Subsequently, on June 18, 2021, the Consumer Advocate issued Supplemental IRs ("SIRs") to HECO, to which HECO responded on July 16, 2021.[6]

On June 22, 2021, the Commission issued IRs to HECO, to which HECO also responded on July 16, 2021.[7]

On August 16, 2021, and August 19, 2021, the Consumer Advocate submitted motions requesting an extension of time to file its Statement of Position ("SOP"), which the Commission granted.[8]

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[6]"Division of Consumer Advocacy's Submission of Supplemental Information Requests," filed on June 18, 2021; and Letter From: D. Matsuura To: Commission Re: Docket No. 2021-0017 – Waiawa Under Frequency Load Shed Project; Hawaiian Electric Responses to Consumer Advocate Supplemental Information Requests 1-3, filed on July 16, 2021 ("Response to CA-SIR-__").

[7]Letter From: Commission To: D. Matsuura Re: Docket No. 2021-0017 – For Approval to Commit Funds in Excess of $2,500,000 for the Revision and Installation of the Waiawa Under Frequency Load Shed Project, and to Recover Costs through the Exceptional Project Recovery Mechanism, filed on July 22, 2021; Letter From: Commission To: D. Matsuura Re: Docket No. 2021-0017 – Waiawa Under Frequency Load Shed Project; Granting Hawaiian Electric Letter Request for Extension of Time to Respond to PUC-HECO-IRs 01-10, filed on June 29, 2021; and Letter From: D. Matsuura to Commission Re: Docket No. 2021-0017 – Waiawa Under Frequency Load Shed Project; Hawaiian Electric Responses to Commission Information Requests 01 – 10, filed on July 16, 2021 ("Responses to PUC-HECO-IR-__").

[8]See Order No. 37922, "Granting the Division of Consumer Advocacy's Motion for Enlargement of Time," filed August 18, 2021; and Order No. 37928, "Granting the Division of Consumer Advocacy's Motion for Enlargement of Time," filed August 23, 2021.

On August 25, 2021, the Consumer Advocate filed its SOP.[9]

On August 27, 2021, HECO filed its Reply SOP.[10]

Pursuant to the procedural schedule set forth in Order No. 37708, as amended by Order Nos. 37922 and 37928, no further briefing is contemplated, and the docket is ready for decision making.

II.

PARTIES AND POSITIONS

A.

HECO'S Application

HECO is an operating public utility engaged in the production, purchase, transmission, distribution, and sale of electricity on the island of Oahu.[11]

Through its Application, HECO seeks Commission approval to commit funds in excess of $2,500,000, currently estimated at approximately $2,600,000, to update the UFLS scheme in anticipation of the interconnection of two solar plus storage projects, as described below.

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[9]"Division of Consumer Advocacy's Statement of Position," filed August 25, 2021 ("CA SOP").

[10]"Hawaiian Electric Company, Inc.'s Reply Statement of Position; and Certificate of Service," filed on September 21, 2021 ("HECO RSOP").

[11]Application at 4.

According to HECO:

> UFLS is a protective function utilized during emergency situations. As a protective function, UFLS is critical to ensuring system events and disturbances do not create a larger instability that could result in a more sizeable outage or an island-wide outage. UFLS is designed and enabled by disconnecting entire 12kV circuits or 46kV circuits (which results in the disconnection of multiple distribution substations/circuits at once) to prevent large generation to load mismatches from eroding into a larger event.[12]

Under the UFLS scheme, designated circuits are grouped into "blocks," and are programmed to load shed at the same time. Currently, the Waiau-Mililani circuit and the Wahiawa-Waimano circuit are part of a UFLS block that is set to shed at the 46 kV level. These are also the circuits upon which two solar-plus-storage projects operated by independent power producers, Waiawa Solar Power LLC and Waiawa Phase 2 Solar, LLC, (respectively, the "Waiawa Solar 1" and "Waiawa Solar 2" projects, and collectively, "the Waiawa Solar Projects"),[13] will be interconnected. HECO states that this creates a situation where there is a risk that if the Waiawa Solar Projects are tripped offline in an under-frequency event, this will cause a trip of the entire UFLS block; i.e., the entire 46 kV circuit connected to the

[12]Application at 5.

[13]Application at 1-2.

Waiawa Solar Projects.[14] This, in turn, may create an even greater system imbalance, which could result in "additional load shed or a system blackout."[15]

To address this, the Project proposes to disable the UFLS at the 46 kV breakers affecting the Waiau-Mililani and Wahiawa-Waimano circuits and instead install relays at six associated 12 kV circuits.[16] This will allow the load shed to occur downstream at the 12 kV circuits, rather than at the 46kV circuit level.[17] According to HECO, this will allow the UFLS scheme to trip the same amount of load necessary to address an under-frequency event on these circuits without needing to trip the Waiawa Solar Projects.[18]

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[14]See Application at 6.

[15]Application at 6.

[16]See Application at 5-6.

[17]Application at 9.

[18]See Application at 7-8.

Specifically, the Project would involve the following circuit upgrades:[19]

Substation	Circuits Upgraded
Wahiawa (46kV)	• Wahiawa-Waimano (4449)
Waiau (46kV)	• Waiau-Mililani (4453)
Kunia (12kV)	• Kunia (1484)
Uwapo (12kV)	• Uwapo 3 (7986) • Uwapo 4 (7985)
Waiawa (12kV)	• Waiawa 1 (1420) • Waiawa 2 (1441) • Waiawa 3 (7163) • Waiawa 4 (7164)
Waimalu (12kV)	• Waimalu 1 (1600) • Waimalu 2 (1601) • Waimalu 3 (2551) • Waimalu 4 (2552)
Waipio (12kV)	• Waipio 1 (3181) • Waipio 2 (3182)
Waipiolani (12kV)	• Waikele Center (7652) • Managers (7653) • Lumiauau (7654) • Paiwa (7655)

The Project would also involve the installation of relays at the following 12 kV substations and circuits:[20]

Substation	Scope
Wahiawa (46kV)	• (1) Control Switch (UFLS enable/Disable) - Bkr #4449
Waiau (46kV)	• (1) Control Switch (UFLS enable/Disable) - Bkr #4453
Kunia (12kV)	• Microprocessor relay (re-program only) • (1) GPS Clock
Uwapo (12kV)	• (2) Microprocessor relay • (1) GPS Clock • (1) Router

[19]Application, Exhibit 1 at 2.

[20]Application, Exhibit 1 2-3.

