

HAWAIIAN ELECTRIC

SCENARIO 4

WEST LOCH PV EXCLUDED FROM RAM  
REVENUE ADJUSTMENT

25kV INCLUDED IN 2018 SAIDI AND SAIFI  
PIM CALCULATIONS

HAWAIIAN ELECTRIC  
ATTACHMENT 1

RATE SCHEDULES (continued)

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

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

RATE SCHEDULES (continued)

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

HAWAIIAN ELECTRIC COMPANY, INC.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION

Supplement To:

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

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

A: PURPOSE:

The purpose of the Revenue Balancing Account ("RBA") is to record: 1) the difference between the Hawaiian Electric Company's target revenue and recorded adjusted revenue, and 2) monthly interest applied to the simple average of the beginning and ending month balances in the RBA. In addition, the recovery provision of this tariff provides for collection or return of the calendar year-end balance in the RBA and recovery or refund of the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, Major Capital Projects Credits, and Baseline Capital Projects Credits provided in the Rate Adjustment Mechanism ("RAM") Provision, and any revenue adjustment provided in accordance with the Performance Incentive Mechanism Provision, over the subsequent June 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 May 28, 2019.

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

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

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 28, 2019.

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

Monthly Allocation Factors for the Target Revenue are as follows:

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

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

C: BALANCING ACCOUNT ENTRIES:

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

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

D: RECOVERY OF BALANCING ACCOUNT AMOUNTS:

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

HAWAIIAN ELECTRIC COMPANY, INC.



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

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

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

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

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

HAWAIIAN ELECTRIC COMPANY, INC.

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

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

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

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

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

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

RBA Rate Adjustment

All Rate Schedules ..... 0.9376 ¢/kWh

F. NOTICE

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

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

G: COMMISSION'S AUTHORITY

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

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

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

H: TARGET REVENUE CURRENTLY IN EFFECT

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

	<u>Description</u>	<u>Amount</u>
1	Electric Sales Revenue (Unadjusted)	\$1,531,852
2	Tax Act Implementation Lag	(\$2,143)
3	Electric Sales Revenue (Adjusted)	\$1,529,709
	Less:	
4	Fuel Expense	(\$327,609)
5	Purchase Power Expense	(\$466,211)
6	Revenue Tax on Electric Sales Revenue	(\$135,915)
7	Last Rate Order Target Revenues	\$599,974
8	Authorized RAM Revenues	\$20,351
9	Revenue Tax	(\$1,808)
10	Net RAM Adjustment	\$18,543
11	Authorized MPIR Revenues	\$19,811
12	Revenue Tax	(\$1,760)
13	Net MPIR Adjustment	\$18,051
14	Earnings Sharing Revenue Credits	\$0
15	Revenue Tax	\$0
16	Net Earnings Sharing Revenue Credits	\$0
17	Performance Incentive Mechanism (PIM)	(\$1,269)
18	Revenue Tax	\$113
19	Net PIM Reward (Penalty)	(\$1,157)
20	2017 Test Year Final D&O Refund	(\$48)
21	Revenue Tax	\$4
22	Net 2017 Test Year Final D&O Refund	(\$44)
23	On-Bill Financing Pgm Implementation Costs	\$844
24	Revenue Tax	(\$75)
25	Net On-Bill Financing Adjustment	\$769
26	Effective Target Revenue	\$636,136

Notes:

Totals may not add, due to rounding.

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

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

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

Lines 8,11,14,17,20,23,26 Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling) Schedule B1 (Scenario 2C), filed May 28, 2019.

Change in Effective Target Revenue for MPIR is effective January 1, 2019.  
See Order 35556, filed June 27, 2018 in Docket No. 2017-0213.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 28, 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)	\$636,136	\$5,512	Schedule B1 (Scenario 2C) filed in Transmittal No. 19-01 on 5/28/2019.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 28, 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

HAWAIIAN ELECTRIC  
ATTACHMENT 1A

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

REVISED SHEET NO. 50E  
Effective June 1, 2019

Deleted: February 1, 2019

RATE SCHEDULES (continued)

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

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HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 28, 2019

Deleted: February 22, 2019

Superseding SHEET NO. 50F  
Effective January 1, 2019

REVISED SHEET NO. 50F  
Effective June 1, 2019

RATE SCHEDULES (continued)

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

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 28, 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.

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HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 28, 2019.

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

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

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

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter dated May 28, 2019.

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

REVISED SHEET NO. 92B  
Effective February 16, 2018

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

Monthly Allocation Factors for the Target Revenue are as follows:

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

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

C: BALANCING ACCOUNT ENTRIES:

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

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

D: RECOVERY OF BALANCING ACCOUNT AMOUNTS:

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

HAWAIIAN ELECTRIC COMPANY, INC.

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

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

REVISED SHEET NO. 92C  
Effective January 1, 2018

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

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

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

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

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

HAWAIIAN ELECTRIC COMPANY, INC.

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

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

REVISED SHEET NO. 92D  
Effective June 1, 2019

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

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

#### E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

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

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

#### RBA Rate Adjustment

All Rate Schedules ..... 0.9376 ¢/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.

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HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

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

REVISED SHEET NO. 92E  
Effective June 1, 2019

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

H: TARGET REVENUE CURRENTLY IN EFFECT

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

	Description	Amount
1	Electric Sales Revenue (Unadjusted)	\$1,531,852
2	Tax Act Implementation Lag	(\$2,143)
3	Electric Sales Revenue (Adjusted)	\$1,529,709
	Less:	
4	Fuel Expense	(\$327,609)
5	Purchase Power Expense	(\$466,211)
6	Revenue Tax on Electric Sales Revenue	(\$135,915)
7	Last Rate Order Target Revenues	\$599,974
8	Authorized RAM Revenues	\$20,351
9	Revenue Tax	(\$1,808)
10	Net RAM Adjustment	\$18,543
11	Authorized MPIR Revenues	\$19,811
12	Revenue Tax	(\$1,760)
13	Net MPIR Adjustment	\$18,051
14	Earnings Sharing Revenue Credits	\$0
15	Revenue Tax	\$0
16	Net Earnings Sharing Revenue Credits	\$0
17	Performance Incentive Mechanism (PIM)	(\$1,269)
18	Revenue Tax	\$113
19	Net PIM Reward (Penalty)	(\$1,157)
20	2017 Test Year Final D&O Refund	(\$48)
21	Revenue Tax	\$4
22	Net 2017 Test Year Final D&O Refund	(\$44)
23	On-Bill Financing Pgm Implementation Costs	\$844
24	Revenue Tax	(\$75)
25	Net On-Bill Financing Adjustment	\$769
26	Effective Target Revenue	\$636,136

Notes:

Totals may not add, due to rounding.

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

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

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

Lines 8,11,14,17,20,23,26: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling) Schedule B1 (Scenario 2C), filed May 28, 2019.

Change in Effective Target Revenue for MPIR is effective January 1, 2019. See Order 35556, filed June 27, 2018 in Docket No. 2017-0213.

HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

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SHEET NO. 92F  
Effective June 1, 2019

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

I: HISTORICAL REFERENCE

<u>Category</u>	<u>Effective Period</u>	<u>Effective Target Revenue (\$000)</u>	<u>Change in Target Revenue (\$000)</u>	<u>Source</u>
Annual Decoupling Filing	6/1/2017 thru 2/15/2018	\$604,302	N/A (1/1/2018 Baseline)	Schedule B1 filed in Transmittal No. 17-02 on 3/31/2017.
2017 Test Year Rate Case (Interim)	2/16/2018 thru 4/12/2018	\$637,077	\$32,775	Schedule B1 filed in Docket No. 2016-0328 on 1/19/2018.
2017 Test Year Rate Case (Interim)	4/13/2018 thru 5/31/2018	\$599,960	(37,117)	Schedule B1 filed in Docket No. 2016-0328 on 3/16/2018.
Annual Decoupling Filing	6/1/2018 thru 6/30/2018	\$612,574	\$12,614	Schedule B1 filed in Transmittal No. 18-01 on 3/29/2018.
MPiR (Schofield)	7/1/2018 thru 9/30/2018	\$618,587	\$6,013	Schedule B1 filed in Docket No. 2017-0213 on 7/18/2018.
MPiR (Schofield)	10/1/2018 thru 12/31/2018	\$620,374	\$1,787	Schedule B1 filed in Docket No. 2017-0213 on 12/21/2018.
MPiR (Schofield)	1/1/2019 thru 5/31/2019	\$630,624	\$10,250	Schedule B1 filed in Transmittal No. 19-01 on 2/7/2019.
Annual Decoupling Filing	6/1/2019 (current)	\$636,136	\$5,512	Schedule B1 (Scenario 2C) filed in Transmittal No. 19-01 on 5/28/2019.

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HAWAIIAN ELECTRIC COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

PERFORMANCE INCENTIVE MECHANISM PROVISION

Introduction

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

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

Annual PIM Provision Transmittal

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

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

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

HAWAIIAN ELECTRIC COMPANY, INC.

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

SHEET NO. 98A  
Effective January 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

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

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

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

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

Evaluation Period

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

PIM Financial Incentive Calculation

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

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

HAWAIIAN ELECTRIC COMPANY, INC.

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

Superseding Sheet no. 98B  
Effective January 1, 2018

REVISED SHEET NO. 98B  
Effective September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

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

Reliability Performance Incentive Mechanisms

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

For the Reliability Performance Incentive Mechanisms, the 2008-2017 record of historical performance data was used to establish the Performance Target and the Deadband. The Deadband was calculated as  $\pm 1$  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 May 28, 2019.

SHEET NO. 98E  
Effective September 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Historical Reference

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

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

HAWAIIAN ELECTRIC COMPANY, INC

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

Attachment 2C – List of Schedules and Workpapers

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

**HAWAIIAN ELECTRIC COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF 2019 REVENUE BALANCING ACCOUNT RATE ADJUSTMENT**  
**SCENARIO 4 - WEST LOCH PV EXCLUDED FROM RAM REVENUE ADJUSTMENT /**  
**25 KV INCLUDED IN 2018 SAIDI AND SAIFI PIM CALCULATIONS**

Line No.	Description (a)	Reference (b)	Amount (c)	6/1/2019 Rate Amount (d)		
<u>RECONCILIATION OF RBA BALANCE:</u>						
1	RBA Prior calendar year-end balance	Schedule B	\$ 37,331,443			
1a	OBF Program Implementation Cost Recovery - Year 1 of 2	Schedule N	\$ 768,575			
			\$ 38,100,018			
2	Revenue Tax Factor	Schedule C	1.0975			
3	Revenue for RBA Balance			\$ 41,814,770		
<u>RATE ADJUSTMENT MECHANISM "RAM" AMOUNT:</u>						
4	Total RAM Revenue Adjustment Allowed (Note 2)	Schedule A1		\$ 20,351,049		
5	<u>EARNINGS SHARING REVENUE CREDITS - 2019 ROE:</u>	Schedule H		\$ -		
6	<u>PERFORMANCE INCENTIVE MECHANISM REWARD (PENALTY)</u>	Schedule M		\$ (1,269,311)		
7	<u>2017 TEST YEAR RATE CASE FINAL D&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)		\$ 60,848,508		
10	GWH SALES VOLUME ESTIMATE JUNE 2019 - MAY 2020	HECO-WP-A-001		6,489,900		
11	RBA RATE ADJUSTMENT - cents per kWh	Note (1)		0.9376	6/1/2018 1.0350	Incremental (0.0974)
12	MONTHLY BILL IMPACT @ 600 KWH			\$ 5.63	\$ 6.21	\$ (0.58)
	MONTHLY BILL IMPACT @ 500 KWH			\$ 4.69	\$ 5.18	\$ (0.49)
<u>Note (1): 2019 RBA Rate Adjustment Breakdown</u>						
		Col. (d)	Rate Adjustment cents per kWh	Percentage Share		
	RBA Balance	\$ 41,814,770	0.64430530	68.7195%		
	RAM Amount	\$ 20,351,049	0.31358032	33.4454%		
	Earnings Sharing Revenue Credits	\$ -	0.00000000	0.0000%		
	Performance Incentive Mechanism Reward (Penalty)	\$ (1,269,311)	-0.01955825	-2.0860%		
	2017 Test Year Rate Case Final D&O Refund	\$ (48,000)	-0.00073961	-0.0789%		
	Major or Baseline Capital Projects Credits	\$ -	0.00000000	0.0000%		
		\$ 60,848,508	0.93758775	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	\$ 8,789,138
3	Depreciation & Amortization RAM Expense	Schedule E	\$ 2,939,716
4	Total RAM Revenue Adjustment		\$ 20,351,049
<b>RAM REVENUE ADJUSTMENT CAP</b>			
5	RAM Cap for 2019 RAM Revenue Adjustment	Schedule J	\$ 27,945,687
6	Plus: Exceptional and Other Matters	Schedule K	\$ -
7	2019 Cap - Total RAM Revenue Adjustment (Note 2)		\$ 27,945,687
8	<b>Total RAM Revenue Adjustment Allowed (Note 1)</b>	Lesser of Line 4 or Line 7	\$ 20,351,049
			To Sch A

- Note 1 RAM Revenue Adjustment Allowed:  
See Order No. 32735, filed March 31, 2015, paragraph 106, page 94:  
"The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the lesser of (a) the RAM Revenue Adjustment determined according to existing tariffs and procedures or (b) a RAM Revenue Adjustment Cap ("RAM Cap) to be calculated as specified."
- Note 2 Total RAM Cap:  
See Order No. 32735, filed March 31, 2015, paragraph 110, page 96:  
"The RAM Cap will apply to the entire RAM Revenue Adjustment including the O&M RAM, Rate Base RAM (including Major Capital Projects and Baseline Projects), and the Depreciation and Amortization RAM."

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

Line No.	Month	Beginning Balance	Target Revenues	Recorded Adjusted Revenue	Variance to RBA	Adjustment for prior year RBA accrual	Tax-effected Balance Subject to Interest	Interest at 1.75%/year	Ending Balance
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Monthly RBA Balance and Activity (Monthly PUC Rpt)									
		\$ 18,013,624							
1	2017 December	\$ 46,306,327	\$ 49,915,326	\$ 43,730,598	\$ 6,184,728	\$ (3,302,057)	29,169,047	\$ 42,538	\$ 49,231,536
2									
3	2018 January	\$ 49,231,536	\$ 48,948,443	\$ 43,871,232	\$ 5,077,211	\$ (3,369,650)	\$ 37,188,347	\$ 54,233	\$ 50,993,330
4	February	\$ 50,993,330	\$ 45,953,154	\$ 40,430,219	\$ 5,522,935	\$ (4,185,853)	\$ 38,358,939	\$ 55,940	\$ 52,386,352
5	March	\$ 52,386,352	\$ 51,603,222	\$ 46,365,780	\$ 5,237,442	\$ (3,345,112)	\$ 39,599,394	\$ 57,749	\$ 54,336,431
6	April	\$ 54,336,431	\$ 49,061,587	\$ 45,638,864	\$ 3,422,723	\$ (3,430,466)	\$ 40,341,925	\$ 58,832	\$ 54,387,520
7	May	\$ 54,387,520	\$ 50,396,658	\$ 43,802,261	\$ 6,594,397	\$ (3,440,553)	\$ 41,553,464	\$ 60,599	\$ 57,601,782
8	June	\$ 57,601,782	\$ 49,434,694	\$ 46,747,403	\$ 2,687,291	\$ (4,129,862)	\$ 42,233,769	\$ 61,591	\$ 56,220,802
9	July	\$ 56,220,802	\$ 53,817,091	\$ 50,144,604	\$ 3,672,487	\$ (4,451,628)	\$ 41,454,689	\$ 60,455	\$ 55,502,116
10	August	\$ 55,502,116	\$ 55,301,701	\$ 50,148,289	\$ 5,153,412	\$ (4,546,694)	\$ 41,435,565	\$ 60,427	\$ 56,169,261
11	September	\$ 56,169,261	\$ 53,507,798	\$ 54,077,963	\$ (570,165)	\$ (4,315,858)	\$ 39,891,740	\$ 58,175	\$ 51,341,413
12	October	\$ 51,341,413	\$ 54,683,113	\$ 56,214,832	\$ (1,531,719)	\$ (4,543,142)	\$ 35,865,707	\$ 52,304	\$ 45,318,856
13	November	\$ 45,318,856	\$ 51,095,307	\$ 51,711,892	\$ (616,585)	\$ (4,111,538)	\$ 31,893,935	\$ 46,512	\$ 40,637,245
14	Oct/Nov True-Up		\$ 305,574		\$ 305,574			\$ 453	\$ 40,943,272
15	December	\$ 40,943,272	\$ 51,366,986	\$ 51,070,061	\$ 296,925	\$ (3,951,109)	\$ 29,043,764	\$ 42,355	\$ 37,331,443
16			\$ 615,475,328	\$ 580,223,400	\$ 35,251,928	\$ (47,821,465)		\$ 669,625	
17									
18									
19	2019 January	\$ -	\$ 51,648,125	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	February	\$ -	\$ 47,864,379	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	March	\$ -	\$ 51,080,563	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April	\$ -	\$ 50,323,814	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	May	\$ -	\$ 52,972,435	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	OBFR Recovery	\$ 1,537,150							\$ -
24a	June	\$ -	\$ 51,336,182	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	July	\$ -	\$ 55,343,840	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	August	\$ -	\$ 56,870,566	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	September	\$ -	\$ 55,025,772	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	October	\$ -	\$ 56,234,430	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	November	\$ -	\$ 52,544,841	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	December	\$ -	\$ 52,672,068	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31									

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

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

Note (1):

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

Note (2):

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

Note (3):

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

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

Line No.	Description (a)	Reference (b)	Docket No. 2010-0080 Amounts (c)	Docket No. 2016-0328 Amounts (d)	Docket No. 2016-0328 Amounts (e)	Docket No. 2016-0328 Amounts (f)	Docket No. 2016-0328 Amounts (g)	Docket No. 2016-0328 Amounts (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)	\$ (5,000)	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (3)	\$000s \$ (6,000)	\$ (6,000)	\$ -	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (3), (5), (5a)	\$000s \$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (3), (5), (5a)	\$000s \$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rate)		\$000s \$ (156,905)	\$ (139,534)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1...4	\$000s \$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (1a)	\$000s \$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%		\$000s \$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$000s \$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (7)	\$000s \$ -	\$ -	\$ -	\$ 13,828	\$ 13,828	\$ 13,828
10	Less: Revenue Taxes on Line 9 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ (1,229)	\$ (1,229)	\$ (1,229)
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$000s \$ -	\$ -	\$ -	\$ 12,599	\$ 12,599	\$ 12,599
12	Authorized RAM Revenues	Sch A, Line 4	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net RAM Adjustment - Test Year +2	Lines 12 + 13	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Authorized MPIR Revenues	Schedule L	\$000s \$ -	\$ -	\$ -	\$ -	\$ 6,600	\$ 8,561
16	Less: Revenue Taxes on Line 15 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ (586)	\$ (761)
17	Net MPIR Adjustment	Lines 15 + 16	\$000s \$ -	\$ -	\$ -	\$ -	\$ 6,014	\$ 7,800
18	Less: <u>EARNINGS SHARING REVENUE CREDITS</u>	Note (1a)	\$000s \$ (16)	\$ (16)	\$ (16)	\$ -	\$ -	\$ -
19	Less: Revenue Taxes on Line 18 at 8.885%		\$000s \$ 1	\$ 1	\$ 1	\$ -	\$ -	\$ -
20	Net Earnings Sharing Revenue Credits	Lines 18 + 19	\$000s \$ (14)	\$ (14)	\$ (14)	\$ -	\$ -	\$ -
21	Less: <u>PERFORMANCE INCENTIVE MECHANISM</u>	Sch A, Line 6	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	Less: Revenue Taxes on Line 24 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	Net Performance Incentive Mechanism	Lines 21 + 2	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	Less: <u>2017 TEST YEAR FINAL D&amp;O REFUND</u>	Sch A, Line 8	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Less: Revenue Taxes on Line 27 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	Net 2017 Test Year Final D&O Refund	Lines 24 + 25	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	Add: <u>OBF PROGRAM IMPLEMENTATION COSTS</u>	Sch A, Line 1a * 1.0975	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	Less: Revenue Taxes on Line 21 at 8.885%		\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	Net OBF Program Implementation Costs	Lines 27 + 28	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:</u>	Note (1a)	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31	Total Annual Target Revenues							
32	June 1, 2017 Annualized Revenues w/RAM Increase	Col (c), lines (5+8+20+30)	\$000s \$ 604,302					
33	February 16, 2018 Annualized Revenues w/Interim Increase	Col (d), lines (5+8+20+30)	\$000s	\$ 637,077				
34	April 13, 2018 Annualized Revenues w/2nd Interim Increase	Col (e), lines (5+11+20+30)	\$000s		\$ 599,960			
35	June 1, 2018 Annualized Revenues w/RAM Increase	Col (f), lines (5+11+20+30)	\$000s			\$ 612,574		
36	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 7/1/18	Col (g), lines (5+11+17+20+30)	\$000s				\$ 618,587	
37	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 10/1/18	Col (h), lines (5+11+17+20+30)	\$000s					\$ 620,374
38	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (i), lines (5+11+17+20+30)	\$000s					
39	June 1, 2019 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (j), lines (5+14+17+20+23+26+29+30)	\$000s					
40	<u>Distribution of Target Revenues by Month:</u>	Note (1)	Note (2)	Note (4) 2018	Note (4), (6) 2018	Note (6) 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: \$35,971 \$000s
- 4 For the month of the initial implementation (Feb 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days: 0.46429
- 5 Test Year 2017 2nd Interim Increase provided for in Order No. 35335, issued March 9, 2018 in Docket No. 2016-0328: -\$603 \$000s
- 5a Reduction for Tax Act Implementation Lag (March 2018 Settlement Tariff Sheets, Attachment 3, filed March 16, 2018, in accordance with Order No. 35335): -\$2,143 \$000s
- 6 For the month of the initial implementation (April 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days: 0.60000
- 7 Transmittal 18-01 filed May 29, 2018, establishing 2018 target revenue effective June 1, 2018.
- 8 MPIR Revenue accrual starting effective July 1, 2018 approved in Order No. 35647, issued August 15, 2018 in Docket No. 2017-0213. Excerpt filed at HECO-WP-L1-003.
- 8a MPIR Revenue accrual starting October 1, 2018 approved in Order No. 35953, issued December 14, 2018 in Docket No. 2017-0213. Excerpt filed at HECO-WP-L1-003.
- 8b MPIR Revenue accrual starting January 1, 2019 filed in Transmittal 19-01, filed February 7, 2019. Excerpt filed at HECO-WP-L1-003.



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

Line No.	Description (a)	Reference (b)		Docket No. 2016-0328 Amounts (i)	Docket No. 2016-0328 Amounts (j)	Docket No. 2016-0328 Amounts (k)
1	<u>Last Rate Case Annual Electric Revenue at Approved Rate I</u>	Note (3), (5), (5a)	\$000s	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (3)	\$000s	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (3)	\$000s	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (3), (5), (5a)	\$000s	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (3), (5), (5a)	\$000s	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rate)		\$000s	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1...4	\$000s	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (1a)	\$000s	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%		\$000s	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$000s	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (7)	\$000s	\$ 13,828	\$ -	\$ -
10	Less: Revenue Taxes on Line 9 at 8.885%		\$000s	\$ (1,229)	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$000s	\$ 12,599	\$ -	\$ -
12	Authorized RAM Revenues	Sch A, Line 4	\$000s	\$ -	\$ 20,351	\$ 20,351
13	Less: Revenue Taxes on Line 12 at 8.885%		\$000s	\$ -	\$ (1,808)	\$ (1,808)
14	Net RAM Adjustment - Test Year +2	Lines 12 + 13	\$000s	\$ -	\$ 18,543	\$ 18,543
15	Authorized MPIR Revenues	Schedule L	\$000s	\$ 19,811	\$ 19,811	\$ 19,811
16	Less: Revenue Taxes on Line 15 at 8.885%		\$000s	\$ (1,760)	\$ (1,760)	\$ (1,760)
17	Net MPIR Adjustment	Lines 15 + 16	\$000s	\$ 18,051	\$ 18,051	\$ 18,051
18	Less: <u>EARNINGS SHARING REVENUE CREDITS</u>	Note (1a)	\$000s	\$ -	\$ -	\$ -
19	Less: Revenue Taxes on Line 18 at 8.885%		\$000s	\$ -	\$ -	\$ -
20	Net Earnings Sharing Revenue Credits	Lines 18 + 19	\$000s	\$ -	\$ -	\$ -
21	Less: <u>PERFORMANCE INCENTIVE MECHANISM</u>	Sch A, Line 6	\$000s	\$ -	\$ (1,269)	\$ (1,269)
22	Less: Revenue Taxes on Line 24 at 8.885%		\$000s	\$ -	\$ 113	\$ 113
23	Net Performance Incentive Mechanism	Lines 21 + 2	\$000s	\$ -	\$ (1,157)	\$ (1,157)
24	Less: <u>2017 TEST YEAR FINAL D&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 accrued 7/1/18	Col (g), lines (5+11+17+20+30)	\$000s			
37	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 10/1/18	Col (h), lines (5+11+17+20+30)	\$000s			
38	June 1, 2018 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (i), lines (5+11+17+20+30)	\$000s	\$ 630,624		
39	June 1, 2019 Annualized Revenues w/RAM Increase & MPIR accrued 1/1/19	Col (j), lines (5+14+17 +20+23+26+29+30)	\$000s		\$ 636,136	\$ 636,136
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		\$52,099,546
42	February	7.26%	7.59%	\$47,864,379		\$48,282,729
43	March	8.10%	8.10%	\$51,080,563		\$51,527,023
44	April	7.84%	7.98%	\$50,323,814		\$50,763,660
45	May	8.44%	8.40%	\$52,972,435		\$53,435,431
46	June	8.47%	8.07%		\$51,336,182	
47	July	8.77%	8.70%		\$55,343,840	
48	August	9.04%	8.94%		\$56,870,566	
49	September	8.68%	8.65%		\$55,025,772	
50	October	8.78%	8.84%		\$56,234,430	
51	November	8.26%	8.26%		\$52,544,841	
52	December	8.26%	8.28%		\$52,672,068	
53	Total Distributed Target Revenues	100.00%	100.00%	\$253,889,316	\$380,027,699	\$256,108,389

**HAWAIIAN ELECTRIC COMPANY  
DECOUPLING CALCULATION WORKBOOK  
DETERMINATION OF RECORDED ADJUSTED REVENUES**

Line No.	Description	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018	November 2018	December 2018	Total
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	
<b><u>BILLED REVENUES:</u></b>														
1	Current month's billed revenues (SAP014w)	131,367,405	134,781,670	138,532,375	139,891,016	136,565,143	148,254,104	155,912,953	166,208,215	166,774,673	179,719,396	165,592,723	159,911,354	1,823,511,027
2	Remove PBF revenues	(1,218,709)	(1,201,960)	(1,194,318)	(1,211,024)	(1,182,968)	(1,265,642)	(1,382,251)	(1,590,817)	(1,573,352)	(1,655,808)	(1,506,750)	(1,423,869)	(16,407,468)
3	Remove Solar Saver non-revenues	-	-	-	58,286	67,403	-	-	-	-	-	-	-	125,689
4	City & County traffic signal revenue adjustments	-	-	(10,230)	-	-	(10,310)	-	-	(10,911)	-	-	(11,330)	(42,781)
5 =														
sum 1-4	<b>BILLED REVENUES</b>	<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><u>UNBILLED REVENUES</u></b>														
6	Current month's unbilled revenues (Unbilled Sales and Revenue Est)	78,387,084	70,879,493	70,665,761	70,377,168	76,196,920	80,293,995	90,404,928	92,787,255	95,015,547	90,754,173	87,978,477	88,120,287	991,861,088
7	Reverse prior month's unbilled revenues (Unbilled Sales and Revenue Est)	(77,212,019)	(78,387,084)	(70,879,493)	(70,665,761)	(70,377,168)	(76,196,920)	(80,293,995)	(90,404,928)	(92,787,255)	(95,015,547)	(90,754,173)	(87,978,477)	(980,952,820)
8 = 6+7	Unbilled revenues per Unbilled Sales and Revenue Estimate	1,175,065	(7,507,591)	(213,732)	(288,593)	5,819,752	4,097,075	10,110,933	2,382,327	2,228,292	(4,261,374)	(2,775,696)	141,810	10,908,268
9	Recovery of 12-31-16 RBA balance through RBA Rate Adjustment beginning 6-1-17	(3,698,239)	(4,594,033)	(3,671,308)	(3,764,985)	(3,776,056)	-	-	-	-	-	-	-	(19,504,621)
10	Recovery of 12-31-17 RBA balance through RBA Rate Adjustment beginning 6-1-18	-	-	-	-	-	(4,532,582)	(4,885,725)	(4,990,061)	(4,736,715)	(4,986,163)	(4,512,471)	(4,336,398)	(32,980,115)
11	Accrual and reversal of ESM refund	1,258	1,127	1,258	1,217	1,310	-	-	-	-	-	-	-	6,170
12	Accrual of Performance Incentive Mechanism	-	-	-	-	-	-	-	-	-	-	-	(531,871)	(531,871)
13	Accrual of Test Year Rate Case Refund	-	-	-	-	-	-	(48,000)	-	-	-	-	-	(48,000)
14	Accrual of ECAC adjustment	3,370,200	1,909,100	2,951,000	5,038,900	(1,598,200)	(2,982,800)	3,568,600	2,029,500	(1,810,600)	1,430,100	3,000,000	4,585,500	21,491,300
15	Reversal of ECAC adjustment	(361,600)	(2,429,267)	(2,429,267)	(2,429,266)	(2,743,434)	(2,743,434)	(2,743,432)	(152,634)	(152,634)	(152,632)	(1,262,501)	(1,262,501)	(18,862,602)
16	Accrual of PPAC adjustment	2,191,500	757,800	3,515,100	2,401,700	4,654,200	4,647,800	1,320,900	1,157,600	(1,315,800)	(3,152,800)	(1,325,100)	123,800	14,976,700
17	Reversal of PPAC accrual	(822,234)	(1,534,900)	(1,534,900)	(1,534,900)	(2,154,801)	(2,154,801)	(2,154,798)	(3,901,233)	(3,901,233)	(3,901,234)	(387,568)	(387,568)	(24,370,170)
18	Reclass excess DSM revenues	(33,172)	(49,801)	11,448	163,556	164,655	172,002	184,046	80,370	75,572	79,569	(17,328)	(15,121)	81,5796
19	Reclass excess DRAC revenues	-	(12,490)	(96,264)	(79,581)	(115,027)	(131,987)	(173,171)	(162,078)	(210,176)	(88,349)	(106,014)	(75,362)	(1,250,499)
20	Tax Reform Act adjustment	(2,265,026)	(2,099,090)	(1,309,124)	(649,271)	178,602	178,602	178,602	178,602	178,602	178,602	178,602	178,602	(4,893,695)
21	Other unbilled adjustments	-	(239,405)	(457,680)	(457,680)	(1,408,951)	-	-	-	-	-	-	-	(2,106,036)
22	Accrual of current month's RBA (PUC Monthly Financial Report pg. 9A)	5,077,211	5,522,935	5,237,442	3,422,723	6,594,397	2,687,291	3,672,487	5,153,412	(570,165)	(1,531,719)	(616,585)	602,499	35,251,928
23	RBA gross up for revenue taxes	495,099	538,563	510,724	333,763	643,046	262,408	358,119	502,530	(55,599)	(149,364)	(60,126)	58,752	3,437,555
24 =														
sum 9-23	Miscellaneous unbilled accruals	3,954,997	(1,990,056)	2,946,704	2,446,176	439,741	(4,597,861)	(722,372)	(103,992)	(12,498,748)	(12,273,990)	(5,109,091)	(1,059,668)	(28,568,160)
25 = 8+24	<b>UNBILLED REVENUES</b>	<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>(16,535,364)</b>	<b>(7,884,787)</b>	<b>(917,858)</b>	<b>(17,659,892)</b>
26 = 5+25	<b>TOTAL REVENUES PER G/L (PUC Monthly Financial Report)</b>	<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>161,528,223</b>	<b>156,201,186</b>	<b>157,558,297</b>	<b>1,789,526,575</b>
<b><u>Billed Adjustments to Determine Adjusted Revenues for RBA:</u></b>														
27	Add back C&C unmeasured revenue	-	-	10,230	-	-	10,310	-	-	10,911	-	-	11,330	42,781
28	Add back diplomatic tax exemption (excl. exempted rev taxes on PBF surcharge)	323	312	337	297	307	17	742	351	334	332	-	581	3,933
29	Remove ECAC revenues	7,436,356	4,121,689	1,715,503	2,282,011	(962,632)	(6,550,979)	(7,637,339)	(6,113,486)	(13,243,977)	(25,122,448)	(25,453,166)	(28,257,616)	(97,786,084)
30	Remove PPAC revenues	(13,915,656)	(14,192,358)	(14,513,240)	(14,719,197)	(12,339,728)	(11,177,856)	(13,913,483)	(18,062,250)	(19,621,783)	(21,968,249)	(18,435,053)	(15,583,999)	(188,442,852)
31	Remove REIP revenues	-	-	-	-	-	9	(9)	-	-	-	-	-	-
32	Remove DSM revenues	(357,105)	(321,161)	(68,674)	(67,965)	275,965	150,334	153,540	124,173	66,280	70,534	24,118	(25,119)	24,920
33	Remove revenue taxes of PBF revenues	(83,120)	(81,978)	(81,456)	(82,596)	(80,682)	(86,323)	(94,272)	(108,499)	(107,308)	(112,932)	(102,768)	(97,111)	(1,119,045)
34	Remove Solar Saver revenues	-	2	-	3,675	4,250	(4)	5	-	-	-	-	-	7,928
35	Remove revenue taxes on billed revenues	(10,948,941)	(10,937,987)	(11,052,098)	(11,208,828)	(10,870,536)	(11,490,407)	(11,820,594)	(12,479,665)	(11,754,399)	(11,633,204)	(10,672,582)	(10,175,477)	(135,044,718)
36	Remove base fuel (adjusted for revenue taxes)	(45,592,364)	(45,532,869)	(44,984,425)	(45,711,413)	(44,832,955)	(47,622,032)	(48,663,614)	(52,260,945)	(41,614,714)	(30,245,267)	(27,651,766)	(26,028,373)	(500,740,737)
37	Remove power purchase energy (adjusted for revenue taxes)	(19,235,019)	(19,209,918)	(18,978,535)	(19,285,245)	(18,914,631)	(20,091,318)	(20,530,752)	(22,048,435)	(23,218,962)	(27,055,291)	(24,735,328)	(23,283,155)	(256,586,589)
38	Other operating revenue - EV-U revenue net of revenue taxes	8,735	7,570	8,289	7,811	9,331	8,857	9,382	10,487	9,761	9,376	8,408	8,222	106,229
39	Other operating revenue - SMNP revenue net of revenue taxes	10,372	10,091	10,724	10,775	10,473	10,868	11,357	11,803	12,350	12,566	12,930	13,235	137,544
<b><u>Unbilled Adjustments to Determine Adjusted Revenues for RBA:</u></b>														
40	Remove ESM refund accrual & reversal	(1,258)	(1,127)	(1,258)	(1,217)	(1,310)	-	-	-	-	-	-	-	(6,170)
41	Remove accrual of Performance Incentive Mechanism	-	-	-	-	-	-	-	-	-	-	-	(531,871)	(531,871)
42	Remove accrual of Test Year rate case refund	-	-	-	-	-	-	48,000	-	-	-	-	-	48,000
43	Remove ECAC revenues	(1,486,257)	(2,862,578)	303,420	280,965	(3,957,819)	(1,816,018)	500,913	1,265,450	(10,925,845)	1,035,980	(2,713,315)	(892,545)	(21,267,649)
44	Remove ECAC accrual	(3,008,600)	520,167	(521,733)	(2,609,634)	4,341,634	5,726,234	(1,876,866)	1,963,234	(1,277,468)	(1,737,499)	(3,322,999)	(2,628,698)	(2,628,698)
45	Remove PPAC revenues	(362)	790,980	83,923	(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	(1,369,266)	777,100	(1,980,200)	(866,800)	(2,499,399)	(833,898)	2,743,633	5,217,033	7,054,034	1,712,668	263,768	9,393,470	9,393,470
47	Remove DSM revenues	123	146,685	67,590	75,567	4,644	1,691	10,508	(54,195)	(1,101)	(1,358)	(20,730)	(28,943)	200,481
48	Remove excess DSM revenues	33,172	49,801	(11,448)	(163,556)	(164,655)	(172,002)	(184,046)	(80,370)	(75,572)	(79,569)	17,328	15,121	(815,796)
49	Remove excess DRAC revenues	-	12,490	96,264	79,581	115,027	131,987	173,171	162,078	210,176	88,349	106,014	75,362	1,250,499
50	Remove Tax Reform Act adjustment	2,265,026	2,099,090	1,309,124	649,271	178,602	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	(178,602)	4,893,695
51	Remove Other unbilled adjustments	-	-	239,405	457,680	(697,085)	-	-	-	-	-	-	-	-
52	Remove RBA accruals	(5,077,211)	(5,522,935)	(5,237,442)	(3,422,723)	(6,594,397)	(2,687,291)	(3,672,487)	(5,153,412)	570,165	1,531,719	616,585	(602,499)	(35,251,928)
53	Remove RBA gross up for revenue taxes	(495,099)	(538,563)	(510,724)	(333,763)	(643,046)	(262,408)	(358,119)	(502,530)	55,599	149,364	60,126	(58,752)	(3,437,555)
54	Remove revenue taxes on unbilled revenues	356,259	1,246,258	304,765	345,403	185,661	251,910	(224,632)	235,632	1,276,077	685,040	673,880	438,951	5,775,204
55	Remove base fuel (adjusted for revenue taxes)	36,828	4,056,143	67,966	(553,246)	(1,436,497)	(568,898)	(2,957,080)	(792,084)	13,375,971	644,413	813,770	270,673	12,957,959
56	Remove power purchase energy (adjusted for revenue taxes)	15,537	1,711,252	28,674	(233,410)	(606,045)	(240,013)	(1,247,567)	(334,173)	(1,940,840)	576,447	727,941	242,125	(1,300,072)
57 =														
sum 27-56	Total billed and unbilled adjustments to determine adjusted revenues for RBA	(91,407,526)	(83,651,844)	(93,695,018)	(95,256,998)	(97,906,810)	(99,729,963)	(113,774,660)	(116,747,444)	(100,841,991)	(105,313,391)	(104,489,294)	(106,488,236)	(1,209,303,175)
58 = 26+57	<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>43,802,261</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>
Sch B														

Note: Amounts may not add exactly due to rounding.

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

Line No.	Decryption	Reference	Docket No. 2016-0328 Approved	Footnote 4 Previously Approved RAM	O&M Subject to Escalation Col (c) + (d)	Net Inflation Indices Footnote 2	2019 O&M RAM Adjustment Col (e) * (f)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base BU Labor Expenses	Schedule C1	\$ 47,048		\$ 47,048	4.19%	\$ 1,973
2	Base Non-Labor Expense	Schedule C2	\$ 134,734		\$ 134,734	4.24%	\$ 5,718
3	Payroll Taxes	Footnote 1	\$ 3,943		\$ 3,943	4.19%	\$ 165
4	Subtotal Expense Increase - RAM Adjustment before revenue taxes						\$ 7,856
5	Revenue Tax Factor (Footnote 3)						1.0975
6	O&M RAM (SubTotal Expenses x Rev Tax Factor)						<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.	\$ 9,342
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>\$ 84,565</u>
9	PRETAX RATE OF RETURN (Line 7, Col g)						<u>9.47%</u>
10	PRETAX RETURN REQUIREMENT						<u>\$ 8,008.3</u>
11	REVENUE TAX FACTOR (1/(1-8.885%))						<u>1.0975</u>
12	RATE BASE RAM - RETURN ON INVESTMENT \$000						<u>\$ 8,789.1</u>

To Sch A1

**Footnotes:**

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

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

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

HECO 2017 Test Year Rate Base (Note 2)				HECO 2019 RAM Rate Base				
Line No.	Description	Beg. Balance 12/31/2017	Budgeted Balance 12/31/2017	Adjusted Recorded at 12/31/2018	RAM Projected Amounts	Estimated at 12/31/2019		
	(a)	(b)	(c)	(d)	(e)	(f)		
				(Note 1)	See Detail Below			
1	Net Cost of Plant in Service, Net of CIAC	\$ 2,595,452	\$ 2,770,695	\$ 2,437,105	\$ 77,804	\$ 2,514,909	(Note 3)	
2	Property Held for Future Use	-	-	-	-	-		
3	Fuel Inventory	46,200	46,200	These Elements of Rate Base are Not Updated for RAM Purposes				(Note 5)
4	Materials & Supplies Inventories	28,427	28,427					
5	Unamort Net ASC 740 Reg Asset	70,144	74,887					
6	Unamort EOTP Reg Asset	444	89					
7	CIP CT-1 Reg Asset	2,306	1,352					
8	Unamort Sys Dev Costs	15,932	13,496					
9	RO Pipeline Reg Asset	4,958	4,842					
10	Pension Tracking	97,620	113,828					
11	Contrib in Excess of NPPC	6,470	6,470					
12	Total Additions	\$ 2,867,953	\$ 3,060,286	\$ 2,718,151	\$ 77,804	\$ 2,795,955		
13	Unamortized CIAC/CIAC in CWIP	\$ (347,826)	\$ (395,134)	\$ (30,110)	\$ -	\$ (30,110)	(Note 3)	
13a	Developer Advances	-	-	\$ (21,345)	\$ -	\$ (21,345)	(Note 3)	
14	Customer Advances	(3,581)	(3,925)	Not Updated				(Note 3)
15	Customer Deposits	(12,101)	(12,005)					
16	Accumulated Def Income Taxes	(520,643)	(333,360)	(282,714)	(4,881)	(287,594)	(Note 4)	
17	ADIT Excess Reg Liability	-	(203,950)	(277,406)	10,381	(267,025)	(Note 4), Sch D5	
18	Unamortized State ITC (Gross)	(56,323)	(54,903)	Not Updated				
19	Unamortized Gain on Sale	(248)	(182)					
20	Pension Reg Liability	-	-					
21	OPEB Reg Liability	(2,817)	(2,331)					
22	Total Deductions	\$ (943,539)	\$ (1,005,790)	\$ (685,783)	\$ 5,500	\$ (680,283)		
23	Working Cash	3,904	3,904	3,904	Not Updated	3,904		
24	Rate Base at Proposed Rates	\$ 1,928,318	\$ 2,058,400	\$ 2,036,272		\$ 2,119,576		
25	Average Rate Base		\$ 1,993,359			\$ 2,077,924		
26	Change in Rate Base					\$ 84,565		
						To Schedule D		
27	Column (e) Projected Changes to Rate Base:		Reference	Amount \$000				
28	Plant - Baseline Capital Project Additions, Net of CIAC		Schedule D2	200,583				
29	Major Project Additions, Net of CIAC		Schedule D3	16,895				
30	Accumulated Depreciation/Amortization Change		Schedule E	(139,674)				
31	Net Plant		Sum: Lines 28-30	77,804				
32	ADIT - Baseline and Major Capital Projects		Schedule F	(4,881)				
33	ADIT - Joint Pole Capital Transfer Price		Note 6	-				
34	ADIT Excluding Joint Pole		Sum: Line 32-33	(4,881)				
35	Excess ADIT Reg Liability Amortization (Plant 282 excess def amort beginning 6/1/2019)		Schedule D5	10,381				

**Footnotes:**

1 Amounts are recorded, except for the following adjustments:

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

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

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

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

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

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

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

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

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

Line No.	Description		3/27/2015	3/29/2016	3/30/2017	3/27/2018	NOTE (1)
	(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	Kalo Substation	2008-0070 Y00119	(6,548,755)	(925)			
20	Kalo Sub 46kV & 12kV Distr	2008-0070 Y00119	(1,218,895)				
21	Kalo Telecomm	2008-0070 Y00119	(171,237)				
22	Kalo 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 (a)	Reference (b)	DR/(CR) Balance at 12/31/17 (c)	DR/(CR) Adjustments	DR/(CR) Amortization (d)	DR/(CR) Balance at 12/31/18 (e) = (c) + (d)	Life (f)	Amortization (g)	Est Bal at 12/31/19 (h) = (e) + (g)
1	Plant 282 - protected		(215,702,497)	(7,803,210)		(223,505,707)	40	5,587,643	(220,246,249)
2	Plant 283 - unprotected		(35,065,867)		1,668,881	(33,396,986)	15	2,337,723	(31,059,263)
3	Nonplant 283 - unprotected		(23,918,454)		3,415,029	(20,503,425)	5	4,783,679	(15,719,746)
	Total Excess ADIT								
4	Regulatory Liability		<u>(274,686,818)</u>	<u>(7,803,210)</u>	<u>5,083,910</u>	<u>(277,406,118)</u>		<u>12,709,045</u>	<u>(267,025,258)</u>
			Note 1			To Sch D1		To Sch E	To Sch D1
									Note 3

**Reconciliation of 12/31/18 Balance:**

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

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

Note 2: Amortization began 4/14/2018.

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

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

Line No.	FERC Account	Recorded Depreciable/Amort. Balance (Footnote 3)	Adjustments (Footnote 1)	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate	Annual Accrual
	(a)	(b)	(c)	(d)	(e)	(f)
1	<b>Depreciable Plant</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	(24,665,897)	220,502,628	0.03390	7,475,039
33	365	105,897,935		105,897,935	0.04190	4,437,123
34	366	270,101,616		270,101,616	0.02190	5,915,225
35	367	405,492,451		405,492,451	0.04980	20,193,524
36	368	220,837,260		220,837,260	0.05200	11,483,538
37	369.1	59,534,914		59,534,914	0.05250	3,125,583
38	369.2	174,898,002		174,898,002	0.04070	7,118,349
39	370	40,383,030		40,383,030	0.02660	1,074,189
40	Tot - Distr	1,827,588,798	(24,665,897)	1,802,922,901	0.03655	66,801,423
41						
42	Tot - T & D	2,894,981,897	(27,163,548)	2,867,818,349		93,940,224
43						
44	390	67,940,630		67,940,630	0.02450	1,664,545
45	Tot - General	67,940,630	-	67,940,630	0.02450	1,664,545
46						
47	Sub-Total	4,090,309,945	(172,734,160)	3,917,575,785		114,770,706
48						
49	3902 (King)	8,011,075		8,011,075	0.03010	241,114
50	3902 (CPP)	2,115,809		2,115,809	0.00417	8,814
51	3902 (Waterhouse)	1,517,450		1,517,450	0.00000	-
52	3902 (Hon Cl)	523,097		523,097	0.07824	40,929
53	3902 (ASB)	1,463,127		1,463,127	0.06133	89,738
54	3902 (Shinco)	939,475		939,475	0.00000	-
55	3902 (PPP)	372,940		372,940	0.11111	41,438
	3902 (Pauahi)	50,376		50,376	0.33333	16,792
56	3902 (Tenant Allowance)	14,131,757	(14,131,757)	-	-	-
57	Tot- LH Impr	29,125,106	(14,131,757)	14,993,349		438,824
58						
59	392	59,063,238		59,063,238	0.06130	3,620,576
60						
61	Utility Total Depreciation	4,178,498,289	(186,865,917)	3,991,632,372	0.02844	118,830,107

Line No.	FERC Account (a)	Recorded Depreciable/Amort. Balance (Footnote 3) (b)	Adjustments (Footnote 1) (c)	Adjusted Depreciable/Amort. Balance (d)	PUC Approved Accrual Rate (e)	Annual Accrual (f)
61	<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	\$ 139,673,763
86	LESS: Vehicle Depreciation (A/C 392 above)				Line 59	\$ (3,620,576)
87	LESS: ADIT Excess Amortization				Schedule D5	(12,709,045)
88	LESS: Depreciation & Amortization in Current Revenues				Footnote 2	\$ (120,665,585)
89						
90	RAM Adjustment for Depreciation & Amortization					\$ 2,678,556
91	RAM Adjustment for CIAC Amortization				Note 5	\$ -
92	Total RAM Adjustment for Depreciation & Amortization					\$ 2,678,556
93	Times: Factor for Revenue Taxes				Schedule C Line 5	1.0975
94						
95	RAM DEPRECIATION & AMORTIZATION					\$ 2,939,716

To Sch A1

**Footnotes:**

1	Amounts are recorded (in \$000s), except for the following adjustments:		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)	
	Joint Pole Capital Transfer Price		(24,666)	See Decision and Order No. 35768, Docket No. 2018-0075 filed October 16 2018
	Tenant Improvement Allowance (see Footnote 4)		(14,132)	
	ARO Assets included in Depreciable Plant	GL# 10100001	(3,423)	
	Total		\$ (187,121)	
2	Depreciation & Amortization in Current Revenues*:		Depr/Amort Expense	
	Total Depreciation		\$ 139,686,000	
	LESS: Vehicle Depreciation (A/C 392)		(3,590,000)	
	LESS: Amortization of Excess ADIT		(7,121,415)	
	Total Depreciation in Current Revenues		\$ 128,974,585	
	ADD: CIAC Amortization	Note 5	(8,309,000)	
	Total Depreciation & Amortization in Current Revenues		120,665,585	To Line 88

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

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

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

Line No.	NARUC Account (a)	Reference (b)	Projected ADIT Change (c)
1	State Tax Depreciation	Schedule F1	9,813,741
2	Amortization of Excess Deferreds (Note 3)	Schedule D5	10,380,860
3	Subtotal		20,194,601
4	Effective Federal Tax Rate	HECO-WP-F-001	19.7368%
5	Federal Deferred Tax on State Tax Depreciation		3,985,777
6	Add back State Tax Depreciation	Line 1	(9,813,741)
7	Federal Tax Depreciation	Schedule F1	9,813,741
8	Federal/State Difference		-
9	Tax Rate on Federal Only Adjustment	HECO-WP-F-001	21%
10	Federal Deferred Tax Adjustment		-
11	Total Federal Deferred Taxes Before Proration		3,985,777
12	Proration Adjustment	HECO-WP-F1-003	(319,803)
13	Total Federal Deferred Taxes After Proration		3,665,974
<b>STATE DEFERRED TAXES</b>			
14	State Tax Depreciation	Line 1	9,813,741
15	Amortization of Excess Deferreds (Note 3)	Line 2	10,380,860
16	Subtotal		20,194,601
17	Effective State Tax Rate	HECO-WP-F-001	6.0150%
18	Total State Deferred Taxes		1,214,713
19	TOTAL FED AND STATE DEFERRED TAXES		4,880,686
			To Sch D1

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

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

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

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

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

Line No.	HECO-WP-F1-002										
	LIFE	PROJECTS	PROGRAMS	TOTAL	PROJECTS	PROGRAMS	TOTAL				
	(a)	(b)	(c)	(d)	(e)	(f)	(g)				
1	Computers/PV	5	6,092	6,092	2.54%		2.54%				
2	Communication	20	5,920	5,920	2.47%		2.47%				
3	Off/Furn/Tools	7	5,022	5,022	2.09%		2.09%				
4	Distribution	20	130,472	130,472	54.38%		54.38%				
5	Land	-	816	816	0.34%		0.34%				
6	Non-Steam Production	15	3,713	3,713	1.55%		1.55%				
7	Steam Production	20	22,905	22,905	9.55%		9.55%				
8	Structural	39	3,265	3,265	1.36%		1.36%				
9	Transmission	20	21,834	21,834	9.10%		9.10%				
10	Transmission	15	34,674	34,674	14.45%		14.45%				
11	Vehicles	-	5,209	5,209	2.17%		2.17%				
12	TOTAL	239,922	-	239,922	100.00%	0.00%	100.00%				
From Sch D2											
			5 yr	2.54%			2.54%				
			7 yr	2.09%			2.09%				
			15 yr	16.00%			16.00%				
			20 yr	75.50%			75.50%				
			39 yr	1.36%			1.36%				
			Land	0.34%			0.34%				
			Vehicles	2.17%			2.17%				
			Total	100.00%	0.00%	100.00%					
Vintage 2019 - Regular Depreciation											
Basis subject to regular depreciation				(Total less amounts subject to 40% bonus)							
			5 yr	2.54%		5 yr	5,211,519	20.00%	1,042,304	20.00%	1,042,304
			7 yr	2.09%		7 yr	4,296,167	14.29%	613,922	14.29%	613,922
			15 yr	16.00%		15 yr	32,838,900	5.00%	1,641,945	5.00%	1,641,945
			20 yr	75.50%		20 yr	154,952,011	3.75%	5,810,700	3.75%	5,810,700
			39 yr	1.36%		39 yr	2,793,107	1.177%	32,875	1.177%	32,875
				97.49%	0.00%						
			TOTAL ASSETS	97.49%	0.00%						
Net Depreciable Baseline Plant Adds								200,091,704	9,141,746	9,141,746	
Major Capital Projects from Schedule F2								16,917,439	671,995	671,995	
Total Depreciable Plant Adds								217,009,143	9,813,741	9,813,741	
								Fed Tax Depreciation to Schedule F		St. Tax Deprec to Schedule F	
Reconciliation from Baseline Plant Adds to Net Depreciable Plant Adds :											
Baseline Capital Projects Plant Adds (rounded)								239,922,000	Schedule D2		
Less: Repairs deduction HECO-WP-F1-001 pg 1								34,676,093	<<supported by Special Study each year.		
Net plant add basis								205,245,907			
Less: Land and Vehicles (2.46% x 209,209,559)								5,154,203			
								200,091,704			

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

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

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

Schedule D2  
 <<supported by Special Study each year.

**Fed Tax Depreciation  
to Schedule F**

**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	
1a	Settlement of prior Joint Pole Accounts Receivable	Note 3	697		
2	Ratemaking Adjustments to Line 1:				
2a	Incentive Compensation Expenses (net of tax)	HECO-WP-H-002	4,073		
2b	Discretionary and Other Expenses Not Recoverable (net of tax)	HECO-WP-H-002	1,052		
2c	Amortization of investment income differential	HECO-WP-H-003	185		
2d	Income tax on items to be replaced by synchronized interest	HECO-WP-H-003	(12,461)		
2e	Special Medical Needs Program discount (net of tax)	HECO-WP-H-005	102		
2f	Performance Incentive Mechanism (net of tax)	HECO-WP-H-006	360		
2g	Final Test Year Refund (net of tax)	HECO-WP-H-007	32		
3	Ratemaking Basis Amounts - Post Tax	Sum Lines 1 & 2	\$ 128,221	\$ 2,109,963	
4	Ratemaking Capitalization				
		Balances	Ratios	Cost Rate	Weighted Cost
5	Short-Term Debt (12 mo. Avg)	\$ 88,868	3.68%	2.54%	0.09%
6	Long-Term Debt (Simple Avg)	\$ 939,810	38.92%	5.03%	1.96%
7	Hybrid Securities (Simple Avg)	\$ 28,758	1.19%	7.16%	0.09%
8	Preferred Stock (Simple Avg)	\$ 21,192	0.88%	5.36%	0.05%
9	Common Equity (Simple Avg)	\$ 1,335,921	55.33%	9.50%	5.26%
10	Total Capitalization	HECO-WP-H-004	\$ 2,414,549	100.00%	7.45%
11	Line 3 Rate Base Amount			\$ 2,109,963	
12	Weighted Cost of Debt (Sum Lines 5-7)			2.14%	
13	Synchronized Interest Expense			\$ 45,153	
	Income Tax Factor (Note 1)			1.346801347	
13a	Synchronized Interest Expense, net of tax			\$ 33,526	
14	Post Tax Income Available for Preferred & Common (Line 3 - Line 13a)				\$ 94,695
17	Less: Preferred Income Requirement (Line 8 Weighted Cost times Rate Base)				1,055
18	Income Available for Common Stock				\$ 93,640
19	Ratemaking Equity Investment (Line 9 Ratio times Rate Base)				1,167,400
20	Return on Equity for Decoupling Earnings Sharing (Line 18/Line 19)				8.02%
21	Earnings Sharing Revenue Credits:	Basis Points			
22	Achieved ROE (basis points)	802			
23	Authorized Return (basis points)	950			
24	ROE for sharing (basis points)	-			
25	Sharing Grid per RAM Provision	First 100 bp	Next 200 bp	All over 300 bp	Ratepayer Total
26	Distribution of Excess ROE (basis points)	0	0	0	
27	Ratepayer Share of Excess Earnings	25%	50%	90%	
28	Ratepayer Earnings Share - Basis Points	-	-	-	-
29	Revenue Credit per Basis Point (Note 2)				\$ 173
30	Earnings Sharing Revenue Credits (thousands)				0
					To Sch A Line 5

Footnotes:

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

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

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

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

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

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

Note 1 **Target Revenues:**

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

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

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

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

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

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

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

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

Line No.	Description	Reference	Amount \$000
	(a)	(b)	(c)
1	Schofield Generating Station	Schedule L1	\$ 18,051
2	Docket No. 2017-0213		
3	Revenue Tax Factor (1/(1-8.885%))		<u>1.0975</u>
4	<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

Reconciliation to Schedule B1 (Info Only)

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

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

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

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

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

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

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

**HAWAIIAN ELECTRIC COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**2018 SERVICE QUALITY PIMS**

	2018 Annual Total *	2018 Target **	Variance (c)=(a)-(b)	Deadband ** (d)	Maximum \$ ** (e)	(Penalty) / Reward Amount 1.0 * ((b - a) / d) * e + e
	(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)
						To Sch A
					Total With Exclusion	\$ 53,998

Notes:

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

Recalculated 2019 PIMS to include 25kV Proactive Work.

\* See HECO-WP-M-002

\*\* See HECO-WP-M-001 (revised 05-21-19)

\*\*\* See HECO-WP-M-005



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

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**

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

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

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

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

\* Differences are due to rounding

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

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

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

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

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

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

\* Differences are due to rounding

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

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

## Hawaiian Electric Company, Inc.

## Bargaining Unit Wage Increase per Collective Bargaining Agreements

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

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

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

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

# Blue Chip Economic Indicators®

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

## 2 ■ BLUE CHIP ECONOMIC INDICATORS ■ 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>																
<b>Number of Forecasts Changed From a Month Ago:</b>																
Down	18	17	26	18	10	8	14	19	12	25	26	6	9	13	14	
Same	28	24	14	17	13	26	31	20	16	16	15	23	30	23	21	
Up	3	6	8	14	22	11	4	9	3	2	2	20	6	1	13	
February Median	2.5	2.0	4.6	1.9	2.7	2.5	2.7	3.8	4.5	2.6	2.9	3.7	1.27	16.8	-1006.2	
February Diffusion Index	35 %	38 %	31 %	46 %	63 %	53 %	40 %	40 %	35 %	23 %	22 %	64 %	47 %	34 %	49 %	

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

**HAWAIIAN ELECTRIC COMPANY, INC.**

**EXHIBIT A**      3.00%      3.00%      3.00%

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



CIAC Treatment  
Resulting from FERC Adoption

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

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

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

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

**Ratemaking treatment for CIAC**

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

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

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

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

### **Treatment of CIAC within the 2019 Annual Decoupling Filing**

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

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

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

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

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

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

#### Schedule D2, Determination of Baseline Capital Projects Additions

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

#### Schedule E, Determination of Depreciation & Amortization RAM Adjustment

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

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

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

#### Schedule G-series, CIAC

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

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

## **Company's requested CIAC treatment**

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

### CIAC associated with CWIP

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

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

### CIAC impact to ADIT

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

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

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

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

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

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

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

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

## **Summary**

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

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

**NET CALCULATION**

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

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

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

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

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

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

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

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

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

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

## 2018 General Order No. 7 (GO7) Report Summary

### Plant Additions

<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**  
**BASLINE 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] <i>A</i>	Net Plant Adds thru 12/31/18 [2] <i>C</i>	2019 Net Plant Additions [3] <i>D</i>	2019 CIAC Additions [3] <i>E</i>	2019 Net Project Costs <i>F = D + E</i>	Estimated Net Plant Adds thru 12/31/19 <i>G = C + F</i>	Over/ (Under) Net PUC Approved <i>H = A - G</i>	2019 Net Plant Addition Qualifying for RB RAM (Note A)
	PE.000209 (P0003975): AES-CEIP #2 138kV OH Trans Line Relocation	Transmission ≥69kV	2019/02	3,007,232 [1a]	-	4,091,987		4,091,987	4,091,987	1,084,755	3,007,232
	PG.000005/PZ.001001 (P0003966): West Loch Utility Scale PV	Production-Photovoltaic	2019/05	62,400,000 [1b]	-	52,128,000		52,128,000	52,128,000	(10,272,000)	52,128,000
	PZ.000015 (P0000974, P0003977): Ala Wai Canal 46kV Relocation	Transmission <69kV	2019/06	13,910,207 [1c]	-	20,300,268		20,300,268	20,300,268	6,390,061	13,910,207
Y00038	P0000672: Kakaako Makai-Kewalo 25kV DL		2014/04	7,243,799	7,243,799						
	P0000783: Kakaako Makai-Iwilei 25kV DL		2013/07	5,023,851	5,023,851						
	P0001579: Kakaako Makai DOT Queen-Cook		2014/04	1,969,969	1,969,969						
		Distribution		14,237,619 [1d]	14,237,619	-	(22,683)	(22,683)	14,214,936	(22,683)	(22,683)
											<b>69,022,756</b>
											<b>To Sch D3</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. 34676 in Docket No. 2016-0342, For Approval of Waiver from the Framework for Competitive Bidding and to Commit Funds in Excess of \$2,500,000 (excluding customer contributions) for the Purchase and Installation of Item P0003966 - West Loch PV Project, filed June 30, 2017.

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

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

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

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

HAWAIIAN ELECTRIC CO., INC.					
DEFERRED INCOME TAXES					
FEDERAL		DR / (CR)	DR / (CR)	DR / (CR)	
		HECO	HECO	HECO	
		FEDERAL	STATE	TOTAL	
DR / (CR)		LIABILITY	LIABILITY	LIABILITY	
LIAB	DESCRIPTION	12/31/2018	12/31/2018	12/31/2018	
28311	Unearned Lease	-	-	-	
28312	Accrued Vacation	(247,391.60)	(81,566.84)	(328,958.44)	
28313	Uncollectible Acct	365,876.81	111,502.91	477,379.72	
28314	Directors Def Comp	8,117.74	1,571.96	9,689.70	
28317	Discounted Work Comp	313,824.26	95,894.48	409,718.74	
28319	Cap to Construct (Cost of Removal)	71,429,406.70	21,769,003.09	93,198,409.79	
28321	Pension	(15.02)	0.31	(14.71)	
28323	Excess Benefit Plan	566,372.66	168,081.11	734,453.77	
28326	Def Exec Comp (Def EICP&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	EOTP interest / amort	(2,972.01)	(906.02)	(3,878.03)	
28598	CIP interest	(116,247.60)	(35,427.08)	(151,674.68)	
28600	ERP project costs	(1,035,960.90)	(315,721.84)	(1,351,682.74)	

HAWAIIAN ELECTRIC CO., INC.					
DEFERRED INCOME TAXES					
FEDERAL		DR / (CR)	DR / (CR)	DR / (CR)	
		HECO	HECO	HECO	
		FEDERAL	STATE	TOTAL	
DR / (CR)		LIABILITY	LIABILITY	LIABILITY	
LIAB	DESCRIPTION	12/31/2018	12/31/2018	12/31/2018	
28602	Reg Liab Federal PV/EV	192,541.81	58,679.74	251,221.54	
28604	IVR project costs	(174,366.73)	(53,140.93)	(227,507.66)	
28608	Franchise Tax	1,013,344.05	308,828.44	1,322,172.49	
28614	RBA revenues	(7,287,568.48)	(2,220,971.56)	(9,508,540.04)	
28618	NOL - charitable	(6,347.36)	-	(6,347.36)	
28620	G/L Lauula	8,240.41	(41.55)	8,198.86	
28626	Reg Asset - 2017 Excess-other	(3,312,656.78)	(5,623,166.16)	(8,935,822.94)	
28628	Reg Liab - 2017 Excess-other	7,289,541.76	6,835,162.29	14,124,704.06	
28630	Reg Liab - TRA revenues	965,858.79	294,357.59	1,260,216.38	
28632	PSC/PUC tax	5,781,313.48	1,761,927.88	7,543,241.36	
28634	Waianae Solar	1,774,655.94	540,848.68	2,315,504.62	
28636	HT joint pole unbilled	875,228.59	266,736.90	1,141,965.49	
AOCINQ	AOCI - NQ Pension	624,198.92	190,228.31	814,427.23	
AOCIOPEB	AOCI - OPEB Exec Life	(538,268.59)	(164,045.19)	(702,313.78)	
48000	FIN 48 tax	368,936.00	661,176.00	1,030,112.00	
48002	FIN 48 interest	41,253.93	12,572.63	53,826.56	
50000	Rounding	(709.37)	364.13	(345.24)	
FED ACCOUNT 283, excluding state ITC		(38,254,016.15)	(6,551,668.15)	(44,805,684.30)	
28310	State ITC	11,655,223.12	3,534,658.68	15,189,881.80	
	TOTAL ACCOUNT 283	(26,598,793.02)	(3,017,009.47)	(29,615,802.50)	
28210000	Accelerated Depreciation	(252,669,067.47)	(48,604,627.78)	(301,273,695.25)	
28210100	Accel. Depr. - Excess	44,073,568.30	13,431,888.93	57,505,457.23	
28210200	Accel. Depr. - Deficit	(169,370.14)	(51,202.87)	(220,573.02)	
	TOTAL ACCOUNT 282	(208,764,869.31)	(35,223,941.72)	(243,988,811.04)	To Sch D4
TOTAL DEF INCOME TAX - UTILITY		(235,363,662.34)	(38,240,951.20)	(273,604,613.53)	
28210300	Nonutility Depreciation	555,767.33	265,376.64	821,143.97	
28301001	Nonutility - Other	1,029,315.35	316,263.16	1,345,578.51	
28301002	RHI Tax Allocation	-	-	-	
28301003	UBC Tax Allocation	-	-	-	
50001	Rounding	(2.67)	-	(2.67)	
TOTAL DEF INCOME TAX - NONUTILITY		1,585,080.02	581,639.80	2,166,719.82	
TOTAL DEF INCOME TAX		(233,778,582.32)	(37,659,311.40)	(271,437,893.72)	
RATE BASE CALCULATION					
TOTAL ACCOUNT 283		(26,598,793.02)	(3,017,009.47)	(29,615,802.50)	
Less:					
28312	Accrued Vacation	(247,391.60)	(81,566.84)	(328,958.44)	
28313	Uncollectible Acct	365,876.81	111,502.91	477,379.72	
28314	Directors Def Comp	8,117.74	1,571.96	9,689.70	
28317	Discounted Work Comp	313,824.26	95,894.48	409,718.74	
28323	Excess Benefit Plan	566,372.66	168,081.11	734,453.77	
28326	Def Exec Comp (Def EICP&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

HAWAII

HECO-WP-D4-002  
PAGE 2 OF 3

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

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



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

	source	Tax Depreciation (page 2 of 5)	AFUDC (page 3 of 5)	Tax Cap Interest (page 3 of 5)	State ITC (page 3 of 5)	Removal (page 5 of 5)	2018 Total
<b>FEDERAL DEFERRED TAXES</b>							
1 State Book/Tax Difference		(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
2 Book Depreciation	HECO-WP-L-001						
3 Subtotal	Line 1 + Line 2	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
4 Effective Federal Tax Rate		19.7368%	19.7368%	19.7368%	19.7368%	19.7368%	19.7368%
5 Federal Def Tax on State Book/Tax Diff	Line 3 * Line 4	(1,353,254)	(2,361,501)	1,514,862	832,222	(36,513)	(1,404,184)
6 Addback State Book/Tax Difference	Line 3	6,856,503	11,964,962	(7,675,319)	(4,216,602)	185,002	7,114,546
7 Federal Book/Tax Difference		(6,856,502)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,545)
8 Book Depreciation	Line 2						
9 Federal State Difference	Line 6 + 7 + 8	1	-	-	-	-	1
10 Tax Rate on Federal Only Adjustment		21%	21%	21%	21%	21%	21%
11 Federal Deferred Tax Adjustment	Line 9 * Line 10	-	-	-	-	-	-
12 Total Federal Deferred Taxes	Line 5 + Line 11	(1,353,254)	(2,361,501)	1,514,862	832,222	(36,513)	(1,404,184)
							To Sch D4
<b>STATE DEFERRED TAXES</b>							
13 State Book/Tax Difference	Line 1	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
14 Book Depreciation	Line 2	-	-	-	-	-	-
15 Subtotal	Line 13 + Line 14	(6,856,503)	(11,964,962)	7,675,319	4,216,602	(185,002)	(7,114,546)
16 Effective State Tax Rate		6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%	6.0150376%
17 Total State Deferred Taxes	Line 15 * Line 16	(412,421)	(719,697)	461,673	253,630	(11,128)	(427,943)
							To Sch D4
18 <b>TOTAL DEFERRED TAXES</b>	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
<b>FEDERAL</b>									
P0001576	Schofield Generation Station	65,512,935	(5,393,539)	3,459,864	63,579,259	Oth Prod	15	0%	3,178,963
P0001576	Schofield Generation Station	65,512,935	(5,393,539)	3,459,864	63,579,259	Oth Prod	15	0%	3,178,963
P0001576	Schofield Generation Station	5,751,969	(522,427)	335,128	5,564,670	Trans	20	0%	208,675
P0001576	Schofield Generation Station	5,751,969	(522,427)	335,128	5,564,670	Trans	20	0%	208,675
P0001576	Schofield Generation Station	1,106,868	(66,514)	42,668	1,083,021	Comm	20	0%	40,613
P0001576	Schofield Generation Station	1,106,868	(66,514)	42,668	1,083,021	Comm	20	0%	40,613
Total		144,743,542	(11,964,962)	7,675,319	140,453,899				
Cumulative									

**6,856,502**

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**HAWAII**

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

**6,856,503**

To page 1 of 5

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

<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**

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

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

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

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

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

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

**Composite Federal and State Effective Income Tax Rate**

	<u>Eff 1/1/2018</u>	<u>2017 &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.  
PRORATION ADJUSTMENT FOR NORMALIZATION COMPLIANCE  
FEDERAL ADIT DR/(CR)

ADIT account 282 --		Federal ADIT													
Federal accelerated depreciation		DR/(CR)	January	February	March	April	May	June	July	August	September	October	November	December	
Beginning balance	Sch D4	(208,749,171)													
Federal Tax Depreciation	Sch F	(20,239,341)													
Effective Federal Tax Rate		19.7368%													
Net ADIT accrued 2019		(3,994,598)													
Monthly Accrued evenly over 12 months		(332,883)													
WITHOUT PRORATION		Beg of Yr	January	February	March	April	May	June	July	August	September	October	November	December	End of Yr
Federal 282 ADIT Balance		(208,749,171)													
Monthly Additions			(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(3,994,598)
Cumulative Balance		(208,749,171)	(209,082,054)	(209,414,937)	(209,747,821)	(210,080,704)	(210,413,587)	(210,746,470)	(211,079,353)	(211,412,237)	(211,745,120)	(212,078,003)	(212,410,886)	(212,743,769)	(212,743,769)
Simple Year Average - Without Proration															(210,746,470)
WITH PRORATION															
Days new rates in effect	6/1/2019	214													
Prorated additions			(332,883)	(332,883)	(332,883)	(332,883)	(332,883)	(287,773)	(239,551)	(191,330)	(144,664)	(96,443)	(49,777)	(1,556)	(2,675,510)
Cumulative ADIT balance with proration		(208,749,171)	(209,082,054)	(209,414,937)	(209,747,821)	(210,080,704)	(210,413,587)	(210,701,360)	(210,940,911)	(211,132,241)	(211,276,905)	(211,373,348)	(211,423,125)	(211,424,681)	(211,424,681)
Simple Year Average - With Proration															(210,086,926)
Adjustment to rate base ADIT															659,544
															To Schedule F
Days new rate in effect			335	307	276	246	215	185	154	123	93	62	32	1	
Days in the month			31	28	31	30	31	30	31	31	30	31	30	31	365

Note: Methodology based on IRS Private Letter Ruling 9313008

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

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

Footnotes:

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

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

Line	Account/Order No.	Description	2018	Tax @ 25.75%	Net of Tax	Rounded (000s)
1	<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 \$1,269,311 as shown at Schedule M (revised 05-20-19). The recorded PIMS Regulatory Liability balance of \$531,871 as of 12/31/18 was used to determine the 2018 Earnings Sharing Calculations at Schedule H.

