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July 6, 2018

DEPT. COMM. NO. 421

The Honorable Ronald D. Kouchi
President of the Senate
State Capitol, Room 409
415 South Beretania Street
Honolulu, Hawaii 96813

The Honorable Scott K. Saiki
Speaker of the House
State Capitol, Room 431
415 South Beretania Street
Honolulu, Hawaii 96813

Re: Public Utilities Commission Docket No. 2016-0328 – Application of Hawaiian Electric Company, Inc. for Approval of General Rate Case and Revised Rate Schedules and Rules.

Dear Senate President Kouchi and House Speaker Saiki:

The Public Utilities Commission ("Commission") issued its Final Decision and Order in this docket on June 22, 2018. In connection thereto, the Commission respectfully submits this report in accordance with Hawaii Revised Statutes ("HRS") § 269-16(d).

With respect to public utilities, such as Hawaiian Electric Company, Inc., HRS § 269-16 (d) states, in relevant part:

> (d) The commission shall make every effort to complete its deliberations and issue its decision as expeditiously as possible and before nine months from the date the public utility filed its completed application; provided that in carrying out this mandate, the commission shall require all parties to a proceeding to comply strictly with procedural time schedules that it establishes. If a decision is rendered after the nine-month period, the commission shall report in writing the reasons therefor to the legislature within thirty days after rendering the decision.

> . . . if the commission has not issued its final decision on a public utility's rate application within the nine-month period stated in this section, the commission, within one month after the expiration of the nine-month period, shall render an interim decision allowing the increase in rates, fares and charges, if any, to which the commission, based on the evidentiary record before it, believes the public utility is probably entitled. The commission may postpone its interim rate decision for thirty days if the commission considers the evidentiary hearings incomplete . . . .
>
> The nine-month period in this subsection shall begin only after a completed application has been filed with the commission and a copy served on the consumer advocate . . . .

For your information and convenience, the Commission encloses a copy of its Final Decision and Order No. 35545, filed on June 22, 2018.

The Parties in this rate case proceeding are Hawaiian Electric Company, Inc. ("HECO") and the Department of Commerce and Consumer Affairs, Division of Consumer Advocacy ("Consumer Advocate"), an ex officio party, pursuant to HRS § 269-51 and Hawaii Administrative Rules § 6-61-62(a). In addition, the Commission granted Participant status to the Department of Defense, Hawaii PV Coalition, Life of the Land, the Energy Freedom Coalition of America, LLC, and Blue Planet Foundation.

On December 16, 2016, HECO filed an application for a general rate increase and approval of revisions to its rate schedules and rules, based on a 2017 calendar test year ("2017 Test Year"). However, HECO was required to supplement its application several times, and its application was not considered complete until May 31, 2017. As a result, pursuant to HRS § 269-16(d), the nine-month deadline for the Commission to issue its final decision and order was February 28, 2018; alternatively, at a minimum, the Commission was required to file an interim decision and order by March 31, 2018.

In response to a request from HECO, the Commission agreed to accelerate the estimated date by which it would issue its interim decision and order, to December 15, 2017. The commission's Interim Decision and Order No. 35100, issued on December 15, 2017, resolved the majority of the issues in the docket, and provided HECO with interim relief well in advance of the statutory deadlines. Thereafter, the Commission, Parties, and Participants worked to address the remaining issues, including new issues raised by the passage of the federal Tax Cuts and Jobs Act on December 22, 2017.

On March 29, 2018, the Commission issued Order No. 35372, which approved a second interim adjustment to rates to timely pass along the estimated benefits of the Tax Cuts and Jobs Act to ratepayers. On June 22, 2018, the Commission issued Final Decision and Order No. 35545, which resolved all remaining issues in the rate case.

Accordingly, in terms of rate relief, the Parties and ratepayers have not suffered as a result of any delay in the Commission's ruling, and conversely, by taking the necessary time to incorporate the effects of the Tax Cuts and Jobs Act, this docket has resulted in an overall rate decrease for ratepayers.

In sum, the number of complex issues involved in this docket, including the unexpected passage of the Tax Cuts and Jobs Act, made it impracticable to issue a final decision and order by the statutory, nine-month February 28, 2018, deadline. However, the time and effort spent addressing the various complex issues raised in the docket ultimately resulted in a comprehensive decision that benefitted ratepayers.

Thank you for the opportunity to submit this report. Should you have any questions regarding this matter, please contact myself or Mark Kaetsu, Commission Counsel, at 586-2020.

Sincerely,

Randall Y. Iwase
Chair

RYI:mho

Enclosure

c: Dean Nishina, Consumer Advocate (w/o enclosure)
Dean Matsuura, Hawaiian Electric Company, Inc. (w/o enclosure)

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Application of HAWAIIAN ELECTRIC COMPANY, INC. For Approval of General Rate Case and Revised Rate Schedules/Rules.	)	DOCKET NO. 2016-0328

FINAL DECISION AND ORDER NO. 35545

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FINAL DECISION AND ORDER

By this Final Decision and Order,[1] the Public Utilities Commission ("commission") approves a change in rates for HAWAIIAN ELECTRIC COMPANY, INC., as described herein. The commission determines that the appropriate return on common equity ("ROE") for the 2017 calendar test year ("2017 Test Year") is 9.50%, which reflects the commission's approval of the Parties' stipulated settlement agreements filed on November 15, 2017, and March 5, 2018.[2] Based on the stipulated 9.50% ROE, the commission

[1]The Parties to this docket are HAWAIIAN ELECTRIC COMPANY, INC. ("HECO" or the "Company"), and the DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, DIVISION OF CONSUMER ADVOCACY ("Consumer Advocate"). In addition, the commission has granted Participant status to BLUE PLANET FOUNDATION ("Blue Planet"), the DEPARTMENT OF DEFENSE ("DOD"), ENERGY FREEDOM COALITION OF AMERICA, LLC ("EFCA"), HAWAII PV COALITION ("HPVC"), and LIFE OF THE LAND ("LOL").

[2]See Parties' Stipulated Settlement Letter, filed November 15, 2017 ("November 2017 Settlement"); and Parties'

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Application of)	
HAWAIIAN ELECTRIC COMPANY, INC.)	Docket No. 2016-0328
For Approval of General Rate Case and Revised Rate Schedules/Rules.)	Final Decision and Order

FINAL DECISION AND ORDER

By this Final Decision and Order,[1] the Public Utilities Commission ("commission") approves a change in rates for HAWAIIAN ELECTRIC COMPANY, INC., as described herein. The commission determines that the appropriate return on common equity ("ROE") for the 2017 calendar test year ("2017 Test Year") is 9.50%, which reflects the commission's approval of the Parties' stipulated settlement agreements filed on November 15, 2017, and March 5, 2018.[2] Based on the stipulated 9.50% ROE, the commission

[1]The Parties to this docket are HAWAIIAN ELECTRIC COMPANY, INC. ("HECO" or the "Company"), and the DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, DIVISION OF CONSUMER ADVOCACY ("Consumer Advocate"). In addition, the commission has granted Participant status to BLUE PLANET FOUNDATION ("Blue Planet"), the DEPARTMENT OF DEFENSE ("DOD"), ENERGY FREEDOM COALITION OF AMERICA, LLC ("EFCA"), HAWAII PV COALITION ("HPVC"), and LIFE OF THE LAND ("LOL").

[2]See Parties' Stipulated Settlement Letter, filed November 15, 2017 ("November 2017 Settlement"); and Parties'

approves as fair a rate of return ("ROR") on average rate base of 7.57%, which shall apply to the calculation of final rates for the 2017 Test Year.

As for the remaining 2017 Test Year determinations on, for example, revenue forecasts, operating expenses, and average rate base, the commission approves the Parties' agreed-upon terms contained in their November 2017 Settlement, as amended in the March 2018 Settlement, and as reflected in the attached results of operations. However, as discussed below, the Parties must revise their stipulated rate design to account for the effects of the March 2018 Settlement, including the significant decrease to HECO's 2017 Test Year revenue requirement resulting from, among other things, the impacts of the federal tax reform legislation commonly known as the "Tax Cuts and Jobs Act" ("2017 Tax Act"). Accordingly, HECO shall collaborate with the Consumer Advocate and submit proposed final tariff sheets within thirty (30) days of this Final Decision and Order for the commission's review and approval.

Within thirty (30) days of this Final Decision and Order, HECO shall also submit proposed revisions of its pension and other post-employment benefits ("OPEB") tracking mechanisms, in their

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Stipulated Settlement on Remaining Issues, filed March 5, 2018 ("March 2018 Settlement").

entirety, which reflect the approved changes set forth in this Final Decision and Order with regards to: (A) the treatment of the excess pension contribution; and (B) Accounting Standards Update ("ASU") 2017-07.

With regard to the remaining disputed issue between the Parties and Participant Blue Planet, the commission determines that the Energy Cost Adjustment Clause ("ECAC") mechanism shall be modified to reflect a risk-sharing approach similar to that proposed by Blue Planet in this proceeding. However, the mechanism approved by the commission shall reflect a 98/2% risk-sharing split between ratepayers and the Company, with an annual maximum exposure cap of $2.5 million, rather than the 95/5% split, $20 million maximum exposure cap proposed by Blue Planet.

As stated and agreed to by the Parties in the March 2018 Settlement, HECO has proposed a new Energy Cost Recovery Clause ("ECRC") provision tariff, to become effective ninety days after this Final Decision and Order. The new ECRC tariff will provide for the recovery of fuel and purchased energy costs and effectuate the removal of the recovery of fuel and purchased energy costs from base rates, as instructed by the commission,[3] and will replace and incorporate the operative

[3]See In re Public. Util. Comm'n, Docket No. 2013-0141, Order No. 34514, "Establishing Performance Incentive Measures and

functions of the ECAC tariff. In addition, the Parties have stipulated to revisions to the ECAC, including the process for interim re-determination of the ECAC target heat rates.

Given these stipulated revisions to the ECAC, as well as the modifications necessary to effectuate the fuel cost risk-sharing mechanism required by this Final Decision and Order, the commission anticipates the need for a thorough review of the proposed ECRC tariff language to ensure that all of the above changes are comprehensively and consistently implemented without inadvertent gaps or inconsistencies. The commission therefore instructs HECO to submit an initial draft of its proposed ECRC tariff, consistent with the findings discussed herein, within thirty (30) days of this Final Decision and Order. The submittal shall include examples of the monthly, quarterly, and annual reconciliation filings necessary to implement the ECRC tariff provisions and an explanation of what specific changes to other tariff sheets would be required. Thereafter, the commission will invite the Consumer Advocate, as well as Blue Planet,[4] to participate in a technical conference with commission staff and

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Addressing Outstanding Schedule B Issues," filed April 27, 2017 ("Order No. 34514").

[4]As noted below, of the Participants permitted to address this issue, only Blue Planet contributed testimony and IRs to develop the record on this sub-issue.

HECO to review, clarify, and refine the proposed ECRC tariff language. Following the technical conference, HECO shall submit a revised proposed ECRC tariff to the commission. The Consumer Advocate and Blue Planet may file comments to this revised proposal. Commission approval and further direction to implement the ECRC shall be provided in a subsequent commission order.

I.

BACKGROUND

On August 31, 2010, the commission, in its decoupling investigative proceeding, Docket No. 2008-0274, issued its Final Decision and Order, in which it adopted a Mandatory Triennial Rate Case Cycle for the Hawaiian Electric Companies.[5] Pursuant thereto, the Hawaiian Electric Companies were directed to file staggered "rate cases" every three years, commencing with HECO's 2011 test year rate case, followed by MECO's 2012 test year rate case, and HELCO's 2013 test year rate case.

HECO is the provider of electric utility service for the island of Oahu. On September 16, 2016, HECO filed a notice of

[5] In re Public Utils. Comm'n, Docket No. 2008-0274, Final Decision and Order, filed August 31, 2010 (Commissioner Kondo, Leslie H., dissenting). The "Hawaiian Electric Companies" refers collectively to HECO, Hawaii Electric Light Company, Inc. ("HELCO"), and Maui Electric Company, Limited ("MECO").

intent to file an application for a general rate increase "on or before December 30, 2016" "based on a 2017 calendar year test period."[6]

A.

Procedural History

On December 16, 2016, pursuant to the Mandatory Triennial Rate Case Cycle and its notice of intent, HECO filed an application for approval for rate increases and revised rate schedules and rules in which HECO requested a general rate increase of approximately $106,383,000, or 6.9% over revenues at current effective rates.[7] HECO based this requested increase on an overall revenue requirement of $1,642,362,000 for its normalized 2017 Test Year, which incorporated an 8.28% rate of return on HECO's average rate base.[8]

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[6]"Hawaiian Electric Company, Inc. Notice of Intent; Verification; and Certificate of Service," filed September 16, 2016, at 1-2.

[7]"Hawaiian Electric Company, Inc. 2017 Test Year Application," filed December 16, 2016, Book 1 at 7 ("Application"). "Revenues at current effective rates" are the sum of: (1) base revenues; (2) revenues from HECO's authorized automatic adjustment clauses; (3) revenues from HECO's authorized decoupling mechanisms; and (4) other operating revenues. See id. at 1 n.2.

[8]Application at 5-6. In its Application, HECO presented two alternative revenue requirement proposals, one incorporating the costs associated with the Schofield Generating Station ("SGS") and one excluding the SGS costs. See id. at 5. Subsequently, in Docket No. 2017-0213, HECO filed an application seeking interim

On December 23, 2016, the commission issued Order No. 34260, by which it transferred and consolidated Docket No. 2013-0373[9] with this proceeding, Docket No. 2016-0328. In Order No. 34260, the commission held that HECO's 2014 Filing was not fully compliant with the Mandatory Triennial Rate Case Cycle; however, the commission declined to initiate an investigation/enforcement proceeding, and instead transferred and consolidated Docket No. 2013-0373 with Docket No. 2016-0328 "in order to ensure that ratepayers receive the attendant benefits of HECO's abbreviated rate case filing."[10]

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cost recovery for the SGS project through the commission's recently approved Major Projects Interim Recovery Guidelines ("MPIR Guidelines"). As a result, the commission issued an order in this proceeding excluding HECO's revenue requirement proposal that included the SGS project costs, finding that the issue of interim cost recovery for the SGS project would be addressed in Docket No. 2017-0213, pursuant to HECO's request to recover the SGS Project costs, on an interim basis, under the MPIR Guidelines. See Order No. 34820, "Removing Hawaiian Electric Company, Inc.'s Request for a Step Revenue Adjustment for the Schofield Generating Station Project (i.e., Issue No. 3) from the Subject Proceeding," filed September 15, 2017 ("Order No. 34820").

[9]On June 27, 2014, HECO submitted a filing, pursuant to the Mandatory Triennial Rate Case Cycle requirement, which it characterized as an "abbreviated" rate case filing. See In re Hawaiian Elec. Co., Inc., Docket No. 2013-0373, "Hawaiian Electric Company, Inc. 2014 Test Year Rate Case, Filed June 27, 2014," Books 1 thru 5; and Certificate of Service," filed June 27, 2014 ("HECO 2014 Filing"). Although HECO maintained that its 2014 Filing would support an increase in 2014 test year revenues of $56,212,000, HECO stated that it intended to forgo the opportunity to seek a general rate increase in its base rates. Id. at 1-2.

[10]Order No. 34260 at 15-16.

As a result of the transfer and consolidation, the commission stated that "the determination and disposition of any rates, accounts, adjustment mechanisms, and practices that would have been subject to review in the context of a 2014 test year rate case proceeding [will be] subject to appropriate adjustment based on evidence and findings in the consolidated rate case proceeding, Docket No. 2016-0328."[11]

On February 22, 2017, the commission held a public hearing on HECO's Application, pursuant to HRS §§ 269-12 and 269-16, at the Ala Wai Elementary School cafeteria, 503 Kamoku Street, Honolulu, Hawaii, 96826, at 6:00 p.m.[12] In addition to HECO and the Consumer Advocate, testimony was provided by an individual and EFCA.[13]

On June 28, 2017, the commission issued Order No. 34664, which, among other things: (1) certified HECO's supplemented Application as complete; and (2) granted Participant status to the DOD, the Board of Water Supply ("BWS"), LOL, EFCA, HPVC, and Blue Planet.[14] In finding HECO's Application complete, the

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[11]Order No. 34260 at 17.

[12]See Notice of Public Hearing (Honolulu); Docket No. 2016-0328, filed January 27, 2017.

[13]See Public Hearing Sign-Up Sheet and Testimonies (Honolulu); Docket No. 2016-0328, filed February 22, 2017.

[14]Order No. 34664, "(1) Certifying Completeness of Application; (2) Addressing Motion to Intervene; and (3) Instructing Hawaiian Electric Company, Inc. and the

commission reiterated that HECO's Application, as filed on December 16, 2016, required supplementation as a result of the commission's Order No. 34260.[15] Accordingly, the commission certified HECO's Application complete as of the date of HECO's final supplement; i.e., May 31, 2017.[16]

On July 28, 2017, the commission issued Procedural Order No. 34721, which established, among other things, the Statement of Issues and Procedural Schedule governing this proceeding.[17] During

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Consumer Advocate to Submit a Proposed Procedural Order," filed June 28, 2017 ("Order No. 34664"). BWS was subsequently removed from this proceeding. See Order No. 35281, "Addressing Various Procedural Matters and Amending Statement of Issues," filed February 9, 2018 ("Order No. 35281").

[15]See Order No. 34664 at 11-16.

[16]Order No. 34664 at 21-22. Accordingly, this is the effective date of completed application from which the statutory timelines set forth in HRS § 269-16(d) began to run. See HRS § 269-16(d) ("the nine-month period in this subsection shall begin only after a completed application has been filed with the commission and a copy served on the consumer advocate."); see also In re Hawaiian Elec. Co. Inc., Docket No. 2008-0083, "Order Extending Date of Completeness of Application," filed January 12, 2009.

[17]Notwithstanding the commission's finding in Order No. 34664 that HECO's Application was complete as of May 31, 2017, which would not statutorily require an Interim Decision and Order until approximately March 30, 2018, the commission, in its procedural schedule, tentatively scheduled the issuance date of its Interim Decision and Order for December 15, 2017. See Procedural Order No. 34721 at 10; see also Order No. 34720, "Denying Hawaiian Electric Company, Inc.'s Motion for Partial Reconsideration of Order No. 34664," filed July 28, 2017 ("Order No. 34721"), at 14-15 (denying HECO's Motion for Reconsideration of Order No. 34664, in part, by noting that HECO's arguments that it would be prejudiced by "regulatory lag" arising from a May 31, 2017, completed application date appeared non-existent, as the tentative December 15, 2017, Interim Decision and Order date was only one

the allotted discovery period, the Parties and Participants exchanged voluminous information requests ("IRs"), and on September 22, 2017, the Consumer Advocate and the Participants filed their Direct Testimonies, Exhibits, and Workpapers.[18]

On November 15, 2017, HECO and the Consumer Advocate submitted the November 2017 Settlement in which they stipulated to an interim rate increase of approximately $53,678,000, a roughly 3.5% increase in revenues at current effective rates.[19]

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month after HECO's proposed November 15, 2017, Interim Decision and Order date, which was based on a December 16, 2016, completed application date).

[18]See "Hawaii PV Coalition's Exhibit List; Direct Testimony; Docket No. 2016-0328," filed September 22, 2017 ("HPVC Direct Testimony"); "Life of the Land Testimony LOL-T-1; Affidavit of Henry Q. Curtis; Docket No. 2016-0328," filed September 22, 2017 ("LOL Direct Testimony"); "Blue Planet Foundation's Direct Testimony and Exhibit List; Direct Testimony of Ronald J. Binz; Exhibit 1; Docket No. 2016-0328," filed September 22, 2017 ("Blue Planet Direct Testimony"); "Energy Freedom Coalition of America, LLC's Direct Testimonies, Exhibits, and Workpapers; Docket No. 2016-0328," filed September 22, 2017 ("EFCA Direct Testimony"); "Testimony of Ralph C. Smith, CPA on Behalf of the Department of Defense; Docket No. 2016-0328" and "Direct Testimony and Exhibits of Maurice Brubaker on Behalf of Department of Defense; Docket No. 2016-0328," both filed September 22, 2017 (collectively, "DOD Direct Testimony"); and "Division of Consumer Advocacy's Direct Testimonies, Exhibits, and Workpapers; Book 1 of 2 and Book 2 of 2; Docket No. 2016-0328," filed September 22, 2017 ("CA Direct Testimony"). BWS did not file any Direct Testimony or Exhibits.

[19]See Letter From: J. Viola To: Commission Re: Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case; Hawaiian Electric's Statement of Probable Entitlement," filed November 17, 2017 ("HECO Statement of Probable Entitlement"), Attachment 1 at 1.

On December 15, 2017, the commission issued Interim Decision and Order No. 35100,[20] in which it partially approved the Parties' November 2017 Settlement, but made several downward adjustments to HECO's interim revenues.[21] In addition, Interim D&O 35100 identified several deferred matters the commission stated it intended to examine during the remainder of this proceeding (the "Deferred Issues").[22] In light of the adjustments to the Parties' November 2017 Settlement set forth in Interim D&O 35100, the commission instructed the Parties to indicate whether they wished to withdraw from the November 2017 Settlement and whether they wished to exercise their right to an evidentiary hearing.[23]

On December 22, 2017, HECO filed a Motion for Partial Reconsideration of Interim D&O 35100, in which it requested that the commission reconsider the downward adjustment made to HECO's 2017 Test Year pension and OPEB asset/liability tracker balances (the "Pension and OPEB Tracker Adjustment").[24] HECO did not request

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[20]Interim Decision and Order No. 35100, filed December 15, 2017 ("Interim D&O 35100").

[21]See Interim D&O 35100 at 23-57.

[22]See Interim D&O 35100 at 58-62.

[23]See Interim D&O 35100 at 64.

[24]"Hawaiian Electric Company, Inc. Motion for Partial Reconsideration of Interim Decision and Order No. 35100; Memorandum in Support of Motion; Statement of Facts; Memorandum of Law in Support of Motion; Affidavits of Tayne S. Y. Sekimura,

reconsideration of the other interim adjustments to the Parties' November 2017 Settlement made by the commission in Interim D&O 35100.[25]

Also on December 22, 2017, the President of the United States signed the Tax Cuts and Jobs Act ("2017 Tax Act") into law, with an effective date of January 1, 2018, which, among other things, reduced the federal corporate income tax rate from 35% to 21%.

On December 27, 2017, the Parties filed letters with the commission stating that neither intended to withdraw from the November 2017 Settlement and that they wished to exercise their right to a hearing on the Deferred Issues.[26]

On January 5, 2018, HECO filed its Rebuttal Testimonies and Exhibits, consistent with Procedural Order No. 34721.[27]

Patsy H. Nanbu and Peter C. Young; and Certificate of Service," filed December 22, 2017 ("HECO Motion for Partial Reconsideration of Interim D&O 35100").

[25]See HECO Motion for Partial Reconsideration of Interim D&O 35100.

[26]Letter filed by HECO on December 27, 2017 ("HECO Settlement Notification Letter"); and Letter filed by Consumer Advocate on December 27, 2017 ("CA Settlement Notification Letter").

[27]"Hawaiian Electric Company, Inc. 2017 Test Year; Rebuttal Testimonies, Exhibits, and Workpapers," filed January 5, 2018 ("HECO Rebuttal Testimonies"); see also, Procedural Order No. 34721 at 10.

Shortly thereafter, on January 8, 2018, HECO filed a Motion to Supplement its Motion for Partial Reconsideration of Interim D&O 35100, in which HECO sought leave to admit into evidence a Supplemental Memorandum to its Motion for Partial Reconsideration of Interim D&O 35100 which proposed an alternative resolution to the Pension and OPEB Tracker Adjustment.[28] In its Supplemental Memorandum, HECO proposed: (1) reversing the Pension and OPEB Tracker Adjustment; (2) restoring the balances affected by the Adjustment; and (3) replacing the Pension and OPEB Tracker Adjustment with an associated customer benefit with funds anticipated to result from the 2017 Tax Act and an unspecified "customer benefit" revenue reduction.[29]

On January 11, 2018, the commission issued Order No. 35220, in which it: (1) granted HECO's Motion to Supplement Motion for Partial Reconsideration; and (2) stated that while the commission agreed, in principle, to reversing the Pension and OPEB Tracker Adjustment and replacing it with funds from another source, the commission disagreed with HECO's proposal to use funds

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[28] "Hawaiian Electric Company, Inc.'s Motion for Leave to File Supplemental Memorandum in Support of Motion for Partial Reconsideration of Interim Decision and Order No. 35100; Exhibit 1; and Certificate of Service," filed January 8, 2018 ("HECO Motion to Supplement Motion for Partial Reconsideration").

[29] See HECO Motion to Supplement Motion for Partial Reconsideration, Exhibit 1 at 2-4.

anticipated to result from the 2017 Tax Act, as those benefits should flow to ratepayers independently, and should not be used as a means to "purchase back" the Pension and OPEB Tracker Adjustment.[30]

Accordingly, the commission stated that while it was inclined to adopt, in principle, the reversal of the Pension and OPEB Tracker Adjustment, the Adjustment would need to be replaced with funds from another source, not to include the 2017 Tax Act, and must provide an equivalent amount of benefits to ratepayers. For interim purposes, a $6 million revenue requirement hold-back would be imposed to HECO's interim rates, pending the final determination of an appropriate replacement adjustment to be approved as part of the commission's Final Decision and Order.[31] The commission instructed HECO to respond by January 19, 2018, as to whether it accepted the commission's alternative presented in Order No. 35220.[32] In addition, due to the promulgation of the 2017 Tax Act, the commission directed HECO to file with the

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[30]Order No. 35220, "Granting Hawaiian Electric Company, Inc.'s Motion for Leave to File Supplemental Memorandum in Support of Motion for Partial Reconsideration of Interim Decision and Order No. 35100," filed January 11, 2018 ("Order No. 35220"), at 11-15.

[31]See Order No. 35220 at 15-19.

[32]Order No. 35220 at 21.

commission HECO's estimated tax benefits arising from the 2017 Tax Act by January 31, 2018.[33]

Also on January 11, 2018, the commission issued Order No. 35219,[34] in which the commission, in pertinent part, amended the Statement of Issues governing this proceeding to account for a number of events following the issuance of Interim D&O 35100, including: (1) the Parties' affirmative statements that they did not intend to withdraw from the November 2017 Settlement;[35] and (2) the Parties' request for an evidentiary hearing on the interim adjustments and Deferred Issues set forth in Interim D&O 35100.[36] As a result, Order No. 35219 set forth an Amended Statement of Issues to narrow the scope of examination for the remainder of this proceeding.[37] The commission also amended the procedural schedule governing the remainder of this proceeding.[38] Pursuant

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[33]Order No. 35220 at 20.

[34]Order No. 35219, "Amending Procedural Order No. 34721," filed January 11, 2018 ("Order No. 35219").

[35]See HECO Settlement Notification Letter at 1; and CA Settlement Notification Letter at 1

[36]See HECO Settlement Notification Letter at 3; and CA Settlement Notification Letter at 2.

[37]See Order No. 35219 at 7-10.

[38]See Order No. 35219 at 13-14.

to the amended procedural schedule, HECO, the Consumer Advocate, the DOD, and Blue Planet filed supplemental testimony.[39]

In addition, the commission adjusted the Participants' scope of participation as well, to reflect the narrowed scope of remaining issues for examination.[40] Order No. 35219 also noted the lack of participation by BWS and instructed BWS to file a statement of position by January 22, 2018, justifying why it should not be removed from this proceeding.[41]

On January 16, 2018, HECO responded to Order No. 35220 by accepting the alternative proposal set forth by the commission.[42] Accordingly, on January 18, 2018, the commission issued Order No. 35229, which modified Interim D&O 35100 to reflect HECO's acceptance of the commission's proposed alternative to the

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[39]"Hawaiian Electric Company, Inc. 2017 Test Year Supplemental Testimonies and Workpapers," Books 1 and 2, filed February 14, 2018 ("HECO Supplemental Testimony"); "Division of Consumer Advocacy's Simultaneous Testimonies and Exhibits Regarding the Amended Statement of Issues," filed February 14, 2018 ("CA Supplemental Testimony"); "DOD Notice of the Filing of Supplemental Testimony of Ralph C. Smith, CPA," filed February 14, 2018 ("DOD Supplemental Testimony"); and "Blue Planet Foundation's Amended Testimony and Exhibit List; Supplemental Testimony of Ronald J. Binz; and Certificate of Service," filed February 14, 2018 ("Blue Planet Supplemental Testimony").

[40]See Order No. 35219 at 10-11.

[41]Order No. 35219 at 11-12.

[42]Letter From: J. Viola To: Commission Re: Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case; Order No. 35220; Hawaiian Electric Company, Inc.'s Response, filed January 16, 2018 ("HECO Response to Order No. 35220").