Substation	Scope
Waiawa (12kV)	• (4) Microprocessor relay • (1) GPS Clock
Waimalu (12kV)	• (4) Microprocessor relay • (1) GPS Clock
Waipio (12kV)	• (2) Microprocessor relay • (1) GPS Clock
Waipiolaui (12kV)	• (4) Microprocessor relay • (1) GPS Clock

HECO estimates that the Project will cost $2,597,653, and will result in an average monthly bill impact of $0.01 for a residential customer consuming 500 kWh.[21]

HECO states that it evaluated two other scenarios, including maintaining the status quo and temporarily re-ordering the UFLS block logic.[22] However, HECO states that neither are as desirable as the Project. According to HECO, maintaining the status quo continues to present the risk of tripping the Waiawa Solar Projects during an under-frequency event.[23] Alternatively, re-ordering the UFLS block logic would preserve the Waiawa Solar Projects' 46 kV circuits, but would increase the risk of load shedding on the circuits serving UH Manoa, and would only

[21]Application, Exhibit 1 at 5.

[22]See Application at 9-10.

[23]Application at 9.

serve as a temporary fix for the Waiawa Solar 1 project, but would not suffice when the Waiawa Solar 2 project is brought online.[24]

HECO states that it considered the Commission's "Inclination on the Future of Hawaii's Electric Utilities," as set forth in Decision and Order No. 32052, filed on April 28, 2014, in Docket No. 2012-0036, which states that new transmission projects must consider non-transmission alternatives.[25] HECO maintains that the application of non-transmission alternatives is not relevant here, because the Project does not involve the construction or rebuilding of transmission or distribution lines, and is limited to the installation of relays within a control enclosure or switchgear.[26]

Pursuant to HRS § 269-6(b), HECO hired Ramboll US Consulting, Inc. ("Ramboll") to conduct a greenhouse gas ("GHG") emissions analysis for the Project that includes both in- and out-of-state GHG emissions from all stages of the Project's lifecycle, including: (1) upstream (component production and transportation, construction, and installation); (2) operations (use and operations and maintenance ("O&M")); and (3) downstream

[24] See Application at 9-10.

[25] Application at 11-12.

[26] Application at 12.

(end of life treatment).[27] According to the GHG Study, the Project is estimated to result in 160 metric tons carbon dioxide equivalent ("MT CO_2e") over the Project's 55-year lifecycle.[28]

HECO seeks to recover Project costs "through the EPRM[] commencing the month following the date the Project is placed in service, based on EPRM guidelines at that time, until new rates become effective that provide cost recovery for the Project or as otherwise provided by the Commission."[29] HECO estimates that recovering Project costs through the EPRM would result in a monthly bill impact of approximately $0.01, for a typical residential customer using 500 kWh.[30]

HECO states the Project is eligible pursuant to Section III.B.1(b) of the EPRM Guidelines, as a project that can help HECO to increase renewable energy usage.[31] HECO provides an illustrative EPRM calculation for the Project, but clarifies that pursuant to Section III.C.2(b) of the EPRM Guidelines, recovery sought under the EPRM will be based on "actual information

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[27]Application at 12-13. Ramboll's GHG emissions analysis ("GHG Analysis") is attached as Exhibit 3 to the Application.

[28]Application at 14.

[29]Application at 18.

[30]Application at 22. See also, id. at Exhibit 5.

[31]Application at 15-16.

and the depreciation, tax and authorized return rates in place at that time."[32]

HECO contends that it has submitted a business case study and specific criteria for determining when the Project is used and useful that meet the requirements of the EPRM Guidelines.[33]

B.

Consumer Advocate's Statement Of Position

The Consumer Advocate does not object to HECO's request to commit funds in excess of $2,500,000 for the Project, but raises concerns with HECO's business case study and recommends that the Commission impose certain conditions if Project costs are allowed to be recovered through the EPRM.

In determining whether the commitment of funds for the Project is reasonable, the Consumer Advocate examined whether there is a need for UFLS, whether there is a need for upgrades to the affected 46 kV circuits, whether there are viable alternatives to the Project, and the GHG impacts associated with the Project, pursuant to HRS § 269-6(b).[34]

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[32]Application at 17; see also, id., Exhibit 4.

[33]See Application at 17-18.

[34]See CA SOP at 4-12.

Regarding a need for UFLS, the Consumer Advocate observes that UFLS "serves as a protective function designed to stabilize the balance between generation and load by decreasing load on the electric system during events and disturbances to mitigate more sizable outages or an island-wide outage."[35] The Consumer Advocate further observes that "[d]ue to the proliferation of Distributed Energy Resources ('DER') on the islands, the need to update load shedding schemes has been evident since the system dynamic has become more complex with greater penetration of DER."[36] While DER resources may prove to be useful in helping to balance load and generation in the future, the Consumer Advocate concludes that "UFLS will still continue to be needed as the last resort to prevent the electric system from collapsing."[37]

Regarding the need for the Project on affected 46 kV circuits, the Consumer Advocate accepts that the Project is intended to revise HECO's UFLS scheme on the Waiau-Mililani and Wahiawa-Waimano 46 kV circuits to accommodate the interconnection of the Waiawa Solar Projects and allow them to remain connected to

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[35]Application at 5.

[36]CA SOP at 6.

[37]CA SOP at 6.

the system in the event of an under-frequency event.[38] Accordingly, the Consumer Advocate states that "there is a need to revise the UFLS associated with [those circuits][,]" in order to ensure that the Waiawa Solar Projects remain connected, as "[their] services and capabilities will be important in maintaining system reliability, especially as the Company retires older fossil fuel generators on its system."[39]

The Consumer Advocate reviewed the alternative scenarios offered by HECO and observes that HECO has identified them as less desirable.[40] The Consumer Advocate concurs that the Project's UFLS redesign, which will allow load shed at the distribution level, rather than the 46 kV circuit level, could not be met by the other alternative scenarios.[41]

In considering the factors identified in HRS § 269-6(b), the Consumer Advocate notes that HECO submitted the GHG Analysis which concludes that the Project would result in approximately 160 MT CO_2e on a lifecycle basis.[42] The Consumer Advocate states that the GHG Analysis "is similar to the analysis conducted in

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[38]Application at 6-7.

[39]CA SOP at 7.

[40]CA SOP at 8.

[41]CA SOP at 11.

[42]CA SOP at 9-10.

other infrastructure projects . . . which appears to be comprehensive, recognizing that the lifecycle GHG emission analyses is still an evolving process."[43] In light of the above, the Consumer Advocate states that it does not have any recommended adjustments to the GHG Analysis, and further notes that "as the proposed Project is intended to maintain the interconnection of the Waiawa Solar Projects, . . . the benefits of the Waiawa Solar Projects should be taken into consideration in assessing the proposed Project."[44]

Based on the above, the Consumer Advocate does not object to approving the commitment of funds for the Project, pursuant to G.O. 7.[45] However, the Consumer Advocate raises concerns with HECO's request for cost recovery through the EPRM. While the Consumer Advocate agrees that the Project may be eligible for EPRM relief under Section III.B.1.b of the EPRM guidelines, the Consumer Advocate maintains that HECO has not met its burden of demonstrating the costs and benefits of the Project in its business case.[46] Specifically, the Consumer Advocate states that while HECO has identified the estimated costs associated with the

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[43]CA SOP at 10-11.

