328 Amounts (k)	Docket No. 2016-0328 Amounts (l)	Docket No. 2016-0328 Amounts (m)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note (1), (5), (7), (7a)	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (5)					\$ (5,000)	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (5)					\$ (6,000)	\$ -	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (1), (5), (7), (7a)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (1), (5), (7), (7a)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rates)		\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (139,534)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1..4	\$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (2)	\$ -	\$ -	\$ 101,131	\$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ (8,986)	\$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$ -	\$ -	\$ 92,146	\$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Authorized MPRI Revenues	Schedule L	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%	Lines 12 + 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net MPRI Adjustment		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Less: EARNINGS SHARING REVENUE CREDITS	Note (2), (9)	\$ -	\$ -	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ -
16	Less: Revenue Taxes on Line 15 at 8.885%		\$ -	\$ -	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ -
17	Net Earnings Sharing Revenue Credits	Lines 15 + 16	\$ -	\$ -	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ -
18	PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:	Note (2), (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total Annual Target Revenues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	June 1, 2017 Annualized Revenues w/ RAM Increase	Col (g), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	February 16, 2018 Annualized Revenues w/ Interim Increase	Col (i), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April 13, 2018 Annualized Revenues w/ 2nd Interim Increase	Col (j), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	June 1, 2018 Annualized Revenues w/ RAM Increase	Col (k), lines (5+9+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	June 1, 2018 Annualized Revenues w/ RAM Increase & MPRI eff 7/1/18	Col (l), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Distribution of Target Revenues by Month:										
26	January	Note (3)	\$48,009,623	\$48,009,623	\$48,009,623	\$48,009,623	\$22,450,132	\$22,450,132	\$22,450,132	\$22,450,132	\$22,450,132
27	February	8.10%	\$43,030,848	\$43,030,848	\$43,030,848	\$43,030,848	\$51,603,222	\$51,603,222	\$51,603,222	\$51,603,222	\$51,603,222
28	March	7.26%	\$48,009,623	\$48,009,623	\$48,009,623	\$48,009,623	\$28,726,095	\$28,726,095	\$28,726,095	\$28,726,095	\$28,726,095
29	April	8.10%	\$46,468,574	\$46,468,574	\$46,468,574	\$46,468,574	\$50,396,658	\$50,396,658	\$50,396,658	\$50,396,658	\$50,396,658
30	May	7.98%	\$50,024,842	\$50,024,842	\$50,024,842	\$50,024,842	\$51,184,359	\$51,184,359	\$51,184,359	\$51,184,359	\$51,184,359
31	June	8.40%	\$50,202,656	\$50,202,656	\$50,202,656	\$50,202,656	\$52,957,265	\$52,957,265	\$52,957,265	\$52,957,265	\$52,957,265
32	July	8.07%	\$51,980,790	\$51,980,790	\$51,980,790	\$51,980,790	\$54,628,979	\$54,628,979	\$54,628,979	\$54,628,979	\$54,628,979
33	August	8.77%	\$53,581,111	\$53,581,111	\$53,581,111	\$53,581,111	\$52,453,393	\$52,453,393	\$52,453,393	\$52,453,393	\$52,453,393
34	September	9.04%	\$51,447,350	\$51,447,350	\$51,447,350	\$51,447,350	\$53,057,696	\$53,057,696	\$53,057,696	\$53,057,696	\$53,057,696
35	October	8.68%	\$52,040,061	\$52,040,061	\$52,040,061	\$52,040,061	\$49,915,326	\$49,915,326	\$49,915,326	\$49,915,326	\$49,915,326
36	November	8.78%	\$48,967,962	\$48,967,962	\$48,967,962	\$48,967,962	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243
37	December	8.26%	\$357,167,892	\$357,167,892	\$357,167,892	\$357,167,892	\$72,451,465	\$72,451,465	\$72,451,465	\$72,451,465	\$72,451,465
38	Total Distributed Target Revenues	100.00%	\$235,543,510	\$235,543,510	\$235,543,510	\$235,543,510	\$94,388,846	\$94,388,846	\$94,388,846	\$94,388,846	\$94,388,846
39											

Footnotes:

- Docket No. 2010-0080 amounts derived from Order No. 30576, filed August 9, 2012, effective September 1, 2012, which implemented Decision and Order No. 30505, Exhibit A, page 1, filed June 29, 2012.
- Transmittal 17-02 filed March 31, 2017, establishing 2017 target revenue effective June 1, 2017.
- RBA Tariff Revised July 26, 2011, to reflect 2011 test year.
- RBA Tariff Effective February 16, 2018 to reflect 2017 test year.
- Test Year 2017 Interim Increase provided for in Interim Decision and Order 35100, issued December 15, 2017 in Docket No. 2016-0328.
- For the month of the initial implementation (Feb 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days.
- Test Year 2017 2nd Interim Increase provided for in Order No. 35335, issued March 9, 2018 in Docket No. 2016-0328.
- Reduction for Tax Act Implementation Lag (March 2018 Settlement Tariff Sheets, Attachment 3, filed March 16, 2018, in accordance with Order No. 35335).
- For the month of the initial implementation (April 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days.
- Transmittal 18-01 filed May 29, 2018, establishing 2018 target revenue effective June 1, 2018.

\$35,971
0.46429
-\$603
-\$2,143
0.60000

\$000s
\$000s
\$000s
\$000s

\$50,808,650
\$47,086,404
\$50,250,313
\$49,505,864
\$52,111,435

\$53,972,558
\$55,461,456
\$53,682,371
\$54,841,062
\$51,242,912

\$320,547,365

\$620,374

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\$620,374

\$620,374

ATTACHMENT 1

Schedule B1, Schedule L and Supporting Workpapers

HAWAIIAN ELECTRIC COMPANY, INC.

Excerpt from Transmittal No. 19-01 - Notice Transmittal to Update Target Revenue for Schofield Generating Station through the Major Project Interim Recovery Adjustment Mechanism, filed February 7, 2019 and effective January 1, 2019.
Pages 14 through 22.

