DAVID Y. IGE
GOVERNOR OF HAWAII

ELIZABETH A. CHAR, M.D.
DIRECTOR OF HEALTH

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
(7019 2280 0000 3440 4763)

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. Box 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
File:
20-437E CAB
File No. 0548

October 22, 2020

Mr. Michael R. DeCaprio
Director, Generation - Oahu
Hawaiian Electric Company, Inc.
P.O. Box 2750
Honolulu, Hawaii 96840-0001

Dear Mr. DeCaprio:

SUBJECT: Amendment of Covered Source Permit (CSP) No. 0548-01-C
Application for Significant Modification No. 0548-09
Hawaiian Electric Company, Inc. (Hawaiian Electric)
Campbell Industrial Park (CIP) Generating Station
Located At: 91-196 Hanua Street, Kapolei, Oahu
UTM: 592,526 m East and 2,356,666 m North, Zone 4
Date of Expiration: October 16, 2023

In accordance with Hawaii Administrative Rules (HAR), Chapter 11-60.1, and pursuant to your application for a significant modification received on March 28, 2018, updated greenhouse gas (GHG) emission reduction plans received on October 19, 2018, May 15, 2019, and July 26, 2019, revision to application for significant modification received on December 26, 2018, for the CIP Generating Station, revision to application for significant permit modification received on July 26, 2019, for the subject facility, and the additional information received on January 23, 2020, February 14, 2020, April 2, 2020, May 22, 2020, and June 9, 2020, from Hawaiian Electric submitted on behalf of the partnership for cap adjustments, the Department of Health, Clean Air Branch (herein after referred to as Department), hereby amends CSP No. 0548-01-C issued to Hawaiian Electric for the CIP Generating Station on October 17, 2018.

In accordance with HAR, Chapter 11-60.1, Subchapter 11, the amendment incorporates provisions for partnering with other affected plants to combine emissions for flexibility in achieving GHG reductions. The amendment includes GHG emission cap adjustments for 2019 and a total combined GHG emission cap for 2020 and beyond that achieves a sixteen (16) percent reduction from the combined partnership baseline GHG emissions level. The amendment also includes alternate operating scenarios in the event delays are encountered in restoring the Puna Geothermal Venture (PGV) facility on the island of Hawaii to the net generating capacity that preceded its shutdown in 2018. Individual and total combined GHG emission caps established in each facility's GHG emission reduction plan are incorporated in the amendment with associated provisions pursuant to HAR §11-60.1-204(d)(6)(C). The partnering facilities included in this amendment are:

Independent Power Producers (IPPs)

- AES Hawaii, LLC (AES), CSP No. 0087-02-C
- Hamakua Energy, LLC (Hamakua Energy), CSP No. 0243-01-C
- Kalaeloa Partners, L.P. (KPLP), CSP No. 0214-01-C

Hawaiian Electric Companies

- Hawaiian Electric Company, Inc. (Hawaiian Electric), CSP No. 0548-0-C
- Hawaiian Electric Company, Inc. (Hawaiian Electric), CSP No. 0238-01-C
- Hawaiian Electric Company, Inc. (Hawaiian Electric), CSP No. 0239-01-C
- Hawaiian Electric Company, Inc. (Hawaiian Electric), CSP No. 0240-01-C
- Hawaii Electric Light Company, Inc. (Hawaii Electric Light), CSP No. 0007-01-C
- Hawaii Electric Light Company, Inc. (Hawaii Electric Light), CSP No. 0234-01-C
- Hawaii Electric Light Company, Inc. (Hawaii Electric Light), CSP No. 0235-01-C
- Maui Electric Company, Ltd. (Maui Electric), CSP No. 0031-04-C
- Maui Electric Company, Ltd. (Maui Electric), CSP No. 0067-01-C
- Maui Electric Company, Ltd. (Maui Electric), CSP No. 0232-01-C

The three (3) IPP permits and CSP No. 0548-01-C (Hawaiian Electric's CIP Generating Station) will specify individual and total combined GHG emission caps established for all of the partnering facilities. Any GHG emission cap revision, except for reasonably anticipated alternate operating scenarios due to the PGV facility shutdown, will require each of these facilities (AES, Hamakua Energy, KPLP, and Hawaiian Electric CIP) to submit a significant permit modification.

