

FILED

BEFORE THE PUBLIC UTILITIES COMMISSION

2019 MAR 29 P 4:12

OF THE STATE OF HAWAII

PUBLIC UTILITIES  
COMMISSION

In the Matter of the Application of	)	
	)	
HAWAIIAN ELECTRIC COMPANY, INC.	)	Transmittal No. 19-01 (Decoupling)
	)	
For approval to modify the RBA Rate Adjustment	)	Effective
in its Revenue Balancing Account Provision Tariff	)	Date: June 1, 2019
and approval of the Measured Performance and	)	
Calculation of the PIM Financial Incentives and	)	
Performance Incentive Adjustment	)	
_____	)	

I

In accordance with the Final Decision and Order in Docket No. 2008-0274, Hawaiian Electric Company, Inc. (“Hawaiian Electric” or “Company”) files its annual transmittal to revise paragraph E (Tariff Sheet No. 92D) of its Revenue Balancing Account (“RBA”) Provision tariff (“RBA Tariff”) to revise the RBA Rate Adjustment by \$0.000406 from the current rate of \$0.010350 per kilowatt-hour (“kWh”) to the new rate of \$0.010756 per kWh, effective June 1, 2019 through May 31, 2020. The RBA Rate Adjustment is based on the Company’s RBA balance at the end of 2018 and the Company’s Rate Adjustment Mechanism (“RAM”) Revenue Adjustment for calendar year 2019.

II

Hawaiian Electric, whose principal place of business and whose executive offices are located at 900 Richards Street, Honolulu, Hawai‘i, is a corporation duly organized under the

laws of the Kingdom of Hawai‘i on or about October 13, 1891, and now exists under and by virtue of the laws of the State of Hawai‘i. Hawaiian Electric is an operating public utility engaged in the production, purchase, transmission, distribution and sale of electricity on the island of O‘ahu.

### III

Correspondence and communications in regard to this Transmittal No. 19-01 are to be addressed to:

Dean K. Matsuura  
Manager, Regulatory Rate Proceedings  
Hawaiian Electric Company, Inc.  
P. O. Box 2750  
Honolulu, Hawai‘i 96840

### IV

Hawaiian Electric seeks Commission authorization of this tariff transmittal pursuant to Sections 16-601-111, 16-601-74, 16-601-75, and 16-601-86 of the *Rules of Practice and Procedure before the Public Utilities Commission*, Hawai‘i Administrative Rules (“HAR”), Title 16, Chapter 601. The proposed tariff revisions are in accordance with the Final Decision and Order in Docket No. 2008-0274, Order Nos. 32735 and 34514 in Docket No. 2013-0141 and other orders as explained herein.

### V

Pursuant to HAR §16-601-76, Hawaiian Electric incorporates by reference its latest available balance sheet and income statement for the twelve months ending December 31, 2018, filed with the Commission on February 28, 2019.

## VI

On August 31, 2010, the Commission issued its *Final Decision and Order* in Docket No. 2008-0274, approving the decoupling mechanism for the Hawaiian Electric Companies.<sup>1</sup> On December 29, 2010, the Commission issued its *Final Decision and Order* in Hawaiian Electric's 2009 test year rate case proceeding, Docket No. 2008-0083, allowing the Company to implement the decoupling mechanism and begin tracking target revenue and recorded adjusted revenue which serve as the baseline for future decoupling calculations. Beginning in 2011, Hawaiian Electric filed tariff transmittals to annually establish an RBA Rate Adjustment, which the Commission subsequently approved.<sup>2</sup>

On February 7, 2014, the Commission issued Decision and Order No. 31908 on the Schedule A issues in Docket No. 2013-0141, which directed the modification of certain provisions of the decoupling mechanisms. These modifications included use of the short term debt rate, as established in deriving the consolidated cost of capital in each of the Companies' last full rate case, to compute interest on the outstanding RBA balances.

On March 31, 2015, the Commission issued Order No. 32735 in Docket No. 2013-0141, which directed the Companies to make certain modifications to their decoupling mechanisms to be applied beginning with the Companies' 2015 decoupling filings. Among the modifications to

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

<sup>2</sup> Refer to Transmittal Nos. 11-02, 12-02, 13-03, 14-03, 15-03, 16-01, 17-02, and 18-01 filed March 31, 2011, March 30, 2012, March 28, 2013, March 31, 2014, March 31, 2015, March 31, 2016, March 31, 2017, and March 29, 2018 respectively, and approved in *Order Approving HECO's Tariff Filed on May 10, 2011, as Revised on May 26, 2011, Order No. 30418 Approving HECO's Tariff Transmittal Filed on March 30, 2012, as Revised on May 23, 2012, Order No. 31287 Consolidating Proceedings and Approving Multiple Tariff Transmittals, Order No. 32112 Consolidating Proceedings and Approving Tariff Transmittals, Order No. 32883 Consolidating Proceedings and Approving Amended Tariff Transmittals, as revised on June 3, 2015, Order No. 33724 Consolidating Proceedings, Providing Clarifications, and Approving Tariff Transmittals As Amended, Order No. 34581 Providing Clarifications and Approving Tariff Transmittals as Amended, and Order No. 35493 Approving Tariff Transmittals as Amended*, respectively. For information on past years' filings as well as additional background information on decoupling, refer to the transmittals cited here.

the RAM, the Commission amended the RAM Revenue Adjustment to be the lesser of (a) the RAM Revenue Adjustment determined according to tariffs and procedures “existing” at the time of issuance of Order No. 32735 (“Original RAM Methodology”) or (b) a RAM Revenue Adjustment Cap (“RAM Cap”). The RAM Cap shall be based on the target revenues<sup>3</sup> determined in accordance with the RBA and RAM tariffs times the cumulative annually compounded increase(s) in GDPPI for intervening years, adjusted to include applicable revenue taxes.<sup>4</sup>

On April 27, 2017, the Commission issued Order No. 34514 in Docket No. 2013-0141, which, among other things, established initial Performance Incentive Mechanisms (“PIMs”) to ensure that costs savings between general rate cases are not attained by measures that result in reduced reliability or customer service quality. Regarding reliability PIMs, the Commission found that a System Average Interruption Duration Index (“SAIDI”) PIM and a System Average Interruption Frequency Index (“SAIFI”) PIM would be reasonable and beneficial mechanisms for each of the Hawaiian Electric Companies.<sup>5 6</sup> Regarding a customer service quality PIM, the Commission found that a service level/call center performance PIM is reasonable and beneficial for each of the Hawaiian Electric Companies to implement.<sup>7</sup> The Commission ordered the financial incentives for the PIMs to be in terms of basis points on earnings and the initial maximum financial incentives for SAIDI and SAIFI reliability PIMs should be based on twenty

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<sup>3</sup> Order No. 32735 at 95-96.

<sup>4</sup> Order No. 32735 at 94.

<sup>5</sup> Order No. 34514 at 32.

<sup>6</sup> The Commission implemented the SAIDI and SAIFI reliability PIMs with asymmetrical incentives as proposed by the Consumer Advocate. See Order No. 34514 at 55.

<sup>7</sup> Order No. 34514 at 38.

(20) basis points, and maximum incentives for the customer service PIM should be eight (8) basis points.<sup>8</sup>

In addition, Order No. 34514 established a Major Project Interim Recovery (“MPIR”) adjustment mechanism. The MPIR adjustment mechanism is a reconciled cost recovery mechanism to provide opportunity for reasonable recovery of specifically allowed revenues for the net costs of approved eligible projects placed in service between general rate cases under circumstances wherein cost recovery is limited by a revenue cap and is not provided for by other effective recovery mechanisms. Projects and costs that may be eligible for recovery through the MPIR adjustment mechanism are Major Projects subject to review and approval in accordance with the applicable provisions of General Order No. 7.<sup>9</sup>

On December 29, 2017, the Commission issued Order No. 35165 in Docket No. 2013-0141, which ordered the Hawaiian Electric Companies to file revised PIM and RBA tariff sheets to become effective January 1, 2018, consistent with the amended tariff language provided by the Commission in Order No. 35075. The amended PIM tariff language ordered the Hawaiian Electric Companies to file, on or before March 31 of the year following an evaluation period, a transmittal documenting the Measured Performance and calculation of the PIM Financial Incentives and Performance Incentive Adjustment for the Evaluation Period<sup>10</sup>. The review of the annual PIM Provision transmittal will be conducted concurrent with and in conjunction with the annual RBA review transmittal (also referred to as the “annual decoupling transmittal” or “annual decoupling filing”).<sup>11</sup>

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<sup>8</sup> Order No. 34514 at 51-52.

<sup>9</sup> Order No. 34514, Attachment A at 3.

<sup>10</sup> 2018 is the first year that the PIMs are in effect. The evaluation period is calendar year 2018.

<sup>11</sup> See Order No. 35075 filed on December 1, 2017, in Docket No. 2013-0141.

On April 6, 2018, the Commission issued Order No. 35405 in Docket No. 2017-0352, which established a PIM for procurement of qualified variable renewable dispatchable generation in phase 1 of the Companies' Final Variable Request for Proposals ("Phase 1 Renewable Energy RFP PIM"). In its Order, the Commission stated that for the Purchased Power Agreements ("PPAs") submitted by the end of 2018, 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 \$3,500,000. This performance design does not include a penalty for failure to successfully execute the procurement process. The Commission determined that a reasonable benchmark for renewable energy projects paired with storage is 11.5 cents per kWh, and 9.5 cents per kWh for renewable energy-only projects.<sup>12</sup>

Order No. 35405 further noted that the allocation of the total amount of the PIM to the Companies will occur over two periods. The first allocation of 50% of the total PIM will occur shortly after the approval of the PPAs and that the performance incentive would be awarded to the Companies through their respective RBA tariffs. The second 50% allocation would occur following the first year of commercial operations of each project and the Companies submitting a report of the actual energy utilized by the Companies for each of the PPAs approved by the Commission. If the Companies do not utilize the full amount of energy forecasted, the second incentive award will be prorated in proportion to the actual amount of energy utilized by the Companies.<sup>13</sup>

On March 11, 2019, the Commission issued Decision and Order No. 36212 ("D&O 36212") in Docket No. 2017-0102 (Recovery of Implementation Costs Related to the On-Bill Financing Program), which ordered the Companies to recover On-Bill Financing Program

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<sup>12</sup> Order No. 35405 at 11-12.

<sup>13</sup> Order No. 35405 at 14-15.

(“OBF”) implementation costs over a period of two years, starting with the 2019 RBA Rate Adjustment.<sup>14</sup> In addition, D&O 36212 ordered that the Companies may propose allocating the total OBF implementation costs for each utility proportionally based on the number of customers for each utility. One half of the allocated OBF implementation costs, with appropriate adjustment for revenue taxes, will be allowed as an upward adjustment to target revenues used in the determination of each Company's RBA Rate Adjustment for each of the twelve-month periods commencing with June 1, 2019, and June 1, 2020. The OBF costs and appropriately associated revenue taxes shall not be subject to limitation by the RAM Cap and shall not be included in the basis for determining the RAM Cap. The Companies may recover the outstanding monthly OBF costs through the RBA Rate Adjustment in accordance with the normal interest rate and operation of the RBA Provision, but shall not otherwise collect a return on OBF implementation costs.<sup>15</sup>

## VII

By this Transmittal, Hawaiian Electric proposes to revise its decoupling RBA Rate Adjustment from the current rate of \$0.010350 per kWh to the new rate of \$0.010756 per kWh, effective June 1, 2019 through May 31, 2020.

The Company calculated its RBA Rate Adjustment according to its RBA and RAM tariff provisions<sup>16</sup> and the provisions of Order Nos. 32735, 32866<sup>17</sup>, 34514, 35661, 36212, and 35405. The 2019 RBA Rate Adjustment includes the recovery of the RBA balance at year end 2018, the calculated RAM revenue adjustment for calendar year 2019, recovery of the OBF

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<sup>14</sup> D&O 36212 at 18.

<sup>15</sup> D&O 36212 at 19.

<sup>16</sup> Refer to the Hawaiian Electric Tariff Revised Sheet Nos. 92, 92A – 92C, Sheet No. 92D and Revised Sheet Nos. 93 and 93A – 93H.

<sup>17</sup> See Order No. 32866 in Transmittal Nos. 15-03, 15-04, and 15-05 (consolidated).

implementation costs for year one of two, the calculated PIMs revenue adjustment at year end 2018, and a refund related to the final decision and order in the Hawaiian Electric 2017 test year rate case.<sup>18</sup>

In total, Hawaiian Electric's 2019 RBA Revenue Adjustment is \$69.8 million, consisting of \$41.9 million for the RBA balance for year-end 2018 and the OBF Cost Recovery, \$27.9 million in RAM revenue adjustment for 2019, \$0.1 million for the net PIM revenue adjustment, and (\$0.1) million for the Hawaiian Electric 2017 test year rate case refund.

Approximately 60% percent of the RBA Rate Adjustment includes the recovery of the RBA balance at year end 2018, approximately 40% of the RBA Rate Adjustment corresponds to the 2019 RAM Revenue Adjustment amount (which was limited to the RAM Cap), 1% for the PIM revenue adjustment, and less than -1% for the Hawaiian Electric 2017 test year refund. There are no adjustments to the RBA Rate Adjustment for earnings sharing revenue credits triggered for 2018 or for Commission-ordered major capital projects credits or baseline capital projects credits. (Refer to Schedule A of Attachment 2 described in Section VIII of this tariff transmittal.) Based on the revised rate, a monthly bill for a residential Hawaiian Electric customer using 500 kWh of electricity would increase by \$0.20.<sup>19</sup>

The 2019 RBA Rate Adjustment will replace the 2018 RBA Rate Adjustment in the Company's Revenue Balancing Account Provision tariff and, as more fully discussed below, reflects the RBA balance as of the end of 2018, and the RAM Revenue Adjustment subject to the

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<sup>18</sup> In accordance with HRS § 269-16( d), Hawaiian Electric will refund to customers with interest the interim revenues collected in excess of the final increase authorized by Final Decision and Order No. 35545. The Company has calculated a refund amount of \$48,000 including interest. See Hawaiian Electric's 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.

<sup>19</sup> The monthly bill impact for a household using 500 kWh with the revised rate would be \$5.38 as compared to \$5.18, based on the current rate. See Schedule A, line 12.



RAM Cap and adjustments as described above. The following sections explain the amounts that make up the 2019 RBA Revenue Adjustment.

## 1. RBA Balance

The RBA revenue balance results from the sales decoupling component of the Commission-approved decoupling mechanism, which breaks the linkage between the Company's sales and total electric revenue<sup>20</sup>. The approved RBA tariff allows Hawaiian Electric to record certain revenues only at target revenue levels (i.e., those authorized in the Hawaiian Electric 2017 test year rate case,<sup>21</sup> plus the effective RAM Revenue Adjustments, less any applicable earnings sharing and/or major or baseline capital project credits), independent of the level of sales experienced. The approved RBA tariff also requires interest to be recorded monthly to the RBA at the short-term interest rate<sup>22</sup> applied to the net-of deferred income tax balance.<sup>23</sup>

In 2018, the Company revised its interest calculation based on the statutory language of Internal Revenue Code §451(b) retroactive to January 2018, when an accumulated deferred income tax ("ADIT") adjustment arose as a result of the 2017 Tax Cuts & Jobs Act. The interest rate applied to net of ADIT RBA balances continued to be the approved short-term interest rate according to each respective Company's final rate orders.

The cumulative balance of the RBA at the end of 2018 was \$37.4 million, and consisted of revenues recorded in the RBA as a result of decoupling, net of the amounts previously recovered through the RBA Rate Adjustment. This is a decrease of \$11.8 million from the RBA

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<sup>20</sup> Decision and Order No. 30168, issued February 8, 2012 in Docket No. 2009-0164, page 97.

<sup>21</sup> See Final Decision and Order No. 35545, filed on June 22, 2018, in Docket No. 2016-0328 ("Hawaiian Electric 2017 Final D&O").

<sup>22</sup> In accordance with Order No. 32001, dated March 28, 2014, in Docket No. 2013-0141, the annual rate used to calculate interest on the RBA balance is the short term debt rate as established in computing the consolidated cost of capital in the Company's last full rate case.

<sup>23</sup> Additionally, based on Decision and Order No. 31908 in Docket No. 2013-0141 and pursuant to IRS approval to change the tax treatment of its RBA revenues, effective January 1, 2014, the Company changed its basis for computing interest from a gross to a net-of-deferred income tax RBA balance.

balance at the end of 2017 of \$49.2 million, and was the result of Hawaiian Electric recovering \$47.8 million of the RBA balance through the RBA Rate Adjustment and recording \$36.0 million in revenues,<sup>24</sup> adjustments, and interest for 2018. Therefore, the 2018 year-end balance of \$37.4 million represents the unrecovered cumulative RBA balance and additional amounts due to a shortfall in revenues<sup>25</sup> resulting from lower sales in 2018. Because the revenues associated with the RBA balance have already been recorded, they have already been reflected in the Company's net income in those years and will not contribute to the Company's earnings in 2019.