Pension and OPEB Tracker Adjustment.[43] The commission instructed HECO to file revised schedules with the commission to reflect the interim rates provided in Interim D&O 35100, as modified by Order No. 35220 to reverse the Pension and OPEB Tracker Adjustment.[44]

On January 19, 2018, HECO submitted its revised schedules of operations and proposed tariff sheets reflecting the interim rates approved in Interim D&O 35100, as modified by Order No. 35220.[45] On February 9, 2018, the commission issued Order No. 35280, which approved HECO Interim Schedules with an effective date of February 16, 2018.[46]

On January 31, 2018, HECO submitted its estimates of the impacts the 2017 Tax Act will have on its operations.[47]

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[43]Order No. 35229, "Modifying Interim Decision and Order No. 35229," filed January 18, 2018 ("Order No. 35229").

[44]Order No. 35220 at 12.

[45]Letter From: J. Viola To: Commission Re: 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, filed January 19, 2018 ("HECO November 2017 Tariffs").

[46]Order No. 35280, "Approving Revised Schedules of Operations and Tariff Sheets," filed February 9, 2018 ("Order No. 35280").

[47]Letter From: J. Viola To: Commission Re: Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case; Hawaiian Electric Estimated Tax Impacts Arising from the Tax Reform Act, filed January 31, 2018 ("HECO Tax Impact Estimates").

On February 9, 2018, the commission issued Order No. 35281 which addressed various procedural issues, including: (1) clarifying the scope of rebuttal information requests; (2) confirming the withdrawal of BWS as a Participant to this proceeding; and (3) further amending the Statement of Issues to reflect the effects of Order No. 35229, which modified Interim D&O 35100.[48]

On February 16, 2018, the commission issued a Notice of Evidentiary Hearing, which scheduled the evidentiary hearing for this proceeding from March 12-16, 2018.[49]

On February 22, 2018, the commission held a Prehearing Conference for the evidentiary hearing. All Parties and Participants except for LOL attended.[50] At the Prehearing Conference, the commission provided direction and clarification regarding the submission of evidentiary materials and scheduling and examination of witnesses at the evidentiary hearing.[51]

On March 5, 2018, the Parties submitted the March 2018 Settlement, which the Parties stated resolved all the Amended Issues set forth in Order No. 35281, except for Amended

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[48]See Order No. 35281.

[49]Notice of Evidentiary Hearing, filed February 16, 2018.

[50]See Prehearing Conference Order, filed February 26, 2018 ("Prehearing Conference Order"), at 3.

[51]See generally, Prehearing Conference Order.

sub-Issue No. 4(a), which the Parties agreed could be decided by the commission based on the facts and law already submitted in the record, without the need for an evidentiary hearing.[52]

On March 9, 2018, the commission issued Order No. 35335, in which the commission approved the Parties' March 2018 Settlement and cancelled the evidentiary hearing scheduled for March 12-16, 2018.[53] In addition, the commission instructed HECO to submit tariff sheets consistent with the March 2018 Settlement, which would supersede the interim rates approved by Order No. 35280, so that the benefits of the Settlement could be passed on to ratepayers in a timely manner.

On March 16, 2018, HECO submitted tariff sheets reflecting the March 2018 Settlement.[54] HECO's March 2018 Tariffs included the estimated impacts of the 2017 Tax Act, as provided in HECO's Tax Impact Estimates. As a result, the effect of HECO's March 2018 Tariffs was an overall decrease in rates, as compared

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[52]See March 2018 Settlement at 3 and Exhibit 1 at 19; see also, HECO response to PUC-HECO-IR-51, filed March 7, 2018 (responding to commission request for clarification regarding the scope of commission decision-making regarding Amended sub-Issue No. 4(a) as contemplated by the March 2018 Settlement).

[53]Order No. 35335, "Approving the Parties' Stipulated Settlement on Remaining Issues Filed March 5, 2018," filed March 9, 2018. ("Order No. 35335").

[54]Letter From: J. Viola To: Commission Re: Docket No. 2016-0328 - Hawaiian Electric 2017 Test Year Rate Case; Hawaiian Electric March 2018 Settlement Tariff Sheets, filed March 16, 2018 ("HECO March 2018 Tariffs").

to the current effective rates based on HECO's last 2011 test year rate case (i.e., Docket No. 2010-0080) as modified by subsequent RBA and RAM adjustments.[55] On March 29, 2018, the commission issued Order No. 35372, approving HECO's March 2018 Tariffs.[56]

B.

Statement Of Issues

Procedural Order No. 34721 set forth the following Statement of Issues to govern this proceeding:[57]

1. Whether HECO's proposed rate increase is reasonable; including, but not limited to:

   a. Are the revenue estimates for the 2017 test year at current effective rates, present rates, and proposed rates reasonable?

   b. Are HECO's proposed operating expenses for the 2017 test year reasonable?

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[55]See HECO March 2018 Tariffs, Attachment 5 at 2 (showing the typical bill impact on a residential customer using 500 kWh per month). As reflected in Attachment 5, for residential customers, the interim rates filed pursuant to Interim D&O 35100, as modified by Order No. 35229, and approved by Order No. 35280, resulted in a rate increase of approximately $2.60; however, the March 2018 Settlement, which includes the effects of the 2017 Tax Act, results in a rate decrease of approximately $3.55, providing for an overall net decrease in rates.

[56]Order No. 35372, "Approving Revised Tariff Sheets Filed March 16, 2018," filed March 29, 2018 ("Order No. 35372"). As a result, HECO's March 2018 Tariffs superseded HECO's November 2017 Tariffs that had been previously approved by the commission.

[57]Procedural Order No. 34721 at 5-6.

c. Is HECO's proposed rate base for the 2017 test year reasonable?

d. Is HECO's requested rate of return fair?

e. Are any adjustments necessary for customers to realize the attendant benefits of HECO's decision to voluntarily forgo a general rate increase in base rates for its mandated 2014 test year?

2. The amount of interim rate increase, if any, to which HECO is probably entitled under HRS § 269-16(d);

3. Whether the proposed Schofield Generation Station ("SGS") step adjustment is reasonable;[58] and

4. Whether HECO's proposed tariffs, rates, charges, and rules are just and reasonable; including, but not limited to:

a. Is HECO's proposed methodology for allocating costs among its customer classes reasonable?

b. Is HECO's rate design for collecting its costs from its customer classes reasonable?

c. Are the proposed revisions to the Energy Cost Adjustment Clause ("ECAC") tariff just and reasonable?

d. What changes should be made to separate and remove all test year fuel and purchased energy expenses from base rates, with recovery of these costs to be accomplished through an appropriately modified energy cost adjustment mechanism?

[58]As noted above, this issue was removed by the commission pursuant to Order No. 34820.

e. Are the proposed revisions to the Rate Adjustment Mechanism ("RAM") just and reasonable?

Subsequently, following the Parties' responses to Interim D&O 35100, the commission issued Order No. 35219, which amended the Statement of Issues to govern the remainder of this proceeding. As a result, Order No. 35219 set forth the following amended issues:[59]

1. Whether the adjustments made by the commission to the interim rate adjustment stipulated in the [November 2017] Settlement Agreement, as set forth in Interim Decision and Order No. 35100, should be incorporated into the Final Decision and Order, including:

   a. The adjustment regarding amortization of the excess pension contribution balance;

   b. The adjustments regarding the pension and OPEB tracking account balances;

   c. The regulatory asset proposed by HECO to address corresponding changes to accounts affected by the commission's adjustment to the pension and OPEB tracking account balances; and

   d. Whether any adjustments should be made regarding the prudence of components of HECO's target revenue, including estimated increases to plant.[60]

2. The determination of HECO's ROE for purposes of the Final Decision and Order.

3. Whether HECO's On-Cost Accounting policy changes should be approved, on a prospective

[59]Order No. 35219 at 8-10 (footnotes omitted).

[60]See Interim D&O 35100 at 46-48 and 55-57.

basis, and what, if any, credits or refunds should be required regarding the impacts of the unapproved accounting changes commencing in the year 2014.

4. What, if any, modifications to the ECAC should be implemented, including, but not limited to:

   a. The modifications proposed by Blue Planet;

   b. The revisions to the ECAC tariff language proposed in HECO's Statement of Probable Entitlement; and

   c. Modifications to implement the separation and transfer of fuel and purchased energy costs from base rates into an appropriate energy cost adjustment mechanism.

5. What, if any, adjustments are necessary as a result of the recently-signed federal tax reform legislation (commonly known as the "Tax Cuts and Jobs Act")?

Thereafter, the commission, in response to HECO's Motion to Supplement its Motion for Reconsideration of Interim D&O 35100, issued Order No. 35229, which restored the pension and OPEB Tracker Adjustment and provided for the determination of an equivalent customer benefit adjustment. As a result of Order No. 35229, the commission issued Order No. 35281, which further amended Issue No. 1 as set forth in Order No. 35219 as follows (deletions noted in ~~strikethrough~~ and additions noted in underline):[61]

1. Whether, and to what extent, the adjustments made by the commission to the interim rate adjustment stipulated in the Settlement

[61] See Order No. 35281 at 20-22.

Agreement, as set forth in Interim Decision and Order No. 35100, and as modified by Order No. 35229, should be incorporated into the Final Decision and Order, including:

a. The adjustment regarding amortization of the excess pension contribution balance;

b. ~~The adjustments regarding the pension and OPEB tracking account balances;~~

The adjustment amount necessary to return to ratepayers the full effect of benefits related to the pension and OPEB Tracker Adjustment;

c. Whether, and to what extent, t~~T~~he regulatory asset proposed by HECO to address corresponding changes to accounts affected by the commission's adjustment to the pension and OPEB tracking account balances is appropriate in light of the effects of Order No. 35229; ~~and~~

d. The appropriate mechanism to return to ratepayers the full effect of benefits related to the pension and OPEB Tracker Adjustment; and

~~d~~e. Whether any adjustments should be made regarding the prudence of components of HECO's target revenue, including estimated increases to plant.

Pursuant to the March 2018 Settlement and Order No. 35335 approving the Settlement, no further filings are anticipated and the record is ready for decision making by the commission regarding the remaining un-resolved issue; i.e., Amended sub-Issue No. 4(a).

C.

Participants And Their Positions

In addition to the Parties (HECO and the Consumer Advocate), the commission admitted five entities as Participants to this proceeding with limited scopes of participation.[62] The Participants and their positions are summarized below.

1.

DOD

The DOD was granted Participant status to comment on the reasonableness of HECO's proposed rate increase, as well as the reasonableness of HECO's proposed tariffs, rules, and charges.[63]

The DOD objects to a number of HECO's proposed revenue requirement components and recommends a number of downward adjustments. In general, the DOD notes that HECO's 2017 Test Year Operations and Maintenance ("O&M") expenses exceed the 2017 O&M budget that was approved by HECO's Board of Directors,[64] and specifically notes overruns regarding HECO's Administrative and

[62]As noted above, a sixth Participant, BWS, was subsequently considered to have withdrawn from this proceeding. See Order No. 35281.

[63]See Order No. 34721 at 5-7.

[64]DOD Direct Testimony, DOD T-1 (Ralph C. Smith) at 6.

General ("A&G") expense and proposes adjustments for Environmental Remediation and Workers Compensation.[65] The DOD maintains that HECO "should not be able to recover from ratepayers amounts in excess of the 2017 O&M budget that its Board of Directors authorized."[66]

The DOD also takes issue with parts of HECO's proposed average test year rate base, and recommends adjustments to: (1) incorporate HECO's actual December 31, 2016, balances for the beginning of the 2017 Test Year; (2) remove retirement work in progress from rate base; (3) remove the Power Supply Improvement Plan Deferred Costs regulatory asset from rate base; and (4) remove HECO's Environmental Reserve balance from rate base.[67] In addition, the DOD provides comments on the regulatory treatment to HECO's pension and OPEB tracker regulatory asset/liability balances resulting from the commission's decision to transfer and consolidate HECO's 2014 Filing with this proceeding. The DOD states that an adjustment should be made, but also raises broader objections about HECO's provision of retirement benefits[68] and recommends requiring HECO to present in its next rate case "an

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[65]See DOD Direct Testimony, DOD T-1 (Ralph C. Smith) at 11-21.

[66]DOD Direct Testimony, DOD T-1 (Ralph C. Smith) at 9 and 11.

[67]DOD Direct Testimony, DOD T-1 (Ralph C. Smith) at 21-31.

[68]See DOD Direct Testimony, DOD T-1 (Ralph C. Smith) at 31-44.

evaluation of its retirement benefits and report on efforts to eliminate or minimize the risk of large cost fluctuations associated with defined benefit pension plans."[69]

The DOD also objects to HECO's proposed rate design, particularly the way costs are allocated among different customer classes. The DOD contends that the cost of service studies indicate that there is a disparity among customer classes regarding the costs to provide service to a customer class and the rates collected from that customer class.[70] The DOD recommends addressing this disparity through the decoupling RAM and RBA mechanisms.[71] The DOD's objections to HECO's proposed rate design are discussed further, below, in Section II.C.7.

Finally, the DOD noted that adjustments would need to be made to account for the impacts of the 2017 Tax Act.[72]

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[69]DOD Direct Testimony, DOD T-1 (Ralph C. Smith) at 45; see also DOD Supplemental Testimony, DOD T-3 (Ralph C. Smith) at 2-8.

[70]See DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 35-36.

[71]See DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 43-44.

[72]See DOD Supplemental Testimony, DOD-T3 (Ralph C. Smith) at 8-11.

2.

LOL

LOL was granted Participant status to comment on the reasonableness of HECO's proposed tariffs, rules, and charges, specifically as to how HECO's proposed methodology for allocating costs among customer classes and HECO's rate design may impact DER in Hawaii.[73]

LOL does not appear to take a clear position regarding how HECO's rate design may impact DER in Hawaii, and instead submitted a wider-ranging commentary on the benefits of an unbundled rate structure for Hawaii.[74]

3.

EFCA

EFCA was granted Participant status to comment on the reasonableness of HECO's proposed tariffs, rules, and charges, specifically as to how HECO's proposed methodology for allocating costs among customer classes and HECO's rate design may impact DER in Hawaii.[75]

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[73]See Order No. 34721 at 6-7.

[74]See generally, LOL Direct Testimony, LOL-T-1 (Henry Q. Curtis).

[75]See Order No. 34721 at 6 and 8.

EFCA opposes the demand ratchet component of HECO's rate design, particularly as it applies to Schedules J, P, TOU-J and TOU-P.[76] Specifically, EFCA argues that HECO's demand ratchets: (1) are not cost-based and send a distorted price signal; (2) create barriers for adoption of DERs; and (3) are inconsistent with Hawaii's 100% RPS targets and HECO's clean energy objectives.[77] EFCA's objections to HECO's proposed rate design are discussed further, below, in Section II.C.7.

4.

HPVC

HPVC was granted Participant status to comment on: (1) the reasonableness of HECO's proposed operating expenses and proposed rate base, specifically regarding the prudence and reasonableness of costs and expenses attributed to DER; and (2) the reasonableness of HECO's proposed tariffs, rules, and charges, specifically as to how HECO's proposed methodology for allocating costs among customer classes and HECO's rate design may impact DER in Hawaii.[78]

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[76]See EFCA Direct Testimony, EFCA Exhibit-1 (Julia M. Johnston) at ES-1.

[77]See EFCA Direct Testimony, EFCA Exhibit-1 (Julia M. Johnson) at ES-2 to ES-3.

[78]See Order No. 34721 at 6 and 8.

HPVC ultimately concludes that "HECO has not largely NOT [sic] attributed operating costs or rate base to DERs[,]" and thus, it is not possible for HPVC to reach a conclusion as to whether HECO's alleged DER costs are prudent or reasonable.[79] Regarding HECO's rate design, HPVC observed that HECO's proposed rate design would allocate its revenue requirement increase equally across its major rate schedules with no specific allocation of specific costs to DER customers. HPVC concludes that, in the event HECO were to attempt to allocate specific costs to DER customers, this would not be supported by HECO's class cost of service study.[80] HPVC also raises general concerns over the negative impact HECO's proposed increase in the minimum charge could have on the growth of DER in Hawaii, particularly as it affects a customer's financial calculations in determining whether to adopt DER.[81]

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[79]See HPVC Direct Testimony, HPVC Exhibit-6 (Pamela G. Morgan) at 24. Notwithstanding HPVC's use of the double negative, the commission reasonably presumes from the context of Ms. Morgan's testimony that the above sentence is intended to convey that HECO has not attributed operating costs or rate base to DERs.

[80]See HPVC Direct Testimony, HPVC Exhibit-6 (Pamela G. Morgan) at 4 and 24.

[81]See HPVC Direct Testimony, HPVC-Exhibit 1 (Mark Duda) at 4-5; and HPVC-Exhibit 2 (Kelly Crandall) at 3-8.

5.

Blue Planet

Blue Planet was granted Participant status to comment on the reasonableness of HECO's proposed tariffs, rules, and charges, specifically regarding HECO's proposed revisions to the ECAC and RAM.[82]

Blue Planet proposes a number of modifications to the ECAC, including: (1) incorporating a risk-sharing feature to incentivize HECO to better manage its fossil fuel use and costs; (2) winding down fossil fuel use over the 25 years; and (3) eliminating the heat rate adjustment. Blue Planet does not take a position on HECO's proposed modifications to the RAM.[83]

Blue Planet argues that incorporating a risk-sharing element to the ECAC is consistent with HRS § 269-16 and guidance provided by the commission, and proposed several mechanisms for the commission to consider.[84] Blue Planet's risk-sharing proposal has been explored by the commission, was specifically designated as part of the Amended Statement of Issues,[85] and is addressed in detail in Section II.B., below.

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[82]See Order No. 34721 at 6 and 8.

[83]Blue Planet Direct Testimony (Ronald J. Binz) at 7.

[84]See Blue Planet Direct Testimony (Ronald J. Binz) at 7-12 and 18-24.

[85]See Order No. 35219 at 10.

II.

DISCUSSION

A.

The Parties' Settlement Agreements

Through Interim D&O 35100, as modified by Order Nos. 35229 and 35335, the commission has approved, in many respects, the provisions of the Parties' November 2017 and March 2018 Settlements. The commission, in Interim D&O 35100, did not accept all of the provisions of the November 2017 Settlement and made several downward adjustments to the Parties' Settlement for the purposes of determining interim rates.[86] However, these downward adjustments, as well as the Deferred Issues identified in Interim D&O 35100,[87] have been addressed and resolved in the Parties' March 2018 Settlement.[88]

Specifically, the March 2018 Settlement addresses and resolves all of the Amended Statement of Issues, as set forth in Order No. 35281 (with the express exception of Amended sub-Issue No. 4(a)) as follows:

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[86]See Interim D&O 35100 at 1-2 and 64-65.

[87]See Interim D&O 35100 at 58-62.

[88]Regarding Amended sub-Issue No. 4(a), the Parties have agreed that the commission shall resolve this issue based on the existing record, with no evidentiary hearing or further briefing from the Parties. See March 2018 Settlement at 3.

Amended Issue No. 1(a): Whether and to what extent the interim adjustment regarding amortization of the excess pension contribution balance should be incorporated into the Final Decision and Order.

The March 2018 Settlement incorporates, for purposes of HECO's final rates, the commission's adjustment to HECO's interim rates arising from HECO's oversight in neglecting to begin amortizing its excess pension contribution balance in 2011.[89] Per HECO's proposal, as modified by the Consumer Advocate, HECO will use the balance of the excess contributions to offset its net periodic pension cost ("NPPC") each year to the minimum contribution amount required by the federal Employment Retirement Income Security Act ("ERISA").[90]

In addition, the Parties concur that some corresponding revisions to the pension tracking mechanism are necessary.[91] The commission finds these proposed revisions to be reasonable, but

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[89]See Interim D&O 35100 at 23-28.

[90]See HECO response to PUC-HECO-IR-18, filed February 23, 2018; and March 2018 Settlement, Exhibit 1 at 18. HECO anticipates that the entire excess pension contribution balance will be utilized during the first year (i.e., 2018); accordingly, one-third of the balance, $6,470,000, will be included in HECO's average rate base for the 2017 Test Year, to reflect this use of the excess pension contribution balance over HECO's triennial rate case cycle.

[91]See HECO response to PUC-HECO-IR-27, filed February 28, 2018; and CA response to PUC-CA-IR-4, filed February 26, 2018.

observes that there is some ambiguity regarding the extent of the stipulated revisions.[92] Accordingly, HECO shall collaborate with the Consumer Advocate to clarify this ambiguity and submit a proposed, revised draft of the pension tracking mechanism, with markup and revisions noted, for the commission's review and approval within thirty (30) days of this Final Decision and Order.[93]

The Parties have stipulated to this treatment of HECO's excess pension contribution;[94] furthermore, upon review, the commission notes that the Parties' stipulated method for addressing the excess pension contribution appears to be reasonable, as it will reduce HECO's NPPC, which should translate into lower costs that are ultimately recovered from ratepayers.

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[92]While the Parties have stipulated to revisions to part 3 of the pension tracking mechanism, the record is unclear as to whether the Parties have reached an agreement regarding HECO's proposed revisions to part 2 of the pension tracking mechanism. See March 2018 Settlement, Exhibit 1 at 3-4 (referring to the Consumer Advocate's response to PUC-CA-IR-4, filed February 26, 2018, and reflecting consensus as to the Consumer Advocate's proposed changes to part 2 of the pension tracking mechanism); but see HECO response to PUC-HECO-IR-27, filed February 28, 2018 (proposing a revision to part 2 of the pension tracker).

[93]As noted below in Section II.C.5, the commission is also approving revisions to the pension tracking mechanism to account for modifications related to accounting changes required by the Financial Accounting Standards Board's ("FASB") ASU 2017-07. Accordingly, HECO's revised pension tracking mechanism should reflect revisions for both of these approved changes.

[94]March 2018 Settlement, Exhibit 1 at 18.

Amended Issue No. 1(b)-(c): What is the adjustment amount necessary to return to ratepayers the full effect of benefits related to the pension and OPEB Tracker Adjustment, as originally set forth in Interim D&O 35100; and whether, and to what extent, the regulatory asset proposed by HECO to address the corresponding changes to accounts affected by the pension and OPEB Tracker is appropriate in light of Order No. 35229, which withdrew the pension and OPEB Tracker Adjustment.

The March 2018 Settlement provides a Customer Benefit Adjustment of $25,395,000 to replace the Pension and OPEB Tracker Adjustment the commission initially imposed in Interim D&O 35100, as required by Order No. 35229. As set forth in HECO's Supplemental Testimony, HECO estimated the total amount necessary to return to customers the full effect of the benefits related to the Pension and OPEB Tracker Adjustment to be $25,395,000. To reach this figure, HECO compared the calculated pension regulatory asset/OPEB regulatory liability recorded in HECO's books as of December 15, 2017 (the date of Interim D&O 35100) with the calculated pension regulatory asset/OPEB regulatory liability included in Interim D&O 35100, which resulted in a difference of $35,525,000. HECO then reduced this figure by the amount of the plant additions regulatory asset the commission approved in

Interim D&O 35100,[95] which was calculated as $10,130,000, resulting in a net Customer Benefit amount of $25,395,000.[96]

In essence, HECO compared its calculated pension and OPEB regulatory asset/liability balances recorded in its books (which did not incorporate any adjustments for its 2014 abbreviated rate case filings) with the pension and OPEB regulatory asset/liability balances reflected in Interim D&O 35100 (which incorporates the commission's downward adjustments resulting from HECO's 2014 abbreviated rate case filing pledge to "forgo" a rate increase) to reach the figure associated with the Pension and OPEB Tracker Adjustment. HECO then reduced this figure by the plant additions regulatory asset amount, (which HECO had proposed in order to address the corresponding effects the Pension and OPEB Tracker Adjustment would have on various plant additions accounts and which the commission approved in Interim D&O 35100), thus reaching a net Customer Benefit amount of $25,395,000.[97]

The parties have stipulated to this amount in the March 2018 Settlement;[98] furthermore, upon review, HECO's method

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[95]See Interim D&O 35100 at 39-41.

[96]See HECO Supplemental Testimony, HECO ST-17 (Patsy H. Nanbu) at 14-15.

[97]Thus, this $25,395,000 figure is intended to reflect what ratepayers "would have received" under the initial Pension and OPEB Tracker Adjustment as set forth in Interim D&O 35100.

[98]March 2018 Settlement, Exhibit 1 at 18.

of determining the net Customer Benefit associated with the Pension and OPEB Tracker Adjustment appears to be reasonable.

Amended Issue No. 1(d): What is the appropriate mechanism to return to ratepayers the full effect of benefits related to the pension and OPEB Tracker Adjustment.

HECO proposes to implement the Customer Benefit associated with the Pension and OPEB Tracker Adjustment by amortization over the rate effective periods for this rate case and the 2020 test year rate case. Specifically, HECO states that it will maintain the interim "hold-back" downward adjustment of $6 million[99] as part of its 2017 Test Year determination of final rates, which will have the effect of returning to customers $6 million a year over the next three years (based on HECO's triennial rate case cycle). At HECO's next rate case (based on a 2020 test year), the remaining balance of the Customer Benefit amount[100] will be re-amortized over the next three years, so as to

[99]HECO clarifies that the actual adjustment amount will be $5,467,000, but that this figure is grossed up to $6 million when revenue taxes are taken into account). HECO Supplemental Testimony, HECO ST-2 (Joseph P. Viola) at 19-20.

[100]The unknown exact filing date of HECO's 2020 test year rate case application means that the Customer Benefit "balance" to be re-amortized over HECO's 2020 test year rate case cycle will need to be determined at the time of HECO's 2020 test year rate case filing and may not reflect the estimated figures used in HECO's Supplemental Testimony for illustrative purposes. See HECO Supplemental Testimony, HECO ST-2 (Joseph P. Viola) at 20.

be fully returned to ratepayers by the end of the next rate case cycle (i.e., fully amortized by 2023).[101]

The Parties have stipulated to this amount in the March 2018 Settlement;[102] furthermore, upon review, HECO's method of returning the net Customer Benefit associated with the Pension and OPEB Tracker Adjustment to ratepayers appears reasonable, given that the full amount of benefits should be passed on to ratepayers by 2023.

Amended Issue No. 1(e): Whether any adjustments should be made regarding the prudence of components of HECO's target revenue, including estimated increases to plant.

The March 2018 Settlement reflects HECO's objection to the commission's $5 million baseline plant additions hold-back and maintains that all of HECO's O&M expenses and capital expenditures, including baseline plant additions, have been reasonable and prudent.[103] Nevertheless, for purposes of resolving "Amended Issues 1-4," HECO has stipulated to a $5 million "Customer Benefit Adjustment #2" to its 2017 Test Year.[104]

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[101]See HECO Supplemental Testimony, HECO ST-2 (Joseph P. Viola) at 19-20.

[102]March 2018 Settlement, Exhibit 1 at 18.

[103]See March 2018 Settlement, Exhibit 1 at 19.

[104]March 2018 Settlement, Exhibit 1 at 19.

Noting the non-specific nature of HECO's Customer Benefit Adjustment #2 and HECO's objections to the Interim D&O 35100 baseline plant additions hold-back, the commission observes that the practical effect of HECO's Customer Benefit Adjustment #2 is to provide ratepayers with the equivalent effect of the commission's interim adjustment (i.e., a $5 million downward adjustment to HECO's revenue requirement).

The baseline plant additions hold-back set forth in Interim D&O 35100 was intended for interim purposes, and the ultimate amount of revenue reduction, if any, was subject to further examination and possible modification pending the outcome of a prudency review of HECO's baseline plant additions, including an evidentiary hearing, which was scheduled for March 12-16, 2018.[105] In weighing the reasonableness of HECO's Customer Benefit Adjustment #2, the commission takes into account: (1) the expediency of reaching a settlement on this issue (including the waiver of an evidentiary hearing); (2) the certainty of HECO's offer of a customer benefit adjustment, in the amount of the interim hold-back, for purposes of determining final rates; and (3) the magnitude of the proposed Customer Benefit Adjustment #2. Based on these considerations, the commission finds that HECO's Customer Benefit Adjustment #2 is reasonable, as it

[105]See Interim D&O 35100 at 55-57.

will conserve resources, facilitate a timely resolution of this proceeding, and provide an agreed-upon downward adjustment in rates for ratepayers.

Nevertheless, as discussed in the interim order, the commission remains concerned with the significant increases to various 2017 Test Year expenses and plant additions, which have increased at rates substantially in excess of the rate of inflation since HECO's 2011 test year rate case, despite declining sales during that same time period.[106] Unless these trends are arrested, continued growth in expenses and plant additions could ultimately impose a burden upon the Company and its ratepayers. The commission intends to continue to address this issue in ongoing and future proceedings. In future rate cases, the commission fully expects HECO to demonstrate in its filings that it is exercising diligence with respect to cost control for both its O&M expenses and its plant additions.

Amended Issue No. 2: The determination of HECO's ROE for purposes of the Final Decision and Order.