The Company made adjustments to PIMS Regulatory Asset and Liability balances with the February and March 2019 financial closes.

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

2017 Test Year Rate Case Final D&O Refund	Note 1	48	
Revenue Taxes @ 8.885%		<u>(4)</u>	
		44	
Income Taxes @ 25.75%		<u>(11)</u>	
Reduction to operating income		<u><b>32</b></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 Synch	(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 Phase 1	HR Suites Phase 2	Budget Replace	IVR System Replace	CIS		
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		
Depreciation	AFUDC Debt	Equity	Depreciation	AFUDC Debt	AFUDC Equity	Pipeline		
18,219	15,342	35,441	146,605	123,526	286,584	116,436	742,153	742 To Page 1

**NOTE:**

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

HAWAIIAN ELECTRIC COMPANY, INC.  
MONTHLY FINANCIAL REPORT  
December 2018

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

Page 2a

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

To Sch H

\*1 Amounts may not add up due to rounding.

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

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

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

Note:

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

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

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

Source: SAP and Powerplan WBS.

Note 1:

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

Note 2:

See details at HECO-WP-D2-001.

Note 3:

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

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

[illegible]

(1,540,061)  
To Sch LI

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

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

To page 1 of 5

To page 1 of 5



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

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

  

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

Source: Ellipse & SAP

Note 1:

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

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

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

To page 3 of 5

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

Row Labels	Sum of amount
Labor	90,530
Materials	46
Overheads	94,426
<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/interim increase	Col (d), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	June 1, 2018 Annualized Revenues w/RAM Increase	Col (d), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	June 1, 2018 Annualized Revenues w/RAM Increase & MPR, eff 7/1/18	Col (d), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Distribution of Target Revenues by Month:	Note (3)									
26	January	8.10%	\$48,009,623	\$48,009,623	\$51,184,359	\$48,946,443	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,091	\$50,662,296
27	February	7.26%	\$43,030,848	\$43,030,848	\$51,980,790	\$23,503,022	\$51,603,222	\$55,301,701	\$55,301,701	\$55,301,701	\$46,950,773
28	March	8.10%	\$48,009,623	\$48,009,623	\$53,581,111	\$23,503,022	\$51,603,222	\$53,507,798	\$53,507,798	\$53,507,798	\$50,105,568
29	April	7.84%	\$46,468,574	\$46,468,574	\$52,453,393	\$20,335,492	\$20,335,492	\$54,663,113	\$54,663,113	\$54,663,113	\$49,363,263
30	May	8.40%	\$50,024,842	\$50,024,842	\$52,057,695	\$49,915,326	\$49,915,326	\$51,095,307	\$51,095,307	\$51,095,307	\$51,361,329
31	June	8.07%	\$50,202,656	\$50,202,656	\$52,997,265	\$49,915,326	\$49,915,326	\$51,219,025	\$51,219,025	\$51,219,025	\$51,361,329
32	July	8.77%	\$51,980,790	\$51,980,790	\$54,628,879	\$49,915,326	\$49,915,326	\$53,817,091	\$53,817,091	\$53,817,091	\$53,817,091
33	August	9.04%	\$53,581,111	\$53,581,111	\$55,427,350	\$49,915,326	\$49,915,326	\$55,301,701	\$55,301,701	\$55,301,701	\$55,301,701
34	September	8.68%	\$51,447,350	\$51,447,350	\$52,057,695	\$49,915,326	\$49,915,326	\$54,663,113	\$54,663,113	\$54,663,113	\$54,663,113
35	October	8.78%	\$52,040,061	\$52,040,061	\$54,957,962	\$49,915,326	\$49,915,326	\$54,663,113	\$54,663,113	\$54,663,113	\$54,663,113
36	November	8.26%	\$48,957,962	\$48,957,962	\$53,817,091	\$49,915,326	\$49,915,326	\$51,095,307	\$51,095,307	\$51,095,307	\$51,095,307
37	December	8.26%	\$48,957,962	\$48,957,962	\$53,817,091	\$49,915,326	\$49,915,326	\$51,095,307	\$51,095,307	\$51,095,307	\$51,095,307
38	Total Distributed Target Revenues	100.00%	\$357,167,892	\$357,167,892	\$384,152,243	\$357,167,892	\$357,167,892	\$357,167,892	\$357,167,892	\$357,167,892	\$357,167,892
39											

## Footnotes:

- Docket No. 2010-0080 amounts derived from Order No. 30576, filed August 9, 2012, effective September 1, 2012, which implemented Decision and Order No. 30505, Exhibit A, page 1, filed June 28, 2012.
- Transmittal 17-02 filed March 31, 2017, establishing 2017 target revenue effective June 1, 2017.
- RBA Tariff Revised July 26, 2011 to reflect 2011 test year.
- RBA Tariff Effective February 16, 2018 to reflect 2017 test year.
- Test Year 2017 Interim Increase provided for in Interim Decision and Order 35100, issued December 15, 2017 in Docket No. 2016-0328.
- For the month of the initial implementation (Feb 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days: \$35,971
- Test Year 2017 2nd Interim Increase provided for in Order No. 35335, issued March 9, 2018 in Docket No. 2016-0328: 0.46429
- Reduction for Tax Act Implementation Lag (March 2018 Settlement Tariff Sheets, Attachment 3, filed March 16, 2018, in accordance with Order No. 35335): -\$603
- For the month of the initial implementation (April 2018), adjust the monthly allocation by the number of effective days in the month over the total number of days: -\$2,143
- Transmittal 18-01 filed May 28, 2018, establishing 2018 target revenue effective June 1, 2018. 0.60000

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

Line No.	Description (a)	Reference (b)	Recorded at 12/31/2017 (c)	Recorded at In Service Date (June 2018) (d)	Ending Balance as of 6/30/18 (e)	Average Balance (f)	MPIR (f)
<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				-	
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 &amp; 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%							4%
	To Tax Depr	63,995,593		4,191,368	980,137	1,470,400							4%

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

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

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

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

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

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

Tie out of TCI:

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

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

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

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

Indicator Code	NR
Row Labels	Sum of amount
150: Labor Cost	83,369
155: Labor True-up	7,161
205: Matl-Purchasing Card	46
404: Energy Delivery	38,302
406: Corp Admin Expense	15,495
421: Non-Productive Wages	10,390
422: Employee Benefits	22,600
423: Payroll Taxes	7,639
<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 (a)	Reference (b)	Docket No. 2010-0080 Amounts (e)	Docket No. 2010-0080 Amounts (f)	Docket No. 2010-0080 Amounts (g)	Docket No. 2010-0080 Amounts (h)	Docket No. 2016-0328 Amounts (i)	Docket No. 2016-0328 Amounts (j)	Docket No. 2016-0328 Amounts (k)	Docket No. 2016-0328 Amounts (l)	Docket No. 2016-0328 Amounts (m)	Docket No. 2016-0328 Amounts (n)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note (1), (5), (7), (7a)	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,581,445	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709	\$ 1,529,709
1a	Less: Holdback of Interim Revenues	Note (5)	\$ -	\$ -	\$ -	\$ -	\$ (5,000)	\$ -	\$ -	\$ -	\$ -	\$ -
1b	Less: Customer Benefit Adjustment	Note (5)	\$ -	\$ -	\$ -	\$ -	\$ (6,000)	\$ -	\$ -	\$ -	\$ -	\$ -
2	Less: Fuel Expense	Note (1), (5), (7), (7a)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)	\$ (327,609)
3	Purchased Power Expense	Note (1), (5), (7), (7a)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)	\$ (466,211)
4	Revenue Taxes on Line 1 to 1b (8.885% statutory rates)	Note (1), (5), (7), (7a)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (139,534)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)	\$ (135,915)
5	Last Rate Order Target Annual Revenues	Sum Lines 1..4	\$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170	\$ 637,091	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974	\$ 599,974
6	Authorized RAM Revenues	Note (2)	\$ -	\$ -	\$ 101,131	\$ 101,131	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%	Note (2)	\$ -	\$ -	\$ (8,986)	\$ (8,986)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +6	Lines 6 + 7	\$ -	\$ -	\$ 92,146	\$ 92,146	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Less: Revenue Taxes on Line 9 at 8.885%	Lines 9 + 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Net RAM Adjustment - Test Year +1	Lines 9 + 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Authorized MPIR Revenues	Schedule L	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Less: Revenue Taxes on Line 12 at 8.885%	Lines 12 + 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Net MPIR Adjustment	Lines 12 + 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Less: EARNINGS SHARING REVENUE CREDITS	Note (2), (9)	\$ -	\$ -	\$ (16)	\$ (16)	\$ (16)	\$ (16)	\$ -	\$ -	\$ -	\$ -
16	Less: Revenue Taxes on Line 15 at 8.885%	Lines 15 + 16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17	Net Earnings Sharing Revenue Credits	Lines 15 + 16	\$ -	\$ -	\$ (14)	\$ (14)	\$ (14)	\$ (14)	\$ -	\$ -	\$ -	\$ -
18	PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:	Note (2), (9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total Annual Target Revenues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	June 1, 2017 Annualized Revenues w/ RAM Increase	Col (g), lines (5+8+17+18)	\$ -	\$ 604,302	\$ -	\$ 604,302	\$ 637,077	\$ 599,960	\$ 612,574	\$ 618,587	\$ 620,374	\$ 630,624
21	February 16, 2018 Annualized Revenues w/ Interim Increase	Col (i), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	April 13, 2018 Annualized Revenues w/ 2nd Interim Increase	Col (j), lines (5+8+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	June 1, 2018 Annualized Revenues w/ RAM Increase	Col (k), lines (5+9+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	June 1, 2018 Annualized Revenues w/ RAM Increase & MPIR eff 7/1/18	Col (l), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	June 1, 2018 Annualized Revenues w/ RAM Increase & MPIR eff 10/1/18	Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	June 1, 2018 Annualized Revenues w/ RAM Increase & MPIR eff 10/1/18	Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	June 1, 2018 Annualized Revenues w/ RAM Increase & MPIR eff 1/1/19	Col (m), lines (5+11+14+17+18)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	Distribution of Target Revenues by Month:	Note (3)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	January	8.10%	\$48,009,623	\$48,009,623	\$51,184,359	\$51,184,359	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$57,648,125
30	February	7.26%	\$43,030,848	\$43,030,848	\$52,997,265	\$52,997,265	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$57,648,125
31	March	8.10%	\$48,009,623	\$48,009,623	\$51,184,359	\$51,184,359	\$22,450,132	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$57,648,125
32	April	7.84%	\$46,468,574	\$46,468,574	\$50,024,842	\$50,024,842	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$57,648,125
33	May	8.44%	\$50,024,842	\$50,024,842	\$51,184,359	\$51,184,359	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$57,648,125
34	June	8.07%	\$50,202,656	\$50,202,656	\$51,184,359	\$51,184,359	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$57,648,125
35	July	8.77%	\$51,980,790	\$51,980,790	\$52,997,265	\$52,997,265	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$57,648,125
36	August	9.04%	\$53,581,111	\$53,581,111	\$54,628,879	\$54,628,879	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$57,648,125
37	September	8.68%	\$51,447,350	\$51,447,350	\$52,453,393	\$52,453,393	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$57,648,125
38	October	8.78%	\$52,040,061	\$52,040,061	\$53,057,695	\$53,057,695	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$57,648,125
39	November	8.26%	\$48,957,962	\$48,957,962	\$49,915,326	\$49,915,326	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$57,648,125
40	December	8.26%	\$48,957,962	\$48,957,962	\$49,915,326	\$49,915,326	\$20,335,492	\$28,726,095	\$49,434,694	\$53,817,090	\$54,841,062	\$57,648,125
41	Total Distributed Target Revenues	100.00%	\$357,167,892	\$357,167,892	\$364,152,243	\$364,152,243	\$94,388,846	\$79,122,753	\$49,434,694	\$162,626,587	\$157,450,923	\$253,889,316

**Footnotes:**

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

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

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

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

Line No.	Description	Reference	Recorded at 12/31/2018	2019 Activity	Ending Balance as of 12/31/19	Average Balance	MPIR
	(a)	(b)	(c)	(d)	(e)	(f) = ((c)+(e))/2	(g)
	<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				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

		source	Tax Depreciation	AFUDC	Tax Cap Interest	State ITC	Removal	Total	Depr	Amort	Total	
FEDERAL DEFERRED TAXES												
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)	(15,543,137)
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	Line 2 Line 6 + 7 + 8	(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								4,585,844	(412,415)	4,173,428	
9	Federal State Difference			(32,667,058)	-	-	-	-	(32,667,058)	3,188,488	-	(29,478,570)
10	Tax Rate on Federal Only Adjustment		21%	21%	21%	21%	21%	21%	21%	21%	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 Line 2 Line 1 + Line 2	(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								-	4,585,844	(412,415)	4,173,428
15	Subtotal			(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
	<u>131,025,869</u>	<u>8,549,966</u>	<u>2,213,736</u>	<u>2,953,971</u>	<u>13,717,673</u>	<u>144,743,542</u>	<u>100.0%</u>	<u>141,570,000</u>

  

<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		
	<u>128,153,091</u>	<u>8,362,506</u>	<u>2,165,199</u>	<u>2,889,204</u>	<u>13,416,909</u>	<u>141,570,000</u>	(Note 1)	
Amount subject to bonus	50%	50%	50%	50%	50%	50%		103,103,789
	<u>64,076,545</u>	<u>4,181,253</u>	<u>1,082,599</u>	<u>1,444,602</u>	<u>6,708,455</u>	<u>70,785,000</u>		<u>4%</u>
								<u>4,124,152</u>
								5,625,855
Tie out of TCI:								
AFUDC	10,550,569	687,743	130,112	334,202	1,152,058	11,702,627		
ratio - 5 year average	64.15%	64.15%	64.15%	64.15%	64.15%	64.15%		
TCI	<u>6,768,010</u>	<u>441,175</u>	<u>83,465</u>	<u>214,385</u>	<u>739,025</u>	<u>7,507,036</u>		
								655,561

Source: Ellipse & SAP

Note 1:

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

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

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



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

Row Labels	Sum of amount
Labor	90,530
Materials	46
Overheads	94,426
<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	1.253	0.137
	2/16/18-4/12/18	56	2,260,799	1.116	0.090	1.026	1.206	1.253	0.137
	4/13/18-8/31/18	141	2,276,417	1.116	0.090	1.026	1.206	1.253	0.137
	9/1/18-12/31/18	122	2,276,417	1.103	0.088	1.015	1.191	1.253	0.150
	Annual (Weighted Avg)	365	2,244,112	1.112	0.089	1.022	1.201	1.253	(1,306,645) To Sch M
SAIDI	1/1/18-2/15/18	46	2,039,094	99.030	9.070	89.960	108.100	111.940	12.910
	2/16/18-4/12/18	56	2,260,799	99.030	9.070	89.960	108.100	111.940	12.910
	4/13/18-8/31/18	141	2,276,417	99.030	9.070	89.960	108.100	111.940	12.910
	9/1/18-12/31/18	122	2,276,417	99.230	8.960	90.270	108.190	111.940	12.710
	Annual (Weighted Avg)	365	2,244,112	99.097	9.033	90.064	108.130	111.940	(946,492) To Sch M
Call Center	1/1/18-2/15/18	46	815,638	79.07%	3.00%	76.07%	82.07%	83.97%	
	2/16/18-4/12/18	56	904,320	79.46%	3.00%	76.46%	82.46%	83.97%	
	4/13/18-8/31/18	141	910,567	79.56%	3.00%	76.56%	82.56%	83.97%	
	9/1/18-12/31/18	122	910,567	80.10%	3.00%	77.10%	83.10%	83.97%	
	Annual Totals	365	897,645	79.66%	3.00%	76.66%	82.66%	83.97%	4.31% 391,972 To Sch M

HECO-WP-M-004

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

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

	SAIDI	SAIFI
Occurrences / Minutes	111.94	1.253
Less: Exclusion for 25kV work	-5.52	-0.015
Annual Totals	106.41	1.238

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

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

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

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

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

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

Note:

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

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

(28,079) Hours Interrupted

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

# System Operation Department Interruption Report

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

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

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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 Sheet 1 of 1

## System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
IWILEI 138KV 3 SUB IWILEI 9 25KV CKT CB-7754 BREAKER 7754	22:00			D-1	SECTIONS OF BETHEL ST	1748	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON IWILEI 9 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE 25KV CABLE SPLICES E#260398. RELATED TO E#260399 IR#1749 REQ#2150. PTM: AHMOOK SANG, NATE; CHING, THOMAS SIGN: MIYAKE, LANCE
BREAKER CB7754		04:00 07/17/2018	6 HR 0 MIN		FROM CB7754 IWILEI SUBSTATION TO ALL TERMINATIONS CUST: 174		
IWILEI 138KV 4 SUB IWILEI 13 25KV CKT CB-7759 BREAKER 7759	22:00			D-1	KING, MAUNAKEA ST, NUUANU AVE, SECTIONS OF NIMITZ HWY	1749	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE ON IWILEI 13 25KV CKT. TO REPLACE A DEFECTIVE AL/AL CONNECTOR. TO REPLACE 25KV CABLE SPLICES E#260399. RELATED TO E#260398 IR#1748 REQ#2149. PTM: DELACRUZ, KEALI; PITT, ANTHONY; WON, BRONSON; KAPOI, KALEI SIGN: MIYAKE, LANCE
BREAKER CB7759		04:00 07/17/2018	6 HR 0 MIN		FROM CB7759 IWILEI SUB TO ALL TERMINATIONS CUST: 707		

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

Ran 02/06/2019 14:16:01

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

HE No. 171 REV 4/99

Date: July 16, 2018 (Monday)

System Operation Department  
Interruption Report

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

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

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HE No. 171 REV 4/99

Ran 02/06/2019 14:16:01

Date: July 17, 2018 ( Tuesday )

# System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
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.  
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 Class E: Affecting no cust.; parallel lines

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HE No. 171 REV 4/99

Ran 02/06/2019 14:16.01

Date: July 17, 2018

( Tuesday )

# System Operation Department Interruption Report

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

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

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 Type 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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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		

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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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Class E: Affecting no cust.; parallel lines

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HE No. 171 REV 4/99

Ran 02/06/2019 14:16:02

Date: July 23, 2018

(Monday)

# System Operation Department Interruption Report

SUBSTATION CKT NAME, VOLTAGE, SWITCH NO	TIME OUT	TIME IN	TOTAL TIME	CLASS -TYPE	AREA, DISTRICT OR SUBSTATION AFFECTED	RPT NBR	EXPLANATION
KAMOKU T2 25KV SUB KAMOKU 9 25KV CKT CB-8329 BREAKER 8329	22:04			D-1	HI CONVENTION CENTER, VICTORIA WARD CTRS	1822	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KAMOKU SUBSTATION TO ALL TERMINATIONS. UG REPLACED SPLICES REQ#2208 E#261016. RELATED TO IR#1821 REQ#2207. PTM: MAKAIU, DAROL; KATADA, RANDY; RABE, JENSEN; KAPOI, KALEI; OKAGAWA, JON; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB-8329		03:34 07/25/2018	5 HR 30 MIN		FROM CB8329 KAMOKU SUBSTATION TO ALL TERMINATIONS CUST: 83		
KEWALO T3 SUB KEWALO 5 25KV CKT CB-7706 BREAKER 7706	22:05			D-1	SECTIONS OF ALA MOANA BLVD, CONVENTION CTR, ALA MOANA S.C. AND LATERALS	1821	CIRCUIT BREAKER WAS OPENED DUE TO A SCHEDULED OUTAGE BETWEEN KEWALO SUBSTATION TO ALL TERMINATIONS. UG REPLACED SPLICES ON REQ#2207 E#261016. RELATED TO IR#1822 REQ#2208. PTM: MAKAIU, DAROL; KATADA, RANDY; RABE, JENSEN; OKAGAWA, JON; MOUNTHONGDY, PAT; CHING, THOMAS SIGN: MANZOKU, KEITH
BREAKER CB-7706		03:37 07/25/2018	5 HR 32 MIN		FROM CB7706 KEWALO SUBSTATION TO ALL TERMINATIONS CUST: 335		

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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.]

# 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.

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.

HAWAII ELECTRIC LIGHT  
ATTACHMENT 1

RATE SCHEDULES (Continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Effective Date</u>	<u>Character of Service</u>
89F	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
89G	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
89H	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
89I	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
90	"PPAC"	March 1, 2019	Purchased Power Adjustment Clause
90A	"PPAC"	March 1, 2019	Purchased Power Adjustment Clause
90B	"PPAC"	April 9, 2012	Purchased Power Adjustment Clause
91	"RBA"	January 1, 2018	Revenue Balancing Account Provision
91A	"RBA"	June 1, 2019	Revenue Balancing Account Provision
91A.1	"RBA"	June 1, 2019	Revenue Balancing Account Provision
91B	"RBA"	August 31, 2017	Revenue Balancing Account Provision
91C	"RBA"	January 1, 2018	Revenue Balancing Account Provision
91D	"RBA"	June 1, 2019	Revenue Balancing Account Provision
91E	"RBA"	June 1, 2019	Revenue Balancing Account Provision
91F	"RBA"	June 1, 2019	Revenue Balancing Account Provision
92	"TOU-RI"	October 18, 2018	Residential Interim Time-of-Use Service
92A	"TOU-RI"	February 1, 2019	Residential Interim Time-of-Use Service
92B	"TOU-RI"	October 18, 2018	Residential Interim Time-of-Use Service
92C	"TOU-RI"	February 1, 2019	Residential Interim Time-of-Use Service
93	"EV-F"	February 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
93A	"EV-F"	February 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
93B	"EV-F"	December 12, 2017	Commercial Public Electric Vehicle Charging Facility Service Pilot

HAWAII ELECTRIC LIGHT COMPANY, INC.

Superseding Sheet No. 50E  
Effective October 1, 2018

REVISED SHEET No. 50E  
Effective June 1, 2019

RATE SCHEDULES (Continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Effective Date</u>	<u>Character of Service</u>
94	"EV-U"	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
94A	"EV-U"	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
95	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
95A	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
95B	"PIM"	October 1, 2018	Performance Incentive Mechanism Provision
95C	"PIM"	October 1, 2018	Performance Incentive Mechanism Provision
95D	"PIM"	June 1, 2019	Performance Incentive Mechanism Provision
95E	"PIM"	October 1, 2018	Performance Incentive Mechanism Provision

HAWAII ELECTRIC LIGHT COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION

Supplement To:

Schedule R	- Residential Service
Schedule G	- General Service - Non-Demand
Schedule J	- General Service - Demand
Schedule P	- Large Power Service
Schedule F	- Street Light Service
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 Power 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 are 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 Hawaii Electric Light 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 Hawaii Electric Light Company's 2010 test year rate case, Docket No. 2009-0164, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

HAWAII ELECTRIC LIGHT 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)

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.

HAWAII ELECTRIC LIGHT COMPANY, INC.

Transmittal Letter Dated May 28, 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.

HAWAII ELECTRIC LIGHT COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

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

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.437%
February	7.898%
March	8.410%
April	8.072%
May	8.292%
June	8.081%
July	8.630%
August	8.764%
September	8.213%
October	8.548%
November	8.263%
December	<u>8.392%</u>
Total	100.000%

These factors are based on the MWH sales forecast that is approved by the Commission in Hawaii Electric Light Company's 2016 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.

HAWAII ELECTRIC LIGHT COMPANY, INC.

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

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.

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 Mechanisms 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.

HAWAII ELECTRIC LIGHT COMPANY, INC.

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

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

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

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

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

RBA Rate Adjustment

All Rate Schedules ..... 0.9069 ¢/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.

HAWAII ELECTRIC LIGHT COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

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

H: TARGET REVENUE CURRENTLY IN EFFECT

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

	<u>Description</u>	<u>Amount</u>
1	Electric Sales Revenue (Unadjusted)	\$291,358
2	Tax Act implementation Lag	(\$1,587)
3	Electric Sales Revenue (Adjusted for lag)	<u>\$289,771</u>
	Less:	
4	Fuel Expense	(\$45,996)
5	Purchase Power Expense	(\$72,438)
6	Revenue Tax on Electric Sales Revenue	<u>(\$25,746)</u>
7	Last Rate Order Target Revenues	\$145,591
8	Authorized RAM Revenues	\$7,670
9	Revenue Tax	<u>(\$681)</u>
10	Net RAM Adjustment	\$6,988
11	Authorized MPIR Revenues	\$0
12	Revenue Tax	<u>\$0</u>
13	Net MPIR Adjustment	\$0
14	Earnings Sharing Revenue Credits	\$0
15	Revenue Tax	<u>\$0</u>
16	Net Earnings Sharing Revenue Credits	\$0
17	Performance Incentive Mechansim (PIM)	(\$15)
18	Revenue Tax	<u>\$1</u>
19	Net PIM Reward (Penalty)	(\$14)
20	2016 Test Year Final D&O Refund	(\$74)
21	Revenue Tax	<u>\$7</u>
22	Net 2016 Test Year Final D&O Refund	(\$67)
23	On-Bill Financing Pgm Implementation Costs	\$237
24	Revenue Tax	<u>(\$21)</u>
25	Net On-Bill Financing Adjustment	\$216
26	Effective Target Revenue	\$152,714

Notes:

Totals may not add, due to rounding.

Lines 1,4,5: Final Decision and Order No. 35559, issued June 29, 2018 in Docket No. 2015-0170.

Line 2: Hawaii Electric Light Revision to Exhibits in Motion to Adjust Interim Increase, Exhibit 11. Filed April 10, 2018 in Docket No. 2015-0170.

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

Lines 8,11,14,17,20,23,26 Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling) Schedule B1, filed May 28, 2019.

HAWAII ELECTRIC LIGHT COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

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

I: HISTORICAL REFERENCE

Category	Effective Period	Effective Target Revenue (\$000)	Change in Target Revenue (\$000)	Source
2016 Test Year Rate Case(Interim)	8/31/2017 thru 4/30/2018	\$157,655	N/A (1/1/2018 Baseline)	Schedule B1 filed in Docket No. 2015-0170 on 9/5/2017.
2016 Test Year Rate Case(Interim)	5/1/2018 thru 5/31/2018	\$148,545	(\$9,110)	Schedule B1 filed in Docket No. 2015-0170 on 4/10/2018.
Annual Decoupling Filing	6/1/2018 thru 5/31/2019	\$151,583	\$3,038	Schedule B1 filed in Transmittal No. 18-02 on 3/29/2018.
Annual Decoupling Filing	6/1/2019 (current)	\$152,714	\$1,131	Schedule B1 filed in Transmittal No. 19-02 on 5/28/2019.

HAWAII ELECTRIC LIGHT COMPANY, INC.

Transmittal Letter Dated May 28, 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.

HAWAII ELECTRIC LIGHT 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)

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.

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.

HAWAII ELECTRIC LIGHT 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)

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

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: 1.374 interruptions per customer during the one-year Evaluation Period

Deadband:  $\pm 0.251$  interruptions (1 Standard Deviation)

HAWAII ELECTRIC LIGHT COMPANY, INC

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Range for no penalty: 1.123 interruptions to 1.625 interruptions per customer ( $\pm 1$  Standard Deviation from Target)

Rewards: Not Applicable  
Penalties for greater than 1.625 interruptions per customer

Maximum Reward Amount: Not Applicable  
Maximum Penalty Amount: \$545,708.

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: 134.13 minutes per outage

Deadband:  $\pm 21.32$  minutes (1 Standard Deviation)

Range for no penalty: 112.81 minutes to 155.46 minutes per outage ( $\pm 1$  Standard Deviation from Target)

Rewards: Not Applicable  
Penalties for greater than 155.46 minutes per outage

Maximum Reward Amount: Not Applicable  
Maximum Penalty Amount: \$545,708.

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.

HAWAII ELECTRIC LIGHT COMPANY, INC

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

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.

Call Center Performance:

Performance Target: 84.22% of calls answered within 30 seconds

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

Range for no reward or penalty: 81.22% of calls answered to 87.22% of calls answered.

Rewards apply for greater than 87.22% of calls answered  
Penalties apply for less than 81.22% of calls answered

Maximum Reward Amount: \$218,283.

Maximum Penalty Amount: \$218,283.

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 4/30/2018	1.403 interruptions per customer	+/- 0.245	N/A	\$546,647
SAIFI	5/1/2018 thru 9/30/2018	1.403 interruptions per customer	+/- 0.245	N/A	\$545,708
SAIDI	1/1/2018 thru 4/30/2018	138.96 minutes Per outage	+/- 25.89	N/A	\$546,647
SAIDI	5/1/2018 thru 9/30/2018	138.96 minutes Per outage	+/- 25.89	N/A	\$545,708
Call Center	1/1/2018 thru 4/30/2018	88.51% of calls answered within 30 sec.	+/- 3.00%	\$218,659	\$218,659
Call Center	5/1/2018 thru 9/30/2018	84.70% of calls answered within 30 sec.	+/- 3.00%	\$218,283	\$218,283

HAWAII ELECTRIC LIGHT COMPANY, INC

HAWAII ELECTRIC LIGHT  
ATTACHMENT 1A

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

REVISED SHEET No. 50D  
Effective June 1, 2019

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RATE SCHEDULES (Continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Effective Date</u>	<u>Character of Service</u>
89F	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
89G	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
89H	"RAM"	June 1, 2018	Rate Adjustment Mechanism Provision
89I	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
90	"PPAC"	March 1, 2019	Purchased Power Adjustment Clause
90A	"PPAC"	March 1, 2019	Purchased Power Adjustment Clause
90B	"PPAC"	April 9, 2012	Purchased Power Adjustment Clause
91	"RBA"	January 1, 2018	Revenue Balancing Account Provision
91A	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
<u>91A.1</u>	<u>"RBA"</u>	<u>June 1, 2019</u>	<u>Revenue Balancing Account Provision</u>
91B	"RBA"	August 31, 2017	Revenue Balancing Account Provision
91C	"RBA"	January 1, 2018	Revenue Balancing Account Provision
91D	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
91E	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
<u>91F</u>	<u>"RBA"</u>	<u>June 1, 2019</u>	<u>Revenue Balancing Account Provision</u>
92	"TOU-RI"	October 18, 2018	Residential Interim Time-of-Use Service
92A	"TOU-RI"	February 1, 2019	Residential Interim Time-of-Use Service
92B	"TOU-RI"	October 18, 2018	Residential Interim Time-of-Use Service
92C	"TOU-RI"	February 1, 2019	Residential Interim Time-of-Use Service
93	"EV-F"	February 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
93A	"EV-F"	February 1, 2019	Commercial Public Electric Vehicle Charging Facility Service Pilot
93B	"EV-F"	December 12, 2017	Commercial Public Electric Vehicle Charging Facility Service Pilot

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HAWAII ELECTRIC LIGHT COMPANY, INC.

Transmittal Letter Dated May 28, 2019

Deleted: February 22, 2019

Superseding Sheet No. 50E  
Effective ~~October 1, 2018~~

REVISED SHEET No. 50E  
Effective ~~June 1, 2019~~

RATE SCHEDULES (Continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Effective Date</u>	<u>Character of Service</u>
94	"EV-U"	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
94A	"EV-U"	December 12, 2017	Commercial Public Electric Vehicle Charging Service Pilot
95	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
95A	"PIM"	January 1, 2018	Performance Incentive Mechanism Provision
95B	"PIM"	October 1, 2018	Performance Incentive Mechanism Provision
95C	"PIM"	October 1, 2018	Performance Incentive Mechanism Provision
95D	"PIM"	<del>June 1, 2019</del>	Performance Incentive Mechanism Provision
95E	"PIM"	October 1, 2018	Performance Incentive Mechanism Provision

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HAWAII ELECTRIC LIGHT COMPANY, INC.

~~Transmittal Letter Dated May 28, 2019~~

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Filed on September 21, 2018. ¶

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Superseding REVISED SHEET NO. 91  
Effective June 1, 2017

REVISED SHEET NO. 91  
Effective January 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 P	- Large Power Service
Schedule F	- Street Light Service
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 Power 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 are 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 Hawaii Electric Light 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 Hawaii Electric Light Company's 2010 test year rate case, Docket No. 2009-0164, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

HAWAII ELECTRIC LIGHT 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. 91A  
Effective January 1, 2018

REVISED SHEET NO. 91A  
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.

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HAWAII ELECTRIC LIGHT COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

SHEET NO. 91A.1  
Effective June 1, 2019

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

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

HAWAII ELECTRIC LIGHT COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

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Superseding REVISED SHEET No. 91B  
Effective June 1, 2017

REVISED SHEET NO. 91B  
Effective August 31, 2017

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

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.437%
February	7.898%
March	8.410%
April	8.072%
May	8.292%
June	8.081%
July	8.630%
August	8.764%
September	8.213%
October	8.548%
November	8.263%
December	8.392%
Total	100.000%

These factors are based on the MWH sales forecast that is approved by the Commission in Hawaii Electric Light Company's 2016 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.

HAWAII ELECTRIC LIGHT COMPANY, INC.

Docket No. 2015-0170; Order No. 34772, filed August 29, 2017.  
Transmittal Letter Dated August 30, 2017.

Superseding REVISED SHEET No. 91C  
Effective August 31, 2017

REVISED SHEET NO. 91C  
Effective January 1, 2018

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

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.

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 Mechanisms 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.

HAWAII ELECTRIC LIGHT 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. 91D  
Effective June 1, 2018.

REVISED SHEET NO. 91D  
Effective June 1, 2019

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

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

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

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

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

RBA Rate Adjustment

All Rate Schedules ..... 0.9069 ¢/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.

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HAWAII ELECTRIC LIGHT COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

Superseding Revised Sheet No. 91E  
Effective October 1, 2018

REVISED SHEET NO. 91E  
Effective June 1, 2019

Deleted: June 1, 2018

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

H: TARGET REVENUE CURRENTLY IN EFFECT

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

	Description	Amount
1	Electric Sales Revenue (Unadjusted)	\$291,358
2	Tax Act implementation Lag	(\$1,587)
3	Electric Sales Revenue (Adjusted for lag)	\$289,771
	Less:	
4	Fuel Expense	(\$45,996)
5	Purchase Power Expense	(\$72,438)
6	Revenue Tax on Electric Sales Revenue	(\$25,746)
7	Last Rate Order Target Revenues	\$145,591
8	Authorized RAM Revenues	\$7,670
9	Revenue Tax	(\$681)
10	Net RAM Adjustment	\$6,988
11	Authorized MPIR Revenues	\$0
12	Revenue Tax	\$0
13	Net MPIR Adjustment	\$0
14	Earnings Sharing Revenue Credits	\$0
15	Revenue Tax	\$0
16	Net Earnings Sharing Revenue Credits	\$0
17	Performance Incentive Mechansim (PIM)	(\$15)
18	Revenue Tax	\$1
19	Net PIM Reward (Penalty)	(\$14)
20	2016 Test Year Final D&O Refund	(\$74)
21	Revenue Tax	\$7
22	Net 2016 Test Year Final D&O Refund	(\$67)
23	On-Bill Financing Pgm Implementation Costs	\$237
24	Revenue Tax	(\$21)
25	Net On-Bill Financing Adjustment	\$216
26	Effective Target Revenue	\$152,714

Notes:

Totals may not add, due to rounding.

Lines 1,4,5: Final Decision and Order No. 35559, issued June 29, 2018 in Docket No. 2015-0170.

Line 2: Hawaii Electric Light Revision to Exhibits in Motion to Adjust Interim Increase, Exhibit 11. Filed April 10, 2018 in Docket No. 2015-0170.

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

Lines 8,11,14,17,20,23,26: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling) Schedule B1, filed May 28, 2019.

Deleted: Docket No. 2015-0170; Order No. 35709, Filed on September 21, 2018. ¶

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HAWAII ELECTRIC LIGHT COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

SHEET NO. 91F  
Effective June 1, 2019

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

I: HISTORICAL REFERENCE

<u>Category</u>	<u>Effective Period</u>	<u>Effective Target Revenue (\$000)</u>	<u>Change in Target Revenue (\$000)</u>	<u>Source</u>
<u>2016 Test Year Rate Case (Interim)</u>	<u>8/31/2017 thru 4/30/2018</u>	<u>\$157,655</u>	<u>N/A (1/1/2018 Baseline)</u>	<u>Schedule B1 filed in Docket No. 2015-0170 on 9/5/2017.</u>
<u>2016 Test Year Rate Case (Interim)</u>	<u>5/1/2018 thru 5/31/2018</u>	<u>\$148,545</u>	<u>(\$9,110)</u>	<u>Schedule B1 filed in Docket No. 2015-0170 on 4/10/2018.</u>
<u>Annual Decoupling Filing</u>	<u>6/1/2018 thru 5/31/2019</u>	<u>\$151,583</u>	<u>\$3,038</u>	<u>Schedule B1 filed in Transmittal No. 18-02 on 3/29/2018.</u>
<u>Annual Decoupling Filing</u>	<u>6/1/2019 (current)</u>	<u>\$152,714</u>	<u>\$1,131</u>	<u>Schedule B1 filed in Transmittal No. 19-02 on 5/28/2019.</u>

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HAWAII ELECTRIC LIGHT COMPANY, INC.

Transmittal Letter Dated May 28, 2019.

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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.

HAWAII ELECTRIC LIGHT COMPANY, INC

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

SHEET NO. 95A  
Effective January 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

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.

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.

HAWAII ELECTRIC LIGHT COMPANY, INC

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

Superseding Sheet No. 95B  
Effective January 1, 2018

REVISED SHEET NO. 95B  
Effective October 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

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

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: 1.374 interruptions per customer during the one-year Evaluation Period

Deadband:  $\pm 0.251$  interruptions (1 Standard Deviation)

HAWAII ELECTRIC LIGHT COMPANY, INC

Docket No. 2015-0170; Order No. 35709, Filed on September 21, 2018.  
Transmittal Letter Dated September 28, 2018.

Superseding Sheet No. 95C  
Effective January 1, 2018

REVISED SHEET NO. 95C  
Effective October 1, 2018

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

Range for no penalty: 1.123 interruptions to 1.625  
interruptions per customer ( $\pm$  1 Standard Deviation from Target)

Rewards: Not Applicable  
Penalties for greater than 1.625 interruptions per customer

Maximum Reward Amount: Not Applicable  
Maximum Penalty Amount: \$545,708.

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: 134.13 minutes per outage

Deadband:  $\pm$  21.32 minutes (1 Standard Deviation)

Range for no penalty: 112.81 minutes to 155.46 minutes per outage  
( $\pm$  1 Standard Deviation from Target)

Rewards: Not Applicable  
Penalties for greater than 155.46 minutes per outage

Maximum Reward Amount: Not Applicable  
Maximum Penalty Amount: \$545,708.

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.

HAWAII ELECTRIC LIGHT COMPANY, INC

Docket No. 2015-0170; Order No. 35709, Filed on September 21, 2018.  
Transmittal Letter Dated September 28, 2018.

Superseding Sheet No. 95D  
Effective October 1, 2018

REVISED SHEET NO. 95D  
Effective June 1, 2019

PERFORMANCE INCENTIVE MECHANISM PROVISION (continued)

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.

Call Center Performance:

Performance Target: 84.22% of calls answered within 30 seconds

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

Range for no reward or penalty: 81.22% of calls answered to 87.22% of calls answered.

Rewards apply for greater than 87.22% of calls answered  
Penalties apply for less than 81.22% of calls answered

Maximum Reward Amount: \$218,283.  
Maximum Penalty Amount: \$218,283.

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.

HAWAII ELECTRIC LIGHT COMPANY, INC

Transmittal Letter Dated May 28, 2019.

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Deleted: Docket No. 2015-0170; Order No. 35709,  
Filed on September 21, 2018. ¶

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SHEET NO. 95E  
Effective October 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 4/30/2018	1.403 interruptions per customer	+/- 0.245	N/A	\$546,647
SAIFI	5/1/2018 thru 9/30/2018	1.403 interruptions per customer	+/- 0.245	N/A	\$545,708
SAIDI	1/1/2018 thru 4/30/2018	138.96 minutes Per outage	+/- 25.89	N/A	\$546,647
SAIDI	5/1/2018 thru 9/30/2018	138.96 minutes Per outage	+/- 25.89	N/A	\$545,708
Call Center	1/1/2018 thru 4/30/2018	88.51% of calls answered within 30 sec.	+/- 3.00%	\$218,659	\$218,659
Call Center	5/1/2018 thru 9/30/2018	84.70% of calls answered within 30 sec.	+/- 3.00%	\$218,283	\$218,283

HAWAII ELECTRIC LIGHT COMPANY, INC

Docket No. 2015-0170; Order No. 35709, Filed on September 21, 2018.  
Transmittal Letter Dated September 28, 2018.

Attachment 2 – List of Schedules and Workpapers

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

**HAWAII ELECTRIC LIGHT 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)		
<b><u>RECONCILIATION OF RBA BALANCE:</u></b>						
1	RBA Prior calendar year-end balance	Schedule B	1,659,288			
1a	OBP Program Implementation Cost Recovery - Year 1 of 2	Schedule N	215,780			
			1,875,068			
2	Revenue Tax Factor	Schedule C	1.0975			
3	Revenue for RBA Balance			2,057,887		
<b><u>RATE ADJUSTMENT MECHANISM "RAM" AMOUNT:</u></b>						
4	Total RAM Revenue Adjustment Allowed (Note 2)	Schedule A1		\$ 7,669,902		
5	<u>EARNINGS SHARING REVENUE CREDITS - 2019 ROE:</u>	Schedule H		-		
6	<u>PERFORMANCE INCENTIVE MECHANISM REWARD (PENALTY)</u>	Schedule M		(15,435)		
7	<u>2016 TEST YEAR RATE CASE FINAL D&amp;O REFUND</u>	HELCO-WP-H-007		(74,000)		
8	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS:</u>	Schedule I		-		
9	TOTAL RBA REVENUE ADJUSTMENT	Sum Col. (d)		\$ 9,638,354		
10	GWH SALES VOLUME ESTIMATE JUNE 2019 - MAY 2020	HELCO-WP-A-001		1,062.800		
11	RBA RATE ADJUSTMENT - cents per kWh	Note 1		0.9069	6/1/2018 1.0006	Incremental (0.0937)
12	MONTHLY BILL IMPACT @ 500 KWH			\$ 4.53	\$ 5.00	\$ (0.47)

Note 1: 2019 RBA Rate Adjustment Breakdown

	Col. (d)	Rate Adjustment cents per kWh	Percentage Share
RBA Balance	\$ 2,057,887	0.19362880	21.3510%
RAM Amount	\$ 7,669,902	0.72166935	79.5769%
Earnings Sharing Revenue Credits	\$ -	0.00000000	0.0000%
Performance Incentive Mechanism Reward (Penalty)	\$ (15,435)	-0.00145227	-0.1601%
2016 Test Year Rate Case Final D&O Refund	\$ (74,000)	-0.00696274	-0.7678%
Major or Baseline Capital Projects Credits	\$ -	0.00000000	0.0000%
	\$ 9,638,354	0.90688314	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.



**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF TOTAL RAM REVENUE ADJUSTMENT ALLOWED**

Line No.	Description	Reference	Amount
	(a)	(b)	(c)
<b>RAM REVENUE ADJUSTMENT DETERMINED ACCORDING TO EXISTING TARIFFS AND PROCEDURES</b>			
1	O&M RAM	Schedule C	\$ 3,579,136
2	Rate Base RAM - Return on Investment (Note 2)	Schedule D	\$ 1,655,266
3	Depreciation & Amortization RAM Expense	Schedule E	\$ 2,435,500
4	Total RAM Revenue Adjustment		\$ 7,669,902
<b>RAM REVENUE ADJUSTMENT CAP</b>			
5	RAM Cap for 2019 RAM Revenue Adjustment	Schedule J	\$ 10,112,835
6	Plus: Exceptional and Other Matters	Schedule K	-
7	2019 Cap - Total RAM Revenue Adjustment		\$ 10,112,835
8	<b>Total RAM Revenue Adjustment Allowed (Note 1)</b>	Lesser of Line 5 or Line 9	<b>\$ 7,669,902</b> <i>To Sch A</i>

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."

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**SUMMARY OF ACCUMULATED REVENUE BALANCING ACCOUNT**

Line No.	Month	Beginning Balance	Target Revenues	Recorded Adjusted Revenue	Variance to RBA	Adjustment for prior year RBA accrual	Tax-effected Balances Subject to Interest	Interest at 1.50%/year	Ending Balance
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Monthly RBA Balance and Activity ( Monthly PUC Rpt., Pg. 9A)									
1	2017 December	\$ 3,128,648	\$ 13,230,418	\$ 12,492,192	\$ 738,226	\$ (253,086)	\$ 2,059,477	\$ 5,578	\$ 3,619,366
2		\$ 3,120,937					\$ 2,054,766	\$ (10,632)	\$ 3,608,645
3	December - Revised to Adjust Prior Year Interest to 1.50% from September 1, 2017 (Note 2)								
4	2018 January	\$ 3,608,645	\$ 13,301,362	\$ 12,835,840	\$ 465,522	\$ (258,886)	\$ 2,756,063	\$ 3,445	\$ 3,818,726
5	February	\$ 3,818,726	\$ 12,451,601	\$ 11,560,335	\$ 891,266	\$ (235,377)	\$ 3,078,825	\$ 3,849	\$ 4,478,464
6	March	\$ 4,478,464	\$ 13,258,795	\$ 12,733,942	\$ 524,853	\$ (257,906)	\$ 3,424,277	\$ 4,280	\$ 4,749,691
7	April	\$ 4,749,691	\$ 12,725,921	\$ 12,731,188	\$ (5,267)	\$ (258,997)	\$ 3,428,451	\$ 4,286	\$ 4,489,713
8	May	\$ 4,489,713	\$ 12,317,361	\$ 12,005,643	\$ 311,718	\$ (257,627)	\$ 3,353,608	\$ 4,192	\$ 4,547,996
9	June	\$ 4,547,996	\$ 12,249,452	\$ 11,937,887	\$ 311,565	\$ (296,111)	\$ 3,382,539	\$ 4,228	\$ 4,567,678
10	July	\$ 4,567,678	\$ 13,081,645	\$ 12,872,216	\$ 209,429	\$ (323,761)	\$ 3,348,970	\$ 4,186	\$ 4,457,532
11	August	\$ 4,457,532	\$ 13,284,767	\$ 13,043,681	\$ 241,086	\$ (330,384)	\$ 3,276,483	\$ 4,096	\$ 4,372,330
12	September	\$ 4,372,330	\$ 12,449,542	\$ 12,252,488	\$ 197,054	\$ (308,685)	\$ 3,204,931	\$ 4,006	\$ 4,264,705
13	October	\$ 4,264,705	\$ 12,957,347	\$ 13,673,359	\$ (716,012)	\$ (323,713)	\$ 2,780,475	\$ 3,476	\$ 3,228,456
14	November	\$ 3,228,456	\$ 12,525,334	\$ 12,989,338	\$ (464,004)	\$ (300,900)	\$ 2,113,104	\$ 2,641	\$ 2,466,193
15	December	\$ 2,466,193	\$ 12,720,877	\$ 13,224,782	\$ (503,905)	\$ (304,914)	\$ 1,530,835	\$ 1,914	\$ 1,659,288
16	Total		\$ 153,324,004	\$ 151,860,699	\$ 1,463,305	\$ (3,457,261)		\$ 44,599	<b>To Sch A</b>
17									
18	2019 January	\$ -	\$ 12,789,089	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	February	\$ -	\$ 11,972,055	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	March	\$ -	\$ 12,748,162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	April	\$ -	\$ 12,235,810	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22	May	\$ -	\$ 12,569,293	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22a	OBFR Recovery	\$ 431,561							
23	June	\$ -	\$ 12,340,796	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24	July	\$ -	\$ 13,179,194	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	August	\$ -	\$ 13,383,830	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	September	\$ -	\$ 12,542,378	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	October	\$ -	\$ 13,053,969	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	November	\$ -	\$ 12,618,735	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	December	\$ -	\$ 12,815,735	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30			\$ 152,249,046						

Sources of Data:	Sch B1	Sch B2	Col (c) - (d)	Note 1	Cols (b)+ ((c)+(f))/2/(k)	Cols (b)+(c)+ (f)+(h)
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Composite Federal & State Income Tax Rate	25.75%	(j)
Income Tax Factor (1/(1-tax rate))	1.346835	(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. See HELCO WP-B-001.

Note 2: On August 29, 2017, the Commission approved in Order No. 34772, Hawaii Electric Light's interim tariff sheets to be effective August 31, 2017. As the pro-rated RBA interest in August is immaterial, Hawaii Electric Light will begin the approved short term debt rate of 1.50% to calculate the RBA interest starting September 1, 2017.

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

SCHEDULE B1  
(REVISED 05-28-19)  
(REVISED 05-21-19)  
PAGE 1 OF 1

Line No.	Description (a)	Reference (b)	Amounts (c)	Amounts (d)	Amounts (e)	Amounts (f)	Amounts (g)	Amounts (h)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note 1	\$ 299,770	\$ 289,771	\$ 289,771	\$ 289,771	\$ 289,771	\$ 289,771
2	Less: Fuel Expense	Note 1	\$ (45,996)	\$ (45,996)	\$ (45,996)	\$ (45,996)	\$ (45,996)	\$ (45,996)
3	Purchased Power Expense	Note 1	\$ (72,438)	\$ (72,438)	\$ (72,438)	\$ (72,438)	\$ (72,438)	\$ (72,438)
4	Revenue Taxes on Line 1 (8.885% statutory rates)		\$ (26,635)	\$ (25,746)	\$ (25,746)	\$ (25,746)	\$ (25,746)	\$ (25,746)
5	Last Rate Order Target Annual Revenues	Sum Lines 1 thru 4	\$ 154,701	\$ 145,591	\$ 145,591	\$ 145,591	\$ 145,591	\$ 145,591
6	Add: Authorized RAM Revenues - Incremental 2017 RAM	Note 3	\$ 3,242	\$ 3,242	-	-	-	-
7	Less: Revenue Taxes on Line 6 at 8.885%		\$ (288)	\$ (288)	-	-	-	-
8	Net RAM Adjustment - Test Year +6	Line 6 + 7	\$ 2,954	\$ 2,954	-	-	-	-
9	Authorized RAM Revenues - Transmittal No. 18-02	Note 3a	-	-	6,577	6,577	-	-
10	Less: Revenue Taxes on Line 9 at 8.885%	Line 9 + 10	-	-	\$ (584)	\$ (584)	-	-
11	Net RAM Adjustment - Test Year +2		-	-	5,992	5,992	-	-
12	Authorized RAM Revenues - Transmittal No. 19-02	Schedule A, Line 4	-	-	-	-	\$ 7,670	\$ 7,670
13	Less: Revenue Taxes on Line 9 at 8.885%		-	-	-	-	\$ (681)	\$ (681)
14	Net RAM Adjustment - Test Year +3	Line 12 + 13	-	-	-	-	\$ 6,988	\$ 6,988
15	Authorized MPR Revenues	Schedule L	-	-	-	-	-	-
16	Less: Revenue Taxes on Line 12 at 8.885%	Line 15 + 16	-	-	-	-	-	-
17	Net MPR Adjustment		-	-	-	-	-	-
18	Less: EARNINGS SHARING REVENUE CREDITS	Schedule A, Line 5	-	-	-	-	-	-
19	Less: Revenue Taxes on Line 15 at 8.885%	Line 18 + 19	-	-	-	-	-	-
20	Net Earnings Sharing Revenue Credits		-	-	-	-	-	-
21	Less: PERFORMANCE INCENTIVE MECHANISM REWARD (PENALTY)	Schedule A, Line 6	-	-	-	-	\$ (15)	\$ (15)
22	Less: Revenue Taxes on Line 24 at 8.885%		-	-	-	-	-	1
23	Net Performance Incentive Mechanism	Lines 21 + 22	-	-	-	-	\$ (14)	\$ (14)
24	Less: 2016 TEST YEAR FINAL D&O REFUND	Schedule A, Line 7	-	-	-	-	\$ (74)	\$ (74)
25	Less: Revenue Taxes on Line 27 at 8.885%		-	-	-	-	-	7
26	Net 2016 Test Year Final D&O Refund	Lines 24 + 25	-	-	-	-	\$ (67)	\$ (67)
27	Add: OBE PROGRAM IMPLEMENTATION COSTS	Schedule A, Line 1a * 1.0975	-	-	-	-	-	237
28	Less: Revenue Taxes on Line 21 at 8.885%		-	-	-	-	\$ (21)	\$ (21)
29	Net Earnings Sharing Revenue Credits	Lines 27 + 28	-	-	-	-	216	216
30	PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:	Sch A, Line 8	-	-	-	-	-	-
31	Total Annual Target Revenues		\$ 157,655	\$ 148,545	\$ 151,583	\$ 151,583	\$ 152,714	\$ 152,714
32	HELCO TY 2016 Interim/2017 Interim RAM Amized Revs	Lines (5+8)						
33	June 1, 2018 Annualized Revenues + RAM Increase	Lines (5+8+11)						
34	June 1, 2019 Annualized Revenues + RAM Increase	Lines (5+11+14+17+20+23+26+29+30)						
35	Distribution of Target Revenues by Month:	Note 2	Note 4 2018	Note 4 2018	2018	2019	2019	2020
36	January	8.437%	\$ 13,301,362	\$ 12,317,361	\$ 12,789,089	\$ 12,789,089	\$ 12,884,457	\$ 12,884,457
37	February	7.898%	\$ 12,451,601	\$ 11,972,055	\$ 11,972,055	\$ 11,972,055	\$ 12,061,330	\$ 12,061,330
38	March	8.410%	\$ 13,258,795	\$ 12,748,162	\$ 12,748,162	\$ 12,748,162	\$ 12,843,224	\$ 12,843,224
39	April	8.072%	\$ 12,725,921	\$ 12,235,810	\$ 12,235,810	\$ 12,235,810	\$ 12,327,051	\$ 12,327,051
40	May	8.292%	\$ -	\$ 12,317,361	\$ 12,569,293	\$ 12,569,293	\$ 12,663,022	\$ 12,663,022
41	June	8.081%		\$ 12,249,452		\$ 12,340,796		
42	July	8.630%		\$ 13,081,645		\$ 13,179,194		
43	August	8.764%		\$ 13,284,767		\$ 13,383,830		
44	September	8.213%		\$ 12,449,542		\$ 12,542,378		
45	October	8.548%		\$ 12,957,347		\$ 13,053,969		
46	November	8.263%		\$ 12,525,334		\$ 12,618,735		
47	December	8.392%		\$ 12,720,877		\$ 12,815,735		
48	Total Distributed Target Revenues	100.00%	\$ 51,737,679	\$ 12,317,361	\$ 89,268,964	\$ 62,314,409	\$ 89,934,637	\$ 62,779,084

Note 1: Col. c: Interim Decision and Order No. 34766, Exhibit A, page 1, issued August 21, 2017, in Docket No. 2015-0170.  
Col. d, e, f, g, h: Order No. 35419 Granting Motion to Adjust Interim Increase, issued on April 24, 2018 in Docket No. 2015-0170. Target Revenue calculation is provided in HELCO Revision to Exhibits in Motion to Adjust Interim Increase, Exhibit 14, page 2 of 2 filed April 10, 2018. Approved in Final Decision and Order No. 35559, filed June 29, 2018.

Note 2: HELCO RBA Provision. Tariff effective August 31, 2017 based on 2016 test year, filed on July 30, 2018 in Docket No. 2015-0170. The Commission approved the final tariff sheets in Order No. 35709 of Docket No. 2015-0170 on September 21, 2018.

Note 3: See Letter to Commission, Subject: Interim Increase Tariff Sheets, Exhibit E, Line 4 filed August 23, 2017. See also Exhibit 1, page 95 of the Settlement Agreement filed on July 11, 2017 for details explaining this incremental increase to the 2016 test year related to the 2017 RAM Revenue Adjustment.

Note 3a: Transmittal 18-02 filed May 29, 2018, establishing 2018 target revenue effective June 1, 2018.

Note 4: For the month of the initial implementation (2nd Interim), adjust the monthly allocation by the number of effective days in the month over the total num. of days

1.00000

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF RECORDED ADJUSTED REVENUES**

Line No.	Description	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 (SAPO) (4w)	29,854,791	29,873,025	30,143,306	31,163,504	28,622,938	30,496,203	32,594,297	32,719,288	33,351,283	33,781,727	33,605,103	33,297,728	379,303,193
2	Reverse prior months' unbilled revenues (Unbilled Sales and Revenue Est)	(240,181)	(235,369)	(235,068)	(242,221)	(225,869)	(232,088)	(254,727)	(276,131)	(286,045)	(277,527)	(267,844)	(262,681)	(3,035,870)
3	Remove Solar Saver non-revenues	-	179	-	22,586	26,107	(37)	(45)	-	-	-	-	-	48,783
4 = sum 1-3		29,614,610	29,637,656	29,908,417	30,943,869	28,423,175	30,263,957	32,339,565	32,443,112	33,065,238	33,504,200	33,337,259	33,035,047	376,316,106
<b>UNBILLED REVENUES</b>														
5	Current months' unbilled revenues (Unbilled Sales and Revenue Est)	16,267,000	13,887,749	15,192,250	13,979,142	14,852,469	15,254,660	16,692,057	17,480,045	15,822,864	16,841,393	16,404,463	17,067,775	189,741,867
6	Reverse prior months' unbilled revenues (Unbilled Sales and Revenue Est)	(15,947,182)	(16,267,000)	(13,887,749)	(15,192,250)	(13,979,142)	(14,852,469)	(16,692,057)	(17,480,045)	(15,822,864)	(16,841,393)	(16,404,463)	(17,067,775)	(188,621,273)
7 = 5+6		319,818	(2,379,251)	1,304,501	(1,213,108)	873,328	402,190	1,437,397	787,988	(1,657,181)	1,018,530	(436,931)	663,313	1,120,593
8	Recovery of 12-31-16 RBA balance through RBA Rate Adjustment beginning 6-1-17	(284,131)	(258,330)	(283,055)	(284,253)	(282,749)	(324,986)	(355,332)	(362,601)	(338,786)	(355,280)	(330,242)	(334,647)	(1,392,518)
9	Recovery of 12-31-17 RBA balance through RBA Rate Adjustment beginning 6-1-18	-	-	-	-	-	-	-	-	-	-	-	-	(2,401,874)
10	Accrual of Performance Incentive Mechanism	-	-	-	-	-	-	-	-	-	-	-	-	(546,017)
11	Accrual of Test Year Rate-Case Refund	-	-	-	-	-	-	-	-	-	-	-	-	(74,000)
12	Accrual of ECAC adjustment	(206,400)	(356,700)	(703,300)	(559,300)	711,300	(920,200)	(850,100)	(427,100)	270,700	(270,000)	(627,900)	(1,954,400)	(5,893,400)
13	Reversal of ECAC accrual	261,266	301,834	301,834	301,832	422,134	422,134	422,132	256,066	256,066	256,068	335,500	3,872,366	3,872,366
14	Accrual of PPAC adjustment	79,200	146,000	(8,200)	(54,400)	(3,700)	217,700	(3,700)	70,300	166,700	(46,500)	13,400	99,200	323,900
15	Reversal of PPAC accrual	55,200	7,532	7,532	7,536	(72,334)	(72,334)	(72,332)	64,166	64,166	(77,767)	(77,767)	(102,234)	(102,234)
16	Tax Reform Act adjustment	(577,268)	(540,389)	(667,943)	(595,200)	99,200	99,200	198,401	132,267	132,267	132,267	132,267	132,267	(1,322,664)
17	Other unbilled adjustments	(58,034)	(58,034)	(58,034)	(58,034)	81,597	22,522	22,522	22,522	22,522	22,522	22,522	22,522	7,115
18	Accrual of current month's RBA (PUC Monthly Financial Report)	465,522	891,266	524,853	(5,267)	311,718	209,429	209,429	22,086	197,054	(716,012)	(464,004)	(503,905)	1,463,305
19	RBA gross up for revenue taxes	45,395	86,911	51,181	(514)	30,397	30,382	3,896	20,422	19,216	(69,821)	(45,247)	(49,138)	142,693
20 = sum 8-19		(219,250)	220,090	(835,132)	(1,247,600)	945,463	(214,017)	(482,558)	20,215	789,905	(982,588)	(1,041,471)	(2,876,385)	(5,923,328)
21 = 7+20		100,568	(2,159,161)	469,369	(2,460,708)	1,818,791	188,173	954,839	808,203	(867,276)	35,942	(1,478,402)	(2,213,072)	(4,892,735)
22 = 4+21	<b>TOTAL REVENUES PER G/L (PUC Monthly Financial Report)</b>	29,715,178	27,478,496	30,377,786	28,483,161	30,241,966	30,452,131	33,294,404	33,251,315	32,197,962	33,540,141	31,858,857	30,821,975	371,713,371
<b>Billed Adjustments to Determine Adjusted Revenues for RBA:</b>														
23	Remove ECAC revenues	965,791	580,489	(139,383)	61,599	570,570	(795,497)	(2,336,179)	(2,083,839)	(1,756,415)	(4,935,256)	(7,734,637)	(7,944,648)	(25,547,405)
24	Remove PPAC revenues	(1,900,630)	(1,898,665)	(1,882,645)	(1,965,008)	(1,896,180)	(1,744,967)	(1,512,134)	(1,464,038)	(1,446,363)	(1,466,882)	(1,538,213)	(1,577,004)	(20,592,928)
25	Remove DSM revenues	(70)	(347)	(41)	(196)	(60)	(24)	(50)	(30)	(1)	(1)	(1)	(1)	(789)
26	Remove revenue taxes of PBF revenues	(16,381)	(16,053)	(16,031)	(16,521)	(15,405)	(15,838)	(17,374)	(18,833)	(19,510)	(18,929)	(18,268)	(17,916)	(207,061)
27	Remove Solar Saver revenues	52	18	12	907	1,048	(2)	(0)	(2)	8	(6)	5	5	2,044
28	Remove revenue taxes on billed revenues	(2,546,741)	(2,514,713)	(2,476,279)	(2,578,840)	(2,406,338)	(2,461,825)	(2,529,902)	(2,565,664)	(2,651,547)	(2,406,336)	(2,136,500)	(2,087,574)	(29,362,259)
29	Remove base fuel (adjusted for revenue taxes)	(6,308,831)	(6,249,279)	(6,141,138)	(6,409,119)	(6,044,486)	(6,237,369)	(6,379,402)	(6,523,670)	(6,730,229)	(6,338,826)	(6,332,034)	(6,332,034)	(70,199,561)
30	Remove power purchase energy (adjusted for revenue taxes)	(6,732,481)	(6,668,930)	(6,553,528)	(6,839,504)	(6,450,385)	(6,656,221)	(6,807,792)	(6,961,747)	(7,182,177)	(5,853,795)	(4,379,328)	(4,260,592)	(75,346,482)
31	Other operating revenues - EV-U revenue net or revenue tax	1,328	1,250	1,254	1,101	1,168	1,855	1,407	1,407	1,281	-	-	5,084	17,248
32	Other operating revenues - SMNP revenue net or revenue tax	3,113	3,259	3,420	3,458	3,530	3,597	3,896	4,447	3,915	3,847	3,740	3,896	44,117
33	Other operating revenues - Customer Courtesy Credit	-	-	-	-	-	-	-	-	-	-	-	-	(22,479)
<b>Unbilled Adjustments to Determine Adjusted Revenues for RBA:</b>														
34	Remove Accrual of Performance Incentive Mechanism	-	-	-	-	-	-	-	-	-	-	-	-	546,017
35	Remove Accrual of Test Year Rate Case Refund	-	-	-	-	-	-	-	-	-	-	-	-	74,000
36	Remove ECAC revenues	(323,777)	(114,791)	(587,826)	729,648	(176,044)	(1,189,216)	(329,578)	470,321	(70,355)	(2,899,255)	(65,940)	(288,313)	(4,845,126)
37	Remove PPAC accrual	(54,866)	54,866	401,466	257,468	(1,133,434)	498,066	427,968	171,034	(526,766)	13,932	292,400	1,618,900	2,021,034
38	Remove PPAC revenues	434	144,845	(49,129)	29,140	(106,400)	301,008	(57,746)	1,353	85,566	(71,561)	(38,150)	(22,189)	217,166
39	Remove PPAC accrual	(134,400)	(153,532)	668	46,864	428,134	(67,032)	(76,032)	(134,466)	(230,866)	(17,668)	64,367	(21,433)	(221,666)
40	Remove Tax Reform Act adjustment	577,268	540,389	667,943	595,200	(99,200)	(99,200)	(99,200)	(132,267)	(132,267)	(132,267)	(132,267)	(132,267)	1,322,667
41	Remove other unbilled adjustments	58,034	58,034	58,034	58,034	(81,597)	(22,522)	(22,522)	(22,522)	(22,522)	(22,522)	(22,522)	(22,522)	(7,115)
42	Remove RBA accruals	(465,522)	(891,266)	(524,853)	5,267	(311,718)	(311,565)	(209,429)	(241,086)	(197,054)	716,012	464,004	503,905	(1,463,305)
43	Remove RBA gross up for revenue taxes	(45,395)	(86,911)	(51,181)	514	(30,397)	(30,382)	(20,422)	(23,509)	(19,216)	69,821	45,247	49,138	(142,693)
44	Remove revenue taxes on unbilled revenues	25,558	231,679	(34,162)	65,622	(27,378)	72,058	(61,728)	(79,704)	175,990	205,027	77,412	(1,614)	648,760
45	Remove base fuel (adjusted for revenue taxes)	8,794	513,603	(155,017)	97,910	(223,375)	154,548	(253,153)	(292,576)	379,670	1,183,750	92,472	(54,829)	1,451,798
46	Remove power purchase energy (adjusted for revenue taxes)	9,384	548,092	(165,427)	104,485	(238,375)	164,926	(270,152)	(312,223)	405,166	1,173,618	102,814	(60,961)	1,461,348
47 = sum 23-46		(16,879,338)	(15,918,161)	(17,643,844)	(15,751,973)	(18,236,323)	(18,514,244)	(20,422,188)	(20,207,634)	(19,945,474)	(19,866,782)	(18,869,518)	(17,597,193)	(219,852,672)
48 = 22+47	<b>RECORDED ADJUSTED REVENUES FOR RBA DETERMINATION</b>	12,835,840	11,560,335	12,733,942	12,731,188	12,005,643	11,937,887	12,872,216	13,043,681	12,252,488	13,673,359	12,989,338	13,224,782	151,860,699

Note: Amounts may not add exactly due to rounding.

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

Line No.	Description	Reference	Docket No. 2015-0170 Approved	Note 4 Previously Approved RAM	O&M Subject to Escalation (e)=(c) +(d)	Note 2 Net Inflation Indices (f)	2019 O&M RAM Adjustment (g) = (e) * (f)
	(a)	(b)	(c)	(d)			
1	Base BU Labor Expense	Schedule C1	\$ 10,052		\$ 10,052	6.27%	\$ 630
2	Base Non-Labor Expense	Schedule C2	\$ 40,778		\$ 40,778	6.33%	\$ 2,581
3	Payroll Taxes	Note 1	\$ 805		\$ 805	6.27%	\$ 50
4	Subtotal Expense Increase - RAM Adjustment before revenue taxes						\$ 3,261
5	Revenue Tax Factor (Note 3)						1.0975
6	O&M RAM (Subtotal Expenses x Rev Tax Factor)						<u>\$ 3,579</u>
							<i>To Sch A1</i>

Note 1: Docket No. 2015-0170 - Hawai'i Electric Light 2016 Test Year Rate Case, Final Decision and Order No. 35559 filed June 29, 2018 (which approved Payroll Tax per HELCO Interim Decision and Order No. 34766, Exhibit A, page 3, filed August 21, 2017).