[44]CA SOP at 11.

[45]CA SOP at 12.

[46]See CA SOP at 14-16.

Project, i.e., the estimated monthly bill impact, "the Company did not seem to allocate the same effort and resources to aggressively identify the benefits and comprehensively discuss how it will provide value and/or enhance the affordability of energy services."[47] Notwithstanding HECO's argument that the nature of the Project makes quantifying benefits using a traditional cost-benefit analysis "impractical," the Consumer Advocate emphasizes that:

> [T]he utility bears the burden of proof to demonstrate, not only whether a project is eligible[,] but also an effort to identify the costs **and** benefits (whether quantitative or qualitative now and in the future), clearly identifying each criterion that justifies the project for EPRM treatment – including consideration of expected risks and customer impacts.[48]

That being said, the Consumer Advocate acknowledges that the Project is expected to deliver certain system benefits and support HECO's transformation.[49] Accordingly, the Consumer Advocate does not necessarily oppose granting EPRM relief, but recommends that the Commission impose certain conditions, including:

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[47]CA SOP at 15-16.

[48]CA SOP at 16.

[49]See CA SOP at 16-17.

- The capital expenditures to be recovered through the EPRM be capped at the requested amount of $2,597,653.

- Before EPRM cost recovery can be initiated, the Company must provide a study or report that comprehensively assesses the impacts of the proposed Project to identify and quantify all the benefits to implementing such changes to the Company's UFLS. After such benefits have been identified and, where possible, quantified in amount as well as understanding when the benefits may be realized. In doing so, the Company should evaluate whether such changes should be implemented holistically, in a cost-effective manner in consideration of other actions, in utility scale renewable projects, DER, and [Demand Response]. For instance, thought should be given on gathering data if a UFLS event occurs in the future assessing how the changes in the UFLS scheme associated with the proposed Project impacted the interconnection of the Waiawa Solar Project[s], as well as the other distributed energy resources on the applicable circuits, comparing that with the existing UFLS scheme. Once the benefits that can be quantified have been provided, the net benefits/costs can be included for EPRM recovery.[50]

C.

<u>HECO's Reply Statement Of Position</u>

In its RSOP, HECO notes that the Consumer Advocate does not oppose HECO's request to commit funds in excess of $2.5 million for the Project and addresses the Consumer Advocate's proposed conditions to EPRM cost recovery. Regarding the

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[50]CA SOP at 17-18.

Consumer Advocate's first recommended conditions, HECO does not oppose capping Project costs recovered through the EPRM at the Project's estimate, i.e., $2,597,653, subject to the clarification that HECO may seek to recover any actual Project costs in exceedance of this estimated amount in HECO's next general rate case or rate setting proceeding.[51] In this regard, HECO notes that the EPRM Guidelines provide that "[r]ecovery of incurred Eligible Project costs that exceed the amounts approved through the EPRM adjustment mechanism may be requested and considered for inclusion in the revenue requirements in subsequent proceedings, subject to review and approval by the Commission."[52]

HECO objects to the Consumer Advocate's second recommended condition, arguing that it has already provided a sufficient business case study as part of its Application.[53] HECO states that its business case "adequately details the investment needed, alternatives explored, and the benefits the Project provides, albeit not in the form of 'customer savings[,]' as suggested by the Consumer Advocate."[54] HECO maintains that the nature of the Project does not lend itself to a traditional

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[51]HECO RSOP at 8.

[52]HECO RSOP at 8 (citing Section III.C.2.g of the EPRM Guidelines).

[53]See HECO RSOP at 5-8.

[54]HECO RSOP at 5-6.

cost-benefit analysis, given the Project's purpose of maintaining grid stability during an under-frequency event.[55] According to HECO, "[b]ecause the purpose of the Project is to maintain stabilization/reliability at the level prior to interconnection with renewable energy projects, there are not net savings or benefits to offset the costs to be recovered."[56] Put another way:

> [T]he Project will maintain the reliability and stabilization of the system with the integration of more renewable energy [(i.e., the Waiawa Solar Projects)] but there will be no corresponding quantifiable reduction to any existing costs embedded in current rates to justify a netting out against the recovery of costs for this Project through the EPRM.[57]

Further, HECO argues that the Consumer Advocate has not provided any examples of what kind of net savings or benefits should be quantified, nor how such an analysis should be performed.[58] Relatedly, HECO objects to performing any such analysis, as: (1) it would require a UFLS event to occur to this particular load block after the Project is put into service; (2) it is unclear what data would be collected and how it would be translated into a comparison of revenue requirement; (3) it is uncertain whether a single UFLS event could lead to a valid

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[55] See HECO RSOP at 6-7.

[56] HECO RSOP at 7.

[57] HECO RSOP at 7-8.

[58] HECO RSOP at 9.

conclusion; (4) such a process would be administratively inefficient and inequitable, as it would indefinitely delay cost recovery through the EPRM; and (5) it may violate the prohibition against retroactive ratemaking.[59] In addition, HECO states that any delay associated with performing such an analysis may leave the Waiawa Solar I project vulnerable to load shed, if the Project is not completed by the time of interconnection and an under-frequency event were to occur.[60]

Alternatively, HECO offers that it currently files monthly reports as part of the Reliability Standards Working Group in Docket No. 2011-0206, which contains information on HECO's significant events, including UFLS activations, which may help address the Consumer Advocate's outstanding questions.[61]

III.

DISCUSSION

A.

Applicable Law

HECO seeks approval to commit an estimated $2,600,000 in capital costs for the Project; thus, Commission approval pursuant

[59]HECO RSOP at 9-10.

[60]HECO RSOP at 11.