The permits for the remaining partnering facilities operated by Hawaiian Electric, Hawaii Electric Light, and Maui Electric will not specify individual and total combined GHG emission caps, but will reference GHG emission caps included in CSP No. 0548-01-C. Designating CSP No. 0548-01-C as the main Hawaiian Electric permit will reduce the burden of modifying all Hawaiian Electric Companies' permits should an emission cap be revised. Only CSP No. 0548-01-C would require modification as the emission caps will not be incorporated separately into each facility's permit.

The following enclosed Attachment II – GHG and monitoring report form are hereby added to CSP No. 0548-01-C issued on October 17, 2018, to incorporate the GHG permitting provisions:

1) Attachment II - GHG: Special Conditions – GHG Reduction Requirements
2) Monitoring Report Form: GHG Emissions

All other permit conditions of CSP No. 0548-01-C issued on October 17, 2018, shall not be affected, and shall remain valid.

If there are any questions regarding these matters, please contact Mr. Michael Madsen of the Clean Air Branch at (808) 586-4200.

Sincerely,

MARIANNE ROSSIO, P.E., ACTING CHIEF
Environmental Management Division

MM:tkg
Enclosures

ATTACHMENT II - GHG: SPECIAL CONDITIONS
GHG REDUCTION REQUIREMENTS
COVERED SOURCE PERMIT NO. 0548-01-C

Amended Date: October 22, 2020 **Expiration Date: October 16, 2023**

In addition to the standard conditions of the CSP, the following state enforceable special conditions shall apply to the permitted facility:

Section A. Equipment Description

1. Attachment II - GHG of this permit encompasses the following equipment and associated appurtenances for CIP Generating Station:

Equipment	Manufacturer	Model No.	Serial No.	Capacity
Combustion Turbine Generator (CIP1)	Siemens Westinghouse Power Corporation	SGT6-3000E W501D5A	37A7724	135 MW
Black Start Diesel Engine Generator (BSG1)	Kohler Power Systems Detroit Diesel/MTU	2250REOZDC 16V4000G83	5272003082	2,250 kW
Black Start Diesel Engine generator (BSG2)	Kohler Power Systems Detroit Diesel/MTU	2250REOZDC 16V4000G83	5272003325	2,250 kW

(Auth.: HAR §11-60.1-3)

2. The equipment is subject to GHG emission reduction requirements of HAR, Chapter 11-60.1, Subchapter 11 and associated permit conditions based on information from the GHG emission reduction plan and permit application for significant modification. The GHG emission reduction plan shall become a part of the CSP application process for renewals and any required modifications pursuant to HAR, Chapter 11-60.1, Subchapter 5. With each subsequent GHG emission reduction plan submittal, the permittee shall report:

   a. The GHG emission reduction status;
   b. Factors contributing to the emission changes;
   c. Any control measure updates; and
   d. Any new developments or changes that would affect the basis of the facility-wide GHG emissions cap.

   (Auth.: HAR §11-60.1-5, §11-60.1-204(g))

Section B. GHG Permit Conditions

1. Permit conditions specified in Attachment II – GHG, including provisions to limit maximum potential GHG emissions, are state-only enforceable requirements which are not federally enforceable under the federal Clean Air Act.

   (Auth.: HAR §11-60.1-3, §11-60.1-90, 11-60.1-161; 40 CFR §70.6)[1]

2. The permittee shall comply with all applicable provisions of these conditions, including all emission limits, notification, testing, monitoring, and reporting requirements. The major requirements of these provisions are detailed in the special conditions of this attachment.