The total RBA balance (including the OBF Program Implementation Cost Recovery for year 1 of 2) of \$38.1 million is grossed-up to \$41.9 million to include revenue taxes.

New items in the 2019 RBA Revenue Adjustment are: 1) PIM adjustments, 2) OBF cost recovery, and 3) the refund for the 2017 test year rate case. These items are discussed in the sections below.

#### 1.1. Major Project Interim Recovery Adjustment Mechanism

On June 27, 2018, the Commission issued Decision and Order No. 35556<sup>26</sup> which approved the Company's application to recover costs for the Schofield Generating Station ("SGS") through the MPIR adjustment mechanism. Among other things, the Commission ordered that the Company may begin to accrue its costs for the SGS Project beginning from the first full month following Hawaiian Electric's completion of the in-service criteria with recovery of Hawaiian Electric's approved SGS Project costs to be incorporated as part of Hawaiian

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<sup>24</sup> This represents the difference between target revenues and recorded adjusted revenues, plus any adjustments for 2018.

<sup>25</sup> That is, "recorded adjusted revenue" as defined in the RBA Tariff.

<sup>26</sup> See Decision and Order No. 35556 ("D&O 35556") filed in Docket No. 2017-0213 (*For Approval to Recover Costs for Schofield Generating Station through the Major Project Interim Recovery Adjustment Mechanism*).

Electric's annual decoupling tariff filings until such approved Project costs are included in the Company's next general rate case.<sup>27</sup> In addition, in its annual RBA review transmittal filed on or before March 31 of each year, Hawaiian Electric shall incorporate the MPIR target revenue adjustments approved by the Commission as amended by the updated Schedule L filings in the determination of RBA and RAM revenue and rate adjustments. Revenues approved for recovery through the MPIR adjustment mechanism, unless otherwise determined by the Commission: (a) shall not be limited by the RAM Cap; (b) shall not be included in the basis for determining the O&M RAM adjustments; and (c) shall not be included in the basis for determining the annual RAM Cap.<sup>28</sup>

As Decision and Order No. 35556 authorized, on September 6, 2018, the Company submitted its Business Case Analysis and requested recovery regarding its net O&M costs for the SGS Project. Specifically, Hawaiian Electric requested that the Commission approve cost recovery for the annual O&M amount of \$2,087,000 (adjusted to \$1,787,000 annualized for year one and subject to monthly proration) for the SGS Project through the MPIR adjustment mechanism, commencing retroactively from the month following the notification to the Commission of the SGS in-service date of June 7, 2018, (i.e., effective July 1, 2018) until base rates that reflect the SGS project costs take effect in the Company's next general rate case.

On December 14, 2018, the Commission issued Order No. 35953 which: (1) approved Hawaiian Electric's request to recover its O&M costs for the SGS Project through the MPIR adjustment mechanism on an interim basis until the Project's costs are included in Hawaiian Electric's base rates; and (2) denied Hawaiian Electric's request to commence accrual of the O&M costs in the MPIR adjustment mechanism retroactive to July 1, 2018, and instead will

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<sup>27</sup> D&O 35556 at 67.

<sup>28</sup> D&O 35556 at 72-73.

allow the Company to begin accruing the Project's O&M costs as of October 1, 2018, based on the submission date of Hawaiian Electric's Business Case Analysis.<sup>29</sup>

In accordance with D&O 35556 and Order No. 35953, Hawaiian Electric has incorporated the MPIR revenue adjustments related to the SGS Project into its 2019 annual decoupling filing. Further details regarding the revenue adjustments can be found in Attachment 1 (revised Tariff Sheet No. 92E) and Attachment 2 (Schedules L and B1) in this filing.<sup>30</sup>

### 1.2. Performance Incentive Mechanism Provision

In accordance with Order Nos. 35165, 35405, and its Performance Incentive Mechanism Provision tariff,<sup>31</sup> Hawaiian Electric has included in this transmittal the 2018 measured PIM performance and calculation of the PIM financial incentives and performance incentive adjustment for the 2018 evaluation period. The table below provides a summary of the Company's 2018 PIM performance and the calculated 2018 financial incentives:

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<sup>29</sup> See Order No. 35953 at 1-2.

<sup>30</sup> On February 7, 2019, Hawaiian Electric filed updated Schedule B1, Schedule L, and revised Tariff Sheet No. 92E in accordance with Decision and Order No. 35556 ("D&O 35556"), issued on June 27, 2018 in Docket No. 2017-0213. Specifically, D&O 35556 ordered, on or before February 28 of each year prior to an interim order in Hawaiian Electric's next general rate case, the Company to file an updated "Schedule L" exhibit and additional supporting exhibits that clearly identify and support the amount and calculation of the adjustments to target revenues. The revised Tariff Sheet No. 92E and Schedules L and B1 in this filing supersede the February 7, 2019 filing.

<sup>31</sup> See Hawaiian Electric, Performance Incentive Mechanism Provision tariff, Sheet No. 98, effective January 1, 2018.

2018 <sup>32</sup>	2018 Performance Score <sup>33</sup>	2018 Performance Target	2018 Standard Deviation	Maximum \$ reward and (penalty)	2018 Calculated reward (penalty)
SAIFI	1.238	1.112	0.089	(\$2,244,112)	(\$929,827)
SAIDI	106.41	99.10	9.03	(\$2,244,112)	\$0
Call Center Performance	83.97%	79.66%	3.00%	\$897,645	\$391,972
Phase 1 Renewable Energy RFP					\$591,854
<b>Total</b>					<b>\$53,998</b>

The 2018 net total reward of \$53,998 has been incorporated into Schedule A of the Company's decoupling template, as shown in Attachment 2. For more details regarding the calculation of the 2018 performance and financial incentive, see Schedule M in Attachment 2 of this transmittal.

#### 1.2.1. Reliability PIMs

On December 18, 2018, the Company filed Transmittal No. 18-05 which requested permission to exclude the planned outages that occurred in July 2018 as a result of the Company's 25kV splice replacements from its 2018 SAIDI and SAIFI PIM calculations. Hawaiian Electric stated that excluding the planned outages from the performance metrics calculations is consistent with the intent of these PIMs, as exclusion would avoid the inequitable result of penalizing the Company for efforts that align with the reliability PIM goals of

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<sup>32</sup> The 2018 PIMs target, deadband, and maximum penalty amount were determined using a weighted average calculation based on the effective dates of interim and final orders issued in the Company's 2017 test year rate case (Docket No. 2016-0328). See Company's Tariff Sheet Nos. 98 and 98A which states, "the Performance Targets, Deadbands and the amount of Maximum Financial Incentives used to determine the PIM Financial Incentive 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."

<sup>33</sup> The 2018 SAIDI and SAIFI score excludes planned outages that occurred in July 2018 as a result of the Company's 25kV splice replacements.

maintaining service quality, reducing outage duration and frequency, and minimizing negative impacts to customers.

On January 7, 2019, the Consumer Advocate filed its review of Transmittal No. 18-05 and recommended that the Commission require the Company to report two sets of SAIDI and SAIFI calculations, one including the planned outages resulting from the 25kV splice replacement work, and the other excluding the replacement work.

In response to the Consumer Advocate's review of Transmittal No. 18-05, as shown below and in Attachment 2, 25kV splice replacement outages and service interruptions work adds 5.52 minutes to the 2018 SAIDI and 0.015 interruptions to the 2018 SAIFI for Hawaiian Electric. The following tables illustrate the SAIDI and SAIFI calculations and penalties with and without 25kV splice replacements impact:

2018	2018 Score with 25kV splice replacements	2018 Penalty with 25kV splice replacements	2018 Score without 25kV splice replacements	2018 Penalty without 25kV splice replacements
SAIFI	1.253	\$1,306,645	1.238	\$929,827
SAIDI	111.94	\$946,492	106.41	N/A
Total		\$2,253,137		\$929,827

Hawaiian Electric's 2018 SAIDI and SAIFI year-end results were higher (worse) than their respective PIM targets. This was due in large part to the amounts of SAIDI and SAIFI attributable to service interruptions for system maintenance in 2018 being significantly higher than the 10-year historical averages on which the PIM targets are based. The amounts of SAIDI and SAIFI due to system maintenance for 2018 (24 minutes and 0.22 interruptions respectively) were comparable to the past three years, but were more than twice the 10-year historical averages excluding 25 kV splice work and nearly three times the 10-year historical averages if 25 kV splice work is included. The amounts of SAIDI and SAIFI due to vegetation-caused interruptions for 2018 (12 minutes and 0.13 interruptions respectively) was more than a third

higher than the previous 10-year averages. The amounts of SAIDI and SAIFI for 2018 due to equipment failures, weather-related interruptions, and public causes (e.g., vehicle accidents) were lower (better) than their 10-year historical averages.<sup>34</sup> However, they were not enough to offset the higher SAIDI and SAIFI amounts for 2018 due to system maintenance and vegetation.<sup>35</sup>

Based on its request in Transmittal No. 18-05, the Company is proposing in this transmittal 2018 SAIDI and SAIFI performance incentives reflecting its proposed exclusion of planned 25kV splice replacements related outages and interruptions from the SAIDI and SAIFI measured performance for 2018.<sup>36</sup>

#### 1.2.2. Phase 1 Renewable Energy RFP PIM

On March 25, 2019, the Commission approved three PPAs for the Company's purchase of renewable dispatchable generation. The three awarded projects were:

1. Ho'ohana Solar 1- Decision and Order No. 36236 in Docket No. 2018-0431
2. Mililani Solar 1- Decision and Order No. 36232 in Docket No. 2018-0434
3. Waiawa Solar- Decision and Order No. 36231 in Docket No. 2018-0435

As shown in HECO-WP-M-005 to this transmittal, the Company calculated its shared savings incentive for these three PPAs to total \$5.9 million. In accordance with Order No. 35405, the Company's Phase 1 Renewable Energy RFP PIM incentive in this transmittal is equal to one-half of 20% of the savings from each PPA, for a total of \$0.6 million.<sup>37</sup>

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<sup>34</sup>The Company believes the higher maintenance referenced above contributed in part to lower equipment failures.

<sup>35</sup> The Companies will be providing a more detailed explanation regarding 2018 reliability PIM results at the upcoming 2019 decoupling meeting on April 5, 2019.

<sup>36</sup>Consistent with Transmittal No. 18-05, the Companies intend to file, as soon as next month (April 2019), a proposal for permanent and more comprehensive modifications to the existing SAIDI and SAIFI PIMs.

<sup>37</sup> Ho'ohana Solar-\$1,742,401 + Mililani Solar-\$2,499,368 + Waiawa Solar- \$1,676,768 = (\$5,918,536 x 20%) / 2 = \$591,854. See HECO-WP-M-005 for more details.

In total, the Companies are requesting to recover \$1.7 million in the 2019 annual decoupling filings for the Phase 1 Renewable Energy RFP PIMs, which is below the total \$3.5 million cap approved by the Commission in Order No. 35405. Please see the table below for a breakdown.

<b>Phase 1 Renewable Energy RFP PIM</b>	<b>PIM Reward</b>	<b>Reference</b>
Hawaiian Electric	\$591,854	Transmittal No. 19-01, HECO-WP-M-005
Hawai‘i Electric Light	\$530,582	Transmittal No. 19-02, HELCO-WP-M-004
Maui Electric	\$610,017	Transmittal No. 19-03, MECO-WP-M-004
<b>Total</b>	<b>\$1,732,453</b>	

### 1.3. On Bill Financing (“OBF”)

In accordance with D&O 36212, the Company has added recovery of OBF implementation costs of \$768,575 to the RBA prior calendar year-end balance, as shown on Schedule A in Attachment 2 to this filing. The amount of \$768,575 represents year one of Hawaiian Electric’s portion of the OBF implementation costs (net of revenue taxes) that were approved in D&O 36212. The detailed support and calculations can be found in Schedule N in Attachment 2 to this filing.

### 1.4. 2017 Test Year Rate Case Refund

In Order No. 35661, the Commission approved the Company’s calculation of \$48,000, including interest and revenue taxes, for the amount of refund due to customers as a result of Final Decision and Order No. 35545 in the Hawaiian Electric 2017 test year rate case. The Company is reflecting this refund as a credit to customers through the RBA Rate Adjustment effective June 1, 2019, including interest for the period from the original interim order through



May 31, 2019. The Company is including the 2017 test year rate case refund as an adjustment to decrease the RBA Rate Adjustment at Schedule A along with Target Revenues at Schedule B1.

### 1.5. Sales

Hawaiian Electric's 2018 recorded sales totaled 6,525.7 gigawatt-hours ("GWh"), which was 134.5 GWh, or 2.0% lower than the 6,660.2 GWh 2017 test year amount (based on the July 2016 forecast) adopted in the Hawaiian Electric 2017 test year rate case.

The commercial sector experienced lower sales in 2018 compared to 2017 test year levels, with a shortfall of 261.6 GWh or -5.1%, partially offset by higher than test year 2017 sales in the residential sector where customers increased their average monthly usage by 8.4%, (see Table 1 below).

Table 1  
Comparison of TY2017 to Actuals

	TY2017	2017 Actuals	2018 Actuals	Diff Btw 2018 and TY2017	% Diff
<u>Residential Sector</u>					
Sales (GWh)	1,480.8	1,578.8	1,607.9	127.1	8.6%
Customers	271,471	270,871	271,554	83	0.0%
Average Monthly Use (kWh/Customer)	455	486	493	38	8.4%
Renewable Generation GWh Impacts <sup>1</sup>	484.4	460.7	531.0	46.6	9.6%
Energy Efficiency Impacts (GWh) <sup>2</sup>	501.5	495.5	523.6	22.1	4.4%
Electricity Price (Nominal) ¢/kWh	28.19	28.22	31.18	2.99	10.6%
<u>Commercial Sector</u>					
Sales (GWh)	5,179.4	4,969.9	4,917.8	(261.6)	-5.1%
Customers	33,896	33,823	33,731	(165)	-0.5%
Renewable Generation GWh Impacts <sup>1</sup>	240.4	222.7	269.5	29.1	12.1%
Energy Efficiency Impacts (GWh) <sup>2</sup>	602.0	626.8	682.5	80.5	13.4%
Electricity Price (Nominal) ¢/kWh	22.92	23.07	26.20	3.28	14.3%
Total Sales (GWh)	6,660.2	6,548.7	6,525.7	(134.5)	-2.0%
% Difference		-1.7%	-0.4%		
<u>Weather</u>					
Cooling Degree Days <sup>3</sup>	4,837	4,911	5,055	218	4.5%
Average Wet Bulb Temperature (degrees)	69.6	69.1	70.5	0.9	1.3%

<sup>1</sup> Cumulative impacts are from systems installed under the NEM, SIA, CGS, GSP, CSS and ISE.

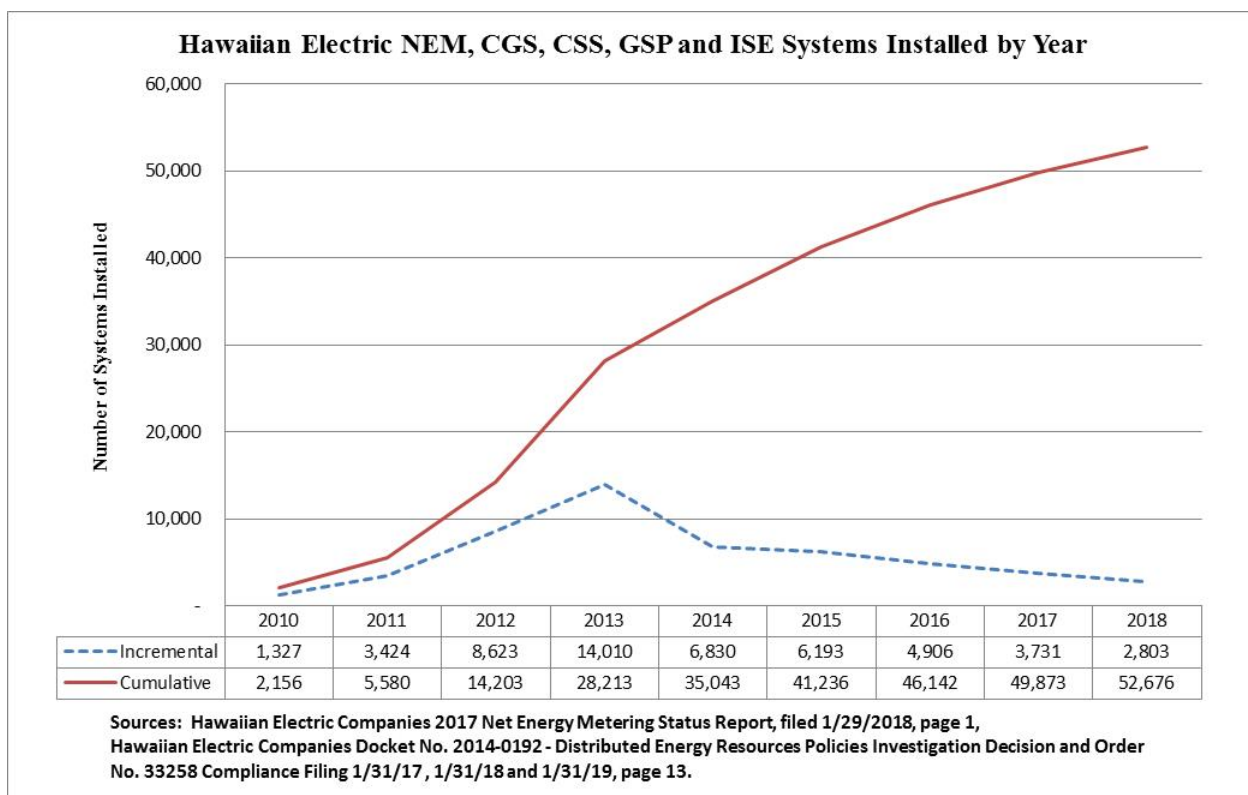
<sup>2</sup> TY2017 estimates are based on short-term projections received in 2016 from Hawaii Energy and EnerNOC Utility Solution's 2013 potential study.