[61]See HECO RSOP at 12.

to G.O. 7 is required. Paragraph 2.3(g)(2) of G.O. 7, as modified by Decision and Order No. 21002, states, in relevant part:

> Capital Improvements.
>
> . . . .
>
> 2. Proposed capital expenditures for any single project related to plant replacement, expansion or modernization, in excess of $2.5 million, excluding customer contributions, or 10 per cent of the total plant in service, whichever is less, shall be submitted to the Commission for review at least 60 days prior to the commencement of construction or commitment for expenditure, whichever is earlier . . . . Failure of the Commission to act upon the matter and render a decision and order within 90 days of filing by the utility shall allow the utility to include the project in its rate base without the determination by the Commission required by this rule. The data submitted under this rule shall be in such form and detail as prescribed by the Commission.[62]

In reviewing the Amended Application, the Commission reviews "whether the project and its costs are reasonable and consistent with the public interest, among other factors."[63]

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[62]G.O. 7, Paragraph 2.3(g)(2), as modified by Decision and Order No. 21002, Ordering Paragraph No. 2, at 15. The Commission notes that in the Parties' proposed procedural schedule, the Parties contemplate a Commission decision beyond the 90-day deadline. See Order No. 37708. The Commission construes this as a voluntary waiver of the 90-day deadline for a decision provided in G.O. 7.

[63]G.O. 7, Paragraph 2.3(g)(2), as modified by Decision and Order No. 21002, at 12.

Additionally, the Commission has previously provided specific guidance regarding transmission planning and the future development of new transmission projects on Hawaii's grids, which may be applicable to the instant proceeding, as follows:

> **New transmission projects must consider non-transmission alternatives** - New, replacement or upgrade high-voltage transmission projects generally represent significant, lumpy capital investments that will be given careful scrutiny. Non-transmission alternatives (NTAs) such as local peaking or back-up generators, energy storage, demand response and smart grid resources are technically and commercially viable alternatives and must be evaluated as part of any economic justification for new transmission system projects.

B.

Commitment Of Funds Under General Order No. 7

Upon review of the record, the Commission finds that the Project is reasonable and in the public interest and approves the proposed expenditure of funds in excess of $2,500,000, pursuant to Paragraph 2.3(g)(2) of G.O. 7. In so doing, the Commission observes that both HECO and the Consumer Advocate agree that the Project is necessary to safely and reliably interconnect the approved Waiawa Solar Projects which are expected to provide numerous benefits to HECO's system. Without the Project, there is the risk that the Waiawa Solar Projects could be taken offline during an under-frequency event, which could in turn trigger a trip of the 46 kV circuits to which they are connected, which could further cascade into a larger outage event.

Based on the above, the Commission makes the following findings and conclusions in support of its decision.

1. The UFLS scheme currently plays an important role in maintaining system reliability and stability. Absent the UFLS, isolated under-frequency events could cascade into circuit-wide disruptions, potentially leading to large-scale outages.[64]

2. The anticipated interconnection of the Waiawa Solar Projects to HECO's Waiau-Mililani and Wahiawa-Waimano 46 kV circuits makes the Waiawa Solar Projects vulnerable to being tripped offline under the current UFLS scheme.[65] The Project will reconfigure the UFLS scheme on these affected circuits to allow the Waiawa Solar Projects to remain interconnected in the event of an under-frequency event.

3. The Waiawa Solar Projects are part of the Commission's recent Stage 1 and Stage 2 RFP competitive solicitations for renewable energy, and are expected to provide renewable generation and grid services to HECO once interconnected.[66] Ensuring that these grid resources remain online

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[64]See Application at 5; and CA SOP at 5.

[65]See Application at 5-6.

[66]See generally, Docket Nos. 2018-0435 and 2020-0137.

will be critical as HECO begins to retire its older fossil fuel generating units and works toward achieving its renewable energy goals.[67]

4. According to HECO, there are no viable alternatives to the Project. Maintaining the status quo would leave the Waiawa Solar Projects vulnerable should the affected circuits trip during an under-frequency event.[68] Alternatively, reprogramming the UFLS scheme to prioritize protecting the Waiawa Solar Projects would increase the risk to the circuits serving UH Manoa and would still not completely eliminate the risk to the Waiawa Solar Projects.[69]

5. While the Project is expected to result in an increase in cost to customers, the estimated impact, $0.01 per month for an average residential customer consuming 500 kWh,[70] is relatively small.

6. HECO has considered the Commission's Inclinations, as set forth in Exhibit A to D&O 32052, and submits that they do not apply here, as the Project does not involve the construction

[67]See CA SOP at 7.

[68]Application at 9.

[69]Application at 9-10.

[70]Application at 22.

or rebuilding of a transmission or distribution line.[71] The Commission agrees that the Project does not reflect the kind of "new, replacement or upgrade high-voltage transmission projects" contemplated in the Commission's Inclinations, and observes that the Project is not intended to replace or rebuild the transmission circuits themselves, but is limited to the installation of relays within a control enclosure or switchgear.[72]

7. After reviewing the record and conducting its own analysis, the Consumer Advocate finds that the Project is reasonable and does not object to the requested commitment of funds, subject to certain conditions and recommendations.[73]

8. Based on the above reasons, the Commission finds that, pursuant to Paragraph 2.3(g)(2) of G.O. 7, HECO's request to commit funds for the Project in excess of $2,500,000 (estimated at $2.6 million) is reasonable and consistent with the public interest.

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[71]Application at 11-12.

[72]Application at 12. See also, Docket No. 2018-045, Decision and Order No. 37683, filed March 19, 2021 ("D&O 37683"), at 31-32 (finding that construction of a 46 kV interconnection line necessary to interconnect the Waiawa Solar 1 Project did not fall under the scope of the Commission's Inclinations, as it will be used solely to interconnect the Waiawa Solar 1 Project to HECO's system and is necessary to make the Waiawa Solar 1 Project available to HECO).

[73]See generally, CA SOP.

C.

Accounting and Ratemaking Treatment

HECO states that it "will follow its existing general policies and procedures with respect to accounting for the [Project's] costs."[74] Specifically:

> The Project costs will be capitalized following the Company's existing practices for capital costs. Costs will be included in construction work in progress and transferred to plant in service upon completion. Depreciation will commence starting the beginning of the calendar year following the date the component is placed in service.[75]

"All of the [Project's] costs for which the Company is requesting recovery are for capital through the EPRM mechanism, and will follow the EPRM Guidelines approved at the time."[76] HECO requests that the Project's costs be recovered through the EPRM "until new rates become effective that provide cost recovery for the Project or as otherwise provided by the Commission."[77]

The EPRM is a reconciled cost recovery mechanism that provides an opportunity for reasonable recovery of specifically allowed revenues for the net costs of approved "Eligible Projects" placed in service during HECO's multi-year rate period,

[74]Application at 19.

[75]Application at 19.

[76]Application at 20.