SCHEDULE B1
(REVISED 02/07/19)
PAGE 1 OF 1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description (a)	Reference (b)	Docket No. 2010-0080 Amounts (e)	Docket No. 2010-0080 Amounts (f)	Docket No. 2010-0080 Amounts (g)	Docket No. 2010-0080 Amounts (h)	Docket No. 2016-0328 Amounts (i)	Docket No. 2016-0328 Amounts (j)	Docket No. 2016-0328 Amounts (k)	Docket No. 2016-0328 Amounts (l)	Docket No. 2016-0328 Amounts (m)	Docket No. 2016-0328 Amounts (n)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note (1), (5), (7), (7a)	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,581,445	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (5)	\$ -	\$ -	\$ -	\$ -	\$ (5,000)	\$ -	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (5)	\$ -	\$ -	\$ -	\$ -	\$ (6,000)	\$ -	\$ -	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (1), (5), (7), (7a)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (1), (5), (7), (7a)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rates)	Note (1), (5), (7), (7a)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (139,534)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1..4	\$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (2)	\$ -	\$ -	\$ 101,131	\$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%	Lines 6 + 7	\$ -	\$ -	\$ (8,986)	\$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6		\$ -	\$ -	\$ 92,146	\$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Less: Revenue Taxes on Line 9 at 8.885%	Lines 9 + 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Authorized MPIR Revenues	Schedule L	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%	Lines 12 + 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net MPIR Adjustment		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Less: EARNINGS SHARING REVENUE CREDITS	Note (2), (9)	\$ -	\$ -	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ -	\$ -	\$ -	\$ -
16	Less: Revenue Taxes on Line 15 at 8.885%	Lines 15 + 16	\$ -	\$ -	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ -	\$ -	\$ -	\$ -
17	Net Earnings Sharing Revenue Credits		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18	PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:	Note (2), (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total Annual Target Revenues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	June 1, 2017 Annualized Revenues w/RAM Increase	Col (g), lines (5+8+17+18)	\$ -	\$ 604,302	\$ -	\$ 604,302	\$ 637,077	\$ 599,960	\$ 612,574	\$ 618,587	\$ 620,374	\$ 630,624
21	February 16, 2018 Annualized Revenues w/Interim Increase	Col (i), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April 13, 2018 Annualized Revenues w/2nd Interim Increase	Col (j), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	June 1, 2018 Annualized Revenues w/RAM Increase	Col (k), lines (5+9+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 7/1/18	Col (l), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 10/1/18	Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 10/1/18	Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 1/1/19	Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	Distribution of Target Revenues by Month:	Note (3)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	January	8.10%	\$48,009,623	\$48,009,623	\$51,184,359	\$48,948,443	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
30	February	7.26%	\$43,030,848	\$43,030,848	\$52,997,265	\$43,030,848	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
31	March	8.10%	\$48,009,623	\$48,009,623	\$52,997,265	\$43,030,848	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
32	April	7.84%	\$46,468,574	\$46,468,574	\$52,453,393	\$46,468,574	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
33	May	8.44%	\$50,024,842	\$50,024,842	\$52,453,393	\$50,024,842	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
34	June	8.47%	\$50,202,656	\$50,202,656	\$52,453,393	\$50,202,656	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
35	July	8.77%	\$51,980,790	\$51,980,790	\$52,997,265	\$51,980,790	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
36	August	9.04%	\$53,581,111	\$53,581,111	\$54,628,879	\$53,581,111	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
37	September	8.68%	\$51,447,350	\$51,447,350	\$52,453,393	\$51,447,350	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
38	October	8.78%	\$52,040,061	\$52,040,061	\$53,057,695	\$52,040,061	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
39	November	8.26%	\$48,957,962	\$48,957,962	\$49,915,326	\$48,957,962	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
40	December	8.26%	\$48,957,962	\$48,957,962	\$49,915,326	\$48,957,962	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$55,301,700	\$57,648,125
41	Total Distributed Target Revenues	100.00%	\$357,167,892	\$357,167,892	\$364,152,243	\$357,167,892	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243	\$364,152,243

Footnotes:

- Docket No. 2010-0080 amounts derived from Order No. 30576, filed August 9, 2012, effective September 1, 2012, which implemented Decision and Order No. 30505, Exhibit A, page 1, filed June 29, 2012.
- Transmittal 17-02 filed March 31, 2017, establishing 2017 target revenue effective June 1, 2017.
- RBA Tariff Revised July 26, 2011 to reflect 2011 test year.
- RBA Tariff Effective February 16, 2018 to reflect 2017 test year.
- Test Year 2017 Interim Increase provided for in Interim Decision and Order 35100, issued December 15, 2017 in Docket No. 2016-0328.
- For the month of the initial implementation (Feb. 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days.
- Test Year 2017 2nd Interim Increase provided for in Order No. 35335, issued March 9, 2018 in Docket No. 2016-0328.
- Reduction for Tax Act Implementation Lag (March 2018 Settlement Tariff Sheets, Attachment 3, filed March 16, 2018, in accordance with Order No. 35335).
- For the month of the initial implementation (April 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days.
- Transmittal 18-01 filed May 29, 2018, establishing 2018 target revenue effective June 1, 2018.
- MPIR Revenues effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018, in Docket No. 2017-0213.
- MPIR Revenues effective October 1, 2018 approved in Order No. 35953, issued December 14, 2018, in Docket No. 2017-0213.
- MPIR Revenues effective January 1, 2019 filed in Transmittal 19-01 on February 7, 2019.

\$35,971
0.46429
-\$603
-\$2,143
0.60000

\$000s
\$000s
\$000s

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
REVENUE REQUIREMENT AND DETERMINATION OF MAJOR PROJECT INTERIM RECOVERY
MPIR PROJECT
\$ in thousands

Line No.	Description	Reference	Recorded at 12/31/2018	2019 Activity	Ending Balance as of 12/31/19	Average Balance	MPIR
	(a)	(b)	(c)	(d)	(e)	(f) = ((c)+(e))/2	(g)
	Return on Investment - Schofield Generating Station						
1	Gross Plant in Service (not to exceed PUC approved amount)	HECO-WP-L-001	141,570	-	141,570	141,570	
2	Accum Depreciation	HECO-WP-L-001	-	(4,586)	(4,586)	(2,293)	
3	Net Cost of Plant in Service		141,570	(4,586)	136,984	139,277	
4	Fuel Inventory - Avoided	Note 3	(1,534)	-	(1,534)	(1,534)	
5	M&S Inventory	Note 3	100	-	100	100	
6	Total Additions		(1,434)	-	(1,434)	(1,434)	
7	CIAC	Not Applicable	-	-	-	-	
8	ADIT	HECO-WP-L-002	(8,653)	(1,540)	(10,193)	(9,423)	
9	State ITC	HECO-WP-L-002	(4,124)	412	(3,712)	(3,918)	
10	Total Deductions		(12,777)	(1,128)	(13,905)	(13,341)	
11	Total Rate Base		\$ 127,359	\$ (5,713)	\$ 121,646	124,502	
12	Average Rate Base					\$ 124,502	
13	Rate of Return (grossed-up for income taxes, before revenue taxes)	Note 4				9.47%	
14	Annualized Return on Investment (before revenue taxes)						\$ 11,790
15	Depreciation Expense (Note 1)	HECO-WP-L-001				4,586	
16	Operating & Maintenance Expense	Note 2				2,087	
16a	Prior year reconciliation of O&M to actuals	Note 2				-	
17	Amortization of State ITC	see line 6				(412)	
18	Lease Rent Expense	Not Applicable				-	
19	Other Expense	Not Applicable				-	
20	Total Expenses						\$ 6,260
21	Total Major Project Interim Recovery						\$ 18,051
22	Revenue Tax Factor (1/(1-8.885%))						1.0975
23	Annualized Revenue for Major Project Interim Recovery						<u>\$ 19,810.8</u>
							To Sch B & B1

Reconciliation to Schedule B1 (Info Only)			
	Jul - Sep 2018	Oct - Dec 2018	2019
Annualized Revenue for MPIR	\$ 6,600	\$ 8,561	\$ 19,811
Rev Tax Adj	\$ (586)	\$ (761)	\$ (1,760)
Prorated MPIR for Year 1 excl Rev Tax	\$ 6,014	\$ 7,800	\$ 18,051
Incremental	\$ 6,014	\$ 1,787	\$ 10,250
	Note 5	Note 6	

Note 1: Depreciation expense is recorded beginning in the year after an asset is placed in service, therefore, depreciation expense is zero in year 1. The revenue requirement for year 2 and thereafter will include depreciation expense at existing, approved depreciation accrual rates at the time of filing.

Note 2: Total O&M expense is estimated to cost \$1.787 million annually for year 1 (\$2.087 million annually during the interim period thereafter), as referenced within Attachment 1 - SGS Business Case Revenue Requirement Update and approved in Order No. 35953, filed December 14, 2018.

Note 3: Decision and Order No. 35556 dated June 27, 2018 in Docket No. 2017-0213.

Note 4: Transmittal No. 18-01 (Decoupling) - Hawaiian Electric's RBA Rate Adjustment, Schedule D, filed May 29, 2018.

Note 5: MPIR Revenues effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018 in Docket No. 2017-0213.

Note 6: MPIR Revenues effective October 1, 2018 filed December 21, 2018 in Docket No. 2017-0213.

Schofield Generating Station
Plant Addition
As of December 31, 2018

HECO-WP-L-001
PAGE 1 OF 1

Utility Account	(Note 1) PUC Approved Accrual Rate	Balance at 12/31/18	Depreciation 2019	Allocation %	(Note 2) Subject to Cap	Depreciation 2019 (at Cap)
	a	b	c = a x b		e = d x Cap	f = a x e
343	0.03260	142,147,612	4,634,012	98.2%	139,030,987	4,532,410
352	0.01600	2,003,490	32,056	1.4%	1,959,563	31,353
353	0.01860	352,190	6,551	0.2%	344,468	6,407
397	0.06670	240,250	16,025	0.2%	234,983	15,673
		<u>144,743,542</u>	<u>4,688,643</u>	<u>100.0%</u>	<u>141,570,000</u>	<u>4,585,844</u>

Source: SAP and Powerplan WBS.