The March 2018 Settlement affirms a stipulated ROE of 9.50% for HECO.[107] This is the ROE to which the Parties stipulated for purposes of interim rates, as reflected in the

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[106]See Interim D&O at 41-49.

[107]March 2018 Settlement, Exhibit 1 at 19.

November 2017 Settlement.[108] While the November 2017 Settlement indicated that the Parties had stipulated to a 9.50% ROE for interim purposes only, the March 2018 Settlement states that the Parties now stipulate to a 9.50% ROE for purposes of determining HECO's final rates.[109]

The commission notes that the stipulated 9.50% ROE represents a decrease from HECO's earlier position, in which it maintained that its ROE for purposes of setting final rates should be 10.60% in its Application, and later 9.75% in the November 2017 Settlement.[110] An ROE between 9.5-9.75% is within the range of the estimates included in the testimonies filed by HECO and the Consumer Advocate;[111] in addition, the commission takes administrative notice that an ROE of 9.50% was approved for

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[108]See November 2017 Settlement, Exhibit 1 at 90-91; see also, HECO Statement of Probable Entitlement at 1.

[109]See March 2018 Settlement, Exhibit 1 at 19.

[110]See Application at 6; and November 2017 Settlement at 1.

[111]See HECO Supplemental Testimony, HECO ST-28 (Robert B. Hevert), HECO ST-28A (Dr. Michael J. Vilbert), HECO ST-28B (Adrien M. McKenzie), and HECO ST-29 (Tayne S. Y. Sekimura); and CA Direct Testimony, CA-T-4 (Stephen G. Hill) and CA Simultaneous (Supplemental) Testimony, CA-ST-4 (Stephen G. Hill).

purposes of establishing interim rates for HELCO, one of HECO's subsidiary utilities, in Docket No. 2015-0170.[112]

Upon reviewing the record in this proceeding, the commission finds that the Parties' stipulation on a 9.50% ROE is the result of earnest and good faith negotiation by the Parties and falls within the range developed and supported by the Parties' testimonies and exhibits. Accordingly, the Parties' stipulated ROE of 9.50%, resulting in an overall rate of return on HECO's average rate base for its 2017 Test Year of 7.57%, is fair and reasonable.[113]

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[112]See In re Hawaii Elec. Light Co., Inc., Docket No. 2015-0170, Interim Decision and Order No. 34766, filed August 21, 2017, at 18-26.

[113]The ROR on average rate base is determined by two primary components: the ROE and capital structure. In the November 2017 Settlement, the Parties agreed to a capital structure of: 1.18% short-term debt, 39.59% long-term debt, 1.22% hybrid securities, 0.90% preferred stock, and 57.10% common equity. See November 2017 Settlement, Exhibit 1 at 90 and the attached HECO T-29, Attachment 1 ("In order to reach an overall settlement of all issues except for the ROE issue, . . . the Parties agree that (1) the fair rate or return on rate base shall be determined using the adjusted capital structure, and debt and preferred stock cost rates, included in HECO T-29 Attachment 1, provided herein . . . ."); see also March 2018 Settlement, Exhibit 1 at 19 (". . . [T]he Parties now stipulate to an ROE of 9.50% for purposes of determining the fair rate of return on rate base, assuming that the agreements included in the [November 2017] Settlement concerning the Company's adjusted capital structure, and debt and preferred stock rates remain intact.").

As noted in the November 2017 Settlement, an ROE of 9.50%, combined with the stipulated capital structure, results in an ROR of 7.57%. See November 2017 Settlement, Exhibit 1 at 90; see also, March 2018 Settlement, Exhibit 2.

Amended Issue No. 3: Whether HECO's On-Cost Accounting policy changes should be approved, on a prospective basis, and what, if any, credits or refunds should be required regarding the impacts of the unapproved accounting changes commencing in the year 2014.

The March 2018 Settlement provides that: "(1) the Company's On-Cost Accounting Policy changes should be approved on a prospective basis, and (2) no refunds or credits are required."[114] In Order No. 35335, approving the March 2018 Settlement, the commission stated in regards to this provision that "no further refunds or credits will be required by the commission regarding past implementation of HECO's On-Cost Accounting Policy changes in subsequent annual RBA and/or RAM adjustments."[115] However, the commission reserved as an unresolved matter for further consideration HECO's On-Cost Accounting policy change as it pertains to future cost recovery for the SGS project in Docket No. 2017-0213 "to ensure that expenses recovered through the MPIR mechanism for the SGS [p]roject are, in fact, costs properly attributable to the SGS project and that there is no double recovery of costs through the MPIR mechanism."[116]

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[114]March 2018 Settlement, Exhibit 1 at 19.

[115]Order No. 35335 at 12.

[116]Order No. 35335 at 12.

In conjunction with the commission's findings in Order No. 35335, the commission finds that the Parties' stipulation regarding HECO's On-Cost Accounting Policy change is reasonable.

Amended Issue No. 4(a): What, if any, modifications to the ECAC proposed by Blue Planet should be implemented.

As stated in the March 2018 Settlement, and as clarified in HECO's response to PUC-HECO-IR-51, the Parties have stipulated to allow the commission to resolve this sub-issue based on the record in this proceeding, and as supplemented by any subsequent commission IRs.[117]

The commission's resolution of this issue is addressed, below, in Section II.B.

Amended Issue No. 4(b): What, if any, modifications to the ECAC tariff language proposed in HECO's Statement of Probable Entitlement should be implemented.

The commission approved HECO's proposed ECAC tariff language that HECO originally submitted as part of its Statement of Probable Entitlement for interim rate purposes in Order No. 35372.[118] While the commission agreed with the intent and

[117]See March 2018 Settlement, Exhibit 1 at 19; and HECO Response to PUC-HECO-IR-51, filed March 7, 2018.

[118]See Order No. 35372, "Approving Revised Tariff Sheets Filed March 16, 2018," filed March 29, 2018 ("Order No. 35372"), at 8.

effect of HECO's ECAC tariff revisions, the commission noted in Order No. 35372 that it has some concerns regarding the tariff language, which the commission intends to re-visit as part of the review and approval of HECO's ECRC; i.e., Amended sub-Issue No. 4(c).[119]

In particular, the commission has concerns regarding how the revised triggers for re-determination of the ECAC heat rate are set forth in HECO's revised March 2018 Tariffs. However, as noted in Order No. 35372, and as discussed below, the commission intends to address this concern as part of the ongoing process of reviewing and approving the new ECRC tariff.

Amended Issue No. 4(c): What, if any, modifications to the ECAC to implement the separation and transfer of fuel and purchased energy costs from base rates into an appropriate energy cost adjustment mechanism should be implemented.

In the November 2017 Settlement, the Parties noted that the commission, in Docket No. 2013-0141, directed HECO to separate and remove all test year fuel and purchased energy expenses from base rates, with recovery of these costs to occur through an appropriately modified energy cost adjustment mechanism in HECO's next rate case.[120] Subsequently, in response to IRs issued by the

[119]See Order No. 35372 at 8.

[120]See November 2017 Settlement, Exhibit 1 at 10-11.

Consumer Advocate, HECO submitted a proposed draft of its ECRC tariff language.[121] In its Supplemental Testimony, HECO confirmed that it had "further developed and described the implementation of the energy expense separation in its responses to CA-IR-600, CA-IR-601, CA-IR-602, and CA-IR-603, filed January 29, 2018, in this proceeding[,]" by which HECO "proposes to modify the ECAC to be the [ECRC], which recovers the combined total of the fuel and purchased energy costs that were formerly recovered in base rates and the ECAC[.]"[122]

HECO proposes to "implement the transfer and separation of fuel and purchased energy costs from base rates into the proposed ECRC three months after final rates from this rate case are put into effect."[123] HECO states that this is for the benefit of ratepayers, as it will provide HECO with more time to better illustrate that no bill impact results from the ECRC.[124]

In the March 2018 Settlement, the Parties refer to HECO's responses to the Consumer Advocate's IRs and HECO's testimony for

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[121]See HECO Response to CA-IR-600, filed January 29, 2018.

[122]HECO Supplemental Testimony, HECO ST-30 (Peter C. Young) at 12-13.

[123]HECO Supplemental Testimony, HECO ST-30 (Peter C. Young) at 13.

[124]HECO Supplemental Testimony, HECO ST-30 (Peter C. Young) at 13.

details regarding the process and implementation of the ECRC.[125] The Parties state that HECO is "not aware of any 'show-stopper' issues to implementation, provided that sufficient time and resources are available to implement, and the Commission substantially finds that the form of these changes is appropriate."[126] In addition, the March 2018 Settlement affirms that the energy-expense separation will be implemented in a manner so as to not impact: (1) revenue allocation and cost-of-service established for rate classes; and (2) effective rates billed per kW and per billed kWh and on individual customer bills.[127] In sum, the Parties agree that HECO's proposed ECRC resolves Amended sub-Issue No. 4(c).

Notwithstanding HECO's proposed ECRC tariff submitted in response to CA-IR-600, the commission finds that in light of the commission's resolution of Amended sub-Issue No. 4(a), discussed below, as well as other practical concerns inherent with implementing a new tariff, further discussion, collaboration, and review are required prior to approving HECO's ECRC tariff. Further guidance on the development of the ECRC is provided, below, in Section II.B.4.

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[125]See March 2018 Settlement, Exhibit 1 at 17.

[126]March 2018 Settlement, Exhibit 1 at 17.

[127]March 2018 Settlement, Exhibit 1 at 17.

Amended Issue No. 5: What, if any, adjustments are necessary as a result of the 2017 Tax Act.

In response to Order No. 35220, HECO submitted its estimates regarding the impacts of the 2017 Tax Act on January 31, 2018. Thereafter, in their Supplemental Testimonies, HECO, the Consumer Advocate, and the DOD provided testimony discussing how HECO should return resulting benefits to customers.[128] Notwithstanding disputes in their Supplemental Testimonies, HECO and the Consumer Advocate were able to reach an agreement in the March 2018 Settlement as to the regulatory treatment of the impacts of the 2017 Tax Act.

Specifically, the Parties, in the March 2018 Settlement, reached the following agreement as to how the impacts of the 2017 Tax Act should be timely passed on to ratepayers:

> 1. Interim rates should be adjusted as soon as administratively practical, to reflect the reduced 21 percent Federal tax rate, based upon taxable income under proposed rates upon resolution of the Amended Issues in this proceeding. This calculation shall reflect the loss of the DPAD deduction and the reduced value of the preferred stock dividend deduction.
>
> 2. Interim rates shall also reflect the revenue requirement reduction impact of amortizing over a 15-year period the Company's

[128] See HECO Supplemental Testimony, HECO ST-26 (Lon K. Okada); CA Simultaneous (Supplemental) Testimony, CA-ST-2 (Michael L. Brosch); and DOD Supplemental Testimony, DOD T-3 (Ralph C. Smith) at 8-11.

Plant-related excess [Accumulated Deferred Income Tax ("ADIT")] balances at December 31, 2017, that are not subject to Average Rate Assumption Method ("ARAM") normalization accounting restrictions. For those excess ADIT balances that are subject to ARAM normalization, ratemaking and financial accounting amortization will be delayed until more accurate quantification of such amounts can be determined in future rate cases.

3. Interim rates shall also reflect the revenue requirement reduction impact of amortizing over a 5-year period the Company's other excess ADIT balances at December 31, 2017, that are not Plant-related and therefore not subject to [ARAM] normalization accounting restrictions.

4. Interim rates shall also reflect the revenue requirement reduction impact of amortizing over a 3-year period the accumulated "Daily Revenue Impact" of [the 2017] Tax Act net savings from January 1, 2018 to the effective date of such reduced Interim rates, using the $63,036 per day value calculated by the Consumer Advocate (as corrected by *Division of Consumer Advocacy's Errata to Simultaneous Testimonies and Exhibits regarding the Amended Statement of Issues Filed on February 14, 2018*, filed on February 27, 2018) applied to the number of days between January 1 and the effective date of reduced Interim rates.

5. The Hawaiian Electric Companies will not record any amortization of excess ADIT regulatory liability balances until such amortization is affirmatively reflected within a Commission rate order. The amount of recorded amortization for financial accounting purposes in future periods will match the amounts recognized in PUC rate orders.

6. The Hawaiian Electric Companies will include all unamortized excess ADIT regulatory

liability balances in rate base in future rate cases and RAM filings until such amounts are fully amortized, and incorporate the effects of the loss of bonus depreciation on ADIT in rate base in future rate cases and RAM filings. The unamortized excess ADIT regulatory liability balance will be an element of rate base subject to adjustment in the RAM filings.

7. The rate base of Hawaiian Electric Company will be increased to account for the reduction in ADIT balances within the 2017 test year arising from the estimated loss of bonus depreciation, commencing September 27, 2017.[129]

In Order No. 35335, the commission found, in relevant part, that the March 2018 Settlement "[r]eturn[ed] to ratepayers, immediately, the reasonably calculable impacts of the [2017 Tax Act], effective as of January 1, 2018, representing a net downward adjustment of approximately $38,306,000 to HECO's revenue requirement."[130] Pursuant to Order No. 35372, the effects of the 2017 Tax Act were incorporated into HECO's amended interim rates, effective as of April 13, 2018.

Consistent with Order No. 35335, the commission further notes that the Parties' stipulation on this issue in the March 2018 Settlement includes a number of ratepayer benefits. In addition to reflecting the reductions that would go into effect as

[129]March 2018 Settlement, Exhibit 1 at 21-22.

[130]Order No. 35335 at 10 (citing March 2018 Settlement, Exhibit 1 at 21-23 and Exhibit 2).

a result of amended interim rates; the March 2018 Settlement also adopts the Consumer Advocate's proposal to credit, at the Consumer Advocate's calculated rate of $63,036 per day, the impacts of the 2017 Tax Act from January 1, 2018 (when the law went into effect), which HECO had earlier contested.[131]

In addition, the March 2018 Settlement also reflects agreement by the Parties on the treatment of the non-average rate assumption method category of excess ADIT. Previously, HECO had proposed to amortize its non-ARAM excess ADIT over a period of thirty-six years, while the Consumer Advocate had proposed an amortization period of ten years.[132] The stipulated fifteen-year amortization period represents a reasonable compromise. Likewise, the other 2017 Tax Act-related stipulations in the March 2018 Settlement appear reasonable, as they are generally undisputed by the Parties and appear to balance the intent to flow through to ratepayers the benefits of the 2017 Tax Act in a timely manner, to the extent such impacts can be reasonably estimated.[133] Certain

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[131]See HECO response to PUC-HECO-IR-32, filed March 2, 2018 (stating that HECO is willing to flow back reductions due to the 2017 Tax Act beginning February 16, 2018, at the earliest. While HECO's response states "February 16, 2016, the commission reasonably assumes that HECO meant "February 16, 2018.").

[132]See HECO Supplemental Testimony, HECO ST-26 (Lon K. Okada) at 12; and CA Simultaneous (Supplemental) Testimony, CA-ST-2 (Michael L. Brosch) at 22.

[133]For example, the Parties agree that HECO's category of ARAM excess ADIT cannot be reasonably calculated at this time, pending

impacts are not reasonably calculable at this time, and the Parties have agreed to defer resolution to future rate cases.[134]

Taken as a whole, the commission finds that the Parties' March 2018 Settlement presents a reasonable and meaningful compromise that resolves Amended Issue No. 5. Pursuant to Order Nos. 35335 and 35372, the March 2018 Settlement will result in approximately $38,306,000[135] in benefits to ratepayers, which are currently reflected in HECO's second interim rates, which took effect on April 13, 2018. The commission affirms its finding of reasonableness on this issue and that such benefits should continue to be reflected in HECO's final rates.

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implementation of its PowerTax software, which is scheduled to take place in October 2018. See March 2018 Settlement, Exhibit 1 at 21; and HECO Supplemental Testimony, HECO ST-26 (Lon K. Okada) at 10.

[134]See March 2018 Settlement, Exhibit 1 at 21.

[135]This figure does not include the estimated $6,430,000 in ratepayer benefits attributable to the 2017 Tax Act "implementation lag," which credits the net savings of the 2017 Tax Act from January 1, 2018, at a rate of $63,036 per day. The Parties have agreed to amortize this amount over a three-year period, resulting in an annualized reduction of $2,143,000. See March 2018 Settlement, Exhibit 1 at 22; and HECO March 2018 Tariffs, Attachment 1 at 1.

B.

Remaining Contested Amended Sub-Issue No. 4(a)

As noted above, the Parties have settled on all the issues except for Amended sub-Issue No. 4(a):

> What, if any, modifications to the ECAC should be implemented, including, but not limited to . . . [t]he modifications proposed by Blue Planet[.][136]

Pursuant to the Parties' March 2018 Settlement, the Parties have waived their right to an evidentiary hearing on this sub-Issue and the commission will resolve this sub-Issue based on the existing record, as supplemented by commission IRs, Blue Planet's hearing exhibits, and HECO's responsive materials.[137]

1.

Blue Planet's Proposed Modifications To The ECAC

Blue Planet offered several recommendations in its Direct Testimony, including:

> 1. The commission should modify the ECAC to fairly share the risk between customers and HECO, giving HECO "skin in the game" with respect to managing fossil fuel use and costs and moving to

[136]Order No. 35281 at 22.

[137]See March 2018 Settlement at 1 and Exhibit 1 at 19; HECO response to PUC-HECO-IR-51, filed March 7, 2018; Order No. 35366, "Granting Blue Planet Foundation's Motion for Leave to File a Motion to Admit Its Hearing Exhibits into Evidence, and Granting Its Motion to Admit Its Hearing Exhibits into Evidence," filed March 23, 2018; and "Hawaiian Electric Response to Blue Planet Hearing Exhibits," filed April 10, 2018.

renewable energy. I present several potential methods that can be adopted either singly or in combination.

2. In addition to modifying the ECAC to share the risk, the Commission should also adopt a mechanism under which the ECAC for fossil fuels would be phased down over 25 years, by 2042.

3. The commission should eliminate the heat rate adjustment in the ECAC. While such an adjustment was undoubtedly useful at one time, the incentives it provides are not consistent with a move toward deep penetration of variable generation like solar and wind.[138]

Blue Planet identified three options to implement the first two of these recommendations. Summarized briefly:

Option A: "[T]he ECAC could be modified to pass through only part of the increases and decreases of fuel costs."[139]

Option B: "[P]ass through only those increases or decreases that exceed a certain threshold"[140]

Option C: "[C]onsider phasing out the ECAC [for fossil fuels] over 25 years"[141]

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[138]Blue Planet Direct Testimony (Ronald J. Binz) at 7. Blue Planet included a fourth recommendation stating no position on HECO's proposal to modify the RAM.

[139]Blue Planet Direct Testimony (Ronald J. Binz) at 19.

[140]Blue Planet Direct Testimony (Ronald J. Binz) at 20.

[141]Blue Planet Direct Testimony (Ronald J. Binz) at 21-22.

Of these options, Blue Planet recommends that the commission adopt Options A and C, and eliminate the heat rate adjustment in the ECAC.[142]

In support of its recommendations, Blue Planet argues that: (a) the commission has previously acknowledged that ECAC provisions may be increasingly at odds with public policy goals and has identified this rate case as a venue for addressing this issue;[143] (b) the Hawaii Legislature has provided policy guidance to promote increased renewable energy generation, reduce reliance on fossil fuels and, with respect to any automatic fuel rate adjustment clause, a mandate to provide incentives to utilities to manage costs and encourage greater use of renewable energy, and to "[f]airly share the risk of fuel cost changes between the public utility and its customers;"[144] and (c) the existing ECAC does not sufficiently address objectives to share risk, manage costs, or increase use of renewable resources.[145]

HECO opposes the ECAC amendments proposed by Blue Planet, arguing that Blue Planet's proposals: (a) incorporate incentives that are "blunt and poorly designed" and would hold

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[142]Blue Planet Direct Testimony (Ronald J. Binz) at 27-28.

[143]Blue Planet Direct Testimony (Ronald J. Binz) at 8-10.

[144]Blue Planet Direct Testimony (Ronald J. Binz) at 10-12.

[145]Blue Planet Direct Testimony (Ronald J. Binz) at 12-18.

HECO responsible for fuel price changes that are not in the Company's control;[146] (b) would provide incentives for HECO to deviate from economic commitment and dispatch;[147] (c) would increase HECO's business risk which could negatively impact its credit quality;[148] (d) are not consistent with "dollar for dollar" cost pass through practices in a majority of states, and in those instances in other states where fuel market risk is shared with the utility, risks are smaller than those faced by HECO;[149] and (e) that the existing ECAC provisions sufficiently comply with statutory requirements and that the proposed amendments are not necessary to discourage fossil fuel use and encourage greater use of renewable energy resources.[150]

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[146]HECO Supplemental Testimony, HECO ST-2 (Joseph P. Viola) at 33 (citing HECO Supplemental Testimony, HECO ST-30 (Peter C. Young), HECO ST-30A (Kurt G. Strunk), and HECO ST-6 (Nicholas O. Paslay)).

[147]HECO response to PUC-HECO-IR-13(a), filed November 22, 2017, at 1-3; HECO Supplemental Testimony, HECO ST-2 (Joseph P. Viola) at 33 (citing HECO ST-30 (Kurt G. Strunk) and HECO ST-12 (Kevin Saito)).

[148]HECO Supplemental Testimony, HECO ST-2 (Joseph P. Viola) at 33 (citing HECO ST-29 (Tayne S. Y. Sekimura)).

[149]HECO Supplemental Testimony, HECO ST-2 (Joseph P. Viola) at 33-34 (citing HECO ST-30A (Kurt. G Strunk) and HECO Rebuttal Testimony, HECO-R-30A01).

[150]HECO Supplemental Testimony, HECO ST-2 (Joseph P. Viola) at 34 (citing HECO ST-30A (Kurt G. Strunk) and HECO Rebuttal Testimony, HECO-R-30A01).

The Consumer Advocate states that Blue Planet's proposed ECAC modifications are not appropriate, observing that: (a) Blue Planet's ECAC modifications would reward or penalize HECO for fuel price decreases and increases that are not under HECO's control;[151] (b) there are questions regarding whether the proposed modifications would result in a HECO request to increase its authorized return on equity or seek more frequent rate cases;[152] and (c) the commission has previously declined to adopt a similar proposal and has indicated its intent to consider such proposals in other venues.[153]

2.

Policy Considerations Regarding Blue Planet's Proposal

One important consideration regarding Blue Planet's proposed modifications to the ECAC is whether existing ECAC provisions appropriately and sufficiently comply with clear policy guidance and/or mandates from the Hawaii Legislature. In addition to several statutes cited by Blue Planet that provide general

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[151]CA Simultaneous (Supplemental) Testimony, CA-ST-5 (Joseph A. Herz) at 15 and 17.

[152]CA Simultaneous (Supplemental) Testimony, CA-ST-5 (Joseph A. Herz) at 14.

[153]CA Simultaneous (Supplemental Testimony), CA-ST-5 (Joseph A. Herz) at 16-17.

policy guidance promoting increased renewable energy generation, reduction of reliance on fossil fuels, and consideration of fossil fuel price volatility,[154] the Legislature addresses automatic fuel adjustment clause provisions explicitly in HRS § 269-16(g), which provides:

> (g) Any automatic fuel rate adjustment clause requested by a public utility in an application filed with the commission shall be designed, as determined in the commission's discretion, to:
>
> (1) Fairly share the risk of fuel cost changes between the public utility and its customers;
>
> (2) Provide the public utility with sufficient incentive to reasonably manage or lower its fuel costs and encourage greater use of renewable energy;
>
> (3) Allow the public utility to mitigate the risk of sudden or frequent fuel cost changes that cannot otherwise reasonably be mitigated through other commercially available means, such as through fuel hedging contracts;
>
> (4) Preserve, to the extent reasonably possible, the public utility's financial integrity; and
>
> (5) Minimize, to the extent reasonably possible, the public utility's need to apply for frequent applications for general rate increases to account for the changes to its fuel costs.

[154] See Blue Planet Direct Testimony (Binz) at 10-12 (citing HRS § 269-16(g), HRS § 269-6(b), and HRS § 269-92).

This statute clearly provides policy guidance relevant to the design of HECO's ECAC provisions and includes a list of standards regarding the design of any automatic fuel rate adjustment clause.

Blue Planet argues that this statutory provision goes beyond policy guidance and is a "directly controlling mandate" requiring ECAC provisions to "fairly share" fuel cost risk, and to provide the utility with sufficient incentives.[155] By this interpretation, the modifying clause "as determined by the commission" addresses how, and not whether, the commission must ensure that ECAC provisions are designed to meet the list of standards provided in HRS § 269-16(g).

Whether following guidance or complying with a legislative mandate, the commission believes that the design of automatic fuel rate adjustment clauses (generally) and HECO's ECAC (in particular) must be in accordance with the standards provided in HRS § 269-16(g), recognizing that application of the standards requires some interpretation and involves "trade-offs,"[156] and that

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[155]"Blue Planet Foundation's Prehearing Statement of Position; Attachments 1 to 3; and Certificate of Service," filed March 5, 2018 ("PSOP"), at 3.

[156]For example, HECO and the Consumer Advocate assert that HECO's financial integrity could be affected by shifts in fuel cost risk to HECO. See HECO Rebuttal Testimony, HECO RT-29 (Tayne S. Y. Sekimura) at 19-34; HECO Supplemental Testimony,

ECAC provisions and proposed modifications must be consistent with precedents established by this commission or supported by substantial filed evidence.

Having clarified that HECO's ECAC must comply with the standards identified in HRS § 269-16(g), pertinent remaining contested questions are: (1) whether HECO's existing ECAC provisions appropriately and sufficiently comply with the standards; and (2) whether Blue Planet's proposed alternatives are more appropriate. Blue Planet argues that existing ECAC provisions do not comply, and that modifications are both appropriate and required. HECO argues that existing ECAC provisions sufficiently comply with requirements, and that the proposed amendments are not necessary or appropriate.

One principal argument offered by both HECO and the Consumer Advocate is that the existing ECAC incentives are appropriate because they address matters over which the Company has direct control (i.e., system operation "heat rate" efficiency), as opposed to the mechanisms proposed by Blue Planet, which would share fuel price risks that are not under utility management control.[157] HECO argues that "[t]he Company

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HECO ST-30 (Peter C. Young) at 7-8; and CA Simultaneous (Supplemental) Testimony, CA-ST-5 (Joseph A. Herz) at 11-17.

[157]HECO Supplemental Testimony, HECO ST-2 (Joseph P. Viola) at 33 ("The proposed changes would make the Company responsible for fuel price changes over which it has no control. The utility

participates in international fuel markets only as a price-taker and has no control over international fuel markets."[158]

Blue Planet argues that HECO and the Consumer Advocate are mistaken in equating the system operation incentives in the ECAC heat rate mechanism with "sharing risk" as required in HRS § 269-16(g)(1) ("subpart (g)(1)").[159] In this regard, the commission agrees that some of the arguments presented by HECO and the Consumer Advocate seem to conflate two distinctly stated objectives in HRS § 269-16(g). In particular, the commission observes that the statute provides separate standards regarding fairly sharing risk, expressed in subpart (g)(1) and providing sufficient incentives, expressed in HRS § 269-16(g)(2) ("subpart (g)(2)").

The arguments made by HECO and the Consumer Advocate, that incentives in the ECAC should address matters that are within

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should bear the risk from factors that are within management control, but should not bear the risk from factors that are outside management control.") (citing HECO ST-30 (Peter C. Young), HECO ST-30A (Kurt G. Strunk) and HECO ST-6 (Nicholas O. Paslay)). The Consumer Advocate shares HECO's general arguments that the Company "is a price-taker on the fossil fuel market" and "does not have management control over fossil fuel prices on the market which supplies the fossil fuels consumed on the island." CA-ST-5 (Joseph A. Herz) at 13.

[158]HECO Supplemental Testimony, HECO ST-30 (Peter C. Young) at 4.

[159]See e.g., Blue Planet Supplemental Testimony (Ronald J. Binz) at 11-13.

HECO's control, appear more relevant to assessing compliance with subpart (g)(2). As noted above, HECO maintains that, since the Company has no control over fuel prices, the incentives incorporated into Blue Planet's proposed mechanisms are "blunt and poorly designed" and are not appropriate.[160]

However, Blue Planet does not agree, and asserts that HECO and the Consumer Advocate misconstrue the nature of the incentives in its proposed changes to the ECAC, which do not target specific actions HECO can take to control fuel prices, but rather are more general and strategic in nature:

> Blue Planet's proposed ECAC amendments are intended less to promote any "specific actions by HECO" in a narrowly directed, micro-managerial sense, than to promote an overall, basic level of attention, diligence, and motivation to manage and avoid the costs and risks of fossil fuels (and eliminate perverse incentives in the opposite direction), based on which a well-managed utility may and should continuously strive to pursue an entire range of specific actions . . . .[161]

The commission agrees with Blue Planet that providing some "skin in the game" by exposing HECO to risks in fuel cost changes would indeed provide HECO with at least some incentive to

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[160]HECO Supplemental Testimony, HECO ST-2 (Joseph P. Viola) at 33 (citing generally to HECO ST-30 (Peter C. Young), HECO ST-30A (Kurt G. Strunk), and HECO ST-6 (Nicholas O. Paslay)).