Less: Portion of payroll taxes related to non-BU labor <sup>A</sup> (35.90% * 1,256)	\$ (451)
Payroll Taxes related to Bargaining Unit labor	\$ 805

<sup>A</sup> See Schedule C1 for calculation of percentage related to non-BU labor.

Note 2: Escalation Rates

Labor:	2017	2018	2019	
Bargaining Unit Wage Increase	2.75%	2.67%	3.00%	(See HELCO-WP-C-001)
Less: Labor Productivity Offset	0.76%	0.76%	0.76%	Approved in Final D&O in Docket No. 2008-0274, page 51, filed on August 31, 2010
Labor Cost Escalation Rate	<u>1.99%</u>	<u>1.91%</u>	<u>2.24%</u>	

Calculation of 2019 Compounded Labor Cost Escalation:

2017 Labor Cost Escalation	1.0199	A (2017 labor escalation plus 1)
2018 Labor Cost Escalation	1.0191	B (2018 labor escalation plus 1)
2019 Labor Cost Escalation	1.0224	C (2019 labor escalation plus 1)
2018-2019 Compounded Labor Cost Escalation	1.0627	D = A * B * C
2018-2019 Compounded Labor Cost %	<u>0.0627</u>	E = D - 1

Non-Labor:	2017	2018	2019	
GDP Price Index	<u>2.00%</u>	<u>2.10%</u>	<u>2.10%</u>	(See HELCO-WP-C-002)

Calculation of 2019 Compounded Non-Labor Cost Escalation:

2017 Non-Labor Cost Escalation	1.0200	F (2017 non-labor escalation plus 1)
2018 Non-Labor Cost Escalation	1.0210	G (2018 non-labor escalation plus 1)
2019 Non-Labor Cost Escalation	1.0210	H (2019 non-labor escalation plus 1)
2018-2019 Compounded Non-Labor Cost Escalation	1.0633	I = F * G * H
2018-2019 Compounded Non-Labor Cost %	<u>0.0633</u>	J = I - 1

Note 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	<u>0.08885</u>	
		Revenue Tax Factor = 1 / (1 - Total Revenue Tax Rate) 1.0975 <i>To Sch A</i>

Note 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 Note 2.

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKSHEET**  
**RATE ADJUSTMENT MECHANISM**

**SUMMARY OF**  
**OPERATIONS AND MAINTENANCE LABOR AND NON-LABOR EXPENSE**  
**BY BLOCK OF ACCOUNTS**

Final D&O - Docket No. 2015-0170

(\$ in Thousands)

Line No.	Description	Note 2 BU Labor (a)	Note 2 Non-BU Labor (b)	Total Labor (c)=(a)+(b)	Note 1 Non-Labor (d)	Note 1 Total (e)
1	Production	5,801	1,848	7,649	10,802	18,451
2	Transmission	1,377	132	1,509	2,858	4,367
3	Distribution	2,768	199	2,967	9,151	12,118
4	Customer Accounts	34	11	46	7,691	7,737
5	Allowance for Uncoll Accounts	-	-	-	446	446
6	Customer Service	-	380	380	836	1,216
7	Administrative & General	72	3,059	3,132	15,513	18,644
8	<b>Operation and Maintenance</b>	<b>10,052</b>	<b>5,630</b>	<b>15,681</b>	<b>47,297</b>	<b>62,979</b>
		<i>To Sch C</i>			<i>Sch C2</i>	
	Percentage of Total O&M Labor	64.10%	35.90%	100%		

\* Amounts may not add due to rounding

Note 1: Docket No. 2015-0170 - Hawai'i Electric Light 2016 Test Year Rate Case, Final Decision and Order No. 35559 filed June 29, 2018 (which approved Interim Decision and Order No. 34766, Exhibit A, page 1 filed August 21, 2017). The amortization of contributions in excess of NPPC was removed from the amounts shown above. See HELCO Revision to Exhibits in Motion to Adjust Interim Increase, Exhibit 5A, filed April 10, 2018.

Administrative & General per Exhibit 5A	18,374
Refund of amortization included in rates from Aug. 31, 2017 to May 1, 2018	(270)
Administrative & General Total	<u>18,644</u>

Note 2: Docket No. 2015-0170 - Hawai'i Electric Light 2016 Test Year Rate Case, Final Decision and Order No. 35559 filed June 29, 2018 (which approved HELCO-1140, for BU and Non-BU Labor cost breakdown in Direct Testimony, filed September 19, 2016. See HELCO Revision to Exhibits in Motion to Adjust Interim Increase, Exhibit 5A, filed April 10, 2018 for adjustment C-23).

BU Labor	10,052	
Non-BU Labor	<u>5,720</u>	
Total	15,771	HELCO-1140 Ln: 20
Settlement Adj C-23	<u>(90)</u>	Exhibit 5A, page 2
Total Labor D&O	15,681	

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**NON-LABOR EXCLUSION**  
**ADJUSTMENT FOR O&M RAM**  
(\$ in Thousands)

Line No.	Description	Amount	Reference
	(a)	(b)	(c)
1	Pension Expense	11,913	Note 1
2			
3			
4	OPEB Expense	(416)	Note 1
5			
6			
7	Total before amounts transferred	11,497	
8			
9	O&M %	56.70%	Note 2
10	(1- transfer rate of 43.30%)		
11			
12			
13	Adjustment to Non-Labor O&M Expense		
14	for O&M RAM base	6,519	
15			
16			
17	Non-Labor O&M Expense	47,297	Sch C1
18			
19			
20	Non-Labor O&M Expense Base for		
21	O&M RAM base	<u><b>40,778</b></u>	<b>To Sch C</b>

Note 1: Docket No. 2015-0170 - Hawai'i Electric Light 2016 Test Year Rate Case, Final Decision and Order No. 35559 filed June 29, 2018 (which approved Stipulated Settlement Letter, filed July 11, 2017, Exhibit 1, page 55. The amortization of contributions in excess of NPPC was removed from the amounts shown above. See HELCO Revision to Exhibits in Motion to Adjust Interim Increase, Exhibit 5A, filed April 10, 2018.)

Note 2: Docket No. 2015-0170 - Hawai'i Electric Light 2016 Test Year Rate Case, Final Decision and Order No. 35559 filed June 29, 2018 (which approved Stipulated Settlement Letter, filed July 11, 2017, Exhibit 1, page 75.)

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF RATE BASE RAM ADJUSTMENT - RETURN ON INVESTMENT**  
**(\$ in Thousands)**

Line No.	Description	Amount \$0	Percent of Total	Cost Rate	Post Tax Weighted Earnings Requirements	Note 1 Income Tax Factor	Pretax Weighted Earnings Requirements
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	<u>PUC APPROVED CAPITAL STRUCTURE &amp; COSTS (Note 2):</u>						
2	Short-Term Debt	\$ -	0.00%	1.50%	0.00%	1.00000	0.00%
3	Long-Term Debt	204,912	40.13%	5.40%	2.17%	1.00000	2.17%
4	Hybrid Securities	9,515	1.86%	7.21%	0.13%	1.00000	0.13%
5	Preferred Stock	6,713	1.31%	8.18%	0.11%	1.34684	0.14%
6	Common Equity	289,453	56.69%	9.50%	5.39%	1.34684	7.25%
7	Total Capitalization	<u>\$ 510,593</u>	<u>100.00%</u>		<u>7.79%</u>		<u>9.70%</u>
8	RAM CHANGE IN RATE BASE (From Sch D1)						<u>\$ 15,548</u>
9	PRETAX RATE OF RETURN (Line 7, Col g)						<u>9.70%</u>
10	PRETAX RETURN REQUIREMENT						\$ 1,508.2
11	REVENUE TAX FACTOR (1/(1-8.885%))						<u>1.0975</u>
12	RATE BASE RAM - RETURN ON INVESTMENT						<u>\$ 1,655.3</u> <i>To Sch A1</i>

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

Note 2: Per Interim Decision and Order No. 34766, issued in Docket No. 2015-0170 dated August 21, 2017. For purposes of interim rate relief, the Commission accepted the Consumer Advocate's recommended ROE of 9.50% and the remaining components of the Parties' stipulated capital structure per the Stipulated Settlement Agreement dated July 11, 2017, Exhibit 1, page 88, See also Rebuttal Testimonies, Exhibits and Workpapers - Book 2 in Docket No. 2015-0170, HELCO-R-2101. Approved in Final Decision and Order No. 35559, filed June 29, 2018.



**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF RATE BASE RAM ADJUSTMENT - CHANGE IN RATE BASE**  
( \$ in Thousands )

Line No.	Description	HELCO 2016 Test Year Rate Base (Note 2)		HELCO 2019 RAM Rate Base		
		Beg Balance	Budgeted Balance	Adjusted	RAM Projected	Estimated at
	(a)	12/31/16	12/31/2016	Recorded at 12/31/2018 (d) Note 1	Amounts (e) See Detail Below	12/31/2019 (f)
1	Net Cost of Plant in Service, Net of CIAC	\$ 649,484	\$ 667,682	\$ 592,106	\$ 850	\$ 592,955
2	Property Held for Future Use	987	755	These Elements of Rate Base are Not Updated for RAM Purposes		
3	Fuel Inventory	6,021	6,021			
4	Materials & Supplies Inventories	7,082	7,082			
5	Unamort Net ASC 740 Reg Asset	11,463	11,477			
6	Pension Tracking Regulatory Asset	22,912	26,421			
7	Contribution in Excess of NPPC	1,524	1,524			
8	Pension Tracking Regulatory Asset	-	-			
9	Deferred System Development System	4,848	4,169			
10	Total Additions	\$ 704,321	\$ 725,131	\$ 648,249	\$ 850	\$ 649,098
11	Unamortized CIAC	\$ (95,298)	\$ (97,211)	\$ (3,160)	\$ -	\$ (3,160)
11a	Developer Advances	-	-	\$ (3,308)	\$ -	\$ (3,308)
12	Customer Advances	(11,172)	(11,259)	Not Updated		
13	Customer Deposits	(3,224)	(2,788)			
14	Accumulated Def Income Taxes	(101,743)	(110,377)	(57,720)	(595)	(58,315)
15	ADIT Excess Reg Liability	-	-	(56,685)	915	(55,771)
16	Unamortized State ITC (Gross)	(15,184)	(15,787)	Not Updated		
17	Pension Reg Liability (Prepaid)	(496)	(1,370)			
18	OPEB Reg Liability	(1,548)	(2,080)			
19	Total Deductions	\$ (228,665)	\$ (240,872)	\$ (153,327)	\$ 320	\$ (153,008)
20	Working Cash	\$ 1,351	\$ 1,351	\$ 1,351	Not Updated	\$ 1,351
21	Rate Base at Proposed Rates	\$ 477,007	\$ 485,610	\$ 496,272		\$ 497,442
22	Average Rate Base		\$ 481,309			\$ 496,857
23	<b>Change in Rate Base</b>					<b>\$ 15,548</b>
24	<u>Column (e) Projected Changes to Rate Base:</u>			Reference	Amount \$000	
25	Plant - Baseline Capital Project Additions, Net of CIAC			Schedule D2	\$ 43,457	
26	Major Capital Project Additions, Net of CIAC			Schedule D3	-	
27	Accumulated Depreciation/Amortization Change			Schedule E	(42,608)	
28	Net Plant			Sum: Lines 25-27	\$ 850	
29	ADIT - Baseline and Major Capital Projects			Schedule F	\$ (595)	
30	ADIT - Joint Pole Capital Transfer Price			Note 6	\$ -	
31	ADIT Excluding Joint Pole			Sum: Line 29-30	\$ (595)	
32	Excess ADIT Reg Liability Amortization			Schedule D5	915	

Note 1: Amounts are recorded, except for the following adjustments:

	Plant in Service	Acc. Depr.	ADIT
[A] Unadjusted Balance	\$ 1,265,150	\$ (550,869)	\$ (57,663)
Add:			
[A] Asset Retirement Obligation		(2,006)	
[A] Reg Liab-Cost of Removal (net salvage)		(104,082)	
[A] Retirement Work In Progress		3,021	
Unbilled Pole Credits (HELCO-WP-H-001)	-		
Major Project Adjustments:			
N/A			
Total Adjustments	-	-	-
Joint Pole Capital Transfer Price (Note 6)	(19,108)	0	(57)
Adjusted Balance	\$ 1,246,042	\$ (653,936)	\$ (57,720)

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

Note 2: See Final Decision and Order No. 35559, For Approval of Rate Increases and Revised Rate Schedules and Rules, in Docket No. 2015-0170, filed June 29, 2018, Exhibit B, Page 1.

Note 3: Per PowerPlan extract. Effective October 2018, the Company reclassified CIAC to Plant in Service or CWIP consistent with FERC guidelines. As of December 2018, Cash CIAC received from Developers, subject to refund, were reclassified to Customer Advances for financial statement purposes. Starting 2018, CIAC has been netted with either Plant in Service or CWIP and Developer Advances which has been included as a reduction to rate base. See further discussion of the Company's treatment of CIAC at HELCO-WP-D1-001.

Note 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 will be included as a reduction to Rate Base in the future. The ADIT balance shown in this revenue requirement is the composite of the ADIT and the Regulatory Liabilities for Deferred Taxes. See further discussion at Schedule F.

Note 5: HELCO 2016 Test Year Rate Base includes CIS Deferred Costs in Unamortized System Development Costs. See detail in July 11, 2017 Stipulated Settlement Letter, HELCO T-11, page 2.

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

**HAWAII ELECTRIC LIGHT 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 (a)	3/27/2015		3/29/2016		3/29/2017		3/27/2018		Note 1	
		2014	2015	2015	2016	2016	2017	2017	2018	2018	2018
		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	<b>Total Plant Additions</b>	\$ 51,615,842	\$ 51,663,728	\$ 52,675,304	\$ 55,208,465	\$ 72,479,908					
2	Less: Non-Utility Plant Additions	-	-	-	-	-					
3	<b>Adjusted Total Plant Additions</b>	<b>51,615,842</b>	<b>51,663,728</b>	<b>52,675,304</b>	<b>55,208,465</b>	<b>72,479,908</b>					
4											
5	<u>Less Major Projects: (+\$2.5 Million)</u>										
6											
7	<u>2014 In-Service</u>										
8	Keamuku-Keahole 6800 kV Line Recon Ph 1 (Note 3)	2012-0392	H0002509	(2,730,442)	141,116	10					
9	Keahole CT-4 Major Overhaul (Note 4)	2013-0144	H0002725	(1,622,930)	(19,335)	-					
10											
11	<u>2015 In-Service</u>										
12	None										
13											
14	<u>2016 In-Service</u>										
15	Keamuku-Keahole 6800 69 kV Line Recon Phase 2	2012-0392	H0002612		(2,961,593)						
16	Keamuku-Keahole 6800 69 kV Line Recon Phase 3	2012-0392	H0002668		(2,703,182)	(32,940)				(408)	
17	Keahole CT-5 Major Overhaul	2013-0144	H0002724		(3,333,467)						
18											
19	<u>2017 In-Service</u>										
20	Keamuku-Keahole 6800 69 kV Line Recon Phase 4	2012-0392	H0002669				(945,457)			21,751	
21											
22	<u>2018 In-Service</u>										
23	Joint Pole Capital Transfer Price									(19,108,221)	
24											
25	<b>Total Net Plant Additions (excluding major projects)</b>	<b>47,262,470</b>	<b>51,785,509</b>	<b>43,677,072</b>	<b>54,230,068</b>	<b>53,393,030</b>					
26											
27	<b>Last Five-Year Average - Plant Additions</b>									<b>\$ 50,069,630</b>	<i>To Sch FI</i>
28											
29	Less: CIAC, including Developer Advances (excluding major projects)	Note 2	(7,666,771)	(3,965,158)	(5,145,023)	(6,153,388)	(10,131,146)				
30											
31	<b>Total Net Plant Additions, Net of CIAC (excluding major projects)</b>		<b>\$ 39,595,699</b>	<b>\$ 47,820,351</b>	<b>\$ 38,532,049</b>	<b>\$ 48,076,680</b>	<b>\$ 43,261,884</b>				
32											
33	<b>Last Five-Year Average - Plant Additions, Net of CIAC</b>									<b>\$ 43,457,333</b>	<i>To Sch DI</i>

Note 1: Amounts per 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 2018, in Docket No. 03-0257, filed on March 27, 2019.

Note 2: See HELCO-WP-D2-003 for 2018 CIAC Additions and HELCO-WP-D2-004 for 2014 to 2017 CIAC Additions.

Note 3: Docket No. 2012-0392, Keamuku-Keahole 6800 kV Line Reconstruction Phase 1 Final Cost Report filed September 29, 2014, \$2,659,753 plus straggling costs of \$70,689 in 2014, less straggling credits of \$141,116 in 2015 and \$10 in 2016.

Note 4: Docket No. 2013-0144, Keahole CT-4 Major Overhaul Final Cost Report filed January 29, 2015, \$1,622,930 plus straggling costs of \$19,335.

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

Line No.	Description	PUC Docket Reference	Estimated In Service Date	Amount
	(a)	(b)	(c)	(d)
1	None			\$ -
2				
3				
4	<b>Total Major Capital Project Qualifying for 2019 RAM, Net of CIAC</b>			<b>\$ -</b>
5				<i>To Sch D1</i>

**HAWAII ELECTRIC LIGHT 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	HELCO-WP-D4-001	\$ (51,359,627)	\$ (9,061,307)	\$ (60,420,934)
3	Other Deferred Income Taxes	HELCO-WP-D4-001	1,990,916	767,093	2,758,009
4	Total Recorded Deferred Income Taxes - Utility		(49,368,711)	(8,294,214)	<b>(57,662,925)</b>
					<i>To Sch D1</i>
					<i>To HELCO-WP-H-001</i>

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

Line No.	NARUC Account	Reference	DR/(CR) Balance at 12/31/17	DR/(CR) Adjustments	DR/(CR) Amortization	DR/(CR) Balance at 12/31/18	Life	Amortization	Est Bal at 12/31/19
	(a)	(b)	(c)	(d)	(e)	(f) =(c) + (d) + (e)	(g)	(h) = (c) / (g)	(i) = (f) + (h)
1	Recorded Excess ADIT Regulatory Liability Balances December 31, 2018 Recorded Balances								
2	Plant 282 - protected		(54,306,715)	(1,714,011)		(56,020,726)	40	1,400,518	(55,203,757)
3	Plant 283 - unprotected		(362,017)		16,093	(345,924)	15	24,140	(321,784)
4	Nonplant 283 - unprotected		(367,786)		49,038	(318,748)	5	73,557	(245,191)
5	Total Excess ADIT Regulatory Liability		<u>(55,036,518)</u>	<u>(1,714,011)</u>	<u>65,131</u>	<u>(56,685,398)</u>		<u>1,498,215</u>	<u>(55,770,732)</u>
			Note 1		Note 2	To Sch DI		To Sch DI To Sch E To Sch F	To Sch DI Note 3

Note 1: The 12/31/17 balances represent the amortization base presented in Docket 2015-0170 Hawai'i Electric Light Motion to Adjust Interim Increase, filed March 27, 2018, Exhibit 9. 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. Please refer to HELCO 2019 Test Year Rate Case, Docket No. 2018-0368, CA-IR-70 for the detailed explanation and required reclassification.

Note 2: Amortization began 5/1/2018.

Note 3: Line 2: Plant 282-protected excess deferred balance calculated as follows: [col (f)/col (g)] \* (7 months/12 months)+col (f). Amortization begins 6/1/2019.

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF DEPRECIATION & AMORTIZATION RAM ADJUSTMENT**

Line No.	NARUC Account	Recorded Depreciable/Amort. Balance (Note 2)	Adjustments (Note 3)	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate in Dkt No. 2009-0321	Annual Accrual
	(a)	(b)	(c)	(d)	(e)	(f)
1	<b>Plant Accounts</b>					
2	311	\$ 18,580,389		\$ 18,580,389	0.02900	\$ 538,831
3	312	70,585,608	(1,680,000)	68,905,608	0.03080	2,122,293
4	314	48,549,063		48,549,063	0.02540	1,233,146
5	315	9,926,459		9,926,459	0.03350	332,536
6	Tot - Steam	147,641,520	(1,680,000)	145,961,520	0.02896	4,226,808
7						
8	331	117,720		117,720	0.00940	1,107
9	332	6,211,000		6,211,000	0.02030	126,083
10	333	2,091,309		2,091,309	0.02130	44,545
11	334	774,630		774,630	0.00620	4,803
12	336	121,311		121,311	0.00000	-
13	Tot - Hydro	9,315,969	-	9,315,969	0.01895	176,537
14						
15	341	24,728,472		24,728,472	0.02640	652,832
16	342	13,136,399		13,136,399	0.01990	261,414
17	343	69,597,123		69,597,123	0.02220	1,545,056
18	344	54,181,904		54,181,904	0.01910	1,034,874
19	345	7,919,237		7,919,237	0.01710	135,419
20	Tot - Other Prod	169,563,135	-	169,563,135	0.02141	3,629,595
21						
22	Tot - Prod	326,520,624	(1,680,000)	324,840,624		8,032,941
23						
24	350.1	3,505,139		3,505,139	0.01460	51,175
25	352	4,553,638		4,553,638	0.00890	40,527
26	353	65,561,840		65,561,840	0.01980	1,298,124
27	354	60,041		60,041	0.02120	1,273
28	355	66,493,564		66,493,564	0.01750	1,163,637
29	356	46,097,852		46,097,852	0.04430	2,042,135
30	357	305,800		305,800	0.00000	-
31	358	678,423		678,423	0.00180	1,221
32	359	128,935		128,935	0.01350	1,741
33	Tot - Transm	187,385,232	-	187,385,232	0.02455	4,599,834
34						
35	360.1	675,771		675,771	0.01990	13,448
36	361	3,927,549		3,927,549	0.01600	62,841
37	362	73,903,383		73,903,383	0.01820	1,345,042
38	363	311,321		311,321	0.03960	12,328
39	364	133,439,423	(19,108,955)	114,330,468	0.03780	4,321,692
40	365	101,035,790	(1,428)	101,034,362	0.03400	3,435,168
41	366	34,569,685		34,569,685	0.02870	992,150
42	367	104,592,330		104,592,330	0.04080	4,267,367
43	368	96,928,091	(22,601)	96,905,491	0.06870	6,657,407
44	369.1	38,968,378		38,968,378	0.03470	1,352,203
45	369.2	29,339,581		29,339,581	0.02850	836,178
46	370	24,634,583		24,634,583	0.04840	1,192,314
47	Tot - Distr	642,325,886	(19,132,984)	623,192,902	0.03929	24,488,137
48						
49	Tot - T & D	829,711,118	(19,132,984)	810,578,134		29,087,971
50						
51	390	22,414,014		22,414,014	0.01290	289,141
52	Tot - General	22,414,014	-	22,414,014	0.01290	289,141
53						
54	Sub-Total	1,178,645,756	(20,812,984)	1,157,832,773		37,410,053
55						
56	390.2 (Kanoelehua)	793,494		793,494	0.01540	12,220
57	Tot - LH Impr	793,494	-	793,494	0.01540	12,220
58						
59	392.1	7,540,415		7,540,415	0.15120	1,140,111
60	392.2	17,609,065		17,609,065	0.02720	478,967
61	Tot - Vehicles	25,149,480	-	25,149,480	0.06438	1,619,078
62						
63						
64	Utility Total Depreciation	\$ 1,204,588,731	\$ (20,812,984)	\$ 1,183,775,747	0.03298	\$ 39,041,351

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF DEPRECIATION & AMORTIZATION RAM ADJUSTMENT**

SCHEDULE E  
(REVISED 05-21-19)  
PAGE 2 OF 2

Line No.	NARUC Account	Recorded Depreciable/Amort. Balance (Note 2)	Adjustments (Note 3)	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate in Dkt No. 2009-0321	Annual Accrual
	(a)	(b)	(c)	(d)	(e)	(f)
65	<b>Amortization Amounts</b>					
66						
67	316	\$ 1,940,004		\$ 1,940,004	0.05000	\$ 97,000
68	Tot - Steam	1,940,004	-	1,940,004	0.05000	97,000
69						
70	335	132,698		132,698	0.05000	6,635
71	Tot - Hydro	132,698	-	132,698	0.05000	6,635
72						
73	346	3,439,497		3,439,497	0.05000	171,975
74	Tot - Other Prod	3,439,497	-	3,439,497	0.05000	171,975
75						
76	Tot - Prod	5,512,199	-	5,512,199	0.05000	275,610
77						
78	391.1	2,415,799		2,415,799	0.20000	483,160
79	391.2	605,254		605,254	0.10000	60,525
80	391.3	700,948		700,948	0.06670	46,753
81	393	831,088		831,088	0.04000	33,244
82	394	12,255,662		12,255,662	0.04000	490,226
83	395	291,059		291,059	0.06670	19,414
84	396	39,008		39,008	0.05560	2,169
85	397	27,955,170		27,955,170	0.06670	1,864,610
86	398	4,357,929		4,357,929	0.06670	290,674
87	Tot - General	\$ 49,451,916	\$ -	\$ 49,451,916	0.06654	\$ 3,290,775
88	Utility Total Amortization	\$ 54,964,115	\$ -	\$ 54,964,115	0.06489	\$ 3,566,385
89	TOTAL RAM DEPRECIATION / AMORTIZATION				Line 64 + Line 88	\$ 42,607,736 To Sch D1
90	LESS: Vehicle Depreciation (A/C 392 above)				Line 61	\$ (1,619,078)
91	LESS: ADIT Excess Amortization				Schedule D5	\$ (1,498,215)
92	LESS: Depreciation & Amortization in Current Revenues				Note 1	\$ (37,271,308)
93						
94	RAM Adjustment for Depreciation & Amortization					\$ 2,219,134
95	RAM Adjustment for CIAC Amortization				Note 4	\$ -
96	Total RAM Adjustment for Depreciation & Amortization					\$ 2,219,134
97	Times: Factor for Revenue Taxes				Schedule C Line 5	1.0975
98						
99	RAM DEPRECIATION & AMORTIZATION				Line 96 x Line 97	\$ 2,435,500 To Sch A1

Note 1: Depreciation & Amortization in Current Revenues*:		2016 Test Year
Total Depreciation	\$	42,106,000
LESS: Vehicle Depreciation (A/C 392)		(1,505,000)
LESS: Amortization of ADIT Excess Amortization	Line 91	(97,692)
Total Depreciation in Current Revenues		40,503,308
ADD: CIAC Amortization	Note 4	(3,232,000)
Total Depreciation and Amortization in Current Revenues	\$	37,271,308
		To Line 92

\*See Hawaii Electric Light Company, Inc. Docket No. 2015-0170 HELCO-1601; Revision to Exhibits in Motion to Adjust Interim Increase, Exhibit 3D, page 1 of 13, filed April 10, 2018 and PUC Order No. 35419, Granting Motion to Adjust Interim Increase, Exhibit A, page 1 of 4, filed April 24, 2018. Approved in Final Decision and Order No. 35559, filed June 29, 2018.

Note 2:	Utility Total Depreciable Plant Balance	Line 64	\$ 1,204,588,731
	Utility Total Amortizable Plant Balance	Line 88	54,964,115
	Total Utility Depreciation and Amortization Plant Balance		\$ 1,259,552,846
	Total Utility Plant in Service	RONE28	\$ 1,265,149,706
	Less: Land	(i)	(5,596,859)
	Total Depreciable Plant in Service		\$ 1,259,552,846

SOURCE:

(i): Accounting records.

Note 3:	ARO Assets included in Depreciable Plant	GL# 10100001	\$ (1,702,601)
	Unitization Adjustment	Line 39 + 40	(2,162)
	Joint Pole Capital Transfer Price	Note 5	(19,108,221)
			\$ (20,812,984)

Note 4: 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.

Note 5: See Decision and Order No. 35768, Docket No. 2018-0075 filed October 16, 2018.

**HAWAII ELECTRIC LIGHT 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	1,598,369
2	Amortization of Excess Deferreds (Note 3)	Schedule D5	914,666
3	Subtotal		2,513,035
4	Effective Federal Tax Rate	HELCO-WP-F-001	19.7368%
5	Federal Deferred Tax on State Tax Depreciation		495,994
6	Addback State Tax Depreciation		(1,598,369)
7	Federal Tax Depreciation	Schedule F1	1,598,369
8	Federal/State Difference		-
9	Tax Rate on Federal Only Adjustment	HELCO-WP-F-001	21%
10	Federal Deferred Tax Adjustment		-
11	Total Federal Deferred Taxes Before Proration		495,994
12	Proration Adjustment	HELCO-WP-F1-003	(52,086)
13	Total Federal Deferred Taxes After Proration		443,908
<b>STATE DEFERRED TAXES</b>			
14	State Tax Depreciation		1,598,369
15	Amortization of Excess Deferreds (Note 3)	Schedule D5	914,666
16	Subtotal		2,513,035
17	Effective State Tax Rate	HELCO-WP-F-001	6.0150%
18	Total State Deferred Taxes		151,160
19	TOTAL FED AND STATE DEFERRED TAXES		595,068

*To Sch D1*

NOTE: 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 in the Tax Cuts and Jobs Act of 2017. This is consistent with the inclusion of the regulatory liability and the related amortization in rate base RAM.

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

<b>Calculation of Excess Deferred Amortization</b>			
Plant 282 - protected	1,400,518	Schedule D5	
Proration Percentage (7 months/12 months)	58.33%		
			816,969
Plant 283 - unprotected			24,140
Nonplant 283 - unprotected			73,557
Amortization of Excess Deferreds, as Adjusted			914,666
		Schedule D1	

Schedule D5  
Schedule D5



HAWAII ELECTRIC LIGHT COMPANY, INC.  
DECouPLING CALCULATION WORKBOOK  
DETERMINATION OF TAX DEPRECIATION

Line No.	Life	HELCO-WP-F1-002				Projects (e)	Programs (f)	Total (g)	
		(a)	(b)	(c)	(d)				
1	Information Systems/Data Handling	5	\$ 403,384	\$ -	\$ 403,384	0.81%	-	0.81%	
2	Communication	20	3,067,706	-	3,067,706	6.13%	-	6.13%	
3	Office Furniture	7	425,457	-	425,457	0.85%	-	0.85%	
4	Distribution	20	37,037,582	-	37,037,582	73.97%	-	73.97%	
5	Land	-	145,015	-	145,015	0.29%	-	0.29%	
6	Other Production	15	730,490	-	730,490	1.46%	-	1.46%	
7	Steam & Hydraulic Production	20	774,683	-	774,683	1.55%	-	1.55%	
8	Structural	39	1,751,666	-	1,751,666	3.50%	-	3.50%	
9	Transmission	15	3,221,103	-	3,221,103	6.43%	-	6.43%	
10	Transmission	20	278,075	-	278,075	0.56%	-	0.56%	
11	Vehicles	-	2,234,470	-	2,234,470	4.46%	-	4.46%	
12	Baseline Plant Additions		\$ 50,069,630	\$ -	\$ 50,069,630	100%	-	100%	

  

Projects and Program % Totals by Depreciable Life:									
5 yr	0.81%	-	-	-	0.81%				
7 yr	0.85%	-	-	-	0.85%				
15 yr	7.89%	-	-	-	7.89%				
20 yr	82.20%	-	-	-	82.20%				
39 yr	3.50%	-	-	-	3.50%				
Land	0.29%	-	-	-	0.29%				
Vehicles	4.46%	-	-	-	4.46%				
Total	100.00%	-	-	-	100.00%				

  

Vintage 2018 - Bonus Depreciation									
5 yr	0.00%	-	-	-	0.00%	0.00%	-	-	-
7 yr	0.00%	-	-	-	0.00%	-	-	20.00%	-
15 yr	0.00%	-	-	-	0.00%	-	-	57.1429%	-
20 yr	0.00%	-	-	-	0.00%	1.5 yr	-	52.00%	-
39 yr	n/a	n/a	n/a	n/a	n/a	20 yr	-	51.875%	-
Land	n/a	n/a	n/a	n/a	n/a				
Vehicles	n/a	n/a	n/a	n/a	n/a				
Total	0.00%	n/a	n/a	n/a	0.00%				

  

Vintage 2018 - Regular Depreciation									
5 yr	20.00%	\$ 338,793	20.00%	\$ 67,759	20.00%	\$ 67,759	20.00%	\$ 67,759	
7 yr	14.29%	357,331	14.29%	51,063	14.29%	51,063	14.29%	51,063	
15 yr	5.00%	3,318,853	5.00%	165,943	5.00%	165,943	5.00%	165,943	
20 yr	3.75%	34,567,704	3.75%	1,296,289	3.75%	1,296,289	3.75%	1,296,289	
39 yr	1.18%	1,471,184	1.18%	17,316	1.18%	17,316	1.18%	17,316	
Land	n/a		n/a		n/a		n/a		
Vehicles	n/a		n/a		n/a		n/a		
Total	0.00%		0.00%		0.00%				

  

Basis subject to regular depreciation (Total less amounts subject to bonus)									
5 yr	0.81%	-	-	-	0.81%				
7 yr	0.85%	-	-	-	0.85%				
15 yr	7.89%	-	-	-	7.89%				
20 yr	82.20%	-	-	-	82.20%				
39 yr	3.50%	-	-	-	3.50%				
Land	n/a	n/a	n/a	n/a	n/a				
Vehicles	n/a	n/a	n/a	n/a	n/a				
Total	95.25%	-	-	-	95.25%				
TOTAL ASSETS	95.25%	-	-	-	95.25%				

  

Basis subject to bonus depreciation									
5 yr	0.81%	-	-	-	0.81%				
7 yr	0.85%	-	-	-	0.85%				
15 yr	7.89%	-	-	-	7.89%				
20 yr	82.20%	-	-	-	82.20%				
39 yr	3.50%	-	-	-	3.50%				
Land	n/a	n/a	n/a	n/a	n/a				
Vehicles	n/a	n/a	n/a	n/a	n/a				
Total	95.25%	-	-	-	95.25%				

  

TOTAL ASSETS									
Net Depreciable Baseline Plant Adds		\$ 40,053,865		\$ 1,598,369		\$ 1,598,369		\$ 1,598,369	
Major Capital Projects (From Sch F2)		-		-		-		-	
Total Depreciable Plant Adds		\$ 40,053,865		\$ 1,598,369		\$ 1,598,369		\$ 1,598,369	

  

Reconciliation from Baseline Plant Adds to Net Depreciable Plant Adds									
Baseline Capital Projects Plant Adds		\$ 50,069,630	Sch D2						
Less: Repairs deduction		(8,017,290)	<<supported by Special Study each year.						
Net Plant add basis		42,052,340							
Less: Land and Vehicles (4.75% x \$42,052,340)		(1,998,475)							
		\$ 40,053,865							

  

Fed Tax Depreciation To Sch F									
Net Depreciable Baseline Plant Adds		\$ 40,053,865		\$ 1,598,369		\$ 1,598,369		\$ 1,598,369	
Major Capital Projects (From Sch F2)		-		-		-		-	
Total Depreciable Plant Adds		\$ 40,053,865		\$ 1,598,369		\$ 1,598,369		\$ 1,598,369	

  

St. Tax Depreciation To Sch F									
Net Depreciable Baseline Plant Adds		\$ 40,053,865		\$ 1,598,369		\$ 1,598,369		\$ 1,598,369	
Major Capital Projects (From Sch F2)		-		-		-		-	
Total Depreciable Plant Adds		\$ 40,053,865		\$ 1,598,369		\$ 1,598,369		\$ 1,598,369	

Note 1: The 2017 Tax Cuts and Jobs Act (TCJA) precludes public utility companies from utilizing bonus depreciation on qualified property acquired and placed in service after September 27, 2017.

**HAWAII ELECTRIC LIGHT 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 2018 Major Capital Projects - Plant Items			\$	-
2	Assumed Value of 2018 Major Capital Projects - CIAC nontaxable			\$	-
3	Assumed Value of 2018 Major Capital Projects - Total			<u>\$</u>	<u>-</u> <i>Sch D3</i>
4	Tax Classification of Major Capital Project Additions	Tax Basis Distribution	FED YR 1 DEPR RATE	FED YR 1 TAX DEPR	STATE YR 1 DEPR RATE
5	5 yr	\$ -	20.00%	\$ -	20.00%
6	7 yr	-	14.29%	-	14.29%
7	15 yr - Transmission	-	5.00%	-	5.00%
8	20 yr	-	3.75%	-	3.75%
9	39 yr	n/a			
10	Land	n/a			
11	Vehicles	n/a			
12	Total	<u>\$ -</u>		<u>\$ -</u>	<u>\$ -</u>
		<i>To Sch F1</i>		<i>To Sch F1</i>	<i>To Sch F1</i>

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**CIAC SUMMARY**

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

*Schedule not applicable.*

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

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

Line No.	Description (a)	Reference (b)	Ratemaking Basis Return on Equity		
			Operating Income (c)	Rate Base (d)	Rate of Return (e)
1	Reported Operating Income before ratemaking adj.	HELCO-WP-H-009 & HELCO-WP-H-001	\$ 34,306	\$ 504,949	
1a	Settlement of prior Joint Pole Accounts Receivable	Note 3	740		
2	Ratemaking Adjustments to Line 1:				
2a	Incentive Compensation Expenses (net of tax)	HELCO-WP-H-002	489		
2b	Discretionary and Other Expenses Not Recoverable (net of tax)	HELCO-WP-H-002	61		
2c	Amortization of investment income differential	HELCO-WP-H-003	24		
2d	Income tax on items to be replaced by synchronized interest	HELCO-WP-H-003	(2,966)		
2e	Special Medical Needs Program Discount (net of tax)	HELCO-WP-H-005	33		
2f	Performance Incentive Mechanism (net of tax)	HELCO-WP-H-006	369		
2g	Test Year Refund (net of tax)	HELCO-WP-H-007	50		
3	Ratemaking Basis Amounts - Post Tax	Sum Lines 1 & 2	\$ 33,106	\$ 504,949	
4	Ratemaking Capitalization		Balances	Ratios	Cost Rate
5	Short-Term Debt (12 mo. Avg)		\$ 808	0.16%	4.19%
6	Long-Term Debt (Simple Avg)		\$ 204,748	39.90%	5.38%
7	Hybrid Securities (Simple Avg)		\$ 9,588	1.87%	7.16%
8	Preferred Stock (Simple Avg)		\$ 6,743	1.31%	8.14%
9	Common Equity (Simple Avg)		\$ 291,321	56.76%	9.50%
10	Total Capitalization	HELCO-WP-H-004	\$ 513,208	100.00%	
11	Line 3 Rate Base Amount			\$ 504,949	
12	Weighted Cost of Debt (Sum Lines 5-7)			2.29%	
13	Synchronized Interest Expense			\$ 11,563	
	Income Tax Factor (Note 1)			1.346835443	
13a	Synchronized Interest Expense, net of tax			\$ 8,586	
14	Post Tax Income Available for Preferred & Common (Line 3 - Line 13a)				\$ 24,520
15	Less: Preferred Income Requirement (Line 8 Weighted Cost times Rate Base)				\$ 555
16	Income Available for Common Stock				\$ 23,965
17	Ratemaking Equity Investment (Line 9 Ratio times Rate Base)				\$ 286,632
18	Return on Equity for Decoupling Earnings Sharing (Line 16/Line 17)				8.36%
19	Earnings Sharing Revenue Credits:	Basis Points			
20	Achieved ROE (basis points)	836			
21	Authorized Return (basis points) (PUC Final D&O 35559 in Dkt No. 2015-0170, filed on 06/29/18)	950			
22	ROE for sharing (basis points)	-			
23	Sharing Grid per RAM Provision	First 100 bp	Next 200 bp	All over 300 bp	Ratepayer Total
24	Distribution of Excess ROE (basis points)	0	0	0	
25	Ratepayer Share of Excess Earnings	25%	50%	90%	
26	Ratepayer Earnings Share - Basis Points	-	-	-	-
27	Revenue Credit per Basis Point (Note 2)				\$ 42
28	Earnings Sharing Revenue Credits (thousands)				\$ -

*To Sch A*

Note 1:	Composite Federal & State Income Tax Rate	25.75%
	Income Tax Factor ( 1 / 1-tax rate)	1.346835443
Note 2:	Ratemaking Equity Investment (line 19)	\$ 286,632
	Basis Point = 1/100 of a percent	0.01%
	Earnings Required per Basis Point (thousands)	\$ 28.66
	Times: Income Tax Conversion Factor	1.346835443
	Pretax Income Required per Basis Point (thousands)	\$ 39
	Times: Revenue Tax Conversion Factor	1.0975
	Revenue Requirement per Basis Point (thousands)	\$ 42

Note 3: Per Docket No. 2018-0075, Decision and Order No. 35768, the Commission approved the Asset Transfer, Pole Licensing and Amended Joint Pole agreements. The settlement recovery of prior joint pole accounts receivables previously written-off was recorded to interest income (and excluded from Operating Income) in 2018. Upon further consideration, the recovery should have been recorded to Uncollectible Accounts (904) and included in Operating Income in 2018. (Taxes on the Joint Pole interest income was already included in Operating Income as of December 31, 2018.) Accordingly, an upward adjustment of \$739,763 is being made to Operating Income in the earnings sharing mechanism calculation.

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

<u>Line No.</u>	<u>Description</u>	<u>Reference</u>	<u>Amount \$000</u>
	(a)	(b)	(c)

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

**HAWAII ELECTRIC LIGHT 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	\$ 145,591
2	2017 RAM Cap Increase excluding Exceptional & Other Matters	5/21/18 Decoupling, Sch J	2,912
3	2018 RAM Cap Increase excluding Exceptional & Other Matters	↓	3,119
4	2018 Target Revenues subject to escalation	Sum: Line 1 to 3	\$ 151,621
5	2019 GDP Price Index	HELCO-WP-C-002	2.10%
6	2019 RAM Cap Increase excluding Exceptional & Other Matters	Line 4 x Line 5	\$ 3,184
7	RAM Cap for 2017 RAM Revenue Adjustment	Line 2	2,912
8	RAM Cap for 2018 RAM Revenue Adjustment	Line 3	3,119
9	RAM Cap for 2019 RAM Revenue Adjustment excluding Exceptional & Other Matters	Sum: Line 6 to 8	\$ 9,214
10	Revenue Tax Factor (1/(1-8.8885%))		1.0975
11	RAM Cap for 2019 RAM Revenue Adjustment (including Rev Tax)	Line 9 x Line 10	\$ 10,113
			<b><u>To Sch A1</u></b>

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.

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**EXCEPTIONAL & OTHER MATTERS**

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

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.

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**MAJOR PROJECT INTERIM RECOVERY**

<u>Line No.</u>	<u>Description</u>	<u>Reference</u>	<u>Amount \$000</u>
	(a)	(b)	(c)
1	<i>None</i>		\$ -
2	Revenue Tax Factor (1/(1-8.885%))		<u>1.0975</u>
3	Major Project Interim Recovery Total		<u>\$ -</u> <i>To Sch B1</i>



**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**2018 PERFORMANCE INCENTIVE MECHANISMS**

	2018 Annual Total *	2018 Target **	Variance	Deadband **	Maximum \$ **	(Penalty)/ Reward Amount
	(a)	(b)	(c)=(a)-(b)	(d)	(e)	1.0 * (((b - a) / d) * e + e)
<b><u>Service Quality:</u></b>						
<b>Normalized T&amp;D SAIFI</b>	1.615	1.396	0.219	0.247	\$ 546,017	\$ -
<b>Normalized T&amp;D SAIDI</b>	209.14	137.74	71.396	24.74	\$ 546,017	\$ (546,017)
<b>Call Center Performance (Excludes Blocked Calls)</b>						
	83.60%	85.83%	-2.23%	3.00%	\$ 218,407	\$ -
<b><u>Phase 1 Renewable Energy PIM</u></b>						\$ 530,582
First Allocation ***						
					Total	\$ (15,435)

Notes:

\* See HELCO-WP-M-002

\*\* See HELCO-WP-M-001

\*\*\* See HELCO-WP-M-004

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**DECOUPLING CALCULATION WORKBOOK**  
**ON-BILL FINANCING COST RECOVERY**

Line	Company	Note 1 Customer		Cost Recovery (excluding Rev tax)			Cost Recovery (including Rev tax)		
		Count	Allocation	Total Recovery	2019 Recovery	2020 Recovery	Total 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	768,575	768,575	1,687,022	843,511	843,511
2	HL	85,758	19%	431,561 <b>To Sch B</b>	215,780 <b>To Sch A</b>	215,781	473,638	236,819 <b>To Sch B1</b>	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.

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.

**Hawaii Electric Light 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	32.6	35.7	36.3	33.1	35.0	33.9	37.8	36.2	31.0	34.2	31.9	31.4	409.1
G/J	31.2	33.8	34.2	32.9	34.2	31.7	31.5	29.8	30.5	31.5	31.3	32.8	385.2
P	22.4	22.9	23.3	22.7	22.7	22.0	21.5	21.7	21.7	21.6	22.0	21.8	266.1
F	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.4
Total	86.4	92.5	94.0	88.8	92.0	87.8	91.0	87.9	83.4	87.4	85.5	86.2	1,062.8
To Sch A													

Source: Hawaii Electric Light Company's June 2018 Sales Forecast Update.

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

Line No.		2018					Total
		January	February	March	April	May	
1	Billed RBA Revenues	562,398	556,937	546,556	571,072	539,190	2,776,153
2	Net Unbilled Revenues	(166)	(45,760)	13,547	(8,600)	20,307	(20,672)
3	Total billed + Unbilled	562,231	511,177	560,103	562,473	559,497	2,755,481
4	x % Share for RBA	50.5363%	50.5363%	50.5363%	50.5363%	50.5363%	
5	RBA Revenues (Recovery of 12/31/16 RBA balance)	284,131	258,330	283,055	284,253	282,749	1,392,518
6		← Schedule B2 →					
7	Less: Revenue Taxes	(25,245)	(22,953)	(25,149)	(25,256)	(25,122)	(123,725)
8	RBA Revenues (Recovery of 12/31/16 RBA balance),	258,886	235,377	257,906	258,997	257,627	1,268,793
9	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, 2017 - May 31, 2018 is per Docket No. 2015-0170, HELCO 2016 TY Rate Case Interim Increase Tariff Sheets (Filed 8/23/17), Exhibit E, Note (1).

**Hawaii Electric Light Company, Inc.  
Adjustment for Prior Year RBA Accrual  
Recovery of 12/31/17 RBA Balance**

Line No.		2018							Total
		June	July	August	September	October	November	December	
1	Billed RBA Revenues	717,768	907,255	922,482	953,011	936,267	899,614	875,737	6,212,134
2	Net Unbilled Revenues	145,284	36,386	40,464	(53,311)	7,235	(22,604)	12,971	166,426
3	Total billed + Unbilled	863,052	943,642	962,945	899,701	943,502	877,010	888,708	6,378,560
4	x % Share for RBA	37.6554%	37.6554%	37.6554%	37.6554%	37.6554%	37.6554%	37.6554%	
5	RBA Revenues (Recovery of 12/31/17 RBA balance)	324,986	355,332	362,601	338,786	355,280	330,242	334,647	2,401,874
6		← Schedule B2 →							
7	Less: Revenue Taxes	(28,875)	(31,571)	(32,217)	(30,101)	(31,567)	(29,342)	(29,733)	(213,407)
8	RBA Revenues (Recovery of 12/31/17 RBA Balance),	296,111	323,761	330,384	308,685	323,713	300,900	304,914	2,188,467
9	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 - December 31, 2018 is per Transmittal No. 18-02 (Decoupling) - RBA Rate Adjustment (Filed May 21, 2018), Schedule A, Note (1).

Wage Increases: (non-compounded)	1/1/2014	3.00%	Note 1
	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

<u>Increase effective</u>			<u>Increase Amount</u>	<u>Wage Rate With Increase</u>	<u>Labor Cost Escalation Rate</u>	
			(a)	(b) 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 HELCO-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	GDP	Nominal	Consumer	Indust.	Dis. Pers.	Personal	Non-Res.	Corp.		Treas.	Treas.	Unempl.	Housing	Auto&Light	Net
	(Chained (2012\$)	Price Index	GDP (Cur.\$)	Price Index	Prod. (Total)	Income (2012\$)	Cons. Exp. (2012\$)	Fix. Inv. (2012\$)	Profits (Cur.\$)		Bills 3-mo.	Notes 10-Year	Rate (Civ.)	Starts (Mil.)	Truck Sales (Mil.)	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.



## HAWAII ELECTRIC LIGHT COMPANY, INC.

## EXHIBIT A

3.00%

3.00%

3.00%

<u>JOB CODE</u>	<u>JOB TITLE</u>		<u>1/1/2019</u>	<u>1/1/2020</u>	<u>1/1/2021</u>
C62	CLERK TYPIST				
	1st 6 mos.		22.48	23.13	23.78
	Next 6 mos.		23.98	24.68	25.38
	Next 6 mos.		25.44	26.18	26.92
	Next 6 mos.		26.98	27.77	28.56
	Next 6 mos.		28.49	29.32	30.15
	Thereafter		29.98	30.85	31.72
E74	MAPPER				
	1st 3 mos.		21.35	21.97	22.59
	Next 3 mos.		22.46	23.11	23.76
	Next 3 mos.		23.59	24.28	24.97
	Next 6 mos.		25.95	26.71	27.47
	Next 6 mos.		27.20	27.99	28.78
	Next 6 mos.		28.55	29.38	30.21
	Thereafter		29.99	30.86	31.73
CL5	CASHIER				
CL49	DISTRICT CLERK I				
	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
T8	(S) BOILER OPERATOR TRAINEE				
T55	(S) COMBUSTION TURBINE OPERATOR TRAINEE				
	1st 12 mos.		27.81	28.62	29.43
	Thereafter		31.31	32.22	33.13
E39	PLANNER AID				
	1st 3 mos.		22.46	23.11	23.76
	Next 3 mos.		23.59	24.28	24.97
	Next 3 mos.		24.71	25.43	26.15
	Next 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
CL7	METER READER				
CL21	METER READER	<u>1/1/2018</u>			
	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 HELCO-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, Hawaii Electric Light 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, the Company will implement this change in the annual decoupling filing in the year following the Commission’s approval.

Hawaii Electric Light Company, Inc.  
Revenue Decoupling – Rate Base RAM  
2018 Major Projects and Other Plant Additions, Net of CIAC

NET CALCULATION											
Project #	Project	Plant Addition Date	Net Plant Adds Thru 12/31/17	2018 Plant Additions, Net of CIAC				Net PUC Approved	Over/(Under) Net PUC Approved	Functional Plant Category	
				Total Project Cost	CIAC & Adjs	Net Project Cost	Net Plant Adds Thru 12/31/18				
											(A)
2018 Major Projects											
1	H0002668	6800 Line Record Ph3	201611	2,736,122	408	-	408	2,736,530	4,933,614	(2,197,084)	Transmission
2	H0002669	6800 Line Record Ph4	201709	945,457	(21,751)		(21,751)	923,706	1,206,833	(283,127)	Transmission
3	HE-005077	Joint Pole Capital Transfer Price	201812	-	19,108,221	-	19,108,221	19,108,221	19,108,221	-	Distribution

[1] 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 HELCO-WP-D2-002.

[2] 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."

[3] Decision & Order No. 32930 in Docket No. 2013-0153, page 2, Keamuku-Keahole 6800 kV Line Reconstruction Phase 3 & 4, filed June 24, 2015.

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

Line No.	Description	Reference	CIAC, Including Developer Advances
	(a)	(b)	(c)
1	12/31/17 Balance	2018 Decoupling, Sch G1	(96,884,021)
2	Exclude: Non-Utility CIAC		-
3	Add: Developer Advances	↓	(3,122,203)
4	12/31/17 Balance - Utility CIAC	Line 1+2+3	(100,006,224)
5	9/30/18 Balance	GL #271	(99,180,711)
6	Exclude: Non-Utility CIAC	Line 2	-
7	Add: Developer Advances	GL# 25203000	(3,988,477)
8	9/30/18 Balance - Utility CIAC	Line 5+6+7	(103,169,188)
9	CIAC Change Thru 9/30/18 - Utility	Line 8 - Line 4	(3,162,964)
10	Add Back: 2018 CIAC Amortization thru 9/30/18	2018 Decoupling, Sch G3 (3,431,646 x 9/12)	3,431,646 (2,573,735)
11	CIAC Additions Thru 9/30/18		(5,736,699)
12	<b><u>Oct to Dec 2018 Activity</u></b>		
13	CIAC-Cash Tax	GL #60005200	(126,125)
14	CIAC-Cash Non-Tax	GL #60005201	(1,498,913)
15	CIAC-Settlement	GL #60050221	381,354
16	CIAC-In-Kind	GL #60005206	(3,150,763)
17			(4,394,447)
18	<b>2018 CIAC Additions, included within Plant in Service, CWIP, and Developer Advances</b>		<b>(10,131,146)</b> <b>To Sch D2</b>

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



## Excerpt from Transmittal 18-02, Schedule G1, filed May 21, 2018

HAWAII ELECTRIC LIGHT COMPANY, INC.  
DECOUPLING CALCULATION WORKBOOKBASELINE CAPITAL PROJECTS CIAC ADDITIONSSource of CIAC balance and amort.: December Monthly Reports filed (non-confidential basis) with the PUC dated:

Line No.	Description (a)	2/21/2014		2/26/2015		2/23/2016		2/23/2017		3/1/2018	
		2013 (b)	2014 (c)	2015 (d)	2016 (e)	2017 (f)					
1	CIAC Balance, January 1 (Dec Rpt. pg. 10)	\$ (84,799,042)	\$ (89,762,888)	\$ (94,474,624)	\$ (95,297,753)	\$ (97,210,550)					
2	Less: CIAC Amortization (Dec Rpt. pg. 2)	2,766,490	2,955,035	3,142,029	3,232,226	3,357,714					
3	Less: CIAC Balance, December 31 (Dec Rpt. pg. 10)	89,762,888	94,474,624	95,297,753	97,210,550	96,884,021					To Sch G
4											
5	<b>Total CIAC Additions</b>	<b>\$ 7,730,336</b>	<b>\$ 7,666,771</b>	<b>\$ 3,965,158</b>	<b>\$ 5,145,023</b>	<b>\$ 3,031,185</b>					
6											
7	Add Developer Advances:										
8	<b>Total CIAC &amp; Developer Advance Additions</b>	<b>7,730,336</b>	<b>7,666,771</b>	<b>3,965,158</b>	<b>5,145,023</b>	<b>6,153,388</b>					To Sch G
9											
10	<u>Less Major Projects:</u>										
11											
12	2013 In-service:										
13	None										
14											
15	2014 In-Service:										
16	Keamuku-Keahole 6800 69 kV Line Phase 1	2012-0392	H0002509	-	-	-	-	-	-	-	
17	Keahole CT-4 Major Overhaul	2013-0144	H0002725	-	-	-	-	-	-	-	
18											
19	2015 In-service:										
20	None										
21											
22	2016 In-service:										
23	Keamuku-Keahole 6800 69 kV Line Phase 2	2012-0392	H0002612			-	-	-	-	-	
24	Keamuku-Keahole 6800 69 kV Line Phase 3	2012-0392	H0002668			-	-	-	-	-	
25	Keahole CT-5 Major Overhaul	2013-0144	H0002724			-	-	-	-	-	
26											
27	2017 In-service:										
28	Keamuku-Keahole 6800 69 kV Line Phase 4	2012-0392	H0002669							-	
29											
30											
	<b>Total Net CIAC &amp; Developer Advance Additions</b>	<b>\$ 7,730,336</b>	<b>\$ 7,666,771</b>	<b>\$ 3,965,158</b>	<b>\$ 5,145,023</b>	<b>\$ 6,153,388</b>					
	<b>Last Five-Year Average</b>									<b>\$ 6,132,135</b>	To Sch G

Schedule D2

## GENERAL NOTE:

The CIAC amounts of the major projects are from the respective year's GO7 plant addition annual reports. Refer to the Baseline Plant Additions Calculation worksheet for the dates of the report filings. The total CIAC additions reflect actual contributions received in the year, and therefore may not include the total major project CIAC from the GO 7 report to the extent that the CIAC was received in advance, or in multiple payments over a span of more than one year.

Note 1: 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 Advances	(12,737,827)
Developer Advances (#25203000)	(3,122,203)
Customer Advances	(15,860,030)

SOURCE: HELC 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.

Hawaii Electric Light Company, Inc.  
Accumulated Deferred Income Taxes by Activity  
**FEDERAL**  
DR(CR)

	Description	Federal 12/31/18
	ACCOUNT 282.01:	
1	Accelerated Depreciation	(62,386,162)
2	Excess AccDep	3,447
3	Deficit AccDep	(33,640)
4	Reg Liability - 2017 Excess Def Acc Dep	11,057,383
5	Reg Asset - 2017 Excess Def Acc Dep	(654)
6	TOTAL ACCOUNT 282.01 UTILITY	<u>(51,359,627)</u>
	ACCOUNT 283.01:	
7	ACRS Retirements Gain/(Loss)	(3,802,843)
8	Bad Debts	110,077
9	Bonuses - Non-executives (fka Rewards; TIP)	39,099
10	Cap to Construction	(141,747)
11	Capital loss carryforward	-
12	Capitalized Interest	1,390,307
13	Capitalized Interest §481(a) D&T Adj	(44,440)
14	CIAC	10,786,343
15	Cost of Removal	20,589,062
16	Customer Advances	1,623,431
17	CWIP Debt / (AFUDC Debt Incurred)	(1,542,223)
18	CWIP Debt Transition	14,952
19	Exec Comp - EICP, LTIP	86,490
20	Exec Comp - Deferred Comp (Rest Stock, RSU)	18,280
21	Emissions Fees	63,367
22	Energy Services	-
23	FIN 48 - Tax Component	48,523
24	FIN 48 - Interest Component	6,776
25	Franchise Taxes	208,235
26	General Liability Reserve	27,197
27	HT Joint Pole Revenue	185,020
28	Interest - CIS	(6,230)
29	Interest - Nondeductible (RAR)	(0)
30	Legal/Consulting Fees (PPA)	323,489
31	OPEB	(196,462)
32	OPEB - Reg Asset	(279,571)
33	OPEB Trackers	860,715
34	OPEB Executive Life	285,057
35	Pension (Qualified)	(0)
36	Pension Tracker (& Prepaid asset amort)	(3,953,763)
37	Pension Excess (Non-qualified)	17,310
38	Percentage Repair Allowance (D&T)	(321,195)
39	Prepaid Expenses	0
40	Project Costs - Geothermal RFP	(9,424)
41	PSC & PUC	442,523
42	PSC & PUC - §481(a) Adjustment	967,471
43	Rate Case Costs	(215,345)
44	Reg Liab - TRA Revenues	261,052
45	Repairs	(20,734,019)
46	RBA Revenues - §481(a) Adjustment	(1,289,618)
47	RBA Revenues	753,857
48	Rev Bond Differential	(32,723)
49	Rev Bond Redemption Prem/Amort	(162,364)
50	Software - CIS	(59,899)
51	Software - ERP	(163,827)
52	Software - IVR	(83,363)
53	Software - All Others	(120,389)
54	Solar Saver	121,973
55	State ITC	3,158,408

Hawaii Electric Light Company, Inc.  
Accumulated Deferred Income Taxes by Activity  
**FEDERAL**  
DR(CR)

		Federal
Description		12/31/18
56	SunPower for Schools	4,630
57	Vacation Accrual	(46,072)
58	Workers Compensation	92,498
FAS 109: Regulatory Assets/Liabilities		
59	Reg Asset - SFAS 109 Flow Through	(132,776)
60	Reg Asset - Plant Transition (AFUDC)	(306,366)
61	Reg Asset - CWIP Equity Transition	(20,455)
62	Reg Asset - CWIP Eqty Gr Up/(AFUDC Eqty Gr	(1,655,657)
63	Reg Asset - CWIP Equity Net/(AFUDC Eqty Inc	(2,588,598)
64	Fed ITC amort	(460,015)
65	Fed ITC - Reg Liability	500,854
66	Fed Energy Credit Amort	(513)
67	Fed Energy Credit - Reg Liability	17,137
68	Reg Asset - Deficit Def - Oth	-
69	Reg Liab - Excess Def - Oth	4,942
70	Reg Asset - RAR 88-89	-
71	Reg Asset - 2017 Excess Def - Oth	(2,830,959)
72	Reg Liability - 2017 Excess Def - Oth	1,950,624
73	TOTAL ACCOUNT 283.01 UTILITY	<u>3,758,841</u>
74	TOTAL FEDERAL ADIT BEFORE RATE BASE	<u>(47,600,786)</u>

**RATE BASE ADJUSTMENTS:**

75	TOTAL ACCOUNT 283.01	3,758,841
76	Bad Debts	110,077
77	Bonuses - Non-executives (fka Rewards)	39,099
78	Exec Comp - EICP, LTIP	86,490
79	Exec Comp - Deferred Comp (Rest Stock, RSU)	18,280
80	Energy Services	-
81	FIN48 Tax and Interest	55,299
82	Franchise Taxes	208,235
83	General/Legal Liability Reserve	27,197
84	Interest - CIS (Full Debt Portion)	(3,631)
85	Interest - Nondeductible (RAR)	(0)
86	OPEB - Exec Life	285,057
87	Pension (Supplemental - Non-qualified)	17,310
88	PSC & PUC	442,523
89	PSC & PUC - §481(a) Adjustment	967,471
90	Rate Case Costs	(215,345)
91	Reg Liab - TRA Revenues	261,052
92	RBA Revenues - §481(a) Adjustment	(1,289,618)
93	RBA Revenues	753,857
94	Software - ERP	(163,827)
95	Software - IVR	-
96	Solar Saver	121,973
97	Vacation Accrual	(46,072)
98	Workers Comp Reserve	92,498
99	Total Adjustments Account 283	<u>1,767,925</u>

100	TOTAL ACC 283.01 AFTER ADJUSTMENTS	1,990,916	<i>To Sch D4</i>
101	TOTAL ACC 282.01 - UTIL	(51,359,627)	
102	TOTAL FEDERAL ADIT AFTER RATE BASE	<u>(49,368,711)</u>	

Hawaii Electric Light Company, Inc.  
Accumulated Deferred Income Taxes by Activity

**STATE**

DR(CR)

	Description	State 12/31/18
	ACCOUNT 282.01:	
1	Accelerated Depreciation	(12,421,777)
2	Excess AccDep	1,050
3	Deficit AccDep	(10,253)
4	Reg Liability - 2017 Excess Def Acc Dep	3,369,871
5	Reg Asset - 2017 Excess Def Acc Dep	(199)
6	TOTAL ACCOUNT 282.01 UTILITY	(9,061,307)
	ACCOUNT 283.01:	
7	ACRS Retirements Gain/(Loss)	(1,434,144)
8	Bad Debts	33,546
9	Bonuses - Non-executives (fka Rewards)	11,916
10	Cap to Construction	(43,067)
11	Capital Loss Carryforwards	-
12	Capitalized Interest	505,975
13	Capitalized Interest §481(a) D&T Adj	(34,559)
14	CIAC	3,736,038
15	Cost of Removal	6,274,762
16	Customer Advances	494,761
17	CWIP Debt / (AFUDC Debt Incurred)	(470,011)
18	CWIP Debt Transition	4,557
19	Exec Comp - EICP, LTIP	26,359
20	Exec Comp - Deferred Comp (Rest Stock, RSU)	5,571
21	Emissions Fees	19,313
22	Energy Services	-
23	FIN 48 - Tax Component	77,194
24	FIN 48 - Interest Component	2,065
25	Franchise Taxes	63,461
26	General/Legal Liability	8,289
27	HT Joint Pole Revenue	56,387
28	Interest - CIS	(1,899)
29	Interest - Nondeductible (RAR)	0
30	Legal/Consulting Fees (PPA)	98,588
31	OPEB	(59,874)
32	OPEB - Reg Asset	(85,202)
33	OPEB Trackers	262,313
34	OPEB Executive Life	87,378
35	Pension (Qualified)	(0)
36	Pension Tracker (& Prepaid asset amort)	(1,204,957)
37	Pension Excess (Non-qualified)	4,667
38	Percentage Repair Allowance (D&T)	(150,821)
39	Prepaid Expenses	-
40	Project Costs - Geothermal RFP	(2,872)
41	PSC & PUC	134,864
42	PSC & PUC - §481(a) Adjustment	294,848
43	Rate Case Costs	(65,629)
44	Reg Liab - TRA Revenues	79,559
45	Repairs	(6,319,861)
44	RBA Revenues - §481(a) Adjustment	(393,027)
45	RBA Revenues	229,747
46	Rev Bond Differential	(9,972)
47	Rev Bond Redemption Prem/Amort	(49,481)
48	Software - CIS	(18,255)
49	Software - ERP	(49,928)
50	Software - IVR	(25,405)
51	Software - All Others	(57,468)
52	Solar Saver	37,173
53	State ITC	962,562

Hawaii Electric Light Company, Inc.  
Accumulated Deferred Income Taxes by Activity

**STATE**

DR(CR)

	Description	State 12/31/18	
54	SunPower for Schools	1,411	
55	Vacation Accrual	(14,042)	
56	Workers Compensation	28,189	
	FAS 109: Regulatory Assets/Liabilities		
57	Reg Asset - SFAS 109 Flow Through	(40,465)	
58	Reg Asset - Plant Transition (AFUDC)	(93,368)	
59	Reg Asset - CWIP Equity Transition	(6,234)	
60	Reg Asset - CWIP Eqty Gr Up/(AFUDC Eqty Gr	(505,033)	
61	Reg Asset - CWIP Equity Net/(AFUDC Eqty Inc)	(788,453)	
62	Fed ITC amort	(140,196)	
63	Fed ITC - Reg Liability	152,642	
64	Fed Energy Credit Amort	(156)	
65	Fed Energy Credit - Reg Liability	5,222	
66	Reg Asset - Deficit Def - Oth	-	
67	Reg Liab - Excess Def - Oth	1,506	
68	Reg Asset - RAR 88-89	-	
69	Reg Asset - 2017 Excess Def - Oth	(862,768)	
70	Reg Liability - 2017 Excess Def - Oth	594,473	
71	TOTAL ACCOUNT 283.01	<u>1,368,185</u>	
72	TOTAL STATE ADIT BEFORE RATE BASE ADJ	<u>(7,693,121)</u>	
	<b>RATE BASE ADJUSTMENTS:</b>		
73	TOTAL ACCOUNT 283.01	1,368,185	
74	Bad Debts	33,546	
75	Bonuses - Non-executives (fka Rewards)	11,916	
76	Exec Comp - EICP, LTIP	26,359	
77	Exec Comp - Deferred Comp (Rest Stock, RSU)	5,571	
78	Energy Services	-	
79	FIN48 Tax and Interest	79,259	
80	Franchise Taxes	63,461	
81	General/Legal Liability Reserve	8,289	
82	Interest - CIS (Full Debt Portion)	(1,107)	
83	Interest - Nondeductible (RAR)	0	
84	OPEB - Exec Life	87,378	
85	Pension (Supplemental - Non-qualified)	4,667	
86	PSC & PUC	134,864	
87	PSC & PUC - §481(a) Adjustment	294,848	
88	Rate Case Costs	(65,629)	
89	Reg Liab - TRA Revenues	79,559	
90	RBA Revenues - §481(a) Adjustment	(393,027)	
91	Rate Case Costs	229,747	
92	Software - ERP	(49,928)	
93	Software - IVR	-	
94	Solar Saver	37,173	
95	Vacation Accrual	(14,042)	
96	Workers Comp Reserve	28,189	
97	Total Adjustments Account 283	<u>601,092</u>	
98	TOTAL ACC 283.01 AFTER ADJUSTMENTS	767,093	<i>To Sch D4</i>
99	TOTAL ACC 282.01 - UTIL	(9,061,307)	
100	TOTAL STATE ADIT AFTER RATE BASE ADJ	<u>(8,294,214)</u>	

**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% Sch F		32.8947368%
State Effective Income Tax Rate	6.0150376% Sch F		6.0150376%
	<u>25.7518797%</u>		<u>38.9097744%</u>
	Sch D		

**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% Sch F		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.

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**TAX REPAIRS ADJUSTMENT**  
**2019**

				A	B	C = A x B	D = A - C
		<i>HELCO-WP-F1-002</i>	<i>NOTE 2</i>		<i>HELCO-WP-F1-001, pg. 2</i>		
	Life	5-Year Average	5-Year Avg Allocation	Allocated Plant Adds	Repairs Allocation	Repairs Deduction	Depreciable Basis
Information Systems/Data Handling	5	\$ 403,384					
Communication	20	3,067,706					
Office Furniture	7	425,457					
Distribution	20	37,037,582		37,037,582	17.36%	6,430,875	30,606,707
Land	-	145,015					
Other Production	15	730,490		730,490	27.29%	199,348	531,142
Steam & Hydraulic Production	20	774,683		774,683	50.24%	389,187	385,496
Structural	39	1,751,666					
Transmission	15	3,221,103		3,221,103	28.52%	918,580	2,302,524
Transmission	20	278,075		278,075	28.52%	79,300	198,775
Vehicles	-	2,234,470					
TOTAL		<u>\$ 50,069,630</u>	<u>0.00%</u>	<u>\$ 42,041,934</u>		<u>\$ 8,017,290</u>	<u>\$ 34,024,643</u>
						<i>to F1</i>	

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 HELCO-WP-F1-001, page 2.

NOTE 2> This allocation is no longer required because the 5 year average of additions is only baseline plant additions (excluding major additions). Previously we began with total plant additions, computed the allocation percentages, and then applied these percentages to the total RAM year baseline additions. By starting with the average baseline plant additions, the need for this allocation is eliminated.