Actuals include impacts provided by Hawaii Energy and are subject to change.

<sup>3</sup> A cooling degree day is a measurement designed to reflect the demand for energy to cool a home or business. It is calculated by subtracting 65 from the day's average temperature.

Several factors contributed to the lower than forecasted sales in 2018. The estimated impact to sales from the installation of energy efficient technologies, particularly in the commercial sector, was greater than the 2017 test year rate case forecast. Impacts consistent with Hawai‘i Energy’s short-term projections for Public Benefit Fund Administrator’s energy efficiency programs and codes and standards impacts from EnerNOC Utility Solutions’ State of Hawaii Energy Efficiency Potential Study, were used to develop the 2017 rate case forecast. The decline in sales in 2018 was also due to higher electricity prices over the 2017 test year, driven by higher year-over-year oil prices.

In addition, there was higher penetration in 2018 as compared to the 2017 test year of customer-sited renewable generation systems installed under the Company tariffs such as Net Energy Metering (“NEM”), Standard Interconnection Agreements (“SIA”), Customer Grid-Supply (“CGS”), Customer Grid-Supply Plus (“GSP”), Interim Smart Export (“ISE”) and Customer Self-Supply (“CSS”). The cumulative 2018 impacts of systems installed under NEM, SIA, CGS, GSP, ISE and CSS were higher than the 2017 test year assumed impacts by 9.6% for the residential sector and 12.1% for the commercial sector. Refer to the graph below for the number of NEM, CGS, GSP, ISE and CSS systems installed by year.



The decline in sales was partially offset by the effects of warmer, more humid than test year weather in 2018 compounded by load from new construction projects.

In summary, declining sales in 2018 created a shortfall in electric sales revenue and the recovery of the Company's fixed costs for the provision of electric service to its customers.

## 2. RAM Revenue Adjustment

In accordance with Order No. 32735, the RAM Revenue Adjustment is the lesser of

(a) the RAM Revenue Adjustment calculated according to the Original RAM Methodology or

(b) the RAM Cap. For the 2019 decoupling annual filing, the Company calculated the RAM Revenue Adjustment to be higher using the Original RAM Methodology, thereby triggering the use of the RAM Cap for the 2019 RAM Revenue Adjustment. See Schedule A1 and the summary table below.

	<u>RAM Cap<sup>38</sup></u>	<u>Original RAM Methodology<sup>39</sup></u>
2019 RAM Revenue Adjustment	\$27.9 million	\$29.6 million

The sections below further explain the calculations of both RAM Revenue Adjustment methodologies.

### 2.1. RAM Revenue Adjustment Cap

In calculating the 2019 RAM Cap, the basis, as shown in Schedule J in Attachment 2, is the Hawaiian Electric 2017 Final D&O Target Annual Revenues of \$600.0 million (See Schedule B1 in Attachment 2). The Commission approved 2018 RAM Cap increase amount (net of revenue tax) of \$12.6 million is added to the Target Annual Revenues to total 2018 Adjusted Target Revenues (before escalation) of \$612.6 million. To determine the 2019 RAM Cap increase, the 2018 Adjusted Target Annual Revenues amount of \$612.6 million is then multiplied by the 2019 GDPPI of 2.10% to calculate a 2019 RAM Cap increase (excluding Exceptional & Other Matters) of \$12.9 million. The 2019 RAM Cap increase is then added to the 2018 RAM Cap of \$12.6 million to total a 2019 RAM Cap of \$25.5 million (net of revenue

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<sup>38</sup> 2019 RAM Cap is calculated as \$27,945,687. See Schedule A1.

<sup>39</sup> 2019 RAM Under Existing Tariffs \$29,643,687 calculated as: O&M RAM (\$8,622,195) + Rate Base RAM-Return on Investment (\$13,403,568) + Depreciation and Amortization Expense (\$9,989,854) – Joint Pole Revenues (-\$2,371,930). See Schedule A1.

tax). This amount is then multiplied by the revenue tax factor of 1.0975 to calculate a 2019 RAM Cap Revenue Adjustment of \$27.9 million.

## 2.2. RAM Revenue Adjustment- Original RAM Methodology

The RAM Revenue Adjustment determined under the Original RAM Methodology totaled \$29.6 million. Hawaiian Electric's 2017 Final D&O is the basis for its 2019 Original RAM Methodology calculation. Below is a description of the four components: 1) O&M RAM, 2) Rate Base RAM, 3) Depreciation and Amortization RAM Expense, and 4) joint pole revenue reduction. In 2018, the Rate Base RAM and Depreciation and Amortization Expense were adjusted to reflect contributions in aid of construction ("CIAC") net in plant in service.

Because the total of the four components is higher than the 2019 RAM Cap shown above, the RAM Cap is applied for the 2019 RAM Revenue Adjustment.

### 2.2.1. O&M RAM Adjustment

Based on the Hawaiian Electric 2017 Final D&O, the O&M RAM calculations reflect such increases in utility bargaining unit labor and non-labor costs. The 2019 O&M RAM adjustment of \$8.6 million includes the 2019 bargaining unit wage increases as provided for in the current Collective Bargaining Agreement<sup>40</sup> with labor productivity offsets, plus applicable payroll taxes, and the GDPPI to escalate certain non-labor base expenses. (Refer to Attachment 2, Schedule C of this tariff transmittal.) Non-bargaining unit labor is not subject to escalation in the O&M RAM adjustment. Further, the non-labor cost escalation rate does not apply to any fuel, purchased power, Integrated Resource Planning ("IRP")/DSM, pension, Other Post-Employment Benefits ("OPEB"), Clean Energy/Renewable Energy Infrastructure or any costs

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<sup>40</sup> The current Collective Bargaining Agreement was ratified by the IBEW, Local 1260, on July 31, 2018 and reflects a 3.00% increase effective January 1, 2019, January 1, 2020, January 1, 2021, based on January 1, 2018 rates.

that are subject to recovery through separate rate tracking mechanisms. The 2019 O&M RAM adjustment amount covers two years of inflation and wage increases since the 2017 test year.

#### 2.2.2. Rate Base RAM and Depreciation and Amortization RAM

The rate base RAM return on investment adjustment (“Rate Base RAM Adjustment”) totals \$13.4 million, and the depreciation and amortization RAM expense is \$10.0 million, as calculated under the Original RAM Methodology. The rate base RAM adjustment calculation of approximately \$13.4 million is the result of the Company’s investments in plant to support reliability of the Company’s electrical infrastructure and preventively replace aging plant.<sup>41</sup> Based on the Hawaiian Electric 2017 Final D&O rate base for December 31, 2017, the Company updated the components of plant in service, ADIT, accumulated depreciation, and CIAC for 2017 test year balances.

The 2019 rate base RAM incorporates baseline plant additions (net of CIAC) based on an historical five-year average and major project plant additions (net of CIAC) totaling \$269.6 million (Refer to Attachment 2, Schedule D1, lines 28 plus 29, Schedule D2, line 52 and Schedule D3, line 10). Since the 2019 RAM Projected Amount includes CIAC activity related to plant in service, CWIP and Developer Advances, recorded balances of Unamortized CIAC and Developer Advances as of December 31, 2018 are not adjusted (refer to Attachment 3 and Attachment 2, HECO-WP-D1-001 of this transmittal for further discussion).

The Company included recovery for the West Loch Photovoltaic Project (“West Loch PV”) as a Major Project in the 2019 decoupling filing, as shown on Schedule D3 in Attachment 2 to this filing. In Docket No. 2016-0342, the Company is currently seeking recovery of costs for

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<sup>41</sup> For more details, please see the *Exemption From and Modification of General Order No. 7, Paragraph 2.3(g), Relating to Capital Improvements, Capital Projects Completed in 2018* (“2018 G.O. 7 Report”) in Docket No. 03-0257, dated March 27, 2019.

West Loch PV through the MPIR adjustment mechanism. Should the Commission approve recovery through the MPIR adjustment mechanism, the Company will remove this project from its Rate Base RAM calculation and include a MPIR revenue adjustment related to this project.

To assist the Commission's review, as part of this transmittal, the Company is including a revised decoupling template (Attachment 2A) that assumes that MPIR recovery of West Loch PV is approved. For illustrative purposes in Attachment 2A, West Loch PV is removed as a Major Project on Schedule D3 and from the Rate Base RAM calculation. Please see Attachment 2A, revised HECO-WP-D3-001 and HECO-WP-F1-003 for further details.

The Depreciation and Amortization calculated RAM adjustment of approximately \$10.0 million reflects a corresponding increase to depreciation and amortization expense above amounts in current revenue due to the net plant additions in 2018. (Refer to Attachment 2, Schedule E, line 95 of this transmittal).

### 2.2.3. Joint Pole Agreement Adjustments

In accordance with Decision and Order No. 35768 in Docket No. 2018-0075, the transfer of all assets agreed to between Hawaiian Telcom and the Hawaiian Electric Companies was approved on October 16, 2018. Therefore, the assets transferred to the Hawaiian Electric Companies were added to each Company's respective rate base as of October 16, 2018 and is included in the 2018 end of year net cost of plant in service.<sup>42</sup> As described in its Application, Exhibit E,<sup>43</sup> in Docket No. 2018-0075, the Companies' annual attachment fees received from Hawaiian Telcom are recorded as other operating revenue and costs to maintain the poles will be

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<sup>42</sup> See HELCO-2222 in Docket No. 2018-0368 for a summary of the joint pole agreement impact on revenue requirements in the Hawai'i Electric Light 2019 test year rate case.

<sup>43</sup> Upon the Effective Date of the proposed asset transfer, the Hawaiian Electric Companies will receive attachment revenues from Hawaiian Telcom for use of the poles. Such attachment revenues are \$2,371,930 per year for Hawaiian Electric, \$1,377,208 per year for Hawai'i Electric Light, and \$650,862 per year for Maui Electric (for a total of \$4,400,000 per year for the Hawaiian Electric Companies) over a ten-year period. See Decision and Order No. 35768, at 19-20, in Docket No. 2018-0075, filed on October 16, 2018.

included as normal maintenance expenses of the utility, and incremental pole maintenance costs will be off set with attachment revenues. Therefore, to avoid cost recovery of joint pole assets from both the attachment revenues received from Hawaiian Telcom as well as a return on the assets in the Company's rate base, Hawaiian Electric's allocation of \$2.4 million in attachment revenue reduces the Company's Original RAM Methodology calculation. The RAM Cap is based on net revenues from the last rate case which did not include the Joint Pole transaction; therefore no adjustment for attachment fee revenues is needed for the RAM Cap. See Attachment 2, Schedule A1 for more details.

#### 2.2.4. CIAC Adjustments

Attachment 3 of this transmittal describes the treatment of CIAC for book purposes and proposed modifications to Schedules D1, D2, D3, E, and the G series as a result of the approval from the Commission to change to the Federal Energy Regulatory Commission's ("FERC") Uniform System of Accounts ("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. The 2019 annual decoupling filing incorporates CIAC within Plant in Service, Construction Work in Progress ("CWIP") or Developer Advances consistent with FERC guidelines and 2017 test year treatment. In this filing, there is no impact to the calculation of rate base as a result of adoption of the FERC guidelines. However, as explained in Attachment 3 of this transmittal, and as documented in Mr. Paul Franklin's T-12 direct testimony in Hawai'i 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 Hawai'i Electric Light's proposal, Hawaiian Electric will implement this change in the annual decoupling filing consistent with Hawai'i Electric Light.



## VIII

### List of Attachments and Schedules

In Attachment 1 of this tariff transmittal, Hawaiian Electric submits its proposed revisions to its Revenue Balancing Account Provision tariff, including the proposed RBA Rate Adjustment rate in Section E of Revised Sheet No. 92D, the change in annual target revenue in Revised Sheet No. 92E, and additional language on Revised Sheet Nos. 92A and 92D clarifying the allowance of future Commission approved adjustments that will be flowed through the RBA Rate Adjustment. In addition, the Company is proposing to add to its tariff Sheet No. 92F, which summarizes historical changes in target revenue that were previously in effect. Attachment 1 also includes proposed revisions to the Company's PIM Provision tariff on Revised Sheet No. 98D to allow the Company to incorporate the establishment and implementation of any future Commission approved PIMs. Attachment 1A provides the tariff sheets for the RBA and PIM Provision tariffs in blackline version.

Attachment 2<sup>44</sup> provides the calculation of the RBA Rate Adjustment in the following schedules, along with supporting workpapers:

Schedule A – Determination of 2019 RBA Rate Adjustment (Summary)

Schedule A1 – Determination of Total RAM Revenue Adjustment Allowed

Schedule B – Summary of Accumulated Revenue Balancing Account

Schedule B1 – Determination of Target Revenues

Schedule B2 – Determination of Recorded Adjusted Revenues

Schedule C – Determination of O&M RAM Adjustment

Schedule C1 – Summary of Operations and Maintenance Labor and Non-Labor Expense

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<sup>44</sup> The Company is including a revised decoupling template as Attachment 2A that assumes that MPIR recovery of West Loch PV is approved prior to June 1, 2019.

Schedule C2 – Non-Labor Exclusion Adjustment for O&M RAM

Schedule D – Determination of Rate Base RAM Adjustment – Return on Investment

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

Schedule D2 – Determination of Baseline Capital Projects Additions, Net of CIAC

Schedule D3 – Determination of Major Capital Project Additions, Net of CIAC

Schedule D4 – Determination of Adjusted Recorded Deferred Income Taxes

Schedule D5 – Determination of Adjusted Recorded Excess ADIT Regulatory  
Liability

Schedule E – Determination of Depreciation and Amortization RAM Adjustment

Schedule F – Determination of Change in Deferred Income Taxes

Schedule F1 – Determination of Tax Depreciation

Schedule F2 – Tax Depreciation on Major Capital Projects Additions

Schedule G – CIAC Summary

Schedule H – Earnings Sharing Calculations<sup>45</sup>

Schedule I – PUC-Ordered Major or Baseline Capital Projects Credits

Schedule J – Determination of RAM Cap

Schedule K – Exceptional & Other Matters

Schedule L – MPIR Adjustment Mechanism

Schedule L1 – MPIR Schofield Generation Station

Schedule M – PIM Provision

Schedule N – On-Bill Financing Recovery

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<sup>45</sup> The Company has provided its calculated ratemaking return on equity for year 2018 in Schedule H as required by the Commission in its *Final Decision and Order* in the decoupling proceeding (Docket No. 2008-0274) on August 31, 2010.

Attachment 3 of this transmittal describes the treatment of CIAC within the 2019 Annual Decoupling Filing as a result of the adoption of FERC USOA.

The Hawaiian Electric Companies and the Consumer Advocate jointly developed the format of the schedules in Attachment 2, which the Companies have used for their annual RBA Rate Adjustment submissions since 2012.

WHEREFORE, Hawaiian Electric, consistent with the advance notice required by law, hereby respectfully requests that its proposed revisions to the Revenue Balancing Account Provision and Rate Adjustment Mechanism Provision tariffs be allowed to become effective on June 1, 2019.

DATED: Honolulu, Hawai'i, March 29, 2019.