Note 1:

Depreciation rates approved in Docket No. 2010-0053, Decision and Order, filed May 12, 2011.

Note 2:

Decision and Order No. 33178, p. 84-85, Docket No. 2014-0113, For Approval to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the Purchase and Installation of Item P0001576, Schofield Generating Station Project, filed 09/29/2015. The Commission approved a cap on the amount of the total costs that may be recovered through any cost recovery mechanism other than base rates at 90% of the \$167 million cap. The \$167 million cap shall further be adjusted downward due to a reduction in the foreign exchange rate.

In the Letter to Commission Re: Docket No. 2014-0113, Schofield Generating Station; Notification of Euro Exchange Rate and Adjusted Project Cap, filed 01/27/2016, the Company locked in the foreign exchange rate at \$1.0928/euro which adjusted the project cap down from \$167 million to \$157.3 million. Revised cap on the amount of total costs allowed to be recovered through any cost recovery mechanism other than base rates is \$141.57 million (\$157.3 million x 90%).

HAWAIIAN ELECTRIC CO., INC.
SCHOFIELD GENERATING STATION - WITH BONUS
DECEMBER 31, 2019

FEDERAL DEFERRED TAXES		source	Tax Depreciation	AFUDC	Tax Cap Interest	State ITC	Removal	Total	Depr	Amort	Total
1	State Book/Tax Difference	HECO-WP-L-001 Line 1 + Line 2	(6,706,173)	(11,702,627)	7,507,036	4,124,152	(185,002)	(6,962,615)	(12,753,951)	(412,415)	(19,716,566)
2	Book Depreciation								4,585,844	(412,415)	4,173,428
3	Subtotal			(6,706,173)	(11,702,627)	7,507,036	4,124,152	(185,002)	(6,962,615)	(8,168,107)	(412,415)
4	Effective Federal Tax Rate		19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%
5	Federal Def Tax on State Book/Tax Diff	Line 3 * Line 4	(1,323,584)	(2,309,724)	1,481,649	813,976	(36,513)	(1,374,197)	(1,612,123)	(81,398)	(3,067,718)
6	Addback State Book/Tax Difference	Line 3	6,706,173	11,702,627	(7,507,036)	(4,124,152)	185,002	6,962,615	8,168,107	412,415	15,543,137
7	Federal Book/Tax Difference		(39,373,231)	(11,702,627)	7,507,036	4,124,152	(185,002)	(39,629,673)	(9,565,463)	(412,415)	(49,195,136)
8	Book Depreciation	Line 2							4,585,844	(412,415)	4,173,428
9	Federal State Difference	Line 6 + 7 + 8	(32,667,058)	-	-	-	-	(32,667,058)	3,188,488	-	(29,478,570)
10	Tax Rate on Federal Only Adjustment		21%	21%	21%	21%	21%	21%	21%	21%	21%
11	Federal Deferred Tax Adjustment	Line 9 * Line 10	(6,860,082)	-	-	-	-	(6,860,082)	669,582	-	(6,190,500)
12	Total Federal Deferred Taxes	Line 5 + Line 11	(8,183,666)	(2,309,724)	1,481,649	813,976	(36,513)	(8,234,279)	(942,541)	(81,398)	(9,258,218)
STATE DEFERRED TAXES											
13	State Book/Tax Difference	Line 1	(6,706,173)	(11,702,627)	7,507,036	4,124,152	(185,002)	(6,962,615)	(12,753,951)	-	(19,716,566)
14	Book Depreciation	Line 2							4,585,844	(412,415)	4,173,428
15	Subtotal	Line 1 + Line 2	(6,706,173)	(11,702,627)	7,507,036	4,124,152	(185,002)	(6,962,615)	(8,168,107)	(412,415)	(15,543,137)
16	Effective State Tax Rate		6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%
17	Total State Deferred Taxes	Line 15 * Line 16	(403,379)	(703,917)	451,551	248,069	(11,128)	(418,804)	(491,315)	(24,807)	(934,926)
18	TOTAL DEFERRED TAXES	Line 12 + Line 17	(8,587,045)	(3,013,641)	1,933,200	1,062,045	(47,641)	(8,653,083)	(1,433,856)	(106,205)	(10,193,144)

**HAWAIIAN ELECTRIC CO., INC.
TAX DEPRECIATION
SCHOFIELD GENERATION STATION**

Project No.	Description	Book Basis	Less: AFUDC	Add: TCI	Tax Basis	Plant Acct	Life	Bonus	2018	2019	Net Book Value
FEDERAL											
P0001576	Schofield Generation Station	64,076,545	(5,275,285)	3,384,005	62,185,266	Oth Prod	15	50%	32,647,265	2,953,800	28,475,480
P0001576	Schofield Generation Station	64,076,545	(5,275,285)	3,384,005	62,185,266	Oth Prod	15	0%	3,109,263	5,907,600	55,059,682
P0001576	Schofield Generation Station	5,625,855	(510,973)	327,780	5,442,663	Trans	20	50%	2,823,381	196,453	2,606,021
P0001576	Schofield Generation Station	5,625,855	(510,973)	327,780	5,442,663	Trans	20	0%	204,100	392,906	5,028,849
P0001576	Schofield Generation Station	1,082,599	(65,056)	41,732	1,059,276	Comm	20	50%	549,499	38,235	494,865
P0001576	Schofield Generation Station	1,082,599	(65,056)	41,732	1,059,276	Comm	20	0%	39,723	76,469	966,407
Total		141,570,000	(11,702,627)	7,507,036	137,374,409						
Cumulative									39,373,231	9,565,463	92,631,306
										48,938,694	
HAWAII											
P0001576	Schofield Generation Station	128,153,091	(10,550,569)	6,768,010	124,370,532	Oth Prod	15	0	6,218,527	11,815,201	110,119,363
P0001576	Schofield Generation Station	11,251,710	(1,021,945)	655,561	10,885,325	Trans	20	0	408,200	785,812	10,057,698
P0001576	Schofield Generation Station	2,165,199	(130,112)	83,465	2,118,551	Comm	20	0	79,446	152,938	1,932,815
Total		141,570,000	(11,702,627)	7,507,036	137,374,409						
Cumulative									6,706,173	12,753,951	122,109,876
										19,460,124	

Hawaiian Electric Company, Inc.
Breakdown of SGS Costs by Major Area
Actuals through December 2018

TOTAL PLANT ADDITIONS:							(Note 1)	
	A	B	C	D	E=SUM(B:D)	F=A+E		
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	Allocation %	Subject to Cap
Labor	2,293,428	1,712,982	305,919	741,234	2,760,135	5,053,564	3.5%	4,942,763
Materials	32,932,285	1,523,772	545,040	512,566	2,581,378	35,513,663	24.5%	34,735,016
Vehicles	2,062	117,109	187	563	117,859	119,921	0.1%	117,292
Overheads	12,885,912	2,456,221	544,975	928,736	3,929,932	16,815,844	11.6%	16,447,152
AFUDC	10,787,079	703,160	133,029	341,694	1,177,883	11,964,962	8.3%	11,702,627
Outside Services-Construction	69,147,360	614,746	59,095	80,179	754,019	69,901,379	48.3%	68,368,772
Outside Services-Other	2,550,389	1,421,977	621,195	348,999	2,392,171	4,942,560	3.4%	4,834,193
Other	427,354	-	4,296	-	4,296	431,650	0.3%	422,186
	<u>131,025,869</u>	<u>8,549,966</u>	<u>2,213,736</u>	<u>2,953,971</u>	<u>13,717,673</u>	<u>144,743,542</u>	<u>100.0%</u>	<u>141,570,000</u>