[77]Application at 21.

provided that cost recovery is not already allowed for by other effective recovery mechanisms.[78]

In Decision & Order 37507, the Commission defined "Eligible Projects" as "approved Major Projects, Deferred Cost Projects, or O&M Projects eligible for revenue recovery through the EPRM adjustment mechanism as provided in these Guidelines."[79] The recovery of revenues "through the EPRM adjustment mechanism may be found to be reasonable and explicitly allowed by order of the Commission, on a case by case basis, in the review of

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[78]Docket No. 2018-0088, Decision and Order No. 37507, filed on December 23, 2020 ("D&O 37507"), Appendix A at 4; see also, id., Appendix A at 3 ("Purpose and Scope. To provide a mechanism for recovery of revenues for net costs of approved Eligible Projects placed in service during a [Multi-year Rate Period], that is not provided for by other effective tariffs, the [Annual Revenue Adjustment], [Performance Incentive Mechanisms], or [Shared Savings Mechanisms].").

[79]D&O 37507, Appendix A at 1. "Major Project" is defined as "a resource plant addition subject to application and review in accordance with the applicable provisions of the Commission's General Order No. 7." Id., Appendix A at 2. "Deferred Cost Project" is defined as "a project consisting of deferred expenses in excess of $2.5 million, subject to the Commission's review and approval of deferred accounting treatment." Id., Appendix A at 1. "O&M Project" is defined as "a project or program consisting of incremental O&M expenses in excess of $2.5 million accumulated over a period of three consecutive years and otherwise not eligible for EPRM recovery as a Major Project or Deferred Cost Project. 'Incremental' means in excess of O&M expenses already recovered in rates." Id., Appendix A at 2.

Major Projects in accordance with the applicable provisions of General Order No. 7."[80]

In pertinent part, the EPRM Guidelines identify the following as an example of an "Eligible Project":

> b. <u>Projects that make it possible to accept more renewable energy</u>. Projects that can assist in the integration of more renewable energy onto the electrical grid. For example, new firm generation or modifications to firm generation to accept more variable renewable generation or energy storage and pumped hydroelectric storage facilities that allow a utility to accept and accommodate more as-available renewable energy . . . . [[81]]

HECO asserts that the Project is eligible for EPRM relief under Section III.B.1.b of the EPRM Guidelines. More specifically, HECO contends that the Project will allow HECO to maintain its UFLS scheme on the Waiau-Mililani and Wahiawa-Waimano 46 kV circuits while also allowing the Waiawa Solar Projects to interconnect to HECO's system through these circuits.[82]

The Commission agrees. The Project will allow the Waiawa Solar Projects to interconnect to HECO's system without the risk of being tripped offline during an under-frequency event. The Waiawa Solar Projects are competitively procured, grid-scale,

[80]D&O 37507, Appendix A at 3 (EPRM Guidelines, Section II.B.1).

[81]D&O 37507, Appendix A at 5 (EPRM Guidelines, Section III.A.B.1.b).

[82]<u>See</u> Application at 16.

solar plus storage projects that are expected to deliver renewable energy and grid services to HECO's customers at competitive costs. Absent the Project, there would be the risk that the Waiawa Solar Projects may be taken offline during an under-frequency event, thereby diminishing the value and services offered by these Projects, as well as jeopardizing the 46 kV circuits to which they are interconnected.

In addition to establishing the Project as eligible under the EPRM Guidelines, HECO is required to submit a business case study, which should include, inter alia: (1) a cost-benefit analysis, reflecting where costs are offset by any quantifiable net benefits related to the project; and (2) project details, including the period of cost recovery and depreciation amounts.[83]

Attached as Exhibit 1 of the Application is HECO's business case study. Consistent with the EPRM Guidelines, it provides the expected operational and financial impacts of the Project, and explains the justification for the Project, weighing the cost/benefit tradeoffs, to the extent reasonably determinable.[84] Specifically, the business case study provides the

[83]See D&O 37507, Appendix A at 7-8 (EPRM Guidelines, Section III.C.2.c and d); see also, id. at 9-10 (EPRM Guidelines, Section III.C.3.c).

[84]See EPRM Guidelines, Appendix A at 9-10 (EPRM Guidelines, Section III.C.3.c).

details of the Project itself, including the operational details necessary to disable the UFLS breakers at the affected 46 kV circuits and relocate the UFLS to 17 specific 12 kV circuits, the forecasted costs, and an assessment of alternative courses of action.[85]

Ultimately, HECO's business case study concludes that the Project is justified because it will allow for the interconnection of the Waiawa Solar Projects without jeopardizing the existing UFLS scheme or exposing the Waiawa Solar Projects to the risk of tripping during an under-frequency event.[86] In exchange, the Project is expected to cost $2,597,000, which is estimated to result in a $0.01 impact to an average residential customer's monthly bill.[87]

The Consumer Advocate does not necessarily dispute this conclusion, but argues that a more robust business case study should have been performed to attempt to identify and quantify system benefits that could offset these Project costs.[88] To this end, the Consumer Advocate has suggested a post-D&O reporting requirement, which would require HECO to submit a study or report

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[85] See Application, Exhibit 1.

[86] See Application, Exhibit 1 at 6.

[87] Application, Exhibit 1 at 5.

[88] See CA SOP at 16-17.

assessing the Project's impact and quantifying all benefits that the Project will have to HECO's UFLS, before EPRM relief can commence.[89]

HECO counters that the unique nature of the UFLS scheme does not lend itself to reasonable quantification of the Project's benefits, as would normally be done under a traditional cost-benefit analysis. For example, HECO contends that as the purpose of the Project is to maintain the existing level of stabilization/reliability on the system, there is not necessarily an additive component resulting from the Project, but that the system still benefits by maintaining the same level of reliability while also integrating the new Waiawa Solar Projects.[90]

In light of the unique circumstances here, the Commission agrees with HECO's assessment. In this instance, the primary benefit conferred by the Project is the continuation of the current stability offered under the UFLS scheme despite the addition of the Waiawa Solar Project. As the benefit of the Project is the maintenance of the status quo, it does not easily lend itself to reasonable quantification. Nonetheless, it is evident that the Project will allow the Waiawa Solar Projects to be safely interconnected, which in turn will allow their expected

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[89]CA SOP at 17-18.

[90]See HECO RSOP at 6-7.

benefits to accrue to the system. Alternative solutions presented by HECO would not allow for this level of system reliability, either raising the risk that the Waiawa Solar Projects could be subject to trip during an under-frequency event (and thereby jeopardizing the 46 kV circuits to which they are interconnected) or shifting this risk onto to another 46 kV circuit.[91]

While the Consumer Advocate has recommended a study or report to quantify the Project's benefits, the Commission agrees with HECO that the nature of the UFLS scheme and unique nature of under-frequency events make it difficult to study and quantify its benefit, and could delay EPRM recovery of Project costs for an indefinite period. For example, as under-frequency events are infrequent and unpredictable, it is unclear when such a study could be completed. Relatedly, it is unclear if a reasonable quantification could be produced from a single under-frequency event, or if a larger sample size would be required. Moreover, it is unclear what kind of methodology would be used to translate the system of the UFLS scheme into a revenue requirement dollar figure for purposes of comparison to the Project's costs.[92]

This is not to say that the Commission does not appreciate the Consumer Advocate's concerns. The Commission

[91]See Application, Exhibit 1 at 5-6.