  
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Brian Y. Hyane  
Attorney for  
HAWAIIAN ELECTRIC COMPANY, INC.

# 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"	March 1, 2019	Purchased Power Adjustment Clause
94A	"PPAC"	March 1, 2019	Purchased Power Adjustment Clause
94B	"PPAC"	March 1, 2019	Purchased Power Adjustment Clause

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated March 29, 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"	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.

Transmittal Letter dated March 29, 2019.

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 1<sup>st</sup> through May 31<sup>st</sup> 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 March 29, 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 March 29, 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	<u>100.00%</u>

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 ..... 1.0756 ¢/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 March 29, 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)	<u>\$1,529,709</u>
	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	<u>\$599,974</u>
8	Authorized RAM Revenues	\$27,946
9	Revenue Tax	(\$2,483)
10	Net RAM Adjustment	<u>\$25,463</u>
11	Authorized MPIR Revenues	\$19,811
12	Revenue Tax	(\$1,760)
13	Net MPIR Adjustment	<u>\$18,051</u>
14	Earnings Sharing Revenue Credits	\$0
15	Revenue Tax	\$0
16	Net Earnings Sharing Revenue Credits	<u>\$0</u>
17	Performance Incentive Mechanism (PIM)	\$54
18	Revenue Tax	(\$5)
19	Net PIM Reward (Penalty)	<u>\$49</u>
20	2017 Test Year Final D&O Refund	(\$48)
21	Revenue Tax	\$4
22	Net 2017 Test Year Final D&O Refund	<u>(\$44)</u>
23	On-Bill Financing Pgm Implementation Costs	\$844
24	Revenue Tax	(\$75)
25	Net On-Bill Financing Adjustment	<u>\$769</u>
26	Effective Target Revenue	\$644,262

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 No. 19-01 Schedule B1, filed March 29, 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 March 29, 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)	\$644,262	\$13,638	Schedule B1 filed in Transmittal No. 19-01 on 3/29/2019.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated March 29, 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  $\pm 1$  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:  $\pm 0.088$  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

# ATTACHMENT 1A

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

REVISED SHEET NO. 50E  
Effective June 1, 2019

Deleted: February 1, 2019

Deleted: March 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"	<u>June 1, 2019</u>	<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"	<u>June 1, 2019</u>	<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"	March 1, 2019	Purchased Power Adjustment Clause
94A	"PPAC"	March 1, 2019	Purchased Power Adjustment Clause
94B	"PPAC"	March 1, 2019	Purchased Power Adjustment Clause

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2018

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HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated March 29, 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 March 29, 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 1<sup>st</sup> through May 31<sup>st</sup> 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.

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

Deleted: January 11, 2018

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated March 29, 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 March 29, 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: 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 ..... 1.0756 ¢/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.

Deleted: May 29, 2018

Transmittal Letter Dated March 29, 2019

Superseding REVISED SHEET NO. 92E

REVISED SHEET NO. 92E

Effective January 1, 2019

Effective June 1, 2019

Deleted: August 17, 2018

Deleted: January 1, 2019

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

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	\$27,946
9	Revenue Tax	(\$2,483)
10	Net RAM Adjustment	\$25,463
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	\$644,262

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 No. 19-01 Schedule B1, filed March 29, 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.

Deleted: Docket No. 2017-0213; Order No. 35953, issued December 14, 2018.

Deleted: December 21, 2018

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated March 29, 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>
<u>Annual Decoupling Filing</u>	<u>6/1/2017 thru 2/15/2018</u>	<u>\$604,302</u>	<u>N/A (1/1/2018 Baseline)</u>	<u>Schedule B1 filed in Transmittal No. 17-02 on 3/31/2017.</u>
<u>2017 Test Year Rate Case (Interim)</u>	<u>2/16/2018 thru 4/12/2018</u>	<u>\$637,077</u>	<u>\$32,775</u>	<u>Schedule B1 filed in Docket No. 2016-0328 on 1/19/2018.</u>
<u>2017 Test Year Rate Case (Interim)</u>	<u>4/13/2018 thru 5/31/2018</u>	<u>\$599,960</u>	<u>(37,117)</u>	<u>Schedule B1 filed in Docket No. 2016-0328 on 3/16/2018.</u>
<u>Annual Decoupling Filing</u>	<u>6/1/2018 thru 6/30/2018</u>	<u>\$612,574</u>	<u>\$12,614</u>	<u>Schedule B1 filed in Transmittal No. 18-01 on 3/29/2018.</u>
<u>MPIR (Schofield)</u>	<u>7/1/2018 thru 9/30/2018</u>	<u>\$618,587</u>	<u>\$6,013</u>	<u>Schedule B1 filed in Docket No. 2017-0213 on 7/18/2018.</u>
<u>MPIR (Schofield)</u>	<u>10/1/2018 thru 12/31/2018</u>	<u>\$620,374</u>	<u>\$1,787</u>	<u>Schedule B1 filed in Docket No. 2017-0213 on 12/21/2018.</u>
<u>MPIR (Schofield)</u>	<u>1/1/2019 thru 5/31/2019</u>	<u>\$630,624</u>	<u>\$10,250</u>	<u>Schedule B1 filed in Transmittal No. 19-01 on 2/7/2019.</u>
<u>Annual Decoupling Filing</u>	<u>6/1/2019 (current)</u>	<u>\$644,262</u>	<u>\$13,638</u>	<u>Schedule B1 filed in Transmittal No. 19-01 on 3/29/2019.</u>

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated March 29, 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.



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.

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  $\pm 1$  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:  $\pm 0.088$  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 March 29, 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.

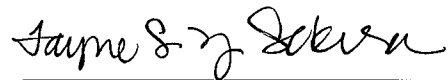
PIM:	Effective Period:	Performance Target:	Deadband:	Maximum Reward:	Maximum Penalty:
SAIFI	1/1/2018 thru 2/15/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,039,094
SAIFI	2/16/2018 thru 4/12/2018	1.116 interruptions per customer	+/- 0.090	N/A	\$2,260,799
SAIFI	4/13/2018 thru 8/31/2018	1.116 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.

## ATTESTATION

Tayne S. Y. Sekimura, is the Senior Vice President & Chief Financial Officer of Hawaiian Electric Company, Inc., and says that she certifies that the attached Schedules supporting the proposed changes in customer rates pursuant to the Revenue Balancing Account ("RBA") Provision have been prepared in compliance with the Rate Adjustment Mechanism Provision and the RBA Provision, and prior Commission rate orders are true, correct and complete to the best of her knowledge and belief.



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Tayne S. Y. Sekimura

Attachment 2 – List of Schedules and Workpapers

Schedule A	HECO-WP-A-001
Schedule A1	HECO-WP-B-001
Schedule B	HECO-WP-C-001
Schedule B1	HECO-WP-C-002
Schedule B2	HECO-WP-C-003
Schedule C	HECO-WP-D-001
Schedule C1	HECO-WP-D2-001
Schedule C2	HECO-WP-D2-002
Schedule D	HECO-WP-D2-003
Schedule D1	HECO-WP-D2-004
Schedule D2	HECO-WP-D3-001
Schedule D3	HECO-WP-D4-001
Schedule D4	HECO-WP-D4-002
Schedule D5	HECO-WP-D4-003
Schedule E	HECO-WP-E-001
Schedule F	HECO-WP-F-001
Schedule F1	HECO-WP-F1-001
Schedule F2	HECO-WP-F1-002
Schedule G	HECO-WP-F1-003
Schedule H	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**

Line No.	that/ Description (a)	Reference (b)	Amount (c)	6/1/2019 Rate Amount (d)		
<u>RECONCILIATION OF RBA BALANCE:</u>						
1	RBA Prior calendar year-end balance	Schedule B	\$ 37,369,671			
1a	OBF Program Implementation Cost Recovery - Year 1 of 2	Schedule N	\$ 768,575			
			\$ 38,138,246			
2	Revenue Tax Factor	Schedule C	1.0975			
3	Revenue for RBA Balance			\$ 41,856,725		
<u>RATE ADJUSTMENT MECHANISM "RAM" AMOUNT:</u>						
4	Total RAM Revenue Adjustment Allowed (Note 2)	Schedule A1		\$ 27,945,687		
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&amp;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)		\$ 69,808,410		
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>1.0756</u>	6/1/2018 <u>1.0350</u>	Incremental <u>0.0406</u>
12	MONTHLY BILL IMPACT @ 600 KWH			<u>\$ 6.45</u>	<u>\$ 6.21</u>	<u>\$ 0.24</u>
	MONTHLY BILL IMPACT @ 500 KWH			<u>\$ 5.38</u>	<u>\$ 5.18</u>	<u>\$ 0.20</u>
Note (1): 2019 RBA Rate Adjustment Breakdown						
		Col. (d)	Rate Adjustment cents per kWh	Percentage Share		
	RBA Balance	\$ 41,856,725	0.64495177	59.9594%		
	RAM Amount	\$ 27,945,687	0.43060274	40.0320%		
	Earnings Sharing Revenue Credits	\$ -	0.00000000	0.0000%		
	Performance Incentive Mechanism Reward (Penalty)	\$ 53,998	0.00083204	0.0774%		
	2017 Test Year Rate Case Final D&O Refund	\$ (48,000)	-0.00073961	-0.0688%		
	Major or Baseline Capital Projects Credits	\$ -	0.00000000	0.0000%		
		\$ 69,808,410	1.07564693	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)
<b>RAM REVENUE ADJUSTMENT DETERMINED ACCORDING TO EXISTING TARIFFS AND PROCEDURES</b>			
1	O&M RAM	Schedule C	\$ 8,622,195
2	Rate Base RAM - Return on Investment	Schedule D	\$ 13,403,568
3	Depreciation & Amortization RAM Expense	Schedule E	\$ 9,989,854
4	Joint Pole Revenues	Note 3	(2,371,930)
5	Total RAM Revenue Adjustment		<b>\$ 29,643,687</b>
<b>RAM REVENUE ADJUSTMENT CAP</b>			
6	RAM Cap for 2019 RAM Revenue Adjustment	Schedule J	\$ 27,945,687
7	Plus: Exceptional and Other Matters	Schedule K	\$ -
8	2019 Cap - Total RAM Revenue Adjustment (Note 2)		<b>\$ 27,945,687</b>
9	<b>Total RAM Revenue Adjustment Allowed</b> (Note 1)	Lesser of Line 5 or Line 8	<b>\$ 27,945,687</b> 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	RBA Balance Before ADIT	ADIT Related to RBA Revenues	Net Ending Balance	Average Balance Subject to Interest	Interest at 1.75%/year	Ending Balance
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
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	December - Revised - Note (2)						\$ 49,231,536	(12,678,046)	\$ 36,553,490			
3												
4	2018 January	\$ 49,231,536	\$ 48,948,443	\$ 43,871,232	\$ 5,077,211	\$ (3,369,650)	\$ 50,939,097	\$ (12,413,920)	\$ 38,525,177	\$ 37,539,333	\$ 54,745	\$ 50,993,842
5	February	\$ 50,993,842	\$ 45,953,154	\$ 40,430,219	\$ 5,522,935	\$ (4,185,853)	\$ 52,330,924	\$ (12,149,794)	\$ 40,181,130	\$ 39,380,526	\$ 57,430	\$ 52,388,354
6	March	\$ 52,388,354	\$ 51,603,222	\$ 46,365,780	\$ 5,237,442	\$ (3,345,112)	\$ 54,280,684	\$ (11,885,668)	\$ 42,395,016	\$ 41,316,788	\$ 60,254	\$ 54,340,938
7	April	\$ 54,340,938	\$ 49,061,587	\$ 45,638,864	\$ 3,422,723	\$ (3,430,466)	\$ 54,333,195	\$ (11,621,542)	\$ 42,711,653	\$ 42,583,461	\$ 62,101	\$ 54,395,296
8	May	\$ 54,395,296	\$ 50,396,658	\$ 43,802,261	\$ 6,594,397	\$ (3,440,553)	\$ 57,548,959	\$ (11,357,416)	\$ 46,191,543	\$ 44,482,558	\$ 64,870	\$ 57,613,829
9	June	\$ 57,613,829	\$ 49,434,694	\$ 46,747,403	\$ 2,687,291	\$ (4,129,862)	\$ 56,171,258	\$ (11,093,290)	\$ 45,077,968	\$ 45,667,190	\$ 66,598	\$ 56,237,856
10	July	\$ 56,237,856	\$ 53,817,091	\$ 50,144,604	\$ 3,672,487	\$ (4,451,628)	\$ 55,458,715	\$ (10,829,164)	\$ 44,629,551	\$ 44,887,058	\$ 65,460	\$ 55,524,175
11	August	\$ 55,524,175	\$ 55,301,701	\$ 50,148,289	\$ 5,153,412	\$ (4,546,694)	\$ 56,130,893	\$ (10,565,038)	\$ 45,565,855	\$ 45,130,433	\$ 65,815	\$ 56,196,708
12	September	\$ 56,196,708	\$ 53,507,798	\$ 54,077,963	\$ (570,165)	\$ (4,315,858)	\$ 51,310,685	\$ (10,300,912)	\$ 41,009,773	\$ 43,320,721	\$ 63,176	\$ 51,373,861
13	October	\$ 51,373,861	\$ 54,683,113	\$ 56,214,832	\$ (1,531,719)	\$ (4,543,142)	\$ 45,299,000	\$ (10,036,786)	\$ 35,262,214	\$ 38,167,581	\$ 55,661	\$ 45,354,661
14	November	\$ 45,354,661	\$ 51,095,307	\$ 51,711,892	\$ (616,585)	\$ (4,111,538)	\$ 40,626,538	\$ (9,772,660)	\$ 30,853,878	\$ 33,085,876	\$ 48,250	\$ 40,674,788
15	Oct/Nov True-Up	\$ 305,574	\$ 305,574	\$ 305,574	\$ 305,574	\$ 305,574	\$ 305,574	\$ 305,574	\$ 305,574	\$ 305,574	\$ 453	\$ 40,980,815
16	December	\$ 40,980,815	\$ 51,366,986	\$ 51,070,061	\$ 296,925	\$ (3,951,109)	\$ 37,326,631	\$ (9,508,534)	\$ 27,818,097	\$ 29,513,126	\$ 43,040	\$ 37,369,671
17			\$ 615,475,328	\$ 580,223,400	\$ 35,251,928	\$ (47,821,465)					\$ 707,853	
18												
19												
20	2019 January	\$ -	\$ 51,648,125	\$ -	\$ 51,648,125	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	February	\$ -	\$ 47,864,379	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	March	\$ -	\$ 51,080,563	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	April	\$ -	\$ 50,323,814	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	May	\$ -	\$ 52,972,435	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24a	OBFR Recovery	\$ 1,537,150										
25	June	\$ -	\$ 51,991,917	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	July	\$ -	\$ 56,050,766	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	August	\$ -	\$ 57,596,994	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	September	\$ -	\$ 55,728,635	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	October	\$ -	\$ 56,952,732	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	November	\$ -	\$ 53,216,014	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31	December	\$ -	\$ 53,344,867	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Sources of Data: Sch. B1 Note (5) Sch B2 Cols (c)-(d) Note (1) Cols (b)+(e)+(f) Note (4) Note (2) Note (2) & (3) Cols (g)+(h) Curr Col (i)+(k) Prior Col (i)+(k) /2; Note (4) Cols (g)+(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): On December 22, 2017, the 2017 Tax Cuts & Jobs Act was signed into law to be effective for tax years ending after December 31, 2017. In accordance with IRC §451(b), "...the all events test with respect to any item of gross income (or portion thereof) shall not be treated as met any later than when such item (or portion thereof) is taken into account as revenue in... an applicable financial statement of the taxpayer...". This change would supersede the RBA tax accounting treatment (deferred until received in rates) the IRS approved for the Companies on April 21, 2014 and adopted in Decision & Order No. 31908 on Schedule A of the Decoupling Investigation, issued in Docket No. 2013-0141 on February 7, 2014.

IRC §451(b) would eliminate the book tax temporary difference for which ADIT was provided and accordingly, would reduce to zero the tax adjustment to the basis for calculating RBA interest. This change imposed by IRC §451(b) should allow for the deferred RBA income (on which the RBA ADIT balance at December 31, 2017 is based) to be amortized into taxable income over the next 4 years (straight-line basis) with the effect of reducing the tax adjustment balance down to zero by the end of 2021.

RBA Regulatory Asset Balance at 12/31/2017	49,231,536
Composite Federal & State Income Tax Rate	25.75%
RBA ADIT Balance at 12/31/2017	12,678,046
Years	4
Annual amortization for years 2018 through 2021	3,169,511
Monthly ADIT amortization	264,126

Note (3): In April 2018, the Companies adjusted the March 31, 2018 RBA balance for the change in accounting methodology identified in Note (2). The January to March 2018 RBA balance subject to interest was recalculated and the RBA Balance was true-up in April 2018 for \$4,510.