[161]Blue Planet response to PUC-BP-IR-11, filed March 2, 2018.

manage and avoid risks associated with fossil fuel price volatility, and would thus provide at least some incentive to encourage greater use of renewable energy as set forth in subpart (g)(2).[162] How effective these incentives might be, however, is difficult to determine and would depend on several factors, including the magnitude of the fuel price change risk passed through to HECO in the ECAC, and, as asserted by HECO and the Consumer Advocate, what mitigating actions are available to HECO, either in the short or long run.

Accordingly, the commission also agrees with HECO's assertion that the Company does not have control over the international fuel markets that are the predominant determinants of fuel price changes, and observes that the efficacy of ECAC incentives, however designed, is therefore limited in important respects that must be considered in addressing whether "sufficient" incentives are provided pursuant to subpart (g)(2). However, the commission finds that, to the extent Blue Planet's proposals would provide incentives to encourage greater use of

[162]The commission observes that utilization of renewable resources can result in decreased risk and volatility of fossil fuel costs, both as a result of the substantial fixed energy cost components of renewable generation resources and power purchase contracts, and due to lower resulting amounts of fossil fuel utilization.

renewable energy resources, the proposals would enhance the compliance of HECO's ECAC with subpart (g)(2).

Turning to the examination of what it means to "[f]airly share the risk of fuel cost changes between the public utility and its customers" in subpart (g)(1), the commission is not convinced by the arguments offered by HECO and the Consumer Advocate that the scope of risks to be "shared" should be limited to only those specific types of risks over which HECO has control. Nothing in subpart (g)(1) suggests that it is intended to address utility actions or performance in any way. Rather, this subpart directly and unconditionally addresses the need to fairly share the risks of fuel cost changes without distinction.

The commission observes that the "risk of fuel cost changes" to be shared in accordance with subpart (g)(1) of the statute is affected both by fluctuations in fuel prices and by the challenges of efficiently operating HECO's system. It is uncontested that the existing ECAC heat rate incentive mechanism "shares" some of the risks associated with the efficiency of operation of HECO's system between the utility and its customers under some circumstances (i.e., under circumstances where heat rates fall outside of the effective heat rate deadbands). That being said, it is also uncontested that the existing ECAC provisions pass essentially all of the risk of fuel price fluctuations to customers. In this sense, the existing ECAC

provisions do not share the risk of fuel price changes between the utility and its customers, as HECO does not currently "share" in the risks of fuel price changes.

Upon reviewing the record, the commission sees no compelling reason to limit the sharing of fuel cost change risk to categorically exclude the risk of fuel price changes. Indeed, historically, fuel price changes have been, by far, the predominant source of fuel cost changes and risks, and are expected to continue to function in this manner for the foreseeable short term.[163]

HECO argues that Blue Planet's proposals would create incentives for HECO to deviate from the most economic commitment and dispatch of its generation resources.[164] HECO argues that:

> [I]f Blue Planet's Option A is assumed as a premise, then consideration should be given to allowing Hawaiian Electric to have the flexibility to depart from the principles of economic dispatch in order to help manage the financial risks associated with fuel prices over which it has no control.[165]

The commission recognizes that applying partial adjustment to HECO's fuel expense, while providing full recovery

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[163]In the longer term, the volume of fuel required is a major component of the overall risk to customers of fuel cost changes.

[164]HECO response to PUC-HECO-IR-13(a), filed November 22, 2017, at 1-3; and HECO Supplemental Testimony, HECO ST-2 (Joseph P. Viola) at 33.

[165]HECO response to PUC-HECO-IR-13(a) at 2.

of purchased energy expense,[166] may create unintended incentives regarding the commitment, dispatch and maintenance scheduling of generation on HECO's system. However, the commission observes that this would not be the only respect in which HECO's ECAC introduces unintended system operation incentives. Existing ECAC provisions, including the heat rate efficiency incentive mechanism and deadbands, have introduced unintended incentives in light of price differentials between renewable and fossil fueled generation, as well as the need to provide operating reserves and ancillary services to accommodate variable renewable generation at the "expense" of minimizing generation heat rates. The commission emphasizes that, regardless of incentives resulting from existing or new ECAC provisions, HECO must operate its system in order to minimize costs (i.e., economic commitment and dispatch, and optimal maintenance scheduling) within the constraints of maintaining reliable service and appropriately prioritizing the commitment and dispatch of renewable generation resources.

HECO also argues that Blue Planet's proposals would increase HECO's business risk and negatively impact its credit

[166]As discussed below, consistent with HRS § 269-16.22, HECO is permitted to recover all of its approved purchase power costs, without adjustment. See Section II.B.3, infra.

quality.[167] Blue Planet acknowledges that, consistent with the provisions of HRS § 269-16(g)(4), preservation of the utility's financial integrity is an important consideration,[168] but argues that: (1) HECO's concerns are overstated and are mitigated by revisions to Blue Planet's proposals that substantially lower the resulting utility revenue exposure;[169] and (2) the revenue exposure resulting from Blue Planet's proposals would be small in comparison to total utility revenues and would, "over time, be as likely to be positive as negative."[170] Blue Planet also argues that a clearly stated policy to move HECO away from the risks of reliance on volatilely-priced fossil fuels and towards lower cost fixed-priced energy resources would reduce concerns regarding the financial impact of a relatively small fraction of revenue exposure risk.[171]

It is important to carefully consider the potential financial impacts of Blue Planet's proposals. As stated in HRS § 269-16(g)(4), the design of an automatic fuel rate adjustment clause must "[p]reserve, to the extent reasonably

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[167]HECO Supplemental Testimony, HECO ST-2 (Joseph P. Viola) at 33 (citing HECO ST-29 (Tayne S. Y. Sekimura)).

[168]Blue Planet Supplemental Testimony (Ronald J. Binz) at 14.

[169]Blue Planet Supplemental Testimony (Ronald J. Binz) at 13-15.

[170]Blue Planet Supplemental Testimony (Ronald J. Binz) at 15.

[171]Blue Planet Supplemental Testimony (Ronald J. Binz) at 15.

possible, the public utility's financial integrity." As the financial impacts resulting from Blue Planet's proposals are related to the magnitude and nature of revenue exposure resulting from the proposed changes in HECO's ECAC, the magnitude and reasonableness of financial impacts of Blue Planet's proposals were carefully considered, as discussed in Section II.B.3, below.

As noted above, Blue Planet recommends that the commission: (1) adopt its Option A (partial adjustment of ECAC revenues); (2) adopt its Option C (phasing out the ECAC mechanism for fossil fuels over 25 years); and (3) eliminate the heat rate adjustment in the ECAC.[172]

Option A is the most thoroughly examined of Blue Planet's recommendations in this proceeding. As amended in the course of this proceeding, Option A would provide for: (1) a 95% partial ECAC adjustment of variations in fuel costs, applied only to the HECO fossil-fuel expense components of the ECAC (maintaining full adjustment for purchased energy expense and renewable fuel expense); (2) a $20 million cap on annual maximum revenue exposure; and (3) an annual "reset" of the benchmark energy costs to which the partial ECAC adjustments would be applied.[173]

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[172]Blue Planet Direct Testimony (Ronald J. Binz) at 27-28.

[173]See Blue Planet Supplemental Testimony (Ronald J. Binz) at 2-7.

Although it is challenging to quantify a "fair" sharing of fuel cost risk between the utility and customers, it is evident that the current allocation of 100% fuel price risk to customers is neither fair nor compliant with the letter or intent of the applicable statutory provisions. The commission finds that amending the ECAC to provide for partial adjustment of fuel cost changes is appropriate, reasonable, and consistent with HRS § 269-16(g), provided that the magnitude of risk sharing is fair and the amount of utility revenue exposure is reasonable. As discussed below, the commission is approving revisions to the ECAC; however, as an initial implementation of a partial ECAC adjustment, the revisions will incorporate a magnitude of risk sharing and maximum annual cap on utility revenue exposure that are lower than the amounts proposed by Blue Planet. In addition, these revisions may be subject to further examination and review in HECO's next general rate case, as well as in the context of the commission's proceeding to investigate performance-based regulation mechanisms and frameworks, Docket No. 2018-0088.

Blue Planet's Option C would phase out the ECAC adjustments for fossil fuel expense over the next 25 years. Blue Planet argues that this option would "further reinforce and incentivize the move to resources with lower fuel cost and risk,

such as renewables" and would provide more "strategic" incentives that focus on the longer term.[174]

The commission will not implement a phase-out of the ECAC adjustments for fossil fuels in this proceeding as recommended by Blue Planet at this time. The commission observes that the amount of fossil fuel used by HECO is expected to decrease substantially over the next twenty years in conjunction with HECO's compliance with the existing renewable portfolio standards. In this respect, the existing standards should correspondingly reduce the magnitude and necessity of ECAC adjustments for fossil fuels.

Likewise, the commission will not implement Blue Planet's proposal to eliminate the existing heat rate efficiency incentive provisions in the ECAC. The commission observes that the deadbands applied to the heat rates in the ECAC already serve to "eliminate" the effect of the heat rate efficiency incentive provisions within the bounds of the deadbands.[175] In its reviews of the bounds of the heat rate deadbands, including review and approval of the Parties' stipulated proposed ECAC tariff revisions in this docket, the commission has allowed progressive increases in the deadbands that decrease the heat rate mechanism

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[174]See Blue Planet Direct Testimony (Ronald J. Binz) at 21-24.

[175]Within the bounds of the heat rate deadbands, fuel expenses are passed straight through to customers without incentive adjustment.

effects to a deliberately measured extent, to accommodate changing circumstances in the operation of HECO's system.

Furthermore, Blue Planet clarified that, although it recommends terminating the heat rate efficiency incentive mechanism that is currently a functional part of the ECAC, its proposed partial ECAC adjustment mechanism could be implemented in conjunction with the existing heat rate efficiency incentive provisions.[176] The commission is thus not persuaded that elimination of the heat rate efficiency incentive is warranted at this time. The commission's approval of a partial ECAC adjustment of fossil fuel expense is intended to complement, not replace, the existing heat rate efficiency mechanism.

In approving these modifications to the ECAC, the commission is aware that it has, in the past, relied solely on the ECAC heat rate incentive mechanism to address the statutory provisions in HRS § 269-16(g) regarding sharing risk between the utility and its customers.[177] However, circumstances have changed and warrant further regulatory examination of this issue. For example, in the intervening years, the statutory requirement for the use of renewable resources has increased, notably by

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[176]See Blue Planet response to PUC-BP-IR-7, filed March 2, 2018.

[177]See e.g., Docket 2006-0386, HECO rate case for Test Year 2007, and Docket 2010-0080, HECO rate case for Test Year 2011.

establishing new RPS targets of 30% by 2020, 40% by 2030 (unchanged), 70% by 2040, and 100% by 2045.[178]

Another specific change is the implementation of, and progressive increases in, the heat rate deadbands in the ECAC mechanism. The deadbands were implemented to address, to some degree, the need for HECO to operate its system in a manner that is not consistent with minimization of heat rates in order to accommodate and maximize utilization of variable renewable generation. One effect of implementing the deadbands, however, is reduction in the extent to which any fuel cost risk is shared between the utility and customers. Within the range of the deadband, all operation risk (as well as all fuel price risk) is passed on to customers. With the progressive increases in the magnitude of the heat rate deadbands anticipated for the Hawaiian Electric Companies, the degree to which the ECAC heat rate mechanism shares risks with the utility is being eroded, providing further impetus for a new risk-sharing mechanism.

3.

Determining The Magnitude Of Partial ECAC Adjustment

Blue Planet's proposal for partial adjustment of increases and decreases in fuel costs in the ECAC (i.e., Option A)

[178]See generally, HRS Chapter 269, Part IV.

was presented generally and supported in conceptual terms in its Direct Testimony. The percentage proportion of partial adjustment, potential magnitude of revenue exposure, and several aspects of implementation of partial adjustment were not initially firmly specified and/or substantially supported. In response to Rebuttal and Supplemental Testimony and IRs, Blue Planet supplemented and amended its proposal, specified several implementation details, and provided supporting analysis.

In its Direct Testimony, Blue Planet suggested, as an example, that "the ECAC could pass through 90% of the variation in fuel costs compared to a base level."[179] Blue Planet also suggested that "the Commission could limit the total annual cost and risk exposure (and benefit opportunity) of fuel price changes to a certain amount" and that "[f]or purposes of discussion, a reasonable starting level for such a cap for HECO could be $10 million per year, which is about 1% on ROE."[180]

In support of its proposal, Blue Planet identified several states in which variations of partial fuel cost adjustment are used.[181] However, both Blue Planet and HECO acknowledge that while experiences with similar partial adjustments in other states

[179]Blue Planet Direct Testimony (Ronald J. Binz) at 19 and 24.

[180]Blue Planet Direct Testimony (Ronald J. Binz) at 28.

[181]Blue Planet Direct Testimony (Ronald J. Binz) at 19; and Blue Planet response to PUC-BP-IR-1, filed November 22, 2017, at 2.

can be helpful in evaluating potential changes to HECO's ECAC, the differences between utilities and the specific circumstances facing HECO, should also be considered.[182] Specifically, several factors that should be considered when comparing HECO with other utilities were asserted, including: the amount of fuel expense as a proportion of total costs,[183] volatility of the types of fuels utilized,[184] fuel supply circumstances, and the utility's ability to control fuel costs.[185]

Regarding how Hawaii and HECO compare with the states and utilities where partial recovery of fuel expense has been implemented, HECO and Blue Planet disagree on most aspects of the identified factors. Blue Planet maintains that, compared to other utilities with partial fuel adjustment provisions, HECO is typical (not exceptional) with respect to the amount of fuel expense as a proportion of total expense, and with respect to the price

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[182]See, HECO response to PUC-HECO-IR-9, filed November 22, 2017, at 1; Blue Planet response to PUC-BP-IR-1, filed November 22, 2017, at 3; and HECO Response to Blue Planet Exhibits (admitted pursuant to Order No. 35366).

[183]See, Blue Planet response to PUC-BP-IR-1, filed November 22, 2017, at 3-5; and HECO response to PUC-HECO-IR-9, filed November 22, 2017, at 3.

[184]See, Blue Planet responses to PUC-BP-IR-1 at 5-7 and PUC-BP-IR-2, filed November 22, 2017; and HECO Supplemental Testimony, HECO ST-30A (Kurt G. Strunk) at 4-7.

[185]See, HECO response to PUC-HECO-IR-9, filed November 22, 2017, at 2-3; and HECO Supplemental Testimony, HECO ST-30A (Kurt G. Strunk) at 4-7.

volatility of fuels. Blue Planet points to ways that HECO can mitigate the impacts of fuel price fluctuations, including hedging strategies and by using less fossil fuel through the utilization of renewable resources.

Conversely, HECO maintains that, compared to other utilities, HECO's fuel expense represents a higher proportion of total expenses and that HECO's petroleum fuel prices are substantially more volatile. HECO stresses that it is not in control of the price of the fuels it uses.[186] HECO maintains that it is not reasonable or appropriate to attempt to "arrive at a Hawaiian Electric-specific mechanism" by quantitative adjustments to approaches used in other states.[187]

In response to IRs, Blue Planet and HECO provided analyses of the impacts of several versions of Blue Planet's proposed partial ECAC adjustment provisions. These analyses calculated the amount of utility revenue exposure (i.e., changes in recovered revenue) that would have resulted if the proposed partial ECAC adjustment provisions would have been in effect for the ten-year historical period of 2007 through 2016. The amount

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[186]See HECO Supplemental Testimony, HECO ST-6 (Nicholas O. Paslay) at 2-3, HECO ST-30 (Peter C. Young) at 3, and HECO ST-30A (Kurt G. Strunk) at 2-3.

[187]See, HECO response to PUC-HECO-IR-9, filed November 22, 2017, at 3.

of revenue exposure was characterized in amounts of annual and total dollars, and was also expressed in terms of percentages of total utility revenues, operating income/earnings, and return on equity.[188]

Blue Planet originally proposed revisions to the ECAC that would apply to both HECO generation fossil-fuel expense and purchased fossil-fueled energy expense.[189] In response, HECO raised several inquiries and assertions questioning the consistency of providing only partial recovery of purchased energy expense with HRS § 269-16.22,[190] which provides, in relevant part:

> All power purchase costs, including costs related to capacity, operations and maintenance, and other costs that are incurred by an electric utility company, arising out of power purchase agreements that have been approved by the public utilities commission and are binding obligations on the electric utility company, shall be allowed to be recovered by the utility from the customer base of the electric utility company through one or more adjustable surcharges, which shall be established by the public utilities commission.

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[188]See Blue Planet responses to PUC-BP-IR-3, PUC-BP-IR-9, PUC-BP-IR-10, and PUC-BP-IR-12, filed March 2, 2018; Blue Planet Supplemental Testimony (Ronald J. Binz) at 6-10 and Attachments 2 and 3; HECO response to PUC-HECO-IR-21 and PUC-HECO-IR-26, filed March 2, 2018; and HECO response to CA-IR-599, filed January 29, 2018.

[189]See Blue Planet response to PUC-BP-IR-5, filed February 14, 2018.

[190]See HECO Rebuttal Testimony, HECO-RT-2 (Joseph P. Viola) at 41; and Blue Planet response to PUC-BP-IR-8, filed March 2, 2018.

In response, Blue Planet deferred to the commission regarding the interpretation and application of HRS § 269-16.22, but amended its Option A proposal and supporting analyses to assume unrestricted ECAC adjustment of purchased energy expenses.[191] As amended, Blue Planet's Option A proposal would apply partial ECAC adjustment only to HECO generation fossil fuel expense. Full adjustment would be maintained for purchased energy expense and renewable fuel expense.

Blue Planet also subsequently amended its Option A partial ECAC adjustment proposal to incorporate an annual "reset" of the baseline fuel costs used for determining ECAC adjustments subject to partial adjustment. This had the effect of reducing the magnitude of average fuel cost adjustments by updating baseline fuel costs to actual fuel costs on an annual basis rather than relying on rate case proceedings submitted on a three-year filing cycle. As a result of these amendments, the amount of estimated utility revenue exposure was reduced substantially.[192]

Blue Planet's final proposal for partial ECAC adjustment includes provisions for a 95% partial ECAC adjustment of HECO

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[191]See Blue Planet supplemental response to PUC-BP-IR-5, filed February 14, 2017; and Blue Planet Supplemental Testimony (Ronald J. Binz) at 3-4.

[192]See Blue Planet Supplemental Testimony (Ronald J. Binz) at 10 and Attachments 2 and 3.

generation fossil-fuel expense (with full adjustment of purchased energy expense and renewable fuel expense), with a maximum annual cap of $20 million in utility revenue exposure, and an annual reset of baseline fuel expense at the beginning of each calendar year.[193]

As noted above, the commission finds that amending the ECAC to provide for partial adjustment of fuel cost changes is reasonable, as long as the magnitude of risk sharing is fair and the amount of utility revenue exposure is reasonable. In determining a reasonable percentage of partial adjustment, maximum magnitude of utility revenue exposure, and related implementation details, the commission recognizes the need to consider the effectiveness of the partial adjustments with balancing consideration of the potential financial impacts on the Company. As stated by Blue Planet witness Binz:

> [i]n principle, the proportion of fuel expenses at risk should be large enough to be meaningful to HECO, giving the Company "skin in the game," but without seriously jeopardizing the Company's financial health.[194]

In addressing this issue, the commission adopts a deliberately conservative and "gradual" approach in determining an

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[193]See Blue Planet Direct Testimony (Ronald J. Binz) at 7 and 27-28; and Blue Planet response to PUC-BP-IR-3, filed November 22, 2017, as amended by Blue Planet Supplemental Testimony (Ronald J. Binz) at 4 and 6-8.

[194]Blue Planet response to PUC-BP-IR-1, filed November 22, 2017.

appropriate magnitude of revenue exposure, recognizing that: (1) the partial adjustment provisions in the ECAC are a new mechanism for HECO; (2) the proposed changes in revenue exposure are cumulative with other relatively new revenue adjustment mechanisms, such as the Performance Incentive Mechanisms ("PIMs") adopted for the HECO Companies, commencing in calendar year 2018;[195] (3) the proposed changes are being implemented in conjunction with several other modifications to the ECAC in this proceeding, i.e., Amended sub-Issue Nos. 4(b) and (c); (4) the commission expects to broadly examine the implicit and explicit incentives in HECO's regulatory mechanisms in Docket No. 2018-0088 as part of the commission's investigation of performance-based regulation; and (5) the initial magnitude of revenue exposure decided in this proceeding is subject to review and amendment, based on experience and changing circumstances in future proceedings.

The commission concurs with the position expressed by several witnesses that the magnitudes of partial adjustment of fuel costs provided for some utilities in other states, while informative, should not be used as a sole or quantitative adjustment basis for determining the reasonable magnitude of partial adjustment for HECO. Accordingly, the commission has based

[195]See Order No. 34514.

its quantitative determinations on specific circumstances pertaining to HECO, as developed in the record of this proceeding.

The commission finds that providing partial adjustment by applying a percentage fraction of the adjustment that would otherwise apply to the HECO generation fossil fuel expense component in HECO's existing ECAC (rather than full adjustment), along with a cap on the maximum amount of annual revenue exposure is an appropriate mechanism (i.e., the functional characteristics of Blue Planet's amended Option A are appropriate). The commission intends that this mechanism be applied symmetrically with respect to both increases and decreases in resulting net revenue adjustments resulting from both increases and decreases in fuel costs. The partial adjustment will apply to the overall HECO generation fossil fuel ECAC/ECRC adjustments,[196] including both the effects of changes in fuel prices and the otherwise calculated effects of changes in heat rate efficiency.

In determining an appropriate percentage of partial adjustment and maximum annual revenue exposure, the commission examined the results of the analyses of impacts presented by Blue Planet and HECO, in the perspective of and in comparison to the magnitude of other revenue determinations in this rate case

[196]As noted above, pursuant to the Parties' stipulated resolution of Amended Sub-Issue No. 4(c), HECO's ECAC will be replaced with the ECRC.

proceeding, as well as in comparison to the nature and magnitude of other revenue adjustment mechanisms effective for HECO, including the RBA and RAM mechanisms and the recently approved PIMs.[197]

The commission examined the amount of utility revenue exposure resulting from the PIMs currently in effect for all of the HECO Companies, and utilized them as a meaningful indicator of a magnitude of revenue exposure previously found to be reasonable as an initial foray into implementing a new incentive mechanism for HECO. The magnitude of the maximum revenue exposure of the existing PIMs was carefully considered in Docket No. 2013-0141 and was determined, conservatively, at the lower end of the range of overall financial incentive levels proposed by the Hawaiian Electric Companies and the Consumer Advocate.

The existing effective portfolio of the three current PIMs for HECO includes two reliability PIMs, each with a maximum revenue exposure (i.e., maximum financial incentive amount) of approximately $2 million based on 20 basis points on the common equity share of rate base; and a customer service PIM with a maximum revenue exposure of approximately $800,000, based on 8 basis points on the common equity share of rate base.[198] Thus,

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[197]See Order No. 34514.

[198]The commission observes that, consistent with the form of the proposals presented in testimony in Docket No. 2013-0141, the

the overall maximum utility revenue exposure of HECO's existing effective portfolio of PIMs is approximately $4.8 million per year.[199]

The commission considered the $20 million maximum revenue exposure limit proposed by Blue Planet in conjunction with the proposed 95% partial adjustment fraction. The commission notes that a $20 million revenue reduction represents an extreme downside possibility associated with the partial adjustment proposed by Blue Planet; in the long run, the average impacts of the partial adjustment would be expected to be substantially smaller than the $20 million maximum exposure, and would be just as likely to be a positive, versus a negative, impact.[200]

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maximum financial incentive amount for the PIMs was determined by applying basis points (i.e., hundredths of a percentage point) on the common equity share of effective rate base, without further adjustment for income tax effects. In this respect, the maximum financial incentive amounts determined for the PIMs is directly comparable to the maximum revenue exposure limits considered for partial ECAC adjustments, in the respect that both are stated on a revenue requirement basis. The commission notes that this differs from the conventional characterization of the magnitude of utility performance incentives expressed as percentage basis point impact on the utility rate of return on equity, which is usually expressed as an after-income-tax impact.

[199]As of the effective date of final rates resulting from the Final Decision and Order in this proceeding, the maximum incentive amounts in the PIMs will be updated and will increase based on the approved common equity share of the (increased) test year rate base approved in this proceeding.

[200]See Blue Planet Supplemental Testimony (Ronald J. Binz) at 10 and Attachment 3.

Nevertheless, in consideration of, and comparison to, other revenue determinations in this rate case, including HECO's 2017 Test Year operating revenue, ROE share of rate base, settled amounts resolving various rate case issues, and in comparison with other HECO revenue adjustments (particularly the magnitude of the existing effective portfolio of PIMs), the commission finds Blue Planet's proposed maximum revenue exposure limit of $20 million to be too high for an initial implementation of a new revenue adjustment mechanism, especially considering the commission's intent to proceed conservatively. Rather, given that this is an initial implementation of a partial adjustment to HECO's ECAC mechanism, the commission finds that the approximately $5 million magnitude of revenue exposure reflected by the existing portfolio of PIMs represents a reasonable standard to determine the high-end of a range of appropriate revenue exposure. Accordingly, the commission determines that the initial maximum annual revenue exposure limit for partial ECAC adjustment shall be $2.5 million, approximately half the revenue exposure resulting from the overall portfolio of existing PIMs. In conjunction with this initial level of maximum revenue exposure, the commensurate initial percentage fraction of partial adjustment shall be 98%,

along with annual "resetting" of the benchmark fuel costs around which partial adjustments are determined.[201]

While significantly less than the amounts proposed by Blue Planet, this amount of revenue exposure is still expected to share some of the risk of fuel cost changes with HECO, thereby enhancing HECO's strategic "level of attention, diligence, and motivation to manage and avoid the costs and risks of fossil fuels," while remaining substantially below an amount that will negatively impact HECO's financial integrity, and well below an amount that will affect HECO's 2017 Test Year ROE. In addition, the commission plans to review and re-examine the amount of maximum revenue exposure and the partial percentage adjustment fraction in future proceedings and as circumstances warrant.

Based on the above, the commission finds that implementation of partial adjustment of ECAC revenues shall commence with the implementation of the ECRC mechanism, pursuant to this Final Decision and Order, or as otherwise ordered by the commission. Further instructions regarding the implementation of the partial adjustment to the ECAC are discussed below.

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[201]Using the analysis models provided by Blue Planet, the commission determined that a 98% partial adjustment fraction would be limited by a $2.5 million cap in three years out of the ten-year 2007-2016 historical period, assuming annual "reset" of the ECAC fuel cost benchmark. See Blue Planet Supplemental Testimony (Ronald J. Binz), Attachment 3 and supporting spreadsheets.

Review And Approval Of The ECRC Tariff

Upon considering the circumstances, the commission refrains from approving HECO's proposed ECRC tariff language at this time. While not objecting to any specific part of HECO's proposed ECRC tariff, the commission notes that the ECRC will, among other things, effectively replace the ECAC tariff. As discussed above, the commission has ordered modifications to the ECAC; most pertinently, the revisions to implement a risk-sharing mechanism based upon the proposal submitted by Blue Planet. In addition, the commission has stated that the interim tariff revisions regarding redetermination of the ECAC target heat rate should be reviewed and, as necessary, revised for clarification and consistency.[202] The ECRC will also effectuate the separation and removal of fuel and purchased energy expenses from base rates, with all such expenses being recovered through the ECRC.

As a result, additional revisions to HECO's proposed ECRC tariff, as submitted in response to CA-IR-600, are necessary. The commission will implement a collaborative approach to review and refine the ECRC tariff language. Within thirty (30) days of this Final Decision and Order, HECO shall file an initial revised

[202] See Section II.A (regarding Amended sub-Issue No. 4(b)), supra; and Order No. 35372 at 8.

draft ECRC tariff proposal which incorporates the pertinent findings and conclusions set forth in this Final Decision and Order. The submittal shall include examples of the monthly, quarterly, and annual reconciliation filings necessary to implement the ECRC tariff provisions and an explanation of what specific changes to other tariff sheets would be required.

Thereafter, the commission will schedule a technical conference with commission staff, HECO, and the Consumer Advocate to discuss comments and revisions to HECO's proposed ECRC.[203] Blue Planet may also participate in the technical conference, as this issue falls within the scope of its approved participation and it has actively participated in developing this issue in the record, through both the submission of testimony and issuance of IRs (however, Blue Planet's attendance is not mandatory). The Parties and Blue Planet may invite any of their witnesses who provided testimony on this issue to attend. The commission will

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[203]The commission notes that some of the modifications to the ECAC set forth in this Final Decision and Order were disputed (e.g., Blue Planet's risk-sharing proposal). The commission clarifies and emphasizes that the technical conference and review filings shall not be used to revisit or relitigate the commission's holdings regarding Amended Issue No. 4, but shall be limited strictly to developing and revising the ECRC tariff language to implement the findings and conclusions set forth in this Final Decision and Order. Any attempt to broaden the technical conference beyond this limited scope may result in the removal of a Party or Participant (or any agent thereof) from the technical conference and/or the striking of any review filings.

arrange for participation by telephone for those unable to meet in person.