   (Auth.: HAR §11-60.1-3, §11-60.1-90, 11-60.1-161)[1]

Section C. GHG Emission Limitations

1. GHG Emission Caps

   a. Each partnering facility shall not emit or cause to be emitted carbon dioxide equivalent (CO_2e) emissions in excess of the following individual caps, except as specified in Attachment II - GHG, Special Condition No. C.1.c.iv:

      i. For calendar year 2019, each partnering facility shall not exceed the following individual GHG emission caps:

Calendar Year 2019			
Generating Station	**CSP Permit No.**	**CO_2e Emission Cap[a]**	
		Metric Tons per Calendar Year	**Short Tons per Calendar Year**
AES Hawaii, LLC Cogeneration Plant	0087-02-C	1,534,598	1,691,605
Hamakua Energy, LLC Cogeneration Plant	0243-01-C	227,906	251,223
Kalaeloa Partners, L.P. Cogeneration Plant	0214-01-C	993,198	1,094,813
Hawaiian Electric Campbell Industrial Park Generating Station	0548-01-C	48,752	53,740
Hawaiian Electric Honolulu Generating Station	0238-01-C	0	0
Hawaiian Electric Kahe Generating Station	0240-01-C	1,935,707	2,133,752
Hawaiian Electric Waiau Generating Station	0239-01-C	733,265	808,286
Hawaii Electric Light Kanoelehua-Hill Generating Station	0234-01-C	171,991	189,588
Hawaii Electric Light Keahole Generating Station	0007-01-C	248,043	273,421
Hawaii Electric Light Puna Generating Station	0235-01-C	64,666	71,282
Maui Electric Kahului Generating Station	0232-01-C	140,281	154,633
Maui Electric Maalaea Generating Station	0067-01-C	417,182	459,864
Maui Electric Palaau Generating Station	0031-04-C	23,999	26,454

[a]Metric Tons = (0.90718474) x (Short Tons)

ii. For calendar year 2020 and beyond, each partnering facility shall not exceed the following individual GHG emission caps, except as specified in Attachment II – GHG, Special Condition No. C.3:

Calendar Year 2020 and Beyond			
Generating Station	**CSP Permit No.**	**CO_2e Emission Cap[a]**	
		Metric Tons per Calendar Year	**Short Tons per Calendar Year**
AES Hawaii, LLC Cogeneration Plant	0087-02-C	1,281,442	1,412,548
Hamakua Energy, LLC Cogeneration Plant	0243-01-C	139,433	153,699
Kalaeloa Partners, L.P. Cogeneration Plant	0214-01-C	1,056,486	1,164,577
Hawaiian Electric Campbell Industrial Park Generating Station	0548-01-C	112,041	123,504
Hawaiian Electric Honolulu Generating Station	0238-01-C	0	0
Hawaiian Electric Kahe Generating Station	0240-01-C	1,998,996	2,203,516
Hawaiian Electric Waiau Generating Station	0239-01-C	796,554	878,050
Hawaii Electric Light Kanoelehua-Hill Generating Station	0234-01-C	156,449	172,456
Hawaii Electric Light Keahole Generating Station	0007-01-C	219,727	242,208
Hawaii Electric Light Puna Generating Station	0235-01-C	28,800	31,747
Maui Electric Kahului Generating Station	0232-01-C	140,281	154,633
Maui Electric Maalaea Generating Station	0067-01-C	417,182	459,864
Maui Electric Palaau Generating Station	0031-04-C	23,999	26,454

[a]Metric Tons = (0.90718474) x (Short Tons)

b. All partnering facilities shall not exceed the following combined emission caps:

i. For 2019, total combined CO_2e emissions in excess of 7,208,661 short tons (6,539,587 metric tons) per calendar year.
ii. For 2020 and beyond, CO_2e emissions in excess of 7,023,257 short tons (6,371,392 metric tons) per calendar year, except as specified in Attachment II – GHG, Special Condition No. C.3.

c. For purposes of the CO_2e emission limits in Attachment II - GHG, Special Condition Nos. C.1.a and C.1.b of this permit:

i. The CO_2e emissions shall have the same meaning as that specified in HAR §11-60.1-1;
ii. In accordance with HAR §11-60.1-204(d)(6)(B), biogenic carbon dioxide (CO_2) emissions shall not be included when determining compliance with the emissions limits;
iii. The permittee shall be in compliance with the applicable emission limits by the end of 2019 and each calendar year thereafter;

iv. The permittee may exceed the emissions cap specified in Attachment II - GHG, Special Condition No. C.1.a, if the GHG emissions limit specified in Attachment II - GHG, Special Condition No. C.1.b is met; and