[92]See HECO RSOP at 9-10.

agrees that, in general, EPRM requests must be supported by a robust cost-benefit analysis that justifies relief. However, given these specific circumstances, including the impending interconnection of the Waiawa Solar Projects and the insufficient amount of available data to reasonably quantify the benefits associated with the Project's updated UFLS scheme, the Commission finds that a traditional cost-benefit analysis would be difficult to develop in a timely manner and could indefinitely delay final review of the Project and recovery of Project costs through the EPRM.

That being said, the Commission will impose certain conditions on HECO's recovery of the Project's costs through the EPRM. First, as proposed by the Consumer Advocate, and not opposed by HECO, costs recoverable through the EPRM shall not exceed the estimated Project cost amount of $2,597,653.[93] To the extent actual Project costs exceed this amount, HECO may seek to recover any excess costs in its next rate-setting proceeding.[94]

Second, recoverable costs through the EPRM shall be limited to costs directly associated with the Project as follows. The amount of Project capitalized expenses to be recovered through

[93]See CA SOP at 17; and HECO RSOP at 8.

[94]See HECO RSOP at 8; and D&O 37507, Appendix A at 8 (EPRM Guidelines, Section III.C.2.g).

the EPRM may include the costs of Company labor directly attributable to the Project recorded prior to the operation date of the Project.[95] These directly attributed Company labor costs shall be methodically tracked and recorded and limited to the amounts identified in the Company's information request responses.[96] However, the amount of Company overheads included in the Project capitalized expenses shall be limited to those attributed to the tracked and recorded Project Company labor. General Company overheads that are not associated with tracked and recorded Company Project labor shall not be assigned to or included in capitalized expenses recovered through the EPRM. EPRM allowed recovery shall not include overheads based on the total Project cost or indirect Project costs and shall not include clearing costs.

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[95]In accordance with the EPRM Guidelines, costs recoverable through the EPRM include the net costs to the Company resulting from implementation of a project. The determination of allowable recovery, including both the determination of project cost and the determination of any company savings offsets, is thus made on an incremental basis. Recoverable costs are the costs directly attributed to the project (i.e., costs that otherwise would not be incurred without the project). Thus, costs of labor directly attributable to the project include labor costs including payroll and pension overheads for company labor directly associated with the Project and are incurred only as a result of the Project, and exclude overheads or on-costs for company costs that do not directly result from implementation of the Project.

[96]See Company responses to CA-IR-2, Attachment 3 at 1 and CA-SIR-2.

Similarly, any O&M expense identified for the Project included in EPRM recovery shall be limited to incremental expenses directly associated with the Project and shall exclude indirect Company overheads and clearing costs.

Finally, the Commission believes that HECO can take steps to proactively address the Consumer Advocate's concerns going forward as it may apply to future projects. The Commission observes that the under-frequency concern associated with interconnecting the Waiawa Solar Projects was discovered as part of the Facility Study for the Waiawa Solar Projects.[97] The Commission is concerned that this may foreshadow future situations where similar UFLS projects may be requested based on the expected interconnection of other large-scale projects to HECO's system that have already been approved.[98]

Thus, the Commission will require the Hawaiian Electric Companies to perform a UFLS study which holistically reviews the

[97]See Letter From: D. Matsuura To: Commission Re: Docket No. 2021-0017 - Waiawa Under Frequency Load Shed Project; Hawaiian Electric Response to Commission Information Requests 01 - 10, filed July 16, 2021, at HECO Response to PUC-HECO-IR-09.

[98]The Commission observes that as a result of recent competitive procurement efforts, HECO, along with its sibling utilities, Hawaii Electric Light Company, Inc. and Maui Electric Company, Limited (collectively, the "Hawaiian Electric Companies" or the "Companies"), have received approval for over 14 grid-scale renewable energy projects, all of which are in various stages of development.

Companies' UFLS scheme. The study should at a minimum evaluate the design of the scheme, such as the placement and granularity of UFLS blocks, metrics used to trigger UFLS events such as frequency limits and rate of change of frequency, and the impacts of increasing renewable penetration on the system including both distributed energy and demand-side resources and utility-scale generation. The study should align with analysis and findings in the Integrated Grid Planning docket (Docket No. 2018-0165), specifically with transmission planning process and the "Transmission Renewable Energy Zone" study.

Additionally, such a study should identify which potential circuits may be affected by selected utility-scale renewable energy projects and what UFLS modifications may be necessary to address any safety or reliability concerns. This UFLS study should also consider island-wide alternatives to the UFLS scheme, respective to each island in the Companies' service territory. This is intended to increase transparency surrounding the interconnection process for future grid-scale projects, including their total costs to customers, as well as provide a more holistic understanding of the UFLS scheme and what upgrades may be necessary to accommodate interconnecting large-scale renewable projects.

In light of the broad applicability and utility this study may offer for grid planning purposes, the Commission instructs HECO to file this study in the Integrated Grid Planning docket, Docket No. 2018-0165. HECO shall complete this study within nine (9) months and file it in Docket No. 2018-0165, where further action may be taken.

Based on the above, as well as the review of the full record, the Commission determines that HECO has sufficiently supported its case for cost recovery under the EPRM Guidelines, subject to the conditions described above. Accordingly, the Commission approves HECO's accounting and ratemaking request, including for Project cost recovery through the EPRM. In support thereof, the Commission makes the following findings:

1. The Project is intended to modify the UFLS scheme on the Waiawa-Mililani and Wahiawa-Waimano 46 kV circuits such that the Waiawa Solar Project can be interconnected to these circuits without increasing the risk of tripping offline during an under-frequency event. As a result, the Commission finds that the Project is an "eligible project" under the EPRM Guidelines.[99]

2. HECO has supported its request for EPRM relief with a business case study that provides Project details, including the costs, benefits, and anticipated operational impacts.[100]

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[99]See D&O 37507, Appendix A at 5 (EPRM Guidelines, Section III.B.1.b).

[100]See D&O 37507, Appendix A at 10 (EPRM Guidelines, Section III.C.3.e).

In pertinent part, the Project is expected to cost $2,597,653 and is expected to benefit HECO's system by maintaining the existing level of reliability and stability provided by the UFLS scheme while accommodating the interconnection of the Waiawa Solar Projects.