Following the technical conference, HECO shall submit another revised ECRC tariff, based on the discussions at the technical conference. The Consumer Advocate and Blue Planet will then have an opportunity to submit comments on the proposed tariff. Following the submission of timely comments, the commission will issue a subsequent Order regarding HECO's ECRC tariff, including the effective dates of the ECRC and its corresponding impacts.[204]

The Parties, Blue Planet, and the commission will endeavor to meet HECO's proposed three-month implementation schedule. The commission believes that this extended process is practical and efficient, given: the sensitive nature of the revisions to the ECAC; the importance of ensuring the ECRC is implemented effectively, correctly, and in compliance with this Final Decision and Order; the numerous details and questions that may arise; and the need to ensure that all those in this proceeding who have contributed to the record on this issue are given a reasonable opportunity to provide input on the final tariff

[204]Thus, notwithstanding the commission's approval of the ECAC and ECRC, in principle, in Order No. 35372 and this Final Decision and Order, approval of the final tariff language addressing sub-Issue Nos. 4(b) and 4(c), i.e., the ECRC tariff, is subject to further commission approval based on the required filings, and as informed by subsequent discussions, as set forth above.

language. To the extent circumstances result in delay which makes HECO's proposed three-month implementation schedule impractical, the Parties may propose a modified implementation schedule for the commission's consideration.

C.

Test Year Determinations

The commission notes that the Parties reached an agreement on nearly all of the 2017 Test Year revenue requirement components in the November 2017 Settlement.[205] To the extent these amounts have significantly changed since the November 2017 Settlement, this is primarily due to the commission's interim adjustments in Interim D&O 35100 and corresponding changes stipulated to by the Parties in the March 2018 Settlement.[206] Accordingly, the commission has considered both the November 2017 and March 2018 Settlement Agreements in determining the reasonableness of HECO's 2017 Test Year revenue requirement

[205]See generally, November 2017 Settlement (reflecting consensus on all issues except for the whether HECO's ROE should be reduced from 9.75% to 9.50% based on the impact of decoupling).

[206]See e.g., Order No. 35280, Exhibit A at 1 and Order No. 35372, Exhibit A at 1 (reflecting the respective schedules of operations arising from the November 2017 Settlement and the March 2018 Settlement).

determinants, as reflected in the attached results of operations (Exhibits A and B).

The commission observes that the stipulated amounts for O&M expenses as presented in the November 2017 Settlement have remained largely intact by the subsequent stipulated adjustments in the March 2018 Settlement reflecting the Parties' agreement regarding the Amended Statement of Issues.[207] The primary changes to O&M expenses are the addition of the Customer Benefit Adjustment and Customer Benefit Adjustment 2, as well as a decrease to Administrative and General ("A&G") expense, which represent decreases to HECO's 2017 Test Year O&M expenses. Conversely, HECO's non-O&M expense estimates reflect larger changes subsequent to the November 2017 Settlement, primarily due to the incorporation of the estimated impacts from the 2017 Tax Act, which resulted in decreases to Depreciation & Amortization, Taxes Other Than Income Tax ("TOTIT"), and Income Tax expenses.

As a result of the March 2018 Settlement, the Parties stipulated to the following revenue requirement components:[208]

Electric Sales Revenue	$1,531,852,000
Other Operating Revenue	$2,922,000
Gain on Sale of Land	$66,000

[207]Compare HECO Statement of Probable Entitlement, Attachment 1 at 1 with Order No. 35209, Exhibit A at 1 with HECO March 2018 Tariffs, Exhibit 2C at 1.

[208]HECO March 2018 Tariffs, Exhibit 2C at 1.

TOTAL OPERATING REVENUES	$1,534,840,000
Fuel	$327,609,000
Purchased Power	$466,211,000
Production	$79,306,000
Transmission	$15,808,000
Distribution	$46,825,000
Customer Accounts	$20,354,000
Allowance for Uncoll. Accounts	$732,000
Customer Service	$15,651,000
Administrative & General ("A&G")	$119,758,000
Customer Benefit Adjustment	($5,467,000)
Customer Benefit Adjustment 2	($4,556,000)
Total O&M Expenses	$1,082,231,000
Depreciation & Amortization	$123,516,000
Amortization of State Investment Tax Credit	($5,633,000)
Taxes Other Than Income	$145,569,000
Interest on Customer Deposits	$723,000
Income Taxes	$37,539,000
Total Non-O&M Expenses	$301,714,000
TOTAL OPERATING EXPENSES	$1,383,945,000
OPERATING INCOME	$150,895,000
AVERAGE RATE BASE	$1,993,359,000
Rate of Return on Average Rate Base	7.57%

1.

Operating Revenues

The Parties have stipulated to 2017 Test Year operating revenues as follows:[209]

Electric Sales Revenue	$1,531,852,000
Other Operating Revenues	$2,922,000
Gain on Sale of Land	$66,000
Total Operating Revenues	$1,534,840,000

The Parties agree that HECO's total operating revenues at current effective rates are $1,535,443,000.[210] In the November 2017 Settlement, the Parties agreed to total operating revenues of $1,589,121,000 for the 2017 Test Year, reflecting an increase in total operating revenues of approximately $53,678,000.[211] Subsequently, due to the Parties' agreements in the March 2018 Settlement, the Parties now agree to 2017 Test Year total operating revenues of $1,534,840,000, which reflects a

[209]See HECO March 2018 Tariffs, Exhibit 2C at 1; see also, Order No. 35372, Exhibit A at 1 (the amounts reflected in these exhibits are in thousands).

[210]See HECO Statement of Probable Entitlement, Attachment 1 at 1 (reflecting the Parties' agreement from the November 2017 Settlement); and HECO March 2018 Tariffs, Exhibit 2C at 1 (reflecting the Parties' agreement from the March 2018 Settlement).

[211]HECO Statement of Probable Entitlement, Attachment 1 at 1.

decrease in total operating revenues of approximately ($603,000) compared to revenues at current effective rates.[212]

i.

Electric Sales Revenue

Electric sales revenue includes revenues from the base electric revenues as well as revenues from the ECAC and the Purchased Power Adjustment Clause ("PPAC"). To determine revenues at current effective rates, revenues from the RAM and RBA are included.[213]

The base electric charges for each rate class are comprised of: (1) the customer, demand, energy and minimum charges; and (2) as applicable, the power factor, service voltage, and other adjustments, as may be provided in each rate and rate rider schedule.[214]

The Parties initially agreed to an average customer count of 305,367[215] and electric sales revenue of $1,586,133,000 for HECO's 2017 Test Year, in the November 2017 Settlement.[216] This

[212]HECO March 2018 Tariffs, Exhibit 2C at 1.

[213]HECO Direct Testimony, T-4 (Alvin J. Goto) at 4.

[214]HECO Direct Testimony, T-4 (Alvin J. Goto) at 4.

[215]November 2017 Settlement, Exhibit 1 at 12.

[216]HECO Statement of Probable Entitlement, Attachment 1 at 1.

amount represented a compromise between the Parties regarding HECO's 2017 Test Year ECAC revenues and PPAC revenues, based on a new production simulation performed by HECO which incorporated many of the changes proposed by the Consumer Advocate in its Direct Testimony.[217] Subsequently, as a result of the March 2018 Settlement, the Parties have stipulated to $1,531,852,000 in Electric Sales Revenue, for which the difference is largely attributable to the decrease in operating expenses associated with the effects of the Customer Benefit Adjustment, Customer Benefit Adjustment 2, and the impacts of the 2017 Tax Act (including changes to depreciation and amortization, and income tax expenses).[218] The commission finds that the Parties' 2017 Test Year Electric Sales Revenue amount of $1,531,852,000 is reasonable, and reflects a negotiated compromise of estimates soundly supported by the evidence presented.

[217]See November 2017 Settlement, Exhibit 1 at 14 (initially, the Consumer Advocate had proposed higher ECAC revenues than HECO and lower PPAC revenues than HECO).

[218]Compare HECO Statement of Probable Entitlement, Attachment 1 at 1, with HECO March 2018 Tariffs, Exhibit 2C at 1.

ii.

Other Operating Revenue (Including Gain On Sale Of Land)

Other operating revenue for HECO's 2017 Test Year primarily consists of Non-Sales Electric Utility Charges, which include miscellaneous other operating revenues[219] and Gain on Sale of Land.[220] In the November 2017 Settlement, the Parties stipulated to Other Operating Revenues of $2,988,000 (comprised of Other Operating Revenue and Gain on Sale of Land), which includes the Consumer Advocate's proposed adjustment to incorporate the estimated revenue from the change to HECO's Tariff Rule No. 7 (which increases HECO's returned payment charges from $22 to $25).[221] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[222] The commission finds reasonable the Parties' 2017 Test Year Other Operating Revenues amount of $2,988,000.

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[219]HECO Direct Testimony, T-4 (Alvin J. Goto) at 8.

[220]See November 2017 Settlement, Exhibit 1 at 16.

[221]November 2017 Settlement, Exhibit 1 at 16.

[222]See HECO Statement of Probable Entitlement, Attachment 1 at 1; Interim D&O 35100 at 22; Order No. 35280, Exhibit A at 1; and HECO March 2018 Tariffs, Exhibit 2C at 1.

Based on the above, the commission approves as reasonable total operating revenues for HECO's 2017 Test Year of $1,534,840,000.

2.

Operations And Maintenance Expenses

As a result of the November 2017 and March 2018 Settlements, the Parties have stipulated to the following 2017 Test Year O&M expenses:[223]

Fuel	$327,609,000
Purchased Power	$466,211,000
Production	$79,306,000
Transmission	$15,808,000
Distribution	$46,825,000
Customer Accounts	$20,354,000
Allowance for Uncoll. Accounts	$732,000
Customer Service	$15,651,000
Administrative and General	$119,758,000
Customer Benefit Adjustment	($5,467,000)
Customer Benefit Adjustment 2	($4,556,000)
Total O&M Expenses	$1,082,231,000

i.

Fuel

HECO uses low sulfur fuel oil to power its steam generators and much smaller quantities of diesel and biodiesel

[223]HECO March 2018 Tariffs, Exhibit 2C at 1.

fuels for its combustion turbines.[224] HECO's fuel expense also includes fuel-related expenses, such as fuel handling, petroleum inspection, and fuel combustion additive.[225] In the November 2017 Settlement, the Parties stipulated to $327,609,000 in fuel expense, which reflects the results of HECO's updated production simulation, and incorporates most of the adjustments identified in the Consumer Advocate's Direct Testimony.[226] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[227] The commission finds reasonable the Parties' 2017 Test Year fuel expense amount of $327,609,000.

ii.

Purchased Power

In addition to its own generation facilities, HECO also receives power from three firm capacity independent power producers ("IPPs"), including AES Hawaii, Inc., Kalaeloa Partners, L.P., and Honolulu Project of Waste Energy

[224]HECO Direct Testimony, T-5 (Robert Y. Uyeunten) at 8.

[225]November 2017 Settlement, Exhibit 1 at 21.

[226]See November 2017 Settlement, Exhibit 1 at 21-22.

[227]See HECO Statement of Probable Entitlement, Attachment 1 at 1; Interim D&O 35100 at 22; Order No. 35280, Exhibit A at 1; and HECO March 2018 Tariffs, Exhibit 2C at 1.

Recovery, as well as a number of variable generation IPPs, including the Kahuku Wind Power wind farm, Kapolei Sustainable Energy Park photovoltaic ("PV") facility, the Kawailoa Wind facility, the Kalaeloa Solar Two PV facility, the Kalaeloa Renewable Energy Park PV facility, and the EE Waianae Solar Project, LLC PV facility.[228] There are also a number of Feed-in-Tariff projects across Oahu that provide power to HECO's system, as well as emergency power facilities at the Honolulu International Airport owned by the State of Hawaii Department of Transportation Airports Division.[229] In the November 2017 Settlement, the Parties stipulated to $466,211,000 in purchased power expense, which reflects the results of HECO's updated production simulation, and incorporates most of the adjustments identified in the Consumer Advocate's Direct Testimony.[230] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[231] The commission finds reasonable the Parties' 2017 Test Year purchased power expense amount of $466,211,000.

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[228]HECO Direct Testimony, HECO T-5 (Robert Y. Uyeunten) at 3.

[229]HECO Direct Testimony, HECO T-5 (Robert Y. Uyeunten) at 3-4.

[230]November 2017 Settlement, Exhibit 1 at 24.

[231]See HECO Statement of Probable Entitlement, Attachment 1 at 1; Interim D&O 35100 at 22; Order No. 35280, Exhibit A at 1; and HECO March 2018 Tariffs, Exhibit 2C at 1.

iii.

Production

HECO's production expense consists of costs incurred to operate and maintain its generation system and associated production support facilities.[232] In the November 2017 Settlement, the Parties agreed to downwardly adjust a number of HECO's production sub-components, resulting in a decrease in production expense of approximately $2,599,000.[233] This resulted in a stipulated production expense of $79,306,000, which was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[234] The commission finds reasonable the Parties' 2017 Test Year production expense amount of $79,306,000.

iv.

Transmission And Distribution

[232]See November 2017 Settlement, Exhibit 1 at 29 (listing some of the sub-components of HECO's Production O&M expense).

[233]See November 2017 Settlement, Exhibit 1 at 29. See also, id. at 29-35 (for a discussion as to the specific adjustments agreed to by the Parties).

[234]See HECO Statement of Probable Entitlement, Attachment 1 at 1; Interim D&O 35100 at 22; Order No. 35280, Exhibit A at 1; and HECO March 2018 Tariffs, Exhibit 2C at 1.

HECO's transmission and distribution expenses consist of costs incurred to reliably and safely deliver electricity from sources of generation (including traditional HECO-owned generating facilities, IPPs, and distributed or customer-sited renewable energy facilities) to HECO's residential, commercial, and industrial customers.[235] In the November 2017 Settlement, the Parties stipulated to $15,808,000 in transmission expenses and $46,825,000 in distribution expenses.[236] These stipulated amounts reflect agreement by the Parties to downwardly adjust a number of HECO's transmission and distribution sub-components, resulting in a decrease in transmission and distribution expenses of approximately $1,527,000.[237] These amounts were approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[238] The commission finds reasonable

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[235]See HECO Direct Testimony, HECO T-11 (Earlynne F. Maile) at 6.

[236]HECO Statement of Probable Entitlement, Attachment 1 at 1; see also November 2017 Settlement, Exhibit 1 at 36 (noting HECO's combined transmission and distribution expense estimate of $64,160,000 in HECO's Direct Testimony and downward adjustments of $1,002,000 to transmission expense and $525,000 to distribution expense).

[237]See November 2017 Settlement, Exhibit 1 at 36. See also, id. at 36-40 (for a discussion as to the specific adjustments agreed to by the Parties).

[238]See HECO Statement of Probable Entitlement, Attachment 1 at 1; Interim D&O 35100 at 22; Order No. 35280, Exhibit A at 1; and HECO March 2018 Tariffs, Exhibit 2C at 1.

the Parties' 2017 Test Year transmission and distribution expense amounts of $15,808,000 and $46,825,000, respectively.

V.

Customer Accounts

HECO's customer accounts expense:

> [I]ncludes the costs incurred for activities the Company provides to service its customers that relate to: customer billing (including the cost of processing customer requests to commence, modify or terminate service) and mailing; meter reading; collecting and processing payments; handling customer inquiries; maintaining customer records; managing delinquent and uncollectible accounts; and conducting field services and investigations.[239]

This includes a component for estimated uncollectible accounts. In the November 2017 Settlement, the Parties stipulated to $20,354,000 in customer account expenses and $732,000 in uncollectible accounts expenses.[240] These stipulated amounts reflect agreement by the Parties to: (1) downwardly adjust a number of HECO's customer accounts sub-components, resulting in a decrease in customer accounts expense of approximately $109,000;

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[239]HECO Direct Testimony, HECO T-15 (Jimmy D. Alberts) at 53-54.

[240]HECO Statement of Probable Entitlement, Attachment 1 at 1; see also November 2017 Settlement, Exhibit 1 at 41 (noting HECO's customer accounts expense estimate of $20,464,000 in HECO's Direct Testimony, and a stipulated downward adjustment of $109,000 as a result of the "Final Settlement Adjustment."

and (2) downwardly adjust HECO's uncollectible accounts expense by approximately $429,000.[241] These amounts were approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[242] The commission finds reasonable the Parties' 2017 Test Year customer accounts expense and uncollectible accounts expense amounts of $20,354,000 and $732,000, respectively.

vi.

Customer Service

"Customer service expenses include the labor and non-labor costs to provide instructions, information and assistance to customers in support of the safe and efficient use of energy services, including advertising conservation and demand response program sponsorship and the administration of customer facing programs and projects."[243] In the November 2017 Settlement, the Parties stipulated to $15,651,000 in customer service

[241]See November 2017 Settlement, Exhibit 1 at 41. See also, id. at 41-44 (for a discussion as to the specific adjustments agreed to by the Parties).

[242]See HECO Statement of Probable Entitlement, Attachment 1 at 1; Interim D&O 35100 at 22; Order No. 35280, Exhibit A at 1; and HECO March 2018 Tariffs, Exhibit 2C at 1.

[243]CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 72.

expense.[244] This stipulated amount reflects agreement by the Parties to downwardly adjust a number of HECO's customer service sub-components, resulting in a decrease in customer service expense of approximately $5,043,000.[245] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[246] The commission finds reasonable the Parties' 2017 Test Year customer service expense amount of $15,651,000.

vii.

A&G

"Administrative and General ("A&G") expenses represent a diverse group of operation expenses, not provided for in other functional areas[,]"[247] and include labor and non-labor O&M expenses that cover a diverse group of National Association of

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[244]HECO Statement of Probable Entitlement, Attachment 1 at 1; see also November 2017 Settlement, Exhibit 1 at 45 (noting HECO's customer service expense estimate of $20,694,000 in HECO's Direct Testimony, and a stipulated downward adjustment of $5,043,000 to customer service expense).

[245]See November 2017 Settlement, Exhibit 1 at 45. See also, id. at 45-56 (for a discussion as to the specific adjustments agreed to by the Parties).

[246]See HECO Statement of Probable Entitlement, Attachment 1 at 1; Interim D&O 35100 at 22; Order No. 35280, Exhibit A at 1; and HECO March 2018 Tariffs, Exhibit 2C at 1.

[247]HECO Direct Testimony, HECO T-16 (Trung Ha), Executive Summary at 1.

Regulatory Utility Commissioners ("NARUC") accounts.[248] In the November 2017 Settlement, the Parties stipulated to A&G expenses of $123,640,000.[249] This stipulated amount reflected agreement by the Parties to downwardly adjust a number of HECO's A&G sub-components, resulting in a decrease in A&G expense of approximately $9,116,000.[250] For purposes of interim rates, the commission modified this amount through a number of adjustments in Interim D&O 35100, which had the effect of decreasing it further to $120,210,000.[251]

Thereafter, as a result of the Parties' subsequent stipulation on the Amended Statement of Issues in the March 2018 Settlement, particularly, in regard to sub-Issue

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[248]See HECO Direct Testimony, HECO T-16 (Trung Ha) at 5.

[249]See HECO Statement of Probable Entitlement, Attachment 1 at 1.

[250]See November 2017 Settlement, Exhibit 1 at 57 (noting HECO's A&G expense estimate of $132,758,000 in HECO's Direct Testimony, and a stipulated downward adjustment of $9,116,000 to A&G expense). See also, id. at 57-72 (for a discussion as to the specific adjustments agreed to by the Parties).

[251]See Order No. 35280, Exhibit A at 1 (reflecting approved interim rates arising from the November 2017 Settlement). Specifically, HECO's A&G expense was affected by the commission's adjustments to HECO's excess pension contributions, as well as the effect of the Pension and OPEB Tracker Adjustment. While the commission ultimately restored the A&G expense amounts affected by the Pension and OPEB Tracker Adjustment, the impact to A&G resulting from the adjustment to HECO's excess pension contributions remained, until further modified by the Parties' agreement in the March 2018 Settlement.

No. 1(a) (treatment of HECO's excess pension contributions), the Parties agreed to further downwardly adjust HECO's 2017 Test Year A&G expense, from $120,210,000 to $119,758,000.[252] The commission finds reasonable the Parties' 2017 Test Year A&G expense amount of $119,758,000.

viii.

Total O&M Expenses

Based on the above, the commission approves as reasonable the Parties' 2017 Test Year total O&M expense amount of $1,082,231,000. This sum reflects the amount of total O&M expenses previously stipulated to by the Parties in the November 2017 Settlement, as modified by the incorporation of: (1) the Customer Benefit Adjustment; (2) the Customer Benefit Adjustment 2; and (3) the downward adjustment to A&G expense to reflect the

[252] See HECO March 2018 Tariffs, Exhibit 2C at 1. As noted in the footnote above, Interim D&O 35100, among other things, required an adjustment to exclude the recovery of part of HECO's unamortized excess pension contributions. Following the issuance of Interim D&O 35100, the Parties agreed to specific treatment for these unamortized excess pension contributions, which is largely responsible for the second downward adjustment to HECO's 2017 Test Year A&G expense, as reflected in the schedule of operations contained in HECO's March 2018 Tariffs approved in Order No. 35372. This issue is discussed in further detail in Section II.C.4.xii, below.

stipulated treatment for HECO's excess pension contributions, as noted above.[253]

3.

Non-O&M Expenses

As a result of the November 2017 and March 2018 Settlements, the Parties have stipulated to the following non-O&M expenses for HECO's 2017 Test Year:[254]

Depreciation & Amortization	$123,516,000
Amortization of State ITC	($5,633,000)
Taxes Other Than Income	$145,569,000
Interest on Customer Deposits	$723,000
Income Taxes	$37,539,000
Total Non-O&M Expenses	$301,714,000

i.

Depreciation & Amortization

As defined by the NARUC Uniform System of Accounts ("USOA") for Class A and B Electric Utilities:

> "Depreciation," as applied to depreciable utility plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes

[253]Compare HECO Statement of Probable Entitlement, Attachment 1 at 1 (reflecting total O&M expenses of $1,096,136,000) with HECO March 2018 Tariffs, Exhibit 2C at 1 (reflecting total O&M expenses of $1,082,231,000, with the difference attributable to the ($5,467,000) Customer Benefit Adjustment, ($4,556,000) Customer Benefit Adjustment 2, and reduction in A&G expense from $123,640,000 to $119,758,000).

[254]See HECO March 2018 Tariffs, Exhibit 2C at 1.

> which are known to be in current operation and against which the utility is not protected by insurance. Among causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authorities.[255]

HECO's current depreciation and amortization rates are based on HECO's 2009 Book Depreciation Study, and were approved by the commission in Docket No. 2010-0053.[256] In the November 2017 Settlement, the Parties initially stipulated to $130,637,000 in depreciation and amortization expense.[257] This stipulated amount reflected agreement by the Parties to incorporate a number of adjustments proposed by the Consumer Advocate.[258]

Thereafter, as a result of the commission's instructions to incorporate the impact of the 2017 Tax Act, the Parties subsequently agreed to a revised estimate for HECO's depreciation and amortization expense of $123,516,000, a decrease of

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[255]In re Maui Elec. Co., Ltd., Docket No. 2009-0163, Decision and Order No. 30365, filed May 2, 2012, at 55-56 (citing MECO T-14 at 3 (quoting NARUC's USOA for Class A and B Electric Utilities, at 1-2 (Definitions))).

[256]HECO Direct Testimony, T-25 (Michelle Koyanagi) at 3.

[257]November 2017 Settlement, Exhibit 1 at 75.

[258]See November 2017 Settlement, Exhibit 1 at 73-75 (for a discussion as to the specific adjustments agreed to by the Parties).

approximately $7,121,000.[259] The commission finds reasonable the Parties' 2017 Test Year depreciation and amortization expense amount of $123,516,000.

ii.

Amortization Of The State Investment Tax Credit

The State Investment Tax Credit ("ITC") "was enacted in 1987 under HRS § 235-110.7 and was designed to promote capital investment and to mirror the qualification rules of the old federal ITC."[260] "For book and ratemaking purposes, the credit is deferred in the year earned and subsequently amortized over the estimated useful life of the associated asset as was done with the federal ITC."[261] Based on HECO's existing depreciation and amortization rates, the State ITC credits earned and taken in prior years' income tax returns are amortized over 48 years, which is the approximate composite useful life of the assets giving rise to the credits.[262]

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[259]See HECO March 2018 Tariffs, Exhibit 2C at 1.

[260]HECO Direct Testimony, HECO T-26 (Lon K. Okada) at 16.

[261]HECO Direct Testimony, HECO T-26 (Lon K. Okada) at 16.

[262]HECO Direct Testimony, HECO T-26 (Lon K. Okada) at 16.

HECO initially estimated amortization of the State ITC as a ($1,454,000) decrease to its 2017 Test Year expenses.[263] In response, the Consumer Advocate recommended accelerating the amortization period, based on general concerns over upward pressure on customer bills.[264] The Consumer Advocate proposed accelerating the State ITC as an earnings-neutral way to reduce upward pressure on customers' bills, resulting in a 2017 Test Year estimate of ($5,632,000).[265] In the November 2017 Settlement, the Parties agreed to the Consumer Advocate's proposal and increased the 2017 Test Year State ITC amortization estimate from ($1,454,000) to ($5,632,000), which acts as a decrease to HECO's 2017 Test Year expenses.[266] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[267] The commission finds reasonable the Parties' 2017 Test Year amortization of State ITC amount of ($5,632,000).

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[263]HECO Direct Testimony, HECO T-26 (Lon K. Okada) at 16; see also, November 2017 Settlement Agreement, Exhibit 1 at 77.

[264]See November 2017 Settlement, Exhibit 1 at 77.

[265]November 2017 Settlement, Exhibit 1 at 77.

[266]November 2017 Settlement, Exhibit 1 at 77; see also, HECO Statement of Probable Entitlement, Attachment 1 at 1 (there is a variation of approximately $1,000 due to rounding).

[267]See HECO Statement of Probable Entitlement, Attachment 1 at 1; Interim D&O 35100 at 22; Order No. 35280, Exhibit A at 1; and HECO March 2018 Tariffs, Exhibit 2C at 1.

iii.

Taxes Other Than Income Tax

HECO's taxes other than income tax ("TOTIT") include six taxes or fees that are related to either payroll or utility revenue:

Payroll

1. Federal Insurance Contribution and Medicare tax
2. Federal Unemployment tax
3. State Unemployment tax

Utility Revenue

4. State Public Service Company tax
5. State Public Utility fee
6. County Utility Franchise tax

In the November 2017 Settlement, the Parties initially stipulated to an estimated TOTIT of $145,623,000 at current effective rates and $150,392,000 at proposed rates.[268] These stipulated amounts reflected agreement by the Parties to downwardly adjust a number of HECO's TOTIT sub-components, resulting in a decrease in payroll taxes of $101,000 and an agreement to re-calculate revenue taxes based on the resolution of all other issues.[269] Subsequently, based on the changes to HECO's operating revenues resulting from the Parties' resolution of the Amended Statement of Issues in the March 2018 Settlement, the

[268]HECO Statement of Probable Entitlement, Attachment 1 at 1.

[269]See November 2017 Settlement, Exhibit 1 at 76.

Parties stipulated to a revised estimate of TOTIT at proposed rates of $145,569,000.[270] The commission finds reasonable the Parties' 2017 Test Year TOTIT amounts of $145,623,000 and $145,569,000 at current effective and proposed rates, respectively.

iv.

Interest On Customer Deposits

HECO pays 6% interest on its customer deposits, in accordance with HECO's Tariff Rule No. 6.[271] In its Direct Testimony, HECO proposed a 2017 Test Year expense of $778,000 for interest on customer deposits; however, in the November 2017 Settlement, the Parties stipulated to $723,000 in interest on customer deposits, which incorporates the Consumer Advocate's proposed downward adjustment of approximately $55,000.[272] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[273] The commission finds reasonable the

[270]HECO March 2018 Tariffs, Exhibit 2C at 1 and 6.

[271]HECO Direct Testimony, HECO T-15 (Jimmy D. Alberts) at 70.

[272]See November 2017 Settlement, Exhibit 1 at 78; and HECO Statement of Probable Entitlement, Attachment 1 at 1.

[273]See HECO Statement of Probable Entitlement, Attachment 1 at 1; Interim D&O 35100 at 22; Order No. 35280, Exhibit A at 1; and HECO March 2018 Tariffs, Exhibit 2C at 1.