v. At no time shall the permittee exceed Attachment II - GHG, Special Condition Nos. C.1.a and C.1.b simultaneously over a calendar year. For incidences when Attachment II - GHG, Special Condition Nos. C.1.a and C.1.b are exceeded simultaneously, emissions in excess of the total combined cap shall be allocated according to the following equation for compliance purposes:

$$X = XG \frac{(A - C)}{\sum_{A_i > C_i}(A_i - C_i)}$$

Where,

X = Adjusted portion in metric tons or short tons of GHG emissions that are in excess of total combined cap specified in Attachment II - GHG, Special Condition No. C.1.b. The equation applies to all affected facilities that do not meet the individual and total combined GHG emission caps specified in Attachment II – GHG, Special Condition Nos. C.1.a and C.1.b, respectively.

XG = Total combined actual GHG emissions from affected facilities minus total combined GHG emissions cap.

A = Actual GHG emissions from the affected facility.

C = GHG emissions cap for the affected facility.

$\sum_{Ai>ci}(Ai - Ci)$ = The sum of the difference between the actual emissions and cap emissions for all facilities that did not achieve the individual facility-wide GHG emissions cap.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-204)

2. GHG Emission Cap Revisions

a. The facility-wide GHG emissions cap may be re-evaluated and revised by the Department in accordance with HAR §11-60.1-204(h).

b. Any revision to the facility-wide GHG emissions caps shall be considered a significant modification subject to the application and review requirements of HAR §11-60.1-104. For each GHG emission cap revision, the Department may impose additional emission limits or requirements, or limit the time-frame allowed for the revised GHG emissions cap.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-204)

3. Alternate Operating Scenarios

The alternate operating scenarios for the PGV facility shutdown due to volcanic activity on the island of Hawaii in 2018, shall remain in effect until an additional net energy generation of 26,883 MWh per month from the PGV facility is reached in any month of the year. The following shall apply to the individual and total combined alternate operating scenario GHG emission cap adjustments starting January 1, 2020, and for any subsequent year until these alternate operating scenarios no longer apply:

a. Attachment II – GHG, Special Condition No. C.3 no longer applies when:

$$NG_{PGV\text{-}R} \geq NG_{PGV2017}$$

Where,

$NG_{PGV2017}$ =	26,883	Net generating capacity from the PGV facility in calendar year 2017 on an average monthly basis (MWh) preceding its shutdown.
$NG_{PGV\text{-}R}$ =		Net generation from the restored PGV facility (MWh per month).

b. The alternate scenario individual GHG emission cap adjustment for calendar year 2019 is 97,524 short tons for Hamakua Energy, LLC , 17,132 short tons for Kanoelehua-Hill Generating Station, 31,213 short tons for Keahole Generating Station, and 39,535 short tons for Puna Generating Station. Starting on January 1, 2020, and for any subsequent year, the alternate scenario GHG emissions individual cap adjustment for each of the foregoing island of Hawaii partnering facilities shall be calculated by adding one-twelfth (1/12) of the 2019 annual adjustment for each facility's individual GHG emissions cap specified in Attachment II – GHG, Special Condition No. C.1.a.ii per month for the facilities from January 1 of that year. Monthly adjustments to the GHG individual GHG emission caps shall be determined as specified in Attachment II – GHG, Special Condition No. C.3.d until this alternate operating scenario no longer applies as specified in Attachment II – GHG, Special Condition No. C.3.a. A full one-twelfth (1/12) of the annual cap adjustment shall apply to the month unit criteria in Attachment II – GHG, Special Condition No. C.3.a are met and not thereafter.

c. The PGV alternate scenario total combined cap adjustment for calendar year 2019 is 185,404 short tons. Starting on January 1, 2020, and for any subsequent year, the PGV alternate operating scenario total combined GHG emissions cap adjustment shall be calculated by adding one twelfth (1/12) of the 2019 annual adjustment of 15,450 short tons to the total combined cap specified in Attachment II – GHG, Special Condition No. C.1.b.ii per month from January 1 of that year. Monthly adjustments to the total combined GHG emissions cap shall be determined as specified in Attachment II – GHG, Special Condition No. C.3.d until this alternate operating scenario no longer applies as specified in Attachment II – GHG, Special Condition No. C.3.a. A full one-twelfth (1/12) of the annual cap adjustment shall apply per month until the criteria in Attachment II – GHG, Special Condition No. C.3.a are met and not thereafter.

d. Monthly adjustments to the individual and total combined GHG emission caps shall be determined with the following equation:

$$AC = (FAC/12)$$

Where,

FAC = Full adjustment to CO_2e caps (short tons - refer to table below).