BREAKDOWN SUBJECT TO CAP:								
	A1	B1	C1	D1	E1=SUM(B1:D1)	F1=A1+E1		
Expense Element	Generating Station and Switchyard	46kV Line	Telecom	Wahiawa Substation	Total Interconnection	Total Project	State ITC	
Labor	2,243,144	1,675,424	299,212	724,982	2,699,618	4,942,763		
Materials	32,210,236	1,490,363	533,090	501,328	2,524,781	34,735,016	34,735,016	
Vehicles	2,017	114,541	183	551	115,275	117,292		
Overheads	12,603,385	2,402,368	533,026	908,373	3,843,767	16,447,152		
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627		
Outside Services-Construction	67,631,285	601,267	57,799	78,421	737,487	68,368,772	68,368,772	
Outside Services-Other	2,494,471	1,390,800	607,576	341,347	2,339,722	4,834,193		
Other	417,984	-	4,202	-	4,202	422,186		
	<u>128,153,091</u>	<u>8,362,506</u>	<u>2,165,199</u>	<u>2,889,204</u>	<u>13,416,909</u>	<u>141,570,000</u>	(Note 1)	
Amount subject to bonus	50%	50%	50%	50%	50%	50%		103,103,789
	<u>64,076,545</u>	<u>4,181,253</u>	<u>1,082,599</u>	<u>1,444,602</u>	<u>6,708,455</u>	<u>70,785,000</u>		<u>4%</u>
								<u>4,124,152</u>
								5,625,855
Tie out of TCI:								
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627		
ratio - 5 year average	64.15%	64.15%	64.15%	64.15%	64.15%	64.15%		
TCI	<u>6,768,010</u>	<u>441,175</u>	<u>83,465</u>	<u>214,385</u>	<u>739,025</u>	<u>7,507,036</u>		
								655,561

Source: Ellipse & SAP

Note 1:

Allocated 12/31/18 Plant Addition subject to the cap of \$141.57M. See further discussion at HECO-WP-L-001.

Hawaiian Electric Company, Inc.**Annual - TCI Closed to AFUDC Closed Ratio**

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>5 Yr Ave</u>
TCI	3,820,695	4,825,860	4,299,588	4,056,549	5,041,274	22,043,966
AFUDC	5,511,275	7,365,025	6,668,924	6,540,575	8,278,273	34,364,072
Ratio	0.693251	0.655240	0.644720	0.620213	0.608977	0.641483

Hawaiian Electric Company, Inc.
MPIR Removal Costs
Actuals Through December 31, 2018

Row Labels	Sum of amount
Labor	90,530
Materials	46
Overheads	94,426
Grand Total	185,002

SOURCE: Ellipse & SAP

HAWAIIAN ELECTRIC COMPANY, INC.
2018 WEIGHTED AVERAGE PIM TARGET, DEADBAND, INCENTIVE CALCULATIONS

Period (a)	# of Days (b)	Max Penalty (c)	2018 Target (d)	Deadband (e)	Range for No Penalty		2018 Annual Total (h)	Delta vs Target (i) = (h) - (d)	(Penalty) / Reward (j)
					Lower (f)	Upper (g)			
SAIFI	1/1/18-2/15/18	46	2,039,094	1.116	0.090	1.026	1.206	1.253	0.137
	2/16/18-4/12/18	56	2,260,799	1.116	0.090	1.026	1.206	1.253	0.137
	4/13/18-8/31/18	141	2,276,417	1.116	0.090	1.026	1.206	1.253	0.137
	9/1/18-12/31/18	122	2,276,417	1.103	0.088	1.015	1.191	1.253	0.150
	Annual (Weighted Avg)	365	2,244,112	1.112	0.089	1.022	1.201	1.253	(1,306,645) To Sch M
SAIDI	1/1/18-2/15/18	46	2,039,094	99.030	9.070	89.960	108.100	111.940	12.910
	2/16/18-4/12/18	56	2,260,799	99.030	9.070	89.960	108.100	111.940	12.910
	4/13/18-8/31/18	141	2,276,417	99.030	9.070	89.960	108.100	111.940	12.910
	9/1/18-12/31/18	122	2,276,417	99.230	8.960	90.270	108.190	111.940	12.710
	Annual (Weighted Avg)	365	2,244,112	99.097	9.033	90.064	108.130	111.940	(946,492) To Sch M
Call Center	1/1/18-2/15/18	46	815,638	79.07%	3.00%	76.07%	82.07%	83.97%	
	2/16/18-4/12/18	56	904,320	79.46%	3.00%	76.46%	82.46%	83.97%	
	4/13/18-8/31/18	141	910,567	79.56%	3.00%	76.56%	82.56%	83.97%	
	9/1/18-12/31/18	122	910,567	80.10%	3.00%	77.10%	83.10%	83.97%	
	Annual Totals	365	897,645	79.66%	3.00%	76.66%	82.66%	83.97%	4.31% 391,972 To Sch M

Reference: See Hawaiian Electric Company Proposed PIM Tariff Revisions, filed on July 23, 2018 in Docket No. 2016-0328. The PIM Tariff Revisions were approved by the Commission in Order No. 35661, filed on August 30, 2018.

Note 1 SAIDI and SAIFI Annual Totals include 25 kV Proactive Work (See HECO-WP-M-002):

	SAIDI	SAIFI
Occurrences / Minutes	111.94	1.253
Less: Exclusion for 25kV work	-5.52	-0.015
Annual Totals	106.41	1.238

HAWAIIAN ELECTRIC COMPANY, INC.
2018 SAIDI and SAIFI Calculations
With and Without 25 kV Scheduled Work Outages

Without 25 kV Scheduled Work Outages												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	YTD
Hours Interrupted	28,350.82	38,535.98	36,195.83	48,912.83	47,852.78	45,741.20	26,594.23	52,088.65	70,669.87	38,183.60	46,352.93	540,875.63
Customer Interruptions	19,170	25,947	26,983	49,443	27,712	34,644	21,028	29,939	46,557	24,863	21,382	377,447
SAIDI (Minutes)	5.58	7.58	7.12	9.62	9.41	9.00	5.23	10.25	13.90	7.51	9.12	106.41
SAIFI (Occurrences)	0.063	0.085	0.088	0.162	0.091	0.114	0.069	0.098	0.153	0.082	0.070	1.238

HECO-WP-M-001
HECO-WP-M-001

With 25 kV Scheduled Work Outages												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	YTD
Hours Interrupted	28,350.82	38,535.98	36,195.83	48,912.83	47,852.78	45,741.20	54,673.72	52,088.65	70,669.87	38,183.60	46,352.93	568,955.12
Customer Interruptions	19,170	25,947	26,983	49,443	27,712	34,644	25,686	29,939	46,557	24,863	21,382	382,105
SAIDI (Minutes)	5.58	7.58	7.12	9.62	9.41	9.00	10.76	10.25	13.90	7.51	9.12	111.94
SAIFI (Occurrences)	0.063	0.085	0.088	0.162	0.091	0.114	0.084	0.098	0.153	0.082	0.070	1.253

HECO-WP-M-001
HECO-WP-M-001

Difference Between With and Without 25 kV Scheduled Work Outages (See Note Below)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	YTD
Hours Interrupted	-	-	-	-	-	-	(28,079)	-	-	-	-	(28,079)
Customer Interruptions	-	-	-	-	-	-	(4,658)	-	-	-	-	(4,658)
SAIDI (Minutes)	-	-	-	-	-	-	5.52	-	-	-	-	5.52
SAIFI (Occurrences)	-	-	-	-	-	-	0.015	-	-	-	-	0.015

Note:

25 kV Schedule Work Outage Events
(see HECO-WP-M-003 for more details)