Parties' 2017 Test Year interest on customer deposits amount of $723,000.

V.

Income Taxes

The Parties initially stipulated to estimates for income taxes at current effective and proposed rates in the November 2017 Settlement, which incorporated: (1) an interest synchronization adjustment, consistent with the principles adopted by the commission in In re Hawaiian Elec. Co., Inc., Docket No. 04-0113 (HECO's 2005 test year rate case); and (2) an adjustment for the DPAD to reflect the adjusted revenues and expenses, as well as the synchronized interest, incorporating the results of all the adjustments agreed to by the Parties in the November 2017 Settlement.[274] However, following the passage of the 2017 Tax Act, HECO's federal income tax, beginning January 1, 2018, was reduced from 35% to 21%, prompting the commission to direct HECO to provide its estimated tax benefits arising from the 2017 Tax Act, with supporting exhibits and schedules.[275]

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[274]See November 2017 Settlement, Exhibit 1 at 76-78.

[275]See Order No. 35220 at 20. In its estimate of the 2017 Tax Act impacts, HECO stated that in addition to reducing HECO's income tax rate, the 2017 Tax Act also limits bonus depreciation, makes contributions in aid of construction from any governmental

As a result, in the March 2018 Settlement, the Parties agreed to a number of conditions pertaining to the treatment of HECO's 2017 Test Year income tax expense.[276] In the March 2018 Settlement, the Parties agreed to estimates of $37,680,000 and $37,539,000 in income tax expense at current effective and proposed rates, respectively.[277] The commission finds these amounts reasonable.

vi.

Total Non-O&M Expenses

Based on the above, the commission approves as reasonable the Parties' 2017 Test Year total non-O&M expense amount of $301,714,000. This sum should be consistent with the amount of total non-O&M expenses previously approved by the commission in Interim D&O 35100, with the exception of changes to Depreciation & Amortization, TOTIT, and Income Taxes resulting from the impacts of the 2017 Tax Act and the adjustment related to HECO's excess pension contributions.[278]

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entities taxable, and repeals DPAD after 2017. HECO Tax Impacts, Exhibit 1 at 1.

[276]See March 2018 Settlement Agreement, Exhibit 1 at 19-23; see also, Section II.A, supra (regarding Amended Issue No. 5).

[277]HECO March 2018 Tariffs, Exhibit 2C at 1.

[278]Compare HECO Statement of Probable Entitlement, Attachment 1 at 1 with HECO March 2018 Tariffs, Exhibit 2C at 1.

Average Rate Base

As a result of the November 2017 and March 2018 Settlements, the Parties have stipulated to the following 2017 Test Year average rate base:[279]

	Beginning Balance	End of Year Balance	Average Balance
Investment in Assets Serving Customers			
Net Cost of Plant in Service	$2,595,452,000	$2,770,695,000	$2,683,073,000
Property Held for Future Use	$0	$0	$0
Fuel Inventory	$46,200,000	$46,200,000	$46,200,000
Mater. & Suppl. Inventories	$28,427,000	$28,427,000	$28,427,000
Unamort. Net ASC 740 Reg. Asset	$70,144,000	($129,063,000)	($29,460,000)
Pension Tracking Reg. Asset	$97,620,000	$113,828,000	$105,724,000
PSIP Deferred Costs	$0	$0	$0
EOTP Reg. Asset	$444,000	$89,000	$267,000
CIP CT-1 Reg. Asset	$2,306,000	$1,352,000	$1,829,000
Plant Additions Reg. Asset	$0	$0	$0
Deferred Sys. Dev. Costs	$15,932,000	$13,496,000	$14,714,000
RO Water Pipeline Reg. Asset	$4,958,000	$4,842,000	$4,900,000

[279]HECO March 2018 Tariffs, Exhibit 2C at 3.

Contrib. in Excess of NPPC	$6,470,000	$6,470,000	$6,470,000
Total Invest. in Assets	$2,867,953,000	$2,856,336,000	$2,862,144,000
Funds From Non-Investors			
Unamort. CIAC	$347,826,000	$395,134,000	$371,480,000
Customer Advances	$3,581,000	$3,925,000	$3,753,000
Customer Deposits	$12,101,000	$12,005,000	$12,053,000
Environmental Reserve	$0	$0	$0
Accumulated Deferred Income Taxes ("ADIT")	$520,643,000	$537,310,000	$528,976,000
Excess ADIT	$0	($203,950,000)	($101,975,000)
Unamort. State ITC (Gross)	$56,323,000	$54,903,000	$55,613,000
Unamort. Gain on Sale of Land	$248,000	$182,000	$215,000
Pension Reg. Liability	$0	$0	$0
OPEB Reg. Liability	$2,817,000	$2,331,000	$2,574,000
Total Deductions	$943,539,000	$801,840,000	$872,689,000
Difference			$1,989,455,000
Working Cash at Curr. Eff. Rates			$3,896,000
Rate Base at Curr. Eff. Rates			$1,993,351,000
Change in Rate Base - Working Cash			$8,000
Rate Base at Proposed Rates			$1,993,359,000

i.

Net Plant-In-Service

According to HECO's Direct Testimony:

> Net cost of plant in service consists of the gross plant in service less accumulated depreciation, removal regulatory liability, and asset retirement obligation ("ARO").
>
> The gross plant in service is the original cost of plant assets. The original cost of plant assets includes the cost of equipment, construction, and all other costs necessary for the projects and investments to be used and useful for public utility purposes. The total original cost of plant assets at year-end changes from year to year for the amount of plant additions and plant retirements recorded each year.
>
> Accumulated depreciation is the cumulative amount of depreciation that has been expensed in the past. Depreciation is the allocation of a portion of the original cost of the asset to each period in the estimated useful life of an asset. Part of the accumulated depreciation is further reclassified to remove regulatory liability for financial reporting purposes. Accumulated depreciation also nets removal costs incurred.[280]

In sum, net plant-in-service "represents the Company's unrecovered investment in plant that is used and useful and necessary to provide electric service."[281] "In determining Net Cost of Plant in Service for an average rate base for a calendar based test year, the Company takes the beginning balance of

[280]HECO Direct Testimony, HECO-2704 at 2.

[281]HECO Direct Testimony, HECO-2704 at 3.

Net Cost of Plant in Service as of December 31 of the year just prior to the test year and the ending balance of Net Cost of Plant in Service as of December 31 of the test year and averages the two balances."[282]

In the November 2017 Settlement, the Parties stipulated to an average net plant-in-service balance of $2,683,073,000.[283] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[284] The commission finds reasonable the Parties' 2017 Test Year average net plant-in-service balance of $2,683,073,000.

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[282]HECO Direct Testimony, HECO-2704 at 3.

[283]HECO Statement of Probable Entitlement, Attachment 1 at 3.

[284]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Interim D&O 35100 at 22; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

ii.

Property Held For Future Use

"Property held for future use represents the Company's investment in property needed to provide electric service in the future."[285] HECO "currently has no investment in Property Held for Future Use and as such the estimated total test year 2017 average balance for Property Held for Future Use is $0."[286]

iii.

Fuel Inventory

"Fuel inventory is the Company's investment in a supply of fuel held in inventory[,]" which is necessary "to ensure a sufficient supply of fuel for the Company's power plants[.]"[287] "The test year average Fuel Inventory is determined based on the volume in inventory needed to reliably service customers and the fuel price assumptions."[288]

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[285]HECO Direct Testimony, HECO-2704 at 3.

[286]HECO Direct Testimony, HECO T-16 (Trung Ha), Executive Summary at 2; see also, HECO Statement of Probable Entitlement, Attachment 1 at 3; and HECO March 2018 Tariffs, Exhibit 2C at 3.

[287]HECO Direct Testimony, HECO-2704 at 3.

[288]HECO Direct Testimony, HECO-2704 at 3.

In the November 2017 Settlement, the Parties stipulated to an average fuel inventory balance of $46,200,000.[289] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[290] The commission finds reasonable the Parties' 2017 Test Year average fuel inventory balance of $46,200,000.

iv.

Materials & Supplies Inventories

"Materials and supplies inventories include production inventory and transmission and distribution ("T&D") inventory."[291]

In the November 2017 Settlement, the Parties stipulated to an average materials and supplies inventory balance of $28,427,000.[292] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[293] The commission finds reasonable the

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[289]HECO Statement of Probable Entitlement, Attachment 1 at 3.

[290]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Interim D&O 35100 at 22; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

[291]HECO Direct Testimony, HECO-2704 at 4.

[292]HECO Statement of Probable Entitlement, Attachment 1 at 3.

[293]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Interim D&O 35100 at 22; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

Parties' 2017 Test Year average materials and supplies inventory balance of $28,427,000.

v.

Unamortized Net ASC 740 Regulatory Asset

As HECO states in its Direct Testimony:

> The Unamortized Net ASC 740 Regulatory Asset is an accounting asset that arose due to the reporting requirements of ASC 740[,]" which "requires the bad debt portion of [Accumulated Funds Used During Construction ("AFUDC")], as well as any other item previously recorded on a net-of-tax basis, to be calculated and capitalized on a gross-of-tax basis. As a result, plant in service would have increased by the tax effect of the debt portion of AFUDC. However, instead of increasing plant in service, ASC 740 requires this gross-up adjustment to a regulatory asset, with the offsetting credit to the deferred income tax liability account. Because the regulatory asset is offset by the corresponding increase in accumulated deferred income taxes, there is no net rate base impact.[294]

In the November 2017 Settlement, the Parties initially stipulated to an average unamortized net ASC 740 regulatory asset balance of $72,516,000.[295] Due to subsequent circumstances, most notably, the passage of the 2017 Tax Act, the Parties agreed that the estimated balance for the unamortized net ASC 740 regulatory asset needed to be revised. In the March 2018 Settlement, the

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[294]HECO Direct Testimony, HECO-2704 at 5 (emphasis in the original; bracketed text added).

[295]HECO Statement of Probable Entitlement, Attachment 1 at 3.

Parties stipulated to a revised average unamortized net ASC 740 regulatory asset average balance of ($29,460,000), which reflects a significant reduction in the unamortized net ASC 740 regulatory asset for the 2017 Test Year.[296]

The commission finds reasonable the Parties' 2017 Test Year average unamortized net ASC 740 regulatory asset average balance of ($29,460,000).

vi.

Pension Tracking Regulatory Asset

"The Pension Tracking Regulatory Asset is the cumulative difference between the actuarially calculated NPPC during a rate effective period and the Commission approved NPPC included in rates ("NPPC in rates") for that rate effective period, tracked under the pension tracking mechanism approved by the Commission[.]"[297] It is included as part of rate base "because it represents costs which have not yet been paid for by customers."[298]

Initially, the Parties stipulated to an estimated average pension tracking regulatory asset balance of $105,724,000

[296]See HECO March 2018 Tariffs, Exhibit 2C at 3.

[297]HECO Direct Testimony, HECO-2704 at 6.

[298]HECO Direct Testimony, HECO-2704 at 6.

in the November 2017 Settlement.[299] This included certain adjustments proposed by the Consumer Advocate to incorporate the actual NPPC balance at December 31, 2016, and continued amortizations through December 31, 2017.[300] Subsequently, in Interim D&O 35100, the commission modified the pension and OPEB tracking regulatory asset/liability balances to give effect to HECO's prior commitment to "forgo" a rate increase for its required 2014 test year.[301] Thereafter, in response to HECO's request to reconsider this aspect of Interim D&O 35100, the commission issued Order No. 35229, which modified Interim D&O 35100 to: (1) restore the pension and OPEB tracking regulatory asset/liability balances; and (2) impose a downward interim adjustment of $6 million to serve as a proxy for the provision of ratepayer benefits, pending the creation of an alternative adjustment that would return to ratepayers the same level of benefits they would have enjoyed under the pension and OPEB tracker adjustment, which would be determined later in this proceeding. This ultimately resulted in the Customer Benefit Adjustment, which the Parties have stipulated to in the March 2018 Settlement.[302]

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[299]See HECO Statement of Probable Entitlement, Attachment 1 at 3.

[300]See November 2017 Settlement, Exhibit 1 at 82-83.

[301]See Interim D&O 35100 at 28-38.

[302]See generally, Order No. 35229.

As a result of Interim D&O 35100 and Order No. 35229, HECO's pension tracking regulatory asset average balance was reverted to $105,724,000, the amount originally stipulated to by the Parties in the November 2017 Settlement. This amount remained unchanged as a result of the March 2018 Settlement.[303] Based on the above, recognizing the Customer Benefit Adjustment, the commission finds reasonable the Parties' 2017 Test Year average pension tracking regulatory asset balance of $105,724,000.

vii.

Power Supply Improvement Plan Deferred Costs

In Docket No. 2016-0156, the HECO Companies filed an application with the commission requesting approval to defer all non-labor consultant outside services costs associated with the Companies' development of the interim and updated Power Supply Improvement Plans ("PSIPs") and expected follow-on work incurred.[304] As part of the November 2017 Settlement, the Parties agreed to remove all PSIP deferred costs from this rate case.[305]

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[303]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

[304]HECO Direct Testimony, HECO-2704 at 7; see also, November 2017 Settlement, Exhibit 1 at 83-84.

[305]See November 2017 Settlement, Exhibit 1 at 84.

As a result, there are no PSIP deferred costs included in HECO's 2017 Test Year average rate base.[306] The commission finds reasonable the Parties' decision to remove the PSIP deferred costs.

viii.

East Oahu Transmission Project Regulatory Asset

"Cost treatment relating to the East Oahu Transmission Project ("EOTP") was addressed in Hawaiian Electric's 2011 test year rate case in Docket No. 2010-0080."[307] HECO's estimated average 2017 Test Year EOTP regulatory asset balance is based on the beginning balance of the regulatory asset as of December 31, 2016 (the year prior to the test year), and the ending balance of the regulatory asset as of December 31, 2017 (the end of the test year).[308]

In the November 2017 Settlement, the Parties stipulated to an average EOTP regulatory asset balance of $267,000.[309] This amount was approved by the commission in Interim D&O 35100 and

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[306]See HECO Statement of Probable Entitlement, Attachment 1 at 3; and HECO March 2018 Tariffs, Exhibit 2C at 3.

[307]HECO Direct Testimony, HECO-2704 at 7 and HECO-1705 at 2; see also, In re Hawaiian Elec. Co., Inc., Docket No. 2010-0080, Decision and Order No. 30505, filed June 29, 2012.

[308]HECO Direct Testimony, HECO-2704 at 7.

[309]HECO Statement of Probable Entitlement, Attachment 1 at 3.

remained unchanged as a result of the March 2018 Settlement.[310] The commission finds reasonable the Parties' 2017 Test Year EOTP regulatory asset balance of $267,000.

ix.

Campbell Industrial Park CT-1 Regulatory Asset

Similar to the EOTP regulatory asset, the cost recovery for the Campbell Industrial Park Combustion Turbine Unit 1 ("CIP CT-1") project was addressed in a prior proceeding, Docket No. 2008-0083 (HECO's 2009 test year rate case), with approval of a corresponding regulatory asset to recover costs.[311]

In the November 2017 Settlement, the Parties stipulated to an average net CIP CT-1 regulatory asset balance of $1,829,000.[312] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[313] The commission finds reasonable the

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[310]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Interim D&O 35100 at 22; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

[311]See HECO Direct Testimony, HECO-2704 at 7; see also, HECO-1705 at 1-2.

[312]HECO Statement of Probable Entitlement, Attachment 1 at 3.

[313]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Interim D&O 35100 at 22; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

Parties' 2017 Test Year average CIP CT-1 regulatory asset balance of $1,829,000.

x.

Deferred System Development Costs

"Deferred system development costs consist of the unamortized portion of computer software development project costs for which [c]ommission approval has been obtained to defer and amortize these costs for ratemaking purposes."[314] Essentially, investors front costs to develop computer software systems which are expected to be in service during the test year; including unamortized system development costs in rate base allows investors the opportunity to earn a fair return on their investments.[315]

In the November 2017 Settlement, the Parties stipulated to an average deferred system development costs balance of $14,714,000.[316] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[317] The commission finds reasonable the

[314]HECO Direct Testimony, HECO-2704 at 4.

[315]See HECO Direct Testimony, HECO-2704 at 4.

[316]HECO Statement of Probable Entitlement, Attachment 1 at 3.

[317]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Interim D&O 35100 at 22; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

Parties' 2017 Test Year average deferred system development costs balance of $14,714,000.

xi.

RO Water Pipeline Regulatory Asset

"The unamortized RO Water Pipeline Regulatory Asset represents a portion of a water pipeline that was dedicated to the [BWS] and is no longer owned, operated or maintained by the Company."[318] Although HECO no longer owns the RO pipeline, HECO maintains ratepayers continue to benefit from it and the costs of the section of pipeline dedicated to BWS should be recovered through rates.[319] HECO notes that this accounting and ratemaking treatment was previously approved by the commission in Docket No. 05-0146.[320]

In the November 2017 Settlement, the Parties stipulated to an average RO Water Pipeline regulatory asset balance of $4,900,000.[321] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the

[318]HECO Direct Testimony, HECO-2704 at 6; see also, HECO-1705 at 2-3.

[319]HECO Direct Testimony, HECO-2704 at 6.

[320]HECO Direct Testimony, HECO-2704 at 6 (citing In re Hawaiian Elec. Co., Inc., Docket No. 05-0146, Decision and Order No. 23514, filed June 27, 2007).

[321]HECO Statement of Probable Entitlement, Attachment 1 at 3.

March 2018 Settlement.[322] The commission finds reasonable the Parties' 2017 Test Year average RO Water Pipeline regulatory asset balance of $4,900,000.

xii.

Contributions In Excess Of NPPC

As stated in HECO's Direct Testimony:

> Contributions in excess of NPPC Regulatory Asset represent the cumulative amount of contribution to the pension trust made in excess of the cumulative pension cost (NPPC accrual). The NPPC is actuarially calculated in accordance with the guidance provided by [FASB] ASC 715, formerly Financial Accounting Standard 87. NPPC represents the annual amount that the Company must recognize on its financial statements as the cost of providing pension benefits to its employees for the year, and includes amounts ultimately charged both to expense and capital. It is the current period charge for the pension plan and is calculated based on the actuarial assumptions of pension obligation, economic performance of the fund investment, and amortization of prior period amounts.[323]

HECO's contributions in excess of NPPC were the subject of an interim adjustment in Interim D&O 35100. Briefly, HECO, as part of its 2011 test year rate case, was authorized to create a regulatory asset for its contributions in excess of NPPC. HECO

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[322]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Interim D&O 35100 at 22; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

[323]HECO Direct Testimony, HECO-2704 at 5.

was authorized to commence amortization of this excess amount in 2011; however, in 2014, HECO acknowledged that it had "inadvertently omitted" amortization of this amount between 2011 through 2013.[324] In response to HECO's proposal to begin amortizing this amount in 2017, the commission noted that this would have the effect of increasing HECO's 2017 Test Year expenses.[325] The commission imposed an interim adjustment which required HECO to reflect amortization of the excess pension contributions as if amortization had begun on July 22, 2011, and re-amortization of the April 30, 2015 excess pension contribution balance had begun on May 1, 2015.[326] This resulted in a decrease to HECO's rate base of approximately $16,625,000.[327]

In the March 2018 Settlement, the Parties reached an agreement regarding the regulatory treatment of HECO's contributions in excess of NPPC, which the commission approved.[328]

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[324]See Order No. 34453 at 20-21; see also, Interim D&O 35100 at 23-24.

[325]See Interim D&O 35100 at 24-27.

[326]See Interim D&O 35100 at 27-28.

[327]Compare HECO Statement of Probable Entitlement, Attachment 1 at 3 (reflecting a Contribution in Excess of NPPC average balance of $19,330,000) with Order No. 35280, Exhibit B at 1 (reflecting a Contribution in excess of NPPC average balance of $2,705,000).

[328]See Section II.A., supra (regarding Amended Issue No. 1(a)); see also Order No. 35335 (approving the March 2018 Settlement).

As a result, HECO will be able to use the balance of the excess pension contribution to decrease its annual NPPC (subject to the federal ERISA minimum contribution limit).[329] HECO estimates that it will exhaust the excess contribution balance within the first year of offsetting its NPPC; as a result, the Parties have agreed to include one-third of HECO's excess pension contribution balance into its 2017 Test Year average rate base to reflect that portion of the balance that provides a benefit to ratepayers.[330] At the same time, HECO will remove costs associated with the excess pension contribution, specifically, the excess pension contribution amortization amount, from its 2017 Test Year A&G expense, with recovery limited to the aforementioned inclusion of one-third of the excess contribution balance in average test year rate base.[331]

As a result of the stipulated changes contained in the March 2018 Settlement, HECO: (1) has removed the excess pension contribution amortization amount from its 2017 Test Year A&G expense; and (2) adjusted its 2017 Test Year average rate base to

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[329]See Order No. 35335 at 8; see also, March 2018 Settlement, Exhibit 1 at 2-5.

[330]See March 2018 Settlement, Exhibit 1 at 2-5 (The decision to include one-third of the balance into rate base arises from the fact that HECO is expected to utilize the entire excess pension contributions balance to offset its NPPC during the first year of its triennial rate case cycle).

[331]See March 2018 Settlement, Exhibit 1 at 3-4.

reflect one-third of the excess pension contribution balance.[332] Accordingly, the Parties have stipulated to a 2017 Test Year average contribution in excess of NPPC balance of $6,470,000, which the commission has previously found reasonable for purpose of establishing interim rates.[333] Based on the above, the commission finds reasonable the Parties' 2017 Test Year average contributions in excess of NPPC balance of $6,470,000.

xiii.

Unamortized Contributions In Aid Of Construction

Contributions In Aid of Construction ("CIAC") "is money or property that a developer or customer contributes to the Company to fund a utility capital project."[334] As a source of funds from non-investors, "CIAC is included as a deduction from investments in assets funded by investors in determining rate base."[335]

In the November 2017 Settlement, the Parties have stipulated to an average unamortized CIAC balance of $371,480,000,

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[332]See Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3 (indicating an increase to Contributions in Excess of NPPC from $2,705,000 to $6,470,000) ($19,411,000/3 = $6,470,333, rounded down to $6,470,000).

[333]See Order No. 35335 (approving the March 2018 Settlement); and Order No. 35372, Exhibit B at 1 (approving the HECO March 2018 Tariffs).

[334]HECO Direct Testimony, HECO-2704 at 8.

[335]HECO Direct Testimony, HECO 2704 at 8.

which is the same amount agreed to by the Parties in the March 2018 Settlement, and approved by the commission in Interim D&O 35100.[336] The commission finds reasonable the Parties' 2017 Test Year average unamortized CIAC balance of $371,480,000.

xiv.

Customer Advances

"Customer Advances are funds paid by customers to the Company which may be refunded in whole or in part as specified in the Company's tariff[,]" and are included as a deduction from investments in assets funded by investors in determining rate base.[337]

In the November 2017 Settlement, the Parties stipulated to an average Customer Advances balance of $3,753,000.[338] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[339]

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[336]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Interim D&O 35100 at 22; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

[337]HECO Direct Testimony, HECO-2704 at 8.

[338]HECO Statement of Probable Entitlement, Attachment 1 at 3.

[339]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Interim D&O 35100 at 22; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

The commission finds reasonable the Parties' 2017 Test Year average Customer Advances balance of $3,753,000.

XV.

Customer Deposits

"Customer Deposits are monies collected from customers who do not meet the Company's criteria for establishing credit at the time they request service."[340] Similar to other non-investor funds, Customer Deposits are included as a reduction to rate base.[341]

In the November 2017 Settlement, the Parties have stipulated to an average Customer Deposits balance of $12,053,000.[342] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[343] The commission finds reasonable the Parties' 2017 Test Year average Customer Deposits balance of $12,053,000.

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[340]HECO Direct Testimony, HECO-2704 at 8.

[341]See HECO Direct Testimony, HECO 2704 at 8.

[342]HECO Statement of Probable Entitlement, Attachment 1 at 3.

[343]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Interim D&O 35100 at 22; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

xvi.

Accumulated Deferred Income Taxes And
Excess Accumulated Deferred Income Taxes

As described in HECO's Direct Testimony:

> ADIT represents the cumulative amount by which tax expense has exceeded tax remittances. This is primarily due to tax timing differences resulting from differences between depreciation and accelerated depreciation recorded for accounting purposes and those used for the calculation of income taxes. ADIT funds are provided by ratepayers. Although rates are established based on income tax expense, tax remittances to the government on a cumulative basis have been lower than the taxes collected through rates. As a result, ratepayers have funded the ADIT balance. Over time, the Company will eventually pay the government the amounts recorded as deferred income taxes. ADIT is reflected as a deduction from investments in assets funded by investors in determining rate base.[344]

In the November 2017 Settlement, the Parties initially stipulated to an average ADIT balance of $544,700,000.[345] However, due to subsequent events, most notably the passage of the 2017 Tax Act, the Parties agreed that the estimated balance for ADIT should be revised. As a result, in the March 2018 Settlement, the Parties stipulated to a revised average ADIT balance of $528,976,000, which reflects the Parties' ratemaking treatment of the various 2017 Tax Act impacts to ADIT.[346] The impacts of the 2017 Tax Act are also

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[344]HECO Direct Testimony, HECO 2704 at 8-9.

[345]HECO Statement of Probable Entitlement, Attachment 1 at 3.

[346]See HECO March 2018 Tariffs, Exhibit 2C at 3.

reflected through a significant reduction to the unamortized net ASC 740 regulatory asset and the creation of a new line item for "Excess Accumulated Deferred Income Taxes" in HECO's March 2018 Tariffs.[347]

The commission finds reasonable the Parties' stipulated average Accumulated Deferred Income Taxes and Excess Accumulated Deferred Taxes amount of $528,977,000 and ($101,975,000), respectively.

xvii.

Unamortized State Investment Tax Credit

"Unamortized Investment Tax Credits are tax credits which reduce tax payments in the year the credit originates, but which are amortized for ratemaking purposes."[348] Similar to ADIT, unamortized investment tax credits ("ITC") are funds provided by ratepayers that result from the difference in timing between when the credits are taken for the purpose of calculating taxes for the government and when adjustments are made to the income tax expense

[347]See HECO March 2018 Tariffs, Exhibit 2C at 3; and n.296, supra.

[348]HECO Direct Testimony, HECO-2704 at 9.

for ratemaking purposes.[349] Thus, the ITC acts as a deduction to rate base.

In the November 2017 Settlement, the Parties stipulated to an average unamortized State ITC (gross) balance of $55,613,000.[350] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[351] The commission finds reasonable the Parties' 2017 Test Year average unamortized State ITC (gross) balance of $55,613,000.

xviii.

Unamortized Gain On Sale (Of Land)

For the 2017 Test Year, HECO has reported gains on sales of land in the Iolani Court Plaza and a jointly owned property on Lauula Street, which were previously approved by the commission, amounting to a test year average balance of $215,000.[352] Pursuant

[349]HECO Direct Testimony, HECO-2704 at 9.

[350]HECO Statement of Probable Entitlement, Attachment 1 at 3.

[351]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Interim D&O 35100 at 22; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

[352]HECO Direct Testimony, HECO-1710 at 1. HECO reported unamortized gain on sale of land of $215,200, but in the November 2017 and March 2018 Settlements, the Parties rounded this number down to $215,000. See November 2017 Settlement, Attachment 1 at 3; and HECO March 2018 Tariffs, Exhibit 2C at 3.

to the commission's approved ratemaking treatment, the net gain on the sale of land is prorated between utility and non-utility based on the periods during which the property was classified as utility property versus non-utility property.[353] Gains on utility property are amortized to income over a five-year period, beginning with the month following the sale.[354] Unamortized gains are deducted in the calculation of rate base.[355]

In the November 2017 Settlement, the Parties stipulated to an average unamortized gain on sale of land balance of $215,000.[356] This amount was approved by the commission in Interim D&O 35100 and remained unchanged as a result of the March 2018 Settlement.[357] The commission finds reasonable the Parties' 2017 Test Year average unamortized gain on sale of land balance of $215,000.

xix.

OPEB Regulatory Liability

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[353]HECO Direct Testimony, HECO T-17 (Patsy H. Nanbu) at 36.

[354]HECO Direct Testimony, HECO T-17 (Patsy H. Nanbu) at 36.

[355]HECO Direct Testimony, HECO T-17 (Patsy H. Nanbu) at 37.

[356]HECO Statement of Probable Entitlement, Attachment 1 at 3.