Note (4): 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 (5): In December 2018, the Company recorded a RBA Target true-up adjustment resulting from the Schofield Generating Station MIPR 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	
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)	
3	Purchased Power Expense	Note (3), (5), (5a)	\$000s	\$ (438,707)	\$ (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)	
5	Last Rate Order Target Annual Revenues	Sum Lines 1...4	\$000s	\$ 512,170	\$ 637,091	\$ 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 eff 7/1/18	Col (g), lines (5+11+17+20+30)	\$000s				\$ 618,587		
37	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 10/1/18	Col (h), lines (5+11+17+20+30)	\$000s					\$ 620,374	
38	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 1/1/19	Col (i), lines (5+11+17+20+30)	\$000s						
39	June 1, 2019 Annualized Revenues w/RAM Increase & MPIR eff 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: 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
- 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
- 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 Revenues 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 Revenues effective 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 Revenues effective 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	\$ -	\$ 27,946	\$ 27,946
13	Less: Revenue Taxes on Line 12 at 8.885%		\$000s	\$ -	\$ (2,483)	\$ (2,483)
14	Net RAM Adjustment - Test Year +2	Lines 12 + 13	\$000s	\$ -	\$ 25,463	\$ 25,463
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: EARNINGS SHARING REVENUE CREDITS	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: PERFORMANCE INCENTIVE MECHANISM	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: 2017 TEST YEAR FINAL D&O REFUND	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: OBF PROGRAM IMPLEMENTATION COSTS	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	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			
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 eff 7/1/18	Col (g), lines (5+11+17+20+30)	\$000s			
37	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 10/1/18	Col (h), lines (5+11+17+20+30)	\$000s			
38	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 1/1/19	Col (i), lines (5+11+17+20+30)	\$000s	\$ 630,624		
39	June 1, 2019 Annualized Revenues w/RAM Increase & MPIR eff 1/1/19	Col (j), lines (5+14+17+20+23+26+29+30)	\$000s		\$ 644,262	\$ 644,262
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		\$52,765,031
42	February	7.26%	7.59%	\$47,864,379		\$48,899,461
43	March	8.10%	8.10%	\$51,080,563		\$52,185,196
44	April	7.84%	7.98%	\$50,323,814		\$51,412,082
45	May	8.44%	8.40%	\$52,972,435		\$54,117,981
46	June	8.47%	8.07%		\$51,991,917	
47	July	8.77%	8.70%		\$56,050,766	
48	August	9.04%	8.94%		\$57,596,994	
49	September	8.68%	8.65%		\$55,728,635	
50	October	8.78%	8.84%		\$56,952,732	
51	November	8.26%	8.26%		\$53,216,014	
52	December	8.26%	8.28%		\$53,344,867	
53	Total Distributed Target Revenues	100.00%	100.00%	\$253,889,316	\$384,881,925	\$259,379,751



**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)						<b>\$ 8,622</b> 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<sup>A</sup> (57.79% \* 9,342)      \$ (5,399)  
Payroll Taxes related to Bargaining Unit labor      \$ 3,943

<sup>A</sup> 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	<b>1.91%</b>	<b>2.24%</b>	

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	<b>2.10%</b>	<b>2.10%</b>	(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)
<b>Operation and Maintenance</b>	<b>47,048</b>	<b>64,435</b>	<b>111,483</b>	<b>176,928</b>	<b>288,411</b>
	To Sch C			To Sch C2	<b>X</b>
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)
<b>TOTAL</b>	<b>111,573</b>	<b>981,133</b>	<b>1,092,706</b>	<b>(10,475)</b>	<b>1,082,231</b>
<b>TOTAL O&amp;M EXPENSE (Excl Fuel &amp; Purch Po</b>	<b>111,573</b>	<b>187,313</b>	<b>298,886</b>	<b>(10,475)</b>	<b>288,411</b>

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>\$ 128,963</u>
9	PRETAX RATE OF RETURN (Line 7, Col g)						<u>9.47%</u>
10	PRETAX RETURN REQUIREMENT						\$ 12,212.8
11	REVENUE TAX FACTOR (1/(1-8.885%))						<u>1.0975</u>
12	RATE BASE RAM - RETURN ON INVESTMENT \$000						<u>\$ 13,403.6</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	Budgeted Balance	Adjusted	RAM Projected	Estimated at		
		12/31/2017	12/31/2017	Recorded at 12/31/2018	Amounts	12/31/2019		
	(a)	(b)	(c)	(d)	(e)	(f)		
				(Note 1)	See Detail Below			
1	Net Cost of Plant in Service, Net of CIAC	\$ 2,595,452	\$ 2,770,695	\$ 2,457,336	\$ 129,095	\$ 2,586,431	(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	hello	6,470					
12	Total Additions	\$ 2,861,483	\$ 3,060,286	\$ 2,735,147	\$ 129,095	\$ 2,864,242		
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)	(281,810)	(6,386)	(288,196)	(Note 4)	
17	ADIT Excess Reg Liability	-	(203,950)	(277,406)	7,121	(270,285)	(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)	\$ (684,879)	\$ 735	\$ (684,144)		
23	Working Cash	3,904	3,904	3,904	Not Updated	3,904		
24	Rate Base at Proposed Rates	\$ 1,921,848	\$ 2,058,400	\$ 2,054,172		\$ 2,184,002		
25	Average Rate Base		\$ 1,990,124			\$ 2,119,087		
26	Change in Rate Base					\$ 128,963		
							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	(140,510)				
31	Net Plant		Sum: Lines 28-30	129,095				
32	ADIT - Baseline and Major Capital Projects		Schedule F	(6,386)				
33	Excess ADIT Reg Liability Amortization		Schedule D5	7,121				

**Footnotes:**

1	Amounts are recorded, except for the following adjustments:			Schedule D4 ADIT
		Plant in Service	Acc. Depr.	
[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	
	Unbilled Pole Credits (HECO-WP-H-001)	(4,435)		
	<b>Major Project Adjustments:</b>	<b>HECO-WP-D2-001</b>	<b>HECO-WP-E-001</b>	<b>HECO-WP-D4-002</b>
	ERP EAM Hardware	(14)	3	2
	Koolau-Wailupe #1 Str 30 P9 Replace	(142)	4	14
	Total Adjustments	\$ (156)	\$ 7	\$ 16
	<b>Major Project Interim Recovery Adjustments:</b>	<b>HECO-WP-D2-001</b>	<b>HECO-WP-E-001</b>	<b>HECO-WP-D4-003</b>
	Schofield Generation Station	(144,744)	-	1,832
	Total Adjustments	\$ (144,744)	\$ -	\$ 1,832
	Adjusted Balance	\$ 4,333,072	\$ (1,875,736)	\$ (281,810)

- 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.

[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	<b>Total Plant Additions</b>		<b>269,326,250</b>	<b>266,537,660</b>	<b>241,294,569</b>	<b>276,754,129</b>	<b>358,703,631</b>
2	Less: Non-Utility Plant Additions	NOTE (2)	-	(63)	(3,954)	-	-
3	<b>Adjusted Total Plant Additions</b>		<b>269,326,250</b>	<b>266,537,597</b>	<b>241,290,615</b>	<b>276,754,129</b>	<b>358,703,631</b>
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	<b>Total Net Plant Additions (excluding major projects)</b>		<b>239,412,448</b>	<b>263,882,953</b>	<b>234,387,307</b>	<b>272,640,149</b>	<b>189,284,505</b>
40							
41	<b>Last Five-Year Average - Plant Additions</b>					<i>To Sch F1</i>	<b>239,921,472</b>
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	<b>Total CIAC Additions (excluding major projects)</b>		<b>(31,759,325)</b>	<b>(42,125,490)</b>	<b>(33,488,540)</b>	<b>(59,849,268)</b>	<b>(29,471,825)</b>
49							
50	<b>Total Net Plant Additions, Net of CIAC (excluding major projects)</b>		<b>207,653,123</b>	<b>221,757,463</b>	<b>200,898,767</b>	<b>212,790,881</b>	<b>159,812,680</b>
51							
52	<b>Last Five-Year Average - Plant Additions, Net of CIAC</b>					<i>To Sch D1</i>	<b>200,582,583</b>

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	<b>Total Major Capital Projects Qualifying for 2019 RAM, Net of CIAC</b>			<b><u>\$ 69,045,439</u></b>	<b><u>\$ (22,683)</u></b>
10				<i>To Sch D1 &amp; F2</i>	<b><u>\$ 69,022,756</u></b>

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	Reference	DR/(CR) Balance at 12/31/17	DR/(CR) Adjustments	DR/(CR) Amortization	DR/(CR) Balance at 12/31/18 (e) = (c) + (d)	Life (f)	Amortization (g)	Est Bal at 12/31/19 (h) = (e) + (g)
	(a)	(b)	(c)		(d)				
1	Plant 282 - protected		(215,702,497)	(7,803,210)		(223,505,707)	0		(223,505,707)
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)
<hr/>									
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>7,121,402</u> To Sch D1 To Sch E To Sch F	<u>(270,284,716)</u> To Sch D1

**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.

**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	<b><u>Depreciable Plant</u></b>					
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		245,168,525	0.03390	8,311,213
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	-	1,827,588,798	0.03701	67,637,596
41						
42	Tot - T & D	2,894,981,897	(2,497,651)	2,892,484,246		94,776,398
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	(148,068,263)	3,942,241,682		115,606,880
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	(162,200,020)	4,016,298,269	0.02864	119,666,281

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	<b>Amortizable Plant</b>					
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	\$ 140,509,937
86	LESS: Vehicle Depreciation (A/C 392 above)				Line 59	\$ (3,620,576)
87	LESS: ADIT Excess Amortization				Schedule D5	(7,121,402)
88	LESS: Depreciation & Amortization in Current Revenues				Footnote 2	\$ (120,665,585)
89						
90	RAM Adjustment for Depreciation & Amortization					\$ 9,102,373
91	RAM Adjustment for CIAC Amortization				Note 5	\$ -
92	Total RAM Adjustment for Depreciation & Amortization					\$ 9,102,373
93	Times: Factor for Revenue Taxes				Schedule C Line 5	1.0975
94						
95	RAM DEPRECIATION & AMORTIZATION					\$ 9,989,854

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)
	Tenant Improvement Allowance (see Footnote 4)		(14,132)
	ARO Assets included in Depreciable Plant	GL# 10100001	(3,423)
	Total		\$ (162,455)
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	20,239,341
2	Amortization of Excess Deferreds	Schedule D5	7,121,402
3	Subtotal		<u>27,360,743</u>
4	Effective Federal Tax Rate	HECO-WP-F-001	<u>19.7368%</u>
5	Federal Deferred Tax on State Tax Depreciation		5,400,147
6	Add back State Tax Depreciation	Line 1	(20,239,341)
7	Federal Tax Depreciation	Schedule F1	<u>20,239,341</u>
8	Federal/State Difference		-
9	Tax Rate on Federal Only Adjustment	HECO-WP-F-001	<u>21%</u>
10	Federal Deferred Tax Adjustment		-
11	Total Federal Deferred Taxes Before Proration		5,400,147
12	Proration Adjustment	HECO-WP-F1-003	<u>(659,544)</u>
13	Total Federal Deferred Taxes After Proration		<u>4,740,603</u>
	<b>STATE DEFERRED TAXES</b>		
14	State Tax Depreciation	Line 1	20,239,341
15	Amortization of Excess Deferreds	Line 2	7,121,402
16	Subtotal		<u>27,360,743</u>
17	Effective State Tax Rate	HECO-WP-F-001	<u>6.0150%</u>
18	Total State Deferred Taxes		1,645,759
19	TOTAL FED AND STATE DEFERRED TAXES		<u>6,386,362</u>
			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.

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	
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	\$ 127,524	\$ 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	<u>\$ 2,414,549</u>	<u>100.00%</u>	<u>7.45%</u>
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)				\$ 93,998
17	Less: Preferred Income Requirement (Line 8 Weighted Cost times Rate Base)				1,055
18	Income Available for Common Stock				\$ 92,943
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)				7.96%
21	<u>Earnings Sharing Revenue Credits:</u>	Basis Points			
22	Achieved ROE (basis points)	796			
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)				<u>0</u>
					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

**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	<b>Major Project Interim Recovery Total</b>		<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

<u>Reconciliation to Schedule B1 (Info Only)</u>			
	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)
	(a)	(b)	(c)=(a)-(b)	(d)	(e)	
<b><u>Service Quality:</u></b>						
<b>Normalized T&amp;D SAIFI</b>						
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)
<b>Normalized T&amp;D SAIDI</b>						
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	\$ -
<b>Call Center Performance (Excludes Blocked Calls)</b>						
	83.97%	79.66%	4.31%	3.00%	\$ 897,645	\$ 391,972
<b><u>Phase 1 Renewable Energy RFP PIM</u></b>						
First Allocation ***						\$ 591,854
Total Without Exclusion						\$ (1,269,311)
Total With Exclusion						\$ 53,998
<b>To Sch A</b>						

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**

Line	Company	Note 1		Cost Recovery (excluding Rev Tax)			Cost Recovery (including Rev Tax)		
		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 <b>To Sch B</b>	768,575 <b>To Sch A</b>	768,575	1,687,022	843,511 <b>To Sch B1</b>	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					Total
	<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>	
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	1.8	1.9	1.7	1.6	1.6	1.4	1.4	1.3	1.3	1.5	1.3	1.4	18.2
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
Billed RBA Revenues	11,581,297	10,784,945	5,161,437	3,718,306	3,653,460
Net Unbilled Revenues	(834)	(3,556,154)	(1,491,331)	45,447	121,360
Total Billed + Unbilled	11,580,464	7,228,791	3,670,106	3,763,752	3,774,820
x % Share for RBA	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
	←		Schedule B2		→
Less: Revenue Taxes	(328,589)	(408,180)	(326,196)	(334,519)	(335,503)
RBA Revenues (Recovery of 12/31/16 RBA balance)	3,369,650	4,185,853	3,345,112	3,430,466	3,440,553
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, 20018 is per Hawaiian Electric Revised Schedules Resulting from Interim Decision and 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		
	<b>Note 1</b>	4,701,823	5,771,562	6,185,543	6,034,935	6,400,115	5,842,574	5,503,361	40,439,912		
	<b>Note 1</b>	990,752	364,534	81,590	(85,985)	(137,876)	(175,257)	(57,177)	980,581		
	<b>Note 2</b>	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	79.6227%	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									
	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	
<b>2019 Consensus: February Avg.</b>	<b>2.5</b>	<b>2.1</b>	<b>4.6</b>	<b>1.9</b>	<b>2.8</b>	<b>2.5</b>	<b>2.7</b>	<b>3.9</b>	<b>4.1</b>	<b>2.6</b>	<b>2.9</b>	<b>3.7</b>	<b>1.27</b>	<b>16.7</b>	<b>-991.1</b>	
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	Net Plant Adds Thru 12/31/17	2018 Plant Additions, Net of CIAC			Net Plant Adds Thru 12/31/18	Net PUC Approved	Over/(Under) Net PUC Approved	Functional Plant Category	
					Total Project Cost	CIAC & Adjs	Net Project Cost					
				(A)	(B)	(C)	(D) = (B) + (C)	(E) = (A) + (D)	(F)	(E) - (F)		
<u>2018 Major Projects</u>												
1	-	P0001370	DOT Airport DSG	2018 straggling	3,336,179	(3,516)	(96,602)	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.0000001			14,237,619			14,237,619	14,537,623	[3a]	(300,004)	Distribution
4	Y00168	(P0003205)	ERP EAM Hardware	2018 straggling	2,604,146	-	-	2,604,146	2,590,000	[3b]	14,146	Computers
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	2,555,619	[3d]	141,971	Transmission
<u>Major Project Interim Recovery (MPIR) Projects</u>												
		PZ.000016/										
		PZ001002										
7	-	(P0001576)	Schofield Generation Station	201806	-	144,743,542	-	144,743,542	-	[4]	144,743,542	Production Other

[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	Net	Gross	Net	Gross	Net
Gross/Net Plant Adds Thru 12/31/16) - column [1]	5,235,178	3,242,178	3,839,121	3,839,121	18,338,808	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)
Derived PUC Approved	5,393,139	(1,993,000)	3,400,139	3,846,733	18,262,646	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 Rate-making Treatment, Amendments to Joint Pole Agreements Between the Applicants, Asset Transfer Agreement, and Pole Licensing Agreement, filed 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 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

<b>Projects</b>	<b>2018 Plant Addition (1)</b>
Less than \$2.5M	189,284,505
Greater than \$2.5M	169,419,126
<b>Total Plant Additions - Gross</b>	358,703,631
	To Sch D2, line 1
<b>Less: Major Project additions in 2018</b>	
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)
<b>Baseline Plant Additions - Gross</b>	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	<b><u>Oct to Dec 2018 Activity</u></b>		
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	<b>2018 CIAC Additions, included within Plant in Service, CWIP, Developer Advances</b>		<b>(29,568,427)</b> 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		2/21/2014	2/26/2015	2/23/2016	2/24/2017	3/1/2018
	(a)		2013	2014	2015	2016	2017
			(b)	(c)	(d)	(e)	(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	<b>Total Adjusted CIAC Additions</b>	(Sum Line 3, 4 & 7)	<b>25,226,977</b>	<b>31,803,050</b>	<b>42,140,722</b>	<b>36,314,281</b>	<b>25,965,319</b>
9	Add Developer Advances:	NOTE (4)	-	-	-	-	33,883,949
19	<b>Total Adjusted CIAC &amp; Developer Advance Additions</b>		<b>25,226,977</b>	<b>31,803,050</b>	<b>42,140,722</b>	<b>36,314,281</b>	<b>59,849,268</b>
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	<b>Total Net CIAC &amp; Developer Advance Additions</b>		<b>25,138,983</b>	<b>31,759,325</b>	<b>42,125,490</b>	<b>33,488,540</b>	<b>59,849,268</b>
64							
65	<b>Last Five-Year Average</b>						<b>38,472,321</b>
							To Sch G

Schedule D2

Schedule D2

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)
Y00038	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
	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						
				14,237,619 [1d]	14,237,619	-	(22,683)	(22,683)	14,214,936	(22,683)	(22,683)
<hr/>											
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.