3. In light of the nature of the Project and the attendant circumstances, including the impending interconnection of the Waiawa Solar Projects, a traditional cost-benefit analysis has not been completed. However, the benefits of the Project are evident in their preservation of the protections offered by the UFLS scheme, and its key role in allowing for the safe interconnection of the Waiawa Solar Projects, which are expected to deliver benefits to customers.[101]

4. The Consumer Advocate does not dispute the benefits of the Project, but seeks a more detailed study or report quantifying these benefits. However, as discussed above, the Project's unique nature and the availability of relevant data makes it difficult to quantify its benefits and could delay the safe interconnection of the Waiawa Solar Projects.

5. Based on the above, the Commission approves HECO's accounting and ratemaking requests, including approval to recover

[101]See generally, Docket Nos. 2018-0435 and 2020-0137.

the Project's costs through the EPRM until they can be incorporated into base rates.

6. The Commission further clarifies that the actual amounts to be recovered through the EPRM will be determined based on the actual Project cost information submitted after it has been placed in service and the depreciation, tax and authorized return rates in place at that time.[102]

7. However, EPRM recovery for the Project shall be subject to the following conditions:

A. Costs recovered through the EPRM shall not exceed the estimated Project costs of $2,597,653. This condition has been requested by the Consumer Advocate and is not opposed by HECO. The Commission clarifies that HECO may seek to recover any Project costs in excess of this amount in its next rate-setting proceeding.

B. Recoverable costs through the EPRM shall be further limited to labor costs directly attributable to the Project recorded prior to the operation date of the Project. Similarly, any O&M expense shall be limited to expenses directly associated with the

[102] See Application at 17.

Project and shall exclude indirect Company overheads and clearing costs.

C. Finally, the Commission will require the Hawaiian Electric Companies to perform a UFLS study which holistically reviews the Companies' UFLS scheme and identifies which potential circuits may be affected by selected projects and what UFLS modifications may be necessary to address any safety or reliability concerns. HECO shall file this study in Docket No. 2018-0165 within nine (9) months of this Decision and Order.

D.

HRS § 269-6(b)

HRS § 269-6 was amended on June 24, 2021, to now require, as follows:

> (b) The public utilities commission shall consider the need to reduce the State's reliance on fossil fuels through energy efficiency and increased renewable energy generation in exercising its authority and duties under this chapter. In making determinations of the reasonableness of the costs pertaining to electric or gas utility system capital improvements and operations, the commission shall explicitly consider, quantitatively or qualitatively, the effect of the State's reliance on fossil fuels on:
>
> (1) Price volatility;
>
> (2) Export of funds for fuel imports;

(3) Fuel supply reliability risk; and

(4) Greenhouse gas emissions.

> The commission may determine that short-term costs or direct costs of renewable energy generation that are higher than alternatives relying more heavily on fossil fuels are reasonable, considering the impacts resulting from the use of fossil fuels. The public utilities commission shall determine whether such analysis is necessary for proceedings involving water, wastewater, or telecommunications providers on an individual basis.
>
> (c) The analysis described in subsection (b) shall not be required for a utility's routine system replacements, such as overhauls and overhead or underground line determinations, or determinations that do not pertain to capital improvements or operations, including but not limited to financing requests.[[103]]

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[103] See 2021 Haw. Sess. Laws Act 82, §§ 1 & 4. Subsection (c) of HRS § 269-6, as quoted above, is new and did not exist in the prior version of HRS § 269-6 (Supp. 2013). The prior version of HRS § 269-6(b) provided:

> (b) The public utilities commission shall consider the need to reduce the State's reliance on fossil fuels through energy efficiency and increased renewable energy generation in exercising its authority and duties under this chapter. In making determinations of the reasonableness of the costs of utility system capital improvements and operations, the commission shall explicitly consider, quantitatively or qualitatively, the effect of the State's reliance on fossil fuels on price volatility, export of funds for fuel imports, fuel supply reliability risk, and greenhouse gas emissions. The commission may determine that short-term costs or direct costs that are higher than alternatives relying more heavily on fossil fuels are reasonable, considering the impacts resulting from the use of fossil fuels.

The above-quoted subsection (c) of HRS § 269-6 did not exist at the time the Application was filed on January 29, 2021. Because this new version of subsection (c) of HRS § 269-6 was added and subsection (b) was amended after the Application was filed, there may be an issue as to which version of HRS § 269-6 should apply to this proceeding.[104]

Nonetheless, for this docket, it does not appear that the Commission's explicit consideration of the effect of the State's reliance on fossil fuels on, for example, GHG emissions has changed in the new version of HRS § 269-6(b).[105] As it relates to this docket, what has possibly changed due to the new version of HRS § 269-6(c) are the types of proceedings where the subsection (b) analysis is required of the Commission.

Because HECO provided a GHG emissions analysis for the Project, and the Consumer Advocate does not object to the GHG Analysis provided by HECO, the Commission will consider HECO's GHG emissions analysis for the Project under HRS § 269-6(b).

In doing so, the Commission expresses no opinion as to which version of HRS § 269-6 applies to this proceeding,

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[104]See HRS § 1-3 ("No law has any retrospective operation, unless otherwise expressed or obviously intended.").

[105]See HRS § 269-6(b)

particularly the new version of HRS § 269-6(c).[106] Should application of the new version of HRS § 269-6 become an issue in other dockets, the Commission will address the issue in those dockets after the parties (and participants, if applicable) have had an opportunity to address which version of HRS § 269-6 should apply to that proceeding.

Accordingly, the Commission's review of the Project under HRS § 269-6(b) is guided, as follows: (1) HRS § 269-6(b) requires the Commission to explicitly consider, quantitatively or qualitatively, the effect of the State's reliance on fossil fuels on price volatility, export of funds for fuel imports, fuel supply reliability risk, and greenhouse gas emissions; (2) Act 234 of the 2007 Hawaii Session Laws directed a GHG emissions reduction task force to prepare a work plan that includes "[r]ecommendations to minimize 'leakage'"[107]; (3) Hawaii Gas, pursuant to Act 234 and HRS § 269-6(b), requires the Commission to "explicitly consider out-of-state . . . GHG emissions in discharging its duties under HRS § 269-6(b)"[108]; and (4) the purpose of HRS § 269-6(b) is to

[106]See HRS § 1-3.

[107]2007 Haw. Sess. Laws Act 234, § 6 at 700. Act 234 directed a GHG Emissions Reduction Task Force to "minimize 'leakage' or a reduction in emissions of greenhouse gases within the State that is offset by an increase in emissions of greenhouse gases outside the State." In re Gas Co., LLC ("Hawaii Gas"), 147 Hawaii 186, 201, 465 P.3d 633, 648 (2020).