[357]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Interim D&O 35100 at 22; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

As described by HECO:

> The OPEB Regulatory Liability (or regulatory asset) is the cumulative difference between the actuarially calculated net periodic benefit costs ("NPBC") during a rate effective period and the Commission approved post retirement benefits other than pension costs included in rates ("OPEB costs in rates") for that rate effective period, tracked under the OPEB tracking mechanism . . . .
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> . . . .
>
> . . . . The OPEB tracking mechanism ensures that the OPEB costs recovered through rates are based on the NPBC as reported for financial reporting purposes and that all amounts contributed to the OPEB trust funds are in an amount equal to the actual OPEB cost and are recoverable through rates.
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> . . . .
>
> As the amount consists of funds from non-investors, it is a deduction in the calculation of rate base, as required under the OPEB tracking mechanism.[358]

Initially, the Parties' stipulated to an estimated average OPEB regulatory liability balance of ($2,573,000) in the November 2017 Settlement.[359] This included certain adjustments proposed by the Consumer Advocate to incorporate the actual NPBC balance at December 31, 2016, and continued amortizations through December 31, 2017.[360] Subsequently, in Interim D&O 35100, the

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[358]HECO Direct Testimony, HECO-2704 at 9-10.

[359]See HECO Statement of Probable Entitlement, Attachment 1 at 3.

[360]See November 2017 Settlement, Exhibit 1 at 82-83.

commission modified the pension and OPEB tracking regulatory asset/liability balances to give effect to HECO's prior commitment to "forgo" a rate increase for its required 2014 test year.[361] Thereafter, in response to HECO's request to reconsider this aspect of Interim D&O 35100, the commission issued Order No. 35229, which modified Interim D&O 35100 to: (1) restore the pension and OPEB tracking regulatory asset/liability balances; and (2) impose a downward interim adjustment of $6 million to serve as a proxy for the provision of ratepayer benefits, pending the creation of an alternative adjustment that would return to ratepayers the same level of benefits they would have enjoyed under the pension and OPEB tracker adjustment, which would be determined later in this proceeding.[362] This ultimately resulted in the Customer Benefit Adjustment which the Parties stipulated to in the March 2018 Settlement.

As a result of Interim D&O 35100 and Order No. 35229, HECO's OPEB regulatory liability balance was restored to ($2,574,000), the amount originally stipulated to by the Parties in the November 2017 Settlement.[363] This amount remained unchanged

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[361] See Interim D&O 35100 at 28-38.

[362] See generally, Order No. 35229.

[363] This reflects a slight difference of $1,000, which the commission presumes is due to rounding.

as a result of the March 2018 Settlement.[364] The commission finds reasonable the Parties' 2017 Test Year average OPEB regulatory liability balance of ($2,574,000).

xx.

Working Cash

As described by HECO:

> . . . . Working cash is the capital over and above investments in plant and other rate base items to cover the cost of providing service to the Company's customers. It bridges the gap between the time the Company pays for the expenses incurred to provide electric service and the time customers pay for the electric service provided.
>
> It is included in rate base because it represents an investment that enables the Company to pay suppliers and conduct other business activities necessary to provide electric service to consumers without interruption. Working Cash is essential capital necessary for smooth fiscal operations. The inclusion of this essential capital in rate base recognizes the carrying cost to investors of monies that the Company needs to have on hand as a result of gaps in the timing of cash flows through the Company.[365]

The Parties have agreed to calculate working cash based on a lead-lag approach, focusing on the expense categories of: fuel, purchased, power, O&M labor, O&M non-labor, revenue taxes,

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[364]See HECO Statement of Probable Entitlement, Attachment 1 at 3; Order No. 35280, Exhibit B at 1; and HECO March 2018 Tariffs, Exhibit 2C at 3.

[365]HECO Direct Testimony, HECO-2704 at 10.

and income taxes.[366] This methodology is consistent with HECO's previous rate cases.[367]

In the November 2017 Settlement, the Parties stipulated to a working cash balance of $4,073,000 at current effective rates and $3,272,000 at proposed rates, which represent a change in working cash of ($801,000).[368] Subsequently, in the March 2018 Settlement, the Parties revised their stipulated working cash balances to $3,896,000 at current effective rates and $3,905,000 at proposed rates, a difference of $9,000.[369] The commission finds reasonable the Parties' 2017 Test Year average working cash balances of $3,896,000 and $3,905,000 at current effective and proposed rates, respectively.

xxi.

Average Rate Base

The commission approves as reasonable the Parties' 2017 Test Year average rate base of $1,993,351,000 and $1,993,359,000 at current effective and proposed rates,

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[366]See HECO Direct Testimony, HECO-2704 at 10-12; and HECO March 2018 Tariffs, Exhibit 2C at 4.

[367]See HECO Direct Testimony, HECO-2704 at 12.

[368]HECO Statement of Probable Entitlement, Attachment 1 at 4.

[369]HECO March 2018 Tariffs, Exhibit 2C at 4 (this figure is reflected as $8,000 on Exhibit 2C, page 3. The commission attributes this slight difference to rounding).

respectively. These amounts differ from those approved by the commission in Interim D&O 35100 due to the Parties' adjustments resulting from their resolution of the Amended Statement of Issues in the March 2018 Settlement.

Pension And OPEB Tracker Revisions

On March 10, 2017, the FASB issued ASU 2017-07, which changes the presentation of NPPC and NPBC on the financial statements and the disclosures required for defined benefits plans.[370] For the Hawaiian Electric Companies, the amendments will be effective beginning in 2018.[371]

HECO's 2017 Test Year revenue requirements are based on the current accounting, which reflects the aggregate NPPC and NPBC amounts[372] and the amortization of the regulatory asset/regulatory liability (based on the difference between the aggregate NPPC and NPBC in rates and the actual NPPC and NPBC) in determining the employee benefits that are capitalized.[373]

Starting in 2018, only the service cost portion of the NPPC and NPBC can be capitalized, which will mean a smaller portion of pension and OPEB expense will be capitalized, and a larger

[370]November 2017 Settlement, HECO T-17, Attachment 3.

[371]HECO Direct Testimony, HECO T-17 (Patsy H. Nanbu) at 11.

[372]HECO Direct Testimony, HECO T-17 (Patsy H. Nanbu) at 10-11 (NPPC and NPBC components include service cost, interest cost, expected return on assets, and the amortization of various deferred items).

[373]See November 2017 Settlement, Exhibit 1 at 71 n.85 (stating that HECO determines an employee benefits transferred rate (which considers the aggregate NPPC and NPBC to allocate a portion of employee benefits to capital projects or other projects)).

amount of pension costs will be expensed.[374] To address this, HECO proposed a slight modification to the pension and OPEB tracking mechanisms.

HECO proposed that for 2018 and until its next rate case, the non-service cost portion of the 2017 test year NPPC and NPBC that was capitalized in the Test Year be recorded as a regulatory asset instead of being charged to expense.[375] The regulatory asset would be amortized to expense over five years, beginning with the effective date in the next rate proceeding.[376]

In response, the Consumer Advocate opposed HECO's proposal, noting that HECO's proposal "would amortize the regulatory asset for the non-current service cost to expense over a much faster period (five years, or a 20% annual amortization rate) than the overall composite depreciation/amortization rate (30 years or about a 3.3% rate).[377]

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[374]See HECO Direct Testimony, HECO T-17 (Patsy H. Nanbu) at 11-12; see also November 2017 Settlement, Exhibit 1 at 71.

[375]November 2017 Settlement, Exhibit 1 at 71.

[376]November 2017 Settlement, Exhibit 1 at 71.

[377]CA Direct Testimony, CA-T-1 (Steven C. Carver) at 46. The Consumer Advocate also states that HECO's proposal would depart from the historical regulatory accounting for all elements of NPPC/NPBC and charge the non-service cost components of NPPC and NPBC to a regulatory asset account, instead of continuing to transfer those costs to capital and other accounts. Id.

Furthermore, the Consumer Advocate notes in its Direct Testimony that its prior agreement to a fifteen-year amortization period regarding a similar regulatory asset in HELCO's 2016 test year rate case (Docket No. 2015-0170) was based on the understanding that in HELCO's next rate case, HELCO could seek full implementation of ASU 2017-07 for both financial statement and regulatory accounting and ratemaking purposes, without any deferral or amortization of the non-service costs.[378] "Likewise, the Consumer Advocate could seek full deferral and amortization of the non-service costs over a period of about 30 years, effectively achieving a cost-effective continuation of historical pension cost accounting for regulatory and ratemaking purposes."[379]

As set forth in the November 2017 Settlement:

> For the purpose of reaching a settlement, the Parties agree to a modification to the pension and OPEB tracking mechanisms to be in effect from 2018 until a decision in Hawaiian Electric's next rate case, to set up a separate regulatory asset to accumulate the non-service cost portion of the test year NPPC and NPBC that is included in the transfer to capital in the test year that would be expensed under ASU 2017-07. The regulatory asset would be amortized to expense over fifteen years, beginning with the effective date that rates are effective in the next rate case proceeding.[380]

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[378]November 2017 Settlement, Exhibit 1 at 72.

[379]November 2017 Settlement, Exhibit 1 at 72.

[380]November 2017 Settlement, Exhibit 1 at 72.

The Parties' modifications to the pension and OPEB tracking mechanisms incorporate the stipulated fifteen-year amortization period.[381]

The commission finds the Parties' stipulated agreement as it relates to ASU 2017-07 reasonable in this case, as the stipulated agreement is only an interim measure and neither Party would be limited from pursuing a longer-term regulatory solution to the capitalization issue in HECO's next rate case.[382]

The commission also finds the modification to the pension tracking mechanism noted in HECO T-17, Attachment 2, attached to the November 2017 Settlement, that will be in effect from 2018 until a decision in HECO's next rate case, reasonable. However, given these revisions, as well as the revisions related to the excess pension contribution adjustment, discussed above in Section II.A (regarding Amended Issue No. 1(a)), the commission instructs HECO to submit a proposed revised draft of its pension and OPEB tracking mechanisms which reflects these approved changes, for the commission's review and approval.[383]

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[381]November 2017 Settlement, Exhibit 1 at 72; and HECO T-17, Attachment 2 (attached to the November 2017 Settlement).

[382]The Consumer Advocate provides some context for the negotiated fifteen-year amortization period. See CA Direct Testimony, CA-T-1 (Steven C. Carver) at 48-50.

[383]The commission observes that the changes resulting from ASU 2017-07 affect both the pension and OPEB tracking mechanisms. In addition, unlike the proposed changes to the pension tracking

Rate Of Return

As discussed by the Hawaii Supreme Court:

> A fair return is the percentage rate of earnings on the rate base allowed a utility after making provision for operating expenses, depreciation, taxes and other direct operating costs. Out of such allowance the utility must pay interest and other fixed dividends on preferred and common stock. In determining a rate of return, the Commission must protect the interests of a utility's investors so as to induce them to provide the funds needed to purchase plant and equipment, and protect the interests of the utility's consumers so that they pay no more than is reasonable.
>
> To calculate the rate of return, the costs of each component of capital - debt, preferred equity and common equity - are weighted according to the ratio each bears to the total capital structure of the company and the resultant figures are added together to yield a sum which is the rate of return.
>
> The proper return to be accorded common equity is the most difficult and least exact calculation in the whole rate of return procedure since there is no contractual cost as in the case of debt or preferred stock[:]
>
> > Equity capital does not always pay dividends; all profits after fixed charges accrue to it and it must withstand all losses. The cost of such capital cannot be read or computed directly from the company's books. Its determination involves a judgment of what return on equity is necessary to enable

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mechanism for the excess pension contribution, the modifications to the pension and OPEB tracking mechanisms related to ASU 2017-07 are only intended to apply to the 2017 Test Year rate effective period.

> the utility to attract enough equity capital to satisfy its service obligations.
>
> . . . .
>
> Questions concerning a fair rate of return are particularly vexing as the reasonableness of rates is not determined by a fixed formula but is a fact question requiring the exercise of sound discretion by the Commission. It is often recognized that the ratemaking function involves the making of "pragmatic" adjustments and that there is no single correct rate of return but that there is a "zone of reasonableness" within which the commission may exercise its judgment.[384]

As noted above, the Parties have stipulated to an ROE of 9.50%, resulting in an overall rate of return on average rate base of 7.57%, which the commission found to be fair in approving the March 2018 Settlement.[385] Accordingly, the commission approves as fair the Parties' stipulated rate of return of 7.57%.

7.

Revenue Allocation And Rate Design

Several customer class revenue allocation and rate design proposals, and supporting cost of service studies, were submitted in this proceeding. As discussed below, the commission

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[384]In re Hawaii Elec. Light Co., Inc., 60 Haw. 625, 632-33 and 636, 594 P.2d 612, 618-20 (1979) (citations omitted).

[385]See Section II.A, supra (regarding Amended Issue No. 2); see also Order No. 35335 (approving the March 2018 Settlement).

finds that the rate class revenue allocation principle and rate design provisions stipulated to by the Parties in the November 2017 Settlement are reasonable, under the circumstances contemplated therein. To the extent certain rate design proposals have not been adopted in this Final Decision and Order, specifically those pertaining to DERs, the commission clarifies its intention to continue examining these issues in the DER Docket.

i.

HECO

HECO prepared two types of class cost of service studies ("CCOS") for this proceeding: one based on embedded or accounting costs, and the other based on marginal energy costs.[386] An embedded CCOS is an analytical approach used to assign the utility's total cost of service (total revenue requirement) to the different rate classes based on how those classes of customer cause costs to be incurred.[387] In contrast, a marginal cost study determines the change in the utility's costs of providing service

[386]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 7.

[387]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 7.

due to a unit change in kilowatts ("kW"), kilowatt-hours ("kWh"), or number of customers served by the utility.[388]

As the Company has done in previous cost of service presentations, HECO presents the results of two embedded CCOS methodologies for the distribution network costs using both: (1) the minimum system method used by the Hawaiian Electric Companies, where the distribution lines, poles, conductors, and transformers are classified as partly demand-related and partly customer-related; and (2) the Consumer Advocate's preferred method of classifying all distribution network costs as demand-related.[389]

The results of HECO's CCOS are summarized in the following exhibits: (1) HECO-3003 shows the results for the Base Case for the minimum system method; and HECO-3004 shows the results for the Base Case for the method of classifying all distribution network costs as demand-related. These exhibits provide summaries of the following information:

(A) A comparison of each rate class's revenues and rates of return at current effective rates and at proposed rates;

(B) Each rate class' demand, energy, and customer cost components at proposed rates;

(C) Each rate class' unit demand, energy, and customer cost components at proposed rates; and

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[388]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 7.

[389]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 7-8.

(D) The allocation factors for the three cost components, demand, energy, and customer costs.

HECO proposes to allocate the electric revenue increase to rate classes as the dollar amount resulting from the same percentage increase applied to electric revenue at current effective rates.[390] HECO proposes this allocation method "[i]n order to avoid the hardship of a significant increase for any one customer group[.]"[391] Consequently, HECO does not directly rely upon the results of its CCOS for its proposed allocation of the rate changes among customer classes.

Similarly, in addressing the issue of its 2017 Test Year rate design, HECO acknowledges that it considers a number of factors, of which its CCOS results is only one, including: (1) production of the Company's test-year revenue requirement; (2) classes' cost of service; (3) revenue stability; (4) rate stability and rate continuity; (5) impact on customers; (6) customer's choice; (7) provision of fair and equitable rates; (8) simplicity, ease of understanding, and ease of implementation; and (9) encouragement of customer load management.[392] According to

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[390]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 10, and Executive Summary at 1.

[391]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 10.

[392]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 19.

HECO, "[i]n general, changes to Hawaiian Electric's rates are aimed at aligning the rate elements closer to the cost components, minimizing intra-class subsidy, and moving closer to more efficient pricing that provides more accurate price signals."[393]

According to HECO:

> The proposed rate schedules and rate structure are the same as proposed in the test year 2011 rate case (with the exception of the optional time of use rate schedules which will be discussed below); however, the rate levels proposed in the test year 2017 rate design are different and recover the test year 2017 revenue requirements. Generally speaking, the proposed test year 2017 rate design tries to reduce the amount of customer costs and demand costs recovered in energy charges by proposing increases to customer charge rates and/or demand charge rates.[394]

In sum:

> The Hawaiian Electric simplified rate design means that all regular commercial rate schedules have a single energy charge rate and a single demand charge rate. Commercial customers are separated by kW load into small Schedule G customers (customer monthly kW <= 25 kW and kWh <= 5,000 per month), medium Schedule J customers (25 kW < customer monthly kW < 300 kW), and large Schedule P customers (customer monthly kW > =300 kW). Street light service is offered on commercial Schedule F. Residential service on Schedule R is proposed to continue the three pricing tiers based on usage, for the first 350 kWh per month, the next 850 kWh per month, and all kWh above 1,200 kWh per month.[395]

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[393]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 19.

[394]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 20.

[395]HECO Direct Testimony, HECO-T-30 (Peter C. Young) at 20. See also, HECO Direct Testimony, HECO-3009 (for a comparison of HECO's existing and proposed rates under HECO's proposed rate design).

HECO also proposes changes to its optional time of use ("TOU") rates. For Residential Customers, HECO proposes modifying Schedule TOU-R (the residential TOU service option) and Schedule TOU EV (the residential TOU service option for customers with electric vehicles, as well as Schedule TOU-RI (the residential interim TOU program that replaced Schedule TOU-R and Schedule TOU EV).[396] Briefly:

> The Company proposes to modify Schedule TOU-R and Schedule TOU-EV such that the revised rates for these rate schedules have the same relationship to Schedule R rates as the existing rates for Schedule TOU-R and Schedule TOU EV have relative to the existing rates for Schedule R.
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> . . . .
>
> [Regarding Schedule TOU-RI] [t]he Company proposes to modify the time-of-use charges based on the applicable 2017 cost of service values for Schedule R, consistent with the approved rate determination, as shown in HECO-WP-3009 for the Base Case . . . . The proposed customer charges and minimum charges are modified to match the same respective charges in the proposed Schedule R rates, also consistent with the approved rate determination. Hawaiian Electric proposes to modify the proposed Schedule TOU-RI rate design in this proceeding to be aligned with the rate methodologies determined in the [DER] proceeding or any other separate proceeding where such residential time-of-use rate

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[396]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 26. Schedules TOU-R and TOU EV were closed to enrollment effective September 16, 2016, by commission action in the DER proceeding. See In re Public Util. Comm'n, Docket No. 2014-0192 ("DER Docket"), Order No. 33923, "Instructing the Hawaiian Electric Companies to Submit Tariffs for an Interim Time-Of-Use Program," filed September 16, 2016 ("Order No. 33923").

option designs are considered for all the Hawaiian Electric Companies.[397]

For Commercial Customers, HECO "proposes to modify Schedules TOU-G, Small Commercial Time-of-Use Service, and TOU-J, Commercial Time-of-Use Service, and create a Schedule TOU-P, Large Commercial Time-of-Use Service, that has a structure that is the same as that proposed for Schedule TOU-J. The Company also proposes to modify the rates for Schedule U, Time-of-Use Service, and Schedule EV-F, Commercial Public Electric Vehicle Charging Facility Service Pilot, and also close Schedule U and Rider T, Time-of-Day Service, to new customers."[398] Specifically:

> The proposed structures for Schedules TOU-G, TOU-J, and TOU-P will have the same daily time-of-use rating periods for energy charges as the existing Schedule TOU-RI: On-Peak is 5pm to 10pm, daily; Off-Peak is 10pm to 9am, daily; and Mid-Day is 9am to 5pm, daily. The discounts and premiums relative to the regular rate schedules in the existing Schedule TOU-G and TOU-J are retained in the proposed modified rates. However, the discounts and premiums are re-distributed among rating periods such that, similar to Schedule TOU-RI, rates per kWh are lowest during the Mid-Day period and highest during the On-Peak period. In addition, for Schedules TOU-J and TOU-P, the demand charge rates and the determination of demand are modified to be the same as the regular Schedule J and Schedule P, respectively.[399]

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[397]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 26-27. See also id., HECO-3009 at 3-5.

[398]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 27.

[399]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 27-28.

HECO states that it is taking "a cautious approach to modification of commercial time-of-use rates[,]" and that "they planned to propose revised commercial TOU rate options as part of Phase 2 of the [DER] proceeding."[400] Accordingly, HECO "proposes to modify the proposed Schedule TOU-G, Schedule TOU-J, and Schedule TOU-P rate designs in this proceeding to be aligned with the rate methodologies determined in the [DER] proceeding or any other separate proceeding where such commercial time-of-use rate option designs are considered for all the Hawaiian Electric Companies."[401]

HECO also proposes to modify the rates for Schedule U (Time-of-Use service) and Schedule EV-F (Commercial Public Electric Vehicle Charging Facility Service Pilot) to ensure that they maintain their existing relationship to the proposed Schedule P and Schedule J rates, respectively.[402] HECO also suggests closing Schedule U and Rider T (Time-of-Day Service) to new customers out of a desire to shift its TOU options to a rate design with three rating periods, which is offered by the new

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[400]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 28-29.

[401]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 29. As noted below, the commission intends to specifically address the issue of the HECO Companies' commercial TOU rate design in the DER Docket. See also, Order No. 33923 at 46-47 (stating that TOU tariffs for other non-residential customer classes are suited for Phase 2 of the DER proceeding).

[402]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 29.

Schedule TOU-P (Schedule U and Rider T only have two TOU rating periods).[403]

ii.

The Consumer Advocate

The Consumer Advocate states that "[t]he value and accuracy of embedded CCOS results is now greatly diminished, in comparison to the role of CCOS results in prior rate cases."[404] In particular, the Consumer Advocate expresses concern over how the impact of DER customers is reflected in the CCOS, as well as the Company's use of the "minimum system" method for its CCOS.[405] The Consumer Advocate states:

> [T]here are much larger concerns arising from the emergence of large sub-classes of customers within each traditional customer class that employ distributed energy resources ("DER") that significantly impact the energy usage patterns and revenue contributions to fixed costs for the entire class. Customers with DER may create unique new costs and benefits to the utility that are not considered within traditional CCOS methods. Unfortunately, the CCOS studies used in the past, that HECO has replicated in this docket, continue to apply the traditional customer classes that combine all residential, commercial, industrial and lighting customers into discrete classes without regard to how customers' load characteristics and revenues within each class have been impacted by DER.[406]

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[403]HECO Direct Testimony, HECO T-30 (Peter C. Young) at 29-30.

[404]CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 124.

[405]See CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 128-135.

[406]CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 125.

That being said, the Consumer Advocate notes that in response to CA-IR-411, HECO referenced Phase 2 of the commission's DER proceeding, where implementation of rate structures that are intended to facilitate further expansion of DER are to be considered; accordingly, the Consumer Advocate indicates that it intends to develop and present its views on the relevant cost of service, market structure, and DER value considerations in that proceeding, rather than in the present rate cases.[407]

The Consumer Advocate objects to HECO's continued use of the minimum system method, including the corresponding classification of a portion of distribution poles, conduit, conductors and transformers as "customer" related.[408] Furthermore, the Consumer Advocate also notes that HECO has not updated the input data and underlying studies that were conducted in its 2005 test year rate case, "causing the Company's minimum system results used within the present CCOS to be obsolete and unreliable even if the minimum system theories were defensible."[409]

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[407]See CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 128-129. The Consumer Advocate refers to its Exhibit CA-201 which contains testimony in opposition to the minimum system method that was presented in the Company's 2005 test year rate case in Docket No. 2005-0315. See id. CA-T-2 (Michael L. Brosch) at 135.

[408]CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 133.

[409]CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 135.

Notwithstanding these concerns regarding HECO's CCOS analyses, the Consumer Advocate concludes that, given the lack of otherwise reliable CCOS analyses and the relatively small overall revenue change proposed by the Consumer Advocate, "the Consumer Advocate agrees with the Company's proposed 'equal percentage to customer classes' increase approach [to distributing revenue change]."[410] However, the Consumer Advocate reiterates that "[l]arger changes to HECO's rate structure should be considered in the DER Docket, with the design of CCOS analyses in future rate cases informed by the Commission's decisions in that Docket."[411]

Regarding HECO's proposed rate design, while the Consumer Advocate generally agrees with HECO's proposal to reduce customer and demand costs recovered in energy rates by increasing customer charge rates and/or demand charge rates, the Consumer Advocate cautions moderation. "While cost of service is properly used to guide rate design, the Consumer Advocate does not support major shifts in cost recovery toward customer and demand charges at this time."[412] Consequently, "[t]he Consumer Advocate recommends moderated changes in cost recovery across rate elements

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[410]CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 136-37.

[411]CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 137.

[412]CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 138.

at this time, given the potential for significant changes to rate structure that could occur in the future."[413]

In general, the Consumer Advocate disagrees with HECO's proposed increases to its customer charges for its rate classes, maintaining that increases to HECO's minimum charges are more appropriate. Specifically, for residential customers, HECO maintains that the Customer Charge should not be increased, and that "HECO's concern about fixed cost recovery is better addressed through the Company's Minimum Charge that can be used to ensure that customers with minimal monthly usage continue to provide cost support for the Company's fixed customer costs."[414] Similarly, for small commercial (Schedule G) customers, the Consumer Advocate supports only a slight increase in the Customer Charge (from $33 to $35), while agreeing to HECO's proposed increases to the Minimum Charges.[415] Likewise, for medium commercial (Schedule J) customers, the Consumer Advocate recommends a more moderate increase in the Customer Charges and Demand Charge.[416] For the

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[413]CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 138 (as noted, supra, the Consumer Advocate strongly recommends updating HECO's CCOS analyses to incorporate the impacts of the increasing amount of DERs, as well as shift away from the minimum system method).

[414]CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 139-140).

[415]CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 142.

[416]See CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 143.

large customers served by Schedules DS and P, the Consumer Advocate does not object to HECO's proposed increases to their Customer Charges, but recommends more moderate increases to their Demand Charges.[417]

Regarding HECO's proposed TOU rate design changes, the Consumer Advocate states that it has not finalized its position on how HECO's optional TOU rates should be structured:

> The Company's efforts to conform its TOU tariff designs in this rate case to proposals advanced by the HECO Companies that are under consideration in the DER Docket, while maintaining alignment to changes in related rate schedules, are generally reasonable. The Consumer Advocate agrees with Mr. Young that it is appropriate for changes to TOU residential and commercial rate design to be evaluated in the DER Docket, so that standardized time of use rate structures can be established for all Hawaiian Electric Companies and that any TOU rate designs approved in this proceeding be aligned with the TOU ratemaking methods ultimately approved in the DER proceeding.[418]

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[417]See CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 144.

[418]CA Direct Testimony, CA-T-2 (Michael L. Brosch) at 146 (internal citations omitted).

iii.

The DOD

The DOD concludes that "the embedded cost methodology employed by HECO is generally consistent with industry practice and is suitable for use in this proceeding."[419] In contrast to the Consumer Advocate, the DOD supports HECO's use of the minimum system method as "reasonable and consistent with general industry practice," while finding that the "alternative study" supported by the Consumer Advocate (in which all distribution system costs are considered demand-related) "is not reasonable and should not be relied upon."[420]

The DOD does not support HECO's proposed across-the-board increase in rates.[421] According to the DOD's analysis of HECO's CCOS, the DOD maintains that there are significant disparities in the rate of return earned by each rate class at current effective rates, and that HECO's proposed rates will only exacerbate these distortions.[422] In particular, the DOD concludes that residential customers, Schedule R, appear to be

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[419]DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 4.

[420]DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 9.

[421]See DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 4.

[422]See DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 32-33.

enjoying cost subsidization from the larger commercial classes, particularly Schedules J, DS, and P.[423]

The DOD attributes this distortion primarily to the "non-cost based rate design for the RBA/RAM[,]" which adjusts cost recovery "on a kWh basis across all customer classes without any regard to the nature of the costs that are contributing to the increase flowing through these provisions."[424] According to the DOD, "[a] kWh-based recovery approach is properly reserved only for those cost elements that are variable[, and] [i]t appears that little, if any, of the costs and recoveries flowing through the RBA/RAM are of such nature."[425] In this regard, the DOD recommends a number of modifications to the RBA/RAM to address these perceived distortions.[426]

The DOD draws the following conclusions from the results of HECO's CCOS:

1. Schedule R is significantly below cost at present rates, and, with HECO's proposed equal percent increase, it is even further below cost at proposed rates.

2. Schedule G is below cost at present rates, and more below cost at proposed rates if the

[423]See DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 32-33 and Exhibit DOD-201.

[424]DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 34.

[425]DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 34.

[426]See DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 43-44.

minimum distribution system is recognized; and is slightly closer to cost at present and proposed rates, only if the minimum distribution system is ignored.

3. Schedule J is above cost and moves further above cost if the minimum distribution system is recognized. If it is not recognized, Schedule J is about as far above costs at proposed rates as it is at present rates.

4. Schedule P is above cost of service at present rates, and is further above cost of service at proposed rates, regardless of which cost of service study is used.

5. Regardless of which cost of service study is used, Schedule DS is approximately $20 million above cost of service at present rates, and at proposed rates the excess over cost of service would be about $26 million, a $6 million increase in the extent to which Schedule DS customers would be asked to subsidize Schedule R and Schedule G customers.[427]

Notwithstanding the DOD's opposition to HECO's proposed revenue increase, the DOD proposes its own allocation of HECO's proposed rate increase (as set forth in HECO's Application).[428]

Regarding HECO's rate design, the DOD notes that "HECO has adjusted the charges within these rates in a manner that moves both demand charges and energy charges toward the unit costs of demand and energy, respectively, as revealed in its cost of service studies."[429] The DOD concludes that this general rate design is

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[427]DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 33-36.