**[11c]** Decision and Order No. 34788 in Docket No. 2016-0416, For Approval to Commit Funds in Excess of \$2,500,000 for Item P000974, 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&LTIP)	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)	

<b>HAWAIIAN ELECTRIC CO., INC.</b>					
<b>DEFERRED INCOME TAXES</b>					
<b>FEDERAL</b>		<b>DR / (CR)</b>	<b>DR / (CR)</b>	<b>DR / (CR)</b>	
		<b>HECO</b>	<b>HECO</b>	<b>HECO</b>	
		<b>FEDERAL</b>	<b>STATE</b>	<b>TOTAL</b>	
<b>DR / (CR)</b>		<b>LIABILITY</b>	<b>LIABILITY</b>	<b>LIABILITY</b>	
<b>LIAB</b>	<b>DESCRIPTION</b>	<b>12/31/2018</b>	<b>12/31/2018</b>	<b>12/31/2018</b>	
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)	<b>To Sch D4</b>
<b>TOTAL DEF INCOME TAX - UTILITY</b>		<b>(235,363,662.34)</b>	<b>(38,240,951.20)</b>	<b>(273,604,613.53)</b>	
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)	
<b>TOTAL DEF INCOME TAX - NONUTILITY</b>		<b>1,585,080.02</b>	<b>581,639.80</b>	<b>2,166,719.82</b>	
<b>TOTAL DEF INCOME TAX</b>		<b>(233,778,582.32)</b>	<b>(37,659,311.40)</b>	<b>(271,437,893.72)</b>	
<b>RATE BASE CALCULATION</b>					
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&LTIP)	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**

<b>FEDERAL DEFERRED TAXES</b>		<b>source</b>		<b>ERP/EAM HARDWARE</b>	<b>KOOLAU- WAILUPE #1</b>	<b>TOTAL</b>
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
<b>STATE DEFERRED TAXES</b>						
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	<b>TOTAL DEFERRED TAXES</b>	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										
</										

source								2018
FEDERAL DEFERRED TAXES								Total
1	State Book/Tax Difference	HECO-WP-L-001 Line 1 + Line 2	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
2	Book Depreciation							
3	Subtotal			(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)
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	Line 2	(6,856,502)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,545)
8	Book Depreciation							
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)
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%
P0001576	Schofield Generation Station	65,512,935	(5,393,539)	3,459,864	63,579,259	Oth Prod	15	0%
P0001576	Schofield Generation Station	5,751,969	(522,427)	335,128	5,564,670	Trans	20	0%
P0001576	Schofield Generation Station	5,751,969	(522,427)	335,128	5,564,670	Trans	20	0%
P0001576	Schofield Generation Station	1,106,868	(66,514)	42,668	1,083,021	Comm	20	0%
P0001576	Schofield Generation Station	1,106,868	(66,514)	42,668	1,083,021	Comm	20	0%
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

<b>TOTAL PLANT ADDITIONS:</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E=SUM(B:D)</b>	<b>F=A+E</b>	
<b>Expense Element</b>	<b>Generating Station and Switchyard</b>	<b>46kV Line</b>	<b>Telecom</b>	<b>Wahiawa Substation</b>	<b>Total Interconnection</b>	<b>Total Project</b>	<b>State ITC</b>
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
<b>Grand Total</b>	<b>185,002</b>

To page 1 of 5

SOURCE: Ellipse & SAP



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

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 (D) = (A) * (C)	2019 Depr (E) = (B) * (C)	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	To Sch D1	
			(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-Wailupe #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 &amp; 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 &amp; 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
<b>AVERAGE %</b>		<b>19.666558%</b>	<b>0.042611%</b>	<b>28.281420%</b>	<b>4.490160%</b>

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.**

Sch D4

Note: Methodology based on IRS Private

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	<b><u>Executive Compensation and Incentive Compensation</u></b>					
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	<b>4,073</b>
						<b>To Sch H, Line 2A</b>
8	<b><u>Discretionary and Other Expenses Not Recoverable</u></b>					
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	<b>1,052</b>
						<b>To Sch H, Line 2B</b>
21	<b>Total Adjustment to Operating Income</b>		<b><u>7,039,652</u></b>	<b><u>1,914,510</u></b>	<b><u>5,125,142</u></b>	
				<b>To HECO-WP-H-008, Pg 1</b>		
		Labor	Σ(a) 5,272,211	<b>To HECO-WP-H-008, Pg 1</b>		
		Non-labor	1,767,441	<b>To HECO-WP-H-008, Pg 1</b>		
		Total adjustment to operating income	<b><u>7,039,652</u></b>			



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	<b>185 To Sch H, Line 2C</b>
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>	<b>(12,461) To Sch H, Line 2D</b>

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>	<b>To Sch H, Line 2e</b>

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 trueed-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>	<b>To Sch H, Line 2g</b>

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	<b>Fuel Oil</b>	<b>B1 523,706</b>	GL #90501000, 90547000, 90547100		
9	<b>Purchased Power</b>	<b>B2 494,450</b>	GL #90555000		
10	<b>O&amp;M Labor</b>				
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	<b>B3 137,959</b>			
16	<b>O&amp;M Non-Labor</b>				
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	<b>B4 165,521</b>	GL #60016050		
29	<b>Revenue Taxes</b>				
30	Franchise	44,708	GL #60017000		
31	PSC	106,518	GL #60017002		
32	PUC Fee	9,050	GL #60017001		
33	Total	<b>B5 160,276</b>			
34	<b>Current Income Taxes</b>				
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	<b>B6 35,031</b>			

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	66	*2
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
<b>Grand Total</b>	<b>185,002</b>

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)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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 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 28, 2018, establishing 2018 target revenue effective June 1, 2018.

\$35,971  
0.46429  
-\$603  
0.60000

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

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

	2018	2018
	\$48,948,443	\$48,948,443
	\$23,503,022	\$23,503,022
	\$22,450,132	\$22,450,132
	\$51,603,222	\$51,603,222
	\$20,335,492	\$20,335,492
	\$28,726,095	\$28,726,095
	\$50,386,658	\$50,386,658
	\$49,434,694	\$49,434,694
	\$79,122,753	\$79,122,753
	\$94,388,846	\$94,388,846
	\$72,451,465	\$72,451,465
	\$49,434,694	\$49,434,694

	2017	2018	Note (6), (8)
	\$48,009,623	\$48,948,443	
	\$43,030,848	\$23,503,022	
	\$48,009,623	\$51,603,222	
	\$46,468,574	\$20,335,492	
	\$50,024,842	\$28,726,095	
	\$51,184,359	\$50,386,658	
	\$52,997,265	\$49,434,694	
	\$54,628,879	\$79,122,753	
	\$53,581,111	\$94,388,846	
	\$51,447,350	\$72,451,465	
	\$32,453,393	\$49,434,694	
	\$33,057,695	\$79,122,753	
	\$32,040,061	\$94,388,846	
	\$48,957,962	\$72,451,465	
	\$357,167,892	\$357,167,892	

	2016	2017	2018	Note (6)
	\$50,202,656	\$48,009,623	\$48,948,443	
	\$51,980,780	\$43,030,848	\$23,503,022	
	\$53,581,111	\$48,009,623	\$51,603,222	
	\$51,447,350	\$46,468,574	\$20,335,492	
	\$32,453,393	\$50,024,842	\$28,726,095	
	\$33,057,695	\$51,184,359	\$50,386,658	
	\$32,040,061	\$52,997,265	\$49,434,694	
	\$48,957,962	\$54,628,879	\$79,122,753	
	\$357,167,892	\$53,581,111	\$94,388,846	
	\$357,167,892	\$51,447,350	\$72,451,465	
	\$357,167,892	\$32,453,393	\$49,434,694	
	\$357,167,892	\$33,057,695	\$79,122,753	
	\$357,167,892	\$32,040,061	\$94,388,846	
	\$357,167,892	\$48,957,962	\$72,451,465	
	\$357,167,892	\$357,167,892	\$357,167,892	

	2016	2017	2018	Note (6)
	\$50,202,656	\$48,009,623	\$48,948,443	
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	\$357,167,892	\$357,167,892	\$357,167,892	

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	\$357,167,892	\$357,167,892	\$357,167,892	

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	\$53,581,111	\$48,009,623	\$51,603,222	
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	\$357,167,892	\$32,040,061	\$94,388,846	
	\$357,167,892	\$48,957,962	\$72,451,465	
	\$357,167,892	\$357,167,892	\$357,167,892	

	2016	2017	2018	Note (6)
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	\$51,980,780	\$43,030,848	\$23,503,022	
	\$53,581,111	\$48,009,623	\$51,603,222	
	\$51,447,350	\$46,468,574	\$20,335,492	
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	\$357,167,892	\$53,581,111	\$94,388,846	
	\$357,167,892	\$51,447,350	\$72,451,465	
	\$357,167,892	\$32,453,393	\$49,434,694	
	\$357,167,892	\$33,057,695	\$79,122,753	
	\$357,167,892	\$32,040,061	\$94,388,846	
	\$357,167,892	\$48,957,962	\$72,451,465	
	\$357,167,892	\$357,167,892	\$357,167,892	



**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
<b>Grand Total</b>	<b>141,274,996</b>

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
<b>FEDERAL</b>										
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
<b>HAWAII</b>										
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	<b>Grand Total</b>	<b>127,991,185</b>		<b>8,382,735</b>	<b>1,960,274</b>	<b>2,940,801</b>			<b>13,283,810</b>	<b>141,274,996</b>			
	Bonus Depr	50%		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
<b>Grand Total</b>	<b>185,002</b>

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)
	<b>Return on Investment</b>						
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 &amp; 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 (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		100.00%									

## 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.

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

Line No.	Description	Reference	Docket No. 2010-0080 Amounts	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
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note (1), (5), (7), (7a) Note (5) Note (5)	\$ 1,765,954	\$ 1,765,954	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues		\$ -	\$ (5,000)	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment		\$000s	\$000s	\$ (6,000)	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (1), (5), (7), (7a) Note (1), (5), (7), (7a) Note (1), (5), (7), (7a)	\$ (658,172)	\$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense		\$ (438,707)	\$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (6.885% statutory rates)		\$ (156,905)	\$ (156,905)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1...4	\$ 512,170	\$ 512,170	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (2) Lines 6 + 7	\$ -	\$ 101,131	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%		\$ (8,980)	\$ (8,980)	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6		\$ 92,146	\$ 92,146	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (9) Lines 9 + 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Less: Revenue Taxes on Line 9 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Authorized MPRI Revenues	Schedule L Lines 12 + 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net MPRI Adjustment		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	EARNINGS SHARING REVENUE CREDITS	Note (2), (9) Lines 15 + 16	\$ -	\$ (16)	\$ (16)	\$ (16)	\$ -	\$ -
16	Less: Revenue Taxes on Line 15 at 8.885%		\$ 1	\$ 1	\$ 1	\$ 1	\$ -	\$ -
17	Net Earnings Sharing Revenue Credits		\$ (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 & MPRI eff 7/1/18		\$ 604,302	\$ 604,302	\$ 599,960	\$ 612,574	\$ 618,587	\$ 620,374
21	February 16, 2018 Annualized Revenues w/ Interim Increase	Col (g), lines (5+8+17+18) Col (l), lines (5+8+17+18) Col (l), lines (5+8+17+18) Col (k), lines (5+9+17+18) Col (l), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April 13, 2018 Annualized Revenues w/ 2nd Interim Increase		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	June 1, 2018 Annualized Revenues w/ RAM Increase & MPRI eff 7/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
32	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
35	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
38	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
39	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
41	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
42	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
45	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
46	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
47	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
49	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
50	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
51	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
52	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
53	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
54	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
55	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
56	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
57	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
58	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
59	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
64	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
65	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
66	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
68	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
69	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
70	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
71	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
72	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
73	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
74	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
75	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
76	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
77	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
78	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
79	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
80	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
81	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
82	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
83	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
84	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
85	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
86	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
87	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
88	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
89	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
90	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
91	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
92	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
93	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
94	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
95	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
96	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
97	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
98	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
99	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
100	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
101	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
102	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
103	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
104	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
105	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
106	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
107	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
108	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
109	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
110	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
111	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
112	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
113	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
114	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
115	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
116	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
117	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
118	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
119	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
120	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
121	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
122	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
123	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
124	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
125	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
126	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
127	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
128	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
129	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
130	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
131	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
132	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
133	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
134	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
135	MPRI eff 10/1/18	Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18) Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
136	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
137	MPRI eff 10/1/18		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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## Footnotes:

- 1 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.
- 2 Transmittal 17-02 filed March 31, 2017, establishing 2017 target revenue effective June 1, 2017.
- 3 RBA Tariff Revised July 26, 2011 to reflect 2011 test year.
- 4 Test Year Effective February 16, 2018 to reflect 2017 test year.
- 5 Test Year 2017 Interim Increase provided for in Interim Decision and Order 35100, issued December 15, 2017 in Docket No. 2016-0328:
- 6 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:
- 7a Reduction for Tax Act Implementation Lag (March 2018 Settlement Tariff Sheets, Attachment 3, filed March 6, 2018, in the month over the total number of days:
- 8 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:
- 9 Transmittal 18-01 filed May 29, 2018, establishing 2018 target revenue effective June 1, 2018.
- 10 MPRI Revenues effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018 in Docket No. 2017-0213.
- 11a MPRI Revenues effective October 1, 2018 approved in Order No. 35953, issued December 14, 2018 in Docket No. 2017-0213.
- 12 MPRI Revenues effective January 1, 2019 filed in Transmittal 19-01 on February 7, 2019.
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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)
	<b>Return on Investment - Schofield Generating Station</b>						
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 &amp; 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
<b>FEDERAL</b>											
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	
<b>HAWAII</b>											
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

<b>TOTAL PLANT ADDITIONS:</b>							(Note 1)	
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E=SUM(B:D)</b>	<b>F=A+E</b>		
<b>Expense Element</b>	<b>Generating Station and Switchyard</b>	<b>46kV Line</b>	<b>Telecom</b>	<b>Wahiawa Substation</b>	<b>Total Interconnection</b>	<b>Total Project</b>	<b>Allocation %</b>	<b>Subject to Cap</b>
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

<b>BREAKDOWN SUBJECT TO CAP:</b>								
	<b>A1</b>	<b>B1</b>	<b>C1</b>	<b>D1</b>	<b>E1=SUM(B1:D1)</b>	<b>F1=A1+E1</b>		
<b>Expense Element</b>	<b>Generating Station and Switchyard</b>	<b>46kV Line</b>	<b>Telecom</b>	<b>Wahiawa Substation</b>	<b>Total Interconnection</b>	<b>Total Project</b>	<b>State ITC</b>	
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
<b>Grand Total</b>	<b>185,002</b>

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	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
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	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

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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)
<b>Total</b>	<b>(4,658)</b>	<b>(1,684,769)</b>

(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

Ran 02/06/2019 14:16:01

Type 1: COMPANY: Confined within HECO system  
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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

Ran 02/06/2019 14:16:01

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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: 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 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.  
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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 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.  
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 Class D: Prearranged outage.  
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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.  
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Ran 02/06/2019 14:16:02

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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.  
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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	<b>Total Final Variable Requests for Proposals</b>				\$ 5,918,536	\$ 1,183,707
5	<b>50% Year 1</b>				Note 2	<u><b>\$ 591,854</b></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.