Date of exclusion event	Customer Interruptions	Customer Minutes Interrupted
7/5/2018	(329)	(138,838)
7/16/2018	(881)	(317,160)
7/17/2018	(1,003)	(399,020)
7/18/2018	(1,004)	(341,342)
7/19/2018	(585)	(192,357)
7/23/2018	(418)	(150,062)
7/24/2018	(418)	(138,610)
7/25/2018	(20)	(7,380)
Total	(4,658)	(1,684,769)

(28,079) Hours Interrupted

Total Customer Minutes Interrupted without 25 kV Scheduled Work Outages												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	YTD
Total Customer Minutes Interrupted without 25 kV Scheduled Work Outages	1,701,049	2,312,159	2,171,750	2,934,770	2,871,167	2,744,472	1,595,654	3,125,319	4,240,192	2,291,016	2,781,176	32,452,538
Total Customer Minutes Interrupted with 25 kV Scheduled Work Outages												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	YTD
Total Customer Minutes Interrupted with 25 kV Scheduled Work Outages	1,701,049	2,312,159	2,171,750	2,934,770	2,871,167	2,744,472	3,280,423	3,125,319	4,240,192	2,291,016	2,781,176	34,137,307
Difference	-	-	-	-	-	-	(1,684,769)	-	-	-	-	(1,684,769)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
IWILEI 138KV 3 SUB IWILEI 9 25KV CKT CB-7754 BREAKER 7754	23:00			D-2	821 BETHEL ST V-8196, 821 BETHEL ST V-6645	1664	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN H/C NEAR V10308 PIER 12 AND H/C NEAR V10309 PIER 15 TO REPAIR A DEFECTIVE UNDERGROUND CABLE. IWILEI 13 CKT WAS ABNORMAL DUE TO HOT CAPS ON RO#125230 REQ#2054. E#259743. RELATED TO IR#1671. PTM: DELACRUZ, KEALI; ROSALES, RAY; PITT, ANTHONY; AHMOOK SANG, BRAD; PARK, JAMES; AHMOOK SANG, NATE; MOUNTHONGDY, PAT SIGN: OSHIRO, KELLY
BREAKER CB-7754		06:02 07/06/2018	7 HR 2 MIN		821 BETHEL ST V-8196, 821 BETHEL ST V-6645 CUST: 3		
IWILEI 138KV 4 SUB IWILEI 13 25KV CKT CB-7759 SECTIONALIZER CB7754	23:00			D-2	1020 MAUNAKEA ST V-7566, 60 NIMITZ N. HWY V-6646, 60 NIMITZ N. HWY V-6646B, 801 NUUANU AVE V-6936, 12 Pier V-10308, 15 Pier V-10309	1671	SECTIONALIZER ABC PHASE #CB7754 WAS OPENED IN IWILEI SUBSTATION DUE TO A SCHEDULED OUTAGE BETWEEN H/C NEAR SW V10309 AND H/C NEAR SW V10308 TO REPAIR A DEFECTIVE UNDERGROUND CABLE. SCHEDULED OUTAGE TO REPAIR FAULTED IWILEI 13 CKT RO#125230 REQ#2054. E#259743 RELATED TO IR#1664 REQ#2076 PTM: AHMOOK SANG, BRAD SIGN: MACEY, JENNIFER
BREAKER CB7754		06:02 07/06/2018	7 HR 2 MIN		1020 MAUNAKEA ST V-7566, 60 NIMITZ N. HWY V-6646B, 801 NUUANU AVE V-6936, 12 Pier V-10308, 15 Pier V-10309 CUST: 326		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Rearranged outage.
Class E: Affecting no cust.; parallel lines

Ran 02/06/2019 14:16:01

Type 1: COMPANY: Confined within HECO system
Type 2: EQUIP: Failure of HECO equipment
Type 3: PUBILC: Caused by public/equip. not HECO Related
Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

HE No. 171 REV 4/99

Date: July 5, 2018 (Thursday)

PUC FORM GO No. 7-7.5C Sheet 1 of 1

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
IWILEI 138KV 3 SUB IWILEI 9 25KV CKT CB-7754 BREAKER 7754	22:00			D-1	SECTIONS OF BETHEL ST	1748	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON IWILEI 9 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE 25KV CABLE SPLICES E#260398. RELATED TO E#260399 IR#1749 REQ#2150. PTM: AHMOOK SANG, NATE; CHING, THOMAS SIGN: MIYAKE, LANCE
BREAKER CB7754		04:00 07/17/2018	6 HR 0 MIN		FROM CB7754 IWILEI SUBSTATION TO ALL TERMINATIONS CUST: 174		
IWILEI 138KV 4 SUB IWILEI 13 25KV CKT CB-7759 BREAKER 7759	22:00			D-1	KING, MAUNAKEA ST, NUUANU AVE, SECTIONS OF NIMITZ HWY	1749	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON IWILEI 13 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE 25KV CABLE SPLICES E#260399. RELATED TO E#260398 IR#1748 REQ#2149. PTM: DELACRUZ, KEALI; PITT, ANTHONY; WON, BRONSON; KAPOI, KALEI SIGN: MIYAKE, LANCE
BREAKER CB7759		04:00 07/17/2018	6 HR 0 MIN		FROM CB7759 IWILEI SUB TO ALL TERMINATIONS CUST: 707		

Class A: Large areas; important Cust.; Transmission lines.
 Class B: Large group of cust.; junctions; circuits; tsfs.
 Class C: Small group of cust.; transformers; lines.
 Class D: Rearranged outage.
 Class E: Affecting no cust.; parallel lines

Ran 02/06/2019 14:16.01

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 Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

HE No. 171 REV 4/99

Date: July 16, 2018 (Monday)

System Operation Department
Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:04			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1757	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 5 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260487 REQ#2168. RELATED TO IR#1758 REQ#2169, IR#1759 REQ#2170, IR#1760 REQ#2171. PTM: AHMOOK SANG, NATE SIGN: MIYAKE, LANCE
BREAKER CB7706		04:39 07/18/2018	6 HR 35 MIN		FROM CB7706 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 335		
KEWALO T3 SUB KEWALO 6 25KV CKT CB-7707 BREAKER 7707	22:04			D-1	SECTIONS OF KEEAUMOKU ST, KAPIOLANI BLVD, AND WAIMANU ST	1758	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 6 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260501 REQ#2169. RELATED TO IR#1757 REQ#2168, IR#1759 REQ#2170, IR#1760 REQ#2171. PTM: DELACRUZ, KEALI SIGN: MIYAKE, LANCE
BREAKER CB7707		04:39 07/18/2018	6 HR 35 MIN		FROM CB7707 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 18		
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:04			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1759	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 9 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260499 REQ#2170. RELATED TO IR#1757 REQ#2168, IR#1758 REQ#2169, IR#1760 REQ#2171. PTM: MOUNTHONGDY, PAT SIGN: MIYAKE, LANCE
BREAKER CB8329		04:39 07/18/2018	6 HR 35 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Rearranged outage.
Class E: Affecting no cust.; parallel lines

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Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

HE No. 171 REV 4/99

Ran 02/06/2019 14:16:01

Date: July 17, 2018

(Tuesday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 10 25KV CKT CB-8330 BREAKER 8330	22:04			D-1	ALA MOANA SC, SECTIONS OF KEEAUMOKU ST	1760	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 10 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260500 REQ#2171. RELATED TO IR#1757 REQ#2168, IR#1758 REQ#2169, IR#1759 REQ#2170. PTM: ROSALES, RAY SIGN: MIYAKE, LANCE
BREAKER CB8330		04:44 07/18/2018	6 HR 40 MIN		FROM CB8330 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 567		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Prearranged outage.
Class E: Affecting no cust.; parallel lines