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**REPAIRS DEDUCTION**  
**5-Year Average**  
**2014-2018**

		Distribution	Non Steam	Steam & Hydro	Transmission
Repairs %:	Total Book Basis Repairs				
1	2014	5,551,920	451,747	237,001	1,218,983
2	2015	5,831,339	1,056,949	826,065	2,126,712
3	2016	7,194,256	215,336	-	990,757
4	2017	9,353,084	220,881	761,548	2,135,817
5	2018	7,541,559	409,688	121,321	1,143,922
6	Total	\$ 35,472,158	\$ 2,354,601	\$ 1,945,935	\$ 7,616,191

	Total Book Additions					
7	2014	HELCO-WP-F1-002	35,487,268	2,841,126	685,561	7,086,972
8	2015	HELCO-WP-F1-002	30,082,060	2,253,685	1,689,649	4,336,494
9	2016	HELCO-WP-F1-002	41,652,441	1,126,439	33,463	4,379,968
10	2017	HELCO-WP-F1-002	39,884,477	893,038	1,016,434	5,127,282
11	2018	HELCO-WP-F1-002	57,189,886	1,513,894	448,310	5,776,319
12	Total		\$ 204,296,132	\$ 8,628,182	\$ 3,873,417	\$ 26,707,035

<b>AVERAGE % (Line 6 / Line 12)</b>	<b>17.36%</b>	<b>27.29%</b>	<b>50.24%</b>	<b>28.52%</b>
	to HELCO-WP-F1-001,	to HELCO-WP-F1-001,	to HELCO-WP-F1-001,	to HELCO-WP-F1-001,
	pg. 1	pg. 1	pg. 1	pg. 1

NOTE 1> Price Waterhouse Coopers assisted HELCO in its analysis of identifying deductible repairs for tax accounting purposes. The repairs percentage for each functional group represents the five year weighted average of repairs costs included in book additions.

NOTE 2> 2018 amounts are estimates. A complete analysis identifying deductible repairs for for 2018 has not yet been completed.



HAWAII ELECTRIC LIGHT COMPANY, INC.  
2014-2018 PLANT ADDITIONS  
5-YEAR AVERAGE

LIFE	2014	2015	2016	2017	2018	Less: Major Projects	Total	5-Year Average
Info Systems/Data Handling	5	599,976	288,951	30,904	491,969	605,120	2,016,919	403,384
Communication	20	949,629	4,580,511	2,484,612	3,481,459	3,842,317	15,338,528	3,067,706
Office Furniture	7	35,123	305,681	1,224,720	530,304	31,455	2,127,283	425,457
Distribution	20	35,487,268	30,082,060	41,652,441	39,884,477	57,189,886	185,187,912	37,037,582
Land	-	6,476	2,100	232,084	487,946	(3,532)	725,074	145,015
Other Production	15	2,841,126	2,253,685	1,126,439	893,038	1,513,894	3,652,450	730,490
Steam & Hydraulic Productio	20	685,561	1,689,649	33,463	1,016,434	448,310	3,873,417	774,683
Structural	39	1,920,479	4,627,515	412,950	1,004,508	792,876	8,758,328	1,751,666
Transmission	15	7,086,972	2,993,419	4,342,052	5,117,898	5,776,319	16,105,516	3,221,103
Transmission	20		1,343,075	37,916	9,384	-	1,390,375	278,075
Vehicles	-	2,003,232	3,497,083	1,097,722	2,291,048	2,283,263	11,172,349	2,234,470
TOTAL		51,615,842	51,663,728	52,675,304	55,208,465	72,479,908	250,348,150	50,069,630
		D2	D2	D2	D2	D2	D2	D2

F1, WP-F1-001



Hawaiian Electric Light Company, Inc.  
Proration Adjustment for Normalization Compliance  
FEDERAL ADIT DR/(CR)

ADIT account 282 – Federal accelerated depreciation	January	February	March	April	May	June	July	August	September	October	November	December
Beginning balance												
Effective date of rates–6/1/19												
Federal Tax Depreciation												
Effective Federal Tax Rate												
Federal ADIT accrues												
Monthly Accrued evenly over 12 month												

WP-D4-001a

Sch F

HELCO-WP-F-001

**WITHOUT PRORATION**

Federal 282 ADIT Balance	January	February	March	April	May	June	July	August	September	October	November	December	End of Yr.
Monthly Additions	(51,359,627)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(315,467)
Cumulative Balance	(51,359,627)	(51,385,916)	(51,412,205)	(51,438,494)	(51,464,783)	(51,491,072)	(51,517,360)	(51,543,649)	(51,569,938)	(51,596,227)	(51,622,516)	(51,648,805)	(51,675,094)

Simple Year Average - Without Proration (51,517,460)

**WITH PRORATION**

Days new rates in effect	January	February	March	April	May	June	July	August	September	October	November	December	End of Yr.
Prorated additions	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(26,289)	(211,294)
Cumulative ADIT balance with proration	(51,385,916)	(51,412,205)	(51,438,494)	(51,464,783)	(51,491,072)	(51,517,360)	(51,543,649)	(51,569,938)	(51,596,227)	(51,622,516)	(51,648,805)	(51,675,094)	(51,675,094)

Simple Year Average - With Proration (51,465,274)

Adjustment to rate base ADIT 52,086  
To Schedule F

Days new rate in effect

Days in the month:	31	28	31	30	31	30	31	31	30	31	30	31	365
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Note: Methodology based on IRS Private Letter Ruling 9313008

Note 1 Per letter to the Public Utilities Commission dated January 31, 2018 for Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case - Hawaiian Electric Estimated Tax Impacts Arising from the Tax Reform Act, the tax effects of the Act are incorporated in the RAM Revenue Adjustment for the 2019 RAM Period effective June 1, 2019. The "With Proration" calculation is based on the number of days the rates will be effective from June 1, 2019 through December 31, 2019.

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

RATE BASE	MONTH-END		REFERENCE
	DEC 2017	DEC 2018	
INVESTMENTS IN ASSETS			
NET COST OF PLANT IN SERVICE			
Total Utility Plant	789,731	821,998	RONE28/29, Note 1
Adjustments:			
Construction Work in Progress	(11,922)	(104,696)	RONE28/29, Note 1
Regulatory Asset - ARO	236	455	GL# 18670151
Asset Retirement Obligation	(1,916)	(2,006)	GL# 25301000
Regulatory Liability for Cost of Removal	(96,967)	(104,082)	GL# 25400001
Unbilled Pole Credits	-	(937)	within GL#25300000
	679,162	610,732	
PROPERTY HELD FOR FUTURE USE	276	9	RONE19, Note 1
FUEL INVENTORY	8,698	11,027	RONE11, Note 1
MATERIALS & SUPPLIES INVENTORIES (excl Stores Expense)	8,127	7,649	GL# 90154000, Note 2
UNAMORT NET ASC 740 REG ASSET	22,733	20,537	Note 1
PENSION TRACKING REG ASSET	25,111	21,080	GL# 18676040
PENSION NON-SERVICE COST REG ASSET	-	273	GL# 18676045
CONTRIBUTION IN EXCESS OF NPPC	3,047	-	GL# 18676030
DEFERRED SYSTEM DEVELOPMENT COSTS			
HR Suites-Phase 1	776	675	GL# 18606004
HR Suites-Phase 2	(270)	(304)	GL# 18606104
Budget System Replacement Project	188	157	GL# 18607704
IVR	477	422	GL# 18670400
CIS	1,583	1,370	Acctg Dept Amort Sch
Geothermal RFP	1,144	899	GL# 18670500
TOTAL INVESTMENTS IN ASSETS	751,052	674,526	
FUNDS FROM NON-INVESTORS			
UNAMORTIZED CIAC	96,884	3,160	Note 2
CUSTOMER ADVANCES			
Customer Advances	12,738	12,978	RONE56 less 25203000
Developer Advances	3,122	3,308	Note 3
CUSTOMER DEPOSITS	2,670	2,518	GL# 23501000
ACCUMULATED DEF INCOME TAXES	58,174	57,663	Schedule D4
EXCESS ACCUMULATED DEF INCOME TAXES	66,373	65,907	GL#25400023/24, Note 4
UNAMORTIZED STATE ITC (GROSS)	15,924	16,000	GL# 25520000
UNAMORTIZED FEDERAL EV CREDIT	67	63	GL# 25503000
OPEB TRACKING REG LIAB	1,974	1,552	GL# 25400002
UNBILLED POLE CREDITS	-		within GL# 25300000
TOTAL DEDUCTIONS	257,926	163,149	
WORKING CASH	1,969	3,425	HELCO-WP-H-008
RATE BASE	495,095	514,802	
SIMPLE AVERAGE RATE BASE		504,949	To Sch H, Line 1

\* Amounts may not add up due to rounding.

Note 1: See Hawaii Electric Light Company Inc. PUC Monthly Financial Report - December 2018, filed February 28, 2019.

Note 2: For 2018, CIAC is netted with Plant In Service & CWIP, resulting from the Company's transition to FERC treatment in October 2018. See further discussion of the Company's treatment of CIAC at HELCO-WP-D1-001. Materials & Supplies inventory includes an adjustment of \$(438) and \$(272) representing payment lag in 2017 and 2018, respectively.

Note 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 HELCO-WP-D1-001.

Note 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.

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**RATEMAKING ADJUSTMENTS FOR INCENTIVE COMPENSATION AND OTHER NON-RECOVERABLE EXPENSES**

Line No.	Account No.	Description	2018	Tax @ 25.75%	Net of Tax	Rounded 000s
1	<b><u>Executive Compensation and Incentive Compensation</u></b>					
2	60003110	LTIP and EICP expense	\$ 352,263			
3	60003110/60004000	Other incentive awards	255,355			
4	Provided by HEI	HEI charges for incentive compensation	51,579			
5			659,196	169,755	489,441	\$ 489 <i>To Sch H, Line 2a</i>
6	<b><u>Discretionary and Other Expenses Not Recoverable</u></b>					
7	18605000	Executive life insurance (COLI) expense (credit) <i>not tax deduct</i>	(28,954)			
8	Provided by HEI	EEI Dues (allowed portion) <i>not tax deduct</i>	10,227			
9	60004038	OPEB (Executive life portion only)	53,162			
10	AD001026/27	HEIRS	13,378			
11	Provided by HEI	HEI charges for non-incentive compensation and outside services (plan admin, legal fees, audit fees) - Executives	14,545			
12	60004035	Non-qualified pension expense	11,710			
13	60018015	Payroll taxes related to incentive compensation	14,482			
14		Service awards program	-			
15			88,550	27,626	60,924	\$ 61 <i>To Sch H, Line 2b</i>
16	<b>Total Adjustments to Operating Income</b>		747,746	197,381	550,365	
			<i>To HELCO- WP-H-008</i>			

HAWAII ELECTRIC LIGHT COMPANY, INC.  
INCOME TAX ON ITEMS TO BE REPLACED BY SYNCHRONIZED INTEREST  
2018

Description	Source	YTD	Rounded 000s
Total Interest Charges	GL# RONE70	\$ 11,836,335	
Remove: RBA Interest Income	GL# 41900002	86,761	
Less: Int on Customer Deposits	GL# 60016050	(153,901)	
AFUDC-Debt	GL# RONE69	(275,658)	
Amort of Inv Inc Differential	within GL# 60001010	<u>23,536</u>	\$ 24 To Sch H, Line 2c
Total		\$ 11,517,073	
	Tax rate	<u>25.75%</u>	
		<u>\$ 2,965,863</u>	\$ (2,966) To Sch H, Line 2d

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**RATEMAKING CAPITALIZATION**  
**2018**  
(\$ in Thousands)

	Simple Average <u>Balance*</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost of Debt</u>
Short-Term Debt	808	0.16%	4.19%	0.01%
Long-Term Debt	204,748	39.90%	5.38%	2.15%
Hybrid Securities	9,588	1.87%	7.16%	0.13%
Preferred Stock	6,743	1.31%	8.14%	0.11%
Common Equity	291,321	56.76%	9.50%	5.39%
	<b>513,208</b>	<b>100.00%</b>		<b>7.79%</b>
<i>To Sch H, Line 10</i>				

	<u>GL Code</u>	<u>Dec 2018</u>	<u>Rounded (\$000s)</u>	<u>Cost Rate</u>
Short-Term Debt:				
Interest on Debt Assoc Co	60016060/61	709,517		
Less: Interest on QUIDS	QUIDS (see below)	(650,000)		
Int Exp-Commercial Paper	within 60016100	-		
Int Exp-SCF Loans		-		
Int Inc-Assoc Cos.	41908000	(25,666)		
		<u>33,851</u>	34	4.19%
Long-Term Debt:				
Amort of Debt Disc & Exp	60002100	393,635		
Less: Hybrid Sec Amort of Iss Exp	See (a) below	(36,334)		
Interest on Long-Term Debt	60016000	10,628,716		
Amort Inv Inc Differential	within 60001010	23,536		
		<u>11,009,553</u>	11,010	5.38%
Hybrid Securities:				
Interest on QUIDS	60016060	650,000		
Amort Exp-QUID1 Iss Exp	within 60002100	13,395		
Amort Exp-QUID2 Iss Exp	within 60002100	12,573		
Amort Exp-QUID3 Iss Exp	within 60002100	10,366		
Equity in Net Inc of Trust	42107000	-		
		<u>686,334</u>	686	7.16%
Preferred Stock:				
Amort of Pfd Stk Iss Exp	60002000	14,974		
Preferred Stock dividends	60016501	533,750		
		<u>548,724</u>	549	8.14%

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

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**SPECIAL MEDICAL NEEDS PROGRAM DISCOUNT (NET OF TAX)**

**2018**

Amounts in (\$000s)

Special Medical Needs Program Discount	48	
Revenue Taxes @ 8.885%	(4)	
	<hr/>	
	44	
Income Taxes @ 25.75%	(11)	
	<hr/>	
Reduction to operating income	<b>33</b>	<i>To Sch H, Line 2e</i>
	<hr/> <hr/>	

Source: CIS Special Medical Needs (SMN) report

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**PERFORMANCE INCENTIVE MECHANISM**  
**2018**

Amounts in (\$000s)

Gross (Reward) / Penalty Amount	Schedule M	546	
Revenue Taxes @ 8.885%		(49)	
		<hr/>	
		497	
Income Taxes @ 25.75%		(128)	
		<hr/>	
Reduction to operating income		<b>369</b>	<i>To Sch H, Line 2f</i>
		<hr/> <hr/>	



**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**FINAL TEST YEAR REFUND**

**2018**

Amounts in (\$000s)

2016 Test Year Rate Case Final D&O Refund	Note 1	74	
Revenue Taxes @ 8.885%		(7)	
		<hr/>	
		67	
Income Taxes @ 25.75%		(17)	
		<hr/>	
Reduction to operating income		<b>50</b>	<i>To Sch H, Line 2g</i>
		<hr/> <hr/>	

Note 1:

Docket No. 2015-0170, Hawaii Electric Light 2016 Test Year Rate Case, Hawaii Electric Light Company's Reply Statement of Position on Refund, Exhibit 1, revised and filed July 25, 2018, and approved by the Commission in Order No. 35709, filed September 21, 2018.

HAWAII ELECTRIC LIGHT COMPANY, INC.  
WORKING CASH  
2018

Line No.	Working Cash Items	2018	Note 1 Net Collection Lag (Days)	Amount
	(a)	(b)	(c)	(d) = (b)/365*(c)
1	Fuel	90,773	B1 22.2	5,521
2	Purchased Power	95,838	B2 -0.4	(105)
3	O&M Labor	22,441	B3 27.1	1,666
4	O&M Non-Labor	45,667	B4 6.3	788
5	Revenue Taxes	33,312	B5 -48.4	(4,417)
6	Income Taxes	8,651	B6 -1.2	(28)
7	Working Cash			<u>3,425</u>
				<u>To HELCO-WP-H-001</u>
8	<b>Fuel Oil</b>	<u>B1 90,773</u>	RONE73	
9	<b>Purchased Power</b>	<u>B2 95,838</u>	RONE74	
10	<b>O&amp;M Labor</b>	<u>B3 22,441</u>	Acct. Dept. O&M report	
11	<b>O&amp;M Non-Labor</b>			
12	O&M Expense	70,745	PUC Monthly Report	
13	O&M Labor Excl Fuel Labor	(22,441)	(see O&M Labor above)	
14	Bad Debt Expense	(600)	GL #60010000	
15	Pension Reg Asset/Liab Amort	(2,701)	HELCO-WP-H-008, page 2	
16	OPEB Reg Asset/Liab Amort	222	HELCO-WP-H-008, page 2	
17	System Develop Amort	(1,188)	HELCO-WP-H-008, page 2	
18	Payroll Tax	1,476	GL #60018000/001/015, 60019100, 60050001/238/242/245/251, 70000010/20/30	
19	Interest on Customer Deposits	154	GL #60016050	
20	Total	<u>B4 45,667</u>		
21	<b>Revenue Taxes</b>			
22	Franchise	9,279	GL #60017000	
23	PSC	22,150	GL #60017002	
24	PUC Fee	1,883	GL #60017001	
25	Total	<u>B5 33,312</u>		
26	<b>Current Income Taxes</b>			
27	Income Tax	7,262	Dec. 2018 PUC Monthly Report	
28	Income Tax on Disallowed Items	197	HELCO-WP-H-002	
29	Reversal of Tax Related to Int Synch Replacement	2,966	Sch H, Line 2d	
30	Income Tax Adjustments	1,203	HEI worksheet	
31	Tax Related to Int Synch	(2,977)	Sch H, Line 13 - 13a	
32	Total	<u>B6 8,651</u>		

Note 1: See Docket No. 2015-0170, Order No. 34766, Exhibit B, page 2, filed August 21, 2017.

**HAWAII ELECTRIC LIGHT COMPANY, INC.  
O&M NON-LABOR AMORTIZATION  
2018**

**Pension Regulatory Asset Amortization**

		<i>Note 1</i> O&M % Portion		Annual 2018	<b>Rounded 000s</b>
		Total	52.60%		
Pension Asset Amort	GL# 60002200	(229,492)			
Pension Reg Asset Amort	GL# 60002200	5,366,036			
		5,136,544	2,701,822	2,701,822	<b>2,701</b>
					<i>To page 1</i>

**OPEB Regulatory Asset Amortization**

		<i>Note 1</i> O&M % Portion		Annual 2018	<b>Rounded 000s</b>
		Total	52.60%		
OPEB Reg Asset/Liab Amort	GL# 60002200	(421,344)	(221,627)	(221,627)	<b>(222)</b>
					<i>To page 1</i>

**System Development Amortization**

		<i>Note 2</i>			<i>Note 3</i>		Annual 2018	<b>Rounded 000s</b>
HRS Amort	HRS Amort	Bud Sys Amort	CIS Amort	IVR Amort	Geothermal Amort	RC Costs Amort	Total	
186060	186061	186077	18605005/	18670400	18670500	18672500		
101,313	33,733	30,861	213,463	54,500	245,124	509,401	1,188,395	<b>1,188</b>
								<i>To page 1</i>

Note 1: See Docket No. 2015-0170, Rebuttal Testimonies, Exhibits, and Workpapers Book 2, HELCO-RWP-1910, page 1 of 2, filed June 23, 2017.

Note 2: See Docket No. 2015-0170, Hawaii Electric Light 2016 Test Year Rate Case Parties' Stipulated Settlement Letter, HELCO T-11, Attachment 2, Final Settlement.

Note 3: See Docket No. 2015-0170, Hawaii Electric Light 2016 Test Year Rate Case Parties' Stipulated Settlement Letter, Exhibit 1, page 58 - 59. In the interest of simplifying the issues and expediting the regulatory process, the company excluded amortization of rate case costs from the working cash calculation.

HAWAII ELECTRIC LIGHT CO., 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)

Operating income per Monthly Financial Report, page 2	35,663	* <sup>2</sup>
Less: Interest on Customer Deposits	(154)	
Operating income before ratemaking adjustments & synchronized interest - earnings sharing calculation	<u>35,509</u>	* <sup>1</sup>
Income Tax Adjustments	(1,203)	
Adjusted Operating income before ratemaking adjustments & synchronized interest - earnings sharing calculation	<u><u>34,306</u></u>	To Sch H

\*<sup>1</sup> Amounts may not add up due to rounding.

\*<sup>2</sup> Starting October 2018, Operating Income per the Monthly Financial Report includes income tax on AFUDC Equity.

**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.

**HAWAII ELECTRIC LIGHT 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) (j)
						Lower (f)	Upper (g)			
SAIFI	1/1/18-4/30/18	120	546,647	1.403	0.245	1.158	1.648	<i>HELCO-WP-M-002</i> 1.615	0.212	
	5/1/18-9/30/18	153	545,708	1.403	0.245	1.158	1.648	1.615	0.212	
	10/1/18-12/31/18	92	545,708	1.374	0.251	1.123	1.625	1.615	0.241	
	Annual Totals	365	546,017	<u>1.396</u>	0.247	1.149	1.642	<u>1.615</u>	0.219	<div>-</div> <i>To Sch M</i>
SAIDI	1/1/18-4/30/18	120	546,647	138.960	25.890	113.070	164.850	<i>HELCO-WP-M-002</i> 209.14	70.179	
	5/1/18-9/30/18	153	545,708	138.960	25.890	113.070	164.850	209.14	70.179	
	10/1/18-12/31/18	92	545,708	134.130	21.320	112.810	155.450	209.14	75.009	
	Annual Totals	365	546,017	<u>137.743</u>	24.738	113.004	162.481	<u>209.14</u>	71.396	<div>(546,017)</div> <i>To Sch M</i>
Call Center	1/1/18-4/30/18	120	218,659	88.51%	3.00%	85.51%	91.51%	<i>HELCO-WP-M-003</i> 83.60%		
	5/1/18-9/30/18	153	218,283	84.70%	3.00%	81.70%	87.70%	83.60%		
	10/1/18-12/31/18	92	218,283	84.22%	3.00%	81.22%	87.22%	83.60%		
	Annual Totals	365	218,407	<u>85.83%</u>	3.00%	82.83%	88.83%	<u>83.60%</u>	-2.23%	<div>-</div> <i>To Sch M</i>

Reference: See Hawaii Electric Light Proposed PIM Tariff Revisions, filed on July 30, 2018 in Docket No. 2015-0170. The PIM Tariff Revisions were approved by the Commission in Order No. 35709, filed on September 21, 2018.

HAWAII ELECTRIC LIGHT COMPANY, INC.  
2018 SAIDI and SAIFI CALCULATIONS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Hours Interrupted	18,467.42	13,807.12	30,016.61	28,768.77	42,805.45	15,440.39	10,100.96	49,759.53	10,180.72	10,886.33	45,887.51	21,581.30	297,702.10
Customer Interruptions	8,557	7,235	9,178	6,194	28,782	14,658	7,040	23,252	2,725	2,993	21,755	5,528	137,897
SAIDI (Minutes)	12.97	9.70	21.09	20.21	30.07	10.85	7.10	34.96	7.15	7.65	32.24	15.16	209.14
SAIFI (Occurrences)	0.100	0.085	0.107	0.073	0.337	0.172	0.082	0.272	0.032	0.035	0.255	0.065	1.615

HELCO-WP-M-001  
HELCO-WP-M-001

Note:

Total Customer Minutes Interrupted	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
	1,108,045	828,427	1,800,997	1,726,126	2,568,327	926,424	606,058	2,985,572	610,843	653,180	2,753,251	1,294,878	17,862,126

**HAWAII ELECTRIC LIGHT 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	9,411	8,348	88.70%	9.11%	8.08%
Feb-18	7,994	6,919	86.55%	7.74%	6.70%
Mar-18	8,342	6,878	82.45%	8.07%	6.66%
Apr-18	8,874	6,867	77.38%	8.59%	6.65%
May-18	8,855	7,220	81.53%	8.57%	6.99%
Jun-18	8,940	7,199	80.53%	8.65%	6.97%
Jul-18	8,741	7,271	83.18%	8.46%	7.04%
Aug-18	8,668	7,153	82.52%	8.39%	6.92%
Sep-18	7,844	6,658	84.88%	7.59%	6.44%
Oct-18	9,486	8,024	84.59%	9.18%	7.77%
Nov-18	8,302	7,082	85.30%	8.04%	6.85%
Dec-18	7,863	6,758	85.95%	7.61%	6.54%

**Total      83.60%**

*To HELCO-WP-M-001*

\* All customer calls handled by a Customer Service Representative (including abandoned calls)

Source: Generated from Genesys Interactive Insights system.

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**Phase 1 Renewable Energy RFP PIM**  
**2018**

	Awarded projects	Reference	BAFO Levelized Price (\$/MWh)	Net Energy Potential (MWh)	PIM Calculation (Total) $c = (x \text{ or } y - a) * b$	(Note 1) PIM Calculation (20% utility share) Filed in 12/2018 $d = c * 20\%$
1	AES Waikoloa Solar (H-4) (paired with storage)	Docket No. 2018-0430 D&O No. 36233	$a$ 79.46	$b$ 81,406	\$ 2,893,169	\$578,634
2	Hale Kuawehi Solar (H-15) (paired with storage)	Docket No. 2018-0432 D&O No. 36234	87.40	87,415	\$ 2,412,654	\$482,531
3	Total Procurement RFP Calculation					\$1,061,165
4	First Allocation - 50% Year 1 (Note 2)					\$530,582
						To Sch M

(Note 1)		
PIM benchmark	cents/kWh	\$/MWh
Energy only	9.5	95.00 $x$
Paired with storage	11.5	115.00 $y$

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.



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, Hawaii Electric Light 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, the Company will implement this change in the annual decoupling filing in the year following the Commission’s approval.

MAUI ELECTRIC  
ATTACHMENT 1

MAUI DIVISION  
RATE SCHEDULES (Continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
94-94E	"FIT"	December 30, 2011	Schedule FIT Tier 3
94.1-	"FIT"	December 30, 2011	Schedule FIT Tier 3
94.1DX			Agreement
94.2-	"FIT"	December 30, 2011	Schedule FIT Tier 3 Queuing
94.2E			and Interconnection Proc.
95	"PPAC"	March 1, 2019	Purchase Power Adjustment Clause
95A	"PPAC"	March 1, 2019	Purchase Power Adjustment Clause
95B	"PPAC"	May 4, 2012	Purchase Power Adjustment Clause
96	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
96A	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
96B	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
96C	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
96D	"RAM"	June 1, 2017	Rate Adjustment Mechanism Provision
96E	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
96F	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
96G	"RAM"	June 1, 2019	Rate Adjustment Mechanism Provision
96H	"RAM"	June 1, 2019	Rate Adjustment Mechanism Provision
96I	"RAM"	June 1, 2019	Rate Adjustment Mechanism Provision
97	"RBA"	January 1, 2018	Revenue Balancing Account Provision
97A	"RBA"	January 1, 2018	Revenue Balancing Account Provision
97B	"RBA"	August 23, 2018	Revenue Balancing Account Provision
97C	"RBA"	January 1, 2018	Revenue Balancing Account Provision
97D	"RBA"	June 1, 2018	Revenue Balancing Account Provision
97E	"RBA"	June 1, 2019	Revenue Balancing Account Provision
97F	"RBA"	June 1, 2019	Revenue Balancing Account Provision
97G	"RBA"	June 1, 2019	Revenue Balancing Account Provision

MAUI ELECTRIC COMPANY, LIMITED

REVENUE BALANCING ACCOUNT ("RBA") PROVISION  
Maui, Lanai, and Molokai Divisions

Supplement To:

Schedule R	- Residential Service
Schedule G	- General Service - Non-Demand
Schedule J	- General Service - Demand
Schedule P	- Large Power Service
Schedule F	- Public Street Lighting
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 Power 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 are 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 Maui 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 Maui Electric Company's 2010 test year rate case, Docket No. 2009-0163, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

MAUI ELECTRIC COMPANY, LTD.

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)  
Maui, Lanai, and Molokai Divisions

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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.38%
February	7.50%
March	8.06%
April	7.85%
May	8.18%
June	8.19%
July	8.77%
August	9.00%
September	8.50%
October	8.73%
November	8.30%
December	<u>8.54%</u>
Total	100.00%

These factors are based on the MWH sales forecast that is approved by the Commission in Maui Electric Company's 2018 test year rate case and shall be updated in any subsequent test year rate case.

MAUI ELECTRIC COMPANY, LTD.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

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.

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.

MAUI ELECTRIC COMPANY, LTD.

Superseding Sheet No. 97D  
Effective June 1, 2017

REVISED SHEET NO. 97D  
Effective January 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

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.

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.

MAUI ELECTRIC COMPANY, LTD.

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)  
Maui, Lanai, and Molokai Divisions

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

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

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

RBA Rate Adjustment

All Rate Schedules ..... 0.8716 ¢/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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

H: TARGET REVENUE CURRENTLY IN EFFECT

Maui Electric Company, Limited  
Annual Target Revenue (\$000s)

	<u>Description</u>	<u>Amount</u>
1	Electric Sales Revenue	\$335,763
	Less:	
2	Fuel Expense	(\$103,385)
3	Purchase Power Expense	(\$54,970)
4	Revenue Tax on Electric Sales Revenue	<u>(\$29,833)</u>
5	Last Rate Order Target Revenues	\$147,575
6	Authorized RAM Revenues	\$2,694
7	Revenue Tax	<u>(\$239)</u>
8	Net RAM Adjustment	\$2,455
9	Authorized MPIR Revenues	\$0
10	Revenue Tax	<u>\$0</u>
11	Net MPIR Adjustment	\$0
12	Earnings Sharing Revenue Credits	\$0
13	Revenue Tax	<u>\$0</u>
14	Net Earnings Sharing Revenue Credits	\$0
15	Performance Incentive Mechanism (PIM)	(\$395)
16	Revenue Tax	<u>\$35</u>
17	Net PIM Reward (Penalty)	(\$360)
18	On-Bill Financing Pgm Implementation Costs	\$198
19	Revenue Tax	<u>(\$18)</u>
20	Net On-Bill Financing Adjustment	\$181
21	PUC-Ordered Major or Baseline Capital Credits	(\$10)
22	Revenue Tax	<u>\$1</u>
23	Net PUC-Ordered Major or Baseline Capital Credits	(\$9)
24	Effective Target Revenue	\$149,842

Notes:

Totals may not add, due to rounding.

Lines 1,2,3: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)  
Schedule B1, filed May 21, 2019.

Lines 4,7,10,13,16,19,22: Revenue Tax based on 8.885% statutory rates.

Lines 6,9,12,15,18,21,24: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)  
Schedule B1, filed May 28, 2019.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

I: HISTORICAL REFERENCE

Category	Effective Period	Effective Target Revenue (\$000)	Change in Target Revenue (\$000)	Source
Annual Decoupling Filing	6/1/2017 thru 5/31/2018	\$135,177	N/A (1/1/2018 Baseline)	Schedule B1 filed in Transmittal No. 17-04 on 5/22/2017.
Annual Decoupling Filing	6/1/2018 thru 8/22/2018	\$129,404	(\$5,773)	Schedule B1 filed in Transmittal No. 18-03 on 5/21/2018.
2018 Test Year Rate Case (Interim)	8/23/2018 thru 5/31/2019	\$145,310	\$15,906	Schedule B1 filed in Docket No. 2017-0150 on 7/6/2018.
Annual Decoupling Filing	6/1/2019 (current)	\$149,842	\$4,532	Schedule B1 filed in Transmittal No. 19-03 on 5/28/2019.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

Rate Adjustment Mechanism ("RAM") Provision

Purpose

This mechanism is subject to review and continuation, termination or modification in the utility's next base rate case proceeding, upon a showing by the utility and finding by the Commission that continuation or modification is appropriate. As part of its submitted testimony in the base rate case, the Company will include a summary report on the status of certain HCEI initiatives. The RAM mechanism is designed to determine the change in annual utility base revenue levels, recognizing certain estimated changes in the utility's cost to provide service. If, through the application of this mechanism, it is determined that annual utility base revenues should be decreased or increased, then the RAM Revenue Adjustment will be applied within the Revenue Balancing Account Provision. The RAM Revenue Adjustment established for a RAM Period calendar year that is also a rate case test year shall terminate on the effective date of tariff rates that are implemented pursuant to a Commission Decision & Order for that test year.

Definitions

- a) The Annual Evaluation Date shall be the Date the Company will make its annual filing under this mechanism. The Annual Evaluation Date shall be no later than March 31st of each year, commencing March 31, 2012.
- b) The Evaluation Period is defined as the historical twelve month period ending December 31, of each calendar year preceding the Annual Evaluation Date. The Evaluation Period is used solely to determine achieved earnings and any sharing of such earnings above the Authorized Return on Equity.
- c) The RAM Period is defined as the calendar year containing the Annual Evaluation Date.
- d) The Labor Cost Escalation Rate shall be the applicable annual percentage general wage rate increase provided for in currently effective union labor agreements for use in escalating wage and salary Base Expenses for union employees to determine the RAM Revenue Adjustment for each RAM Period. In the event no union labor agreement exists for a RAM Period, the most recently effective annual general percentage increase rate shall apply.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 1, 2013.



RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

e) The Non-labor Cost Escalation Rate shall be the consensus estimated annual change in the Gross Domestic Product Price Indicator ("GDPPI") to escalate non-labor Base Expenses to determine the RAM Revenue Adjustment for each RAM Period. The GDPPI escalation rate shall be the consensus projection published by the Blue Chip Economic Indicators (Aspen Publishing) each February for the current RAM Period. In the event that the Blue Chip Economic Indicators forecast of the GDPPI is not available, the Consumer Advocate, Company, and other parties to the most recent rate case, with approval of the Commission, shall jointly select an alternative data source, or national economic index similar to GDPPI, as appropriate.

f) The annual Labor Productivity Offset shall be fixed at 0.76 percent (76/100 of one percent) and will be subtracted from the Labor Cost Escalation Rates applicable to Base Expenses to determine the authorized RAM Revenue Adjustment for each RAM Period.

g) The Base Expenses shall be the labor and non-labor operations and maintenance expense amounts approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. Base Expenses shall not include any fuel, purchased power, IRP/DSM, pension, Other Post-Employment Benefits ("OPEB"), or Clean Energy/Renewable Energy Infrastructure or any costs that are subject to recovery through separate rate tracking mechanisms.

h) The Major Capital Projects shall be those capital investment projects that require an application before and approval by the Commission under the Commission's General Order No. 7, but excluding those projects included in the Clean Energy Infrastructure Surcharge.

i) The Baseline Capital Projects shall be the total amounts of capital investment completed and closed to Plant in Service, excluding amounts related to Major Capital Projects.

j) The Return on Investment shall be the overall weighted percentage rate of return on debt and equity capital approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case.

k) The Authorized Return on Equity shall be the percentage rate of return on equity capital approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case.

l) The Exogenous Tax Changes shall be the changes in tax laws or regulations that are estimated to impact RBA Target Revenues by five hundred thousand dollars (\$500,000) or more.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 1, 2013.

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

m) The Rate Base shall be the average net investment estimated for the RAM Period, including each of the elements of rate base reflected within the most recent rate case Decision & Order issued by the Commission, quantified in the manner prescribed in part (f) of Section 2 of the Rate Adjustment Mechanism.

n) The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the lesser of a) the RAM Revenue Adjustment Calculation or b) the RAM Revenue Adjustment Cap.

o) The RAM Revenue Adjustment Calculation shall be the change in the annual amount of revenue required for the utility to recover the sum of the O&M RAM Adjustment, Depreciation & Amortization RAM Adjustment, and Rate Base RAM - Return on Investment Adjustment, using the ratemaking conventions and calculations reflected within the most recent rate case Decision & Order issued by the Commission, quantified in the manner prescribed herein.

p) The RAM Revenue Adjustment Cap shall be based on the Target Revenues determined in accordance with the RBA and RAM tariffs as provided below.

q) The RAM Revenue Adjustment determined by this RAM Provision is to be recovered through the RBA Provision commencing on June 1 and over the subsequent 12 months after June 1.

r) Earnings Sharing Revenue Credits shall be the amounts to be returned to customers as credits through the Revenue Balancing Account ("RBA") Provision, so as to implement the earnings sharing percentages and procedures described herein, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

s) Major Capital Projects Credits shall be the amounts to be returned to customers through the Revenue Balancing Account Provision, to reduce a preceding year's RAM Revenue Adjustment (including interest at the rate described in the RBA Provision) for specific major capital projects that were not placed into service within the first nine months of the preceding RAM Period as expected. Because the Commission's review of the Major Capital Projects' actual costs incurred may not occur until the rate case after the RAM Revenue Adjustment for these Major Capital Projects is collected, Major Capital Projects Credits (including interest) will be returned to customers for the amount of Major Capital Projects costs that the Commission disallows for cost recovery. The Major Capital Projects Credits are to be refunded through the

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

RBA Provision, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

t) Baseline Capital Projects Credits shall be the amounts to be returned to customers through the RBA Provision, to reduce a preceding year's RAM Revenue Adjustment (including interest at the rate described in the RBA Provision) for specific baseline capital projects that are disallowed by the Commission in a subsequent rate case if the disallowance reduces actual Baseline Capital Projects costs below the Baseline Capital Projects cost estimate derived using the method identified in part (f)ii. of Section 2 of the Rate Adjustment Mechanism below. Because the Commission's review of baseline capital projects may not occur until the rate case after such baseline capital projects are included in one or more RAM Revenue Adjustment filings, Baseline Capital Projects Credits shall be used to refund to customers any prior collections (i.e., Return on Investment on Rate Base and Depreciation, plus interest) relating to the amount of Baseline Capital Projects costs that the Commission subsequently disallows for cost recovery. The Baseline Capital Projects Credits are to be refunded through the RBA Provision, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

Rate Adjustment Mechanism

The Company shall file with the Commission, the Consumer Advocate and each party to the Company's most recent rate case proceeding, the schedules specified below:

Evaluation Period Earnings Sharing:

1. For the twelve month period ending December 31, of each year (the "Evaluation Period"), with the filing to be made no

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

RATE ADJUSTMENT MECHANISM PROVISION (continued)

Maui, Lanai, and Molokai Divisions

later than March 31, of the year following the conclusion of the Evaluation Period. The schedules will include the following:

- a) Company's recorded actual average net plant in service, accumulated deferred income taxes, inventory, working capital, and other rate base components. The schedules shall also show the utility's actual depreciation expense, operating and maintenance expense, income taxes, taxes other than income taxes, and other components of income for return, revenues, and actual capital structure, cost of debt, overall cost of capital, and return on common equity in the format set forth in the final order establishing the Company's latest effective rates.
- b) All applicable accounting and pro forma adjustments historically required in annual reports filed with the Commission.
- c) Pro-forma adjustments to remove from recorded revenues any out-of-period Earnings Sharing Revenue Credits or Major Capital Projects Credits recorded during the Evaluation Period, and
- d) A calculation comparing the achieved return on average common equity to the following earnings sharing grid, and indicating the Earnings Sharing Revenue Credit that should be recorded within the Revenue Balancing Account to effect the prescribed sharing of earnings above authorized levels:

ROE at or below the Authorized ROE	Retained entirely by shareholders - no customer credits
First 100 basis points (one percent) over Authorized ROE	25% share credit to customers
Next 200 basis points (two percent) over Authorized ROE	50% share credit to customers
All ROE exceeding 300 basis points (three percent) over Authorized ROE	90% share credit to customers

RAM Period RAM Revenue Adjustment Calculation:

- 2) The Company shall provide additional schedules indicating the following proposed RAM Revenue Adjustment Calculation applicable for the RAM Period using the methodology set forth below:

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated March 31, 2017.

RATE ADJUSTMENT MECHANISM PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

- a) The O&M RAM Adjustment shall adjust Base Expenses segregated between labor and non-labor components and treated as follows:
  - i. The labor component shall be quantified for the RAM Period by application of the Labor Cost Escalation Rate, reduced to account for the Productivity Offset to labor expenses, including payroll taxes. The part of Base Expenses that represents labor costs for merit employees shall not be subject to application of the Labor Cost Escalation rate, nor be reduced by the Productivity Offset.
  - ii. The Non-labor components shall be quantified for the RAM Period by application of the Non-labor Escalation Rate to non-labor Base Expenses. Non-labor components shall exclude fuel, purchased power, pension/OPEBs, IRP/DSM or other rate adjustment provisions.
- b) Depreciation and Amortization RAM Adjustment shall be quantified for the RAM Period by application of Commission-approved accrual rates and methods to the actual recorded Plant in Service balances at the end of the Evaluation Period.
- c) The Rate Base RAM - Return on Investment Adjustment shall be determined by multiplying the applicable Pretax Rate of Return times the change in Rate Base. The Pretax Rate of Return shall include related income taxes on the equity components of the Return on Investment rate approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. The quantification of Rate Base is specified in greater detail in part (f) of this Section 2.
- d) The revenue impact of any Exogenous Tax Changes shall be included in the RAM Period calculation of the RAM Revenue Adjustment.
- e) Revenue taxes shall be adjusted to account for the change in parts (a) through (e) of this Section 2.
- f) Rate Base for the RAM Period shall be quantified as follows:

RATE ADJUSTMENT MECHANISM PROVISION (Continued)

Maui, Lanai, and Molokai Divisions

- i. Plant in Service, Accumulated Depreciation, Accumulated Deferred Income Taxes and Contributions in Aid of Construction ("CIAC") shall be a two-point average of actual recorded balance sheet data at December 31 of the Evaluation Period, plus projected values at December 31 of the RAM Period determined as prescribed in parts (ii) through (v), below.
- ii. Plant in Service shall be quantified by adding to the recorded balances at December 31 of the Evaluation Period, the simple average of Baseline Capital Projects plant additions recorded in the immediately preceding five calendar years, plus the estimated cost of completed Major Capital Projects that are anticipated to be in service by September 30 of the RAM Period. The cost of Major Capital Projects shall be limited to the dollar amounts previously approved by the Commission, and shall be included at the level of recorded costs if recorded costs are lower than the budget amounts approved by the Commission, and the Commission has not yet reviewed the project costs in a rate case.
- iii. Accumulated Depreciation at December 31 of the RAM Period shall be quantified by increasing the recorded balances at December 31 of the Evaluation Period by the amount set forth in Section 2 part (b) above, consistent with rate-making treatment.
- iv. CIAC shall be quantified by adding to the recorded balance at December 31 of the Evaluation Period an estimate of the net change for the RAM Period. The net change shall be based on a simple average of cash and in-kind CIAC for the immediately preceding five calendar years for programs (i.e., numerous low cost capital projects) plus specific engineering estimates of any contributions for the Major Capital Projects anticipated to be in service by September 30 of the RAM Period.
- v. Accumulated Deferred Income Taxes shall be quantified by adding to the recorded balances at December 31 of the Evaluation Period the estimated tax effect of the depreciation timing difference (i.e., difference between book depreciation and tax depreciation) on the Baseline Capital Projects and Major Capital Projects added to rate base during the RAM Period.
- vi. Working Cash and all other elements of rate base not specifically addressed above shall be fixed at the dollar amount approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. These elements of rate base shall be held constant until revised by a future Commission Decision & Order in a general rate case.

MAUI ELECTRIC COMPANY, LTD.

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

g.) See also Settlement Agreement section below

RAM REVENUE ADJUSTMENT CAP

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. The RAM Basis 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 Revenue Adjustment Cap.

The RAM Revenue Adjustment Cap shall be calculated as the RAM Basis, multiplied by the cumulative annually compounded increase(s) in the GDPPI for the years between the rate case calendar test year that established the RAM Basis and the RAM Period, adjusted to include applicable revenue taxes.

The RAM Revenue Adjustment Cap will apply to the entire RAM Revenue Adjustment, which includes the O&M RAM Adjustment, Depreciation and Amortization RAM Adjustment, and Rate Base RAM - Return on Investment Adjustment.

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

Evaluation Procedures

Complete, indexed workpapers and electronic files supporting the RAM Adjustment, Earnings Sharing Revenue Credits, and Major and Baseline Capital Projects Credits Schedules 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, coincident with the Annual Evaluation Date 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. The Consumer Advocate, Other Rate Case Parties, and other interested persons may propose any adjustments determined to be required to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

The RAM Revenue Adjustment, and any prior year RAM Revenue Adjustments, shall be recalculated for errors in prior calculations and for subsequent Commission orders that change the basis of prior calculations. The effect of such changes to the RAM Revenue Adjustment shall be implemented as described in the Revenue Balancing Account Provision.

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 the June 1 effective date of the RBA Rate Adjustment described in the RBA Provision tariff, the RBA Rate Adjustment incorporating the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, and Major and Baseline Capital Projects Credits shall go into effect on the June 1 effective date, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

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 filing pursuant to this tariff. The notice to customers shall include the following information:

MAUI ELECTRIC COMPANY, LTD.



Superseding Sheet No. 96I  
Effective June 8, 2015

REVISED SHEET NO. 96I  
Effective June 1, 2019

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

- 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.

COMMISSION'S AUTHORITY

The Commission may suspend any or all parts of this Rate Adjustment Mechanism Provision. Such suspension shall remain in place until removed by Commission Order.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 28, 2019.

Superseding Revised Sheet No. 50H  
Effective August 23, 2018

REVISED SHEET NO. 50H  
Effective June 1, 2019

LANAI DIVISION  
RATE SCHEDULES (Continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
106	"PPAC"	May 4, 2012	Purchase Power Adjustment Clause
106A	"PPAC"	May 4, 2012	Purchase Power Adjustment Clause
106B	"PPAC"	May 4, 2012	Purchase Power Adjustment Clause
107	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
107A	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
107B	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
107C	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
107D	"RAM"	June 1, 2017	Rate Adjustment Mechanism Provision
107E	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
107F	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
107G	"RAM"	June 1, 2019	Rate Adjustment Mechanism Provision
107H	"RAM"	June 1, 2019	Rate Adjustment Mechanism Provision
107I	"RAM"	June 1, 2019	Rate Adjustment Mechanism Provision
108	"RBA"	January 1, 2018	Revenue Balancing Account Provision
108A	"RBA"	June 1, 2018	Revenue Balancing Account Provision
108B	"RBA"	August 23, 2018	Revenue Balancing Account Provision
108C	"RBA"	June 1, 2018	Revenue Balancing Account Provision
108D	"RBA"	June 1, 2018	Revenue Balancing Account Provision
108E	"RBA"	June 1, 2019	Revenue Balancing Account Provision
108F	"RBA"	June 1, 2019	Revenue Balancing Account Provision
108G	"RBA"	June 1, 2019	Revenue Balancing Account Provision

MAUI ELECTRIC COMPANY, LIMITED

Transmittal Letter dated May 28, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION  
Maui, Lanai, and Molokai Divisions

Supplement To:

Schedule R	- Residential Service
Schedule G	- General Service - Non-Demand
Schedule J	- General Service - Demand
Schedule P	- Large Power Service
Schedule F	- Public Street Lighting
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 Power 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 are 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 Maui 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 Maui Electric Company's 2010 test year rate case, Docket No. 2009-0163, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

MAUI ELECTRIC COMPANY, LTD.

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)  
Maui, Lanai, and Molokai Divisions

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.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.38%
February	7.50%
March	8.06%
April	7.85%
May	8.18%
June	8.19%
July	8.77%
August	9.00%
September	8.50%
October	8.73%
November	8.30%
December	<u>8.54%</u>
Total	100.00%

These factors are based on the MWH sales forecast that is approved by the Commission in Maui Electric Company's 2018 test year rate case and shall be updated in any subsequent test year rate case.

MAUI ELECTRIC COMPANY, LTD.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

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.

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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 29, 2018.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 29, 2018.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

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

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

RBA Rate Adjustment

All Rate Schedules ..... 0.8716 ¢/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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.



REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

H: TARGET REVENUE CURRENTLY IN EFFECT

Maui Electric Company, Limited  
Annual Target Revenue (\$000s)

	<u>Description</u>	<u>Amount</u>
1	Electric Sales Revenue	\$335,763
	Less:	
2	Fuel Expense	(\$103,385)
3	Purchase Power Expense	(\$54,970)
4	Revenue Tax on Electric Sales Revenue	(\$29,833)
5	Last Rate Order Target Revenues	\$147,575
6	Authorized RAM Revenues	\$2,694
7	Revenue Tax	(\$239)
8	Net RAM Adjustment	\$2,455
9	Authorized MPIR Revenues	\$0
10	Revenue Tax	\$0
11	Net MPIR Adjustment	\$0
12	Earnings Sharing Revenue Credits	\$0
13	Revenue Tax	\$0
14	Net Earnings Sharing Revenue Credits	\$0
15	Performance Incentive Mechanism (PIM)	(\$395)
16	Revenue Tax	\$35
17	Net PIM Reward (Penalty)	(\$360)
18	On-Bill Financing Pgm Implementation Costs	\$198
19	Revenue Tax	(\$18)
20	Net On-Bill Financing Adjustment	\$181
21	PUC-Ordered Major or Baseline Capital Credits	(\$10)
22	Revenue Tax	\$1
23	Net PUC-Ordered Major or Baseline Capital Credits	(\$9)
24	Effective Target Revenue	\$149,842

Notes:

Totals may not add, due to rounding.

Lines 1,2,3: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)  
Schedule B1, filed May 21, 2019.

Lines 4,7,10,13,16,19,22: Revenue Tax based on 8.885% statutory rates.

Lines 6,9,12,15,18,21,24: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)  
Schedule B1, filed May 28, 2019.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

I: HISTORICAL REFERENCE

Category	Effective Period	Effective Target Revenue (\$000)	Change in Target Revenue (\$000)	Source
Annual Decoupling Filing	6/1/2017 thru 5/31/2018	\$135,177	N/A (1/1/2018 Baseline)	Schedule B1 filed in Transmittal No. 17-04 on 5/22/2017.
Annual Decoupling Filing	6/1/2018 thru 8/22/2018	\$129,404	(\$5,773)	Schedule B1 filed in Transmittal No. 18-03 on 5/21/2018.
2018 Test Year Rate Case (Interim)	8/23/2018 thru 5/31/2019	\$145,310	\$15,906	Schedule B1 filed in Docket No. 2017-0150 on 7/6/2018.
Annual Decoupling Filing	6/1/2019 (current)	\$149,842	\$4,532	Schedule B1 filed in Transmittal No. 19-03 on 5/28/2019.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

Rate Adjustment Mechanism ("RAM") Provision

Purpose

This mechanism is subject to review and continuation, termination or modification in the utility's next base rate case proceeding, upon a showing by the utility and finding by the Commission that continuation or modification is appropriate. As part of its submitted testimony in the base rate case, the Company will include a summary report on the status of certain HCEI initiatives. The RAM mechanism is designed to determine the change in annual utility base revenue levels, recognizing certain estimated changes in the utility's cost to provide service. If, through the application of this mechanism, it is determined that annual utility base revenues should be decreased or increased, then the RAM Revenue Adjustment will be applied within the Revenue Balancing Account Provision. The RAM Revenue Adjustment established for a RAM Period calendar year that is also a rate case test year shall terminate on the effective date of tariff rates that are implemented pursuant to a Commission Decision & Order for that test year.

Definitions

- a) The Annual Evaluation Date shall be the Date the Company will make its annual filing under this mechanism. The Annual Evaluation Date shall be no later than March 31st of each year, commencing March 31, 2012.
- b) The Evaluation Period is defined as the historical twelve month period ending December 31, of each calendar year preceding the Annual Evaluation Date. The Evaluation Period is used solely to determine achieved earnings and any sharing of such earnings above the Authorized Return on Equity.
- c) The RAM Period is defined as the calendar year containing the Annual Evaluation Date.
- d) The Labor Cost Escalation Rate shall be the applicable annual percentage general wage rate increase provided for in currently effective union labor agreements for use in escalating wage and salary Base Expenses for union employees to determine the RAM Revenue Adjustment for each RAM Period. In the event no union labor agreement exists for a RAM Period, the most recently effective annual general percentage increase rate shall apply.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 1, 2013.

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

e) The Non-labor Cost Escalation Rate shall be the consensus estimated annual change in the Gross Domestic Product Price Indicator ("GDPPI") to escalate non-labor Base Expenses to determine the RAM Revenue Adjustment for each RAM Period. The GDPPI escalation rate shall be the consensus projection published by the Blue Chip Economic Indicators (Aspen Publishing) each February for the current RAM Period. In the event that the Blue Chip Economic Indicators forecast of the GDPPI is not available, the Consumer Advocate, Company, and other parties to the most recent rate case, with approval of the Commission, shall jointly select an alternative data source, or national economic index similar to GDPPI, as appropriate.

f) The annual Labor Productivity Offset shall be fixed at 0.76 percent (76/100 of one percent) and will be subtracted from the Labor Cost Escalation Rates applicable to Base Expenses to determine the authorized RAM Revenue Adjustment for each RAM Period.

g) The Base Expenses shall be the labor and non-labor operations and maintenance expense amounts approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. Base Expenses shall not include any fuel, purchased power, IRP/DSM, pension, Other Post-Employment Benefits ("OPEB"), or Clean Energy/Renewable Energy Infrastructure or any costs that are subject to recovery through separate rate tracking mechanisms.

h) The Major Capital Projects shall be those capital investment projects that require an application before and approval by the Commission under the Commission's General Order No. 7, but excluding those projects included in the Clean Energy Infrastructure Surcharge.

i) The Baseline Capital Projects shall be the total amounts of capital investment completed and closed to Plant in Service, excluding amounts related to Major Capital Projects.

j) The Return on Investment shall be the overall weighted percentage rate of return on debt and equity capital approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case.

k) The Authorized Return on Equity shall be the percentage rate of return on equity capital approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case.

l) The Exogenous Tax Changes shall be the changes in tax laws or regulations that are estimated to impact RBA Target Revenues by five hundred thousand dollars (\$500,000) or more.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 1, 2013.

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

m) The Rate Base shall be the average net investment estimated for the RAM Period, including each of the elements of rate base reflected within the most recent rate case Decision & Order issued by the Commission, quantified in the manner prescribed in part (f) of Section 2 of the Rate Adjustment Mechanism.

n) The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the lesser of a) the RAM Revenue Adjustment Calculation or b) the RAM Revenue Adjustment Cap.

o) The RAM Revenue Adjustment Calculation shall be the change in the annual amount of revenue required for the utility to recover the sum of the O&M RAM Adjustment, Depreciation & Amortization RAM Adjustment, and Rate Base RAM - Return on Investment Adjustment, using the ratemaking conventions and calculations reflected within the most recent rate case Decision & Order issued by the Commission, quantified in the manner prescribed herein.

p) The RAM Revenue Adjustment Cap shall be based on the Target Revenues determined in accordance with the RBA and RAM tariffs as provided below.

q) The RAM Revenue Adjustment determined by this RAM Provision is to be recovered through the RBA Provision commencing on June 1 and over the subsequent 12 months after June 1.

r) Earnings Sharing Revenue Credits shall be the amounts to be returned to customers as credits through the Revenue Balancing Account ("RBA") Provision, so as to implement the earnings sharing percentages and procedures described herein, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

s) Major Capital Projects Credits shall be the amounts to be returned to customers through the Revenue Balancing Account Provision, to reduce a preceding year's RAM Revenue Adjustment (including interest at the rate described in the RBA Provision) for specific major capital projects that were not placed into service within the first nine months of the preceding RAM Period as expected. Because the Commission's review of the Major Capital Projects' actual costs incurred may not occur until the rate case after the RAM Revenue Adjustment for these Major Capital Projects is collected, Major Capital Projects Credits (including interest) will be returned to customers for the amount of Major Capital Projects costs that the Commission disallows for cost recovery. The Major Capital Projects Credits are to be refunded through the

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

RBA Provision, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

t) Baseline Capital Projects Credits shall be the amounts to be returned to customers through the RBA Provision, to reduce a preceding year's RAM Revenue Adjustment (including interest at the rate described in the RBA Provision) for specific baseline capital projects that are disallowed by the Commission in a subsequent rate case if the disallowance reduces actual Baseline Capital Projects costs below the Baseline Capital Projects cost estimate derived using the method identified in part (f)ii. of Section 2 of the Rate Adjustment Mechanism below. Because the Commission's review of baseline capital projects may not occur until the rate case after such baseline capital projects are included in one or more RAM Revenue Adjustment filings, Baseline Capital Projects Credits shall be used to refund to customers any prior collections (i.e., Return on Investment on Rate Base and Depreciation, plus interest) relating to the amount of Baseline Capital Projects costs that the Commission subsequently disallows for cost recovery. The Baseline Capital Projects Credits are to be refunded through the RBA Provision, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

Rate Adjustment Mechanism

The Company shall file with the Commission, the Consumer Advocate and each party to the Company's most recent rate case proceeding, the schedules specified below:

Evaluation Period Earnings Sharing:

1. For the twelve month period ending December 31, of each year (the "Evaluation Period"), with the filing to be made no later than March 31, of the year following the conclusion of the Evaluation Period. The schedules will include the following:

MAUI ELECTRIC COMPANY, LTD.

RATE ADJUSTMENT MECHANISM PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

- a) Company's recorded actual average net plant in service, accumulated deferred income taxes, inventory, working capital, and other rate base components. The schedules shall also show the utility's actual depreciation expense, operating and maintenance expense, income taxes, taxes other than income taxes, and other components of income for return, revenues, and actual capital structure, cost of debt, overall cost of capital, and return on common equity in the format set forth in the final order establishing the Company's latest effective rates.
- b) All applicable accounting and pro forma adjustments historically required in annual reports filed with the Commission.
- c) Pro-forma adjustments to remove from recorded revenues any out-of-period Earnings Sharing Revenue Credits or Major Capital Projects Credits recorded during the Evaluation Period, and
- d) A calculation comparing the achieved return on average common equity to the following earnings sharing grid, and indicating the Earnings Sharing Revenue Credit that should be recorded within the Revenue Balancing Account to effect the prescribed sharing of earnings above authorized levels:

ROE at or below the Authorized ROE	Retained entirely by shareholders - no customer credits
First 100 basis points (one percent) over Authorized ROE	25% share credit to customers
Next 200 basis points (two percent) over Authorized ROE	50% share credit to customers
All ROE exceeding 300 basis points (three percent) over Authorized ROE	90% share credit to customers

RAM Period RAM Revenue Adjustment Calculation:

- 2) The Company shall provide additional schedules indicating the following proposed RAM Revenue Adjustment Calculation applicable for the RAM Period using the methodology set forth below:
  - a) The O&M RAM Adjustment shall adjust Base Expenses segregated between labor and non-labor components and treated as follows:

MAUI ELECTRIC COMPANY, LTD.

RATE ADJUSTMENT MECHANISM PROVISION (continued)

Maui, Lanai, and Molokai Divisions

- i. The labor component shall be quantified for the RAM Period by application of the Labor Cost Escalation Rate, reduced to account for the Productivity Offset to labor expenses, including payroll taxes. The part of Base Expenses that represents labor costs for merit employees shall not be subject to application of the Labor Cost Escalation rate, nor be reduced by the Productivity Offset.
  - ii. The Non-labor components shall be quantified for the RAM Period by application of the Non-labor Escalation Rate to non-labor Base Expenses. Non-labor components shall exclude fuel, purchased power, pension/OPEBs, IRP/DSM or other rate adjustment provisions.
- b) Depreciation and Amortization RAM Adjustment shall be quantified for the RAM Period by application of Commission-approved accrual rates and methods to the actual recorded Plant in Service balances at the end of the Evaluation Period.
  - c) The Rate Base RAM - Return on Investment Adjustment shall be determined by multiplying the applicable Pretax Rate of Return times the change in Rate Base. The Pretax Rate of Return shall include related income taxes on the equity components of the Return on Investment rate approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. The quantification of Rate Base is specified in greater detail in part (f) of this Section 2.
  - d) The revenue impact of any Exogenous Tax Changes shall be included in the RAM Period calculation of the RAM Revenue Adjustment.
  - e) Revenue taxes shall be adjusted to account for the change in parts (a) through (e) of this Section 2.
  - f) Rate Base for the RAM Period shall be quantified as follows:

MAUI ELECTRIC COMPANY, LTD.



RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

- i. Plant in Service, Accumulated Depreciation, Accumulated Deferred Income Taxes and Contributions in Aid of Construction ("CIAC") shall be a two-point average of actual recorded balance sheet data at December 31 of the Evaluation Period, plus projected values at December 31 of the RAM Period determined as prescribed in parts (ii) through (v), below.
- ii. Plant in Service shall be quantified by adding to the recorded balances at December 31 of the Evaluation Period, the simple average of Baseline Capital Projects plant additions recorded in the immediately preceding five calendar years, plus the estimated cost of completed Major Capital Projects that are anticipated to be in service by September 30 of the RAM Period. The cost of Major Capital Projects shall be limited to the dollar amounts previously approved by the Commission, and shall be included at the level of recorded costs if recorded costs are lower than the budget amounts approved by the Commission, and the Commission has not yet reviewed the project costs in a rate case.
- iii. Accumulated Depreciation at December 31 of the RAM Period shall be quantified by increasing the recorded balances at December 31 of the Evaluation Period by the amount set forth in Section 2 part (b) above, consistent with rate-making treatment.
- iv. CIAC shall be quantified by adding to the recorded balance at December 31 of the Evaluation Period an estimate of the net change for the RAM Period. The net change shall be based on a simple average of cash and in-kind CIAC for the immediately preceding five calendar years for programs (i.e., numerous low cost capital projects) plus specific engineering estimates of any contributions for the Major Capital Projects anticipated to be in service by September 30 of the RAM Period.
- v. Accumulated Deferred Income Taxes shall be quantified by adding to the recorded balances at December 31 of the Evaluation Period the estimated tax effect of the depreciation timing difference (i.e., difference between book depreciation and tax depreciation) on the Baseline Capital Projects and Major Capital Projects added to rate base during the RAM Period.
- vi. Working Cash and all other elements of rate base not specifically addressed above shall be fixed at the dollar amount approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. These elements of rate base shall be held constant until revised by a future Commission Decision & Order in a general rate case.

g.) See also Settlement Agreement section below.

MAUI ELECTRIC COMPANY, LTD.

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

RAM REVENUE ADJUSTMENT CAP

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. The RAM Basis 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 Revenue Adjustment Cap.

The RAM Revenue Adjustment Cap shall be calculated as the RAM Basis, multiplied by the cumulative annually compounded increase(s) in the GDPPI for the years between the rate case calendar test year that established the RAM Basis and the RAM Period, adjusted to include applicable revenue taxes.

The RAM Revenue Adjustment Cap will apply to the entire RAM Revenue Adjustment, which includes the O&M RAM Adjustment, Depreciation and Amortization RAM Adjustment, and Rate Base RAM - Return on Investment Adjustment.

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

Evaluation Procedures

Complete, indexed workpapers and electronic files supporting the RAM Adjustment, Earnings Sharing Revenue Credits, and Major and Baseline Capital Projects Credits Schedules 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, coincident with the Annual Evaluation Date 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. The Consumer Advocate, Other Rate Case Parties, and other interested persons may propose any adjustments determined to be required to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

The RAM Revenue Adjustment, and any prior year RAM Revenue Adjustments, shall be recalculated for errors in prior calculations and for subsequent Commission orders that change the basis of prior calculations. The effect of such changes to the RAM Revenue Adjustment shall be implemented as described in the Revenue Balancing Account Provision.

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 the June 1 effective date of the RBA Rate Adjustment described in the RBA Provision tariff, the RBA Rate Adjustment incorporating the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, and Major and Baseline Capital Projects Credits shall go into effect on the June 1 effective date, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

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 filing pursuant to this tariff. The notice to customers shall include the following information:

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 28, 2019.

Superseding Sheet No. 107I  
Effective June 8, 2015

REVISED SHEET NO. 107I  
Effective June 1, 2019

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

- 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.

COMMISSION'S AUTHORITY

The Commission may suspend any or all parts of this Rate Adjustment Mechanism Provision. Such suspension shall remain in place until removed by Commission Order.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 28, 2019.

Superseding Revised Sheet No. 100E  
Effective August 23, 2018

REVISED SHEET NO. 100E  
Effective June 1, 2019

MOLOKAI DIVISION  
RATE SCHEDULES (Continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
151A	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
151B	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
151C	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
151D	"RAM"	June 1, 2017	Rate Adjustment Mechanism Provision
151E	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
151F	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
151G	"RAM"	June 1, 2019	Rate Adjustment Mechanism Provision
151H	"RAM"	June 1, 2019	Rate Adjustment Mechanism Provision
151I	"RAM"	June 1, 2019	Rate Adjustment Mechanism Provision
152	"RBA"	January 1, 2018	Revenue Balancing Account Provision
152A	"RBA"	January 1, 2018	Revenue Balancing Account Provision
152B	"RBA"	August 23, 2018	Revenue Balancing Account Provision
152C	"RBA"	June 1, 2018	Revenue Balancing Account Provision
152D	"RBA"	June 1, 2018	Revenue Balancing Account Provision
152E	"RBA"	June 1, 2019	Revenue Balancing Account Provision
152F	"RBA"	June 1, 2019	Revenue Balancing Account Provision
152G	"RBA"	June 1, 2019	Revenue Balancing Account Provision

MAUI ELECTRIC COMPANY, LIMITED

Transmittal Letter Dated May 28, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION  
Maui, Lanai, and Molokai Divisions

Supplement To:

Schedule R	- Residential Service
Schedule G	- General Service - Non-Demand
Schedule J	- General Service - Demand
Schedule P	- Large Power Service
Schedule F	- Public Street Lighting
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 Power 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 are 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 Maui 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 Maui Electric Company's 2010 test year rate case, Docket No. 2009-0163, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

MAUI ELECTRIC COMPANY, LTD.

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)  
Maui, Lanai, and Molokai Divisions

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.

MAUI ELECTRIC COMPANY, LTD.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.38%
February	7.50%
March	8.06%
April	7.85%
May	8.18%
June	8.19%
July	8.77%
August	9.00%
September	8.50%
October	8.73%
November	8.30%
December	<u>8.54%</u>
Total	100.00%

These factors are based on the MWH sales forecast that is approved by the Commission in Maui Electric Company's 2018 test year rate case and shall be updated in any subsequent test year rate case.

MAUI ELECTRIC COMPANY, LTD.



REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 29, 2018.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 29, 2018.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

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

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

RBA Rate Adjustment

All Rate Schedules ..... 0.8716 ¢/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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

H: TARGET REVENUE CURRENTLY IN EFFECT

Maui Electric Company, Limited  
Annual Target Revenue (\$000s)

	<u>Description</u>	<u>Amount</u>
1	Electric Sales Revenue	\$335,763
	Less:	
2	Fuel Expense	(\$103,385)
3	Purchase Power Expense	(\$54,970)
4	Revenue Tax on Electric Sales Revenue	(\$29,833)
5	Last Rate Order Target Revenues	\$147,575
6	Authorized RAM Revenues	\$2,694
7	Revenue Tax	(\$239)
8	Net RAM Adjustment	\$2,455
9	Authorized MPIR Revenues	\$0
10	Revenue Tax	\$0
11	Net MPIR Adjustment	\$0
12	Earnings Sharing Revenue Credits	\$0
13	Revenue Tax	\$0
14	Net Earnings Sharing Revenue Credits	\$0
15	Performance Incentive Mechanism (PIM)	(\$395)
16	Revenue Tax	\$35
17	Net PIM Reward (Penalty)	(\$360)
18	On-Bill Financing Pgm Implementation Costs	\$198
19	Revenue Tax	(\$18)
20	Net On-Bill Financing Adjustment	\$181
21	PUC-Ordered Major or Baseline Capital Credits	(\$10)
22	Revenue Tax	\$1
23	Net PUC-Ordered Major or Baseline Capital Credits	(\$9)
24	Effective Target Revenue	\$149,842

Notes:

Totals may not add, due to rounding.

Lines 1,2,3: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)  
Schedule B1, filed May 21, 2019.

Lines 4,7,10,13,16,19,22: Revenue Tax based on 8.885% statutory rates.

Lines 6,9,12,15,18,21,24: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)  
Schedule B1, filed May 28, 2019.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

I: HISTORICAL REFERENCE

Category	Effective Period	Effective Target Revenue (\$000)	Change in Target Revenue (\$000)	Source
Annual Decoupling Filing	6/1/2017 thru 5/31/2018	\$135,177	N/A (1/1/2018 Baseline)	Schedule B1 filed in Transmittal No. 17-04 on 5/22/2017.
Annual Decoupling Filing	6/1/2018 thru 8/22/2018	\$129,404	(\$5,773)	Schedule B1 filed in Transmittal No. 18-03 on 5/21/2018.
2018 Test Year Rate Case (Interim)	8/23/2018 thru 5/31/2019	\$145,310	\$15,906	Schedule B1 filed in Docket No. 2017-0150 on 7/6/2018.
Annual Decoupling Filing	6/1/2019 (current)	\$149,842	\$4,532	Schedule B1 filed in Transmittal No. 19-03 on 5/21/2019.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

Rate Adjustment Mechanism ("RAM") Provision

Purpose

This mechanism is subject to review and continuation, termination or modification in the utility's next base rate case proceeding, upon a showing by the utility and finding by the Commission that continuation or modification is appropriate. As part of its submitted testimony in the base rate case, the Company will include a summary report on the status of certain HCEI initiatives. The RAM mechanism is designed to determine the change in annual utility base revenue levels, recognizing certain estimated changes in the utility's cost to provide service. If, through the application of this mechanism, it is determined that annual utility base revenues should be decreased or increased, then the RAM Revenue Adjustment will be applied within the Revenue Balancing Account Provision. The RAM Revenue Adjustment established for a RAM Period calendar year that is also a rate case test year shall terminate on the effective date of tariff rates that are implemented pursuant to a Commission Decision & Order for that test year.

Definitions

- a) The Annual Evaluation Date shall be the Date the Company will make its annual filing under this mechanism. The Annual Evaluation Date shall be no later than March 31st of each year, commencing March 31, 2012.
- b) The Evaluation Period is defined as the historical twelve month period ending December 31, of each calendar year preceding the Annual Evaluation Date. The Evaluation Period is used solely to determine achieved earnings and any sharing of such earnings above the Authorized Return on Equity.
- c) The RAM Period is defined as the calendar year containing the Annual Evaluation Date.
- d) The Labor Cost Escalation Rate shall be the applicable annual percentage general wage rate increase provided for in currently effective union labor agreements for use in escalating wage and salary Base Expenses for union employees to determine the RAM Revenue Adjustment for each RAM Period. In the event no union labor agreement exists for a RAM Period, the most recently effective annual general percentage increase rate shall apply.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 1, 2013.