Attachment 2A – List of Schedules and Workpapers

Schedule A	HECO-WP-D3-001
Schedule A1	HECO-WP-F1-003
Schedule B	
Schedule B1	
Schedule B2	
Schedule C	
Schedule C1	
Schedule C2	
Schedule D	
Schedule D1	
Schedule D2	
Schedule D3	
Schedule D4	
Schedule D5	
Schedule E	
Schedule F	
Schedule F1	
Schedule F2	
Schedule G	
Schedule H	
Schedule I	
Schedule J	
Schedule K	
Schedule L	
Schedule L1	
Schedule M	
Schedule N	

**HAWAIIAN ELECTRIC COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF 2019 REVENUE BALANCING ACCOUNT RATE ADJUSTMENT**

Line No.	Description (a)	Reference (b)	Amount (c)	6/1/2019 Rate Amount (d)		
<u>RECONCILIATION OF RBA BALANCE:</u>						
1	RBA Prior calendar year-end balance	Schedule B	\$ 37,369,671			
1a	OBF Program Implementation Cost Recovery - Year 1 of 2	Schedule N	\$ 768,575			
			\$ 38,138,246			
2	Revenue Tax Factor	Schedule C	1.0975			
3	Revenue for RBA Balance			\$ 41,856,725		
<u>RATE ADJUSTMENT MECHANISM "RAM" AMOUNT:</u>						
4	Total RAM Revenue Adjustment Allowed (Note 2)	Schedule A1		\$ 27,056,635		
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&amp;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)		\$ 68,919,358		
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)		1.0619	6/1/2018 1.0350	Incremental 0.0269
12	MONTHLY BILL IMPACT @ 600 KWH			\$ 6.37	\$ 6.21	\$ 0.16
	MONTHLY BILL IMPACT @ 500 KWH			\$ 5.31	\$ 5.18	\$ 0.13
Note (1): 2019 RBA Rate Adjustment Breakdown						
			Col. (d)	Rate Adjustment cents per kWh	Percentage Share	
	RBA Balance		\$ 41,856,725	0.64495177	60.7329%	
	RAM Amount		\$ 27,056,635	0.41690373	39.2584%	
	Earnings Sharing Revenue Credits		\$ -	0.00000000	0.0000%	
	Performance Incentive Mechanism Reward (Penalty)		\$ 53,998	0.00083204	0.0784%	
	2017 Test Year Rate Case Final D&O Refund		\$ (48,000)	-0.00073961	-0.0696%	
	Major or Baseline Capital Projects Credits		\$ -	0.00000000	0.0000%	
			\$ 68,919,358	1.06194792	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)
<b>RAM REVENUE ADJUSTMENT DETERMINED ACCORDING TO EXISTING TARIFFS AND PROCEDURES</b>			
1	O&M RAM	Schedule C	\$ 8,622,195
2	Rate Base RAM - Return on Investment	Schedule D	\$ 10,816,516
3	Depreciation & Amortization RAM Expense	Schedule E	\$ 9,989,854
4	Joint Pole Revenues	Note 3	(2,371,930)
5	Total RAM Revenue Adjustment		<b>\$ 27,056,635</b>
<b>RAM REVENUE ADJUSTMENT CAP</b>			
6	RAM Cap for 2019 RAM Revenue Adjustment	Schedule J	\$ 27,945,687
7	Plus: Exceptional and Other Matters	Schedule K	\$ -
8	2019 Cap - Total RAM Revenue Adjustment (Note 2)		<b>\$ 27,945,687</b>
9	<b>Total RAM Revenue Adjustment Allowed</b> (Note 1)	Lesser of Line 5 or Line 8	<b>\$ 27,056,635</b>

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	RBA Balance Before ADIT	ADIT Related to RBA Revenues	Net Ending Balance	Average Balance Subject to Interest	Interest at 1.75%/year	Ending Balance
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
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	December - Revised - Note (2)						\$ 49,231,536	(12,678,046)	\$ 36,553,490			
3												
4	2018 January	\$ 49,231,536	\$ 48,948,443	\$ 43,871,232	\$ 5,077,211	\$ (3,369,650)	\$ 50,939,097	\$ (12,413,920)	\$ 38,525,177	\$ 37,539,333	\$ 54,745	\$ 50,993,842
5	February	\$ 50,993,842	\$ 45,953,154	\$ 40,430,219	\$ 5,522,935	\$ (4,185,853)	\$ 52,330,924	\$ (12,149,794)	\$ 40,181,130	\$ 39,380,526	\$ 57,430	\$ 52,388,354
6	March	\$ 52,388,354	\$ 51,603,222	\$ 46,365,780	\$ 5,237,442	\$ (3,345,112)	\$ 54,280,684	\$ (11,885,668)	\$ 42,395,016	\$ 41,316,788	\$ 60,254	\$ 54,340,938
7	April	\$ 54,340,938	\$ 49,061,587	\$ 45,638,864	\$ 3,422,723	\$ (3,430,466)	\$ 54,333,195	\$ (11,621,542)	\$ 42,711,653	\$ 42,583,461	\$ 62,101	\$ 54,395,296
8	May	\$ 54,395,296	\$ 50,396,658	\$ 43,802,261	\$ 6,594,397	\$ (3,440,553)	\$ 57,548,959	\$ (11,357,416)	\$ 46,191,543	\$ 44,482,558	\$ 64,870	\$ 57,613,829
9	June	\$ 57,613,829	\$ 49,434,694	\$ 46,747,403	\$ 2,687,291	\$ (4,129,862)	\$ 56,171,258	\$ (11,093,290)	\$ 45,077,968	\$ 45,667,190	\$ 66,598	\$ 56,237,856
10	July	\$ 56,237,856	\$ 53,817,091	\$ 50,144,604	\$ 3,672,487	\$ (4,451,628)	\$ 55,458,715	\$ (10,829,164)	\$ 44,629,551	\$ 44,887,058	\$ 65,460	\$ 55,524,175
11	August	\$ 55,524,175	\$ 55,301,701	\$ 50,148,289	\$ 5,153,412	\$ (4,546,694)	\$ 56,130,893	\$ (10,565,038)	\$ 45,565,855	\$ 45,130,433	\$ 65,815	\$ 56,196,708
12	September	\$ 56,196,708	\$ 53,507,798	\$ 54,077,963	\$ (570,165)	\$ (4,315,858)	\$ 51,310,685	\$ (10,300,912)	\$ 41,009,773	\$ 43,320,721	\$ 63,176	\$ 51,373,861
13	October	\$ 51,373,861	\$ 54,683,113	\$ 56,214,832	\$ (1,531,719)	\$ (4,543,142)	\$ 45,299,000	\$ (10,036,786)	\$ 35,262,214	\$ 38,167,581	\$ 55,661	\$ 45,354,661
14	November	\$ 45,354,661	\$ 51,095,307	\$ 51,711,892	\$ (616,585)	\$ (4,111,538)	\$ 40,626,538	\$ (9,772,660)	\$ 30,853,878	\$ 33,085,876	\$ 48,250	\$ 40,674,788
15	Oct/Nov True-Up	\$ 305,574	\$ 305,574	\$ 305,574	\$ 305,574	\$ 305,574	\$ 305,574				\$ 453	\$ 40,980,815
16	December	\$ 40,980,815	\$ 51,366,986	\$ 51,070,061	\$ 296,925	\$ (3,951,109)	\$ 37,326,631	\$ (9,508,534)	\$ 27,818,097	\$ 29,513,126	\$ 43,040	\$ 37,369,671
17			\$ 615,475,328	\$ 580,223,400	\$ 35,251,928	\$ (47,821,465)					\$ 707,853	
18												
19												
20	2019 January	\$ -	\$ 51,648,125	\$ -	\$ 51,648,125	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	February	\$ -	\$ 47,864,379	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	March	\$ -	\$ 51,080,563	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	April	\$ -	\$ 50,323,814	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	May	\$ -	\$ 52,972,435	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24a	OBFR Recovery	\$ 1,537,150										
25	June	\$ -	\$ 51,926,545	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	July	\$ -	\$ 55,980,291	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	August	\$ -	\$ 57,524,574	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	September	\$ -	\$ 55,658,565	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	October	\$ -	\$ 56,881,123	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	November	\$ -	\$ 53,149,103	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31	December	\$ -	\$ 53,277,794	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Sources of Data:	Sch. B1 Note (5)	Sch B2	Cols (c)-(d)	Note (1)	Cols (b)+(e)+(f) Note (4)	Note (2)	Note (2) & (3) Cols (g)+(h)	Curr Col (i)+ Prior Col (i)+(k) /2; Note (4)	Cols (g)+(k)
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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):  
On December 22, 2017, the 2017 Tax Cuts & Jobs Act was signed into law to be effective for tax years ending after December 31, 2017. In accordance with IRC §451(b), "...the all events test with respect to any item of gross income (or portion thereof) shall not be treated as met any later than when such item (or portion thereof) is taken into account as revenue in... an applicable financial statement of the taxpayer...". This change would supersede the RBA tax accounting treatment (deferred until received in rates) the IRS approved for the Companies on April 21, 2014 and adopted in Decision & Order No. 31908 on Schedule A of the Decoupling Investigation, issued in Docket No. 2013-0141 on February 7, 2014.

IRC §451(b) would eliminate the book tax temporary difference for which ADIT was provided and accordingly, would reduce to zero the tax adjustment to the basis for calculating RBA interest. This change imposed by IRC §451(b) should allow for the deferred RBA income (on which the RBA ADIT balance at December 31, 2017 is based) to be amortized into taxable income over the next 4 years (straight-line basis) with the effect of reducing the tax adjustment balance down to zero by the end of 2021.

RBA Regulatory Asset Balance at 12/31/2017	49,231,536
Composite Federal & State Income Tax Rate	25.75%
RBA ADIT Balance at 12/31/2017	12,678,046
Years	4
Annual amortization for years 2018 through 2021	3,169,511
Monthly ADIT amortization	264,126

Note (3):  
In April 2018, the Companies adjusted the March 31, 2018 RBA balance for the change in accounting methodology identified in Note (2). The January to March 2018 RBA balance subject to interest was recalculated and the RBA Balance was true-up in April 2018 for \$4,510.

Note (4):  
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 (5):  
In December 2018, the Company recorded a RBA Target true-up adjustment resulting from the Schofield Generating Station MIPR 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 I</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	<u>\$ (156,905)</u>	<u>\$ (139,534)</u>	<u>\$ (135,915)</u>	<u>\$ (135,915)</u>	<u>\$ (135,915)</u>	<u>\$ (135,915)</u>
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	<u>\$ (8,986)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
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	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (1,229)</u>	<u>\$ (1,229)</u>	<u>\$ (1,229)</u>
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	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
14	Net RAM Adjustment - Test Year +2	Lines 12 + 13	\$000s	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
15	Authorized MPIR Revenues	Schedule L	\$000s	\$ -	\$ -	\$ -	\$ -	\$ 6,600	\$ 8,561
16	Less: Revenue Taxes on Line 15 at 8.885%		\$000s	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (586)</u>	<u>\$ (761)</u>
17	Net MPIR Adjustment	Lines 15 + 16	\$000s	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 6,014</u>	<u>\$ 7,800</u>
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	<u>\$ 1</u>	<u>\$ 1</u>	<u>\$ 1</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
20	Net Earnings Sharing Revenue Credits	Lines 18 + 19	\$000s	<u>\$ (14)</u>	<u>\$ (14)</u>	<u>\$ (14)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
21	Less: <u>PERFORMANCE INCENTIVE MECHANISM</u>	Sch A, Line 6	\$000s	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	Less: Revenue Taxes on Line 24 at 8.885%		\$000s	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
23	Net Performance Incentive Mechanism	Lines 21 + 2	\$000s	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
24	Less: <u>2017 TEST YEAR FINAL D&amp;O REFUND</u>	Sch A, Line 8	\$000s	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Less: Revenue Taxes on Line 27 at 8.885%		\$000s	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
26	Net 2017 Test Year Final D&O Refund	Lines 24 + 25	\$000s	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
27	Add: <u>OBF PROGRAM IMPLEMENTATION COSTS</u>	Sch A, Line 1a * 1.0975	\$000s	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Less: Revenue Taxes on Line 21 at 8.885%		\$000s	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
29	Net OBF Program Implementation Costs	Lines 27 + 28	\$000s	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
30	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:</u>	Note (1a)	\$000s	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
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 eff 7/1/18	Col (g), lines (5+11+17+20+30)	\$000s					\$ 618,587	
37	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 10/1/18	Col (h), lines (5+11+17+20+30)	\$000s						\$ 620,374
38	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 1/1/19	Col (i), lines (5+11+17+20+30)	\$000s						
39	June 1, 2019 Annualized Revenues w/RAM Increase & MPIR eff 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) <b>2018</b>	Note (4), (6) <b>2018</b>	Note (6) <b>2018</b>	<b>2018</b>	Note (8) <b>2018</b>	Note (8a) <b>2018</b>
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 Revenues 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 Revenues effective 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 Revenues effective 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 (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	\$ -	\$ 27,057	\$ 27,057
13	Less: Revenue Taxes on Line 12 at 8.885%		\$000s	\$ -	\$ (2,404)	\$ (2,404)
14	Net RAM Adjustment - Test Year +2	Lines 12 + 13	\$000s	\$ -	\$ 24,653	\$ 24,653
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&amp;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 eff 7/1/18	Col (g), lines (5+11+17+20+30)	\$000s			
37	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 10/1/18	Col (h), lines (5+11+17+20+30)	\$000s			
38	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR eff 1/1/19	Col (i), lines (5+11+17+20+30)	\$000s	\$ 630,624		
39	June 1, 2019 Annualized Revenues w/RAM Increase & MPIR eff 1/1/19	Col (j), lines (5+14+17 +20+23+26+29+30)	\$000s		\$ 643,452	\$ 643,452
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		\$52,698,687
42	February	7.26%	7.59%	\$47,864,379		\$48,837,978
43	March	8.10%	8.10%	\$51,080,563		\$52,119,581
44	April	7.84%	7.98%	\$50,323,814		\$51,347,439
45	May	8.44%	8.40%	\$52,972,435		\$54,049,936
46	June	8.47%	8.07%		\$51,926,545	
47	July	8.77%	8.70%		\$55,980,291	
48	August	9.04%	8.94%		\$57,524,574	
49	September	8.68%	8.65%		\$55,658,565	
50	October	8.78%	8.84%		\$56,881,123	
51	November	8.26%	8.26%		\$53,149,103	
52	December	8.26%	8.28%		\$53,277,794	
53	Total Distributed Target Revenues	100.00%	100.00%	\$253,889,316	\$384,397,995	\$259,053,621



**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
<b>BILLED REVENUES:</b>														
1	Current months billed revenues (SAF014w)	131,367,405	134,781,670	138,532,751	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		<b>130,148,696</b>	<b>133,579,710</b>	<b>137,327,827</b>	<b>138,738,278</b>	<b>135,449,578</b>	<b>146,978,152</b>	<b>154,530,702</b>	<b>164,617,398</b>	<b>165,190,410</b>	<b>178,063,588</b>	<b>164,085,973</b>	<b>158,476,155</b>	<b>1,807,186,467</b>
<b>UNBILLED REVENUES</b>														
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	<b>1,175,065</b>	<b>(7,507,591)</b>	<b>(213,732)</b>	<b>(288,593)</b>	<b>5,819,752</b>	<b>4,097,075</b>	<b>10,110,933</b>	<b>2,382,337</b>	<b>2,228,292</b>	<b>(4,261,374)</b>	<b>(2,754,096)</b>	<b>(141,810)</b>	<b>10,908,268</b>
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	-	-	-	-	-	-	-	-	-	-	-	-	61,700
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	2,191,500	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)	(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)	(2,154,801)	(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)	(1,309,124)	(649,271)	(178,602)	(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	(2,106,030)
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		<b>5,130,062</b>	<b>(9,497,647)</b>	<b>2,732,972</b>	<b>2,157,583</b>	<b>6,259,493</b>	<b>(500,786)</b>	<b>9,388,561</b>	<b>2,278,335</b>	<b>(10,270,456)</b>	<b>(16,535,564)</b>	<b>(7,884,787)</b>	<b>(917,858)</b>	<b>(17,659,892)</b>
25 = 8+24		<b>135,278,758</b>	<b>124,082,063</b>	<b>140,060,798</b>	<b>140,895,862</b>	<b>141,709,071</b>	<b>146,477,366</b>	<b>163,919,264</b>	<b>166,895,733</b>	<b>154,919,954</b>	<b>161,538,223</b>	<b>156,201,186</b>	<b>157,558,297</b>	<b>1,789,526,575</b>
26 = 5+25	<b>TOTAL REVENUES PER G/L (PUC Monthly Financial Report)</b>													
<b>Unbilled Adjustments to Determine Adjusted Revenues for RBA:</b>														
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		-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Unbilled Adjustments to Determine Adjusted Revenues for RBA:</b>														
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	(2,106,030)
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 =		<b>91,407,526</b>	<b>(83,651,844)</b>	<b>(93,695,018)</b>	<b>(95,256,998)</b>	<b>(97,906,510)</b>	<b>(99,729,963)</b>	<b>(113,774,660)</b>	<b>(116,747,444)</b>	<b>(100,841,991)</b>	<b>(105,313,391)</b>	<b>(104,489,294)</b>	<b>(106,488,236)</b>	<b>(1,209,303,175)</b>
sum 27-56	Total billed and unbilled adjustments to determine adjusted revenues for RBA													
58 = 26+57	<b>RECORDED ADJUSTED REVENUES FOR RBA DETERMINATION</b>	<b>43,871,232</b>	<b>40,430,219</b>	<b>46,365,780</b>	<b>45,638,864</b>	<b>43,802,561</b>	<b>46,747,403</b>	<b>50,144,604</b>	<b>50,148,289</b>	<b>54,077,963</b>	<b>56,214,832</b>	<b>51,711,892</b>	<b>51,070,061</b>	<b>580,223,400</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)						<b>\$ 8,622</b> 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<sup>A</sup> (57.79% \* 9,342) \$ (5,399)  
Payroll Taxes related to Bargaining Unit labor \$ 3,943