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HE No. 171 REV 4/99

Ran 02/06/2019 14:16.01

Date: July 17, 2018

(Tuesday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:08			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1766	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 5 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260590 REQ#2179. RELATED TO IR#1767 REQ#2180, IR#1768 REQ#2181, IR#1769 REQ#2182. PTM: AHMOOK SANG, NATE SIGN: MIYAKE, LANCE
BREAKER CB7706		03:48 07/19/2018	5 HR 40 MIN		FROM CB7706 KEWALO SUB TO ALL TERMINATIONS CUST: 336		
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:08			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1768	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 9 25KV CKT TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260589 REQ#2181. RELATED TO IR#1766 REQ#2179, IR#1767 REQ#2180, IR#1769 REQ#2182. PTM: KAPOI, KALEI SIGN: MIYAKE, LANCE
BREAKER CB8329		03:48 07/19/2018	5 HR 40 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		
KEWALO T3 SUB KEWALO 6 25KV CKT CB-7707 BREAKER 7707	22:09			D-1	SECTIONS OF KEEAUMOKU ST, KAPIOLANI BLVD, AND WAIMANU ST	1767	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 6 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260601 REQ#2180. RELATED TO IR#1766 REQ#2179, IR#1768 REQ#2181, IR#1769 REQ#2182. PTM: DELACRUZ, KEALI SIGN: MIYAKE, LANCE
BREAKER CB7707		03:48 07/19/2018	5 HR 39 MIN		FROM CB7707 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 18		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Rearranged outage.
Class E: Affecting no cust.; parallel lines

Type 1: COMPANY: Confined within HECO system
Type 2: EQUIP: Failure of HECO equipment
Type 3: PUBILC: Caused by public/equip. not HECO Related
Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 10 25KV CKT CB-8330 BREAKER 8330	22:09			D-1	ALA MOANA SC, SECTIONS OF KEEAUMOKU ST	1769	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 10 25KV CKT TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260601 REQ#2182. RELATED TO IR#1766 REQ#2179, IR#1767 REQ#2180, IR#1768 REQ#2181. PTM: MOUNTHONGDY, PAT SIGN: MIYAKE, LANCE
BREAKER CB8330		03:49 07/19/2018	5 HR 40 MIN		FROM CB8330 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 567		

Class A: Large areas; important Cust.; Transmission lines.
 Class B: Large group of cust.; junctions; circuits; tsfs.
 Class C: Small group of cust.; transformers; lines.
 Class D: Prearranged outage.
 Class E: Affecting no cust.; parallel lines

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 Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

HE No. 171 REV 4/99

Ran 02/06/2019 14:16:01

Date: July 18, 2018

(Wednesday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 10 25KV CKT CB-8330 BREAKER 8330	22:00			D-1	ALA MOANA SC, SECTIONS OF KEEAUMOKU ST	1773	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KAMOKU 10 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#260678 REQ#2197. RELATED TO IR#1774 REQ#2196. PTM: PITT, ANTHONY SIGN: MIYAKE, LANCE
BREAKER CB8330		03:29 07/20/2018	5 HR 29 MIN		FROM CB8330 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 567		
KEWALO T3 SUB KEWALO 6 25KV CKT CB-7707 BREAKER 7707	22:00			D-1	SECTIONS OF KEEAUMOKU ST, KAPIOLANI BLVD, AND WAIMANU ST	1774	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 6 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE UG SPLICES E#?? REQ#2196. RELATED TO IR#1773 REQ#2197. PTM: ROSALES, RAY SIGN: MIYAKE, LANCE
BREAKER CB7707		03:23 07/20/2018	5 HR 23 MIN		FROM CB7707 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 18		

Class A: Large areas; important Cust.; Transmission lines.
 Class B: Large group of cust.; junctions; circuits; tsfs.
 Class C: Small group of cust.; transformers; lines.
 Class D: Rearranged outage.
 Class E: Affecting no cust.; parallel lines

Type 1: COMPANY: Confined within HECO system
 Type 2: EQUIP: Failure of HECO equipment
 Type 3: PUBILC: Caused by public/equip. not HECO Related
 Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

HE No. 171 REV 4/99

Ran 02/06/2019 14:16.01

Date: July 19, 2018

(Thursday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:03			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1805	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KEWALO SUBSTATION TO ALL TERMINATIONS TO REPLACE A DEFECTIVE AL/AL CONNECTOR. UG REPLACED 25KV SPLICES E#260897 REQ#2205. RELATED TO IR#1806 REQ#2206. PTM: PITT, ANTHONY; AHMOOK SANG, NATE; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB7706		04:02 07/24/2018	5 HR 59 MIN		FROM CB7706 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 335		
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:03			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1806	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KAMOKU SUBSTATION TO ALL TERMINATIONS TO REPLACE A DEFECTIVE AL/AL CONNECTOR. UG REPLACED 25KV SPLICES E#260897 REQ#2206. RELATED TO IR#1805 REQ#2205. PTM: PITT, ANTHONY; AHMOOK SANG, NATE; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB-8329		04:02 07/24/2018	5 HR 59 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		

Class A: Large areas; important Cust.; Transmission lines.
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Class C: Small group of cust.; transformers; lines.
Class D: Prearranged outage.
Class E: Affecting no cust.; parallel lines

Ran 02/06/2019 14:16:02

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Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

HE No. 171 REV 4/99

Date: July 23, 2018 (Monday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:04			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1822	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KAMOKU SUBSTATION TO ALL TERMINATIONS. UG REPLACED SPLICES REQ#2208 E#261016. RELATED TO IR#1821 REQ#2207. PTM: MAKAIU, DAROL; KATADA, RANDY; RABE, JENSEN; KAPOI, KALEI; OKAGAWA, JON; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB-8329		03:34 07/25/2018	5 HR 30 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:05			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1821	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KEWALO SUBSTATION TO ALL TERMINATIONS. UG REPLACED SPLICES ON REQ#2207 E#261016. RELATED TO IR#1822 REQ#2208. PTM: MAKAIU, DAROL; KATADA, RANDY; RABE, JENSEN; OKAGAWA, JON; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB-7706		03:37 07/25/2018	5 HR 32 MIN		FROM CB7706 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 335		

Class A: Large areas; important Cust.; Transmission lines.
Class B: Large group of cust.; junctions; circuits; tsfs.
Class C: Small group of cust.; transformers; lines.
Class D: Prearranged outage.
Class E: Affecting no cust.; parallel lines

Ran 02/06/2019 14:16:02

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Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]

HE No. 171 REV 4/99

Date: July 24, 2018 (Tuesday)

System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KEWALO T3 SUB KEWALO 7 25KV CKT CB-7708 BREAKER 7708	22:01			D-1	FROM CB7708 KEWALO SUBSTATION TO ALL TERMINATIONS	1830	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON KEWALO 7 25KV CKT TO REPLACE A DEFECTIVE AL/AL CONNECTOR. UG REPLACED SPLICES E#261078 PTM: KAPOI, KALEI; YAMANE, ROSS SIGN: MANZOKU, KEITH
SWITCH SW V10397		04:10 07/26/2018	6 HR 9 MIN		FROM CB7708 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 20		

Class A: Large areas; important Cust.; Transmission lines. Class B: Large group of cust.; junctions; circuits; tsfs. Class C: Small group of cust.; transformers; lines. Class D: Prearranged outage. Class E: Affecting no cust.; parallel lines	Type 1: COMPANY: Confined within HECO system Type 2: EQUIP: Failure of HECO equipment Type 3: PUBILC: Caused by public/equip. not HECO Related Type 4: EXTERNAL: Act of nature [Storm; Flood; Etc.]	HE No. 171 REV 4/99
Ran 02/06/2019 14:16.02	Date: July 25, 2018 (Wednesday)	

HAWAIIAN ELECTRIC COMPANY, INC.
Call Center Performance (Service Level) Results
2018

Call Center Performance (Service Level)
Excludes Blocked Calls

Month	Total Calls Accepted *	Calls Answered Within 30 Seconds	Service Level	Weighted Total	Weighted Service Level
Jan-18	27,380	24,550	89.66%	8.37%	7.51%
Feb-18	22,944	20,577	89.68%	7.02%	6.29%
Mar-18	23,827	21,393	89.79%	7.29%	6.54%
Apr-18	26,277	23,095	87.89%	8.04%	7.06%
May-18	27,042	24,152	89.31%	8.27%	7.39%
Jun-18	27,941	22,446	80.33%	8.55%	6.86%
Jul-18	30,579	23,648	77.33%	9.35%	7.23%
Aug-18	31,082	23,749	76.41%	9.51%	7.26%
Sep-18	27,644	22,345	80.83%	8.45%	6.83%
Oct-18	30,957	25,586	82.65%	9.47%	7.82%
Nov-18	26,496	21,556	81.36%	8.10%	6.59%
Dec-18	24,817	21,460	86.47%	7.59%	6.56%

Total 83.97%

To HECO-WP-M-001

* All customer calls handled by a Customer Service Representative (including abandoned calls)

Source: Generated from Genesys Interactive Insights system.