AC = Monthly adjustment to GHG emission caps.

Generating Station	Full Adjustment to CO_2e Caps (Short Tons)	2020 CO_2e Cap (Short Tons)	FAC/12 (Short Tons)[b]
Hamakua Energy	97,524	153,699	8,127
Kanoelehua-Hill	17,132	172,456	1,428
Keahole	31,213	242,208	2,601
Puna	39,535	31,747	3,295
Combined→	185,404	see note[a]	15,450

[a]Total combined CO_2e cap for all partnering facilities is 7,023,257 short tons.
[b]Monthly full CO_2e cap adjustment.

e. Individual GHG emission cap adjustments, affecting the total combined GHG emissions cap, shall only apply to partnering facilities on the island of Hawaii.
f. The permittee may exceed the adjusted individual GHG emissions cap as determined in Attachment II – GHG, Special Condition No. C.3.b, if the adjusted total combined GHG emission cap as determined in Attachment II – GHG, Special Condition No. C.3.c is met.
g. Alternate operating scenario records shall be maintained in accordance with Attachment II - GHG, Special Condition No. D.3.
h. The terms and conditions under each operating scenario shall meet all applicable requirements, including the special conditions of this permit.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-204(h))

Section D. Monitoring and Recordkeeping Requirements

1. GHG Emissions

For calculating CO_2e emissions to assess fees, determining compliance with the GHG emission caps, and quality assurance/quality control requirements, the permittee shall:

a. Monitor the CO_2 mass emissions data for the stationary source combustion units listed in Attachment II - GHG, Special Condition No. A.1 in accordance with 40 Code of Federal Regulations (CFR) §98.34;
b. Estimate missing data in accordance with the applicable procedures in 40 CFR §98.35;

c. Determine the metric tons of CO_2, methane (CH_4), and nitrous oxide (N_2O) in accordance with 40 CFR §98.33;
d. Calculate the GHG emissions, expressed in metric tons of CO_2e, using Equation A-1 of 40 CFR §98.2;
e. Convert the metric tons of CO_2e emissions to short tons for monitoring and annual emissions reporting as applicable. For the conversion, one (1) short ton is equal to 0.90718474 metric tons;
f. Obtain total actual CO_2e emissions semi-annually from all other partnering facilities to report the total combined CO_2e emissions in accordance with Attachment II - GHG Special Condition No. E.4.
g. Provide the information in items 2, 4 (when Attachment II – GHG, Special Condition No. C.3 applies), and 7 of the **Monitoring Report Form: GHG Emissions** to the IPP's within forty-five (45) days after the end of each semi-annual calendar period (January 1 – June and July 1 – December 31). The monitoring report form, with information from Items 2, 4, and 7, shall be signed and dated by a responsible official; and
h. Report CO_2e emissions and information on energy generation to the Department in accordance with Attachment II - GHG Special Condition No. E.4.

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §98.2, §98.3, §98.33, §98.34, §98.35)

2. Records

All records, including support information, shall be maintained for **at least five (5) years** from the date of the monitoring sample, measurement, test, report, or applications. Support information includes all maintenance, inspection, and repair records, and copies of all reports required by this permit. These records shall be true, accurate, and maintained in a permanent form suitable for inspection and be made available to the Department or authorized representative(s) upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

3. Alternate Operating Scenarios

a. The permittee shall contemporaneously with making a change from one operating scenario to another record in a log, the scenario under which it is operating.
b. The permittee shall maintain all records corresponding to the implementation of an alternate operating scenario.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

Section E. Notification and Reporting Requirements

1. Standard Condition Reporting

   Notification and reporting pertaining to the following events shall be done in accordance with Attachment I, Standard Condition Nos. 17 and 24, respectively:

   a. Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedances due to emergencies); and
   b. Permanent discontinuance of construction, modification, relocation, or operation of the facility covered by this permit.