<sup>A</sup> 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	<b>1.91%</b>	<b>2.24%</b>	

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	<b>2.10%</b>	<b>2.10%</b>	(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)
<b>Operation and Maintenance</b>	<b>47,048</b>	<b>64,435</b>	<b>111,483</b>	<b>176,928</b>	<b>288,411</b>
	To Sch C			To Sch C2	<b>X</b>
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)
<b>TOTAL</b>	<b>111,573</b>	<b>981,133</b>	<b>1,092,706</b>	<b>(10,475)</b>	<b>1,082,231</b>
<b>TOTAL O&amp;M EXPENSE (Excl Fuel &amp; Purch Po</b>	<b>111,573</b>	<b>187,313</b>	<b>298,886</b>	<b>(10,475)</b>	<b>288,411</b>

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>\$ 104,072</u>
9	PRETAX RATE OF RETURN (Line 7, Col g)						<u>9.47%</u>
10	PRETAX RETURN REQUIREMENT						<u>\$ 9,855.6</u>
11	REVENUE TAX FACTOR (1/(1-8.885%))						<u>1.0975</u>
12	RATE BASE RAM - RETURN ON INVESTMENT \$000						<u>\$ 10,816.5</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	\$ 2,457,336	\$ 76,967	\$ 2,534,303	(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	hello	6,470				
12	Total Additions	\$ 2,861,483	\$ 3,060,286	\$ 2,735,147	\$ 76,967	\$ 2,812,114	
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)	(281,810)	(4,041)	(285,851)	(Note 4)
17	ADIT Excess Reg Liability	-	(203,950)	(277,406)	7,121	(270,285)	(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)	\$ (684,879)	\$ 3,080	\$ (681,799)	
23	Working Cash	3,904	3,904	3,904	Not Updated	3,904	
24	Rate Base at Proposed Rates	\$ 1,921,848	\$ 2,058,400	\$ 2,054,172		\$ 2,134,219	
25	Average Rate Base		\$ 1,990,124			\$ 2,094,196	
26	Change in Rate Base					\$ 104,072	
						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	(140,510)			
31	Net Plant		Sum: Lines 28-30	76,967			
32	ADIT - Baseline and Major Capital Projects		Schedule F	(4,041)			
33	Excess ADIT Reg Liability Amortization		Schedule D5	7,121			

**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	
Unbilled Pole Credits (HECO-WP-H-001)	(4,435)		
<b>Major Project Adjustments:</b>	<b>HECO-WP-D2-001</b>	<b>HECO-WP-E-001</b>	<b>HECO-WP-D4-002</b>
ERP EAM Hardware	(14)	3	2
Koolau-Wailupe #1 Str 30 P9 Replace	(142)	4	14
Total Adjustments	\$ (156)	\$ 7	\$ 16
<b>Major Project Interim Recovery Adjustments:</b>	<b>HECO-WP-D2-001</b>	<b>HECO-WP-E-001</b>	<b>HECO-WP-D4-003</b>
Schofield Generation Station	(144,744)	-	1,832
Total Adjustments	\$ (144,744)	\$ -	\$ 1,832
Adjusted Balance	\$ 4,333,072	\$ (1,875,736)	\$ (281,810)

- 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.
- [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	<b>Total Plant Additions</b>		<b>269,326,250</b>	<b>266,537,660</b>	<b>241,294,569</b>	<b>276,754,129</b>	<b>358,703,631</b>
2	Less: Non-Utility Plant Additions	NOTE (2)	-	(63)	(3,954)	-	-
3	<b>Adjusted Total Plant Additions</b>		<b>269,326,250</b>	<b>266,537,597</b>	<b>241,290,615</b>	<b>276,754,129</b>	<b>358,703,631</b>
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	<b>Joint Pole Capital Transfer Price</b>	<b>2018-0075 PE.005155</b>					<b>(24,665,897)</b>
39	<b>Total Net Plant Additions (excluding major projects)</b>		<b>239,412,448</b>	<b>263,882,953</b>	<b>234,387,307</b>	<b>272,640,149</b>	<b>189,284,505</b>
40							
41	<b>Last Five-Year Average - Plant Additions</b>						<b>239,921,472</b>
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	<b>Total CIAC Additions (excluding major projects)</b>		<b>(31,759,325)</b>	<b>(42,125,490)</b>	<b>(33,488,540)</b>	<b>(59,849,268)</b>	<b>(29,471,825)</b>
49							
50	<b>Total Net Plant Additions, Net of CIAC (excluding major projects)</b>		<b>207,653,123</b>	<b>221,757,463</b>	<b>200,898,767</b>	<b>212,790,881</b>	<b>159,812,680</b>
51							
52	<b>Last Five-Year Average - Plant Additions, Net of CIAC</b>						<b>200,582,583</b>

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	<b>Total Major Capital Projects Qualifying for 2019 RAM, Net of CIAC</b>			<b>\$ 16,917,439</b>	<b>\$ (22,683)</b>
8				To Sch D1	<b>\$ 16,894,756</b>

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	Reference	DR/(CR) Balance at 12/31/17	DR/(CR) Adjustments	DR/(CR) Amortization	DR/(CR) Balance at 12/31/18 (e) = (c) + (d)	Life (f)	Amortization (g)	Est Bal at 12/31/19 (h) = (e) + (g)
	(a)	(b)	(c)		(d)				
1	Plant 282 - protected		(215,702,497)	(7,803,210)		(223,505,707)	0		(223,505,707)
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>7,121,402</u>	<u>(270,284,716)</u>
			Note 1			To Sch D1		To Sch D1 To Sch E To Sch F	To Sch D1

**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.

**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	<b><u>Depreciable Plant</u></b>					
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		245,168,525	0.03390	8,311,213
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	-	1,827,588,798	0.03701	67,637,596
41						
42	Tot - T & D	2,894,981,897	(2,497,651)	2,892,484,246		94,776,398
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	(148,068,263)	3,942,241,682		115,606,880
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	(162,200,020)	4,016,298,269	0.02864	119,666,281

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	<b>Amortizable Plant</b>					
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	\$ 140,509,937
86	LESS: Vehicle Depreciation (A/C 392 above)				Line 59	\$ (3,620,576)
87	LESS: ADIT Excess Amortization				Schedule D5	(7,121,402)
88	LESS: Depreciation & Amortization in Current Revenues				Footnote 2	\$ (120,665,585)
89						
90	RAM Adjustment for Depreciation & Amortization					\$ 9,102,373
91	RAM Adjustment for CIAC Amortization				Note 5	\$ -
92	Total RAM Adjustment for Depreciation & Amortization					\$ 9,102,373
93	Times: Factor for Revenue Taxes				Schedule C Line 5	1.0975
94						
95	RAM DEPRECIATION & AMORTIZATION					\$ 9,989,854

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)	Linked from Sch D1
	Koolau-Wailupe #1 Str 30 P9 Replace		(142)	
	MPiR - Schofield Generating Station		(144,744)	
	Tenant Improvement Allowance (see Footnote 4)		(14,132)	
	ARO Assets included in Depreciable Plant	GL# 10100001	(3,423)	
	Total		\$ (162,455)	
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	Schedule D5	7,121,402
3	Subtotal		16,935,143
4	Effective Federal Tax Rate	HECO-WP-F-001	19.7368%
5	Federal Deferred Tax on State Tax Depreciation		3,342,462
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		3,342,462
12	Proration Adjustment	HECO-WP-F1-003	(319,803)
13	Total Federal Deferred Taxes After Proration		3,022,659
	<b>STATE DEFERRED TAXES</b>		
14	State Tax Depreciation	Line 1	9,813,741
15	Amortization of Excess Deferreds	Line 2	7,121,402
16	Subtotal		16,935,143
17	Effective State Tax Rate	HECO-WP-F-001	6.0150%
18	Total State Deferred Taxes		1,018,655
19	TOTAL FED AND STATE DEFERRED TAXES		4,041,315
			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.

**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										
Vintage 2019 - Regular Depreciation										
Basis subject to regular depreciation (Total less amounts subject to 40% bonus)										
5 yr 2.54% 2.54% 5 yr 20.00% 1,042,304 20.00% 1,042,304 20.00% 1,042,304										
7 yr 2.09% 2.09% 7 yr 14.29% 4,296,167 14.29% 4,296,167 14.29% 4,296,167										
15 yr 16.00% 16.00% 15 yr 5.00% 32,838,900 5.00% 32,838,900 5.00% 32,838,900										
20 yr 75.50% 75.50% 20 yr 3.75% 154,952,011 3.75% 154,952,011 3.75% 154,952,011										
39 yr 1.36% 1.36% 39 yr 1.177% 2,793,107 1.177% 2,793,107 1.177% 2,793,107										
TOTAL ASSETS 97.49% 0.00% 97.49%										
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) 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 (2.46% x 209,209,559) 515,420.3										
200,091,704										
FED YR 1 DEPR RATE TAX DEPR STATE YR 1 DEPR RATE TAX DEPR										
9,141,746										
671,995										
9,813,741										
St. Tax Depreciation to Schedule F										

**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	
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	\$ 127,524	\$ 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	<u>\$ 2,414,549</u>	<u>100.00%</u>	<u>7.45%</u>
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)				\$ 93,998
17	Less: Preferred Income Requirement (Line 8 Weighted Cost times Rate Base)				1,055
18	Income Available for Common Stock				\$ 92,943
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)				7.96%
21	<u>Earnings Sharing Revenue Credits:</u>	Basis Points			
22	Achieved ROE (basis points)	796			
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)				<u>0</u>
					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

**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	<b>Major Project Interim Recovery Total</b>		<b>\$ 19,811</b>
			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

<u>Reconciliation to Schedule B1 (Info Only)</u>			
	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)
	(a)	(b)	(c)=(a)-(b)	(d)	(e)	
<b><u>Service Quality:</u></b>						
<b>Normalized T&amp;D SAIFI</b>						
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)
<b>Normalized T&amp;D SAIDI</b>						
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	\$ -
<b>Call Center Performance (Excludes Blocked Calls)</b>						
	83.97%	79.66%	4.31%	3.00%	\$ 897,645	\$ 391,972
<b><u>Phase 1 Renewable Energy PIM</u></b>						
First Allocation ***						\$ 591,854
Total Without Exclusion						\$ (1,269,311)
Total With Exclusion						\$ 53,998
<b>To Sch A</b>						

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**

Line	Company	Note 1		Cost Recovery (excluding Rev Tax)			Cost Recovery (including Rev Tax)		
		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 <b>To Sch B</b>	768,575 <b>To Sch A</b>	768,575	1,687,022	843,511 <b>To Sch B1</b>	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**  
**2019 Plant Additions Net of CIAC - Major Projects Support**

<b>Grand-parent</b>	<b>Project</b>	<b>Functional Category</b>	<b>Plant Addition Date</b>	<b>Net PUC Approved [1]</b>	<b>Net Plant Adds thru 12/31/18 [2]</b>	<b>2019 Net Plant Additions [3]</b>	<b>2019 CIAC Additions [3] E</b>	<b>2019 Net Project Costs F = D + E</b>	<b>Estimated Net Plant Adds thru 12/31/19 G = C + F</b>	<b>Over/(Under) Net PUC Approved H = A - G</b>	<b>2019 Net Plant Addition Qualifying for RB RAM (Note A)</b>
				A	C	D	E	F = D + E	G = C + F	H = A - G	
	PE-000209 (P0003975); AES-CIEIP #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
	PZ-000015 (P0000974), P0003977); Ala Wai Canal 46kV Relocation	Transmission <69kV	2019/06	13,910,207 [1b]	-	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 [1c]	14,237,619	-	(22,683)	(22,683)	14,214,936	(22,683)	(22,683)
<b>Total</b>											<b>16,894,756 To Sch B3</b>

**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. 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.

**[1c]** 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.  
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	End of Yr
Beginning balance	Sch D4 (208,749,171)													
Federal Tax Depreciation	Sch F (9,813,741)													
Effective Federal Tax Rate	19.7368%													
Net ADIT accrued 2019	(1,936,918)													
Monthly Accrued evenly over 12 months	(161,410)													
WITHOUT PRORATION														
Federal 282 ADIT Balance	Beg of Yr (208,749,171)	(161,410)	(161,410)	(161,410)	(161,410)	(161,410)	(161,410)	(161,410)	(161,410)	(161,410)	(161,410)	(161,410)	(161,410)	(1,936,918)
Monthly Additions		(208,910,581)	(209,071,991)	(209,233,401)	(209,394,810)	(209,556,220)	(209,717,630)	(209,879,040)	(210,040,450)	(210,201,860)	(210,363,270)	(210,524,680)	(210,686,089)	(210,847,500)
Cumulative Balance		(208,910,581)	(209,071,991)	(209,233,401)	(209,394,810)	(209,556,220)	(209,717,630)	(209,879,040)	(210,040,450)	(210,201,860)	(210,363,270)	(210,524,680)	(210,686,089)	(210,847,500)
Simple Year Average - Without Proration														
(209,717,630)														
WITH PRORATION														
Days new rates in effect	6/1/2019	214												
Prorated additions		(161,410)	(161,410)	(161,410)	(161,410)	(161,410)	(139,537)	(116,155)	(92,773)	(70,145)	(46,764)	(24,136)	(754)	(1,297,313)
Cumulative ADIT balance with proration		(208,910,581)	(209,071,991)	(209,233,401)	(209,394,810)	(209,556,220)	(209,695,757)	(209,811,912)	(209,904,685)	(209,974,830)	(210,021,594)	(210,045,730)	(210,046,484)	(210,046,484)
Simple Year Average - With Proration														
(209,397,827)														
Adjustment to rate base ADIT														
319,803														
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

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.

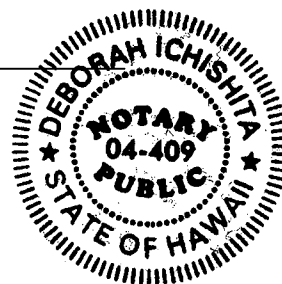
For purposes of the 2019 RAM calculation, ADIT has been calculated on gross plant additions, consistent with the 2017 Test Year treatment and prior decoupling filings, however the Company is requesting treatment of CIAC in deferred tax to follow FERC accounting.

### **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.

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

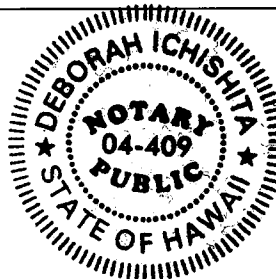
  
Brian Y. Hiyane



Kleborak Ichiketa

My Commission expires July 18, 2020

Neeraj Acharya 3/29/19  
Notary Signature Date





CERTIFICATE OF SERVICE

I hereby certify that the foregoing Transmittal No. 19-01 was served on the date of filing  
by hand delivery, as indicated below.

Dean Nishina  
Executive Director  
Division of Consumer Advocacy  
Department of Commerce and Consumer Affairs  
335 Merchant Street, Room 326  
Honolulu, Hawai'i 96813

2 copies  
via Hand Delivery

Dated: Honolulu, Hawai'i, March 29, 2019.

HAWAIIAN ELECTRIC COMPANY, INC.



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Michael Chu