HAWAIIAN ELECTRIC COMPANY, INC.
Phase 1 Renewable Energy RFP Performance Incentive Mechanism
2018

Line	Awarded Projects	Reference	BAFO Levelized Price (\$/MWh) <i>a</i>	Net Energy Potential (MWh) <i>b</i>	PIM Calculation <i>c = (x or y-a)*b</i>	PIM Calculation (20% utility share) <i>d = c * 20%</i>
1	Ho'ohana Solar 1 (O-2) (with battery storage)	Docket No. 2018-0431 D&O No. 36236	99.78 Note 3	114,481	\$ 1,742,401	\$ 348,480
2	Mililani Solar I (O-17) (with battery storage)	Docket No. 2018-0434 D&O No. 36232	88.16	93,121	\$ 2,499,368	\$ 499,874
3	Waiawa Solar (O-20) (with battery storage)	Docket No. 2018-0435 D&O No. 36231	95.93	87,927	\$ 1,676,768	\$ 335,354
4	Total Final Variable Requests for Proposals				\$ 5,918,536	\$ 1,183,707
5	50% Year 1				Note 2	<u>\$ 591,854</u> <i>To Sch M</i>

Note 1		
PIM Benchmark	¢/kWh	\$/MWh
Energy Only	9.5	95.00 <i>x</i>
Paired with Storage	11.5	115.00 <i>y</i>

Note 1 Per Order No. 35405, Docket No. 2017-0352, filed April 6, 2018, PIM benchmarks per pages 11 and 12.

Language from Order 35405:

The Companies share would be 20% of the estimated first-year savings compared to the applicable benchmark up to a cap of \$3,500,000.

The estimated first-year savings will be calculated by multiplying the forecasted first-year energy production (in kWh) of the project by the difference between the applicable benchmark price and the equivalent price (in cents per kWh).

The equivalent PPA price will be established by the levelized cost of the project computed by the Companies during the evaluation and selection process in the Phase I procurement effort.

Similarly, the forecasted first-year energy production will be determined by using the energy production estimated in the evaluation and selection process.

Per Order No. 35664, Docket No. 2017-0352, filed September 6, 2018:

The Commission ruled on the treatment of the Additional PPAs proposed in the Companies' June 20, 2018 Letter indicating that the additional PIM for these PPAs will function in a similar manner to the original PIM. The Companies shall receive a performance incentive equivalent to 20% of the estimated first-year savings compared to the applicable benchmark, up to a cap of \$3,000,000, for the Additional PPAs filed with the commission by December 31, 2018. For any Additional PPAs submitted after December 31, 2018, until March 31, 2019, the Companies' share of the savings pursuant to the PIM will be reduced in accordance with the proposal in the Companies' June 20, 2018 Letter.

Note 2 Per Decision and Order No. 35405, Docket No. 2017-0352, filed April 6, 2018, Timing of Incentive Award, p 14

First Allocation: The first allocation of the PIM will be shortly after the approval of the PPAs. At that time, the commission will allocate the first 50% of the total PIM to the Companies, based on the equivalent PPA prices and the forecasted first-year energy production. The commission intends that the applicable performance incentive would be awarded to the Companies through their respective Revenue Balancing Account Provision tariffs.

Second Allocation: Following the first year of commercial operations for each project, the Companies shall submit a report of the actual energy utilized for each of the PPAs approved by the Commission. The Commission will provide the Companies with a portion, or all, of the remaining 50% of the PIM, dependent upon the actual amount of energy output utilized.

Note 3: Ho'ohana Solar's Levelized Price (\$99.78/MWh) includes the unit price of \$0.098858/kWh and the \$0.00092/kWh.

CIAC Treatment
Resulting from FERC Adoption

Adoption of FERC USOA required a change in presentation change to Contributions in Aid of Construction (CIAC)

Prior to October 2018, and in establishing rates in previous test year rate cases, the Company's presentation of contributions in aid of construction ("CIAC") followed the guidelines of the National Associate of Regulatory Utility Commissioners Uniform System of Accounts (NARUC USOA). Under the NARUC reporting system, CIAC is reported under an exclusive account, account 271, which includes donations or contributions in cash, services or property from states, municipalities, or other governmental agencies, individuals and others for construction purposes. All CIAC was incorporated as a deduction in the calculation of rate base in part because the Companies' systems did not facilitate on-going reporting of CIAC related to plant in service separate from CIAC related to construction work in progress ("CWIP").

The Commission approved the Companies' request to change to Federal Energy Regulatory Commission Uniform System of Accounts (FERC USOA), beginning with the implementation of the Companies' new ERP/EAM, in Decision and Order No. 31757, issued December 19, 2013 in Docket No. 2013-0007.

Beginning in October 2018 with the transition to FERC, the net balance of CIAC in account 271 less the CIAC amortization to be recorded for October to December 2018, was credited against the account balances charged with the cost of construction, i.e., gross plant in service and CWIP, resulting in the account becoming zero (i.e. "0") at December 31, 2018.

Ratemaking treatment for CIAC

The Company's ratemaking treatment of contributions in aid of construction is summarized below:

- *CIAC associated with Plant in Service* – When a utility capital project is placed into service, the plant in service net of the associated CIAC is included as net cost of plant in service in rate base. The plant in service net of the CIAC is included as part of the basis for the depreciation accrual the year after it is placed into service (i.e. January 1 of the year after it is placed into service).
- *CIAC associated with CWIP* – For book purposes, CIAC that is received while projects are still under construction (i.e. in CWIP) will offset the costs incurred and is presented net in CWIP. The CWIP net of the associated CIAC is subject to the AFUDC accrual if there is a net CWIP balance. In the next rate case, the Company will request CIAC associated with CWIP be excluded from the rate base calculation since CWIP net of

CIAC earns AFUDC. CIAC associated with CWIP is however, included in rate base in this RAM calculation for consistency with the 2017 Test Year treatment. See further discussion of Company's requested treatment of CIAC associated with CWIP below.

- *Developer Advances* - Cash contributions received in advance of construction of a utility capital project that are temporarily not classified as CIAC because the funds received are in excess of the specific project expenditures. The balance of developer advances is presented as funds from non-investors, included in its own exclusive account, and deducted in the calculation of rate base. As project costs are incurred for a utility capital project, an equal portion of developer advances associated with the project will be reclassified as CIAC and credit the accounts charged with the cost of construction. Developer Advances were included as a part of CIAC as a reduction to rate base in the 2017 Test Year.

Treatment of CIAC within the 2019 Annual Decoupling Filing

For the 2019 Decoupling Filing, the Company treated CIAC consistently with prior filings resulting in no impact to rate base.

Schedule D1, Determination of Rate Base RAM Adjustment – Change in Rate Base

Plant in Service - There is no change in rate base for plant in service and CIAC associated with plant in service. Under NARUC, in rate base, plant in service was the gross cost of plant (net of accumulated depreciation), and CIAC was a separate reduction to rate base. Under FERC, the plant in service amounts are net of (i.e., already reduced by) CIAC, and presented net of accumulated depreciation in the calculation of rate base. There is no separate CIAC line item reducing rate base because it is already net in utility plant. Therefore, there is no net rate base impact. The difference between NARUC and FERC for plant in service is a matter of where the costs are classified in rate base, and not a matter of inclusion or exclusion of costs in rate base.