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

e) The Non-labor Cost Escalation Rate shall be the consensus estimated annual change in the Gross Domestic Product Price Indicator ("GDPPI") to escalate non-labor Base Expenses to determine the RAM Revenue Adjustment for each RAM Period. The GDPPI escalation rate shall be the consensus projection published by the Blue Chip Economic Indicators (Aspen Publishing) each February for the current RAM Period. In the event that the Blue Chip Economic Indicators forecast of the GDPPI is not available, the Consumer Advocate, Company, and other parties to the most recent rate case, with approval of the Commission, shall jointly select an alternative data source, or national economic index similar to GDPPI, as appropriate.

f) The annual Labor Productivity Offset shall be fixed at 0.76 percent (76/100 of one percent) and will be subtracted from the Labor Cost Escalation Rates applicable to Base Expenses to determine the authorized RAM Revenue Adjustment for each RAM Period.

g) The Base Expenses shall be the labor and non-labor operations and maintenance expense amounts approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. Base Expenses shall not include any fuel, purchased power, IRP/DSM, pension, Other Post-Employment Benefits ("OPEB"), or Clean Energy/Renewable Energy Infrastructure or any costs that are subject to recovery through separate rate tracking mechanisms.

h) The Major Capital Projects shall be those capital investment projects that require an application before and approval by the Commission under the Commission's General Order No. 7, but excluding those projects included in the Clean Energy Infrastructure Surcharge.

i) The Baseline Capital Projects shall be the total amounts of capital investment completed and closed to Plant in Service, excluding amounts related to Major Capital Projects.

j) The Return on Investment shall be the overall weighted percentage rate of return on debt and equity capital approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case.

k) The Authorized Return on Equity shall be the percentage rate of return on equity capital approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case.

l) The Exogenous Tax Changes shall be the changes in tax laws or regulations that are estimated to impact RBA Target Revenues by five hundred thousand dollars (\$500,000) or more.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 1, 2013.

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

m) The Rate Base shall be the average net investment estimated for the RAM Period, including each of the elements of rate base reflected within the most recent rate case Decision & Order issued by the Commission, quantified in the manner prescribed in part (f) of Section 2 of the Rate Adjustment Mechanism.

n) The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the lesser of a) the RAM Revenue Adjustment Calculation or b) the RAM Revenue Adjustment Cap.

o) The RAM Revenue Adjustment Calculation shall be the change in the annual amount of revenue required for the utility to recover the sum of the O&M RAM Adjustment, Depreciation & Amortization RAM Adjustment, and Rate Base RAM - Return on Investment Adjustment, using the ratemaking conventions and calculations reflected within the most recent rate case Decision & Order issued by the Commission, quantified in the manner prescribed herein.

p) The RAM Revenue Adjustment Cap shall be based on the Target Revenues determined in accordance with the RBA and RAM tariffs as provided below.

q) The RAM Revenue Adjustment determined by this RAM Provision is to be recovered through the RBA Provision commencing on June 1 and over the subsequent 12 months after June 1.

r) Earnings Sharing Revenue Credits shall be the amounts to be returned to customers as credits through the Revenue Balancing Account ("RBA") Provision, so as to implement the earnings sharing percentages and procedures described herein, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

s) Major Capital Projects Credits shall be the amounts to be returned to customers through the Revenue Balancing Account Provision, to reduce a preceding year's RAM Revenue Adjustment (including interest at the rate described in the RBA Provision) for specific major capital projects that were not placed into service within the first nine months of the preceding RAM Period as expected. Because the Commission's review of the Major Capital Projects' actual costs incurred may not occur until the rate case after the RAM Revenue Adjustment for these Major Capital Projects is collected, Major Capital Projects Credits (including interest) will be returned to customers for the amount of Major Capital Projects costs that the Commission disallows for cost recovery. The Major Capital Projects Credits are to be refunded through the

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.



RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

RBA Provision, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

t) Baseline Capital Projects Credits shall be the amounts to be returned to customers through the RBA Provision, to reduce a preceding year's RAM Revenue Adjustment (including interest at the rate described in the RBA Provision) for specific baseline capital projects that are disallowed by the Commission in a subsequent rate case if the disallowance reduces actual Baseline Capital Projects costs below the Baseline Capital Projects cost estimate derived using the method identified in part (f)ii. of Section 2 of the Rate Adjustment Mechanism below. Because the Commission's review of baseline capital projects may not occur until the rate case after such baseline capital projects are included in one or more RAM Revenue Adjustment filings, Baseline Capital Projects Credits shall be used to refund to customers any prior collections (i.e., Return on Investment on Rate Base and Depreciation, plus interest) relating to the amount of Baseline Capital Projects costs that the Commission subsequently disallows for cost recovery. The Baseline Capital Projects Credits are to be refunded through the RBA Provision, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

Rate Adjustment Mechanism

The Company shall file with the Commission, the Consumer Advocate and each party to the Company's most recent rate case proceeding, the schedules specified below:

Evaluation Period Earnings Sharing:

1. For the twelve month period ending December 31, of each year (the "Evaluation Period"), with the filing to be made no later than March 31, of the year following the conclusion of the Evaluation Period. The schedules will include the following:

MAUI ELECTRIC COMPANY, LTD.

RATE ADJUSTMENT MECHANISM PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

- a) Company's recorded actual average net plant in service, accumulated deferred income taxes, inventory, working capital, and other rate base components. The schedules shall also show the utility's actual depreciation expense, operating and maintenance expense, income taxes, taxes other than income taxes, and other components of income for return, revenues, and actual capital structure, cost of debt, overall cost of capital, and return on common equity in the format set forth in the final order establishing the Company's latest effective rates.
- b) All applicable accounting and pro forma adjustments historically required in annual reports filed with the Commission.
- c) Pro-forma adjustments to remove from recorded revenues any out-of-period Earnings Sharing Revenue Credits or Major Capital Projects Credits recorded during the Evaluation Period, and
- d) A calculation comparing the achieved return on average common equity to the following earnings sharing grid, and indicating the Earnings Sharing Revenue Credit that should be recorded within the Revenue Balancing Account to effect the prescribed sharing of earnings above authorized levels:

ROE at or below the Authorized ROE	Retained entirely by shareholders - no customer credits
First 100 basis points (one percent) over Authorized ROE	25% share credit to customers
Next 200 basis points (two percent) over Authorized ROE	50% share credit to customers
All ROE exceeding 300 basis points (three percent) over Authorized ROE	90% share credit to customers

RAM Period RAM Revenue Adjustment Calculation:

- 2) The Company shall provide additional schedules indicating the following proposed RAM Revenue Adjustment Calculation applicable for the RAM Period using the methodology set forth below:

MAUI ELECTRIC COMPANY, LTD.

RATE ADJUSTMENT MECHANISM PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

- a) The O&M RAM Adjustment shall adjust Base Expenses segregated between labor and non-labor components and treated as follows:
  - i. The labor component shall be quantified for the RAM Period by application of the Labor Cost Escalation Rate, reduced to account for the Productivity Offset to labor expenses, including payroll taxes. The part of Base Expenses that represents labor costs for merit employees shall not be subject to application of the Labor Cost Escalation rate, nor be reduced by the Productivity Offset.
  - ii. The Non-labor components shall be quantified for the RAM Period by application of the Non-labor Escalation Rate to non-labor Base Expenses. Non-labor components shall exclude fuel, purchased power, pension/OPEBs, IRP/DSM or other rate adjustment provisions.
- b) Depreciation and Amortization RAM Adjustment shall be quantified for the RAM Period by application of Commission-approved accrual rates and methods to the actual recorded Plant in Service balances at the end of the Evaluation Period.
- c) The Rate Base RAM - Return on Investment Adjustment shall be determined by multiplying the applicable Pretax Rate of Return times the change in Rate Base. The Pretax Rate of Return shall include related income taxes on the equity components of the Return on Investment rate approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. The quantification of Rate Base is specified in greater detail in part (f) of this Section 2.
- d) The revenue impact of any Exogenous Tax Changes shall be included in the RAM Period calculation of the RAM Revenue Adjustment.
- e) Revenue taxes shall be adjusted to account for the change in parts (a) through (e) of this Section 2.
- f) Rate Base for the RAM Period shall be quantified as follows:

MAUI ELECTRIC COMPANY, LTD.

RATE ADJUSTMENT MECHANISM PROVISION (Continued)

Maui, Lanai, and Molokai Divisions

- i. Plant in Service, Accumulated Depreciation, Accumulated Deferred Income Taxes and Contributions in Aid of Construction ("CIAC") shall be a two-point average of actual recorded balance sheet data at December 31 of the Evaluation Period, plus projected values at December 31 of the RAM Period determined as prescribed in parts (ii) through (v), below.
- ii. Plant in Service shall be quantified by adding to the recorded balances at December 31 of the Evaluation Period, the simple average of Baseline Capital Projects plant additions recorded in the immediately preceding five calendar years, plus the estimated cost of completed Major Capital Projects that are anticipated to be in service by September 30 of the RAM Period. The cost of Major Capital Projects shall be limited to the dollar amounts previously approved by the Commission, and shall be included at the level of recorded costs if recorded costs are lower than the budget amounts approved by the Commission, and the Commission has not yet reviewed the project costs in a rate case.
- iii. Accumulated Depreciation at December 31 of the RAM Period shall be quantified by increasing the recorded balances at December 31 of the Evaluation Period by the amount set forth in Section 2 part (b) above, consistent with rate-making treatment.
- iv. CIAC shall be quantified by adding to the recorded balance at December 31 of the Evaluation Period an estimate of the net change for the RAM Period. The net change shall be based on a simple average of cash and in-kind CIAC for the immediately preceding five calendar years for programs (i.e., numerous low cost capital projects) plus specific engineering estimates of any contributions for the Major Capital Projects anticipated to be in service by September 30 of the RAM Period.
- v. Accumulated Deferred Income Taxes shall be quantified by adding to the recorded balances at December 31 of the Evaluation Period the estimated tax effect of the depreciation timing difference (i.e., difference between book depreciation and tax depreciation) on the Baseline Capital Projects and Major Capital Projects added to rate base during the RAM Period.
- vi. Working Cash and all other elements of rate base not specifically addressed above shall be fixed at the dollar amount approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. These elements of rate base shall be held constant until revised by a future Commission Decision & Order in a general rate case.

g.) See also Settlement Agreement section below.

MAUI ELECTRIC COMPANY, LTD.

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

RAM REVENUE ADJUSTMENT CAP

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. The RAM Basis 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 Revenue Adjustment Cap.

The RAM Revenue Adjustment Cap shall be calculated as the RAM Basis, multiplied by the cumulative annually compounded increase(s) in the GDPPI for the years between the rate case calendar test year that established the RAM Basis and the RAM Period, adjusted to include applicable revenue taxes.

The RAM Revenue Adjustment Cap will apply to the entire RAM Revenue Adjustment, which includes the O&M RAM Adjustment, Depreciation and Amortization RAM Adjustment, and Rate Base RAM - Return on Investment Adjustment.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 28, 2019.

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

Evaluation Procedures

Complete, indexed workpapers and electronic files supporting the RAM Adjustment, Earnings Sharing Revenue Credits, and Major and Baseline Capital Projects Credits Schedules 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, coincident with the Annual Evaluation Date 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. The Consumer Advocate, Other Rate Case Parties, and other interested persons may propose any adjustments determined to be required to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

The RAM Revenue Adjustment, and any prior year RAM Revenue Adjustments, shall be recalculated for errors in prior calculations and for subsequent Commission orders that change the basis of prior calculations. The effect of such changes to the RAM Revenue Adjustment shall be implemented as described in the Revenue Balancing Account Provision.

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 the June 1 effective date of the RBA Rate Adjustment described in the RBA Provision tariff, the RBA Rate Adjustment incorporating the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, and Major and Baseline Capital Projects Credits shall go into effect on the June 1 effective date, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

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 filing pursuant to this tariff. The notice to customers shall include the following information:

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 28, 2019.

Superseding Sheet No. 151I  
Effective June 8, 2015

REVISED SHEET NO. 151I  
Effective June 1, 2019

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

- 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.

COMMISSION'S AUTHORITY

The Commission may suspend any or all parts of this Rate Adjustment Mechanism Provision. Such suspension shall remain in place until removed by Commission Order.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 28, 2019.

MAUI ELECTRIC  
ATTACHMENT 1A



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

REVISED SHEET No. 50D  
Effective June 1, 2019

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MAUI DIVISION  
RATE SCHEDULES (Continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
94-94E	"FIT"	December 30, 2011	Schedule FIT Tier 3
94.1-	"FIT"	December 30, 2011	Schedule FIT Tier 3
94.1DX			Agreement
94.2-	"FIT"	December 30, 2011	Schedule FIT Tier 3 Queuing
94.2E			and Interconnection Proc.
95	"PPAC"	March 1, 2019	Purchase Power Adjustment
95A	"PPAC"	March 1, 2019	Clause
95B	"PPAC"	May 4, 2012	Purchase Power Adjustment
96	"RAM"	June 1, 2013	Clause
96A	"RAM"	June 1, 2013	Purchase Power Adjustment
96B	"RAM"	June 8, 2015	Clause
96C	"RAM"	June 8, 2015	Purchase Power Adjustment
96D	"RAM"	June 1, 2017	Clause
96E	"RAM"	June 8, 2015	Purchase Power Adjustment
96F	"RAM"	June 8, 2015	Clause
96G	"RAM"	<u>June 1, 2019</u>	Purchase Power Adjustment
96H	"RAM"	<u>June 1, 2019</u>	Clause
96I	"RAM"	<u>June 1, 2019</u>	Purchase Power Adjustment
97	"RBA"	January 1, 2018	Clause
97A	"RBA"	January 1, 2018	Purchase Power Adjustment
97B	"RBA"	August 23, 2018	Clause
97C	"RBA"	January 1, 2018	Purchase Power Adjustment
97D	"RBA"	June 1, 2018	Clause
97E	"RBA"	<u>June 1, 2019</u>	Purchase Power Adjustment
97F	"RBA"	<u>June 1, 2019</u>	Clause
<u>97G</u>	<u>"RBA"</u>	<u>June 1, 2019</u>	<u>Revenue Balancing Account</u>

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MAUI ELECTRIC COMPANY, LIMITED

Transmittal Letter dated May 28, 2019

Superseding REVISED SHEET NO. 97  
Effective June 1, 2017

REVISED SHEET NO. 97  
Effective January 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION  
Maui, Lanai, and Molokai Divisions

Supplement To:

Schedule R - Residential Service  
Schedule G - General Service - Non-Demand  
Schedule J - General Service - Demand  
Schedule P - Large Power Service  
Schedule F - Public Street Lighting  
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 Power 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 are 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 Maui 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 Maui Electric Company's 2010 test year rate case, Docket No. 2009-0163, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

MAUI ELECTRIC COMPANY, LTD.

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. 97A  
Effective January 1, 2018

REVISED SHEET NO. 97A  
Effective June 1, 2019

Deleted: June 1, 2013

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

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

Deleted: January 11, 2018

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Superseding REVISED SHEET NO. 97B  
Effective January 1, 2018

REVISED SHEET NO. 97B  
Effective August 23, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.38%
February	7.50%
March	8.06%
April	7.85%
May	8.18%
June	8.19%
July	8.77%
August	9.00%
September	8.50%
October	8.73%
November	8.30%
December	<u>8.54%</u>
Total	100.00%

These factors are based on the MWH sales forecast that is approved by the Commission in Maui Electric Company's 2018 test year rate case and shall be updated in any subsequent test year rate case.

MAUI ELECTRIC COMPANY, LTD.

Docket No. 2017-0150; Order No. 35631, issued August 9, 2018.  
Transmittal Letter dated August 21, 2018.

Superseding REVISED SHEET NO. 97C  
Effective June 1, 2013

REVISED SHEET NO. 97C  
Effective January 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

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.

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.

MAUI ELECTRIC COMPANY, LTD.

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

Superseding Sheet No. 97D  
Effective June 1, 2017

REVISED SHEET NO. 97D  
Effective January 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

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.

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.

MAUI ELECTRIC COMPANY, LTD.

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. 97E  
Effective August 23, 2018

REVISED SHEET NO. 97E  
Effective June 1, 2019

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

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

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

RBA Rate Adjustment

All Rate Schedules ..... 0.8716 ¢/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.

Deleted: Docket No. 2017-0150; Order No. 35631, issued August 9, 2018.

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MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

Superseding Revised Sheet No. 97F  
Effective August 23, 2018

REVISED SHEET NO. 97F  
Effective June 1, 2019

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

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H: TARGET REVENUE, CURRENTLY IN EFFECT

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Maui Electric Company, Limited  
Annual Target Revenue (\$000s)

	Description	Amount
1	Electric Sales Revenue	\$335,763
	Less:	
2	Fuel Expense	(\$103,385)
3	Purchase Power Expense	(\$54,970)
4	Revenue Tax on Electric Sales Revenue	(\$29,833)
5	Last Rate Order Target Revenues	\$147,575
6	Authorized RAM Revenues	\$2,694
7	Revenue Tax	(\$239)
8	Net RAM Adjustment	\$2,455
9	Authorized MPIR Revenues	\$0
10	Revenue Tax	\$0
11	Net MPIR Adjustment	\$0
12	Earnings Sharing Revenue Credits	\$0
13	Revenue Tax	\$0
14	Net Earnings Sharing Revenue Credits	\$0
15	Performance Incentive Mechanism (PIM)	(\$395)
16	Revenue Tax	\$35
17	Net PIM Reward (Penalty)	(\$360)
18	On-Bill Financing Pgm Implementation Costs	\$198
19	Revenue Tax	(\$18)
20	Net On-Bill Financing Adjustment	\$181
21	PUC-Ordered Major or Baseline Capital Credits	(\$10)
22	Revenue Tax	\$1
23	Net PUC-Ordered Major or Baseline Capital Credits	(\$9)
24	Effective Target Revenue	\$149,842

Notes:

Totals may not add, due to rounding.

Lines 1,2,3: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)  
Schedule B1, filed May 21, 2019.

Lines 4,7,10,13,16,19,22: Revenue Tax based on 8.885% statutory rates.

Lines 6,9,12,15,18,21,24: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)  
Schedule B1, filed May 28, 2019.

MAUI ELECTRIC COMPANY, LTD.

Deleted: Docket No. 2017-0150; Order No. 35631,  
issued August 9, 2018.

Deleted: August 21, 2018

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Transmittal Letter dated May 28, 2019.



SHEET NO. 97G  
Effective June 1, 2019

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

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 5/31/2018</u>	<u>\$135,177</u>	<u>N/A (1/1/2018 Baseline)</u>	<u>Schedule B1 filed in Transmittal No. 17-04 on 5/22/2017.</u>
<u>Annual Decoupling Filing</u>	<u>6/1/2018 thru 8/22/2018</u>	<u>\$129,404</u>	<u>(\$5,773)</u>	<u>Schedule B1 filed in Transmittal No. 18-03 on 5/21/2018.</u>
<u>2018 Test Year Rate Case (Interim)</u>	<u>8/23/2018 thru 5/31/2019</u>	<u>\$145,310</u>	<u>\$15,906</u>	<u>Schedule B1 filed in Docket No. 2017-0150 on 7/6/2018.</u>
<u>Annual Decoupling Filing</u>	<u>6/1/2019 (current)</u>	<u>\$149,842</u>	<u>\$4,532</u>	<u>Schedule B1 filed in Transmittal No. 19-03 on 5/28/2019.</u>

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MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

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Superseding Sheet No. 96  
Effective May 4, 2012

REVISED SHEET NO. 96  
Effective June 1, 2013

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

Rate Adjustment Mechanism ("RAM") Provision

Purpose

This mechanism is subject to review and continuation, termination or modification in the utility's next base rate case proceeding, upon a showing by the utility and finding by the Commission that continuation or modification is appropriate. As part of its submitted testimony in the base rate case, the Company will include a summary report on the status of certain HCEI initiatives. The RAM mechanism is designed to determine the change in annual utility base revenue levels, recognizing certain estimated changes in the utility's cost to provide service. If, through the application of this mechanism, it is determined that annual utility base revenues should be decreased or increased, then the RAM Revenue Adjustment will be applied within the Revenue Balancing Account Provision. The RAM Revenue Adjustment established for a RAM Period calendar year that is also a rate case test year shall terminate on the effective date of tariff rates that are implemented pursuant to a Commission Decision & Order for that test year.

Definitions

- a) The Annual Evaluation Date shall be the Date the Company will make its annual filing under this mechanism. The Annual Evaluation Date shall be no later than March 31st of each year, commencing March 31, 2012.
- b) The Evaluation Period is defined as the historical twelve month period ending December 31, of each calendar year preceding the Annual Evaluation Date. The Evaluation Period is used solely to determine achieved earnings and any sharing of such earnings above the Authorized Return on Equity.
- c) The RAM Period is defined as the calendar year containing the Annual Evaluation Date.
- d) The Labor Cost Escalation Rate shall be the applicable annual percentage general wage rate increase provided for in currently effective union labor agreements for use in escalating wage and salary Base Expenses for union employees to determine the RAM Revenue Adjustment for each RAM Period. In the event no union labor agreement exists for a RAM Period, the most recently effective annual general percentage increase rate shall apply.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 1, 2013.

Superseding Sheet No. 96A  
Effective May 4, 2012

REVISED SHEET NO. 96A  
Effective June 1, 2013

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

e) The Non-labor Cost Escalation Rate shall be the consensus estimated annual change in the Gross Domestic Product Price Indicator ("GDPPI") to escalate non-labor Base Expenses to determine the RAM Revenue Adjustment for each RAM Period. The GDPPI escalation rate shall be the consensus projection published by the Blue Chip Economic Indicators (Aspen Publishing) each February for the current RAM Period. In the event that the Blue Chip Economic Indicators forecast of the GDPPI is not available, the Consumer Advocate, Company, and other parties to the most recent rate case, with approval of the Commission, shall jointly select an alternative data source, or national economic index similar to GDPPI, as appropriate.

f) The annual Labor Productivity Offset shall be fixed at 0.76 percent (76/100 of one percent) and will be subtracted from the Labor Cost Escalation Rates applicable to Base Expenses to determine the authorized RAM Revenue Adjustment for each RAM Period.

g) The Base Expenses shall be the labor and non-labor operations and maintenance expense amounts approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. Base Expenses shall not include any fuel, purchased power, IRP/DSM, pension, Other Post-Employment Benefits ("OPEB"), or Clean Energy/Renewable Energy Infrastructure or any costs that are subject to recovery through separate rate tracking mechanisms.

h) The Major Capital Projects shall be those capital investment projects that require an application before and approval by the Commission under the Commission's General Order No. 7, but excluding those projects included in the Clean Energy Infrastructure Surcharge.

i) The Baseline Capital Projects shall be the total amounts of capital investment completed and closed to Plant in Service, excluding amounts related to Major Capital Projects.

j) The Return on Investment shall be the overall weighted percentage rate of return on debt and equity capital approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case.

k) The Authorized Return on Equity shall be the percentage rate of return on equity capital approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case.

l) The Exogenous Tax Changes shall be the changes in tax laws or regulations that are estimated to impact RBA Target Revenues by five hundred thousand dollars (\$500,000) or more.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 1, 2013.

Superseding Sheet No. 96B  
Effective June 1, 2013

REVISED SHEET NO. 96B  
Effective June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

m) The Rate Base shall be the average net investment estimated for the RAM Period, including each of the elements of rate base reflected within the most recent rate case Decision & Order issued by the Commission, quantified in the manner prescribed in part (f) of Section 2 of the Rate Adjustment Mechanism.

n) The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the lesser of a) the RAM Revenue Adjustment Calculation or b) the RAM Revenue Adjustment Cap.

o) The RAM Revenue Adjustment Calculation shall be the change in the annual amount of revenue required for the utility to recover the sum of the O&M RAM Adjustment, Depreciation & Amortization RAM Adjustment, and Rate Base RAM - Return on Investment Adjustment, using the ratemaking conventions and calculations reflected within the most recent rate case Decision & Order issued by the Commission, quantified in the manner prescribed herein.

p) The RAM Revenue Adjustment Cap shall be based on the Target Revenues determined in accordance with the RBA and RAM tariffs as provided below.

q) The RAM Revenue Adjustment determined by this RAM Provision is to be recovered through the RBA Provision commencing on June 1 and over the subsequent 12 months after June 1.

r) Earnings Sharing Revenue Credits shall be the amounts to be returned to customers as credits through the Revenue Balancing Account ("RBA") Provision, so as to implement the earnings sharing percentages and procedures described herein, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

s) Major Capital Projects Credits shall be the amounts to be returned to customers through the Revenue Balancing Account Provision, to reduce a preceding year's RAM Revenue Adjustment (including interest at the rate described in the RBA Provision) for specific major capital projects that were not placed into service within the first nine months of the preceding RAM Period as expected. Because the Commission's review of the Major Capital Projects' actual costs incurred may not occur until the rate case after the RAM Revenue Adjustment for these Major Capital Projects is collected, Major Capital Projects Credits (including interest) will be returned to customers for the amount of Major Capital Projects costs that the Commission disallows for cost recovery. The Major Capital Projects Credits are to be refunded through the

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

Superseding Sheet No. 96C  
Effective March 30, 2014

REVISED SHEET NO. 96C  
Effective June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

RBA Provision, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

t) Baseline Capital Projects Credits shall be the amounts to be returned to customers through the RBA Provision, to reduce a preceding year's RAM Revenue Adjustment (including interest at the rate described in the RBA Provision) for specific baseline capital projects that are disallowed by the Commission in a subsequent rate case if the disallowance reduces actual Baseline Capital Projects costs below the Baseline Capital Projects cost estimate derived using the method identified in part (f)ii. of Section 2 of the Rate Adjustment Mechanism below. Because the Commission's review of baseline capital projects may not occur until the rate case after such baseline capital projects are included in one or more RAM Revenue Adjustment filings, Baseline Capital Projects Credits shall be used to refund to customers any prior collections (i.e., Return on Investment on Rate Base and Depreciation, plus interest) relating to the amount of Baseline Capital Projects costs that the Commission subsequently disallows for cost recovery. The Baseline Capital Projects Credits are to be refunded through the RBA Provision, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

Rate Adjustment Mechanism

The Company shall file with the Commission, the Consumer Advocate and each party to the Company's most recent rate case proceeding, the schedules specified below:

Evaluation Period Earnings Sharing:

1. For the twelve month period ending December 31, of each year (the "Evaluation Period"), with the filing to be made no

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

Superseding REVISED SHEET NO. 96D  
Effective June 8, 2015

REVISED SHEET NO. 96D  
Effective June 1, 2017

RATE ADJUSTMENT MECHANISM PROVISION (continued)

Maui, Lanai, and Molokai Divisions

later than March 31, of the year following the conclusion of the Evaluation Period. The schedules will include the following:

- a) Company's recorded actual average net plant in service, accumulated deferred income taxes, inventory, working capital, and other rate base components. The schedules shall also show the utility's actual depreciation expense, operating and maintenance expense, income taxes, taxes other than income taxes, and other components of income for return, revenues, and actual capital structure, cost of debt, overall cost of capital, and return on common equity in the format set forth in the final order establishing the Company's latest effective rates.
- b) All applicable accounting and pro forma adjustments historically required in annual reports filed with the Commission.
- c) Pro-forma adjustments to remove from recorded revenues any out-of-period Earnings Sharing Revenue Credits or Major Capital Projects Credits recorded during the Evaluation Period, and
- d) A calculation comparing the achieved return on average common equity to the following earnings sharing grid, and indicating the Earnings Sharing Revenue Credit that should be recorded within the Revenue Balancing Account to effect the prescribed sharing of earnings above authorized levels:

ROE at or below the Authorized ROE	Retained entirely by shareholders - no customer credits
First 100 basis points (one percent) over Authorized ROE	25% share credit to customers
Next 200 basis points (two percent) over Authorized ROE	50% share credit to customers
All ROE exceeding 300 basis points (three percent) over Authorized ROE	90% share credit to customers

RAM Period RAM Revenue Adjustment Calculation:

- 2) The Company shall provide additional schedules indicating the following proposed RAM Revenue Adjustment Calculation applicable for the RAM Period using the methodology set forth below:

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated March 31, 2017.

Superseding Sheet No. 96E  
Effective March 30, 2014

REVISED SHEET NO. 96E  
Effective June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

- a) The O&M RAM Adjustment shall adjust Base Expenses segregated between labor and non-labor components and treated as follows:
  - i. The labor component shall be quantified for the RAM Period by application of the Labor Cost Escalation Rate, reduced to account for the Productivity Offset to labor expenses, including payroll taxes. The part of Base Expenses that represents labor costs for merit employees shall not be subject to application of the Labor Cost Escalation rate, nor be reduced by the Productivity Offset.
  - ii. The Non-labor components shall be quantified for the RAM Period by application of the Non-labor Escalation Rate to non-labor Base Expenses. Non-labor components shall exclude fuel, purchased power, pension/OPEBs, IRP/DSM or other rate adjustment provisions.
- b) Depreciation and Amortization RAM Adjustment shall be quantified for the RAM Period by application of Commission-approved accrual rates and methods to the actual recorded Plant in Service balances at the end of the Evaluation Period.
- c) The Rate Base RAM - Return on Investment Adjustment shall be determined by multiplying the applicable Pretax Rate of Return times the change in Rate Base. The Pretax Rate of Return shall include related income taxes on the equity components of the Return on Investment rate approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. The quantification of Rate Base is specified in greater detail in part (f) of this Section 2.
- d) The revenue impact of any Exogenous Tax Changes shall be included in the RAM Period calculation of the RAM Revenue Adjustment.
- e) Revenue taxes shall be adjusted to account for the change in parts (a) through (e) of this Section 2.
- f) Rate Base for the RAM Period shall be quantified as follows:

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

Superseding Sheet No. 96F  
Effective March 30, 2014

REVISED SHEET NO. 96F  
Effective June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION (Continued)

Maui, Lanai, and Molokai Divisions

- i. Plant in Service, Accumulated Depreciation, Accumulated Deferred Income Taxes and Contributions in Aid of Construction ("CIAC") shall be a two-point average of actual recorded balance sheet data at December 31 of the Evaluation Period, plus projected values at December 31 of the RAM Period determined as prescribed in parts (ii) through (v), below.
- ii. Plant in Service shall be quantified by adding to the recorded balances at December 31 of the Evaluation Period, the simple average of Baseline Capital Projects plant additions recorded in the immediately preceding five calendar years, plus the estimated cost of completed Major Capital Projects that are anticipated to be in service by September 30 of the RAM Period. The cost of Major Capital Projects shall be limited to the dollar amounts previously approved by the Commission, and shall be included at the level of recorded costs if recorded costs are lower than the budget amounts approved by the Commission, and the Commission has not yet reviewed the project costs in a rate case.
- iii. Accumulated Depreciation at December 31 of the RAM Period shall be quantified by increasing the recorded balances at December 31 of the Evaluation Period by the amount set forth in Section 2 part (b) above, consistent with rate-making treatment.
- iv. CIAC shall be quantified by adding to the recorded balance at December 31 of the Evaluation Period an estimate of the net change for the RAM Period. The net change shall be based on a simple average of cash and in-kind CIAC for the immediately preceding five calendar years for programs (i.e., numerous low cost capital projects) plus specific engineering estimates of any contributions for the Major Capital Projects anticipated to be in service by September 30 of the RAM Period.
- v. Accumulated Deferred Income Taxes shall be quantified by adding to the recorded balances at December 31 of the Evaluation Period the estimated tax effect of the depreciation timing difference (i.e., difference between book depreciation and tax depreciation) on the Baseline Capital Projects and Major Capital Projects added to rate base during the RAM Period.
- vi. Working Cash and all other elements of rate base not specifically addressed above shall be fixed at the dollar amount approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. These elements of rate base shall be held constant until revised by a future Commission Decision & Order in a general rate case.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.



Superseding Revised Sheet No. 96G  
Effective June 1, 2018

REVISED SHEET NO. 96G  
Effective June 1, 2019

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

g.) See also Settlement Agreement section below

RAM REVENUE ADJUSTMENT CAP

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. The RAM Basis 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 Revenue Adjustment Cap.

The RAM Revenue Adjustment Cap shall be calculated as the RAM Basis, multiplied by the cumulative annually compounded increase(s) in the GDPPI for the years between the rate case calendar test year that established the RAM Basis and the RAM Period, adjusted to include applicable revenue taxes.

The RAM Revenue Adjustment Cap will apply to the entire RAM Revenue Adjustment, which includes the O&M RAM Adjustment, Depreciation and Amortization RAM Adjustment, and Rate Base RAM - Return on Investment Adjustment.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 28, 2019.

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Deleted: 1) as described below in the determination of the 2014 Rate Base RAM - Return on Investment Adjustment and the 2014 Depreciation and Amortization RAM Adjustment, and 2)

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¶  
For the calculation of the RAM Revenue Adjustment Cap for the 2015 RAM Revenue Adjustment and for each subsequent year's calculation of RAM Revenue Adjustment until the issuance of a final decision and order in the next rate case, the Target Revenues that will serve as the RAM Basis will be the 2014 annualized target revenues adjusted as described below. The 2014 RAM Revenue Adjustment used to determine the adjusted 2014 target revenues will be adjusted to use recorded 2014 end-of-year actuals for plant in service, accumulated depreciation and amortization, CIAC and accumulated deferred income taxes in the determination of the 2014 Rate Base RAM - Return on Investment Adjustment. For the determination of the 2014 Depreciation and Amortization RAM Adjustment, the Company applies the Commission-approved accrual rates and methods to the 2014 end of year balances calculated above. There is no impact to the O&M RAM Adjustment. The RAM Basis 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 order by the Commission, as described above.¶  
¶  
The RAM Revenue Adjustment Cap for year 2015 and for each subsequent year until the issuance of a final decision and order in the next rate case shall be calculated as the RAM Basis, multiplied by the cumulative annually compounded increase(s) in the GDPPI for the years between 2014 and the RAM Period, adjusted to include

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Superseding Revised Sheet No. 96H  
Effective June 8, 2015

REVISED SHEET NO. 96H  
Effective June 1, 2019

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

Evaluation Procedures

Complete, indexed workpapers and electronic files supporting the RAM Adjustment, Earnings Sharing Revenue Credits, and Major and Baseline Capital Projects Credits Schedules 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, coincident with the Annual Evaluation Date 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. The Consumer Advocate, Other Rate Case Parties, and other interested persons may propose any adjustments determined to be required to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

The RAM Revenue Adjustment, and any prior year RAM Revenue Adjustments, shall be recalculated for errors in prior calculations and for subsequent Commission orders that change the basis of prior calculations. The effect of such changes to the RAM Revenue Adjustment shall be implemented as described in the Revenue Balancing Account Provision.

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 the June 1 effective date of the RBA Rate Adjustment described in the RBA Provision tariff, the RBA Rate Adjustment incorporating the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, and Major and Baseline Capital Projects Credits shall go into effect on the June 1 effective date, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

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 filing pursuant to this tariff. The notice to customers shall include the following information:

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 28, 2019.

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Superseding Sheet No. 96I  
Effective June 8, 2015

REVISED SHEET NO. 96I  
Effective June 1, 2019

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RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

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- 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.

COMMISSION'S AUTHORITY

The Commission may suspend any or all parts of this Rate Adjustment Mechanism Provision. Such suspension shall remain in place until removed by Commission Order.

Deleted: SETTLEMENT AGREEMENT¶

¶ The provisions in this section are for the sole and limited purpose of implementing the Stipulated Settlement Agreement between the Hawaiian Electric Companies and the Division of Consumer Advocacy regarding Certain Regulatory Matters, filed in Docket No. ¶ 2008-0083, which the Commission approved in Order No. 31126, issued on March 19, 2013.¶

¶ The Company will include in the Rate Base RAM - Return on Investment Adjustment and the Depreciation and Amortization RAM Expense Adjustment, in 2013 and subsequent years, the recoverable costs of the Customer Information System ("CIS") project, net of the Stipulated and Commission approved project cost write-downs and as otherwise provided for in the Stipulated Settlement Agreement. ¶ Recovery of the CIS costs through the RAM Revenue Adjustment is for the sole purpose of this settlement agreement and does not constitute a precedent for the recovery of any other software or regulatory asset deferred costs through the RAM Revenue Adjustment. ¶

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MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 28, 2019.

Superseding Revised Sheet No. 50H  
Effective August 23, 2018

REVISED SHEET NO. 50H  
Effective June 1, 2019

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LANAI DIVISION  
RATE SCHEDULES (Continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
106	"PPAC"	May 4, 2012	Purchase Power Adjustment Clause
106A	"PPAC"	May 4, 2012	Purchase Power Adjustment Clause
106B	"PPAC"	May 4, 2012	Purchase Power Adjustment Clause
107	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
107A	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
107B	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
107C	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
107D	"RAM"	June 1, 2017	Rate Adjustment Mechanism Provision
107E	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
107F	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
107G	"RAM"	<u>June 1, 2019</u>	Rate Adjustment Mechanism Provision
107H	"RAM"	<u>June 1, 2019</u>	Rate Adjustment Mechanism Provision
107I	"RAM"	<u>June 1, 2019</u>	Rate Adjustment Mechanism Provision
108	"RBA"	January 1, 2018	Revenue Balancing Account Provision
108A	"RBA"	June 1, 2018	Revenue Balancing Account Provision
108B	"RBA"	August 23, 2018	Revenue Balancing Account Provision
108C	"RBA"	June 1, 2018	Revenue Balancing Account Provision
108D	"RBA"	June 1, 2018	Revenue Balancing Account Provision
108E	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
108F	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
<u>108G</u>	<u>"RBA"</u>	<u>June 1, 2019</u>	<u>Revenue Balancing Account Provision</u>

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MAUI ELECTRIC COMPANY, LIMITED  
Transmittal Letter dated May 28, 2019.

Superseding Sheet No. 108  
Effective June 1, 2017

REVISED SHEET NO. 108  
Effective January 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION  
Maui, Lanai, and Molokai Divisions

Supplement To:

Schedule R - Residential Service  
Schedule G - General Service - Non-Demand  
Schedule J - General Service - Demand  
Schedule P - Large Power Service  
Schedule F - Public Street Lighting  
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 Power 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 are 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 Maui 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 Maui Electric Company's 2010 test year rate case, Docket No. 2009-0163, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

MAUI ELECTRIC COMPANY, LTD.

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. 108A  
Effective June 1, 2018.

REVISED SHEET NO. 108A  
Effective June 1, 2019

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

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Superseding REVISED SHEET NO. 108B  
Effective June 1, 2018

REVISED SHEET NO. 108B  
Effective August 23, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.38%
February	7.50%
March	8.06%
April	7.85%
May	8.18%
June	8.19%
July	8.77%
August	9.00%
September	8.50%
October	8.73%
November	8.30%
December	<u>8.54%</u>
Total	100.00%

These factors are based on the MWH sales forecast that is approved by the Commission in Maui Electric Company's 2018 test year rate case and shall be updated in any subsequent test year rate case.

MAUI ELECTRIC COMPANY, LTD.

Docket No. 2017-0150; Order No. 35631, issued August 9, 2018.  
Transmittal Letter dated August 21, 2018.

Superseding Sheet No. 108C  
Effective January 1, 2018

REVISED SHEET NO. 108C  
Effective June 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

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.

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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 29, 2018.



Superseding Sheet No. 108D  
Effective January 1, 2018

REVISED SHEET NO. 108D  
Effective June 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 29, 2018.

Superseding Revised Sheet No. 108E  
Effective August 23, 2018

REVISED SHEET NO. 108E  
Effective June 1, 2019

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

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

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

RBA Rate Adjustment

All Rate Schedules ..... 0.8716 ¢/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.

Deleted: Docket No. 2017-0150; Order No. 35631, issued August 9, 2018.

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MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

Superseding Revised Sheet No. 108F  
Effective August 23, 2018

REVISED SHEET NO. 108F  
Effective June 1, 2019

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

H: TARGET REVENUE CURRENTLY IN EFFECT

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Maui Electric Company, Limited  
Annual Target Revenue (\$000s)

	Description	Amount
1	Electric Sales Revenue	\$335,763
	Less:	
2	Fuel Expense	(\$103,385)
3	Purchase Power Expense	(\$54,970)
4	Revenue Tax on Electric Sales Revenue	(\$29,833)
5	Last Rate Order Target Revenues	\$147,575
6	Authorized RAM Revenues	\$2,694
7	Revenue Tax	(\$239)
8	Net RAM Adjustment	\$2,455
9	Authorized MPIR Revenues	\$0
10	Revenue Tax	\$0
11	Net MPIR Adjustment	\$0
12	Earnings Sharing Revenue Credits	\$0
13	Revenue Tax	\$0
14	Net Earnings Sharing Revenue Credits	\$0
15	Performance Incentive Mechanism (PIM)	(\$395)
16	Revenue Tax	\$35
17	Net PIM Reward (Penalty)	(\$360)
18	On-Bill Financing Pgm Implementation Costs	\$198
19	Revenue Tax	(\$18)
20	Net On-Bill Financing Adjustment	\$181
21	PUC-Ordered Major or Baseline Capital Credits	(\$10)
22	Revenue Tax	\$1
23	Net PUC-Ordered Major or Baseline Capital Credits	(\$9)
24	Effective Target Revenue	\$149,842

Notes:

Totals may not add, due to rounding.

Lines 1,2,3: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)  
Schedule B1, filed May 21, 2019.

Lines 4,7,10,13,16,19,22: Revenue Tax based on 8.885% statutory rates.

Lines 6,9,12,15,18,21,24: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)  
Schedule B1, filed May 28, 2019.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

Deleted: Docket No. 2017-0150; Order No. 35631,  
issued August 9, 2018.

Deleted: August 21, 2018

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SHEET NO. 108G  
Effective June 1, 2019

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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 5/31/2018</u>	<u>\$135,177</u>	<u>N/A (1/1/2018 Baseline)</u>	<u>Schedule B1 filed in Transmittal No. 17-04 on 5/22/2017.</u>
<u>Annual Decoupling Filing</u>	<u>6/1/2018 thru 8/22/2018</u>	<u>\$129,404</u>	<u>(\$5,773)</u>	<u>Schedule B1 filed in Transmittal No. 18-03 on 5/21/2018.</u>
<u>2018 Test Year Rate Case (Interim)</u>	<u>8/23/2018 thru 5/31/2019</u>	<u>\$145,310</u>	<u>\$15,906</u>	<u>Schedule B1 filed in Docket No. 2017-0150 on 7/6/2018.</u>
<u>Annual Decoupling Filing</u>	<u>6/1/2019 (current)</u>	<u>\$149,842</u>	<u>\$4,532</u>	<u>Schedule B1 filed in Transmittal No. 19-03 on 5/28/2019.</u>

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MAUI ELECTRIC COMPANY, LTD.

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Transmittal Letter dated May 28, 2019.

Superseding Sheet No. 107  
Effective May 4, 2012

REVISED SHEET NO. 107  
Effective June 1, 2013

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

Rate Adjustment Mechanism ("RAM") Provision

Purpose

This mechanism is subject to review and continuation, termination or modification in the utility's next base rate case proceeding, upon a showing by the utility and finding by the Commission that continuation or modification is appropriate. As part of its submitted testimony in the base rate case, the Company will include a summary report on the status of certain HCEI initiatives. The RAM mechanism is designed to determine the change in annual utility base revenue levels, recognizing certain estimated changes in the utility's cost to provide service. If, through the application of this mechanism, it is determined that annual utility base revenues should be decreased or increased, then the RAM Revenue Adjustment will be applied within the Revenue Balancing Account Provision. The RAM Revenue Adjustment established for a RAM Period calendar year that is also a rate case test year shall terminate on the effective date of tariff rates that are implemented pursuant to a Commission Decision & Order for that test year.

Definitions

- a) The Annual Evaluation Date shall be the Date the Company will make its annual filing under this mechanism. The Annual Evaluation Date shall be no later than March 31st of each year, commencing March 31, 2012.
- b) The Evaluation Period is defined as the historical twelve month period ending December 31, of each calendar year preceding the Annual Evaluation Date. The Evaluation Period is used solely to determine achieved earnings and any sharing of such earnings above the Authorized Return on Equity.
- c) The RAM Period is defined as the calendar year containing the Annual Evaluation Date.
- d) The Labor Cost Escalation Rate shall be the applicable annual percentage general wage rate increase provided for in currently effective union labor agreements for use in escalating wage and salary Base Expenses for union employees to determine the RAM Revenue Adjustment for each RAM Period. In the event no union labor agreement exists for a RAM Period, the most recently effective annual general percentage increase rate shall apply.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 1, 2013.

Superseding Sheet No. 107A  
Effective May 4, 2012

REVISED SHEET NO. 107A  
Effective June 1, 2013

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

e) The Non-labor Cost Escalation Rate shall be the consensus estimated annual change in the Gross Domestic Product Price Indicator ("GDPPI") to escalate non-labor Base Expenses to determine the RAM Revenue Adjustment for each RAM Period. The GDPPI escalation rate shall be the consensus projection published by the Blue Chip Economic Indicators (Aspen Publishing) each February for the current RAM Period. In the event that the Blue Chip Economic Indicators forecast of the GDPPI is not available, the Consumer Advocate, Company, and other parties to the most recent rate case, with approval of the Commission, shall jointly select an alternative data source, or national economic index similar to GDPPI, as appropriate.

f) The annual Labor Productivity Offset shall be fixed at 0.76 percent (76/100 of one percent) and will be subtracted from the Labor Cost Escalation Rates applicable to Base Expenses to determine the authorized RAM Revenue Adjustment for each RAM Period.

g) The Base Expenses shall be the labor and non-labor operations and maintenance expense amounts approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. Base Expenses shall not include any fuel, purchased power, IRP/DSM, pension, Other Post-Employment Benefits ("OPEB"), or Clean Energy/Renewable Energy Infrastructure or any costs that are subject to recovery through separate rate tracking mechanisms.

h) The Major Capital Projects shall be those capital investment projects that require an application before and approval by the Commission under the Commission's General Order No. 7, but excluding those projects included in the Clean Energy Infrastructure Surcharge.

i) The Baseline Capital Projects shall be the total amounts of capital investment completed and closed to Plant in Service, excluding amounts related to Major Capital Projects.

j) The Return on Investment shall be the overall weighted percentage rate of return on debt and equity capital approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case.

k) The Authorized Return on Equity shall be the percentage rate of return on equity capital approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case.

l) The Exogenous Tax Changes shall be the changes in tax laws or regulations that are estimated to impact RBA Target Revenues by five hundred thousand dollars (\$500,000) or more.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 1, 2013.

Superseding Sheet No. 107B  
Effective March 30, 2014

REVISED SHEET NO. 107B  
Effective June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

m) The Rate Base shall be the average net investment estimated for the RAM Period, including each of the elements of rate base reflected within the most recent rate case Decision & Order issued by the Commission, quantified in the manner prescribed in part (f) of Section 2 of the Rate Adjustment Mechanism.

n) The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the lesser of a) the RAM Revenue Adjustment Calculation or b) the RAM Revenue Adjustment Cap.

o) The RAM Revenue Adjustment Calculation shall be the change in the annual amount of revenue required for the utility to recover the sum of the O&M RAM Adjustment, Depreciation & Amortization RAM Adjustment, and Rate Base RAM - Return on Investment Adjustment, using the ratemaking conventions and calculations reflected within the most recent rate case Decision & Order issued by the Commission, quantified in the manner prescribed herein.

p) The RAM Revenue Adjustment Cap shall be based on the Target Revenues determined in accordance with the RBA and RAM tariffs as provided below.

q) The RAM Revenue Adjustment determined by this RAM Provision is to be recovered through the RBA Provision commencing on June 1 and over the subsequent 12 months after June 1.

r) Earnings Sharing Revenue Credits shall be the amounts to be returned to customers as credits through the Revenue Balancing Account ("RBA") Provision, so as to implement the earnings sharing percentages and procedures described herein, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

s) Major Capital Projects Credits shall be the amounts to be returned to customers through the Revenue Balancing Account Provision, to reduce a preceding year's RAM Revenue Adjustment (including interest at the rate described in the RBA Provision) for specific major capital projects that were not placed into service within the first nine months of the preceding RAM Period as expected. Because the Commission's review of the Major Capital Projects' actual costs incurred may not occur until the rate case after the RAM Revenue Adjustment for these Major Capital Projects is collected, Major Capital Projects Credits (including interest) will be returned to customers for the amount of Major Capital Projects costs that the Commission disallows for cost recovery. The Major Capital Projects Credits are to be refunded through the

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

Superseding Sheet No. 107C  
Effective March 30, 2014

REVISED SHEET NO. 107C  
Effective June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

RBA Provision, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

t) Baseline Capital Projects Credits shall be the amounts to be returned to customers through the RBA Provision, to reduce a preceding year's RAM Revenue Adjustment (including interest at the rate described in the RBA Provision) for specific baseline capital projects that are disallowed by the Commission in a subsequent rate case if the disallowance reduces actual Baseline Capital Projects costs below the Baseline Capital Projects cost estimate derived using the method identified in part (f)ii. of Section 2 of the Rate Adjustment Mechanism below. Because the Commission's review of baseline capital projects may not occur until the rate case after such baseline capital projects are included in one or more RAM Revenue Adjustment filings, Baseline Capital Projects Credits shall be used to refund to customers any prior collections (i.e., Return on Investment on Rate Base and Depreciation, plus interest) relating to the amount of Baseline Capital Projects costs that the Commission subsequently disallows for cost recovery. The Baseline Capital Projects Credits are to be refunded through the RBA Provision, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

Rate Adjustment Mechanism

The Company shall file with the Commission, the Consumer Advocate and each party to the Company's most recent rate case proceeding, the schedules specified below:

Evaluation Period Earnings Sharing:

1. For the twelve month period ending December 31, of each year (the "Evaluation Period"), with the filing to be made no later than March 31, of the year following the conclusion of the Evaluation Period. The schedules will include the following:

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.



Superseding REVISED SHEET No. 107D  
Effective June 8, 2015

REVISED SHEET No. 107D  
Effective June 1, 2017

RATE ADJUSTMENT MECHANISM PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

- a) Company's recorded actual average net plant in service, accumulated deferred income taxes, inventory, working capital, and other rate base components. The schedules shall also show the utility's actual depreciation expense, operating and maintenance expense, income taxes, taxes other than income taxes, and other components of income for return, revenues, and actual capital structure, cost of debt, overall cost of capital, and return on common equity in the format set forth in the final order establishing the Company's latest effective rates.
- b) All applicable accounting and pro forma adjustments historically required in annual reports filed with the Commission.
- c) Pro-forma adjustments to remove from recorded revenues any out-of-period Earnings Sharing Revenue Credits or Major Capital Projects Credits recorded during the Evaluation Period, and
- d) A calculation comparing the achieved return on average common equity to the following earnings sharing grid, and indicating the Earnings Sharing Revenue Credit that should be recorded within the Revenue Balancing Account to effect the prescribed sharing of earnings above authorized levels:

ROE at or below the Authorized ROE	Retained entirely by shareholders - no customer credits
First 100 basis points (one percent) over Authorized ROE	25% share credit to customers
Next 200 basis points (two percent) over Authorized ROE	50% share credit to customers
All ROE exceeding 300 basis points (three percent) over Authorized ROE	90% share credit to customers

RAM Period RAM Revenue Adjustment Calculation:

- 2) The Company shall provide additional schedules indicating the following proposed RAM Revenue Adjustment Calculation applicable for the RAM Period using the methodology set forth below:
  - a) The O&M RAM Adjustment shall adjust Base Expenses segregated between labor and non-labor components and treated as follows:

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated March 31, 2017.

Superseding Sheet No. 107E  
Effective March 30, 2014

REVISED SHEET No. 107E  
Effective June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION (continued)

Maui, Lanai, and Molokai Divisions

- i. The labor component shall be quantified for the RAM Period by application of the Labor Cost Escalation Rate, reduced to account for the Productivity Offset to labor expenses, including payroll taxes. The part of Base Expenses that represents labor costs for merit employees shall not be subject to application of the Labor Cost Escalation rate, nor be reduced by the Productivity Offset.
  - ii. The Non-labor components shall be quantified for the RAM Period by application of the Non-labor Escalation Rate to non-labor Base Expenses. Non-labor components shall exclude fuel, purchased power, pension/OPEBs, IRP/DSM or other rate adjustment provisions.
- b) Depreciation and Amortization RAM Adjustment shall be quantified for the RAM Period by application of Commission-approved accrual rates and methods to the actual recorded Plant in Service balances at the end of the Evaluation Period.
  - c) The Rate Base RAM - Return on Investment Adjustment shall be determined by multiplying the applicable Pretax Rate of Return times the change in Rate Base. The Pretax Rate of Return shall include related income taxes on the equity components of the Return on Investment rate approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. The quantification of Rate Base is specified in greater detail in part (f) of this Section 2.
  - d) The revenue impact of any Exogenous Tax Changes shall be included in the RAM Period calculation of the RAM Revenue Adjustment.
  - e) Revenue taxes shall be adjusted to account for the change in parts (a) through (e) of this Section 2.
  - f) Rate Base for the RAM Period shall be quantified as follows:

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

- i. Plant in Service, Accumulated Depreciation, Accumulated Deferred Income Taxes and Contributions in Aid of Construction ("CIAC") shall be a two-point average of actual recorded balance sheet data at December 31 of the Evaluation Period, plus projected values at December 31 of the RAM Period determined as prescribed in parts (ii) through (v), below.
- ii. Plant in Service shall be quantified by adding to the recorded balances at December 31 of the Evaluation Period, the simple average of Baseline Capital Projects plant additions recorded in the immediately preceding five calendar years, plus the estimated cost of completed Major Capital Projects that are anticipated to be in service by September 30 of the RAM Period. The cost of Major Capital Projects shall be limited to the dollar amounts previously approved by the Commission, and shall be included at the level of recorded costs if recorded costs are lower than the budget amounts approved by the Commission, and the Commission has not yet reviewed the project costs in a rate case.
- iii. Accumulated Depreciation at December 31 of the RAM Period shall be quantified by increasing the recorded balances at December 31 of the Evaluation Period by the amount set forth in Section 2 part (b) above, consistent with rate-making treatment.
- iv. CIAC shall be quantified by adding to the recorded balance at December 31 of the Evaluation Period an estimate of the net change for the RAM Period. The net change shall be based on a simple average of cash and in-kind CIAC for the immediately preceding five calendar years for programs (i.e., numerous low cost capital projects) plus specific engineering estimates of any contributions for the Major Capital Projects anticipated to be in service by September 30 of the RAM Period.
- v. Accumulated Deferred Income Taxes shall be quantified by adding to the recorded balances at December 31 of the Evaluation Period the estimated tax effect of the depreciation timing difference (i.e., difference between book depreciation and tax depreciation) on the Baseline Capital Projects and Major Capital Projects added to rate base during the RAM Period.
- vi. Working Cash and all other elements of rate base not specifically addressed above shall be fixed at the dollar amount approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. These elements of rate base shall be held constant until revised by a future Commission Decision & Order in a general rate case.

g.) See also Settlement Agreement section below.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

Superseding Revised Sheet No. 107G, REVISED SHEET NO. 107G  
Effective June 1, 2018, Effective June 1, 2019

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RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

RAM REVENUE ADJUSTMENT CAP

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. The RAM Basis 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 Revenue Adjustment Cap.

**Deleted:** 1) as described below in the determination of the 2014 Rate Base RAM - Return on Investment Adjustment and the 2014 Depreciation and Amortization RAM Adjustment, and 2)

The RAM Revenue Adjustment Cap shall be calculated as the RAM Basis, multiplied by the cumulative annually compounded increase(s) in the GDPPI for the years between the rate case calendar test year that established the RAM Basis and the RAM Period, adjusted to include applicable revenue taxes.

The RAM Revenue Adjustment Cap will apply to the entire RAM Revenue Adjustment, which includes the O&M RAM Adjustment, Depreciation and Amortization RAM Adjustment, and Rate Base RAM - Return on Investment Adjustment.

**Deleted:** Exception to the calculation of the RAM Revenue Adjustment Cap: ¶

¶  
For the calculation of the RAM Revenue Adjustment Cap for the 2015 RAM Revenue Adjustment and for each subsequent year's calculation of RAM Revenue Adjustment until the issuance of a final decision and order in the next rate case, the Target Revenues that will serve as the RAM Basis will be the 2014 annualized target revenues adjusted as described below. The 2014 RAM Revenue Adjustment used to determine the adjusted 2014 target revenues will be adjusted to use recorded 2014 end-of-year actuals for plant in service, accumulated depreciation and amortization, CIAC and accumulated deferred income taxes in the determination of the 2014 Rate Base RAM - Return on Investment Adjustment. For the determination of the 2014 Depreciation and Amortization RAM Adjustment, the Company applies the Commission-approved accrual rates and methods to the 2014 end of year balances calculated above. There is no impact to the O&M RAM Adjustment. The RAM Basis 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 order by the Commission, as described above.¶

¶  
The RAM Revenue Adjustment Cap for year 2015 and for each subsequent year until the issuance of a final decision and order in the next rate case shall be calculated as the RAM Basis, multiplied by the cumulative annually compounded increase(s) in the GDPPI for the years between 2014 and the RAM Period, adjusted to include

**Deleted:** May 29, 2018

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 28, 2019.

Superseding Revised Sheet No. 107H  
Effective June 8, 2015

REVISED SHEET NO. 107H  
Effective June 1, 2019

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RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

Evaluation Procedures

Deleted: applicable revenue taxes.¶

Complete, indexed workpapers and electronic files supporting the RAM Adjustment, Earnings Sharing Revenue Credits, and Major and Baseline Capital Projects Credits Schedules 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, coincident with the Annual Evaluation Date 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. The Consumer Advocate, Other Rate Case Parties, and other interested persons may propose any adjustments determined to be required to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

The RAM Revenue Adjustment, and any prior year RAM Revenue Adjustments, shall be recalculated for errors in prior calculations and for subsequent Commission orders that change the basis of prior calculations. The effect of such changes to the RAM Revenue Adjustment shall be implemented as described in the Revenue Balancing Account Provision.

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 the June 1 effective date of the RBA Rate Adjustment described in the RBA Provision tariff, the RBA Rate Adjustment incorporating the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, and Major and Baseline Capital Projects Credits shall go into effect on the June 1 effective date, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

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 filing pursuant to this tariff. The notice to customers shall include the following information:

MAUI ELECTRIC COMPANY, LTD.

Deleted: June 3, 2015

Transmittal Letter Dated May 28, 2019.

Superseding Sheet No. 107I  
Effective June 8, 2015

REVISED SHEET NO. 107I  
Effective June 1, 2019

Deleted: June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

- 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.

COMMISSION'S AUTHORITY

The Commission may suspend any or all parts of this Rate Adjustment Mechanism Provision. Such suspension shall remain in place until removed by Commission Order.

Deleted: SETTLEMENT AGREEMENT¶

¶  
The provisions in this section are for the sole and limited purpose of implementing the *Stipulated Settlement Agreement between the Hawaiian Electric Companies and the Division of Consumer Advocacy* ¶ regarding Certain Regulatory Matters, filed in Docket No. ¶  
2008-0083, which the Commission approved in Order No. 31126, issued on March 19, 2013.¶

¶  
The Company will include in the Rate Base RAM - Return on Investment Adjustment and the Depreciation and Amortization RAM Expense Adjustment, in 2013 and subsequent years, the recoverable costs of the Customer Information System ("CIS") project, net of the Stipulated and Commission approved project cost write-downs and as otherwise provided for in the Stipulated Settlement Agreement. ¶  
Recovery of the CIS costs through the RAM Revenue Adjustment is for the sole purpose of this settlement agreement and does not constitute a precedent for the recovery of any other software or regulatory asset deferred costs through the RAM Revenue Adjustment. ¶

MAUI ELECTRIC COMPANY, LTD.

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Transmittal Letter Dated May 28, 2019.

Superseding Revised Sheet No. 100E  
Effective August 23, 2018

REVISED SHEET NO. 100E  
Effective June 1, 2019

MOLOKAI DIVISION  
RATE SCHEDULES (Continued)

<u>Sheet</u>	<u>Schedule</u>	<u>Date Effective</u>	<u>Character of Service</u>
151A	"RAM"	June 1, 2013	Rate Adjustment Mechanism Provision
151B	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
151C	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
151D	"RAM"	June 1, 2017	Rate Adjustment Mechanism Provision
151E	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
151F	"RAM"	June 8, 2015	Rate Adjustment Mechanism Provision
151G	"RAM"	<u>June 1, 2019</u>	Rate Adjustment Mechanism Provision
151H	"RAM"	<u>June 1, 2019</u>	Rate Adjustment Mechanism Provision
151I	"RAM"	<u>June 1, 2019</u>	Rate Adjustment Mechanism Provision
152	"RBA"	January 1, 2018	Revenue Balancing Account Provision
152A	"RBA"	January 1, 2018	Revenue Balancing Account Provision
152B	"RBA"	August 23, 2018	Revenue Balancing Account Provision
152C	"RBA"	June 1, 2018	Revenue Balancing Account Provision
152D	"RBA"	June 1, 2018	Revenue Balancing Account Provision
152E	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
152F	"RBA"	<u>June 1, 2019</u>	Revenue Balancing Account Provision
<u>152G</u>	<u>"RBA"</u>	<u>June 1, 2019</u>	<u>Revenue Balancing Account Provision</u>

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MAUI ELECTRIC COMPANY, LIMITED

Transmittal Letter Dated May 28, 2019

Superseding Sheet No. 152  
Effective June 1, 2017

REVISED SHEET NO. 152  
Effective January 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION  
Maui, Lanai, and Molokai Divisions

Supplement To:

Schedule R	- Residential Service
Schedule G	- General Service - Non-Demand
Schedule J	- General Service - Demand
Schedule P	- Large Power Service
Schedule F	- Public Street Lighting
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 Power 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 are 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 Maui 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 Maui Electric Company's 2010 test year rate case, Docket No. 2009-0163, consistent with the Final Decision and Order in the Decoupling case, Docket No. 2008-0274.

MAUI ELECTRIC COMPANY, LTD.

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



Superseding Sheet No. 152A

Effective January 1, 2018

REVISED SHEET NO. 152A

Effective June 1, 2019

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

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Superseding Sheet No. 152B  
Effective June 1, 2018

REVISED SHEET NO. 152B  
Effective August 23, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

Monthly Allocation Factors for the Target Revenue are as follows:

January	8.38%
February	7.50%
March	8.06%
April	7.85%
May	8.18%
June	8.19%
July	8.77%
August	9.00%
September	8.50%
October	8.73%
November	8.30%
December	<u>8.54%</u>
Total	100.00%

These factors are based on the MWH sales forecast that is approved by the Commission in Maui Electric Company's 2018 test year rate case and shall be updated in any subsequent test year rate case.

MAUI ELECTRIC COMPANY, LTD.

Docket No. 2017-0150; Order No. 35631, issued August 9, 2018.  
Transmittal Letter dated August 21, 2018.

Superseding Sheet No. 152C  
Effective January 1, 2018

REVISED SHEET NO. 152C  
Effective June 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 29, 2018.

Superseding Sheet No. 152D  
Effective January 1, 2018

REVISED SHEET NO. 152D  
Effective June 1, 2018

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

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.

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.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 29, 2018.

Superseding Revised Sheet No. 152E  
Effective August 23, 2018

REVISED SHEET NO. 152E  
Effective June 1, 2019

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

E: REVENUE BALANCING ACCOUNT RATE ADJUSTMENT:

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

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

RBA Rate Adjustment

All Rate Schedules ..... 0.8716 ¢/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.

Deleted: Docket No. 2017-0150; Order No. 35631, issued August 9, 2018.

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MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

Superseding Revised Sheet No. 152F  
Effective August 23, 2018

REVISED SHEET NO. 152F  
Effective June 1, 2019

Deleted: June 1, 2018

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REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

H: TARGET REVENUE CURRENTLY IN EFFECT

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Maui Electric Company, Limited  
Annual Target Revenue (\$000s)

	Description	Amount
1	Electric Sales Revenue	\$335,763
	Less:	
2	Fuel Expense	(\$103,385)
3	Purchase Power Expense	(\$54,970)
4	Revenue Tax on Electric Sales Revenue	(\$29,833)
5	Last Rate Order Target Revenues	\$147,575
6	Authorized RAM Revenues	\$2,694
7	Revenue Tax	(\$239)
8	Net RAM Adjustment	\$2,455
9	Authorized MPIR Revenues	\$0
10	Revenue Tax	\$0
11	Net MPIR Adjustment	\$0
12	Earnings Sharing Revenue Credits	\$0
13	Revenue Tax	\$0
14	Net Earnings Sharing Revenue Credits	\$0
15	Performance Incentive Mechanism (PIM)	(\$395)
16	Revenue Tax	\$35
17	Net PIM Reward (Penalty)	(\$360)
18	On-Bill Financing Pgm Implementation Costs	\$198
19	Revenue Tax	(\$18)
20	Net On-Bill Financing Adjustment	\$181
21	PUC-Ordered Major or Baseline Capital Credits	(\$10)
22	Revenue Tax	\$1
23	Net PUC-Ordered Major or Baseline Capital Credits	(\$9)
24	Effective Target Revenue	\$149,842

Notes:

Totals may not add, due to rounding.

Lines 1,2,3: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)  
Schedule B1, filed May 21, 2019.

Lines 4,7,10,13,16,19,22: Revenue Tax based on 8.885% statutory rates.

Lines 6,9,12,15,18,21,24: Transmittal Nos. 19-01, 19-02, 19-03 Consolidated (Decoupling)  
Schedule B1, filed May 28, 2019.

Deleted: Docket No. 2017-0150; Order No. 35631,  
issued August 9, 2018.

Deleted: August 21, 2018

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MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

SHEET NO. 152G  
Effective June 1, 2019

REVENUE BALANCING ACCOUNT ("RBA") PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

I: HISTORICAL REFERENCE

Category	Effective Period	Effective Target Revenue (\$000)	Change in Target Revenue (\$000)	Source
Annual Decoupling Filing	6/1/2017 thru 5/31/2018	\$135,177	N/A (1/1/2018 Baseline)	Schedule B1 filed in Transmittal No. 17-04 on 5/22/2017.
Annual Decoupling Filing	6/1/2018 thru 8/22/2018	\$129,404	(\$5,773)	Schedule B1 filed in Transmittal No. 18-03 on 5/21/2018.
2018 Test Year Rate Case (Interim)	8/23/2018 thru 5/31/2019	\$145,310	\$15,906	Schedule B1 filed in Docket No. 2017-0150 on 7/6/2018.
Annual Decoupling Filing	6/1/2019 (current)	\$149,842	\$4,532	Schedule B1 filed in Transmittal No. 19-03 on 5/21/2019.

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Deleted: Docket No. 2017-0150; Order No. 35631, issued August 9, 2018.

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MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter dated May 28, 2019.

Superseding Sheet No. 151  
Effective May 4, 2012

REVISED SHEET NO. 151  
Effective June 1, 2013

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

Rate Adjustment Mechanism ("RAM") Provision

Purpose

This mechanism is subject to review and continuation, termination or modification in the utility's next base rate case proceeding, upon a showing by the utility and finding by the Commission that continuation or modification is appropriate. As part of its submitted testimony in the base rate case, the Company will include a summary report on the status of certain HCEI initiatives. The RAM mechanism is designed to determine the change in annual utility base revenue levels, recognizing certain estimated changes in the utility's cost to provide service. If, through the application of this mechanism, it is determined that annual utility base revenues should be decreased or increased, then the RAM Revenue Adjustment will be applied within the Revenue Balancing Account Provision. The RAM Revenue Adjustment established for a RAM Period calendar year that is also a rate case test year shall terminate on the effective date of tariff rates that are implemented pursuant to a Commission Decision & Order for that test year.

Definitions

- a) The Annual Evaluation Date shall be the Date the Company will make its annual filing under this mechanism. The Annual Evaluation Date shall be no later than March 31st of each year, commencing March 31, 2012.
- b) The Evaluation Period is defined as the historical twelve month period ending December 31, of each calendar year preceding the Annual Evaluation Date. The Evaluation Period is used solely to determine achieved earnings and any sharing of such earnings above the Authorized Return on Equity.
- c) The RAM Period is defined as the calendar year containing the Annual Evaluation Date.
- d) The Labor Cost Escalation Rate shall be the applicable annual percentage general wage rate increase provided for in currently effective union labor agreements for use in escalating wage and salary Base Expenses for union employees to determine the RAM Revenue Adjustment for each RAM Period. In the event no union labor agreement exists for a RAM Period, the most recently effective annual general percentage increase rate shall apply.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 1, 2013.



Superseding Sheet No. 151A  
Effective May 4, 2012

REVISED SHEET NO. 151A  
Effective June 1, 2013

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

e) The Non-labor Cost Escalation Rate shall be the consensus estimated annual change in the Gross Domestic Product Price Indicator ("GDPPI") to escalate non-labor Base Expenses to determine the RAM Revenue Adjustment for each RAM Period. The GDPPI escalation rate shall be the consensus projection published by the Blue Chip Economic Indicators (Aspen Publishing) each February for the current RAM Period. In the event that the Blue Chip Economic Indicators forecast of the GDPPI is not available, the Consumer Advocate, Company, and other parties to the most recent rate case, with approval of the Commission, shall jointly select an alternative data source, or national economic index similar to GDPPI, as appropriate.

f) The annual Labor Productivity Offset shall be fixed at 0.76 percent (76/100 of one percent) and will be subtracted from the Labor Cost Escalation Rates applicable to Base Expenses to determine the authorized RAM Revenue Adjustment for each RAM Period.

g) The Base Expenses shall be the labor and non-labor operations and maintenance expense amounts approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. Base Expenses shall not include any fuel, purchased power, IRP/DSM, pension, Other Post-Employment Benefits ("OPEB"), or Clean Energy/Renewable Energy Infrastructure or any costs that are subject to recovery through separate rate tracking mechanisms.

h) The Major Capital Projects shall be those capital investment projects that require an application before and approval by the Commission under the Commission's General Order No. 7, but excluding those projects included in the Clean Energy Infrastructure Surcharge.

i) The Baseline Capital Projects shall be the total amounts of capital investment completed and closed to Plant in Service, excluding amounts related to Major Capital Projects.

j) The Return on Investment shall be the overall weighted percentage rate of return on debt and equity capital approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case.

k) The Authorized Return on Equity shall be the percentage rate of return on equity capital approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case.

l) The Exogenous Tax Changes shall be the changes in tax laws or regulations that are estimated to impact RBA Target Revenues by five hundred thousand dollars (\$500,000) or more.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 1, 2013.