[108]147 Hawaii at 201, 465 P.3d at 648.

"require the Commission to consider the hidden and long-term costs of reliance on fossil fuels, which subjects the State and its residents to 'increased air pollution' and 'potentially harmful climate change due to the release of harmful greenhouse gases.'"[109]

In addition to HRS § 269-6(b), HRS § 269-92 requires "[e]ach electric utility company that sells electricity consumption in the State" to "establish a renewable portfolio standard" of one hundred percent of its "net electricity sales" by December 31, 2045, with certain milestone percentages of "net electricity sales" mandated between now and then (e.g., forty percent of "net electricity sales" by December 31, 2030).

In this docket, HECO has submitted GHG emissions information for the Project through Ramboll's GHG Analysis.[110] The Consumer Advocate does not dispute HECO's GHG emissions information, nor assert that the proposed Project is inconsistent with HRS § 269-6(b).[111]

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[109]In re Maui Elec. Co. ("MECO"), 141 Hawaii 249, 263, 408 P.3d 1, 15 (2017) (citation omitted).

[110]See Amended Application, Book 2.

[111]See CA SOP at 9-11.

Based on the credible evidence submitted in this docket, the Commission finds:

1. The Project is expected to result in a total of 160 MT CO_2e emissions over its lifecycle.[112]

2. The majority of emissions associated the Project, 165.74 MT CO_2e, are connected with the upstream stage of the lifecycle, i.e. raw materials extraction and manufacturing, transportation, and construction.[113] Of these, GHG emissions associated with raw materials extraction and manufacturing comprise the largest portion, 134 MT CO_2e.[114] These emissions appear to occur both off- and on-island, inasmuch as Ramboll's analysis indicates that materials and equipment for the Project will originate from various locations across the continental United States (Washington, California, Massachusetts,) as well as Canada and within the State.[115]

3. Upon completion of the Project, during the operational stage, the Project is expected to result in a reduction of 6.8 MT CO_2e, due to the less frequent need to perform O&M

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[112]Application, Exhibit 3 at 2 , Table 1.

[113]See Application, Exhibit 3 at 2, Table 1.

[114]Application, Exhibit 3 at 2.

[115]Application, Exhibit 3 at 8, Appendix Table A2.

activities at the affected distribution/transmission substations.[116]

4. The Consumer Advocate states that it "does not have any recommended adjustments to [the GHG Analysis'] estimate," and further submits that "the benefits of the Waiawa Solar Projects should be taken into consideration in assessing the proposed Project."[117]

5. Concomitantly, although the Commission appreciates the GHG analysis submitted by HECO and finds the data and information therein to be helpful to the Commission's consideration of GHG emissions for the Project, HECO's GHG analysis, alone, does not address the concerns expressed by HRS § 269-6(b) and observed by, for example, Hawaii Gas and MECO.

6. Rather than review the Project in isolation under HRS § 269-6(b), the Commission instead reviews the intended result of the Project (i.e., the safe and reliable interconnection of the Waiawa Solar Projects) under both HRS §§ 269-6(b) and 269-92.

7. Under the RPS established by HRS § 269-92(a)(4) and (a)(6), HECO is mandated to reach a RPS of 40% of its net

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[116]Application at 14; see also, id., Exhibit 3 at 11, Appendix Table A4.

[117]CA SOP at 11.

electricity sales by December 31, 2030, and 100% of its net electricity sales by December 31, 2045, respectively.[118]

8. In order to meet these goals, HECO will need to integrate increasing amounts of renewable energy on its system, such as the renewable energy generated by the Waiawa Solar Projects.

9. The Project will facilitate a reduction in energy provided from conventional fossil fuel generation resources, through the integration of the Waiawa Solar Projects, thereby reducing fossil fuel generation and accommodating additional renewable energy on the Oahu island system.[119]

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[118]"Renewable portfolio standard" ("RPS") is defined as "the percentage of electrical energy sales that is represented by renewable electrical energy." HRS § 269-91. "Renewable electrical energy" is defined in part as (1) "[e]lectrical energy generated using renewable energy as the source, and beginning in January 1, 2015, includes customer-sited, grid-connected renewable energy generation[,]" and (2) "[e]lectrical energy savings" brought about by the use of certain technologies. Id.; see HRS § 269-92(b)(2) ("Beginning January 1, 2015, electrical energy savings shall not count toward renewable energy portfolio standards[.]").

[119]See generally, Docket Nos. 2018-0435 and 2020-0137. In this regard, the Commission observes that the Waiawa Solar 2 Project is estimated to avoid approximately 1,078,948 MT CO_2e over its 20-year power purchase agreement. See Docket No. 2020-0137, Decision and Order No. 37516, filed on December 30, 2020, at 58 and 110. The Waiawa Solar I Project is subject to a power purchase agreement that features a tiered structure of pricing, based on when the developer can achieve commercial operation of the project. However, under any of the tiers, the Waiawa Solar 1 Project is estimated to avoid significant reduction of GHG emissions, ranging from a reduction of 845,058 to 942,869 MT CO_2e.

10. Accordingly, when reviewing the Project in conjunction with the interconnection of the Waiawa Solar Projects, including their contributions to HECO's RPS goals, the Commission finds that the Project is reasonable and consistent with the public interest pursuant to HRS §§ 269-6(b) and 269-92.[120]

IV.

ORDERS

THE COMMISSION ORDERS:

1. HECO's request to commit funds estimated at $2,597,653 for the Project, pursuant to G.O. 7, is approved.

2. HECO's accounting and ratemaking requests, including to recover the Project's costs through the EPRM until such costs can be recovered through base rates or as otherwise determined by the Commission is approved, subject to the conditions set forth above.

3. The Hawaiian Electric Companies shall conduct a UFLS study which holistically reviews the UFLS scheme and identifies which potential circuits may be affected by selected

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See Docket No. 2018-0435, Decision and Order No. 38007, filed on October 6, 2021, at 19.

[120]See HRS § 1-16 ("Laws in pari materia, or upon the same subject matter, shall be construed with reference to each other. What is clear in one statute may be called in aid to explain what is doubtful in another.").

projects and what UFLS modifications may be necessary to address any safety or reliability concerns. HECO shall file this study within nine months in the IGP proceeding, Docket No. 2018-0165.

4. This docket is closed, unless ordered otherwise by the Commission.

DONE at Honolulu, Hawaii JANUARY 26, 2022.

PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By ______________________________
James P. Griffin, Chair

By ______________________________
Jennifer M. Potter, Commissioner

By ______________________________
Leodoloff R. Asuncion, Jr., Commissioner

APPROVED AS TO FORM:

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Mark Kaetsu
Commission Counsel

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CERTIFICATE OF SERVICE

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