CIAC associated with CWIP - There is no change in rate base for CIAC associated with CWIP. Previously, presentation of CIAC aligned with NARUC and all CIAC, including amounts associated with projects in CWIP, were included as a reduction to rate base under account 271. The 2019 estimated balance continues the treatment of including the CIAC in CWIP to be consistent with the recorded balance at 2018 year-end because all 2019 estimated CIAC additions have been included at Schedule D2 and included as part of net cost of plant at Schedule D1. Although the treatment described above was used in the 2019 annual decoupling filing, see Company's requested treatment to exclude CIAC associated with CWIP from rate base in future filings in the discussion below.

Developer Advances - With the transition to FERC, CIAC is credited when received against the related project costs in CWIP. To the extent funds are not yet expended for a project in

CWIP, the CIAC will be classified as developer advances and deducted in the calculation of rate base at Schedule D1. The recorded balance at 2018 year-end is not adjusted for 2019 activity as it is incorporated in Schedule D2.

Schedule D2, Determination of Baseline Capital Projects Additions

Schedule D2 was revised to incorporate the baseline and major project CIAC (including Developer Advances) for 2014 to 2017 into the baseline average calculation of net plant in service, consistent with the presentation of rate base. The 2018 CIAC additions calculated at HECO-WP-D2-003 includes additions to CIAC from all sources, i.e. Plant, CWIP and Developer Advances, which were used in the 5-year baseline calculation. As a result, the estimated 2019 additions to CIAC in CWIP and Developer Advances balances at Schedule D1 for the Change in Rate Base are not required as they are already included in the net cost of plant line item.

Schedule E, Determination of Depreciation & Amortization RAM Adjustment

FERC Uniform System of Accounts Electric Plant Instructions, 2. Electric Plant To Be Recorded at Cost. D. states, "The electric plant accounts shall not include the cost or other value of electric plant contributed to the company." Therefore, the Recorded Depreciable/Amortizable Balances at December 31, 2018 in Schedule E represents plant in service net of CIAC which is used as the basis to estimate the 2019 annual accrual amount. In calculating the 2019 RAM Depreciation and Amortization, Depreciation and Amortization in Current Revenues also includes CIAC amortization approved in the 2017 Test Year.

Schedule F & F1, Determination of Change in Deferred Income Taxes & Tax Depreciation

The methodology for computing the deferred taxes related to RAM year tax depreciation was not changed within the 2019 annual decoupling filing. Gross plant additions are used as the basis for calculating tax depreciation. However, see the CIAC impact to ADIT section below for the Company's preferred treatment considering the effects of netting CIAC against plant in service.

Schedule G-series, CIAC

Schedule G, G1 and G2 were removed from the Decoupling filings and instead incorporated into either Plant in Service, CIAC in CWIP or Developer Advances. The December 31, 2018 balances for CIAC associated with CWIP and Developer Advances were extracted from PowerPlan. Additionally, as noted above, the calculation of the 5-year baseline average of CIAC and amortization was incorporated within Schedule D2 and Schedule E, respectively.

The Company will continue to include CIAC associated with CWIP and Developer Advances as a reduction to rate base until the FERC presentation of rate base is approved in the Company's next rate case.

Company's requested CIAC treatment

The Company requests to reflect the following changes to the treatment of CIAC within the annual decoupling filings.

CIAC associated with CWIP

In Mr. Franklin's T-12 direct testimony in Hawaii Electric Light's 2019 Test Year rate case, the Company proposes to remove CIAC associated with CWIP from the calculation of rate base due to the fact that CWIP net of associated CIAC earns AFUDC, therefore the CWIP and its associated CIAC should be excluded from rate base.

Excluding CWIP net of CIAC, to better align the source of funds with its use (i.e. the CIAC funds received were applied against the costs incurred for the project) and is therefore properly excluded from the calculation of rate base. In addition, and as mentioned previously, any material CIAC received in advance of construction expenditures will continue to be deductions in the calculation of rate base as Developer Advances.

CIAC impact to ADIT

ADIT associated with CIAC in CWIP should be divided between nontaxable and taxable CIAC. Nontaxable CIAC (primarily interconnection CIAC) is treated as a reduction in basis for both book and tax purposes. On the other hand, although taxable CIAC is also a reduction in basis for book purposes, for tax purposes, the receipt of taxable CIAC creates tax basis by way of the recognition of taxable income and reverses by way of tax depreciation.

Nontaxable CIAC does not create ADIT since there is no book tax difference. Consequently, the regulatory netting of nontaxable CIAC against the plant assets should not create any issue with respect to the ADIT beginning balance for the rate base RAM calculation

Taxable CIAC generates a Deferred Tax Asset (DTA) as it is received and recorded into CWIP under the new FERC accounting. Prior NARUC accounting treatment with account 271 created DTA as CIAC was booked to 271, which is equivalent to what is now booked to CWIP. The origination and timing of the DTA under the FERC method will be equivalent to the NARUC method. However, under the old method, the DTA was immediately recognized as part of rate base, consistent with the treatment of the account 271 inclusion. However, under the FERC method, the generation of the DTA must be inventoried and tracked to match up with the amount of CIAC in CWIP and the amounts closed to plant in service. This tracking is necessary to ensure that the amount of DTA related to CWIP is excluded from rate base. Once CWIP costs are closed to plant, the related DTA will be included in rate base and will begin reversal through tax depreciation taken on the CIAC tax basis.

FERC accounting imbeds the book treatment of CIAC within CWIP and the ultimate plant and related depreciation. The separation will disappear and the Company asserts that the ADIT

effects will be the same with respect to the beginning balance of ADIT for the annual decoupling filing except to the extent CIAC is still in CWIP. This issue will be addressed along with the rate base treatment of CIAC associated with CWIP as mentioned above.

FERC accounting nets CIAC against Plant in Service for purposes of computing baseline and major plant additions. For RAM year tax depreciation and the related ADIT calculated for the change in RAM year ADIT, adopting the net plant additions as the RAM year tax additions will be a change that will result in a smaller amount of tax depreciation and ADIT “change” since the Company previously has assumed the gross additions to be the RAM year tax depreciable base. The Company asserts this is reasonable for the following reasons:

- 1) Under the old method, to the extent nontaxable CIAC was included in the RAM year numbers (through major projects or baseline projects), tax depreciable basis was overstated since there is no tax basis for assets funded by nontaxable CIAC.
- 2) With respect to taxable CIAC, the funded assets do have depreciable tax basis and it is accounted for in the RAM year additions tax depreciation. However, the receipt of taxable CIAC generates taxable income and deferred tax assets that increase rate base. The effect of this DTA from taxable CIAC was never recognized in the RAM tariff, which resulted in an overstatement of RAM year ADIT change, as it related to the projected plant additions.

For purposes of the 2019 RAM calculation, ADIT has been calculated on gross plant additions, consistent with the 2017 Test Year treatment and prior decoupling filings, however the Company is requesting treatment of CIAC in deferred tax to follow FERC accounting.

Summary

In summary, Hawaiian Electric prepared the 2019 annual decoupling filings in accordance with the historical treatment of CIAC. Historically, due to system constraints, CIAC records were not maintained with matching of the separate components (plant in service, CWIP, developer advances). As a result, the entire amount of CIAC was treated as a reduction to rate base and the Return on Investment was understated. As stated in Mr. Franklin’s T-12 direct testimony in Hawaii Electric Light’s 2019 Test Year rate case, the Companies propose to exclude the CIAC associated with CWIP in its calculation of rate base in the rate base RAM filings. Should the Commission approve Hawaii Electric Light’s proposal, Hawaiian Electric will implement this change in the annual decoupling filing in the year following the Commission’s approval.