Superseding Sheet No. 151B  
Effective March 30, 2014

REVISED SHEET NO. 151B  
Effective June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

m) The Rate Base shall be the average net investment estimated for the RAM Period, including each of the elements of rate base reflected within the most recent rate case Decision & Order issued by the Commission, quantified in the manner prescribed in part (f) of Section 2 of the Rate Adjustment Mechanism.

n) The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the lesser of a) the RAM Revenue Adjustment Calculation or b) the RAM Revenue Adjustment Cap.

o) The RAM Revenue Adjustment Calculation shall be the change in the annual amount of revenue required for the utility to recover the sum of the O&M RAM Adjustment, Depreciation & Amortization RAM Adjustment, and Rate Base RAM - Return on Investment Adjustment, using the ratemaking conventions and calculations reflected within the most recent rate case Decision & Order issued by the Commission, quantified in the manner prescribed herein.

p) The RAM Revenue Adjustment Cap shall be based on the Target Revenues determined in accordance with the RBA and RAM tariffs as provided below.

q) The RAM Revenue Adjustment determined by this RAM Provision is to be recovered through the RBA Provision commencing on June 1 and over the subsequent 12 months after June 1.

r) Earnings Sharing Revenue Credits shall be the amounts to be returned to customers as credits through the Revenue Balancing Account ("RBA") Provision, so as to implement the earnings sharing percentages and procedures described herein, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

s) Major Capital Projects Credits shall be the amounts to be returned to customers through the Revenue Balancing Account Provision, to reduce a preceding year's RAM Revenue Adjustment (including interest at the rate described in the RBA Provision) for specific major capital projects that were not placed into service within the first nine months of the preceding RAM Period as expected. Because the Commission's review of the Major Capital Projects' actual costs incurred may not occur until the rate case after the RAM Revenue Adjustment for these Major Capital Projects is collected, Major Capital Projects Credits (including interest) will be returned to customers for the amount of Major Capital Projects costs that the Commission disallows for cost recovery. The Major Capital Projects Credits are to be refunded through the

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

Superseding Sheet No. 151C  
Effective March 30, 2014

REVISED SHEET NO. 151C  
Effective June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION  
Maui, Lanai, and Molokai Divisions

RBA Provision, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

t) Baseline Capital Projects Credits shall be the amounts to be returned to customers through the RBA Provision, to reduce a preceding year's RAM Revenue Adjustment (including interest at the rate described in the RBA Provision) for specific baseline capital projects that are disallowed by the Commission in a subsequent rate case if the disallowance reduces actual Baseline Capital Projects costs below the Baseline Capital Projects cost estimate derived using the method identified in part (f)ii. of Section 2 of the Rate Adjustment Mechanism below. Because the Commission's review of baseline capital projects may not occur until the rate case after such baseline capital projects are included in one or more RAM Revenue Adjustment filings, Baseline Capital Projects Credits shall be used to refund to customers any prior collections (i.e., Return on Investment on Rate Base and Depreciation, plus interest) relating to the amount of Baseline Capital Projects costs that the Commission subsequently disallows for cost recovery. The Baseline Capital Projects Credits are to be refunded through the RBA Provision, commencing on June 1 of the calendar year containing the Annual Evaluation Date and over the subsequent 12 months after June 1.

Rate Adjustment Mechanism

The Company shall file with the Commission, the Consumer Advocate and each party to the Company's most recent rate case proceeding, the schedules specified below:

Evaluation Period Earnings Sharing:

1. For the twelve month period ending December 31, of each year (the "Evaluation Period"), with the filing to be made no later than March 31, of the year following the conclusion of the Evaluation Period. The schedules will include the following:

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

Superseding REVISED SHEET No. 151D  
Effective June 8, 2015

REVISED SHEET No. 151D  
Effective June 1, 2017

RATE ADJUSTMENT MECHANISM PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

- a) Company's recorded actual average net plant in service, accumulated deferred income taxes, inventory, working capital, and other rate base components. The schedules shall also show the utility's actual depreciation expense, operating and maintenance expense, income taxes, taxes other than income taxes, and other components of income for return, revenues, and actual capital structure, cost of debt, overall cost of capital, and return on common equity in the format set forth in the final order establishing the Company's latest effective rates.
- b) All applicable accounting and pro forma adjustments historically required in annual reports filed with the Commission.
- c) Pro-forma adjustments to remove from recorded revenues any out-of-period Earnings Sharing Revenue Credits or Major Capital Projects Credits recorded during the Evaluation Period, and
- d) A calculation comparing the achieved return on average common equity to the following earnings sharing grid, and indicating the Earnings Sharing Revenue Credit that should be recorded within the Revenue Balancing Account to effect the prescribed sharing of earnings above authorized levels:

ROE at or below the Authorized ROE	Retained entirely by shareholders - no customer credits
First 100 basis points (one percent) over Authorized ROE	25% share credit to customers
Next 200 basis points (two percent) over Authorized ROE	50% share credit to customers
All ROE exceeding 300 basis points (three percent) over Authorized ROE	90% share credit to customers

RAM Period RAM Revenue Adjustment Calculation:

- 2) The Company shall provide additional schedules indicating the following proposed RAM Revenue Adjustment Calculation applicable for the RAM Period using the methodology set forth below:

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated March 31, 2017.

Superseding Sheet No. 151E  
Effective March 30, 2014

REVISED SHEET No. 151E  
Effective June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION (continued)  
Maui, Lanai, and Molokai Divisions

- a) The O&M RAM Adjustment shall adjust Base Expenses segregated between labor and non-labor components and treated as follows:
  - i. The labor component shall be quantified for the RAM Period by application of the Labor Cost Escalation Rate, reduced to account for the Productivity Offset to labor expenses, including payroll taxes. The part of Base Expenses that represents labor costs for merit employees shall not be subject to application of the Labor Cost Escalation rate, nor be reduced by the Productivity Offset.
  - ii. The Non-labor components shall be quantified for the RAM Period by application of the Non-labor Escalation Rate to non-labor Base Expenses. Non-labor components shall exclude fuel, purchased power, pension/OPEBs, IRP/DSM or other rate adjustment provisions.
- b) Depreciation and Amortization RAM Adjustment shall be quantified for the RAM Period by application of Commission-approved accrual rates and methods to the actual recorded Plant in Service balances at the end of the Evaluation Period.
- c) The Rate Base RAM - Return on Investment Adjustment shall be determined by multiplying the applicable Pretax Rate of Return times the change in Rate Base. The Pretax Rate of Return shall include related income taxes on the equity components of the Return on Investment rate approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. The quantification of Rate Base is specified in greater detail in part (f) of this Section 2.
- d) The revenue impact of any Exogenous Tax Changes shall be included in the RAM Period calculation of the RAM Revenue Adjustment.
- e) Revenue taxes shall be adjusted to account for the change in parts (a) through (e) of this Section 2.
- f) Rate Base for the RAM Period shall be quantified as follows:

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

Superseding Sheet No. 151F  
Effective March 30, 2014

REVISED SHEET NO. 151F  
Effective June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION (Continued)

Maui, Lanai, and Molokai Divisions

- i. Plant in Service, Accumulated Depreciation, Accumulated Deferred Income Taxes and Contributions in Aid of Construction ("CIAC") shall be a two-point average of actual recorded balance sheet data at December 31 of the Evaluation Period, plus projected values at December 31 of the RAM Period determined as prescribed in parts (ii) through (v), below.
- ii. Plant in Service shall be quantified by adding to the recorded balances at December 31 of the Evaluation Period, the simple average of Baseline Capital Projects plant additions recorded in the immediately preceding five calendar years, plus the estimated cost of completed Major Capital Projects that are anticipated to be in service by September 30 of the RAM Period. The cost of Major Capital Projects shall be limited to the dollar amounts previously approved by the Commission, and shall be included at the level of recorded costs if recorded costs are lower than the budget amounts approved by the Commission, and the Commission has not yet reviewed the project costs in a rate case.
- iii. Accumulated Depreciation at December 31 of the RAM Period shall be quantified by increasing the recorded balances at December 31 of the Evaluation Period by the amount set forth in Section 2 part (b) above, consistent with rate-making treatment.
- iv. CIAC shall be quantified by adding to the recorded balance at December 31 of the Evaluation Period an estimate of the net change for the RAM Period. The net change shall be based on a simple average of cash and in-kind CIAC for the immediately preceding five calendar years for programs (i.e., numerous low cost capital projects) plus specific engineering estimates of any contributions for the Major Capital Projects anticipated to be in service by September 30 of the RAM Period.
- v. Accumulated Deferred Income Taxes shall be quantified by adding to the recorded balances at December 31 of the Evaluation Period the estimated tax effect of the depreciation timing difference (i.e., difference between book depreciation and tax depreciation) on the Baseline Capital Projects and Major Capital Projects added to rate base during the RAM Period.
- vi. Working Cash and all other elements of rate base not specifically addressed above shall be fixed at the dollar amount approved by the Commission in the last issued Decision & Order in the Company's most recent test year general rate case. These elements of rate base shall be held constant until revised by a future Commission Decision & Order in a general rate case.

g.) See also Settlement Agreement section below.

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated June 3, 2015.

Superseding Revised Sheet No. 151G  
Effective June 1, 2018

REVISED SHEET NO. 151G  
Effective June 1, 2019

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RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

RAM REVENUE ADJUSTMENT CAP

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. The RAM Basis 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 Revenue Adjustment Cap.

Deleted: 1) as described below in the determination of the 2014 Rate Base RAM - Return on Investment Adjustment and the 2014 Depreciation and Amortization RAM Adjustment, and 2)

The RAM Revenue Adjustment Cap shall be calculated as the RAM Basis, multiplied by the cumulative annually compounded increase(s) in the GDPPI for the years between the rate case calendar test year that established the RAM Basis and the RAM Period, adjusted to include applicable revenue taxes.

The RAM Revenue Adjustment Cap will apply to the entire RAM Revenue Adjustment, which includes the O&M RAM Adjustment, Depreciation and Amortization RAM Adjustment, and Rate Base RAM - Return on Investment Adjustment.

Deleted: Exception to the calculation of the RAM Revenue Adjustment Cap: ¶  
¶  
For the calculation of the RAM Revenue Adjustment Cap for the 2015 RAM Revenue Adjustment and for each subsequent year's calculation of RAM Revenue Adjustment until the issuance of a final decision and order in the next rate case, the Target Revenues that will serve as the RAM Basis will be the 2014 annualized target revenues adjusted as described below. The 2014 RAM Revenue Adjustment used to determine the adjusted 2014 target revenues will be adjusted to use recorded 2014 end-of-year actuals for plant in service, accumulated depreciation and amortization, CIAC and accumulated deferred income taxes in the determination of the 2014 Rate Base RAM - Return on Investment Adjustment. For the determination of the 2014 Depreciation and Amortization RAM Adjustment, the Company applies the Commission-approved accrual rates and methods to the 2014 end of year balances calculated above. There is no impact to the O&M RAM Adjustment. The RAM Basis 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 order by the Commission, as described above.¶  
¶  
The RAM Revenue Adjustment Cap for year 2015 and for each subsequent year until the issuance of a final decision and order in the next rate case shall be calculated as the RAM Basis, multiplied

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MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 28, 2019.

Superseding Revised Sheet No. 151H  
Effective June 8, 2015

REVISED SHEET NO. 151H  
Effective June 1, 2019

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RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

Evaluation Procedures

Deleted: by the cumulative annually compounded increase(s) in the GDPPI for the years between 2014 and the RAM Period, adjusted to include applicable revenue taxes. ¶

Complete, indexed workpapers and electronic files supporting the RAM Adjustment, Earnings Sharing Revenue Credits, and Major and Baseline Capital Projects Credits Schedules 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, coincident with the Annual Evaluation Date 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. The Consumer Advocate, Other Rate Case Parties, and other interested persons may propose any adjustments determined to be required to bring the schedules into compliance with the above provisions and will work collaboratively to reach agreement on any proposed adjustments.

The RAM Revenue Adjustment, and any prior year RAM Revenue Adjustments, shall be recalculated for errors in prior calculations and for subsequent Commission orders that change the basis of prior calculations. The effect of such changes to the RAM Revenue Adjustment shall be implemented as described in the Revenue Balancing Account Provision.

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 the June 1 effective date of the RBA Rate Adjustment described in the RBA Provision tariff, the RBA Rate Adjustment incorporating the RAM Revenue Adjustment, Earnings Sharing Revenue Credits, and Major and Baseline Capital Projects Credits shall go into effect on the June 1 effective date, and the Commission shall confirm the commencement of the RBA Rate Adjustment in its monthly Tariff Order.

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 filing pursuant to this tariff. The notice to customers shall include the following information:

MAUI ELECTRIC COMPANY, LTD.

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Transmittal Letter Dated May 28, 2019.



Superseding Sheet No. 151I  
Effective June 8, 2015

REVISED SHEET NO. 151I  
Effective June 1, 2019

Deleted: June 8, 2015

RATE ADJUSTMENT MECHANISM PROVISION (Continued)  
Maui, Lanai, and Molokai Divisions

- 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.

COMMISSION'S AUTHORITY

The Commission may suspend any or all parts of this Rate Adjustment Mechanism Provision. Such suspension shall remain in place until removed by Commission Order.

Deleted: SETTLEMENT AGREEMENT¶

¶ The provisions in this section are for the sole and limited purpose of implementing the *Stipulated Settlement Agreement between the Hawaiian Electric Companies and the Division of Consumer Advocacy* regarding Certain Regulatory Matters, filed in Docket No. ¶ 2008-0083, which the Commission approved in Order No. 31126, issued on March 19, 2013.¶  
¶ The Company will include in the Rate Base RAM - Return on Investment Adjustment and the Depreciation and Amortization RAM Expense Adjustment, in 2013 and subsequent years, the recoverable ¶ costs of the Customer Information System ("CIS") project, net of the Stipulated and Commission approved project cost write-downs and as otherwise provided for in the Stipulated Settlement Agreement. ¶ Recovery of the CIS costs through the RAM Revenue Adjustment is for the sole purpose of this settlement agreement and does not constitute a precedent for the recovery of any other software or regulatory asset deferred costs through the RAM Revenue Adjustment. ¶

Deleted: June 3, 2015

MAUI ELECTRIC COMPANY, LTD.

Transmittal Letter Dated May 28, 2019.

Attachment 2 – List of Schedules and Workpapers

Schedule A (REVISED)	MECO-WP-A-001
Schedule A1 (REVISED)	MECO-WP-B-001
Schedule B (REVISED)	MECO-WP-C-001
Schedule B1 (REVISED)	MECO-WP-C-002
Schedule B2	MECO-WP-C-003
Schedule C	MECO-WP-D1-002 (REVISED)
Schedule C1	MECO-WP-D2-001
Schedule C2	MECO-WP-D2-003
Schedule D (REVISED)	MECO-WP-D2-004
Schedule D1 (REVISED)	MECO-WP-D2-005
Schedule D2	MECO-WP-D3-001
Schedule D3	MECO-WP-D4-001
Schedule D4	MECO-WP-D4-002
Schedule D5 (REVISED)	MECO-WP-E-001
Schedule E (REVISED)	MECO-WP-F-001
Schedule F (REVISED)	MECO-WP-F1-001
Schedule F1	MECO-WP-F1-002
Schedule F2	MECO-WP-F1-003
Schedule G	MECO-WP-H-001 (REVISED)
Schedule H (REVISED)	MECO-WP-H-002
Schedule I	MECO-WP-H-003
Schedule J	MECO-WP-H-004
Schedule K	MECO-WP-H-005
Schedule K1	MECO-WP-H-006
Schedule L	MECO-WP-H-007
Schedule M	MECO-WP-H-008
Schedule N	MECO-WP-K1-001
	MECO-WP-M-001
	MECO-WP-M-002
	MECO-WP-M-003
	MECO-WP-M-004

**MAUI ELECTRIC COMPANY, LIMITED**  
**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	\$ 6,080,468			
1a	OBF Program Implementation Cost Recovery - Year 1 of 2	Schedule N	\$ 180,849			
			\$ 6,261,317			
2	Revenue Tax Factor	Schedule C	1.0975			
3	Revenue for RBA Balance			\$ 6,871,796		
<u>RATE ADJUSTMENT MECHANISM "RAM" AMOUNT:</u>						
4	Total RAM Revenue Adjustment Allowed (Note 2)	Schedule A1	\$ 2,694,360			
5	<u>EARNINGS SHARING REVENUE CREDITS - 2019 ROE:</u>	Schedule H		\$ -		
6	<u>PERFORMANCE INCENTIVE MECHANISM REWARD (PENALTY)</u>	Schedule M		\$ (394,917)		
7	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS:</u>	Schedule I		\$ (10,353)		
8	TOTAL RBA REVENUE ADJUSTMENT	Sum Col. (d)	\$ 9,160,885			
9	GWH SALES VOLUME ESTIMATE JUNE 2019 - MAY 2018	MECO-WP-A-001		1,051.0		
10	RBA RATE ADJUSTMENT, RBA Balance - ¢ per kWh	Note 1		0.8716	8/23/2018 0.3183	Incremental 0.5533
11	MONTHLY BILL IMPACT @ 600 KWH - Maui Division			\$ 5.23	\$ 1.91	\$ 3.32
	MONTHLY BILL IMPACT @ 500 KWH - Maui Division			\$ 4.36	\$ 1.59	\$ 2.77
12	MONTHLY BILL IMPACT @ 400 KWH - Molokai and Lanai Divisions			\$ 3.49	\$ 1.27	\$ 2.22

Note 1: 2019 RBA Rate Adjustment Breakdown

	Col. (d)	Rate Adjustment cents per kWh	Percentage Share
RBA Balance	\$ 6,871,796	0.65383406	75.0124%
RAM Amount	\$ 2,694,360	0.25636154	29.4116%
Earnings Sharing Revenue Credits	\$ -	0.00000000	0.0000%
Performance Incentive Mechanism Reward (Penalty)	\$ (394,917)	-0.03757540	-4.3109%
Major or Baseline Capital Projects Credits	\$ (10,353)	-0.00098508	-0.1130%
	\$ 9,160,885	0.87163512	100.00%

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, pages 94-95, which states that the Total RAM Revenue Adjustment is to be comprised of the RAM Cap plus recovery of Exceptional And Other Matters.

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF TOTAL RAM REVENUE ADJUSTMENT ALLOWED**

Line No.	Description	Reference	Amount
	(a)	(b)	(c)
<b>RAM REVENUE ADJUSTMENT DETERMINED ACCORDING TO EXISTING TARIFFS AND PROCEDURES</b>			
1	O&M RAM	Schedule C	\$ 1,512,028
2	Rate Base RAM - Return on Investment	Schedule D	\$ 1,890,523
3	Depreciation & Amortization RAM Expense	Schedule E	\$ (708,191)
4	Total RAM Revenue Adjustment		<b>\$ 2,694,360</b>
<b>RAM REVENUE ADJUSTMENT CAP</b>			
5	RAM Cap for 2019 RAM Revenue Adjustment	Schedule J	\$ 3,401,245
6	Plus: Exceptional and Other Matters	Schedule K	775,520
7	2019 Cap - Total RAM Revenue Adjustment (Note 2)		<b>\$ 4,176,766</b>
8	<b>Total RAM Revenue Adjustment Allowed (Note 1)</b>	Lesser of Line 5 or Line 8	<b>\$ 2,694,360</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."

**MAUI ELECTRIC COMPANY, LIMITED**  
**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 recovery	Tax-effected Balance Subject to Interest	Interest at 1.25%/year	Ending Balance
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Monthly RBA Balance and Activity (Monthly PUC Rpt.)									
1	2017 December	\$ 4,861,114	\$ 10,989,854	\$ 10,098,926	\$ 890,928	\$ (211,037)	\$ 3,177,327	3,310	\$ 5,544,314
10	Depre line 8 x line	\$ 792,724	\$ -						
2									
3	2018 January	\$ 5,544,314	\$ 11,206,137	\$ 10,623,809	\$ 582,328	\$ (220,318)	\$ 4,250,943	4,428	\$ 5,910,753
4	February	\$ 5,910,753	\$ 9,935,477	\$ 9,491,075	\$ 444,402	\$ (196,271)	\$ 4,480,741	4,667	\$ 6,163,552
5	March	\$ 6,163,552	\$ 11,192,619	\$ 10,411,284	\$ 781,335	\$ (212,026)	\$ 4,787,673	4,987	\$ 6,737,848
6	April	\$ 6,737,848	\$ 10,651,913	\$ 10,646,857	\$ 5,056	\$ (220,634)	\$ 4,922,696	5,128	\$ 6,527,398
7	May	\$ 6,527,398	\$ 11,327,795	\$ 10,595,249	\$ 732,546	\$ (215,635)	\$ 5,038,370	5,248	\$ 7,049,557
8	June	\$ 7,049,557	\$ 11,012,313	\$ 10,863,539	\$ 148,774	\$ (492,662)	\$ 5,106,500	5,319	\$ 6,710,988
9	July	\$ 6,710,988	\$ 11,478,169	\$ 11,673,086	\$ (194,917)	\$ (533,474)	\$ 4,712,376	4,909	\$ 5,987,506
10	August	\$ 5,987,506	\$ 12,061,980	\$ 11,905,612	\$ 156,368	\$ (537,788)	\$ 4,304,013	4,483	\$ 5,610,569
11	September	\$ 5,610,569	\$ 12,351,310	\$ 11,610,872	\$ 740,438	\$ (475,735)	\$ 4,264,012	4,442	\$ 5,879,714
12	October	\$ 5,879,714	\$ 12,685,522	\$ 12,527,507	\$ 158,015	\$ (555,386)	\$ 4,218,058	4,394	\$ 5,486,737
13	November	\$ 5,486,737	\$ 12,060,691	\$ 11,452,008	\$ 608,683	\$ (489,447)	\$ 4,118,066	4,290	\$ 5,610,263
14	December	\$ 5,610,263	\$ 12,409,434	\$ 11,462,777	\$ 946,657	\$ (480,971)	\$ 4,338,398	\$ 4,519	\$ 6,080,468
15			\$ 138,373,360	\$ 133,263,673	\$ 5,109,687	\$ (4,630,347)	\$ 54,541,846	\$ 56,814	
16									
17									
18	2019 January	\$ -	\$ 12,176,939	\$ -	\$ -	\$ -	\$ -		
19	February	\$ -	\$ 10,898,215	\$ -	\$ -	\$ -	\$ -		
20	March	\$ -	\$ 11,711,948	\$ -	\$ -	\$ -	\$ -		
21	April	\$ -	\$ 11,406,798	\$ -	\$ -	\$ -	\$ -		
22	May	\$ -	\$ 11,886,320	\$ -	\$ -	\$ -	\$ -		
22a	OBF Recove	\$ 361,697							
23	June	\$ -	\$ 12,272,060	\$ -	\$ -	\$ -	\$ -		
24	July	\$ -	\$ 13,141,144	\$ -	\$ -	\$ -	\$ -		
25	August	\$ -	\$ 13,485,781	\$ -	\$ -	\$ -	\$ -		
26	September	\$ -	\$ 12,736,571	\$ -	\$ -	\$ -	\$ -		
27	October	\$ -	\$ 13,081,207	\$ -	\$ -	\$ -	\$ -		
28	November	\$ -	\$ 12,436,887	\$ -	\$ -	\$ -	\$ -		
29	December	\$ -	\$ 12,796,507	\$ -	\$ -	\$ -	\$ -		
			\$ 148,030,377						
Sources of Data:		Sch B1	Sch B2	Col (c) - (d)	Note 1	Cols ((b)+((e)+(f)/2)/(k)	Col (g) * 1.25%/12	Cols (b)+(e)+(f)+(h)	
Composite Federal & State Income Tax Rate							25.75%	(j)	
Income Tax Factor (1/1-tax rate)							1.346835	(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. See MECO-WP-B-001, line 8.

SCHEDULE B1  
(REVISED 05-28-19)  
(REVISED 05-21-19)  
PAGE 1 OF 1

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF TARGET REVENUES**

Line No.	Description (a)	Reference (b)	Docket No. 2011-0092 Amounts (c)	Transmittal No. 18-03 Amounts (d)	Docket No. 2017-0150 Amounts (e)	Docket No. 2017-0150 Amounts (f)	Docket No. 2017-0150 Amounts (g)	Docket No. 2017-0150 Amounts (h)
1	<u>Last Rate Case Annual Electric Revenue at Approved Rate Levels</u>	Note 1	\$000s	\$ 416,810	\$ 410,903	\$ 336,045	\$ 336,045	\$ 335,763
2	Less: Fuel Expense	Note 1	\$000s	\$ (212,580)	\$ (212,580)	\$ (103,385)	\$ (103,385)	\$ (103,385)
3	Purchased Power Expense	Note 1	\$000s	\$ (44,856)	\$ (44,856)	\$ (54,970)	\$ (54,970)	\$ (54,970)
4	Revenue Taxes on Line 1 (8.885% statutory rates)		\$000s	\$ (37,034)	\$ (36,509)	\$ (29,858)	\$ (29,858)	\$ (29,833)
5	Last Rate Order Target Annual Revenues	Sum Lines 1 thru 4	\$000s	\$ 122,340	\$ 116,958	\$ 147,832	\$ 147,832	\$ 147,575
6	Authorized RAM Revenues - Transmittal No. 17-04	Sch. A, line 4	\$000s	\$ 14,128	\$ -	\$ -	\$ -	\$ -
7	Less: Revenue Taxes on Line 6 at 8.885%		\$000s	\$ (1,255)	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +5	Lines 6 + 7	\$000s	\$ 12,872	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues - Transmittal No. 18-03	Sch. A, line 4	\$000s	\$ -	\$ 16,429	\$ -	\$ -	\$ -
10	Less: Revenue Taxes on Line 9 at 8.885%		\$000s	\$ -	\$ (1,460)	\$ -	\$ -	\$ -
11	Net RAM Adjustment - Test Year +5	Lines 9 + 10	\$000s	\$ -	\$ 14,969	\$ -	\$ -	\$ -
12	Authorized RAM Revenues - Transmittal No. 19-03	Sch. A, line 4	\$000s	\$ -	\$ -	\$ -	\$ 2,694	\$ 2,694
13	Less: Revenue Taxes on Line 12 at 8.885%		\$000s	\$ -	\$ -	\$ -	\$ (239)	\$ (239)
14	Net RAM Adjustment - Test Year +5	Lines 12 + 13	\$000s	\$ -	\$ -	\$ -	\$ 2,455	\$ 2,455
15	Authorized MPIR Revenues	Schedule L	\$000s	\$ -	\$ -	\$ -	\$ -	\$ -
16	Less: Revenue Taxes on Line 15 at 8.885%		\$000s	\$ -	\$ -	\$ -	\$ -	\$ -
17	Net MPIR Adjustment	Lines 15 + 16	\$000s	\$ -	\$ -	\$ -	\$ -	\$ -
16	Less: <u>EARNINGS SHARING REVENUE CREDITS:</u>	Sch A, Ln 5	\$000s	\$ (40)	\$ -	\$ -	\$ -	\$ -
17	Less: Revenue Taxes on Line 16 at 8.885%		\$000s	\$ 4	\$ -	\$ -	\$ -	\$ -
18	Net Earnings Sharing Revenue Credits	Lines 16 + 17	\$000s	\$ (36)	\$ -	\$ -	\$ -	\$ -
19	Less: <u>PERFORMANCE INCENTIVE MECHANISM REWARD (PENALTY)</u>	Sch A, Ln 6	\$000s	\$ -	\$ -	\$ -	\$ (395)	\$ (395)
20	Less: Revenue Taxes on Line 19 at 8.885%		\$000s	\$ -	\$ -	\$ -	\$ 35	\$ 35
21	Net Performance Incentive Mechanism	Lines 19 + 20	\$000s	\$ -	\$ -	\$ -	\$ (360)	\$ (360)
22	Less: <u>2017 Tax Reform Act Adjustment (1/1/18-5/31/18)</u>	Transmittal No. 18-03	\$000s	\$ -	\$ (2,769)	\$ (2,769)	\$ -	\$ -
23	Less: Revenue Taxes on Line 22 at 8.885%		\$000s	\$ -	\$ 246	\$ 246	\$ -	\$ -
24	Net 2017 Tax Reform Act Adjustment	Lines 22 + 23	\$000s	\$ -	\$ (2,523)	\$ (2,523)	\$ -	\$ -
25	Add: <u>OBF Program Implementation Costs:</u>	Sch A, Ln 1a x 1.0975	\$000s	\$ -	\$ -	\$ -	\$ 198	\$ 198
26	Less: Revenue Taxes on Line 25 at 8.885%		\$000s	\$ -	\$ -	\$ -	\$ (18)	\$ (18)
27	Net OBF Program Implementation Costs	Lines 25 + 26	\$000s	\$ -	\$ -	\$ -	\$ 181	\$ 181
28	Less: <u>PUC-ORDERED MAJOR OR BASELINE CAPITAL CREDITS:</u>	Sch A, Ln 7	\$000s	\$ -	\$ -	\$ -	\$ (10)	\$ (10)
29	Less: Revenue Taxes on Line 28 at 8.885%		\$000s	\$ -	\$ -	\$ -	\$ 1	\$ 1
30	Net PUC-Ordered Major or Baseline Capital Credits	Lines 28 + 29	\$000s	\$ -	\$ -	\$ -	\$ (9)	\$ (9)
31	Total Annual Target Revenues							
32	June 1, 2017 Annualized Revenues + 2017 RAM Revenues	Lines 5 + 12 + 18	\$000s	\$ 135,177				
33	June 1, 2018 Annualized Revenues + 2018 RAM Revenues	Lines 5 + 11 + 24	\$000s		\$ 129,404			
34	August 23, 2018 Annualized Revenues with Interim Increase	Lines 5 + 24				\$ 145,310	\$ 145,310	
35	June 1, 2019 Annualized Revenues + 2019 RAM Revenues	Lines 5 + 14 + 21 + 27 + 30					\$ 149,842	\$ 149,842
36	<u>Distribution of Target Revenues by Month in Dollars:</u>	Note 2	Note 3	2018	2018	2018	2019	2019
37	January	8.29%	8.38%	\$11,206,137			\$12,176,939	\$12,556,760
38	February	7.35%	7.50%	\$9,935,477			\$10,898,215	\$11,238,151
39	March	8.28%	8.06%	\$11,192,619			\$11,711,948	\$12,077,266
40	April	7.88%	7.85%	\$10,651,913			\$11,406,798	\$11,762,598
41	May	8.38%	8.18%	\$11,327,795			\$11,886,320	\$12,257,076
42	June	8.51%	8.19%		\$11,012,313		\$12,272,060	
43	July	8.87%	8.77%		\$11,478,169		\$13,141,144	
44	August - Interim Rates 8/23/18	9.00%	9.00%		\$8,265,183	\$3,796,797	\$13,485,781	
45	September	8.34%	8.50%			\$12,351,310	\$12,736,571	
46	October	8.78%	8.73%			\$12,685,522	\$13,081,207	
47	November	8.19%	8.30%			\$12,060,691	\$12,436,887	
48	December	8.13%	8.54%			\$12,409,434	\$12,796,507	
49	Total Distributed Target Revenues	100.00%	100.00%	\$54,313,941	\$30,755,665	\$53,303,754	\$58,080,220	\$59,891,851

Note 1 Column (c): Docket No. 2011-0092 Final amounts derived from MECO Revised Results of Operations, Exhibit 1A, Page 1, filed June 17, 2013.

Column (d): Transmittal no. 18-03 Hawaiian Electric Companies' Response to the Division of Consumer Advocacy's Statement of Position, May 21, 2018. Reflects \$5.9 million reduction for the 2017 Tax Reform Act.

Columns (e)-(f): Interim Decision and Order No. 35631, August 9, 2018, Docket No. 2017-0150. Exhibit A, page 1 of 4. Also see Maui Electric Correction to Attachment 6B in Statement of Probable Entitlement, August 2, 2018, Docket No. 2017-0150.

Columns (g)-(h): Per the preliminary revenue requirement calculation based on Decision and Order No. 36219, March 18, 2019, Docket No. 2017-0150. See Attachment 4 to this transmittal

Note 2 RBA Tariff effective June 1, 2012 based on 2012 test year

Note 3 RBA Tariff effective August 23, 2018 based on 2018 test year. Maui Electric Interim Increase Tariff Sheets, Docket No. 2017-0150, filed August 21, 2018.

**MAUI ELECTRIC COMPANY, LIMITED**  
**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 sum (b) - (m)
<b>BILLED REVENUES:</b>														
1	Current month's billed revenues (SAP014w)	26,730,103	26,752,832	27,547,785	28,666,103	27,864,945	31,388,905	33,226,559	34,152,718	31,987,027	34,293,332	33,159,191	32,694,645	368,464,145
2	Remove PBF revenues	(234,195)	(223,991)	(222,741)	(231,055)	(221,358)	(238,238)	(259,884)	(291,870)	(276,350)	(290,428)	(274,843)	(263,278)	(3,028,231)
3	Remove Solar Saver non-revenues	-	-	(2)	21,076	17,740	(16)	-	-	-	-	-	-	38,798
4	Other entries	5,805	900	(1,530)	117	1,431	-	-	-	-	-	-	(8,352)	(1,629)
5 =														
sum 1-4	<b>BILLED REVENUES</b>	<b>26,501,712</b>	<b>26,529,742</b>	<b>27,323,511</b>	<b>28,456,241</b>	<b>27,662,758</b>	<b>31,150,651</b>	<b>32,966,675</b>	<b>33,860,848</b>	<b>31,710,677</b>	<b>34,002,904</b>	<b>32,884,348</b>	<b>32,423,015</b>	<b>365,473,082</b>
<b>UNBILLED REVENUES</b>														
6	Current month's unbilled revenue (Unbilled Sales and Revenue Est)	14,847,495	13,086,943	13,845,073	14,037,425	14,979,148	15,366,713	17,627,750	17,082,605	16,946,010	17,324,584	16,960,278	16,636,183	188,740,207
7	Reverse prior month's unbilled revenues (Unbilled Sales and Revenue Est)	(13,944,944)	(14,847,495)	(13,086,943)	(13,845,073)	(14,037,425)	(14,979,148)	(15,366,713)	(17,627,750)	(17,082,605)	(16,946,010)	(17,324,584)	(16,960,278)	(186,048,968)
8 = 6+7	Unbilled revenues per Unbilled Sales and Revenue Estimate	902,551	(1,760,552)	758,130	192,352	941,723	387,565	2,261,037	(545,145)	(136,595)	378,573	(364,306)	(324,095)	2,691,238
9	Recovery of 12-31-16 RBA balance through RBA Rate Adjustment beginning 6-1-17	(241,802)	(215,410)	(232,702)	(242,149)	(236,663)	-	-	-	-	-	-	-	(1,168,726) MECO WP-B-001 page 1 of 2
10	Recovery of 12-31-17 RBA balance through RBA Rate Adjustment beginning 6-1-18	-	-	-	-	-	(540,704)	(585,495)	(590,230)	(522,126)	(609,544)	(537,175)	(527,872)	(3,913,146) MECO WP-B-001 page 2 of 2
11	Accrual and reversal of ESM refund previously recognized in prior year	3,289	2,916	3,285	3,127	3,324	-	-	-	-	-	-	-	15,941
12	Accrual of Performance Incentive Mechanism	-	-	-	-	-	-	-	-	-	-	-	(1,007,124)	(1,007,124)
13	Accrual of ECAC adjustment	728,300	(879,000)	(178,700)	(1,152,200)	71,000	(239,300)	(525,600)	(404,100)	(198,500)	(1,019,800)	(123,200)	(913,300)	(4,834,400)
14	Reversal of ECAC accrual	371,400	384,666	384,666	384,668	109,799	109,799	109,802	440,166	440,166	440,168	376,067	376,067	3,927,434
15	Accrual of PPAC adjustment	146	65	34	62	82	(121,996)	80	6,135	3,326	5,407	1,131	(57,000)	(162,528)
16	Reversal of PPAC accrual	5,892	502	502	500	(81)	(81)	(83)	40,618	40,618	40,616	(3,181)	(3,181)	122,641
17	Reclass excess DSM revenues	5,731	82	43	(141,950)	(165,059)	(148,280)	(185,662)	(46,206)	(14,034)	(25,868)	(118,271)	349,266	(490,208)
18	Reclass excess DRAC revenues	-	-	-	-	-	-	-	(11,012)	(35,823)	(36,792)	(32,578)	(32,578)	(141,429)
19	Tax Reform Act adjustment	(214,131)	(189,851)	(1,052,538)	(485,507)	(826,858)	230,740	230,740	230,740	230,740	230,740	230,740	230,740	(1,153,705)
20	RBA gross up for revenue taxes	56,785	43,335	76,191	493	71,434	14,508	(19,007)	15,248	72,203	15,409	59,355	92,312	498,266
21	Accrual of current month's RBA (PUC Monthly Financial Report pg. 9A)	582,328	444,402	781,335	5,056	732,546	148,774	(194,917)	156,368	740,438	158,015	608,683	946,657	5,109,685
22 =														
sum 9-21	Miscellaneous unbilled accruals	1,297,938	(408,293)	(217,884)	(1,627,900)	(240,476)	(546,540)	(1,170,142)	(162,273)	757,008	(801,649)	468,925	(546,013)	(3,197,299)
23 = 8+22	<b>UNBILLED REVENUES</b>	<b>2,200,490</b>	<b>(2,168,844)</b>	<b>540,246</b>	<b>(1,435,548)</b>	<b>701,246</b>	<b>(158,975)</b>	<b>1,090,895</b>	<b>(707,417)</b>	<b>620,413</b>	<b>(423,076)</b>	<b>104,620</b>	<b>(870,107)</b>	<b>(506,057)</b>
24 = 5+23	<b>TOTAL REVENUES PER G/L (PUC Monthly Financial Report)</b>	<b>28,702,202</b>	<b>24,360,898</b>	<b>27,863,757</b>	<b>27,020,694</b>	<b>28,364,004</b>	<b>30,991,677</b>	<b>34,057,569</b>	<b>33,153,431</b>	<b>32,331,090</b>	<b>33,579,828</b>	<b>32,988,968</b>	<b>31,552,908</b>	<b>364,967,026</b>
<b>Billed Adjustments to Determine Adjusted Revenues for RBA:</b>														
25	Remove ECAC revenues	6,357,094	5,252,883	4,460,452	4,281,119	4,192,100	3,361,248	1,799,877	2,676,866	3,516,628	3,437,496	2,760,565	2,257,083	44,353,411
26	Remove PPAC revenues	5,650	3,510	588	558	301	(27)	-	23,421	44,132	46,425	20,380	(3,299)	141,639
27	Remove DSM revenues	(802)	(790)	(789)	(83,440)	(161,514)	(180,467)	(174,777)	(122,763)	(57,267)	(61,270)	(167,468)	(277,294)	(1,288,641)
28	Remove revenue taxes of PBF revenues	(15,973)	(15,277)	(15,192)	(15,759)	(15,098)	(16,249)	(17,725)	(19,907)	(18,848)	(19,809)	(18,746)	(17,957)	(206,540)
29	Remove Solar Saver revenues	-	-	-	780	657	-	-	-	-	-	-	-	1,437
30	Remove revenue taxes on billed revenues	(2,918,516)	(2,822,771)	(2,822,637)	(2,900,019)	(2,814,697)	(3,048,902)	(3,071,904)	(3,235,781)	(3,127,104)	(3,323,501)	(3,152,316)	(3,054,801)	(36,292,949)
31	Remove base fuel (adjusted for revenue taxes)	(15,948,451)	(15,401,116)	(15,327,783)	(15,787,025)	(15,302,026)	(16,505,850)	(16,517,173)	(17,579,281)	(16,618,900)	(17,593,687)	(16,672,746)	(16,064,255)	(195,318,293)
32	Remove power purchase energy (adjusted for revenue taxes)	(3,206,940)	(3,103,992)	(3,084,736)	(3,176,482)	(3,075,959)	(3,333,199)	(3,324,500)	(3,537,612)	(3,346,666)	(3,540,323)	(3,375,878)	(3,228,673)	(39,334,960)
33	Other adjustments - EV-U revenue net of revenue taxes	-	-	-	-	-	-	-	-	13	88	125	90	316
34	Other adjustments - SMNP revenue net of revenue taxes	1,625	1,678	1,733	1,798	1,791	1,830	1,817	1,920	2,035	2,050	2,222	2,108	22,607
<b>Unbilled Adjustments to Determine Adjusted Revenues for RBA:</b>														
35	Remove ESM Refund Reversal	(3,289)	(2,916)	(3,285)	(3,127)	(3,324)	-	-	-	-	-	-	-	(15,941)
36	Remove accrual of Performance Incentive Mechanism	-	-	-	-	-	-	-	-	-	-	-	1,007,124	1,007,124
37	Remove ECAC revenues	(751,970)	(549,152)	(528,914)	296,075	(97,203)	(1,007,970)	(438,085)	1,331,427	(273,262)	(47,884)	(501,014)	(60,324)	(2,628,276)
38	Remove ECAC accrual	(1,099,700)	494,334	(205,966)	767,532	(180,799)	129,501	415,798	(36,066)	(241,666)	579,632	(252,867)	537,233	906,966
39	Remove PPAC revenues	389	(2,944)	(53)	5	(300)	(1)	4	23,332	(188)	(402)	(24,395)	43	(4,510)
40	Remove PPAC accrual	(6,038)	(567)	(536)	(562)	(1)	122,077	3	(46,753)	(43,944)	(46,023)	2,050	60,181	39,887
41	Remove DSM revenues	(6)	48	9	(82,195)	(5,209)	5,219	(11,917)	62,130	1,425	(1,051)	(112,929)	3,458	(141,018)
42	Remove excess DSM revenues	(5,731)	(82)	(43)	141,950	165,059	148,280	185,662	46,206	14,034	25,868	118,271	(349,266)	490,208
43	Remove excess DRAC revenues	-	-	-	-	-	-	-	11,012	35,823	36,792	25,224	32,578	141,429
44	Remove Tax Reform Act adjustment	214,131	189,851	1,052,538	485,507	826,858	(230,740)	(230,740)	(230,740)	(230,740)	(230,740)	(230,740)	(230,740)	1,153,705
45	Remove RBA accruals	(582,328)	(444,402)	(781,335)	(5,056)	(732,546)	(148,774)	194,917	(156,368)	(740,438)	(158,015)	(608,683)	(946,657)	(5,109,685)
46	Remove RBA gross up for revenue taxes	(56,785)	(43,335)	(76,191)	(493)	(71,434)	(14,508)	19,007	(15,248)	(72,203)	(15,409)	(59,355)	(92,312)	(498,266)
47	Remove revenue taxes on unbilled revenues	8,071	224,614	314	(14,579)	(53,519)	102,701	(108,890)	(25,013)	82,697	24,905	136,813	80,746	458,860
48	Remove base fuel (adjusted for revenue taxes)	(53,538)	1,122,318	(105,509)	(227,196)	(367,864)	397,174	(914,824)	(348,036)	290,629	(132,918)	461,659	216,116	338,011
49	Remove power purchase energy (adjusted for revenue taxes)	(15,286)	228,284	(15,139)	(53,226)	(74,028)	90,519	(191,033)	(70,563)	63,593	(34,546)	112,868	38,686	80,129
50 =														
sum 25-49	Total billed and unbilled adjustments to determine adjusted revenues for RBA	(18,078,393)	(14,869,824)	(17,452,474)	(16,373,835)	(17,768,755)	(20,128,138)	(22,384,483)	(21,247,817)	(20,720,217)	(21,052,322)	(21,536,960)	(20,090,132)	(231,703,350)
51 = 24+50	<b>RECORDED ADJUSTED REVENUES FOR RBA DETERMINATION</b>	<b>10,623,809</b>	<b>9,491,075</b>	<b>10,411,284</b>	<b>10,646,857</b>	<b>10,595,249</b>	<b>10,863,539</b>	<b>11,673,086</b>	<b>11,905,612</b>	<b>11,610,872</b>	<b>12,527,507</b>	<b>11,452,008</b>	<b>11,462,777</b>	<b>133,263,673</b> Sch B

NOTE: Totals may not add exactly due to rounding.

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF O&M RAM ADJUSTMENT**  
**(\$ in Thousands)**

Line No.	Description	Reference	Interim D&O No. 35631 Docket No. 2017-0150 Approved (c)	Footnote 4 Previously Approved RAM (d)	O&M Subject to Escalation Col (c) + (d) (e)	Net Inflation Indices Footnote 2 (f)	2018 O&M RAM Adjustment Col (e) * (f) (g)
1	Base BU Labor Expenses	Schedule C1	\$ 15,912		\$ 15,912	2.24%	\$ 356
2	Base Non-Labor Expense	Schedule C2	\$ 47,305		\$ 47,305	2.10%	\$ 993
3	Payroll Taxes	Footnote 1	\$ 1,244		\$ 1,244	2.24%	\$ 28
4	Subtotal Expense Increase - RAM Adjustment before revenue taxes						\$ 1,378
5	Revenue Tax Factor (Footnote 3)						1.0975
6	O&M RAM (Subtotal Expenses x Rev Tax Factor)						<b>\$ 1,512</b>
							To Schedule A1

\* Amounts may not add due to rounding

Note 1 - Payroll Taxes

Interim D&O No. 35631, Docket No. 2017-0150, Exhibit A, page 3.	\$ 1,858
Also, see Attachment 4, page 5.	
Less: Portion of payroll taxes related to non-BU labor <sup>A</sup> (33.06% * 1,858)	\$ (614)
Payroll Taxes related to Bargaining Unit labor	\$ 1,244

<sup>A</sup> See Schedule C1 for calculation of percentage related to non-BU labor.

Note 2 - Escalation Rates

Labor:	2019	
Bargaining Unit Wage Increase	3.00%	(See MECO-WP-C-001)
Less: Labor Productivity Offset	0.76%	Approved in Final D&O in Docket No. 2008-0274, page 51, filed on August 31, 2010
Labor Cost Escalation Rate	2.24%	
2019 Labor Cost Escalation	1.0224	A (2019 labor escalation plus 1)
2018-2019 Compounded Labor Cost Escalation	1.0224	B = A * 1
2018-2019 Compounded Labor Cost %	0.0224	C = B - 1
Non-Labor:	2019	
GDP Price Index	2.1%	(See MECO-WP-C-002)
2019 Non-Labor Cost Escalation	1.0210	D (2019 non-labor escalation plus 1)
2018-2019 Compounded Non-Labor Cost Escalation	1.02	E = D * 1
2018-2019 Compounded Non-Labor Cost %	0.0210	F = E - 1

Note 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

Note 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.



**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**SUMMARY OF OPERATIONS AND MAINTENANCE**  
**LABOR AND NON-LABOR EXPENSE BY BLOCK OF ACCOUNTS**  
**Interim Decision and Order No. 35631 - Docket No. 2017-0150**  
**(\$ in Thousands)**

Line No.	DESCRIPTION	BU LABOR Note 1 (a)	Non-BU LABOR Note 1 (b)	TOTAL LABOR (c)=(a)+(b)	NON- LABOR Note 2 (d)	TOTAL Note 3 (e)=(c)+(d)
1	Production	11,908	3,110	15,018	16,836	31,854
2	Transmission	575	299	874	3,054	3,928
3	Distribution	3,141	1,288	4,429	5,894	10,323
4	Customer Accounts	179	125	304	6,713	7,017
5	Allowance for Uncoll Accounts	-	-	0	169	169
6	Customer Service	-	679	679	2,840	3,519
7	Administrative & General	109	2,356	2,465	18,866	21,331
8	Customer Benefit Adjustment	-	-	-	(411)	(411)
9	Total Operations and Maintenance	15,912	7,857	23,769	53,961	77,730
		To Sch C			Sch C2	
10	Percentage of Total O&M Labor	66.94%	33.06%	100%		

\* amounts may not add due to rounding

Note 1 See Parties' Joint Statement of Probable Entitlement, filed July 6, 2018 in Docket No. 2017-0150, Attachment 3A, page 6 of 7, lines 24-37, Column G.

Note 2 See Parties' Joint Statement of Probable Entitlement, filed July 6, 2018 in Docket No. 2017-0150, Attachment 3A, page 1 of 7. Adjustment of \$492,000 made to Production Non-Labor expense to account for the inclusion of amortization of the deferred low load modification costs per Decision and Order No. 36219, filed March 18, 2019.

Note 3

Totals by category agree to Exhibit A, page 1 of 4 in Interim Decision and Order No. 35631, filed August 9, 2018 in Docket No. 2017-0150, except for the adjustment of \$492,000 made to Production as mentioned in Note 2 above. See also the preliminary revenue requirement calculation shown in Attachment 4 to this transmittal.

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**NON-LABOR EXCLUSION**  
**ADJUSTMENT FOR O&M RAM**  
(\$ thousands)

Line No	Description (a)	Amount (b)	Reference (c)
1	Pension Expense	10,075	Attachment 1, Page 1, Line 6, MECO T-12, Parties' Stipulated Settlement Letter, filed on June 15, 2018, in Docket No. 2017-0150.
2			
3			
4			
5	OPEB Expense	(575)	Attachment 1, Page 2, Line 30, MECO T-12, Parties' Stipulated Settlement Letter, filed on June 15, 2018, in Docket No. 2017-0150.
6			
7			
8			
8	Total before amounts transferred	9,500	
9			
10	O&M %	70.06%	Exhibit 1, Page 71, Parties' Stipulated Settlement Letter, filed on June 15, 2018, in Docket No. 2017-0150.
11	(1- transfer rate of 29.94%)		
12			
13			
14	Adjustment to Non-Labor O&M Expense		
15	for O&M RAM base	6,656	
16			
17			
18	Non-Labor O&M Expense	53,961	Schedule C1
19			
20			
21	Non-Labor O&M Expense Base for		
22	O&M RAM base	47,305	Schedule C

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF RATE BASE RAM ADJUSTMENT - RETURN ON INVESTMENT**

Line No.	Description	Amounts (\$ 000)	Percent of Total	Cost Rate	Post Tax Weighted Earnings Reqmts	Income Tax Factor Note (1)	Pretax Weighted Earnings Reqmts
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	<u>PUC APPROVED CAPITAL STRUCTURE &amp; COSTS (Note 2)</u>						
2	Short-Term Debt	\$ 6,718	1.37%	3.00%	0.04%	1.000000	0.04%
3	Long-Term Debt	189,712	38.68%	4.54%	1.76%	1.000000	1.76%
4	Hybrid Securities	9,590	1.96%	7.16%	0.14%	1.000000	0.14%
5	Preferred Stock	4,804	0.98%	8.15%	0.08%	1.346835	0.11%
6	Common Equity	<u>279,655</u>	<u>57.02%</u>	9.50%	<u>5.42%</u>	1.346835	<u>7.30%</u>
7	Total Capitalization	<u>\$ 490,479</u>	<u>100.00%</u>		<u>7.43%</u>		<u>9.34%</u>
8	RAM CHANGE IN RATE BASE \$000 (From Schedule D1)						\$ 18,442.7
9	PRETAX RATE OF RETURN (Line 7, Col g)						<u>9.34%</u>
10	PRETAX RETURN REQUIREMENT						\$ 1,722.5
11	REVENUE TAX FACTOR (1/(1-8.885%))						<u>1.0975</u>
12	RATE BASE RAM - RETURN ON INVESTMENT \$000						<u>\$ 1,890.5</u>

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\* Amounts may not add due to rounding.

Note 1: Composite Federal & State Income Tax R 25.75% MECO-WP-F-001  
Income Tax Factor ( 1 / 1-tax rate) 1.3468354

Note 2: Per Decision and Order No. 36219, page 171, issued in Docket No. 2017-0150, dated March 18, 2019.

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF RATE BASE RAM ADJUSTMENT - CHANGE IN RATE BASE**  
**(000's)**

Line No.	Description (a)	MECO 2018 Test Year Rate Base Note 2		MECO 2019 RAM Rate Base		
		Beg. Balance 12/31/2018 (b)	Budgeted Balance 12/31/2018 (c)	Adjusted Recorded at 12/31/2018 (d)	RAM Projected Amounts (e)	Estimated at 12/31/2019 (f)
1	Net Cost of Plant in Service	\$ 630,341	\$ 663,148	\$ 556,897	\$ 23,102	\$ 579,999
2	Property Held for Future Use	1,303	1,303	<div style="background-color: #92d050; padding: 5px;"> <p>These Elements of Rate Base are Not Updated for RAM Purposes</p> </div>		
3	Fuel Inventory	9,375	9,375			
4	Materials & Supplies Inventories	16,799	16,799			
5	Unamort Net ASC 740 Reg Asset (Note 4)	4,686	4,881			
6	Pension Regulatory Asset	12,682	12,071			
7	Pension Non-Service Cost	-	270			
8	Unamort Sys Dev Costs	2,595	2,179			
9	Contrib in Excess of NPPC	1,034	1,034			
10	Total Additions	\$ 678,815	\$ 711,060	\$ 605,090	\$ 23,102	\$ 628,192
11	Unamortized CIAC (Note 3)	\$ (102,684)	\$ (108,860)	\$ (895)	\$ -	\$ (895)
11a	Developer Advances (Note 3)	-	-	(322)	-	(322)
12	Customer Advances (Note 3)	(9,764)	(10,775)	<div style="background-color: #92d050; padding: 5px;"> <p>Not Updated</p> </div>		
13	Customer Deposits	(2,569)	(2,274)			
14	Accumulated Def Income Taxes	(56,265)	(58,134)	(59,392)	(752)	(60,144)
15	ADIT Excess Reg Liability (Note 4)	(49,234)	(48,780)	(54,839)	1,169	(53,669)
16	Unamortized State ITC (Gross)	(14,695)	(14,199)	<div style="background-color: #92d050; padding: 5px;"> <p>Not Updated</p> </div>		
17	Unamortized Gain on Sale	-	(1,916)			
18	Pension Reg Liability	-	-			
19	OPEB Reg Liability	(2,513)	(2,684)			
20	Total Deductions	\$ (237,724)	\$ (247,622)	\$ (146,143)	\$ 417	\$ (145,725)
21	Working Cash (Note 5)	2,061	2,061	2,061	Not Updated	2,061
22	Rate Base at Proposed Rates	\$ 443,152	\$ 465,499	\$ 461,008		\$ 484,528
23	Average Rate Base		\$ 454,326			\$ 472,768
24	Change in Rate Base					\$ 18,443

To Schedule D

Column (e) Projected Changes to Rate Base:	Reference	Amount
Plant - Baseline Capital Project Additions, Net of CIAC	Schedule D2 Line 27	36,175
Major Project Additions, Net of CIAC	Schedule D3	18,329
Accumulated Depreciation/Amortization Change	Schedule E Line 189	(31,402)
Net Plant	Sum Lines 26-28	23,102
ADIT - Baseline and Major Capital Projects (Plant 282 excess def amort beginning 6/1/2019)	Schedule F Line 19	(752)
ADIT - Joint Pole Capital Transfer Price	Note 6	-
		(752)
Excess ADIT Reg Liability Amortization - adj (Plant 282 excess def amort beginning 6/1/2019)	Schedule F	1,169

\* Amounts may not add due to rounding

**Notes:**

Note 1 Amounts are recorded, except for the following adjustments:

	Plant in Service	Acc. Depr.	Schedule D4 ADIT	Schedule D5 Excess ADIT
(A) Unadjusted Balance - recorded	\$ 1,096,798	\$ (510,668)	\$ (59,177)	\$ (54,839)
(A) Add: Asset Retirement Obligation	\$ 1,325	\$ (1,479)		
(A) RWIP		\$ 3,250		
(A) Reg Liab-Cost of Removal (net salvage)		\$ (29,998)		
Unbilled Pole Credits (HECO-WP-H-001)	\$ -			
<b>Major Project Adjustments (MECO-WP-D2-001):</b>				
Kuihelani Substation Project (X00004)	\$ (83)	\$ -	\$ 9	
Kaonoulu Substation Land/Easement	\$ (600)	\$ -		
<b>CHP Adjustment:</b>				
Lanai CHP** MECO-WP-D1-002 (Revised), p.2	3,500	(952)	-	-
Total CHP Adjustment	\$ 3,500	\$ (952)	\$ -	\$ -
Joint Pole Capital Transfer Price (Note 6)	(4,196)		(224)	-
Adjusted Balance	\$ 1,096,744	\$ (539,847)	\$ (59,392)	\$ (54,839)

\*\* Lanai CHP: As discussed in the Stipulated Settlement Letter in Docket No. 2009-0163, filed on 06/21/2010, MECO accepted the Consumer Advocate's recommendation that the ratemaking treatment for the Lanai CHP Agreement follow traditional utility plant asset accounting rather than direct financing lease treatment as required for public financial reporting. MECO agreed to permanently adjust the original cost of the CHP system to \$3.5 million.  
(See Informal CA-IR-62, Attachment 1)

(A) Source: Maui Electric Company, Limited Monthly Financial Report - December 2018, filed February 28, 2019.

Note 2 Decision and Order No. 36219 from Docket No. 2017-0150, filed March 18, 2019, pages 134-135 adjusted for items specifically identified by the Commission including the exclusion of the Kaonoulu Project, Kuihelani Substation Land, splitting of the ADIT Excess regulatory liability and Unamortized Gain on Sale. See also page 3 of Attachment 4 to this transmittal.

Note 3 Effective October 2018, the Company reclassified CIAC to Plant in Service or CWIP consistent with FERC guidelines. As of December 31, 2018 Cash CIAC received from Developers, subject to refund, were reclassified to Customer Advances. Starting 2018, CIAC has been netted with Plant in Service and Developer Advances which has been included as a deduction to rate base. See further discussion of the Company's treatment of CIAC at MECO-WP-D2-005.

Note 4 As a result of the 2017 Tax Reform Act, regulatory liability accounts were created 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. However, in the presentation of rate base in Decision and Order No. 36219, in Docket No. 2017-0150, it was combined with the balance of the unamortized Net ASC 740 Regulatory Asset balance. On August 20, 2018, in Docket No. 2017-0150, the Company filed schedules illustrating the different components and reconciling to previously filed exhibits and attachments. Presentation in line 5 and 17 above is consistent with the Company's filing of August 20, 2018. There is no net impact to the total rate base as a result of this revised presentation.

Note 5 Decision and Order No. 36219 from Docket No. 2017-0150, filed March 18, 2019, page 135. (\$2,058k = \$2,233k less \$175k). There was a small adjustment to working cash as a result of the items specified by the Commission and noted in Note 2.

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

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF BASELINE CAPITAL PROJECTS ADDITIONS**

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

Line No.	Description (a)			3/27/2015	3/29/2016	3/30/2017	3/27/2018	3/27/2019
				2014 (b)	2015 (c)	2016 (d)	2017 (e)	2018 (f)
1	<b>Total Plant Additions</b>	NOTE 2		<b>49,632,312</b>	<b>33,268,857</b>	<b>38,070,465</b>	<b>46,737,346</b>	<b>58,629,293</b>
2								
3	<u>Less Major Projects: (+\$2.5 Million)</u>	<u>Dkt No.</u>	<u>Item No.</u>					
4								
5	<u>2010 In-Service:</u>							
6	6th Increment Distribution Rebuild	01-0148	M0000266		(4,435)			
7								
8	<u>2013 In-service:</u>							
9	Major Overhaul of M16 - NOTE 1	2012-0038	M0001571	80,406				
10								
11	<u>2017 In-service:</u>							
12	Kuihelani Substation	2015-0070	M0000107				(7,847,533)	(618,944)
13								
14	<u>2018 In-service:</u>							
15	Kuihelani T&D	2015-0070	M0001304					(1,976,900)
16	Kuihelani Communication	2015-0070	M0001305					(973,521)
17	Kaonoulu Substation Land/Easement	2015-0071	M0001890					(599,580)
18	Joint Pole Capital Transfer Price	2018-0075	MZ.005027					(4,195,974)
19								
20	<b>Total Net Plant Additions, (excluding major projects)</b>			<b>49,712,718</b>	<b>33,264,422</b>	<b>38,070,465</b>	<b>38,889,813</b>	<b>50,264,374</b>
21								
22	<b>Last Five-Year Average - Plant Additions</b>							<b>\$ 42,040,358</b>
23								
24	Less: CIAC, including Developer Advances	NOTE 3		(4,987,293)	(4,751,467)	(8,802,498)	(6,967,363)	(3,817,142)
25								
26	<b>Total Net Plant Additions, net of CIAC (excluding major projects)</b>			<b>44,725,425</b>	<b>28,512,955</b>	<b>29,267,967</b>	<b>31,922,450</b>	<b>46,447,232</b>
27								
28	<b>Last Five-Year Average - Plant Additions, Net of CIAC</b>							<b>\$ 36,175,206</b>

To Schedule D1 Line 28

NOTE 1:

Exemption From and Modification of General Order No. 7, Paragraph 2.3(g), Relating to Capital Improvements, Capital Projects Completed in 2013, Docket No. 03-0257, dated March 28, 2014, and Exemption From and Modification of General Order No. 7, Paragraph 2.3(g), Relating to Capital Improvements, Capital Projects Completed in 2014, Docket No. 03-0257, dated March 27, 2015.

NOTE 2:

Transmittal No. 18-03 (Decoupling) - Maui Electric's RBA Rate Adjustment, Schedule D2, filed May 21, 2018.

NOTE 3:

See MECO-WP-D2-003 for 2018 CIAC Additions and MECO-WP-D2-004 for 2014 to 2017 CIAC Additions. See MECO-WP-D2-005 for further discussion of the Company's treatment of CIAC.

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF MAJOR CAPITAL PROJECT ADDITIONS, NET OF CIAC**

Line No.	Description (a)	Reference (b)	Estimated In-Service Date (c)	Amount (d)
1	<u>2019 Major Capital Project Plant Additions by Project:</u>			
2	Ka'ono'ulu Substation (Note 1)	CA-IR-256, Docket No. 2017-0150		
3	-M00001039: Ka'ono'ulu Substation	MECO-WP-D3-001	2019/06	\$ 10,987,527
4	-M00001051: Ka'ono'ulu T&D Feeder	↓	2019/06	\$ 4,003,519
5	-M00001890: Ka'ono'ulu Substation Land/Easement		2018/09	\$ 599,580
6	M17 Overhaul	Decision and Order No. 35537, Docket No. 2017-0230		
7	-M00001718: M17 Overhaul		2019/07	\$ 2,738,700
8	<b>Total Major Capital Projects Qualifying for 2019 RAM</b>	MECO-WP-D3-001		<b>\$ 18,329,326</b>
				<b>To Sch D1</b>

Note 1 Per Decision and Order No. 36219, Docket No. 2017-0150, filed March 18, 2019 the Commission ordered the removal of the Ka'ono'ulu Project from the test year. However, this project is expected to be placed in service in June 2019. Therefore, it is being included as a major project in accordance with the RAM Provision tariff. The project was originally approved in Decision and Order No. 33261 in Docket No. 2015-0071, filed October 13, 2015.

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF ADJUSTED RECORDED DEFERRED INCOME TAXES**

Line No.	NARUC Account (a)	Reference (b)	Federal ADIT (c)	State ADIT (d)	Total ADIT (e)
1	Recorded Deferred Income Tax Balances at December 31, 2018				
2	Depreciation Related Account 282	MECO-WP-D4-001	(44,136,702)	(8,134,995)	(52,271,697)
3	Other Deferred Income Taxes	MECO-WP-D4-001	(5,853,992)	(1,051,632)	(6,905,624)
4	Total Recorded Deferred Income Taxes - Utility		(49,990,694)	(9,186,627)	(59,177,321)
				<i>To Schedule D1</i>	
				<i>To MECO-WP-H-001</i>	
5	<u>Adjustments to Recorded Balances:</u>				
6	ADIT on Major Project excess depreciation	MECO-WP-D4-002	7,087	2,160	9,247
7	Total Adjustments to Recorded ADIT Balances		7,087	2,160	9,247
				<i>To Schedule D1</i>	
8	Adjusted Recorded ADIT Balances -12/31/18		(49,983,607)	(9,184,467)	<b>(59,168,074)</b>
					<i>To Schedule D1</i>
9	Account 282 ADIT adjusted for ADIT on Major Project excess depreciation	Line 2 + Line 7	(44,129,615)		
			<i>To MECO-WP-F1-003</i>		

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF ADJUSTED RECORDED EXCESS ADIT REGULATORY LIABILITY**

Line No.	NARUC Account	Reference	DR/(CR) Balance at 12/31/17	DR/(CR) Adjustments	DR/(CR) Amortization	DR/(CR) Balance at 12/31/18	Life	Amortization	Est Bal at 12/31/19
	(a)	(b)	(c)	(d)	(e)	(f) = (c) + (d) + (e)	(g)	(h) = (c) / (g)	(i) = (f) + (h)
1	Recorded Excess ADIT Regulatory Liability Balances December 31, 2017 Recorded Balances								
2	Plant 282 - protected		(47,322,427)	(1,769,817)		(49,092,244)	40	1,227,306	(48,376,315)
3	Plant 283 - unprotected		(5,615,682)	(26)	218,390	(5,397,318)	15	374,381	(5,022,937)
4	Nonplant 283 - unprotected		(395,431)	(2)	46,133	(349,300)	5	79,087	(270,213)
5	Total Excess ADIT Regulatory Liability		<u>(53,333,540)</u>	<u>(1,769,845)</u>	<u>264,523</u>	<u>(54,838,862)</u>		<u>1,680,773</u>	<u>(53,669,466)</u>
						to Sch D1		to Sch F	to Sch D1
									Note 3

Note 1: The 12/31/17 balances represent the amortization base presented in Hawaiian Electric Estimated Tax Impacts Arising from the Tax Reform Act, Exhibit 4, page 3, filed January 31, 2018 in Docket No. 2016-0328, Hawaiian Electric's 2017 Test Year Rate Case. 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. Revisions to the excess ADIT balance and amortization will be made at the next available opportunity.

Note 2: Amortization began 6/1/2018.

Note 3: Line 2: Plant 282-protected excess deferred balance calculated as follows: [col (f)/col (g)] \* (7 months/12 months) + col (f).  
Amortization begins on 6/1/2019.