[428]See DOD Direct Testimony, Exhibit DOD-203.

[429]DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 38.

appropriate, as "the price signals given to customers are improved and equity is also improved within the rates as customers with different characteristics will be more appropriately priced in relation to the costs which they impose on the system."[430]

iv.

EFCA

EFCA's testimony focuses on HECO's rate design for commercial customers, specifically the impact on DER of demand ratchets.[431] As summarized by EFCA, "HECO's demand ratchet establishes a customer's monthly billing demand based, in part, on a customer's consumption of the past 11 months[,]" and "can be set in any month or interval of the year, regardless of whether it coincides with system peak."[432] "Once the ratchet is set, a customer receives limited economic benefit for reducing their peak demand for the rest of the year."[433]

According to EFCA, this sends a distorted price signal by failing to align costs with customer behavior; for example, it

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[430]DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 39.

[431]Currently, HECO's demand ratchets only apply to Schedules J and P. In its Application, HECO propose to extend its demand ratchets to Schedules TOU-J and TOU-P.

[432]EFCA Direct Testimony, EFCA Exhibit-1 at ES-2.

[433]EFCA Direct Testimony, EFCA Exhibit-1 at ES-2.

does not accurately reward customers who reduce their demand after the ratchet has been set, as the ratchet remains in place for the next eleven months.[434] Furthermore, "the demand ratchet only incentivizes customers to, at most, reduce their demand to the average of their maximum 15-minute demand reached at any point during the billing month and their maximum demand reached at any point over the past 11 months[,]" again, "provid[ing] limited economic incentive for a customer to reduce their demand significantly once the ratchet has been set."[435]

EFCA maintains that "the customers who are most affected by demand ratchets are those that invest in behind the meter DERs that are designed to reduce a customer's maximum demand and/or shift a customer's load off-peak, such as energy efficiency, demand response, solar PV, smart inverters, and energy storage."[436] As such, "[c]ustomers are provided limited economic benefit to reduce demand in a given billing month, as regardless of their max kW they will be billed based, in part, on their maximum demand for the past 11 months."[437] Similarly, "[e]ven after the ratchet is reset to account for load reductions, customers are subject to the

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[434]See EFCA Direct Testimony, EFCA Exhibit-1 at 11.

[435]EFCA Direct Testimony, EFCA Exhibit-1 at 12.

[436]EFCA Direct Testimony, EFCA Exhibit-1 at 15-16.

[437]EFCA Direct Testimony, EFCA Exhibit-1 at 16.

considerable risk of resetting the demand ratchet at any time and losing a significant portion of the economic benefit associated with their investment for an entire year."[438] Ultimately, EFCA maintains, "[c]ustomers are less likely to invest in DERs if they cannot realize the economic benefits[,]" and "HECO's existing ratchet is not conducive to the adoption of DERs, and adoption will be further impacted if the ratchet continues and is extended to other rates."[439]

Accordingly, EFCA recommends that the commission reject HECO's proposals to:

> (1) Continue the existing demand ratchet structure to Schedules J and P;
>
> (2) Extend the demand ratchet structure to Schedules TOU-J and TOU-P; and
>
> (3) Implement a non-coincident peak ("NCP") demand charge and redistribute the energy rate discounts and premiums on Schedules TOU-J and TOU-P.[440]

As an alternative to HECO's demand ratchet, EFCA recommends that HECO:

> [A]ssess a customer's billing demand based on their maximum 15-minute demand measured throughout the billing month for Schedules J and P. For Schedules TOU-J and TOU-P, billing demand should be based on a customer's monthly maximum 15-minute demand coincident outside of HECO's off-peak hours,

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[438]EFCA Direct Testimony, EFCA Exhibit-1 at 16.

[439]EFCA Direct Testimony, EFCA Exhibit-1 at 18.

[440]EFCA Direct Testimony, EFCA Exhibit-1 at ES-1.

consistent with the current structure on Schedule TOU-J.[441]

EFCA also proposes that HECO should "recover any additional revenues associated with a revenue-neutral unratcheted rate through the demand charge . . . and modify the ratcheted Minimum Charge provision for each tariff accordingly, so that any customer benefits received from changes to the demand ratchet are not voided."[442]

EFCA also maintains that "HECO's current practice of moving customers on Schedules J, P, TOU-J, and TOU-P that do not meet tariff load applicability requirements for 12 consecutive months to a new rate, without notice prior to the move, is inadequate."[443] EFCA recommends that the commission "should direct HECO to provide customers with notice of failure to meet tariff load requirements at the 6-month mark."[444]

Regarding HECO's TOU rate design, EFCA maintains that HECO's proposal to modify the demand charge structure of Schedules TOU-J and TOU-P from the current coincident peak method to NCP "represents movement in the wrong direction, as the intent of a [TOU] rate is to provide customers with stronger, cost-based

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[441]EFCA Direct Testimony, EFCA Exhibit-1 at ES-3.

[442]EFCA Direct Testimony, EFCA Exhibit-1 at ES-4.

[443]EFCA Direct Testimony, EFCA Exhibit-1 at ES-5.

[444]EFCA Direct Testimony, EFCA Exhibit-1 at ES-5.

price signals to incent maximum reductions in peak usage."[445] EFCA recommends that HECO should "reduce the differential between the current on-peak and mid-peak demand charge rates ($/kW), and the proposed differentials between the on-peak, mid-peak, and off-peak energy rates ($/kWh)."[446]

Finally, EFCA argues that these issues should be heard in this rate case proceeding instead of the DER Docket: "The Commission should reject HECO's assertion that the [DER Docket] is the most appropriate place to consider commercial TOU rate design, as it is inconsistent with the Commission's Order determining the scope of this docket and granting EFCA's intervention on the issue of commercial rates."[447]

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[445]EFCA Direct Testimony, EFCA Exhibit-1 at ES-4.

[446]EFCA Direct Testimony, EFCA Exhibit-1 at ES-4.

[447]EFCA Direct Testimony, EFCA Exhibit-1 at ES-5. Notwithstanding EFCA's use of the word "intervention," the commission notes that EFCA was admitted as a Participant to this proceeding, and not as an intervenor. See Order No. 34664 at 58-61.

V.

The November 2017 Settlement

For purposes of reaching a settlement, HECO and the Consumer Advocate agree that a determination of the most appropriate cost-of-service methodology is not necessary to establish the allocation of the revenue increase in this case:

> For purposes of reaching a settlement in this proceeding, Hawaiian Electric and the Consumer Advocate agree that a determination of appropriate cost-of-service methodology is not necessary to establish the allocation of revenue increase in this case, that for both the interim rate increase and the final rate increase in this case, revenue increases to classes shall be allocated based on assigning the dollar amount that results from applying the same percentage increase to revenues at current effective rates for each rate class, and that cost of service and rate structures for DER customers shall be presented in the DER [Docket] rather than in utility rate cases.[448]

The Parties also agreed to a list of stipulated rate design details as part of the November 2017 Settlement, including compromise positions regarding Minimum Charges for Schedules R and G; Customer Charges for Schedules R, G, J, DS and P; Demand Charges for Schedules J, DS, and P; and a revenue increase for Schedule F.[449]

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[448]November 2017 Settlement, Exhibit 1 at 92.

[449]See November 2017 Settlement, Exhibit 1 at 96-97. The November 2017 Settlement also provides a summary of the Parties'

As it pertains to HECO's proposed TOU rate design, the November 2017 Settlement notes that the Consumer Advocate did not take an official position in this proceeding, and the Settlement appears to implement the proposals set forth by HECO.[450] However, the November 2017 Settlement did note that the Consumer Advocate expressed its preference to address the issues of residential and commercial TOU rate designs in the context of the DER Docket.[451]

vi.

Approving The November 2017 Settlement Rate Design

The commission finds that the Parties' stipulated rate class revenue allocation principle and rate design provisions are reasonable, under the circumstances contemplated in the November 2017 Settlement.

Notwithstanding the DOD's and EFCA's objections to various aspects of HECO's proposed rate design, the commission observes that the Parties' agreement on the issue of rate design is part of a comprehensive settlement agreement (i.e., the November 2017 Settlement) which is intended to resolve all the

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respective positions on rate design. See id. at Exhibit 1 at 92-96.

[450]See November 2017 Settlement, Exhibit 1 at 96-97.

[451]See November 2017 Settlement, Exhibit 1 at 96.

rate case issues in a balanced manner.[452] The commission, in determining whether and to what extent it would accept or impose adjustments to the Parties' November 2017 and March 2018 Settlements, considered and weighed the reasonableness of each component of the agreement, including the benefits provided by the comprehensive nature of the agreement. While the commission ultimately imposed a number of conditions to the November 2017 Settlement in Interim D&O 35100, it deliberately limited its adjustments to those specific issues which it felt superseded the benefits of the comprehensive nature of the settlement agreement.[453]

Thus, while the commission has considered the DOD's and EFCA's proposals presented in their respective Direct Testimony regarding proposed changes to HECO's rate design,[454] the commission

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[452]See November 2017 Settlement at 1 ("The agreements set forth in Exhibit 1 are for the purpose of simplifying and expediting resolution of this proceeding, represent a negotiated compromise, and do not constitute an admission by either party with respect to any of the matters agreed upon.").

[453]Specifically, the commission's interim adjustments to the November 2017 Settlement were focused on significant adjustments to HECO's 2017 Test Year revenue requirement, amounting to approximately $17,707,000. Compare HECO Statement of Probable Entitlement, Attachment 1 at 1 (reflecting the Parties' November 2017 Settlement on HECO's 2017 Test Year revenue requirement) with Order No. 35280, Exhibit A at 1 (reflecting the commission's approved interim revenue requirement resulting from Interim D&O 35100).

[454]As it pertains to the testimony provided by the DOD, the commission observes that the DOD relied on HECO's proposed rate

weighs these against the benefits presented by the Parties' agreements, as reflected in the November 2017 and March 2018 Settlements, understanding that the Settlements reflect compromise and "give and take" on a number of issues, including rate design. The commission views the Settlements as a whole, including the magnitude of the commission's interim adjustments (which have been largely incorporated into the March 2018 Settlement) and the stipulated impacts of the 2017 Tax Act.

That being said, the commission finds that the rate design proposals presented by HECO, the Consumer Advocate, and EFCA in this proceeding that are relevant to the implementation of distributed energy resources can continue to be discussed and considered in the context of the DER Docket.[455] While EFCA has argued that these issues should be addressed now in this proceeding, the commission finds that continuing to examine these issues in the DER Docket is reasonable under the circumstances.

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increase, as set forth in its Application, for purposes of developing the DOD's testimony. See DOD Direct Testimony, DOD-T2 (Maurice Brubaker) at 4. Accordingly, the DOD's position was based on a proposed revenue requirement that was far greater than the revenue requirement approved in this Final Decision and Order and which is now expected to reflect a decrease from current effective rates.

[455]See e.g., In re Public Util. Comm'n, Docket No. 2014-0192, Order No. 34206, "Establishing Statement of Issues and Procedural Schedule for Phase 2," filed December 9, 2016, at 8-9 (setting forth Market Track issues).

As noted above, the commission has found that the November 2017 and March 2018 Settlements represent reasonable global compromise on the issues, including rate design. However, the issues raised and evidence provided by the Parties and Participants pertaining to the impact of rate design and DER adoption in Hawaii are worthy of further consideration, and the DER Docket is an appropriate venue for such discussion. The commission appreciates EFCA's substantial contributions to this proceeding, and intends to consider EFCA's proposals in the DER Docket. In this regard, the commission observes that alternative rate designs to facilitate the safe and beneficial integration of DER onto Hawaii's electric grids have been identified as a specific issue for consideration in the Phase 2 of the DER Docket.[456]

8.

Implementation Of Final Rates

Notwithstanding the above, HECO has not provided proposed comprehensive rate schedules or tariff sheets that reflect the rate designs agreed to in the November 2017 Settlement or the electric sales revenue implemented in the March 2018 Settlement Tariff Sheets, filed on March 16, 2018. It will therefore be necessary to develop and provide proposed final tariff

[456]See Order No. 34206 at 8-9 (Issue No. 6).

sheets that accurately and effectively implement the determinations in this Final Decision and Order for the commission's review and approval. Because the revenues approved in this Final Decision and Order are substantially different than revenues assumed in any comprehensive rate schedules or tariff sheets provided to date, several matters regarding customer class revenue allocation and the integrity of rate design should be considered in the development of tariffs to implement this order.

Accordingly, HECO shall collaborate with the Consumer Advocate to develop proposed final tariff sheets which implement the provisions in this Final Decision and Order for the commission's review and approval, which shall be submitted to the commission within thirty (30) days of this Final Decision and Order. In the event consensus among HECO and the Consumer Advocate on the final tariff sheets cannot be reached, HECO shall submit proposed final tariff sheets within thirty (30) days and the Consumer Advocate may submit comments on HECO's proposed final tariff sheets within ten (10) days of the filing of HECO's proposed final tariff sheets.

Statutory Refund Provision

HRS § 269-16(d) states, in relevant part:

> Notwithstanding subsection (c), if the commission has not issued its final decision on a public utility's rate application within the nine-month period stated in this section, the commission, within one month after expiration of the nine-month period, shall render an interim decision allowing the increase in rates, fares and charges, if any, to which the commission, based on the evidentiary record before it, believes the public utility is probably entitled. The commission may postpone its interim rate decision for thirty days if the commission considers the evidentiary hearings incomplete. In the event interim rates are made effective, the commission shall require by order the public utility to return, in the form of an adjustment to rates, fares, or charges to be billed in the future, any amounts with interest, at a rate equal to the rate of return on the public utility's rate base found to be reasonable by the commission, received under the interim rates that are in excess of the rates, fares, or charges finally determined to be just and reasonable by the commission. Interest on any excess shall commence as of the date that any rate, fare, or charge goes into effect that results in the excess and shall continue to accrue on the balance of the excess until returned.
>
> . . . .

HRS § 269-16(d) (emphasis added).

The Parties' March 2018 Settlement revenue requirement of $1,534,840,000, as reflected in HECO's March 2018 Tariffs, and approved in this Final Decision and order, represents a decrease from the interim revenue requirement of $1,571,414,000 previously approved by the commission in Interim D&O 35100:

2017 Test Year	Interim Rates Effective 2/16/18[457]	Second Interim Rates Effective 4/13/18[458]
Revenue Requirement	$1,571,414,000	$1,534,840,000
Increase/Decrease Over Revenues at Current Effective Rates	$35,971,000	($603,000)

This decrease in revenue requirement between the November 2017 Settlement's interim rates and the March 2018 Settlement's second interim rates is attributable to adjustments to pass the net benefits of the 2017 Tax Act to HECO's customers.[459] Pursuant to the Parties' agreement regarding the impacts of the 2017 Tax Act (i.e., Amended Issue No. 5), "[i]nterim rates [resulting from the March 2018 Settlement] shall also reflect the revenue requirement reduction impact of amortizing over a 3-year period the accumulated 'Daily Revenue Impact' of Tax Act net savings from January 1, 2018 to the effective date of such reduced Interim rates, using the $63,036 per day value calculated by the Consumer Advocate . . . applied to the number of days between January 1 and the effective date of reduced Interim rates."[460]

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[457]See Order No. 35280.

[458]See Order No. 35372.

[459]See March 2018 Settlement, Exhibit 2 at 1.

[460]March 2018 Settlement, Exhibit 1 at 22 (internal citations omitted).

A mechanism agreed to by the Parties and approved by the commission has thus been established to return amounts exceeding[461] any "excess" in revenues collected by HECO in the period between the commencement of interim rates set in Interim D&O 35100 (effective as of February 16, 2018),[462] and the commencement of second interim rates resulting from the March 2018 Settlement (effective as of April 13, 2018).[463]

The commission accordingly finds that the rates approved in this Final Decision and Order, including the mechanism to return to HECO's customers any amounts of revenue collected at interim rates that are in excess of revenues at approved final rates (as described above), are in compliance with the provisions of HRS § 269-16(d).

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[461]The amount to be returned to HECO's customers is based on the calculated daily amount of revenue collected by HECO during the first interim period in "excess" of final rates. The period that any "excess" revenue was collected was from February 16, 2018 through April 12, 2018 (i.e., 56 days). In comparison, the total amount that will be returned to HECO's customers as a result of the March 2018 Settlement is substantially greater, equal to the calculated daily amount for the period January 1, 2018 through April 12, 2018 (i.e., 102 days). Thus, the commission notes that the amount to be ultimately returned to customers under the March 2018 Settlement is greater than the calculated "excess" collected in the interim period by an amount far greater than any "interest, at a rate equal to the rate of return on the public utility's rate base" that would be required in HRS § 269-16(d).

[462]See Order No. 35280.

[463]See Order No. 35372. As noted above, there is no material difference in the revenue requirement approved in Order No. 35372 and this Final Decision and Order.

III.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

1. HECO's 2017 Test Year revenues, expenses, and average depreciated rate base balance, discussed above, and as set forth in the November 2017 and March 2018 Settlement Agreements and the final results of operation schedules attached as Exhibits A and B to this Final Decision and Order, are reasonable and are approved as such.

2. A fair return on common equity, or ROE, for HECO for the 2017 Test Year is 9.50%. Based on this ROE, the commission approves as fair and reasonable, a rate of return on average rate base of 7.57%.

3. The Parties' stipulated treatment of the impacts of the 2017 Tax Act, as set forth in the March 2018 Settlement, and as further provided herein, is reasonable.

4. The commission finds that HECO's ECAC shall be modified to incorporate a risk-sharing mechanism based on Blue Planet's amended Option A proposal, as set forth above.

5. The commission approves the Parties' stipulations to modify HECO's pension and OPEB tracking mechanisms to account for the changes related to: (A) the excess pension contribution adjustment; and (B) ASU 2017-07. HECO shall submit proposed revisions of its pension and OPEB tracking mechanisms in their

entirety for the commission's review and approval as set forth in the Ordering Paragraphs below.

6. The commission finds that the stipulated mechanism to return to HECO's customers any amounts of revenue collected at interim rates that are in excess of revenues at approved final rates (which include benefits of the 2017 Tax Act), are in compliance with the provisions of HRS § 269-16(d).

7. The commission finds that the November 2017 and March 2018 Settlement agreements between the Parties, both of which are approved and expressly incorporated by reference by the commission in this Final Decision and Order issued today, are just and reasonable. That being said, the commission's approval of the Parties' agreements, or any of the methodologies used by the Parties in settling the issues governing this proceeding, may not be cited as precedent by any Parties or Participants in future commission proceedings.

IV.

ORDERS

THE COMMISSION ORDERS:

1. The commission approves final rate relief for HECO, as set forth in this Final Decision and Order, including an ROE of 9.50% and a corresponding rate of return on average rate base of 7.57%.

2. The Parties shall submit proposed final tariff sheets consistent with this Final Decision and Order within thirty (30) days of this Final Decision and Order. In the event consensus between the Parties on the final tariff sheets cannot be reached, HECO shall submit proposed final tariff sheets within thirty (30) days of this Final Decision and Order and the Consumer Advocate may submit comments on HECO's proposed sheets within ten (10) days of HECO's filing.

3. Within thirty (30) days of this Final Decision and Order, HECO shall submit proposed revisions of its pension and OPEB tracking mechanisms, in their entirety, which reflect the approved changes set forth in this Final Decision and Order with regards to: (A) the treatment of the excess pension contribution; and (B) ASU 2017-07. The Consumer Advocate may submit comments on HECO's proposed revisions to the pension tracking mechanism within ten (10) days of HECO's filing.

4. Within thirty (30) days of this Final Decision and Order, HECO shall file an initial revised draft ECRC tariff proposal which incorporates the pertinent findings and conclusions set forth in this Final Decision and Order, including: (i) incorporation of the existing ECAC tariff provisions modified to provide for recovery of all fuel and purchased energy costs through the ECRC; and (ii) incorporation of the fuel cost risk-sharing mechanism consistent with this Final Decision and Order. The submittal shall also include examples of the monthly, quarterly, and annual reconciliation filings necessary to implement the ECRC tariff provisions and an explanation of what specific changes to other tariff sheets would be required.

Thereafter, the commission shall schedule a technical conference with commission staff, HECO, the Consumer Advocate and Blue Planet to review, clarify, and refine the proposed ECRC tariff language. HECO, the Consumer Advocate and Blue Planet may also invite witnesses who offered testimony on this issue. Following the technical conference, HECO shall submit a revised proposed ECRC tariff to the commission. The Consumer Advocate and Blue Planet may file comments to this revised proposed ECRC tariff as will be set forth by a subsequent commission Order. Commission approval and directions to implement the ECRC shall be provided in a subsequent commission Order.

5. Following the events and the submission of filings noted above, the commission will issue order(s) regarding HECO's final tariffs sheets and their effective date.

DONE at Honolulu, Hawaii JUN 22 2018.

PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By _____
Randall Y. Iwase, Chair

By _____
Lorraine H. Akiba, Commissioner

By _____
James P. Griffin, Commissioner

APPROVED AS TO FORM:

_____
Mark Kaetsu
Commission Counsel

2016-0328.ncm

DOCKET NO. 2016-0328
HAWAIIAN ELECTRIC COMPANY, INC.
RESULTS OF OPERATIONS

2017
($ THOUSANDS)

	CURRENT EFFECTIVE RATES	ADDITIONAL AMOUNT	APPROVED RATES
Electric Sales Revenue	1,532,472	(620)	1,531,852
Other Operating Revenue	2,905	17	2,922
Gain on Sale of Land	66		66
TOTAL OPERATING REVENUES	1,535,443	(603)	1,534,840
Fuel	327,609		327,609
Purchased Power	466,211		466,211
Production	79,306		79,306
Transmission	15,808		15,808
Distribution	46,825		46,825
Customer Accounts	20,354		20,354
Allowance for Uncollectible Accounts	732		732
Customer Service	15,651		15,651
Administration & General	119,758		119,758
Customer Benefit Adjustment	(5,467)		(5,467)
Customer Benefit Adjustment 2	(4,556)		(4,556)
Operation and Maintenance	1,082,231		1,082,231
Depreciation & Amortization	123,516		123,516
Amortization of State ITC	(5,633)		(5,633)
Taxes Other Than Income Tax	145,623	(54)	145,569
Interest on Customer Deposits	723		723
Income Taxes	37,680	(141)	37,538
TOTAL OPERATING EXPENSES	1,384,139	(195)	1,383,944
OPERATING INCOME	151,304	(408)	150,896
AVERAGE RATE BASE	1,993,352	9	1,993,360
RATE OF RETURN ON AVERAGE RATE BASE	7.59%		7.57%

DOCKET NO. 2016-0328
HAWAIIAN ELECTRIC COMPANY, INC.
ANALYSIS OF RATE CHANGE

2017
($ THOUSANDS)

	AMOUNT	% CHANGE
RATE CHANGE:		
ELECTRIC REVENUES	(620.0)	-0.040%
OTHER REVENUES	17.0	0.585%
FINAL (DECREASE)	(603.0)	-0.039%

DOCKET NO. 2016-0328

HAWAIIAN ELECTRIC COMPANY, INC.

COMPUTATION OF TAXES OTHER THAN INCOME TAX

2017

($ THOUSANDS)

	RATE	CURRENT EFFECTIVE RATES	ADJUSTMENT	APPROVED RATES
Electric Sales Revenue		1,532,472	(620)	1,531,852
Other Operating Revenue		2,905	17	2,922
OPERATING REVENUES		1,535,377	(603)	1,534,774
Public Service Tax	5.885%	90,314	(35)	90,278
PUC Fees	0.500%	7,673	(3)	7,670
Franchise Tax	2.500%	38,294	(16)	38,278
Payroll Tax		9,342		9,342
TOTAL TAXES OTHER THAN INCOME TAX		145,623	(54)	145,569

DOCKET NO. 2016-0328
HAWAIIAN ELECTRIC COMPANY, INC.
COMPUTATION OF INCOME TAX EXPENSE

2017
($ THOUSANDS)

	CURRENT EFFECTIVE RATES	ADJUSTMENT AMOUNT	APPROVED RATES
Operating Revenues	1,535,443	(603)	1,534,840
Operating Expenses:			
Fuel Oil and Purchased Power	793,820		793,820
Other Operation & Maintenance Expense	288,411	0	288,411
Depreciation	123,516	0	123,516
Amortization of State ITC	(5,633)	0	(5,633)
Taxes Other than Income	145,623	(54)	145,569
Interest on Customer Deposits	723	0	723
Total Operating Expenses	1,346,460	(54)	1,346,406
Operating Income Before Income Taxes	188,983	(549)	188,434
Tax Adjustments:			
Interest Expense	(41,861)		(41,861)
Meals and Entertainment	174		174
	(41,687)	0	(41,687)
Taxable Income at Ordinary Rates	147,296	(549)	146,747
Income Tax Expense at Ordinary Rates	37,932	(141)	37,790
Tax Benefit of DPAD	0		0
Tax Effect of Deductible Pref. Stock Div.	23		23
R&D Credit	229		229
TOTAL INCOME TAX EXPENSE	37,680	(141)	37,538

DOCKET NO. 2016-0328

HAWAIIAN ELECTRIC COMPANY, INC.

AVERAGE RATE BASE

2017

($ THOUSANDS)

	BEGINNING BALANCE	END OF YEAR BALANCE	AVERAGE BALANCE
Investments In Assets			
Net Cost of Plant In Service	2,595,452	2,770,695	2,683,074
Property Held for Future Use	-	-	-
Fuel Inventory	46,200	46,200	46,200
Materials & Supplies Inventories	28,427	28,427	28,427
Unamortized Net Regulatory Asset - ASC 740	70,144	(129,063)	(29,460)
Pension Tracking Regulatory Asset	97,620	113,828	105,724
Contribution in Excess of NPPC	6,470	6,470	6,470
PSIP Deferred Cost	-	-	-
EOTP Regualtory Asset	444	89	267
CIP CT-1 Regulatory Asset	2,306	1,352	1,829
Deferred System Develop. Costs	15,932	13,496	14,714
RO Water Pipeline Regulatory Asset	4,958	4,842	4,900
Total Investments In Assets	2,867,953	2,856,336	2,862,145
Funds from Non-Investors			
Unamortized CIAC	347,826	395,134	371,480
Customer Advances	3,581	3,925	3,753
Customer Deposits	12,101	12,005	12,053
Accumulated Def. Income Taxes	520,843	537,310	528,977
Excess Accumulated Def. Income Taxes	-	(203,950)	(101,975)
Unamort State ITC (Gross)	56,323	54,903	55,613
Unamortized Gain on Sale	248	182	215
OPEB Reg Liability	2,817	2,331	2,574
Total Deductions	943,539	801,840	872,690
Difference			1,989,455
Working Cash at Current Effective Rates			3,897
Rate Base at Current Effective Rates			1,993,352
Change in Rate Base - Working Cash			9
Rate Base at Approved Rates			1,993,360

DOCKET. NO. 2016-0328
HAWAIIAN ELECTRIC COMPANY, INC.
WORKING CASH ITEMS

2017
($ THOUSANDS)

	A COLLECTION LAG (DAYS)	B PAYMENT LAG (DAYS)	C COLLECTION LAG (DAYS) (A - B)	D ANNUAL AMOUNT
ITEMS REQUIRED WORKING CASH				
Fuel	36.4	17.3	19.1	327,609
Purchased Power	36.4	41.8	(5.4)	468,211
O & M Labor	36.4	10.9	25.5	128,508
O & M Non-Labor	36.4	27.8	8.6	161,160
Revenue Taxes	36.4	87.3	(50.9)	138,281
Income Taxes - Current Effective Rates	36.4	39.0	(2.6)	16,800
Income Taxes - Approved Rates	36.4	39.0	(2.6)	16,659

	E AVERAGE DAILY AMOUNT (D/365)	F WORKING CASH (CURR EFF RATES) (C * E)	G AVERAGE DAILY AMOUNT	H WORKING CASH (APPROVED RATES) (C * G)
ITEMS REQUIRING WORKING CASH				
Fuel	898	17,143	898	17,143
Purchased Power	1,277	(6,897)	1,277	(6,897)
O & M Labor	352	8,978	352	8,978
ITEMS THAT PROVIDE WORKING CASH				
O & M Non-Labor	442	3,797	442	3,797
Revenue Taxes	373	(19,005)	373	(18,997)
Income Taxes - Current Effective Rates	46	(120)		
Income Taxes - Approved Rates	46		46	(119)
Total		3,897		3,905
Change in Working Cash				9

CERTIFICATE OF SERVICE

The foregoing order was served on the date of filing by mail, postage prepaid, and properly addressed to the following parties:

DEAN NISHINA
EXECUTIVE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
DIVISION OF CONSUMER ADVOCACY
P. O. Box 541
Honolulu, HI 96809

DEAN K. MATSUURA
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