**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF DEPRECIATION AND AMORTIZATION RATE ADJUSTMENT**

Line No.	FERC Account	Recorded Depreciable/Amort. Balance (net of CIAC)	Adjustments	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate Dkt. 2016-0431	Annual Accrual
	(a)	(b) Note 1 and 4	(c) Note 2	(d)	(e)	(f)
1	<b><u>MAUI</u></b>					
2	310.00	-		-	0.0000	-
3	311.00	7,037,210		7,037,210	0.0375	263,895
4	312.00	55,649,389	(1,325,000)	54,324,389	0.0446	2,422,868
5	314.00	49,974,240		49,974,240	0.0466	2,328,800
6	315.00	10,891,411		10,891,411	0.0525	571,799
7	<b><u>MAUI STEAM PRODUCTION</u></b>	<u>123,552,250</u>	<u>(1,325,000)</u>	<u>122,227,250</u>	<u>0.0452</u>	<u>5,587,362</u>
8						
9	340.00	-		-	0.0000	-
10	341.00	35,255,765		35,255,765	0.0207	729,794
11	342.00	4,492,172		4,492,172	0.0215	96,582
12	343.00	50,005,988		50,005,988	0.0228	1,140,137
13	344.00	109,040,348		109,040,348	0.0146	1,591,989
14	345.00	30,817,085		30,817,085	0.0221	681,058
15	<b><u>MAUI OTHER PRODUCTION</u></b>	<u>229,611,358</u>	<u>-</u>	<u>229,611,358</u>	<u>0.0185</u>	<u>4,239,560</u>
16						
17	<b><u>MAUI TOTAL PRODUCTION</u></b>	<u>353,163,608</u>	<u>(1,325,000)</u>	<u>351,838,608</u>	<u>0.0278</u>	<u>9,826,922</u>
18						
19	350.00	-		-	0.0000	-
20	350.10	2,452,270		2,452,270	0.0119	29,182
21	352.00	7,254,313		7,254,313	0.0098	71,092
22	353.00	56,714,964		56,714,964	0.0239	1,355,488
23	355.00	36,258,567		36,258,567	0.0254	920,968
24	356.00	27,271,972		27,271,972	0.0303	826,341
25	357.00	691,536		691,536	0.0190	13,139
26	358.00	1,238,590		1,238,590	0.0167	20,684
27	<b><u>MAUI TRANSMISSION</u></b>	<u>131,882,212</u>	<u>-</u>	<u>131,882,212</u>	<u>0.0245</u>	<u>3,236,894</u>
28						
29	360.00	-		-	0.0000	-
30	360.10	1,866,504		1,866,504	0.0138	25,758
31	361.00	2,967,620		2,967,620	0.0143	42,437
32	362.00	68,842,831	(83,441)	68,759,390	0.0215	1,478,327
33	363.00	2,140,265		2,140,265	0.1093	233,931
34	364.00	50,516,213	(4,195,974)	46,320,239	0.0319	1,477,616
35	365.00	58,464,600		58,464,600	0.0231	1,350,532
36	366.00	23,147,254		23,147,254	0.0204	472,204
37	367.00	72,388,261		72,388,261	0.0268	1,940,005
38	368.00	63,865,298		63,865,298	0.0475	3,033,602
39	369.10	26,248,282		26,248,282	0.0150	393,724
40	369.20	58,128,513		58,128,513	0.0203	1,180,009
41	370.00	15,589,505		15,589,505	0.0342	533,161
42	373.00	11,293,879		11,293,879	0.0170	191,996
43	<b><u>MAUI DISTRIBUTION</u></b>	<u>455,459,025</u>	<u>(4,279,415)</u>	<u>451,179,610</u>	<u>0.0271</u>	<u>12,353,302</u>
44						
45	389.20	-		-	0.0000	-
46	390.00	11,537,690		11,537,690	0.0245	282,673
47	<b><u>MAUI GENERAL</u></b>	<u>11,537,690</u>	<u>-</u>	<u>11,537,690</u>	<u>0.0245</u>	<u>282,673</u>
48						
49	392.10	7,674,719		7,674,719	0.0618	474,298
50	392.20	5,558,410		5,558,410	0.0618	343,510
51	<b><u>MAUI TRANSPORTATION</u></b>	<u>13,233,129</u>	<u>-</u>	<u>13,233,129</u>	<u>0.0618</u>	<u>817,807</u>
52						
53	<b><u>TOTAL MAUI DIVISION</u></b>	<u>965,275,664</u>	<u>(5,604,415)</u>	<u>959,671,249</u>	<u>0.0275</u>	<u>26,517,598</u>
54						

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF DEPRECIATION AND AMORTIZATION RATE ADJUSTMENT**

Line No.	FERC Account	Recorded Depreciable/Amort. Balance (net of CIAC)	Adjustments	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate Dkt. 2016-0431	Annual Accrual
	(a)	(b) Note 1 and 4	(c) Note 2	(d)	(e)	(f)
55	<b><u>LANAI</u></b>					
56	340.0L	-		-	0.0000	-
57	341.0L	4,085,725		4,085,725	0.0207	84,575
58	342.0L	1,978,695		1,978,695	0.0215	42,542
59	343.0L	1,835,973		1,835,973	0.0228	41,860
60	344.0L	8,602,599		8,602,599	0.0146	125,598
61	345.0L	4,034,627		4,034,627	0.0221	89,165
62	<b><u>LANAI OTHER PRODUCTION</u></b>	<u>20,537,619</u>	<u>-</u>	<u>20,537,619</u>	<u>0.0187</u>	<u>383,740</u>
63						
64	360.1L	160,485		160,485	0.0138	2,215
65	362.0L	2,418,435		2,418,435	0.0215	51,996
66	364.0L	2,318,342		2,318,342	0.0319	73,955
67	365.0L	2,818,134		2,818,134	0.0231	65,099
68	366.0L	892,989		892,989	0.0204	18,217
69	367.0L	2,340,580		2,340,580	0.0268	62,728
70	368.0L	737,977		737,977	0.0475	35,054
71	369.1L	1,040,674		1,040,674	0.0150	15,610
72	369.2L	821,739		821,739	0.0203	16,681
73	370.0L	436,016		436,016	0.0342	14,912
74	373.0L	142,740		142,740	0.0170	2,427
75	<b><u>LANAI DISTRIBUTION</u></b>	<u>14,128,111</u>	<u>-</u>	<u>14,128,111</u>	<u>0.0254</u>	<u>358,893</u>
76						
77	389.2L	-		-	0.0000	-
78	390.0L	804,756		804,756	0.0245	19,717
79	<b><u>LANAI GENERAL</u></b>	<u>804,756</u>	<u>-</u>	<u>804,756</u>	<u>0.0245</u>	<u>19,717</u>
80						
81	392.1L	856,537		856,537	0.0618	52,934
82	392.2L	292,057		292,057	0.0618	18,049
83	<b><u>LANAI TRANSPORTATION</u></b>	<u>1,148,594</u>	<u>-</u>	<u>1,148,594</u>	<u>0.0618</u>	<u>70,983</u>
84						
85	Lanai CHP - Production	-	3,010,000	3,010,000	0.0186	55,986
86	Lanai CHP - Distribution	-	490,000	490,000	0.0255	12,495
87	<b><u>LANAI RATEMAKING ADJUSTMENT</u></b>	<u>-</u>	<u>3,500,000</u>	<u>3,500,000</u>	<u>0.0196</u>	<u>68,481</u>
88						
89	<b><u>TOTAL LANAI DIVISION</u></b>	<u>36,619,080</u>	<u>3,500,000</u>	<u>40,119,080</u>	<u>0.0225</u>	<u>901,814</u>
90						
91	<b><u>MOLOKAI</u></b>					
92	302.0M	-		-	0.0000	-
93	<b><u>INTANGIBLE PLANT</u></b>	<u>-</u>	<u>-</u>	<u>-</u>	<u>0.0000</u>	<u>-</u>
94						
95	340.0M	-		-	0.0000	-
96	341.0M	3,000,086		3,000,086	0.0207	62,102
97	342.0M	2,010,598		2,010,598	0.0215	43,228
98	343.0M	2,825,457		2,825,457	0.0228	64,420
99	344.0M	12,253,705		12,253,705	0.0146	178,904
100	345.0M	4,909,679		4,909,679	0.0221	108,504
101	<b><u>MOLOKAI OTHER PRODUCTION</u></b>	<u>24,999,525</u>	<u>-</u>	<u>24,999,525</u>	<u>0.0183</u>	<u>457,158</u>
102						
103	350.1M	-		-	0.0000	-
104	353.0M	631,045		631,045	0.0239	15,082
105	354.0M	38,669		38,669	0.0155	599
106	355.0M	238,785		238,785	0.0254	6,065
107	356.0M	275,140		275,140	0.0303	8,337
108	<b><u>MOLOKAI TRANSMISSION</u></b>	<u>1,183,639</u>	<u>-</u>	<u>1,183,639</u>	<u>0.0254</u>	<u>30,083</u>
109						
110	360.1M	32,462		32,462	0.0138	448
111	361.1M	59,259		59,259	0.0143	847
112	362.0M	1,489,921		1,489,921	0.0215	32,033
113	363.0M	1,454,153		1,454,153	0.1093	158,939
114	364.0M	4,890,631		4,890,631	0.0319	156,011
115	365.0M	2,914,854		2,914,854	0.0231	67,333
116	366.0M	(321,556)		(321,556)	0.0204	(6,560)
117	367.0M	3,375,673		3,375,673	0.0268	90,468
118	368.0M	1,253,190		1,253,190	0.0475	59,527
119	369.1M	1,603,242		1,603,242	0.0150	24,049
120	369.2M	882,751		882,751	0.0203	17,920
121	370.0M	510,746		510,746	0.0342	17,468
122	373.0M	350,101		350,101	0.0170	5,952
123	<b><u>MOLOKAI DISTRIBUTION</u></b>	<u>18,495,427</u>	<u>-</u>	<u>18,495,427</u>	<u>0.0338</u>	<u>624,434</u>
124						
125	389.2M	56,383		56,383	0.0000	-
126	390.0M	875,631		875,631	0.0245	21,453
127	<b><u>MOLOKAI TOTAL GENERAL</u></b>	<u>932,014</u>	<u>-</u>	<u>932,014</u>	<u>0.0230</u>	<u>21,453</u>
128						
129	392.1M	617,904		617,904	0.0618	38,186
130	392.2M	266,875		266,875	0.0618	16,493
131	<b><u>MOLOKAI TRANSPORTATION</u></b>	<u>884,779</u>	<u>-</u>	<u>884,779</u>	<u>0.0618</u>	<u>54,679</u>
132						
133	<b><u>TOTAL MOLOKAI DIVISION</u></b>	<u>46,495,384</u>	<u>-</u>	<u>46,495,384</u>	<u>0.0255</u>	<u>1,187,808</u>
134						
135						
136	<b><u>UTILITY TOTAL DEPRECIATION</u></b>	<u>1,048,390,128</u>	<u>(2,104,415)</u>	<u>1,046,285,713</u>	<u>0.0273</u>	<u>28,607,220</u>
137						

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF DEPRECIATION AND AMORTIZATION RAM ADJUSTMENT**

Line No.	FERC Account	Recorded Depreciable/Amort. Balance (net of CIAC)	Adjustments	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate Dkt. 2016-0431	Annual Accrual
	(a)	(b) Note 1 and 4	(c) Note 2	(d)	(e)	(f)
138	<b>Amortization Amounts</b>					
139						
140	<b>MAUI</b>					
141	316.00	3,262,494		3,262,494	0.0500	\$ 163,125
142	346.00	9,542,526		9,542,526	0.0500	477,126
143	<b>MAUI PRODUCTION</b>	12,805,020	-	12,805,020	0.0500	640,251
144						
145	391.10	1,268,406		1,268,406	0.2000	253,681
146	391.20	372,496		372,496	0.1000	37,250
147	391.30	997,480		997,480	0.0667	66,532
148	393.00	507,752		507,752	0.0400	20,310
149	394.00	7,190,293		7,190,293	0.0400	287,612
150	395.00	401,941		401,941	0.0667	26,809
151	396.00	169,489		169,489	0.0556	9,424
152	397.00	17,769,571		17,769,571	0.0667	1,185,230
153	398.00	1,104,097		1,104,097	0.0667	73,643
154	<b>MAUI GENERAL</b>	29,781,525	-	29,781,525	0.0658	1,960,491
155						
156	<b>TOTAL MAUI DIVISION</b>	42,586,545	-	42,586,545	0.0611	2,600,742
157						
158	<b>LANAI</b>					
159	346.0L	295,218		295,218	0.0500	14,761
160	<b>LANAI OTHER PRODUCTION</b>	295,218	-	295,218	0.0500	14,761
161						
162	391.1L	25,521		25,521	0.2000	5,104
163	391.2L	2,331		2,331	0.1000	233
164	391.3L	6,360		6,360	0.0667	424
165	394.0L	63,102		63,102	0.0400	2,524
166	397.0L	861,326		861,326	0.0667	57,450
167	398.0L	68,485		68,485	0.0667	4,568
168	<b>LANAI GENERAL</b>	1,027,125	-	1,027,125	0.0684	70,304
169						
170	<b>TOTAL LANAI DIVISION</b>	1,322,343	-	1,322,343	0.0643	85,065
171						
172						
173	<b>MOLOKAI</b>					
174	346.0M	175,811		175,811	0.0500	8,791
175	<b>MOLOKAI OTHER PRODUCTION</b>	175,811	-	175,811	0.0500	8,791
176						
177	391.1M	10,308		10,308	0.2000	2,062
178	391.2M	-		-	0.1000	-
179	391.3M	11,394		11,394	0.0667	760
180	394.0M	156,784		156,784	0.0400	6,271
181	397.0M	1,305,798		1,305,798	0.0667	87,097
182	398.0M	67,353		67,353	0.0667	4,492
183	<b>MOLOKAI GENERAL</b>	1,551,637	-	1,551,637	0.0649	100,682
184						
185	<b>TOTAL MOLOKAI DIVISION</b>	1,727,448	-	1,727,448	0.0634	109,473
186						
187	<b>UTILITY TOTAL AMORTIZATION</b>	45,636,336	-	45,636,336	0.0613	2,795,280
188						
189	TOTAL RAM DEPRECIATION / AMORTIZATION				Line 136 + Line 187	\$ 31,402,500
190	LESS: Vehicle Depreciation (A/C 392 above)				sum of lines 51,83,131	\$ (943,470)
191	LESS: Depreciation & Amortization in Current Revenues				Note 3	\$ (29,423,533)
192						
193	RAM Adjustment for Depreciation & Amortization					\$ 1,035,497
194	RAM Adjustment for CIAC Amortization				Note 4	\$ -
195	LESS: ADIT Excess Amortization				Schedule D5	\$ (1,680,773)
196	Total RAM Adjustment for Depreciation & Amortization					\$ (645,276)
197	Times: Factor for Revenue Taxes				Schedule C Line 5	1.0975
198						
199	RAM DEPRECIATION & AMORTIZATION				Line 196 * Line 197	\$ (708,191)
						To Sch A1

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**DETERMINATION OF DEPRECIATION AND AMORTIZATION RAM ADJUSTMENT**

Line No.	FERC Account	Recorded Depreciable/Amort. Balance (net of CIAC)	Adjustments	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate Dkt. 2016-0431	Annual Accrual
	(a)	(b) Note 1 and 4	(c) Note 2	(d)	(e)	(f)
<b>Footnotes:</b>						
(1)	Depreciable Balance	\$ 1,048,390,128	Line 136			
	Amortizable Balance	45,636,336	Line 187			
	Total Utility Plant per Schedule	\$ 1,094,026,464				
	Add: Utility Plant Acquisition Adjustment not included in Schedule.	\$ 1,785,138				
	Add: Land, Land Rights, Franchises & Consents as of 12/31/18 not included in Schedule	2,311,300				
	Total Utility Plant per G/L	\$ 1,098,122,903	December 2018 Monthly Financial Report filed 2/28/19			
	Less: M0001890 Kaonoulu Substation Land/Easement	\$ (599,580)	MECO-WP-D2-001			
	Adjusted Total Utility Plant	\$ 1,097,523,323				
(2)	Amounts are recorded, except for the following adjustments:					
	Lanai CHP (Line 87)	3,500,000	MECO-RWP-1401 (Revised 3/28/12), Dkt. No. 2011-0092, page 10			
	Asset Retirement Obligation Entries (Line 4)	(1,325,000)	Schedule D1, Note 1			
	Sub-Total Adjustments	\$ 2,175,000	Column (c)			
	Joint Pole Capital Transfer Price	(4,195,974)	Decision and Order No. 35768, Docket No. 2018-0075, filed October 16, 2018			
	Major Project Adjustments from WP-D2-001:					
	Kuihelani Substation Project (X00004)	\$ (83,441)	Line 32			
	Total Adjustments	\$ (2,104,415)	Line 136, Column (c)			
(3)	Depreciation & Amortization in Current Revenues <sup>1</sup> :			Depr/Amort Expense		
	Total Depreciation			33,157,000		
	LESS: Vehicle Depreciation (A/C 392)			(835,000)		
	LESS: Amortization of Excess ADIT <sup>2</sup>			(453,467)		
	Total Depreciation in Current Revenues			31,868,533		
	ADD: CIAC Amortization		Note 4	(2,445,000)		
	Total Depreciation & Amortization in Current Revenues			\$ 29,423,533		

<sup>1</sup> In Interim D&O No. 35631 issued on August 9, 2018, in Docket 2017-0150, the Commission approved utilizing the "Settlement Depreciation Rates" and accepted the Parties' Settlement Agreement filed on 6/15/18 (Exhibit 1, Table 26 - Depreciation & Amortization Expense using Proposed Settlement Depr. Rates per Dkt. No. 2016-0431).

<sup>2</sup> Parties' Joint Proposed Revised Schedules and Refund Plan, Docket No. 2017-0150, Exhibit 4B. Also, see Schedule D5, Column H, lines 3 + 4.

(4) Effective October 2018, the Company reclassified CIAC to Plant in Service or CWIP consistent with FERC guidelines. Amounts shown in this Schedule represents balances net of CIAC.

**MAUI ELECTRIC COMPANY, LIMITED**  
**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	2,004,278
2	Amortization of Excess Deferreds (Note 3)	Schedule D5	1,169,396
3	Subtotal		3,173,674
4	Effective Federal Tax Rate	MECO-WP-F-001	19.7368%
5	Federal Deferred Tax on State Tax Depreciation	Line 1 * Line 4	626,383
6	Add back State Tax Depreciation	Line 1	(2,004,278)
7	Federal Tax Depreciation	Schedule F1	2,004,278
8	Federal/State Difference	Line 6 + Line 7	-
9	Tax Rate on Federal Only Adjustment	MECO-WP-F-001	21.00%
10	Federal Deferred Tax Adjustment	Line 8 * Line 9	-
11	Total Federal Deferred Taxes Before Proration		626,383
12	Proration Adjustment	MECO-WP-F1-003	(65,314)
13	Total Federal Deferred Taxes After Proration	Line 11 + Line 12	561,069
<b>STATE DEFERRED TAXES</b>			
14	State Tax Depreciation	Schedule F1	2,004,278
15	Amortization of Excess Deferreds (Note 3)	Schedule D5	1,169,396
16	Subtotal		3,173,674
17	Effective State Tax Rate	MECO-WP-F-001	6.0150%
18	Total State Deferred Taxes	Line 16 * Line 17	190,898
19	TOTAL FED AND STATE DEFERRED TAXES	Line 13 + Line 18	751,967
			<i>To Schedule D1</i>

NOTE: 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 in the Tax Cuts and Jobs Act of 2017. This is consistent with the inclusion of the regulatory liability and the related amortization in rate base RAM.

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

Calculation of Excess Deferred Amortization		
Plant 282 - protected	1,227,306	Schedule D5
Proration Percentage (7 months/12 months)	58.33%	
	715,929	
Plant 283 - unprotected	374,381	Schedule D5
Nonplant 283 - unprotected	79,087	Schedule D5
Amortization of Excess Deferreds, as Adjusted	1,169,396	
	Schedule D1	

MAUI ELECTRIC COMPANY, LTD.  
DECOUPLING CALCULATION WORKBOOK  
DETERMINATION OF TAX DEPRECIATION

Line No.	LIFE	MECO-WP-F1-002			PROJECTS	PROGRAMS	TOTAL	PROJECTS	PROGRAMS	TOTAL	FED YR1	FED DEPR RATE	FED YR1 TAX DEPR	STATE YR1	STATE DEPR RATE	STATE YR1 TAX DEPR
		PROJECTS	PROGRAMS	TOTAL												
1	Computers	5	177,489	177,489	0.42%	0.00%	0.42%	0.42%	0.00%	0.42%						
2	Off/Furn/Tools	7	330,264	330,264	0.79%	0.00%	0.79%	0.79%	0.00%	0.79%						
3	Street Lights	7	996,286	996,286	2.37%	0.00%	2.37%	2.37%	0.00%	2.37%						
4	Non-Steam Production	15	6,448,636	6,448,636	15.34%	0.00%	15.34%	15.34%	0.00%	15.34%						
5	Transmission > 69kv	15	366,713	366,713	0.87%	0.00%	0.87%	0.87%	0.00%	0.87%						
6	Communication	20	649,086	649,086	1.54%	0.00%	1.54%	1.54%	0.00%	1.54%						
7	Steam Production	20	670,183	670,183	1.59%	0.00%	1.59%	1.59%	0.00%	1.59%						
8	General	20	767,276	767,276	1.83%	0.00%	1.83%	1.83%	0.00%	1.83%						
9	Transmission	20	2,239,977	2,239,977	5.33%	0.00%	5.33%	5.33%	0.00%	5.33%						
10	Distribution	20	27,947,466	27,947,466	66.48%	0.00%	66.48%	66.48%	0.00%	66.48%						
11	Structural	39	171,378	171,378	0.41%	0.00%	0.41%	0.41%	0.00%	0.41%						
12	ROW	50	122,838	122,838	0.29%	0.00%	0.29%	0.29%	0.00%	0.29%						
13	Land	-	(3,842)	(3,842)	-0.01%	0.00%	-0.01%	-0.01%	0.00%	-0.01%						
14	Vehicles	-	1,156,608	1,156,608	2.75%	0.00%	2.75%	2.75%	0.00%	2.75%						
15	TOTAL	-	42,040,358	42,040,358	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%						

  

Project and Program % Totals by Depreciable Life:																
5 yr	0.42%	0.00%	0.42%	0.00%	0.42%			0.42%	0.00%	0.42%						
7 yr	3.16%	0.00%	3.16%	0.00%	3.16%			3.16%	0.00%	3.16%						
15 yr	16.21%	0.00%	16.21%	0.00%	16.21%			16.21%	0.00%	16.21%						
20 yr	76.77%	0.00%	76.77%	0.00%	76.77%			76.77%	0.00%	76.77%						
39 yr	0.41%	0.00%	0.41%	0.00%	0.41%			0.41%	0.00%	0.41%						
50 yr	0.29%	0.00%	0.29%	0.00%	0.29%			0.29%	0.00%	0.29%						
Land	-0.01%	0.00%	-0.01%	0.00%	-0.01%			-0.01%	0.00%	-0.01%						
Vehicles	2.75%	0.00%	2.75%	0.00%	2.75%			2.75%	0.00%	2.75%						
Total	100.00%	0.00%	100.00%	0.00%	100.00%			100.00%	0.00%	100.00%						

  

Vintage 2019 - Bonus Depreciation																
Basis subject to bonus depreciation																
5 yr	0%	0.00%	0%	0.00%	0%	0.00%	0%	0%	0.00%	0%	60.00%	-	20.00%	-	20.00%	-
7 yr	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	57.145%	-	14.29%	-	14.29%	-
15 yr	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	52.500%	-	5.00%	-	5.00%	-
20 yr	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	51.875%	-	3.75%	-	3.75%	-
39 yr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a						
50 yr	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a						
Land	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a						
Vehicles	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a						
Total	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%						

  

Vintage 2019 - Regular Depreciation																
Basis subject to regular depreciation																
5 yr	0.42%	0.00%	0.42%	0.00%	0.42%			0.42%	0.00%	0.42%	20.00%	26,026	20.00%	26,026	20.00%	26,026
7 yr	3.16%	0.00%	3.16%	0.00%	3.16%			3.16%	0.00%	3.16%	14.29%	139,073	14.29%	139,073	14.29%	139,073
15 yr	16.21%	0.00%	16.21%	0.00%	16.21%			16.21%	0.00%	16.21%	5.00%	249,950	5.00%	249,950	5.00%	249,950
20 yr	76.77%	0.00%	76.77%	0.00%	76.77%			76.77%	0.00%	76.77%	3.75%	887,749	3.75%	887,749	3.75%	887,749
39 yr	0.41%	0.00%	0.41%	0.00%	0.41%			0.41%	0.00%	0.41%	1.177%	1,481	1.177%	1,481	1.177%	1,481
50 yr	0.29%	0.00%	0.29%	0.00%	0.29%			0.29%	0.00%	0.29%	1.000%	900	1.000%	900	1.000%	900
Land	n/a	n/a	n/a	n/a	n/a			n/a	n/a	n/a						
Vehicles	n/a	n/a	n/a	n/a	n/a			n/a	n/a	n/a						
Total	97.26%	0.00%	97.26%	0.00%	97.26%			97.26%	0.00%	97.26%						

  

TOTAL ASSETS																
Net Depreciable Baseline Plant Adds																
Major Capital Projects from Schedule F2																
Total Depreciable Plant Adds																
Reconciliation from Baseline Plant Adds to Net Depreciable Plant Adds:																
Baseline Capital Projects Plant Adds																
Less: Repairs deduction																
Net plant add basis																
Less: Land and Vehicles (2.74% x \$30,837,054) & rdg																
MECO-WP-F1-001, pg. 1																
Schedule D2																
<supported by Special Study each year.																
42,040,358																
11,203,304																
30,837,054																
845,553																
29,991,501																

  

Schedule F1																
1,305,179																
699,099																
2,004,278																
St. Tax Depreciation																
To Schedule F																

NOTE (1)  
The 2017 Tax Cut and Jobs Act (TCJA) excludes property used in trade or business by public utility companies from bonus depreciation for otherwise qualified property acquired and placed in service after September 27, 2017.

**MAUI ELECTRIC COMPANY, LIMITED**  
**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 2018 Major Capital Projects Plant Items			18,329,326	<i>Schedule D3</i>
2	Assumed Value of 2018 Major Capital Projects - CIAC nontaxable			-	
3	Assumed Value of 2018 Major Capital Projects - Total			<u>\$ 18,329,326</u>	
4	Tax Classification of Major Capital Project Additions	Tax Basis Distribution	FED YR 1 DEPR RATE	FED YR 1 TAX DEPR	STATE YR 1 DEPR RATE
5	7 yr	-	14.29%	-	14.29%
6	15 yr	2,738,700	5.00%	136,935	5.00%
7	20 yr	14,991,046	3.75%	562,164	3.75%
8	39 yr	-			
9	Land	599,580			
10	Vehicles	n/a			
11	Total	<u>\$ 18,329,326</u>		<u>\$ 699,099</u>	<u>\$ 699,099</u>
		<i>From Schedule D3</i>		<i>To Schedule F1</i>	<i>To Schedule F1</i>

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**CIAC SUMMARY**

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

Schedule not applicable.

See MECO-WP-D2-005 for further discussion on the Company's treatment of CIAC within the Annual Decoupling filing.



**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**EARNINGS SHARING CALCULATIONS**  
All Amounts \$000 (Except %)

Line No.	Description (a)	Reference (b)	Rate-making Basis Return on Equity		
			Operating Income (c)	Rate Base (d)	Rate of Return (e)
1	Reported Operating Income before ratemaking adjustment	MECO-WP-H-008 & MECO-WP-H-001 (Revised)	\$ 27,943	\$ 461,823	
1a	Settlement of prior Joint Pole Accounts Receivable	Note 3	153		
2	Ratemaking Adjustments to Line 1:				
2a	Incentive Compensation Expenses (net of tax)	MECO-WP-H-002	419		
2b	Discretionary and Other Expenses Not Recoverable (net of tax)	MECO-WP-H-002	78		
2c	Amortization of investment income differential	MECO-WP-H-003	11		
2d	Income tax on items to be replaced by synchronized interest	MECO-WP-H-003	(2,295)		
2e	Special Medical Needs Program discount (net of tax)	MECO-WP-H-005	17		
2f	Performance Incentive Mechanism	MECO-WP-H-006	681		
3	Ratemaking Basis Amounts - Post Tax	Sum Lines 1 & 2	\$ 27,007	\$ 461,823	
4	Ratemaking Capitalization		Balances	Ratios	Cost Rate
5	Short-Term Debt (12 mo. Avg)		\$ 2,183	0.45%	4.60%
6	Long-Term Debt (Simple Avg)		\$ 188,846	39.28%	4.55%
7	Hybrid Securities (Simple Avg)		\$ 9,590	1.99%	7.16%
8	Preferred Stock (Simple Avg)		\$ 4,804	1.00%	8.15%
9	Common Equity (Simple Avg)		\$ 275,392	57.28%	9.50%
10	Total Capitalization	MECO-WP-H-004	\$ 480,815	100.00%	7.47%
11	Line 3 Rate Base Amount			\$ 461,823	
12	Weighted Cost of Debt	Sum lines 5-7		1.95%	
13	Synchronized Interest Expense			\$ 9,009	
	Income Tax Factor	Note 1		1.3468	
13a	Synchronized Interest Expense, net of tax			\$ 6,689	
14	Post Tax Income Available for Preferred & Common (Line 3 - Line 13a)				\$ 20,318
17	Less: Preferred Income Requirement (Line 8 Weighted Cost times Rate Base)				\$ 376
18	Income Available for Common Stock				\$ 19,942
19	Ratemaking Equity Investment (Line 9 Ratio times Rate Base)				\$ 264,514
20	Return on Equity for Decoupling Earnings Sharing	Line 18/Line 19			7.54%
21	Earnings Sharing Revenue Credits:	Basis Points			
22	Achieved ROE (basis points)	754			
23	Authorized Return (basis points) (D&O 31288 in Dkt No. 2011-0092 filed May 31, 2013)	900			
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)				39
30	Earnings Sharing Revenue Credits (thousands)				\$ -
					To Sch A, line 5
Footnotes:					
1	Composite Federal & State Income Tax Rate		25.75%		
	Income Tax Factor ( 1 / 1-tax rate)		1.3468		
2	Ratemaking Equity Investment (line 19)		\$ 264,514		
	Basis Point = 1/100 of a percent		0.01%		
	Earnings Required per Basis Point (thousands)		\$ 26.45		
	Times: Income Tax Conversion Factor		1.346801347		
	Pretax Income Required per Basis Point (thousands)		\$ 36		
	Times: Revenue Tax Conversion Factor		1.0975		
	Revenue Requirement per Basis Point (thousands)		\$ 39		

3 Per Docket No. 2018-0075, Decision and Order No. 35768, the Commission approved the Asset Transfer, Pole Licensing and Amended Joint Pole agreements. The settlement recovery of prior joint pole accounts receivables previously written-off was recorded to interest income (and excluded from Operating Income) in 2018. Upon further consideration, the recovery should have been recorded to Uncollectible Accounts (904) and included in Operating Income in 2018. (Taxes on the Joint Pole interest income was already included in Operating Income as of December 31, 2018.) Accordingly, an upward adjustment of \$153,002 is being made to Operating Income in the earnings sharing mechanism calculation.

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS**

Line No.	Description (a)	Reference (b)	Amount (c)
1	M0001977: Kuihelani Substation Land	5/21/18 Decoupling Filing, Sch D3	(895,563)
2	1/2 year convention	line 1 x 50%	(447,782)
3	Pretax Rate of Return	5/21/18 Decoupling Filing, Sch D	<u>9.15%</u>
4	Annualized Pretax Return Requirement	Line 2 x Line 3	(40,972)
5	Interest Rate	Sch B	<u>1.25%</u>
6	Annualized Interest	Line 4 x Line 5	<u>(512)</u>
7	Kuihelani Substation Land, including interest	Line 4 + Line 6	<u>(41,484)</u>
8	83 Days to credit (June 1, 2018 - August 22, 2018)		22.74%
9	Credit	Line 7 x Line 8	<u>(9,433)</u>
9	Revenue Tax Factor (1/(1-8.885%))		<u>1.0975</u>
10	Major Capital Projects Credit		<u>\$ (10,353)</u> To Sch A

Note 1 M0001977 Kuihelani Substation Land was included as a major project in Schedule D3 of the 2018 Decoupling Filing. The project was not placed in service in 2018 and is still ongoing. Therefore, in accordance with part s) of the Rate Adjustment Mechanism Provision tariff, this major project will be credited back to customers.

**MAUI ELECTRIC COMPANY, LIMITED**  
**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	\$ 147,575
2	2019 GDP Price Index	MECO-WP-C-002	2.10%
3	2019 RAM Cap Increase excluding Exceptional & Other Matters	Line 1 x Line 2	\$ 3,099
4	Revenue Tax Factor (1/(1-8.885%))		1.0975
5	RAM Cap for 2019 RAM Revenue Adjustment (including Rev Tax)		\$ 3,401
			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.

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**EXCEPTIONAL & OTHER MATTERS**

<u>Line No.</u>	<u>Description</u>	<u>Reference</u>	<u>Amount \$000</u>
	(a)	(b)	(c)
1	Kaonoulu Substation & T&D Feeder	Note 1	\$ 776
2	2019 Revenue Adjustment for Exceptional & Other Matters		\$ 776
			<u>To Sch A1</u>

Note 1 Exceptional and Other Matters:

See Order No. 32735, filed March 31, 2015, paragraph 107, pages 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."

Footnote 149 to the referenced paragraph 107 above stipulates that such applicable matters include adjustments accounting for CT-1 costs (for Hawaiian Electric) and CIS costs (for all of the Hawaiian Electric Companies) as provided in a stipulated agreement approved by the commission as amended in Order No. 31126 in Docket No. 2008-0083.

In Decision and Order No. 36219, filed March 18, 2019, Maui Electric's 2018 Test Year Rate Case, deferred costs related to CIS were included in the test year rate base as Unamortized System Development Costs. Accordingly, inclusion of CIS costs as an Exceptional & Other Matter is not applicable for the 2019 Annual Decoupling filing.

Adjustments for Kaonoulu Substation and Kaonoulu Sub T&D Feeders costs are included as approved by the commission in Decision and Order No. 36219 in Docket No. 2017-0150 and are being treated as Exceptional & Other Matters not subject to the RAM Cap.

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**EXCEPTIONAL & OTHER MATTERS - RETURN ON INVESTMENT**

\$ in thousands

			MECO 2019 RAM Rate Base (Note 1)		
Line No.	Description	Reference	Recorded at 12/31/2018	RAM Projected Amounts	Estimated at 12/31/2019
	(a)	(b)	(e)	(f)	(g)
1	M0001039 Kaonoulu Substation	MECO-WP-D3-001	\$ -	\$ 10,988	\$ 10,988
2	M0001051 Kaonoulu Sub T&D Feeder	MECO-WP-D3-001	-	4,004	4,004
	M0001051 Kaonoulu Substation				
3	Land/Easement (Note 3)	MECO-WP-D3-001	-	600	600
4	ADIT	MECO-WP-K1-001	-	(219)	(219)
5	State ITC	MECO-WP-K1-001	-	(266)	(266)
6	ADIT proration	MECO-WP-K1-001	-	25	25
7					
8	Total	Sum Lines 1 - 7	-	15,131	15,131
9	2019 Average Balance				\$ 7,565
10	Change in Rate Base				<b>\$ 7,565</b>
11	Pretax Rate of Return	Schedule D Line 7			9.34%
12	Pretax Return Requirement	Line 10 x Line 11			\$ 707
13	Revenue Requirement \$000	Line 12 x Line 16			<u>\$ 776</u>
14	Kaonoulu Depreciation	N/A			-
15	Revenue Requirement \$000	Line 14 x Line 16			<u>\$ -</u>
16	Revenue Tax Factor (1/(1-8.885%))	Schedule D Line 11			<u>1.0975</u>
17	Total Return on/of Investment \$000	Line 13 + Line 16			<u>\$ 776</u>
To Sch K					

Note 1 See Order No. 32735, paragraph 107, Page 94 - 95, filed March 31, 2015, in which the commission noted that 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. Accordingly, adjustments for Kaonoulu Substation and Kaonoulu Sub T&D Feeders costs are included as approved by the commission in Decision and Order No. 36219 in Docket No. 2017-0150 and are being treated as Exceptional & Other Matters not subject to the RAM Cap.

Note 2 Per Decision and Order No. 36219, Docket No. 2017-0150, filed March 18, 2019 the Commission ordered the removal of the Ka'ono'ulu Project, including the land (M0001890) which was purchased and placed in to service in September 2018. The land was adjusted out of the 2018 recorded net cost of plant in service balance and is being added here as a 2019 major project addition. The substation and T&D Feeder is expected to be placed in service in June 2019. Therefore, it is being included as a major project in accordance with the RAM Provision tariff. The project was originally approved in Decision and Order No. 33261 in Docket No. 2015-0071, filed October 13, 2015.

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**MAJOR PROJECT INTERIM RECOVERY**

Line No.	Description	Reference	Amount \$000
	(a)	(b)	(c)
1	None		\$ -
2	Revenue Tax Factor (1/(1-8.885%))		<u>1.0975</u>
3	Major Project Interim Recovery Total		<u>\$ -</u> To Sch B1

**MAUI ELECTRIC COMPANY, LIMITED**  
**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>Normalized T&amp;D SAIFI</u></b>	1.890	1.431	0.459	0.235	\$ 514,259	<b>\$ (490,675)</b>
<b><u>Normalized T&amp;D SAIDI</u></b>	208.19	114.752	93.438	22.972	\$ 514,259	<b>\$ (514,259)</b>
<b><u>Call Center Performance (Excludes Blocked Calls)</u></b>						
	89.04%	89.86%	-0.82%	3.00%	\$ 205,706	<b>\$ -</b>
<b><u>Phase 1 Renewable Energy RFP PIM</u></b>						
First Allocation ***						<b>\$ 610,017</b>
					Total	<b>\$ (394,917)</b>
						<b>To Sch A</b>

Note:

Exclusion represents 25kV Proactive Work

\* See MECO-WP-M-002

\*\* See MECO-WP-M-001

\*\*\* See MECO-WP-M-004

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**ON-BILL FINANCING COST RECOVERY**

Line	Company	Note 1 Customer	Allocation	Cost Recovery (excluding Rev tax)			Cost Recovery (including Rev tax)		
		Count		Total Recovery	2019 Recovery	2020 Recovery	Total with Rev Tax	2019 Rec with Rev Tax	2020 Rec 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	768,575	768,575	1,687,022	843,511	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
				<b>To Sch B</b>	<b>To Sch A</b>		<b>To Sch B1</b>		
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.

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.



**Maui Electric Company, Ltd.**  
**(Consolidated) Sales Forecast for June 2019 to May 2020**  
**in GWh**

	2019							2020					Total
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
R	29.0	31.6	32.9	29.8	32.8	30.5	32.5	31.2	28.2	29.1	26.4	27.0	360.9
G	6.5	6.9	6.9	6.7	7.0	6.7	6.6	6.4	6.1	6.2	6.1	6.4	78.5
J	22.4	23.6	23.8	23.0	23.6	22.6	22.4	21.7	20.9	21.5	21.1	22.3	269.0
P	28.6	30.2	31.1	28.9	30.0	28.3	28.1	27.2	25.8	27.1	26.7	28.0	340.0
F	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.6
Total	86.8	92.5	95.0	88.7	93.7	88.2	89.8	86.6	81.1	84.1	80.6	83.9	1,051.0

Source: Maui Electric Company, Ltd. May 2018 Sales Forecast.

**Maui Electric Company, Ltd.**  
**Adjustment for Prior Year RBA Accrual**  
**Recovery of December 31, 2016 RBA Balance**

Line		2018					Total
		January	February	March	April	May	
1	Billed RBA Revenues	1,419,008	1,370,483	1,365,042	1,405,777	1,363,560	6,923,870
2	Net Unbilled Revenues	7,229	(99,915)	7,519	22,507	32,363	(30,296)
3	Total billed + Unbilled	1,426,238	1,270,568	1,372,561	1,428,284	1,395,923	6,893,574
4	x % Share for RBA	16.9538%	16.9538%	16.9538%	16.9538%	16.9538%	
5	RBA Revenues (Recovery of 12/31/16 RBA balance)	241,802	215,410	232,702	242,149	236,663	1,168,726
6		Schedule B2					
7	Less: Revenue Taxes	(21,484)	(19,139)	(20,676)	(21,515)	(21,028)	(103,842)
8	RBA Revenues (Recovery of 12/31/16 RBA balance),	220,318	196,271	212,026	220,634	215,635	1,064,884
9	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, 2017 - May 31, 2018 is per Transmittal No. 17-04 (Decoupling) - RBA Rate Adjustment (Filed May 22, 2017), Schedule A, Note (1).

Maui Electric Company, Ltd.  
Adjustment for Prior Year RBA Accrual  
Recovery of December 31, 2017 RBA Balance

2018									
		August							
		June	July	August (Note 3)	September	October	November	December	Total
1	Billed RBA Revenues	1,638,087	1,797,865		711,844	319,146	300,472	292,812	5,060,226
2	Net Unbilled Revenues	116,428	101,991		(427,307)	13,029	(7,735)	(5,145)	(208,739)
3	Total billed + Unbilled	1,754,515	1,899,856	-	284,536	332,175	292,737	287,667	4,851,487
4	x % Share for RBA	30.8179%	30.8179%		183.5008%	183.5008%	183.5008%	183.5008%	
5	RBA Revenues (Recovery of 12/31/17 RBA balance)	540,704	585,495	590,230	522,126	609,544	537,175	527,872	3,913,146
6				Schedule B2					
7	Less: Revenue Taxes	(48,042)	(52,021)		(46,391)	(54,158)	(47,728)	(46,901)	(295,241)
8	RBA Revenues (Recovery of 12/31/17 RBA balance),	492,662	533,474	537,788	475,735	555,386	489,447	480,971	3,565,463
9	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 - August 22, 2018 is per Transmittal No. 18-03 (Decoupling) - RBA Rate Adjustment (Filed May 21, 2018), Schedule A, Note (1).

RBA Rate Adjustment Allocation for August 23, 2018 - May 30, 2019 is per Maui Electric Correction to Attachment 6B in Statement of Probable Entitlement (Filed August 2, 2018), Docket No. 2017-0150 - Maui Electric 2018 Test Year Rate Case. Attachment 6B, Note (1).

**Note 3:**

For the month of August, interim rates became effective on August 23, 2018. As a result, the calculation of the recovery of the December 31, 2017 was modified to use the rate adjustment centres per kWh applied to the total kWh sales.

	August Total	Aug 1-Aug 22	Aug 23-Aug 31
Total kwh for August	101,044,286	71,708,848	29,335,438
RBA kwh rate (¢/kwh)		0.58413024	0.58413024
RBA Revenues to be reversed	590,230	418,873	171,357
Less: Revenue Taxes	(52,442)	(37,217)	(15,225)
RBA Revenues (Recovery of 12/31/17 RBA balance),	537,788	381,656	156,132
net of Revenue Taxes			

**Note 4:**

RBA Rate Adjustment cents per kWh for August 1, 2018 - August 22, 2018 is per Transmittal No. 18-03 (Decoupling) - RBA Rate Adjustment (Filed May 21, 2018), Schedule A, Note (1).

RBA Rate Adjustment cents per kWh for August 23, 2018 - August 31, 2018 is per Maui Electric Correction to Attachment 6B in Statement of Probable Entitlement (Filed August 2, 2018), Docket No. 2017-0150 - Maui Electric 2018 Test Year Rate Case. Attachment 6B, Note (1).

Maui Electric Company, Ltd.  
Bargaining Unit Wage Increase per Collective Bargaining Agreements

Wage Increases:	1/1/2019	3.00%	(Note 1)
(non-compounded)	1/1/2020	3.00%	(Note 1)
	1/1/2021	3.00%	(Note 1)

<u>Increase effective</u>			<u>Increase Amount</u>	<u>Wage Rate With Increase</u>	<u>Labor Cost Escalation Rate</u>	
			(a)	(b)	(c)	
				prev (b) + (a)	(b) / prev (b) - 1	
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 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 MECO-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	GDP	Nominal	Consumer	Indust.	Dis. Pers.	Personal	Non-Res.	Corp.		Treas.	Treas.	Unempl.	Housing	Auto&Light	Net
	(Chained (2012\$)	Price Index	GDP (Cur.\$)	Price Index	Prod. (Total)	Income (2012\$)	Cons. Exp. (2012\$)	Fix. Inv. (2012\$)	Profits (Cur.\$)		Bills 3-mo.	Notes 10-Year	Rate (Civ.)	Starts (Mil.)	Truck Sales (Mil.)	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.

**MAUI ELECTRIC COMPANY, LIMITED.**  
**EXHIBIT A**

MECO-WP-C-003

PAGE 1 OF 1

<u>JOB CODE</u>	<u>JOB TITLE</u>	<u>3.00%</u> <u>1/1/2019</u>	<u>3.00%</u> <u>1/1/2020</u>	<u>3.00%</u> <u>1/1/2021</u>
TL2	VEHICLE ATTENDANT			
	1st 3 mos.	22.46	23.11	23.76
	Next 3 mos.	23.59	24.28	24.97
	Next 6 mos.	24.71	25.43	26.15
	Next 6 mos.	25.95	26.71	27.47
	Next 6 mos.	27.20	27.99	28.78
	Thereafter	28.55	29.38	30.21
CL4	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
CL26	PLANNER AID			
	1st 3 mos.	22.46	23.11	23.76
	Next 3 mos.	23.59	24.28	24.97
	Next 3 mos.	24.71	25.43	26.15
	Next 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
CL6	METER READER	1/1/2018		
	1st 3 mos.	23.99	24.71	25.43
	Next 3 mos.	25.19	25.95	26.71
	Next 6 mos.	27.72	28.55	29.38
	Next 6 mos.	29.12	29.99	30.86
	Next 6 mos.	30.49	31.40	32.31
	Thereafter	32.03	32.99	33.95
		x 1.03	x 1.0291	x 1.0283
CL9	ACCOUNTS CLERK			
	1st 3 mos.	26.60	27.37	28.14
	Next 3 mos.	27.91	28.72	29.53
	Next 3 mos.	29.26	30.11	30.96
	Next 6 mos.	30.71	31.60	32.49
	Next 6 mos.	32.27	33.21	34.15
	Thereafter	33.87	34.86	35.85
CL06	DISTRIBUTION DIVISION CLERK			
	1st 3 mos.	27.91	28.72	29.53
	Next 3 mos.	29.26	30.11	30.96
	Next 6 mos.	30.71	31.60	32.49
	Next 6 mos.	32.27	33.21	34.15
	Thereafter	33.87	34.86	35.85
T142	ENVIRONMENTAL TECHNICIAN			
	1st 12 mos.	35.52	36.55	37.58
	Thereafter	36.54	37.60	38.66

Maui Electric Company, Ltd.

CHP Investment

Estimated Book Depreciation

Docket No. 2009-0286 Depreciation Rates (through 8/22/18)

Docket No. 2016-0431 Depreciation Rates (beginning 8/23/18)

			Cost:			Rate:		Depreciation	A/D	NBV
			Total	Production	Distribution	Production	Distribution			
1	Sept	2009	3,500,000	3,010,000	490,000	3.19%	2.30%	-	-	3,500,000
2	Oct	2009	3,500,000	3,010,000	490,000	3.19%	2.30%	-	-	3,500,000
3	Nov	2009	3,500,000	3,010,000	490,000	3.19%	2.30%	-	-	3,500,000
4	Dec	2009	3,500,000	3,010,000	490,000	3.19%	2.30%	-	-	3,500,000
5	Jan	2010	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	8,941	3,491,059
6	Feb	2010	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	17,882	3,482,118
7	Mar	2010	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	26,823	3,473,177
8	Apr	2010	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	35,764	3,464,236
9	May	2010	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	44,705	3,455,295
10	Jun	2010	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	53,646	3,446,354
11	Jul	2010	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	62,587	3,437,413
12	Aug	2010	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	71,528	3,428,472
13	Sep	2010	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	80,469	3,419,531
14	Oct	2010	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	89,410	3,410,590
15	Nov	2010	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	98,351	3,401,649
16	Dec	2010	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	107,292	3,392,708
17	Jan	2011	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	116,233	3,383,767
18	Feb	2011	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	125,174	3,374,826
19	Mar	2011	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	134,115	3,365,885
20	Apr	2011	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	143,056	3,356,944
21	May	2011	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	151,997	3,348,003
22	Jun	2011	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	160,938	3,339,062
23	Jul	2011	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	169,879	3,330,121
24	Aug	2011	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	178,820	3,321,180
25	Sep	2011	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	187,761	3,312,239
26	Oct	2011	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	196,702	3,303,298
27	Nov	2011	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	205,643	3,294,357
28	Dec	2011	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	214,584	3,285,416
29	Jan	2012	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	223,525	3,276,475
30	Feb	2012	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	232,466	3,267,534
31	Mar	2012	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	241,407	3,258,593
32	Apr	2012	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	250,348	3,249,652
33	May	2012	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	259,289	3,240,711
34	Jun	2012	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	268,230	3,231,770
35	Jul	2012	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	277,171	3,222,829
36	Aug	2012	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	286,112	3,213,888
37	Sep	2012	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	295,053	3,204,947
38	Oct	2012	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	303,994	3,196,006
39	Nov	2012	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	312,935	3,187,065
40	Dec	2012	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	321,876	3,178,124
41	Jan	2013	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	330,817	3,169,183
42	Feb	2013	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	339,758	3,160,242
43	Mar	2013	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	348,699	3,151,301
44	Apr	2013	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	357,640	3,142,360
45	May	2013	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	366,581	3,133,419
46	Jun	2013	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	375,522	3,124,478
47	Jul	2013	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	384,463	3,115,537
48	Aug	2013	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	393,404	3,106,596
49	Sep	2013	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	402,345	3,097,655
50	Oct	2013	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	411,286	3,088,714
51	Nov	2013	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	420,227	3,079,773
52	Dec	2013	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	429,168	3,070,832
53	Jan	2014	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	438,109	3,061,891
54	Feb	2014	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	447,050	3,052,950
55	Mar	2014	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	455,991	3,044,009
56	Apr	2014	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	464,932	3,035,068
57	May	2014	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	473,873	3,026,127
58	Jun	2014	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	482,814	3,017,186
59	Jul	2014	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	491,755	3,008,245
60	Aug	2014	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	500,696	2,999,304
61	Sep	2014	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	509,637	2,990,363
62	Oct	2014	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	518,578	2,981,422



Maui Electric Company, Ltd.

CHP Investment

Estimated Book Depreciation

Docket No. 2009-0286 Depreciation Rates (through 8/22/18)

Docket No. 2016-0431 Depreciation Rates (beginning 8/23/18)

			Cost:			Rate:		Depreciation	A/D	NBV
			Total	Production	Distribution	Production	Distribution			
63	Nov	2014	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	527,519	2,972,481
64	Dec	2014	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	536,460	2,963,540
65	Jan	2015	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	545,401	2,954,599
66	Feb	2015	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	554,342	2,945,658
67	Mar	2015	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	563,283	2,936,717
68	Apr	2015	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	572,224	2,927,776
69	May	2015	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	581,165	2,918,835
70	Jun	2015	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	590,106	2,909,894
71	Jul	2015	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	599,047	2,900,953
72	Aug	2015	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	607,988	2,892,012
73	Sep	2015	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	616,929	2,883,071
74	Oct	2015	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	625,870	2,874,130
75	Nov	2015	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	634,811	2,865,189
76	Dec	2015	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	643,752	2,856,248
77	Jan	2016	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	652,693	2,847,307
78	Feb	2016	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	661,634	2,838,366
79	Mar	2016	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	670,575	2,829,425
80	Apr	2016	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	679,516	2,820,484
81	May	2016	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	688,457	2,811,543
82	Jun	2016	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	697,398	2,802,602
83	Jul	2016	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	706,339	2,793,661
84	Aug	2016	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	715,280	2,784,720
85	Sep	2016	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	724,221	2,775,779
86	Oct	2016	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	733,162	2,766,838
87	Nov	2016	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	742,103	2,757,897
88	Dec	2016	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	751,044	2,748,956
89	Jan	2017	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	759,985	2,740,015
90	Feb	2017	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	768,926	2,731,074
91	Mar	2017	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	777,867	2,722,133
92	Apr	2017	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	786,808	2,713,192
93	May	2017	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	795,749	2,704,251
94	Jun	2017	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	804,690	2,695,310
95	Jul	2017	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	813,631	2,686,369
96	Aug	2017	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	822,572	2,677,428
97	Sep	2017	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	831,513	2,668,487
98	Oct	2017	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	840,454	2,659,546
99	Nov	2017	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	849,395	2,650,605
100	Dec	2017	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	858,336	2,641,664
101	Jan	2018	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	867,277	2,632,723
102	Feb	2018	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	876,218	2,623,782
103	Mar	2018	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	885,159	2,614,841
104	Apr	2018	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	894,100	2,605,900
105	May	2018	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	903,041	2,596,959
106	Jun	2018	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	911,982	2,588,018
107	Jul	2018	3,500,000	3,010,000	490,000	3.19%	2.30%	8,941	920,923	2,579,077
108	Aug 1-22	2018	3,500,000	3,010,000	490,000	3.19%	2.30%	6,345	927,268	2,572,732
108a	Aug 23-31	2018	3,500,000	3,010,000	490,000	1.86%	2.55%	1,657	928,925	2,571,075
109	Sep	2018	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	934,632	2,565,368
110	Oct	2018	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	940,339	2,559,661
111	Nov	2018	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	946,046	2,553,954
112	Dec	2018	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	951,753	2,548,247
113	Jan	2019	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	957,460	2,542,540
114	Feb	2019	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	963,167	2,536,833
115	Mar	2019	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	968,874	2,531,126
116	Apr	2019	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	974,581	2,525,419
117	May	2019	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	980,288	2,519,712
118	Jun	2019	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	985,995	2,514,005
119	Jul	2019	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	991,702	2,508,298
120	Aug	2019	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	997,409	2,502,591
121	Sep	2019	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,003,116	2,496,884
122	Oct	2019	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,008,823	2,491,177
123	Nov	2019	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,014,530	2,485,470

Maui Electric Company, Ltd.

CHP Investment

Estimated Book Depreciation

Docket No. 2009-0286 Depreciation Rates (through 8/22/18)

Docket No. 2016-0431 Depreciation Rates (beginning 8/23/18)

			Cost:			Rate:		Depreciation	A/D	NBV
			Total	Production	Distribution	Production	Distribution			
124	Dec	2019	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,020,237	2,479,763
125	Jan	2020	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,025,944	2,474,056
126	Feb	2020	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,031,651	2,468,349
127	Mar	2020	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,037,358	2,462,642
128	Apr	2020	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,043,065	2,456,935
129	May	2020	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,048,772	2,451,228
130	Jun	2020	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,054,479	2,445,521
131	Jul	2020	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,060,186	2,439,814
132	Aug	2020	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,065,893	2,434,107
133	Sep	2020	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,071,600	2,428,400
134	Oct	2020	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,077,307	2,422,693
135	Nov	2020	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,083,014	2,416,986
136	Dec	2020	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,088,721	2,411,279
137	Jan	2021	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,094,428	2,405,572
138	Feb	2021	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,100,135	2,399,865
139	Mar	2021	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,105,842	2,394,158
140	Apr	2021	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,111,549	2,388,451
141	May	2021	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,117,256	2,382,744
142	Jun	2021	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,122,963	2,377,037
143	Jul	2021	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,128,670	2,371,330
144	Aug	2021	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,134,377	2,365,623
145	Sep	2021	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,140,084	2,359,916
146	Oct	2021	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,145,791	2,354,209
147	Nov	2021	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,151,498	2,348,502
148	Dec	2021	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,157,205	2,342,795
149	Jan	2022	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,162,912	2,337,088
150	Feb	2022	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,168,619	2,331,381
151	Mar	2022	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,174,326	2,325,674
152	Apr	2022	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,180,033	2,319,967
153	May	2022	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,185,740	2,314,260
154	Jun	2022	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,191,447	2,308,553
155	Jul	2022	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,197,154	2,302,846
156	Aug	2022	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,202,861	2,297,139
157	Sep	2022	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,208,568	2,291,432
158	Oct	2022	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,214,275	2,285,725
159	Nov	2022	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,219,982	2,280,018
160	Dec	2022	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,225,689	2,274,311
161	Jan	2023	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,231,396	2,268,604
162	Feb	2023	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,237,103	2,262,897
163	Mar	2023	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,242,810	2,257,190
164	Apr	2023	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,248,517	2,251,483
165	May	2023	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,254,224	2,245,776
166	Jun	2023	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,259,931	2,240,069
167	Jul	2023	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,265,638	2,234,362
168	Aug	2023	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,271,345	2,228,655
169	Sep	2023	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,277,052	2,222,948
170	Oct	2023	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,282,759	2,217,241
171	Nov	2023	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,288,466	2,211,534
172	Dec	2023	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,294,173	2,205,827
173	Jan	2024	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,299,880	2,200,120
174	Feb	2024	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,305,587	2,194,413
175	Mar	2024	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,311,294	2,188,706
176	Apr	2024	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,317,001	2,182,999
177	May	2024	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,322,708	2,177,292
178	Jun	2024	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,328,415	2,171,585
179	Jul	2024	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,334,122	2,165,878
180	Aug	2024	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,339,829	2,160,171
181	Sep	2024	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,345,536	2,154,464
182	Oct	2024	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,351,243	2,148,757
183	Nov	2024	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,356,950	2,143,050
184	Dec	2024	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,362,657	2,137,343
185	Jan	2025	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,368,364	2,131,636

Maui Electric Company, Ltd.

CHP Investment

Estimated Book Depreciation

Docket No. 2009-0286 Depreciation Rates (through 8/22/18)

Docket No. 2016-0431 Depreciation Rates (beginning 8/23/18)

			Cost:			Rate:		Depreciation	A/D	NBV
			Total	Production	Distribution	Production	Distribution			
186	Feb	2025	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,374,071	2,125,929
187	Mar	2025	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,379,778	2,120,222
188	Apr	2025	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,385,485	2,114,515
189	May	2025	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,391,192	2,108,808
190	Jun	2025	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,396,899	2,103,101
191	Jul	2025	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,402,606	2,097,394
192	Aug	2025	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,408,313	2,091,687
193	Sep	2025	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,414,020	2,085,980
194	Oct	2025	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,419,727	2,080,273
195	Nov	2025	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,425,434	2,074,566
196	Dec	2025	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,431,141	2,068,859
197	Jan	2026	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,436,848	2,063,152
198	Feb	2026	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,442,555	2,057,445
199	Mar	2026	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,448,262	2,051,738
200	Apr	2026	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,453,969	2,046,031
201	May	2026	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,459,676	2,040,324
202	Jun	2026	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,465,383	2,034,617
203	Jul	2026	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,471,090	2,028,910
204	Aug	2026	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,476,797	2,023,203
205	Sep	2026	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,482,504	2,017,496
206	Oct	2026	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,488,211	2,011,789
207	Nov	2026	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,493,918	2,006,082
208	Dec	2026	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,499,625	2,000,375
209	Jan	2027	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,505,332	1,994,668
210	Feb	2027	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,511,039	1,988,961
211	Mar	2027	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,516,746	1,983,254
212	Apr	2027	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,522,453	1,977,547
213	May	2027	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,528,160	1,971,840
214	Jun	2027	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,533,867	1,966,133
215	Jul	2027	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,539,574	1,960,426
216	Aug	2027	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,545,281	1,954,719
217	Sep	2027	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,550,988	1,949,012
218	Oct	2027	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,556,695	1,943,305
219	Nov	2027	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,562,402	1,937,598
220	Dec	2027	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,568,109	1,931,891
221	Jan	2028	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,573,816	1,926,184
222	Feb	2028	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,579,523	1,920,477
223	Mar	2028	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,585,230	1,914,770
224	Apr	2028	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,590,937	1,909,063
225	May	2028	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,596,644	1,903,356
226	Jun	2028	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,602,351	1,897,649
227	Jul	2028	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,608,058	1,891,942
228	Aug	2028	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,613,765	1,886,235
229	Sep	2028	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,619,472	1,880,528
230	Oct	2028	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,625,179	1,874,821
231	Nov	2028	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,630,886	1,869,114
232	Dec	2028	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,636,593	1,863,407
233	Jan	2029	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,642,300	1,857,700
234	Feb	2029	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,648,007	1,851,993
235	Mar	2029	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,653,714	1,846,286
236	Apr	2029	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,659,421	1,840,579
237	May	2029	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,665,128	1,834,872
238	Jun	2029	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,670,835	1,829,165
239	Jul	2029	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,676,542	1,823,458
240	Aug	2029	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,682,249	1,817,751
241	Sep	2029	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,687,956	1,812,044
242	Oct	2029	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,693,663	1,806,337
243	Nov	2029	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,699,370	1,800,630
244	Dec	2029	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,705,077	1,794,923
245	Jan	2030	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,710,784	1,789,216
246	Feb	2030	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,716,491	1,783,509
247	Mar	2030	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,722,198	1,777,802

Maui Electric Company, Ltd.

CHP Investment

Estimated Book Depreciation

Docket No. 2009-0286 Depreciation Rates (through 8/22/18)

Docket No. 2016-0431 Depreciation Rates (beginning 8/23/18)

			Cost:			Rate:		Depreciation	A/D	NBV
			Total	Production	Distribution	Production	Distribution			
248	Apr	2030	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,727,905	1,727,095
249	May	2030	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,733,612	1,766,388
250	Jun	2030	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,739,319	1,760,681
251	Jul	2030	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,745,026	1,754,974
252	Aug	2030	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,750,733	1,749,267
253	Sep	2030	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,756,440	1,743,560
254	Oct	2030	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,762,147	1,737,853
255	Nov	2030	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,767,854	1,732,146
256	Dec	2030	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,773,561	1,726,439
257	Jan	2031	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,779,268	1,720,732
258	Feb	2031	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,784,975	1,715,025
259	Mar	2031	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,790,682	1,709,318
260	Apr	2031	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,796,389	1,703,611
261	May	2031	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,802,096	1,697,904
262	Jun	2031	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,807,803	1,692,197
263	Jul	2031	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,813,510	1,686,490
264	Aug	2031	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,819,217	1,680,783
265	Sep	2031	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,824,924	1,675,076
266	Oct	2031	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,830,631	1,669,369
267	Nov	2031	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,836,338	1,663,662
268	Dec	2031	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,842,045	1,657,955
269	Jan	2032	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,847,752	1,652,248
270	Feb	2032	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,853,459	1,646,541
271	Mar	2032	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,859,166	1,640,834
272	Apr	2032	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,864,873	1,635,127
273	May	2032	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,870,580	1,629,420
274	Jun	2032	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,876,287	1,623,713
275	Jul	2032	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,881,994	1,618,006
276	Aug	2032	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,887,701	1,612,299
277	Sep	2032	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,893,408	1,606,592
278	Oct	2032	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,899,115	1,600,885
279	Nov	2032	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,904,822	1,595,178
280	Dec	2032	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,910,529	1,589,471
281	Jan	2033	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,916,236	1,583,764
282	Feb	2033	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,921,943	1,578,057
283	Mar	2033	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,927,650	1,572,350
284	Apr	2033	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,933,357	1,566,643
285	May	2033	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,939,064	1,560,936
286	Jun	2033	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,944,771	1,555,229
287	Jul	2033	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,950,478	1,549,522
288	Aug	2033	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,956,185	1,543,815
289	Sep	2033	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,961,892	1,538,108
290	Oct	2033	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,967,599	1,532,401
291	Nov	2033	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,973,306	1,526,694
292	Dec	2033	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,979,013	1,520,987
293	Jan	2034	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,984,720	1,515,280
294	Feb	2034	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,990,427	1,509,573
295	Mar	2034	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	1,996,134	1,503,866
296	Apr	2034	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,001,841	1,498,159
297	May	2034	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,007,548	1,492,452
298	Jun	2034	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,013,255	1,486,745
299	Jul	2034	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,018,962	1,481,038
300	Aug	2034	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,024,669	1,475,331
301	Sep	2034	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,030,376	1,469,624
302	Oct	2034	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,036,083	1,463,917
303	Nov	2034	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,041,790	1,458,210
304	Dec	2034	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,047,497	1,452,503
305	Jan	2035	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,053,204	1,446,796
306	Feb	2035	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,058,911	1,441,089
307	Mar	2035	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,064,618	1,435,382
308	Apr	2035	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,070,325	1,429,675
309	May	2035	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,076,032	1,423,968

Maui Electric Company, Ltd.

CHP Investment

Estimated Book Depreciation

Docket No. 2009-0286 Depreciation Rates (through 8/22/18)

Docket No. 2016-0431 Depreciation Rates (beginning 8/23/18)

			Cost:			Rate:		Depreciation	A/D	NBV
			Total	Production	Distribution	Production	Distribution			
310	Jun	2035	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,081,739	1,418,261
311	Jul	2035	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,087,446	1,412,554
312	Aug	2035	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,093,153	1,406,847
313	Sep	2035	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,098,860	1,401,140
314	Oct	2035	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,104,567	1,395,433
315	Nov	2035	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,110,274	1,389,726
316	Dec	2035	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,115,981	1,384,019
317	Jan	2036	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,121,688	1,378,312
318	Feb	2036	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,127,395	1,372,605
319	Mar	2036	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,133,102	1,366,898
320	Apr	2036	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,138,809	1,361,191
321	May	2036	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,144,516	1,355,484
322	Jun	2036	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,150,223	1,349,777
323	Jul	2036	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,155,930	1,344,070
324	Aug	2036	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,161,637	1,338,363
325	Sep	2036	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,167,344	1,332,656
326	Oct	2036	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,173,051	1,326,949
327	Nov	2036	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,178,758	1,321,242
328	Dec	2036	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,184,465	1,315,535
329	Jan	2037	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,190,172	1,309,828
330	Feb	2037	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,195,879	1,304,121
331	Mar	2037	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,201,586	1,298,414
332	Apr	2037	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,207,293	1,292,707
333	May	2037	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,213,000	1,287,000
334	Jun	2037	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,218,707	1,281,293
335	Jul	2037	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,224,414	1,275,586
336	Aug	2037	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,230,121	1,269,879
337	Sep	2037	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,235,828	1,264,172
338	Oct	2037	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,241,535	1,258,465
339	Nov	2037	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,247,242	1,252,758
340	Dec	2037	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,252,949	1,247,051
341	Jan	2038	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,258,656	1,241,344
342	Feb	2038	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,264,363	1,235,637
343	Mar	2038	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,270,070	1,229,930
344	Apr	2038	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,275,777	1,224,223
345	May	2038	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,281,484	1,218,516
346	Jun	2038	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,287,191	1,212,809
347	Jul	2038	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,292,898	1,207,102
348	Aug	2038	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,298,605	1,201,395
349	Sep	2038	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,304,312	1,195,688
350	Oct	2038	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,310,019	1,189,981
351	Nov	2038	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,315,726	1,184,274
352	Dec	2038	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,321,433	1,178,567
353	Jan	2039	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,327,140	1,172,860
354	Feb	2039	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,332,847	1,167,153
355	Mar	2039	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,338,554	1,161,446
356	Apr	2039	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,344,261	1,155,739
357	May	2039	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,349,968	1,150,032
358	Jun	2039	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,355,675	1,144,325
359	Jul	2039	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,361,382	1,138,618
360	Aug	2039	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,367,089	1,132,911
361	Sep	2039	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,372,796	1,127,204
362	Oct	2039	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,378,503	1,121,497
363	Nov	2039	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,384,210	1,115,790
364	Dec	2039	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,389,917	1,110,083
365	Jan	2040	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,395,624	1,104,376
366	Feb	2040	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,401,331	1,098,669
367	Mar	2040	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,407,038	1,092,962
368	Apr	2040	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,412,745	1,087,255
369	May	2040	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,418,452	1,081,548
370	Jun	2040	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,424,159	1,075,841
371	Jul	2040	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,429,866	1,070,134



Maui Electric Company, Ltd.

CHP Investment

Estimated Book Depreciation

Docket No. 2009-0286 Depreciation Rates (through 8/22/18)

Docket No. 2016-0431 Depreciation Rates (beginning 8/23/18)

			Cost:			Rate:		Depreciation	A/D	NBV
			Total	Production	Distribution	Production	Distribution			
372	Aug	2040	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,435,573	1,064,427
373	Sep	2040	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,441,280	1,058,720
374	Oct	2040	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,446,987	1,053,013
375	Nov	2040	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,452,694	1,047,306
376	Dec	2040	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,458,401	1,041,599
377	Jan	2041	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,464,108	1,035,892
378	Feb	2041	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,469,815	1,030,185
379	Mar	2041	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,475,522	1,024,478
380	Apr	2041	3,500,000	3,010,000	490,000	1.86%	2.55%	5,707	2,481,229	1,018,771
381	May	2041	3,500,000	3,010,000	490,000	1.86%	2.55%	2,289	2,483,518	1,016,482
382	Jun	2041	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,484,559	1,015,441
383	Jul	2041	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,485,600	1,014,400
384	Aug	2041	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,486,641	1,013,359
385	Sep	2041	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,487,682	1,012,318
386	Oct	2041	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,488,723	1,011,277
387	Nov	2041	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,489,764	1,010,236
388	Dec	2041	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,490,805	1,009,195
389	Jan	2042	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,491,846	1,008,154
390	Feb	2042	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,492,887	1,007,113
391	Mar	2042	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,493,928	1,006,072
392	Apr	2042	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,494,969	1,005,031
393	May	2042	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,496,010	1,003,990
394	Jun	2042	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,497,051	1,002,949
395	Jul	2042	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,498,092	1,001,908
396	Aug	2042	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,499,133	1,000,867
397	Sep	2042	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,500,174	999,826
398	Oct	2042	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,501,215	998,785
399	Nov	2042	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,502,256	997,744
400	Dec	2042	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,503,297	996,703
401	Jan	2043	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,504,338	995,662
402	Feb	2043	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,505,379	994,621
403	Mar	2043	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,506,420	993,580
404	Apr	2043	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,507,461	992,539
405	May	2043	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,508,502	991,498
406	Jun	2043	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,509,543	990,457
407	Jul	2043	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,510,584	989,416
408	Aug	2043	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,511,625	988,375
409	Sep	2043	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,512,666	987,334
410	Oct	2043	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,513,707	986,293
411	Nov	2043	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,514,748	985,252
412	Dec	2043	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,515,789	984,211
413	Jan	2044	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,516,830	983,170
414	Feb	2044	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,517,871	982,129
415	Mar	2044	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,518,912	981,088
416	Apr	2044	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,519,953	980,047
417	May	2044	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,520,994	979,006
418	Jun	2044	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,522,035	977,965
419	Jul	2044	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,523,076	976,924
420	Aug	2044	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,524,117	975,883
421	Sep	2044	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,525,158	974,842
422	Oct	2044	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,526,199	973,801
423	Nov	2044	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,527,240	972,760
424	Dec	2044	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,528,281	971,719
425	Jan	2045	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,529,322	970,678
426	Feb	2045	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,530,363	969,637
427	Mar	2045	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,531,404	968,596
428	Apr	2045	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,532,445	967,555
429	May	2045	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,533,486	966,514
430	Jun	2045	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,534,527	965,473
431	Jul	2045	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,535,568	964,432
432	Aug	2045	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,536,609	963,391
433	Sep	2045	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,537,650	962,350

Maui Electric Company, Ltd.

CHP Investment

Estimated Book Depreciation

Docket No. 2009-0286 Depreciation Rates (through 8/22/18)

Docket No. 2016-0431 Depreciation Rates (beginning 8/23/18)

			Cost:			Rate:		Depreciation	A/D	NBV
			Total	Production	Distribution	Production	Distribution			
434	Oct	2045	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,538,691	961,309
435	Nov	2045	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,539,732	960,268
436	Dec	2045	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,540,773	959,227
437	Jan	2046	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,541,814	958,186
438	Feb	2046	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,542,855	957,145
439	Mar	2046	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,543,896	956,104
440	Apr	2046	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,544,937	955,063
441	May	2046	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,545,978	954,022
442	Jun	2046	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,547,019	952,981
443	Jul	2046	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,548,060	951,940
444	Aug	2046	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,549,101	950,899
445	Sep	2046	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,550,142	949,858
446	Oct	2046	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,551,183	948,817
447	Nov	2046	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,552,224	947,776
448	Dec	2046	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,553,265	946,735
449	Jan	2047	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,554,306	945,694
450	Feb	2047	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,555,347	944,653
451	Mar	2047	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,556,388	943,612
452	Apr	2047	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,557,429	942,571
453	May	2047	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,558,470	941,530
454	Jun	2047	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,559,511	940,489
455	Jul	2047	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,560,552	939,448
456	Aug	2047	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,561,593	938,407
457	Sep	2047	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,562,634	937,366
458	Oct	2047	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,563,675	936,325
459	Nov	2047	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,564,716	935,284
460	Dec	2047	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,565,757	934,243
461	Jan	2048	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,566,798	933,202
462	Feb	2048	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,567,839	932,161
463	Mar	2048	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,568,880	931,120
464	Apr	2048	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,569,921	930,079
465	May	2048	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,570,962	929,038
466	Jun	2048	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,572,003	927,997
467	Jul	2048	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,573,044	926,956
468	Aug	2048	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,574,085	925,915
469	Sep	2048	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,575,126	924,874
470	Oct	2048	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,576,167	923,833
471	Nov	2048	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,577,208	922,792
472	Dec	2048	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,578,249	921,751
473	Jan	2049	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,579,290	920,710
474	Feb	2049	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,580,331	919,669
475	Mar	2049	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,581,372	918,628
476	Apr	2049	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,582,413	917,587
477	May	2049	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,583,454	916,546
478	Jun	2049	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,584,495	915,505
479	Jul	2049	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,585,536	914,464
480	Aug	2049	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,586,577	913,423
481	Sep	2049	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,587,618	912,382
482	Oct	2049	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,588,659	911,341
483	Nov	2049	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,589,700	910,300
484	Dec	2049	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,590,741	909,259
485	Jan	2050	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,591,782	908,218
486	Feb	2050	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,592,823	907,177
487	Mar	2050	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,593,864	906,136
488	Apr	2050	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,594,905	905,095
489	May	2050	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,595,946	904,054
490	Jun	2050	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,596,987	903,013
491	Jul	2050	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,598,028	901,972
492	Aug	2050	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,599,069	900,931
493	Sep	2050	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,600,110	899,890
494	Oct	2050	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,601,151	898,849
495	Nov	2050	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,602,192	897,808

Maui Electric Company, Ltd.

CHP Investment

Estimated Book Depreciation

Docket No. 2009-0286 Depreciation Rates (through 8/22/18)

Docket No. 2016-0431 Depreciation Rates (beginning 8/23/18)

			Cost:			Rate:		Depreciation	A/D	NBV
			Total	Production	Distribution	Production	Distribution			
496	Dec	2050	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,603,233	896,767
497	Jan	2051	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,604,274	895,726
498	Feb	2051	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,605,315	894,685
499	Mar	2051	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,606,356	893,644
500	Apr	2051	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,607,397	892,603
501	May	2051	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,608,438	891,562
502	Jun	2051	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,609,479	890,521
503	Jul	2051	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,610,520	889,480
504	Aug	2051	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,611,561	888,439
505	Sep	2051	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,612,602	887,398
506	Oct	2051	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,613,643	886,357
507	Nov	2051	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,614,684	885,316
508	Dec	2051	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,615,725	884,275
509	Jan	2052	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,616,766	883,234
510	Feb	2052	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,617,807	882,193
511	Mar	2052	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,618,848	881,152
512	Apr	2052	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,619,889	880,111
513	May	2052	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,620,930	879,070
514	Jun	2052	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,621,971	878,029
515	Jul	2052	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,623,012	876,988
516	Aug	2052	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,624,053	875,947
517	Sep	2052	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,625,094	874,906
518	Oct	2052	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,626,135	873,865
519	Nov	2052	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,627,176	872,824
520	Dec	2052	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,628,217	871,783
521	Jan	2053	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,629,258	870,742
522	Feb	2053	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,630,299	869,701
523	Mar	2053	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,631,340	868,660
524	Apr	2053	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,632,381	867,619
525	May	2053	3,500,000	3,010,000	490,000	1.86%	2.55%	1,041	2,633,422	866,578
526	Jun	2053	3,500,000	3,010,000	490,000	1.86%	2.55%	781	2,634,203	865,797



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

NET CALCULATION									
Grand parent	Project #	Project	Plant Addition Date	[1]		[2]		[3]	
				Net Plant Adds Thru 12/31/17	Total Project Cost	CIAC & Adjs	Net Project Cost	Net Plant Adds Thru 12/31/18	Over/(Under) Net PUC Approved
				(A)	(B)	(C)	(D)=(B)+(C)	(E)=(A)+(D)	(F) - (E)
<b>2018 Major Projects</b>									
1	X00004	M0000107	Kuihelani Substation	2018 straggling	7,847,533	-	618,944	8,466,477	7,987,560 [3a]
2	X00004	M0001304	Kuihelani T&D	Apr-18	-	-	1,976,900	1,976,900	1,900,481 [3a]
3	X00004	M0001305	Kuihelani Communication	Apr-18	-	-	973,521	973,521	1,445,416 [3a]
4	X00004		Total Kuihelani Project		3,569,365	-	3,569,365	11,416,898	11,333,457
5	MZ.005207	Joint Pole Capital Transfer Price	Dec-18	-	4,195,974	-	4,195,974	4,195,974	-
6	X00003	M0001890	Kaonoulu Substation Land/Easement	Sep-18	-	599,580	599,580	599,580	599,580
7		Total All Projects			8,364,919	-	8,364,919	16,212,452	15,529,431
									683,021
									To Sch D1

[1] Transmittal No. 18-03 (Decoupling) - Maui Electric Company RBA Rate Adjustment, Schedule D2, 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 2017, in Docket No. 03-0257, filed on March 27, 2019. See Schedule D2.

[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 Maui Electric 2018 Test Year Rate Case, filed in Docket No. 2017-0150, in response to CA-IR-183 which updated 2018 Plant Additions for actuals through December 31, 2017 and revised forecast for 2018. The individual subprojects are shown for illustrative purposes. However, the determination of whether the actual project costs are in excess of the amounts approved by the Commission are calculated on a total project basis.

[3b] 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 \$47,970,902, of which \$4,195,974 was related to Maui Electric.

[4] Per Decision and Order No. 36219, Docket No. 2017-0150, filed March 18, 2019 the Commission ordered the removal of the Kaono'ulu Project, including the land (M0001890) which was purchased and placed in to service in September 2018. Inclusion on this workpaper is to adjust the cost of the land out of the 2018 recorded net cost of plant in service balance in Schedule D1. The project was originally approved in Decision and Order No. 33261 in Docket No. 2015-0071, filed October 13, 2015.

Maui Electric Company, Ltd.  
 CIAC Reconciliation  
 As of December 31, 2018

Line No.	Description (a)	Reference (b)	CIAC, Including Developer Advances (c)
1	12/31/17 Balance	5/21/18 Decoupling, Sch G1	(102,683,611)
2	9/30/18 Balance	GL #271, #271L, #271M	(103,494,738)
3	Add: Developer Advances		<u>(360,896)</u>
4	9/30/18 Balance - Utility CIAC		(103,855,634)
5	CIAC Change Thru 9/30/18 - Utility	Line 1 - Line 4	(1,172,023)
6	Add Back: 2018 CIAC Amortization through 9/30/18	GL#27100004, #27100L04, #27100M04	<u>(1,722,908)</u>
7	CIAC Additions Thru 9/30/18		(2,894,931)
8	<b><u>Oct to Dec 2018 Activity</u></b>		
9	CIAC-Cash Tax	GL #60005200	(356,971)
10	CIAC-Cash Non-Tax	GL #60005201	-
11	CIAC-Settlement	GL #60050221	58,163
12	CIAC-In-Kind	GL #60005206	<u>(623,403)</u>
			<u>(922,211)</u>
13	<b>2018 CIAC Additions, included within Net Plant in Service, CWIP, Developer Advances</b>		<u><u>(3,817,142)</u></u>
			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 MECO-WP-D2-005 for documentation on the treatment of CIAC in the 2019 Decoupling filing.

## SCHEDULE G1

PAGE 1 OF 1

**MAUI ELECTRIC COMPANY, LIMITED**  
**DECOUPLING CALCULATION WORKBOOK**  
**BASELINE CAPITAL PROJECTS CIAC ADDITIONS**

**Source of CIAC balance and amort.: December Monthly Reports filed (non-confidential basis) with the PUC dated:**

Line No.	Description (a)	2/21/2014		2/26/2015		2/23/2016		2/24/2017		3/1/2018	
		2013	(b)	2014	(c)	2015	(d)	2016	(e)	2017	(f)
1	CIAC Balance, January 1 (Dec Rpt. pg. 10)	(82,211,127)		(85,047,271)		(88,217,709)		(91,061,643)		(97,870,217)	
2	Less: CIAC Amortization (Dec Rpt. pg. 1)	1,733,766		1,816,855		1,907,533		1,993,924		2,153,969	
3	Less: CIAC Balance, December 31 (Dec Rpt. pg. 10)	85,047,271		88,217,709		91,061,643		97,870,217		102,683,611	
4											
5	<b>Total CIAC Additions</b>	<b>4,569,910</b>		<b>4,987,293</b>		<b>4,751,467</b>		<b>8,802,498</b>		<b>6,967,363</b>	
6											
7	<u>Less Major Projects:</u>		<u>Dkt No.</u>	<u>Item No.</u>							
8											
9	<u>2010 In-service:</u>										
10	6th Increment Distribution Rebuild		01-0148	M0000266	-	-					
11											
12	<u>2013 In-Service:</u>										
13	Major Overhaul of M16		2012-0038	M0001571		-					
14											
15	<u>2017 In-service:</u>										
16	Kuihelani Substation		2015-0070	M0000107						-	
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27	<b>Total Net CIAC Additions</b>	<b>4,569,910</b>		<b>4,987,293</b>		<b>4,751,467</b>		<b>8,802,498</b>		<b>6,967,363</b>	
28											
29	<b>Last Five-Year Average</b>									<b>6,015,706</b>	

Schedule D2

To Schedule D1

**GENERAL NOTE:**

The CIAC amounts of the major projects are from the respective year's GO7 plant addition annual reports. Refer to the Baseline Plant Additions Calculation workpaper for the dates of the report filings. The total CIAC additions reflect actual contributions received in the year, and therefore may not include the total major project CIAC from the GO 7 report to the extent that the CIAC was received in advance, or in multiple payments over a span of more than one year.

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, Maui 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, Maui Electric will implement this change in the annual decoupling filing in the year following the Commission’s approval.



**Maui Electric Company**  
**2019 Plant Additions - Major Projects Support**

Project	Functional Category	Plant Addition Date	PUC Approved, Net	CIAC Received/ Estimated	Gross Plant Adds thru 12/31/18	2019 Gross Plant Adds	Estimated Gross Plant Adds thru 12/31/18	Over/ (Under) PUC Approved	2019 Plant Addition Qualifying for RB RAM (Note A)
			<u>[1]</u>	<u>B</u>	<u>[2]</u>	<u>E</u>	<u>F = D + E</u>	<u>G = F - C</u>	
			<i>A</i>						
M00001039: Kaonoulu Substation	Distribution	2019/06	10,987,527	-	-	12,114,900	12,114,900	1,127,373	10,987,527
M00001051: Kaonoulu T&D Feeder	Distribution	2019/06	4,003,519	-	-	4,351,800	4,351,800	348,281	4,003,519
M0001890: Kaonoulu Substation Land/Easement		2018/09	-	-	-	599,580	599,580	599,580	599,580
									<u>15,590,626</u>
									<u>To Sch D3</u>
M00001718: M17 Overhaul	Production- Other	2019/07	2,738,700	-	-	2,762,326	2,762,326	23,626	2,738,700
									<u>To Sch D3</u>

**NOTE A:**

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

**[1]** Per Decision and Order No. 36219, Docket No. 2017-0150, filed March 18, 2019 the Commission ordered the removal of the Ka'ono'ulu Project, including the land (M0001890) which was purchased and placed in to service in September 2018. The land was adjusted out of the 2018 recorded net cost of plant in service balance and is being added here as a 2019 major project addition. The substation and T&D Feeder is expected to be placed in service in June 2019. Therefore, it is being included as a major project in accordance with

Per Decision and Order No. 35537, filed on June 20, 2018, in Docket No. 2017-0230 For Approval to Commit Funds in Exces of \$2,500,000 for Item M0001718, Perform Major Overhaul On Maalaea Unit 17.

**[2]** Source: Schedule D2 & Attachment 3, page 9 of the Capital Projects Completed in 2018 report filed on March 27, 2019.

**[3]** Source: UIPlanner Budget files. Ka'ono'ulu Substation: PUC-MECO-IR-8, 2018 Test Year Rate Case Docket No. 2017-0150, filed January 25, 2019. Also, CA-IR-183, Attachment 1 (Supplement 3/2/18) Docket No. 2017-0150.

**Maui Electric Company**  
**Accumulated Deferred Taxes**

		<b>FEDERAL</b>	<b>STATE</b>	<b>COMBINED</b>
	Description	12/31/18 Balance	12/31/18 Balance	12/31/18 Balance
	ACCOUNT 282			
1	Accelerated Depreciation	(53,825,960)	(11,087,910)	(64,913,870)
2	Excess AccDep -Reg Asset 2017 Adj	-	-	-
3	Excess AccDep -Reg Liab 2017 Adj	9,689,257	2,952,916	12,642,173
4	TOTAL ACCOUNT 282 - UTILITY DEPR	<u>(44,136,702)</u>	<u>(8,134,995)</u>	<u>(52,271,697)</u>
	ACCOUNT 283			
5	Bad Debts	28,953	8,823	37,776
6	Bonuses - Non-executives	22,688	23,364	46,052
7	BPI Project Costs	0	(3)	(2)
8	Capital loss carryforward	2,622	488	3,110
9	Capitalized Interest	1,166,201	467,777	1,633,978
10	Charitable Deduction Limitation CF	-	0	0
11	CHP Direct Lease vs. Book Depreciation	(1,082)	(330)	(1,412)
12	CIAC	6,615,207	3,125,188	9,740,395
13	Cost of Removal	5,897,188	1,797,239	7,694,427
14	Customer Advances	869,916	265,116	1,135,032
15	CWIP Debt (AFUDC Debt)	(1,358,817)	(414,115)	(1,772,931)
16	CWIP Debt Transition	(16,168)	(4,927)	(21,096)
17	Emissions Fees	107,189	32,668	139,856
18	Exec Comp - EICP	29,862	9,101	38,963
19	Exec Comp - LTIP	46,473	14,164	60,637
20	Exec Comp - RSUs	14,754	4,498	19,253
21	Fed ITC	47,063	14,343	61,406
22	Fed Energy Tax Credit	45,792	13,954	59,746
23	FIN 48 - Interest Component	6,818	2,078	8,896
24	FIN 48 - Tax Component	120,981	120,254	241,235
25	Franchise Taxes	111,105	33,861	144,966
26	Gain/(Loss) on Post-'80 Vint Ret	(1,857,573)	(636,682)	(2,494,255)
27	Gain Paia Land Sale	499,636	152,270	651,906
28	Hawaii R&D Credit	449	137	586
29	HT Joint Pole Revenue	202,908	61,839	264,746
30	Interest - RAR	46,137	(3,988)	42,149
31	IRP/DSM Costs - DSM Fast Demand Response	(137)	(42)	(179)
32	IRP/DSM Costs - IRP	(0)	(16,047)	(16,047)
33	Legal Fees Capitalized (PPA)	49,222	15,002	64,224
34	Liability Reserves - Brownfield Site	557,566	169,925	727,491
35	Liability Reserves - Other	(2,271)	(694)	(2,965)
36	Manele Bay Direct Financing Lease	191,666	58,413	250,078
37	NOL	-	-	-
38	OPEB	(195,339)	(59,535)	(254,874)
39	OPEB Executive Life	347,225	105,822	453,047
40	OPEB Trackers	822,847	250,772	1,073,619
41	Other	(1,600)	20,733	19,134
42	Pension (Qualified)	(19,601)	(5,981)	(25,582)
43	Pension Excess (Non-qualified)	(1,110)	(337)	(1,446)
44	Pension Tracker	(2,501,188)	(762,269)	(3,263,456)
45	Percentage Repair Allowance (PRA)	(207,259)	(166,706)	(373,964)
46	Post Norm Cap OH's - Depr	(3,110)	(947)	(4,057)
47	Prepays	(225,264)	(68,651)	(293,915)
48	PSC PUC Accrual	473,935	144,437	618,373
49	PSC PUC - 481(a) Adjustment	871,261	265,527	1,136,788
50	QUIPS Amortization	(46,241)	(14,092)	(60,334)
51	Rate Case Costs	(164,898)	(50,256)	(215,154)
52	RBA Revenues	245,767	74,900	320,667
53	RBA Revenues - §481(a) Adjustment	(1,066,472)	(325,020)	(1,391,492)
54	Regulatory Liab - Tax Reform Act	227,705	69,396	297,101
55	Repairs Allowance	(12,510,337)	(3,812,702)	(16,323,039)
56	Repairs - §481(a) Adjustment	(2,379,120)	(1,043,187)	(3,422,307)
57	Rev Bond Differential/Redemptions	(237,403)	(87,857)	(325,260)
58	Software - CIS	10,601	(592)	10,009
59	Software - CIS 2013 Carrying Costs	(1,641)	(501)	(2,142)

**Maui Electric Company**  
**Accumulated Deferred Taxes**

		<b>FEDERAL</b>	<b>STATE</b>	<b>COMBINED</b>	
		12/31/18	12/31/18	12/31/18	
	Description	Balance	Balance	Balance	
60	Software - ERP	(101,277)	(60,078)	(161,355)	
61	Software - HR Suites	(59,277)	(18,066)	(77,343)	
62	Software - IVR	(34,924)	(10,643)	(45,567)	
63	Software - UI Planner (Budget System Replacement)	(29,648)	(9,037)	(38,685)	
64	Software - Other Computer Software Costs	37	(2,240)	(2,202)	
65	Solar Saver	3,203	978	4,181	
66	State ITC (State Cap Goods Tax Credit)	2,874,404	876,008	3,750,412	
67	State Energy Credit	8,674	2,645	11,319	
68	SunPower for Schools	2,283	696	2,979	
69	Vacation Accrual	(44,989)	(18,312)	(63,301)	
70	Workers Compensation	(27,487)	45,506	18,019	
71	Rounding	(5)	1	(4)	
	FAS 109: Regulatory Assets/Liabilities		-	-	
72	Reg Asset - SFAS 109 Flow Through	(142)	(43)	(186)	
73	Reg Asset - Plant Transition (AFUDC)	(90,773)	(27,664)	(118,438)	
74	Reg Asset - CWIP Equity Gr Up	(1,469,475)	(447,841)	(1,917,316)	
75	Reg Asset - CWIP Equity Net	(2,363,032)	(720,162)	(3,083,194)	
76	Reg Asset - CWIP Equity Transition	(39,175)	(11,939)	(51,113)	
77	Reg Liab - Fed ITC	25,570	7,793	33,363	
78	Reg Liab - Fed Energy Credit	10,269	7,020	17,289	
79	Reg Asset - Deficit Def - Oth	3,852	1,174	5,026	
80	Reg Liab - Excess Def - Oth	-	-	-	
81	Reg Asset - Excess ADIT 2017 (Oth)	(2,203,826)	(671,643)	(2,875,469)	
82	Reg Liab - Excess ADIT 2017 (Oth)	2,529,053	770,760	3,299,813	
83	TOTAL ACCOUNT 283 - UTILITY	<u>(4,123,576)</u>	<u>(438,459)</u>	<u>(4,562,035)</u>	
84	TOTAL ADIT BEFORE RATE BASE ADJUSTMENTS	(48,260,278)	(8,573,453)	(56,833,731)	
	<b>RATE BASE CALCULATION</b>				
85	Account 283 - Utility	(4,123,576)	(438,459)	(4,562,035)	
	Less:				
86	Bad Debts	28,953	8,823	37,776	
87	Bonuses - Non-executives (fka included in Exec Incen Comp)	22,688	23,364	46,052	
88	Exec Comp - EICP	29,862	9,101	38,963	
89	Exec Comp - LTIP	46,473	14,164	60,637	
90	Exec Comp - RSUs	14,754	4,498	19,253	
91	IRP/DSM Costs	(138)	(16,089)	(16,226)	
92	FIN 48 Interest	6,818	2,078	8,896	
93	FIN 48 Adj	120,981	120,254	241,235	
94	Franchise Taxes on Unbilled Revenues	111,105	33,861	144,966	
95	General Liability Reserve	555,294	169,231	724,526	
96	Interest - CIS Carrying Costs at Full Debt rate	(15,378)	(4,688)	(20,066)	
97	Interest - RAR	46,137	(3,988)	42,149	
98	OPEB Executive Life	347,225	105,822	453,047	
99	Pension Excess (Non-qualified)	(1,110)	(337)	(1,446)	
100	PSC PUC Accrual	473,935	144,437	618,373	
101	PSC PUC - 481(a) Adjustment	871,261	265,527	1,136,788	
102	Regulatory Liab - Tax Reform Act	227,705	69,396	297,101	
100	Rate Case Costs	(164,898)	(50,256)	(215,154)	
103	RBA Revenue	(820,706)	(250,119)	(1,070,825)	
104	Software - ERP	(101,277)	(60,078)	(161,355)	
105	Solar Saver	3,203	978	4,181	
106	Vacation Accrual	(44,989)	(18,312)	(63,301)	
107	Workers Compensation	(27,487)	45,506	18,019	
108	Subtotal Account 283 Adjustments	<u>1,730,416</u>	<u>613,174</u>	<u>2,343,589</u>	
109	Total Account 283 for Rate Base	(5,853,992)	(1,051,632)	(6,905,624)	To Schedule D4
110	Account 282 - Utility	(44,136,702)	(8,134,995)	(52,271,697)	To Schedule D4
111	TOTAL ADIT AFTER RATE BASE ADJUSTMENTS	<u>(49,990,694)</u>	<u>(9,186,627)</u>	<u>(59,177,321)</u>	To Schedule D4

**MAUI ELECTRIC CO., LTD.**  
**ADIT ON EXCESS DEPRECIATION**  
**DECEMBER 31, 2018**

		<b>KUIHELANI SUBSTATION</b>	<b>TOTAL</b>
	<b>FEDERAL DEFERRED TAXES</b>		
1	State Tax Depreciation	MECO-WP-D4-002 p.2 37,702	37,702
2	Book Depreciation	MECO-WP-E-001 (1,794)	(1,794)
3	Subtotal	Line 1 + Line 2 35,908	35,908
4	Effective Federal Tax Rate	MECO-WP-F-001 19.7368%	19.7368%
5	Federal Deferred Tax on State Deprecia	Line 3 * Line 4 7,087	7,087
6	Addback State Tax Depreciation	Line 3 (35,908)	(35,908)
7	Federal Tax Depreciation	MECO-WP-D4-002 p.2 37,702	37,702
8	Book Depreciation	Line 2 (1,794)	(1,794)
9	Federal State Difference	Line 6 + 7 + 8 -	-
10	Tax Rate on Federal Only Adjustment	MECO-WP-F-001 21%	21%
11	Federal Deferred Tax Adjustment	Line 9 * Line 10 -	-
12	Total Federal Deferred Taxes	Line 5 + Line 11 7,087	7,087
			to Sch D4
	<b>STATE DEFERRED TAXES</b>		
13	State Tax Depreciation	Line 1 37,702	37,702
14	Book Depreciation	Line 2 (1,794)	(1,794)
15	Subtotal	Line 1 + Line 2 35,908	35,908
16	Effective State Tax Rate	MECO-WP-F-001 6.0150376%	6.0150376%
17	Total State Deferred Taxes	Line 15 * Line 16 2,160	2,160
			to Sch D4
18	<b>TOTAL DEFERRED TAXES</b>	Line 12 + Line 17 9,247	9,247
			to Sch D4

**MAUI ELECTRIC CO., LTD.**  
**EXCESS TAX DEPRECIATION**  
**KUIHELANI SUBSTATION**

Project No.	DIS	Description	Total Basis	Less: PUC		Plant Acct	Life	Bonus	2017	2018
				Approved Amount	Disallowed Costs					
FEDERAL										
M0000107	v2017	Kuihelani Substation	8,466,477	7,987,560	478,917	Distr	20	0	17,959	34,573
M0001304	v2018	Kuihelani T&D	1,976,900	1,900,481	76,419	Distr	20	0		2,866
M0001305	v2018	Kuihelani Communication	973,521	1,445,416	(471,895)	Comm	20	0		(17,696)
Total			11,416,898	11,333,457	83,441				17,959	19,743
Cumulative									17,959	37,702

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**HAWAII**

M0000107	v2017	Kuihelani Substation	8,466,477	7,987,560	478,917	Distr	20	0	17,959	34,573
M0001304	v2018	Kuihelani T&D	1,976,900	1,900,481	76,419	Distr	20	0		2,866
M0001305	v2018	Kuihelani Communication	973,521	1,445,416	(471,895)	Comm	20	0		(17,696)
Total			11,416,898	11,333,457	83,441				17,959	19,743
Cumulative									17,959	37,702

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Maui Electric Company, Ltd.  
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 2016-0431	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	[2] (J) = (G) / (A) * (D)	[1] (H) = (B) - (F)	2019 Depr Related to Excess	To Sch D1 Cumulative Depr Related to Excess	2019 Depr Related to Excess
X00004	Total Kuihelani Project (Note 3)		7,847,533	11,416,898	362	2.15%	168,722	245,463	11,333,457	-	83,441	-	-	-	-	-	1,794
M0001890	Kaonoulu Substation Land/Easement	2018/09	-	599,580	N/A	0.00%	-	-	-	-	599,580	-	-	-	-	-	-
	Total All Projects		7,847,533	12,016,478			168,722	245,463	11,333,457	-	683,021	-	-	-	-	-	1,794
																	To WP-D4-002

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

[2] Source: Transmittal No. 18-03 (Decoupling) - Maui Electric Company RBA Rate Adjustment, Schedule D2, filed on May 29, 2018.

[3] As shown on MECO-WP-D2-001, Project X00004 is comprised of three separate sub-projects and are included for illustrative purposes. As noted in Footnote 3A of MECO-WP-D2-001 the determination of whether the actual project costs are in excess of the amounts approved by the Commission are calculated on a total project basis. While each of the sub-projects are recorded in different plant accounts, for purposes of the depreciation calculated on this worksheet it is calculated on a net project basis and at the depreciation rate applicable to the largest sub-project.

Maui 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

State Statutory Income Tax Rate\*

Federal Statutory Income Tax Rate\*\*

<u>Eff 1/1/2018</u>	<u>2017 &amp; Prior</u>
6.4%	6.4%
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 of 2017 changed the Federal tax rate for tax years ending after December 31, 2017.

**MAUI ELECTRIC COMPANY, Ltd.**  
**TAX REPAIRS ADJUSTMENT**  
**2019**

			A	B	C = A x B	D = A - C
		MECO-WP- F1-002		MECO-WP- F1-001 pg.2		
	LIFE	5-Year AVERAGE	Plant Adds	Repairs Allocation	Repairs Deduction	Depreciable Basis
Structural	39	171,378				
Steam Production	20	670,183	670,183	34.32%	230,026	440,157
Non-Steam Production	15	6,448,636	6,448,636	34.32%	2,213,360	4,235,276
ROW	50	122,838				
Transmission	20	2,239,977	2,239,977	38.38%	859,735	1,380,242
Transmission > 69kv	15	366,713	366,713	38.38%	140,750	225,963
Distribution	20	27,947,466	27,947,466	26.81%	7,492,342	20,455,124
Distribution - Street Lights	7	996,286	996,286	26.81%	267,091	729,195
Computer Data	5	177,489				
Comp/Off/Furn/Tools	7	330,264				
Vehicles	-	1,156,608				
General	20	767,276				
Communication	20	649,086				
Land	-	(3,842)				
TOTAL		<u>42,040,358</u>	<u>38,669,261</u>		<u>11,203,304</u>	<u>27,465,957</u>
		<i>from Sch D2</i>			<i>to Sch F1</i>	

NOTE> This schedule calculates the estimated amount of deductible tax repairs related to 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 MECO-WP-F1-001, page 2.



**MAUI ELECTRIC COMPANY, LTD.  
REPAIRS DEDUCTION  
2019**

Repairs %:		Notes 1 & 2	Distribution	Transmission	Generation
<b>Book basis repairs</b>					
1	2014		14,013,631	1,683,160	3,499,360
2	2015		7,612,680	1,040,218	1,904,525
3	2016		8,198,634	587,979	2,139,964
4	2017		3,508,825	686,401	2,964,781
5	2018		9,389,195	1,004,665	1,680,703
6	Total book basis repairs		42,722,965	5,002,423	12,189,333
<b>Book basis adds</b>					
7	2014	MECO WP-F1-002	33,671,758	2,573,753	7,469,382
8	2015	MECO WP-F1-002	23,291,027	2,733,604	4,613,674
9	2016	MECO WP-F1-002	27,633,351	1,347,355	7,893,380
10	2017	MECO WP-F1-002	33,404,290	2,542,099	8,171,646
11	2018	MECO WP-F1-002	41,362,120	3,836,635	7,365,606
12	Total book basis adds		159,362,546	13,033,446	35,513,688
Repairs % (Line 6 / Line 12)			<b>26.808661%</b>	<b>38.381430%</b>	<b>34.322914%</b>
			to MECO-WP-F1-001, pg. 1	to MECO-WP-F1-001, pg. 1	to MECO-WP-F1-001, pg. 1

Note 1> Price Waterhouse Coopers (PWC) assisted MECO in its analysis of identifying deductible repairs for tax accounting purposes. The repairs percentage for each functional group represents the five year weighted average of repairs costs included in book additions.

Note 2> 2018 amounts are estimates. A complete analysis identifying deductible repairs has not yet been completed.

MAUI ELECTRIC COMPANY, Ltd.  
BASELINE PLANT ADDITIONS BY TAX CLASSIFICATION

Description	Life	2018	2017	2016	2015	2014	Less: Major Projects	Total	Average
							From D2		
Structural	39	(107,312)	155,816	467,558	87,886	252,940	-	856,888	171,378
Steam Production	20	605,363	1,552,979	155,199	561,616	475,757	-	3,350,914	670,183
Other Production	15	6,760,243	6,618,667	7,738,181	4,052,058	6,993,626	80,406 (1)	32,243,181	6,448,636
Right of Way	50	102,949	203,382	106,996	102,817	98,048	-	614,192	122,838
Transmission	20	3,670,301	2,025,727	1,410,003	1,520,099	2,573,753	-	11,199,883	2,239,977
Transmission >69kv	15	166,334	516,372	(62,648)	1,213,505	-	-	1,833,563	366,713
Distribution	20	40,761,035	31,001,400	27,045,130	22,384,247	33,189,303	(14,643,786) (2)	139,737,329	27,947,466
Distribution - Street Lights	7	601,085	2,402,890	588,221	906,780	482,454	-	4,981,430	996,286
Computers	5	122	182,615	97,571	45,595	561,542	-	887,445	177,489
Office Furniture & Eq	7	88,526	101,971	85,495	684,735	690,592	-	1,651,319	330,264
Transportation		2,524,632	1,307,662	692	840,243	1,109,813	-	5,783,042	1,156,608
General	20	938,247	277,499	312,285	440,457	1,867,898	-	3,836,386	767,276
Communications	20	1,918,188	357,083	148,054	428,142	1,367,483	(973,521) (3)	3,245,429	649,086
Land		599,580	33,282	(22,272)	677	(30,898)	(599,580) (4)	(19,211)	(3,842)
Total (net of Major Projects)		58,629,293	46,737,345	38,070,465	33,268,857	49,632,311	(16,136,481)	210,201,790	42,040,358

WP-F1-001 p. 1

Notes:

Major Projects		Plant Additions	
(1) M16 Capital Overhaul adjustment		(80,406)	Schedule D2 (2014)
	Total	(80,406)	
(2) 6th Increment Distribution Rebuild - 2015	4,435		Schedule D2 (2015)
Kuihelani Substation - 2017	7,847,533		Schedule D2 (2017)
Kuihelani Substation - 2018	618,944		Schedule D2 (2018)
Kuihelani T&D - 2018	1,976,900		Schedule D2 (2018)
Joint Pole transfer settlement - 2018	4,195,974		Schedule D2 (2018)
	Total	14,643,786	
(3) Kuihelani Comm - 2018	973,521		Schedule D2 (2018)
(4) Kaonoulou Substation Land - 2019	599,580		Schedule D2 (2019)

Maui Electric  
Proration Adjustment for Normalization Compliance  
2019

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Federal ADIT												
DR/(CR)	(44,129,615)											
ADIT account 282 --Federal accelerated depreciation												
Beginning balance												
Effective date of rates--6/1/19												
Federal Tax Depreciation	2,004,278											
Effective Federal Tax Rate	19.7368%											
Federal ADIT accrued	(395,580)											
Monthly Accrued evenly over 12 months	(32,965)											

	Beg of Yr	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	End of Yr
<b>WITHOUT PRORATION</b>														
Federal 282 ADIT Balance	(44,129,615)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)
Monthly Additions		(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(32,965)
Cumulative Balance	(44,129,615)	(44,162,580)	(44,195,545)	(44,228,510)	(44,261,475)	(44,294,440)	(44,327,405)	(44,360,370)	(44,393,335)	(44,426,300)	(44,459,265)	(44,492,230)	(44,525,195)	(44,525,195)
														<b>Simple Year Average--rate base methodology</b>
														<b>(44,327,405)</b>

	Beg of Yr	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	End of Yr
<b>WITH PRORATION</b>														
# of future days rates effective	214													
Revised Monthly Additions		(32,965)	(32,965)	(32,965)	(32,965)	(32,965)	(28,498)	(23,722)	(18,947)	(14,326)	(9,551)	(4,929)	(154)	(154)
Cumulative ADIT balance with proration	(44,129,615)	(44,162,580)	(44,195,545)	(44,228,510)	(44,261,475)	(44,294,440)	(44,322,938)	(44,346,660)	(44,365,608)	(44,379,934)	(44,389,484)	(44,394,414)	(44,394,568)	(44,394,568)
														<b>Simple Year Average--rate base methodology</b>
														<b>(44,262,091)</b>

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	

Methodology based on IRS Private Letter Ruling 9313008

Adjustment to ADIT  
**(65,314)**  
To Sch F

**MAUI ELECTRIC COMPANY, LIMITED**  
**AVERAGE RATE BASE AND RATE OF RETURN**  
**(\$ Thousands)**

RATE BASE	Reference	Month End	
		Dec-18	Dec-17
TOTAL UTILITY PLANT	Note 2	622,371	685,697
Adjustments:			
Construction Work in Progress	#10700000	(30,364)	(25,322)
Retirement Work in Progress	#10830000	-	(2,639)
Reg Asset - Asset Retirement Obligation	#18670151	162	-
Asset Retirement Obligation	#25301000	(1,641)	(1,581)
Regulatory Liability for Cost of Removal	#25400001	(29,998)	(29,793)
Unbilled Pole Credits	within #25300000	(1,028)	-
DEPRECIATED COST OF UTILITY PLANT IN SERVICE	Note 1	559,502	626,362
REGULATORY ASSETS - ASC 740	Note 2	4,908	4,687
REGULATORY ASSETS - 2017 EXCESS ADIT		11,166	12,205
REG ASSET- CONTRIB vs. NPPC	#18676030	-	3,100
REGULATORY ASSET - PENSION NPPC vs. Rates	#18676040	12,673	12,684
REGULATORY ASSET - PENSION Non-Service Costs	#18676045	261	-
REGULATORY ASSET - OPEB NPBC vs. Rates	#18677040	-	17
MATERIALS & SUPPLIES INVENTORIES	Note 2	16,376	16,881
FUEL STOCK	Note 2	14,631	13,190
UNAMORTIZED DEFERRED IVR	#18670400	177	200
UNAMORTIZED DEFERRED HR SUITE-PHASE 1	#18606004	350	477
UNAMORTIZED DEFERRED BUDGET SYSTEM PROJE	#18607704	158	189
UNAMORTIZED DEFERRED CIS COSTS	Acct Dept Amort Sch	1,496	1,729
CHP LEASE RECEIVABLE, NET	Note 3	2,529	2,668
WORKING CASH:	MECO-WP-H-007	4,335	6,240
DEDUCTIONS:			
Unamortized Contributions in Aid of Construction	Note 4	895	102,684
Customer Advances for Construction	Note 6	10,706	9,764
Developer Advances	Note 6	323	-
Deferred Income Taxes	Schedule D4	59,177	56,481
Unamortized Investment Tax Cr - 1962 Revenue Act & S	#25520000	14,608	14,695
Unamortized Federal EV Credit	#25503000	26	-
Customer Deposits	#23501000	2,423	2,568
Unamortized Gain on Sale	#25400110	2,531	-
Regulatory Liability other	#25400007/10	44	71
Regulatory Liability - 2017 Excess ADIT - Dep	#25400023, Note 5	61,906	47,322
Regulatory Liability - 2017 Excess ADIT - Other	#25400024, Note 5	-	14,118
Regulatory Liability OPEB True-up	#25400002	2,657	2,544
TOTAL DEDUCTIONS		155,296	250,247
MONTH ENDED RATE BASE		473,263	450,382
SIMPLE AVERAGE RATE BASE		461,823	

To Schedule H Line 1

Footnotes:

- 1 Includes Property Held for Future Use balance of \$1,302,500 at December 31, 2018 and 2017.
- 2 See Maui Electric Company, Ltd. Monthly Financial Report - December 2018, filed February 28, 2019.
  - Regulatory Assets - ASC740 + Regulatory Assets - 2017 Excess ADIT ties to Monthly Financial Report p.21 Regulatory asset established under ASC740 of \$16,074.
  - Materials & Supplies inventory includes an adjustment of (\$517) and (\$301) representing payment lag in 2018 and 2017, respectively.
  - Fuel Stock excludes Hana inventory balance of \$14 and \$13 for 2018 and 2017, respectively.

- 3 CHP Lease Receivable, net is computed as follows:

CHP Lease Receivable			
Current	17401800	418	422
Non-current	18601800	3,820	4,238
CHP Unearned Interest			
Current	24201800	(267)	(282)
Non-current	25301800	(1,442)	(1,709)
		<u>2,529</u>	<u>2,668</u>

- 4 For 2018, CIAC is netted with Plant in Service & CWIP, resulting from the Company's transition to FERC treatment in October 2018. See further discussion of the Company's treatment of CIAC at MECO-WP-D2-005.
- 5 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.
- 6 The Company reclassified cash received from Developers, subject to refund, to Customer Advances. Amount has been isolated for greater transparency with the rate base calculation. See further discussion at MECO-WP-D2-005.

**MAUI ELECTRIC COMPANY, LTD.**  
**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
		<b><u>Executive Compensation and Incentive Compensation</u></b>				
1	700047/#60003110	LTIP and EICP expense	422,578			
2	700048/#60004000/#60003110	Other incentive awards	92,721			
3	Provided by HEI	HEI charges for incentive compensation	49,611			
4		Subtotal	564,910	145,475	419,435	<b>419</b>
						<b>To Sch H, Line 2a</b>
5		<b><u>Discretionary and Other Expenses Not Recoverable</u></b>				
		Executive Life insurance (COLI) expense				
6	#60004009	(credit) <i>not tax deduct</i>	(62,635)			
7	Provided by HEI	EEI Dues (allowed portion) <i>not tax deduct</i>	12,251			
8	Provided by HEI	OPEB (Executive life portion only)	56,894			
9	HR000067,89,143	HEIRS	46,238			
		HEI charges for non-incentive compensation				
		and outside services (plan admin, legal fees,				
10	Provided by HEI	audit fees) - Executives (non-labor)	54,239			
11	AD000249	Service awards	391			
		Payroll taxes related to incentive				
	#60018015	compensation	15,525			
12	#60004035	Non-qualified pension expense	0			
13		Subtotal	122,903	44,624	78,278	<b>78</b>
14						<b>To Sch H, Line 2b</b>
15		<b>Total adjustment to operating income</b>	<b>687,813</b>	<b>190,100</b>	<b>497,713</b>	
			<b>To MECO-WP-H-007</b>			

**MAUI ELECTRIC COMPANY, LTD.**  
**Income Tax on Items to be Replaced by Synchronized Interest**  
**2018**

Line	Description	Source	2018	Rounded 000s	
1	Total Interest Charges	RONE70	\$ 9,550,255		
2					
3	Add Back: RBA Interest Income	GL# 41900002	66,866		
4					
5	Less:				
6	Interest on Customer Deposits	GL# 60016050	(143,286)		
7	AFUDC-Debt	RONE69	(572,316)		
8					
9	Add:				
10	Amort of Inv Inc Differential	within GL# 60001010	10,655	11	To Sch H, Line 2c
11					
12	Total		8,912,174		
13		Tax rate	25.75%		
14					
15			2,295,052	(2,295)	To Sch H, Line 2d

**MAUI ELECTRIC COMPANY, LTD.**  
**Ratemaking Capitalization**  
**2018**

		Simple Average <u>Balance*</u> (\$ Thousands)	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost of Debt</u>
Short-Term Debt	To Sch H lines 5 - 10	2,183	0.45%	4.60%	0.02%
Long-Term Debt		188,846	39.28%	4.55%	1.79%
Hybrid Securities		9,590	1.99%	7.16%	0.14%
Preferred Stock		4,804	1.00%	8.15%	0.08%
Common Equity (Note 1)		275,392	57.28%	9.50%	5.44%
		<u>480,815</u>	<u>100.00%</u>		<u>7.47%</u>

	<u>NARUC/ GL Code</u>	<u>YTD Dec 2018</u>	<u>Rounded (000s)</u>	<u>Cost Rate</u>
Short-Term Debt:				
Interest on Debt Assoc Co	60016060/61	766,874		
Less: Interest on QUIDS	QUIDS (See below)	(650,000)		
Int Exp-Commercial Paper	within 60016100	0		
Int Inc-Assoc Cos.	41908000	(16,341)		
		<u>100,533</u>	101	4.60%
Long-Term Debt:				
Amort of Debt Disc & Exp	60002100	507,807		
Less: Hybrid Sec Amort of Iss Exp	see a below	(36,168)		
Interest on Long-Term Debt	60016000	8,108,112		
Int Exp-SCF Loans	within 60016100	0		
Amort Inv Inc Differential	within 60001010	10,654		
		<u>8,590,405</u>	8,590	4.55%
Hybrid Securities:				
Interest on QUIDS	60016060	650,000		
Amort Exp-QUID1 Iss Exp	within 60002100	13,548		
Amort Exp-QUID2 Iss Exp	within 60002100	12,252		
Amort Exp-QUID3 Iss Exp	within 60002100	10,368		
Equity in Net Inc of Trust	42107000	0		
		<u>686,168</u>	686	7.16%
Preferred Stock:				
Amort of Pfd Stk Iss Exp	60002000	10,060		
Preferred Stock dividends	60016501	381,240		
		<u>391,300</u>	391	8.15%

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

Note 1: Per Decision and Order No. 36219, Docket No. 2017-0150 filed March 18, 2019, page 26. Also see Parties' Settlement on ROE and Notification regarding Evidentiary Hearing filed August 20, 2018, Docket No. 2017-0150.



**MAUI ELECTRIC COMPANY, LIMITED**  
**Special Medical Needs Program Discount (net of tax)**  
**2018**  
**(\$ thousands)**

Special Medical Needs Program Discount	\$	25
Revenue Taxes @ 8.885%	\$	(2)
		<u>23</u>
Income Taxes @ 25.75%		(6)
Reduction to operating income	\$	<u>17</u>
To Sch H, line 2e		

Source: CIS Special Medical Needs (SMN) report.

**MAUI ELECTRIC COMPANY, LIMITED**  
**Performance Incentive Mechanism**  
**2018**  
**(\$ thousands)**

Gross (Reward)/Penalty Amount	GL#25400030	\$	1,007
Revenue Taxes @ 8.885%			(89)
			<u>918</u>
Income Taxes @25.75%			(236)
Reduction to operating income			<u><u>\$ 681</u></u>
			To Sch H, Line 2f

Note:

During the preparation of the 2019 Decoupling filing, the Company became aware of minor rounding inconsistencies between the Hawaiian Electric Companies when reporting SAIFI Performance scores. As a result, Maui Electric subsequently revised its PIMS Regulatory Liability balance from \$1,007,124 to \$1,004,934 as shown at Schedule M. The recorded PIMS Regulatory Liability balance of \$1,007,124 was used to determine the Earnings Sharing Calculations at Schedule H.

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

MAUI ELECTRIC COMPANY, LIMITED  
Working Cash  
2018

Line No.	Description	2018 Expenses	Reference	Net Collection Lag (Days) 2018TY (Note 1)	Amount
	(a)	(b)	(c)	(d)	(e)=(c)/365x(d)
1	Fuel Oil				
			#50000000-#50000003 +		
2	Maui	133,889,847	Fuel Handling - Hana fuel	20.0	7,336,430
3	Lanai	6,292,504	GL #50000002	21.5	370,654
4	Molokai	5,836,935	GL #50000002	16.3	260,663
5					
6	Purchased Power				
			#55500000+#55508001		
7	Maui	48,615,319	+#55508051+#55508052	(9.4)	(1,252,011)
8	Lanai	402,908	#55500000	(7.4)	(8,169)
9	Molokai	1,116	#55508001+#55508051	(13.3)	(41)
10					
11	Current Income Taxes				
12	Income Tax	3,414,377	#60020000+#60020010		
13	Inc Tax on Disallowed Items	190,100	MECO-WP-H-002		
14	Income Tax Adjustment	959,414	MECO-WP-H-008		
15	Reversal of Tax Related to Int Synch Replacement	2,295,052	Sch H-Line 2d		
16	Tax Eff of AFUDC Equity	(412,964)	#60020060		
17	Tax Related to Int Synch	(2,321,523)	Sch H Line 13 - Line 13a		
18	Total	4,124,456	Sum of Lines 12 - 16	(4.4)	(49,719)
19					
20	Revenue Taxes				
21	Franchise Tax	9,112,459	#60017000		
22	PSC Tax	21,796,565	#60017002		
23	PUC Fee	1,851,875	#60017001		
24	Total	32,760,899	Sum of Lines 19 - 29	(50.2)	(4,505,746)
25					
26	Total O&M Non-Labor				
27	Total Operations & Maintenance	273,296,475	PUC Monthly Report		
28	Less: Fuel & PP Expense	(195,038,629)	Lines 2-4 + 7-9		
29	Less: Fuel Handling	(21,954)	Production Stats		
30	Add: Hana fuel	10,965	Plant Report		
31	Less: O&M Labor	(26,095,793)	Line 41		
32	Less: Bad Debt Expense	(216,613)	#60010000		
33	Less: Pension/OPEB Reg Asset/Liab Amort	(1,015,415)	MECO-WP-H007, p.2		
34	Less: Sys Develop Amortization	(394,301)	MECO-WP-H007, p.2		
			#60018000/001/015, 60019100, 60050001,60050238/242		
35	Add: Payroll Taxes	1,924,850	/245/251,		
36	Add: Interest on Customer Deposits	143,286	#60016050		
37		52,592,871		2.5	360,225
38					
39	Total O&M Labor	26,110,868	Labor in O&M report		
40	Less: Fuel O&M Labor	(15,075)	Labor in O&M report		
41	Total O&M Labor Excl Fuel Labor	26,095,793		25.5	1,823,131
42					
43	Working Cash				4,335,417
					To WP-H-001

Footnotes:

Note 1 2018 Test Year, Docket No. 2017-0150, Parties' Joint Statement of Probable Entitlement, July 6, 2018, Attachment 2, page 13 (Maui), page 26 (Lanai) and page 39 (Molokai). Effective August 23, 2018.

**MAUI ELECTRIC COMPANY, LIMITED**  
**O&M Non-Labor - Amortizations**  
**2018**

	#60002200 Pension Regulatory Asset Amortization	#60002200 OPEB Regulatory Asset Amortization	#60004032 Reg Asset - Pension Non- Service	Note 1 O&M % Portion 2012 TY 76.00%	Note 2 O&M % Portion 2018 TY 70.10%	Total
	(a)	(b)	(c)	(d)	(e)	Sum(a-c) x (d) or (e)
January	82,564	4,921	-	66,489		66,489
February	82,564	4,921	-	66,489		66,489
March	82,564	4,921	-	66,489		66,489
April	82,564	4,921	-	66,489		66,489
May	82,564	4,921	-	66,489		66,489
June	82,564	4,921	-	66,489		66,489
July	82,564	4,921	-	66,489		66,489
August	121,183	(10,419)	(415)	83,865		83,865
September	215,583	(47,917)	(1,429)		116,532	116,532
October	215,583	(47,917)	(1,429)		116,532	116,532
November	215,583	(47,917)	(1,429)		116,532	116,532
December	215,583	(47,916)	(1,429)		116,533	116,533
	1,561,463	(167,639)	(6,131)	549,285	466,129	1,015,415

To WP-H-007 p 1, line 33

**System Development Amortization**

#18605005 <u>CIS</u>	#18606004 <u>HRS Ph 1</u>	#18607704 <u>Budg. Sys.</u>	#18670400 <u>IVR</u>	Total
212,630	127,264	31,074	23,333	394,301

To WP-H-007 p 1, line 34

Note 1 2012 Test Year, Docket No. 2011-0092, MECO-RWP-1707.

Note 2 2018 Test Year, Docket No. 2017-0150, Parties' Stipulated Settlement Letter, June 15, 2018, MECO T-12, Attachment 1, page 3. For purposes of this calculation the O&M % was changed in September.

MAUI ELECTRIC COMPANY, LIMITED  
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)

Operating income per Monthly Financial Report, page 2	28,671 <sup>1</sup>	
Less: Interest on Customer Deposits	(143)	
Add: Gain on Sale Amortization	<u>374 <sup>2</sup></u>	
Operating income before ratemaking adjustments & synchronized interest - earnings sharing calculation	<u>28,902</u>	
Income Tax Adjustments	<u>(959)</u>	
Adjusted Operating income before ratemaking adjustments & synchronized interest - earnings sharing calculation	<u>27,943</u>	To Sch H

<sup>1</sup> Starting October 2018, Operating Income per the Monthly Financial Report includes income tax on AFUDC Equity.

<sup>2</sup> Included with 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 28, 2019.

Maui Electric Company, Limited  
Summary of changes for Final D&O affecting ADIT  
TY 2018

	Kaonoulou	Kuihelani	Total
	Yr 1	Yr 1	
<b>Depreciation</b>			
Tax Depr			
Basis	<i>WP-K1-001 p.2</i> (15,619,766)	(895,563)	(16,515,329)
Rate	3.75%	0.00%	
Tax Depr	(585,741)	-	(585,741)
Book Depr			
Basis	<i>WP-K1-001 p.2</i> (15,619,766)	(895,563)	
Rate	0	0	
Book Depr	-	-	-
Diff	(585,741)	-	(585,741)
Tax Rate	25.75%	25.75%	25.75%
Subtotal - Incr/(Decr) to ADIT Depr	(150,828)	-	(150,828) <i>To WP-K1-001 p.3</i>
<b>SITC</b>			
	Yr 1	Yr 1	
Plant Addition	<i>WP-K1-001 p.2</i> (15,619,766)	(895,563)	(16,515,329)
5Yr Avg % Qualifying Basis	42.57%	0.00%	
SITC Basis	(6,649,557)	-	(6,649,557)
ITC %	4%	4%	
SITC	(265,982)	-	
Amort	-	-	
Diff	(265,982)	-	(265,982) <i>To WP-K1-001 p.2</i> <i>To Schedule K1</i>
Tax Rate	25.75%	25.75%	25.75%
Subtotal - Incr/(Decr) to ADIT SITC	(68,490)	-	(68,490)
Total Incr/(Decr) to ADIT	(219,319)		(219,319) <i>To WP-K1-001 p.2</i> <i>To Schedule K1</i>

Maui Electric Company, Limited  
Summary of changes for Final D&O  
TY 2018

**From Final D&O, Docket 2017-0150 Att. 3**

Kaonoulu substation project excluded from final rates.

M0001039 Kaonoulu Substation	(10,987,527)	
M0001051 Kaonoulu Sub T&D Feeder	(4,003,519)	
M0001890 Kaonoulu Sub Land/Easement	<u>(628,720)</u>	(15,619,766)

Kuihelani substation land component excluded from final rates

Total reduction in plant additions	<u>(895,563)</u>	
	<u><u>(16,515,329)</u></u>	

*To WP-K1-001 p.1*

	Kaonoulu / Kuihelani		
	BOY	EOY	Avg
Original Cost of Plant	-	(16,515,329)	(8,257,665)
Accum Depr	-	-	-
Net Cost of Plant	-	(16,515,329)	(8,257,665)
Deductions			
ADIT	<i>WP-K1-001 p.1</i>	- (219,319)	(109,659)
ADIT proration adjustment	<i>WP-K1-001 p.3</i>	- (24,903)	(12,452)
State ITC	<i>WP-K1-001 p.1</i>	- (265,982)	(132,991)
Subtotal Deductions		- (510,204)	(255,102)
Total Rate Base		<u>- (16,005,125)</u>	<u>(8,002,562)</u>

Maui Electric  
Proration Adjustment for Normalization Compliance  
2019

	Federal ADIT DR/(CR)	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
ADIT account 282 --Federal accelerated depreciation													
Effective date of rates--6/1/18													
Federal ADIT adjustment	(150,828)												
Monthly Accrued evenly over 12 months	(12,569)												
<b>WITHOUT PRORATION</b>													
Federal 282 ADIT Balance	-												
Monthly Additions		(12,569)	(12,569)	(12,569)	(12,569)	(12,569)	(12,569)	(12,569)	(12,569)	(12,569)	(12,569)	(12,569)	(12,569)
Cumulative Balance	-	(12,569)	(25,138)	(37,707)	(50,276)	(62,845)	(75,414)	(87,983)	(100,552)	(113,121)	(125,690)	(138,259)	(150,828)
										Simple Year Average--rate base methodology			
													(75,414)
<b>WITH PRORATION</b>													
# of future days rates effective	214												
Revised Monthly Additions		(12,569)	(12,569)	(12,569)	(12,569)	(12,569)	(10,866)	(9,045)	(7,224)	(5,462)	(3,641)	(1,879)	(59)
Cumulative ADIT balance with proration	-	(12,569)	(25,138)	(37,707)	(50,276)	(62,845)	(73,711)	(82,756)	(89,980)	(95,442)	(99,084)	(100,963)	(101,022)
										Simple Year Average--rate base methodology			
													(50,511)
<b>Adjustment to ADIT (24,903)</b>													
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

Methodology based on IRS Private Letter Ruling 9313008

Note: Amount used for proration includes a component of State deferred income taxes. The amount is not material to this calculation and will be updated at the next opportunity.



MAUI ELECTRIC COMPANY, LTD.  
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)	2018 Annual Total (i)	Delta vs Target (h) - (d)	(Penalty) / Reward (j)
					Lower (f)	Upper (g)				
SAIFI	1/1/18-8/22/18	234	506,965	1.436	0.241	1.195	1.677	1.890	0.454	
	8/23/18-12/31/18	131	527,289	1.422	0.224	1.198	1.646	1.890	0.468	
	Annual (Weighted Avg)	365	514,259	1.431	0.235	1.196	1.666	1.890	0.459	(490,675) To Sch M
SAIDI	1/1/18-8/22/18	234	506,965	112.670	23.220	89.450	135.890	208.190	95.520	
	8/23/18-12/31/18	131	527,289	118.470	22.530	95.940	141.000	208.190	89.720	
	Annual (Weighted Avg)	365	514,259	114.752	22.972	91.779	137.724	208.190	93.438	(514,259) To Sch M
Call Center	1/1/18-8/22/18	234	202,789	91.34%	3.00%	88.34%	94.34%	89.04%		
	8/23/18-12/31/18	131	210,916	87.22%	3.00%	84.22%	90.22%	89.04%		
	Annual Totals	365	205,706	89.86%	3.00%	86.86%	92.86%	89.04%	-0.82%	- To Sch M

Reference: See Maui Electric Proposed PIM Tariff Revisions, filed on August 21, 2018 in Docket No. 2017-0150. The PIM Tariff Revisions were approved by the Commission in Interim Decision and Order No. 35631, filed on August 9, 2018.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Hours Interrupted	13,248.28	8,628.38	19,677.67	16,070.37	15,710.20	36,887.62	10,828.80	33,241.00	49,877.52	10,613.87	22,010.53	11,887.30	248,681.53
Customer Interruptions	8,605	5,754	21,188	8,526	10,396	14,397	3,298	15,213	17,217	7,517	11,146	12,231	135,488
SAIDI (Minutes)	11.09	7.22	16.47	13.45	13.15	30.88	9.07	27.83	41.76	8.89	18.43	9.95	208.19
SAIFI (Occurrences)	0.120	0.080	0.296	0.119	0.145	0.201	0.046	0.212	0.240	0.105	0.156	0.171	1.890

MECO-WP-M-001  
MECO-WP-M-001

Total Customer Minutes Interrupted	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
	794,897	517,703	1,180,660	964,222	942,612	2,213,257	649,728	1,994,460	2,992,651	636,832	1,320,632	713,238	14,920,892

MAUI ELECTRIC COMPANY, LTD.  
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	6,761	6,257	92.55%	10.07%	9.32%
Feb-18	5,626	5,049	89.74%	8.38%	7.52%
Mar-18	5,392	4,808	89.17%	8.03%	7.16%
Apr-18	5,415	4,824	89.08%	8.06%	7.18%
May-18	5,642	4,962	87.94%	8.40%	7.39%
Jun-18	5,199	4,212	81.02%	7.74%	6.27%
Jul-18	5,633	4,291	76.18%	8.39%	6.39%
Aug-18	5,319	4,863	91.43%	7.92%	7.24%
Sep-18	4,901	4,743	96.78%	7.30%	7.06%
Oct-18	6,530	5,967	91.37%	9.72%	8.88%
Nov-18	5,645	5,183	91.82%	8.40%	7.72%
Dec-18	5,101	4,641	90.98%	7.59%	6.91%

**Total      89.04%**

To MECO-WP-M-001

\* All customer calls handled by a Customer Service Representative (including abandoned calls)

Source: Generated from Genesys Interactive Insights system.

MAUI ELECTRIC COMPANY, LTD.  
Phase 1 Renewable Energy RFP PIM  
2018

Awarded Projects	Reference	BAFO Levelized Price (\$/MWh) a	Net Energy Potential (MWh) b	PIM Calculation c = (x or y-a)*b	PIM Calculation (20% utility share) d = c * 20%
AES Kuihelani Solar (with battery storage)	Docket No. 2018-0436 D&O No. 36235	77.79	163,939	\$ 6,100,170	\$ 1,220,034
<b>Total Final Variable Requests for Proposals</b>				\$ 6,100,170	\$ 1,220,034
				50% Year 1	<u><b>\$ 610,017</b></u> <i>To Sch M</i>

Note 1

PIM Benchmark	¢/kWh	\$/MWh
Energy Only	9.5	95.00
Paired with Storage	11.5	115.00

Note 1:

See Order No. 35405, Establishing a Performance Incentive Mechanism for Procurement in Phase 1 of the Hawaiian Electric Companies' Final Variable Requests for Proposals, issued April 6, 2018, for cents per kWh benchmarks. Additionally, the performance incentive design does not include a penalty for failure to successfully execute the procurement process.

Continued in Order No. 35405, page 12:

"PPA submitted by the end of 2018, and subsequently approved by the commission 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. The estimated first-year savings will be calculated by multiplying the forecasting first-year energy production (in kWh) of the project by the difference between the applicable benchmark price and the equivalent PPA price (in cents per kWh)."

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:

Timing of Incentive Award as discussed in Order No. 35405, page 14:

First Allocation: First 50% of the total PIM based on the equivalent PPA prices and the forecasted first-year energy production.

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.

## ATTACHMENT 3

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, Maui 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, Maui Electric will implement this change in the annual decoupling filing in the year following the Commission’s approval.

## ATTACHMENT 4

**PRELIMINARY**

Maui Electric Company, Ltd.

Revenues at Current Effective Rates with Dkt. 2016-0431 Depreciation Rates

Total Company

Results of Operations

2018

(\$ Thousands)

Revenue  
Requirements  
to Produce  
7.43%  
Return on  
Average  
Rate Base

	Revenues at Current Effective Rates	Additional Amount	
Electric Sales Revenue	323,658	12,105	335,763
Other Operating Revenue	1,800	94	1,894
Gain on Sale of Land	958		958
<b>TOTAL OPERATING REVENUES</b>	<b>326,416</b>	<b>12,199</b>	<b>338,615</b>
Fuel	103,385		103,385
Purchased Power	54,970		54,970
Production	31,854		31,854
Transmission	3,928		3,928
Distribution	10,323		10,323
Customer Accounts	7,017		7,017
Allowance for Uncoll. Accounts	169	0	169
Customer Service	3,519		3,519
Administration & General	21,332		21,332
Customer Benefit Adjustment	(411)		(411)
Operation and Maintenance	236,086	0	236,086
Depreciation & Amortization	29,591		29,591
Amortization of State ITC	(1,469)		(1,469)
Taxes Other Than Income	30,776	1,082	31,858
Interest on Customer Deposits	145		145
Income Taxes	5,764	2,863	8,627
<b>TOTAL OPERATING EXPENSES</b>	<b>300,893</b>	<b>3,945</b>	<b>304,838</b>
<b>OPERATING INCOME</b>	<b>25,523</b>	<b>8,254</b>	<b>33,777</b>
<b>AVERAGE RATE BASE</b>	<b>454,498</b>	<b>(172)</b>	<b>454,326</b>
<b>RATE OF RETURN ON AVERAGE RATE BASE</b>	<b>5.62%</b>		<b>7.43%</b>

**PRELIMINARY**

Maui Electric Company, Ltd.

Revenues at Current Effective Rates with Dkt. 2016-0431 Depreciation Rates  
Total CompanyCOMPOSITE EMBEDDED COST OF CAPITAL  
Estimated 2018 Average

	A	B	C	D
	Capitalization			
	Amount in Thousands	Percent of Total	Earnings Reqmts	Weighted Earnings Reqmts (B) x (C)
Short-Term Debt	6,718	1.37	3.00%	0.041%
Long-Term Debt	189,712	38.68	4.54%	1.757%
Hybrid Securities	9,590	1.96	7.16%	0.140%
Preferred Stock	4,804	0.98	8.15%	0.080%
Common Equity	279,655	57.02	9.50%	5.417%
Total	490,479	100.00		
Estimated Composite Cost of Capital				7.434%
			or	<u>7.43%</u>

**PRELIMINARY**

Maui Electric Company, Ltd.

Revenues at Current Effective Rates with Dkt. 2016-0431 Depreciation Rates  
Total Company  
2018 AVERAGE RATE BASE  
(\$ Thousands)

	Beginning Balance	End of Year Balance	Average Balance
Investments in Assets Serving Customers			
Net Cost of Plant in Service	630,341	663,148	646,745
Property Held for Future Use	1,303	1,303	1,303
Fuel Inventory	9,375	9,375	9,375
Materials & Supplies Inventories	16,799	16,799	16,799
Unamort. Net ASC 740 Reg. Asset	4,686	4,881	4,784
Pension Reg Asset	12,682	12,071	12,377
Pension Non-Service Cost	0	270	135
Unamort Sys Dev Costs	2,595	2,179	2,387
Contributions in Excess of NPPC Regulatory Asset	1,034	1,034	1,034
Total Investments in Assets	678,815	711,060	694,938
Funds From Non-Investors			
Unamortized CIAC	102,684	108,860	105,772
Customer Advances	9,764	10,775	10,270
Customer Deposits	2,569	2,274	2,422
Accumulated Def. Income Taxes	56,265	58,134	57,200
Unamort. ASC 740 Reg. Liab. - Excess ADIT	49,234	48,780	49,007
Unamort State ITC (Gross)	14,695	14,199	14,447
Unamortized Gain on Sales	0	1,916	958
Pension Liability	0	0	0
OPEB Reg Liability	2,513	2,684	2,599
Total Deductions	237,724	247,622	242,673
Difference			452,265
Working Cash at Current Effective Rates			2,233
Rate Base at Current Effective Rates			454,498
Change in Rate Base - Working Cash			(172)
Rate Base at Proposed Rates			454,326

**PRELIMINARY**

Maui Electric Company, Ltd.

Revenues at Current Effective Rates with Dkt. 2016-0431 Depreciation Rates  
Total Company

COMPUTATION OF INCOME TAX EXPENSE  
2018

(\$ Thousands)

	Revenues at Current Effective Rates	Adjustment	Revenues at Proposed Rates
Operating Revenues	326,416	12,198	338,614
Operating Expenses:			
Fuel and Purchased Power	158,355		158,355
Other Operation & Maintenance Expense	77,732	0	77,732
Depreciation	29,591		29,591
Amortization of State ITC	(1,469)		(1,469)
Taxes Other than Income	30,776	1,082	31,858
Interest on Customer Deposits	145		145
Total Operating Expenses	295,130	1,082	296,212
Operating Income Before Income Taxes	31,286	11,116	42,402
Tax Adjustments:			
Interest Expense	(8,804)		(8,804)
Meals and Entertainment	12		12
	(8,792)	0	(8,792)
Taxable Income at Ordinary Rates	22,494	11,116	33,610
Income Tax Exp at Ordinary Rates	5,793	2,863	8,656
Tax Benefit of Domestic Production Activities Deduction	0		0
Tax Effect of Deductible Preferred Stock Dividends	0		0
R&D Credit	29		29
Total Adjustments to Income Tax Expense	29	0	29
TOTAL INCOME TAX EXPENSE	5,764	2,863	8,627

**PRELIMINARY**

Maui Electric Company, Ltd.  
Revenues at Current Effective Rates with Dkt. 2016-0431 Depreciation Rates  
Total Company  
TAXES OTHER THAN INCOME TAX  
2018  
(\$ Thousands)

	Rate	Revenues at Current Effective Rates	Adjustment	Revenues at Proposed Rates
Public Service Tax	5.885%	19,200	718	19,918
Public Utility Fee	0.500%	1,631	61	1,692
Franchise Tax	2.500%	8,087	303	8,390
Payroll Tax		1,858		1,858
TOTAL TAXES OTHER THAN INCOME TAX		30,776	1,082	31,858



**PRELIMINARY**

Maui Electric Company, Ltd.  
 Revenues at Current Effective Rates with Dkt. 2016-0431 Depreciation Rates  
 Total Company  
 SUPPORT WORKSHEET  
 2018

## OPERATING REVENUES:

Electric Sales Revenues	323,658
Other Operating Revenues	1,800
Gain on Sale of Land	958

## TOTAL OPERATING REVENUES

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 326,416
 

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## FUEL AND PURCHASE POWER EXPENSES:

Fuel Oil Expense	103,057
Fuel Related Non-labor Exp	319
Fuel Handling Labor Expense	9

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Fuel Expense	103,385
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Purchased Power Expense	54,970
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## TOTAL FUEL AND PURCHASE POWER EXPENSES

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 158,355
 

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## OTHER OPERATION &amp; MAINTENANCE EXPENSES:

Production	31,854
Transmission	3,928
Distribution	10,323
Customer Account	7,017
Allowance for Uncollectible Accounts	169
Customer Service	3,519
Administration & General	21,332
Customer Benefit Adjustment	(411)

## TOTAL OTHER OPERATION &amp; MAINTENANCE EXPENSES

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 77,732
 

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**PRELIMINARY**

Maui Electric Company, Ltd.  
Revenues at Current Effective Rates with Dkt. 2016-0431 Depreciation Rates  
Total Company  
SUPPORT WORKSHEET  
2018

TOTAL FUEL & PP AND OTH O&M EXPENSES (LABOR/NONLABOR)	
Fuel Expense	103,385
Purchase Power Expense	54,970
O&M Labor Expense	23,771
Total Nonlabor Expense	
O&M Nonlabor Expense	53,961
Bad Debt Expense	(169)
Other Excluded Items	(2,212)
	51,580
REVENUE TAX	
Public Service Tax	
Electric Sales Revenues	323,658
Other Operating Revenues	1,800
Less: Bad Debt Expense	(169)
Operating Revenues subject to PSC Tax	325,289
Public Service Tax Rate	x 5.885%
Total PSC Tax	19,200
PUC Fees	
Electric Sales Revenues	323,658
Other Operating Revenues	1,800
Less: Bad Debt Expense	(169)
Operating Revenues subject to PSC Tax	325,289
PUC Tax Rate	x 0.500%
Total PUC Tax	1,631

**PRELIMINARY**

Maui Electric Company, Ltd.  
Revenues at Current Effective Rates with Dkt. 2016-0431 Depreciation Rates  
Total Company  
SUPPORT WORKSHEET  
2018

Franchise Tax		
Electric Sales Revenues		323,658
Less: Bad Debt Expense		(169)
		<hr/>
		323,489
Franchise Tax Rate	x	2.500%
Total Franchise Tax		8,087
TOTAL REVENUE TAX		<hr/>
		28,918
INTEREST EXPENSE:		
Weighted Cost of Debt		
Short-Term Debt		0.041%
Long-Term Debt		1.757%
Hybrid Securities		0.140%
Total		<hr/>
		1.938%
Rate Base at Proposed Rates	x	<hr/>
		454,326
TOTAL INTEREST EXPENSE		<hr/>
		8,804
INCOME TAX EXPENSE SUMMARY		
Current		2,922
Deferred		1,869
State ITC		973
Pension Asset Amortization		0
TOTAL INCOME TAX EXPENSE		<hr/>
		5,764
CALCULATIONS OF REVENUE TAX RATE:		
Franchise Tax Rate adjusted for Change in Oth Oper		
Revenues and Bad Debt		0.02481
PSC Tax Rate adjusted for Bad Debt		0.05885
PUC Tax Rate adjusted for Bad Debt		0.00500
REVENUE TAX RATE		<hr/>
		0.08866
CALCULATIONS OF COMPOSITE INCOME TAX RATE:		
State Tax Rate		0.06015
Federal Tax Rate		0.21000
State Tax Rate		0.06015
Federal Tax Rate	x	0.21000
Federal Tax Effect on State Tax		<hr/>
		(0.01263)
COMPOSITE INCOME TAX RATE		<hr/>
		0.25752

**PRELIMINARY**

Maui Electric Company, Ltd.  
Revenues at Current Effective Rates with Dkt. 2016-0431 Depreciation Rates  
Total Company  
SUPPORT WORKSHEET  
2018

CALCULATIONS OF COMPOSITE CAPITAL GAINS TAX RATE:

State Capital Gains Tax Rate		0.04000
Federal Tax Rate		0.21000
State Capital Gains Tax Rate		0.04000
Federal Tax Rate	x	0.21000
Federal Tax Effect on State Capital Gains Tax Rate		(0.00840)
COMPOSITE CAPITAL GAINS TAX RATE		0.24160

CALCULATIONS OF EFFECTIVE INCOME TAX RATE:

PSC Tax & PUC Fees Rates adjusted for Bad Debt		0.06385
Franchise Tax adjusted for Change in Oth Oper Rev and Bad Debt		0.02481
Bad Debt Rate adjusted for Change in Oth Oper Rev		-
Revenue Tax and Bad Debt rate		0.08866
Rev Tax & Bad Debt Reciprocal	(1 - 0.08866)	0.91134
Composite Income Tax Rate	x	0.25752
EFFECTIVE INCOME TAX RATE AFTER CONSIDERING REVENUE TAX & BAD DEBT		0.23469

CALCULATIONS OF OPERATING INCOME DIVISOR:

PSC Tax & PUC Fees Rates		0.06385
Franchise Tax adjusted for Change in Oth Oper Rev		0.02481
Bad Debt Rate adjusted for Change in Oth Oper Rev		-
Effective Income Tax Rate after considering revenue tax & bad debt		0.23469
		0.32334
OPERATING INCOME DIVISOR	(1 - 0.32334)	0.67666