   (Auth.: HAR §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; SIP §11-60-10, SIP §11-60-16)[2]

2. Deviations

   a. Except as specified in Attachment II – GHG, Special Condition No. E.2.b, the permittee shall report in writing **within five (5) working days** any deviations from permit requirements, including those attributed to upset conditions, the probable cause of such deviations, and any corrective actions or preventive measures taken. Corrective actions may include a requirement for testing, or more frequent monitoring, or could trigger implementation of a corrective action plan.
   b. The permittee shall report, in writing, deviations from Attachment II – GHG, Special Condition No. C.1.c.v, the probable cause of such deviations, and any corrective actions or preventive measures taken. Corrective actions may include a requirement for testing, more frequent monitoring, or could trigger implementation of a corrective action plan. Reports shall be submitted **within sixty (60) days** following the end of each calendar year.

   (Auth.: HAR §11-60.1-3, §11-60.1-15, §11-60.1-16, §11-60.1-90)

3. Compliance Certification

   a. During the permit term, the permittee shall submit at least **annually** to the Department and U.S. Environmental Protection Agency (EPA), Region 9, the attached **Compliance Certification Form** pursuant to HAR, Subsection 11-60.1-86. The permittee shall indicate whether or not compliance is being met with each term or condition of this permit. For making this certification for the partnering facility conditions in Attachment II – GHG, the permittee is relying on information provided by other partners that these partners independently certify. The compliance certification shall include, at a minimum, the following information:

i. The identification of each term or condition of the permit that is the basis of the certification;
ii. The compliance status;
iii. Whether compliance was continuous or intermittent;
iv. The methods used for determining the compliance status of the source currently and over the reporting period;
v. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification, including the requirements of Section 114(a)(3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act;
vi. Brief description of any deviations including identifying as possible exceptions to compliance any periods during which compliance is required and which the excursion or exceedances as defined in 40 CFR Part 64 occurred; and
vii. Any additional information as required by the Department, including information to determine compliance.

b. The compliance certification shall be submitted within **sixty (60) days after** the end of each calendar year and shall be signed and dated by a responsible official.
c. Upon the written request of the permittee, the deadline for submitting the compliance certification may be extended, if the Department determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-4, §11-60.1-86, §11-60.1-90)

4. Monitoring Reports

a. The permittee shall complete and submit **semi-annual** monitoring reports to the Department that provide the metric tons and short tons of CO_2e emitted by all partnering facilities, except that biogenic CO_2 shall be excluded from the total CO_2e emissions. The semi-annual monitoring reports shall include information on the status of the net generating capacity for the PGV facility and other renewable energy projects for implementing Attachment – GHG, Special Condition No. C.3. All reports shall be submitted **within sixty (60) days after** the end of each semi-annual calendar period (January 1 – June 30 and July 1 – December 31). The following enclosed form, or equivalent form, shall be used for reporting and shall be signed and dated by a responsible official:

Monitoring Report Form: GHG Emissions

b. For calendar year 2019, the permittee shall report the CO_2e emissions **within sixty (60) days** after the issuance of this permit. The Monitoring Report Form: GHG Emissions, or equivalent form, for the 2019 calendar year shall be used for reporting and shall be signed and dated by a responsible official.
c. For calendar year 2020, the permittee shall report the CO_2e emissions **within sixty (60) days** after the issuance of this permit or **within sixty (60) days** after the end of the semi-annual calendar period, whichever is later. The Monitoring Report Form: GHG Emissions, or equivalent form, for the 2020 calendar year shall be used for reporting and shall be signed and dated by a responsible official.
d. Upon written request by the permittee, the deadline for submitting the monitoring report form may be extended, if the Department determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

Section F. Agency Notification

Any document (including reports) required to be submitted by this permit shall be done in accordance with Attachment I, Standard Condition No. 28.

(Auth.: HAR §11-60.1-4, §11-60.1-90)

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[1]The citations to the CFR identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the CFR. Due to the integration of the preconstruction and operating permit requirements, permit conditions may incorporate more stringent requirements than those set forth in the CFR.
[2]The citations to the State Implementation Plan (SIP) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the SIP.

MONITORING REPORT FORM
GHG EMISSIONS
COVERED SOURCE PERMIT NO. 0548-01-C
(PAGE 1 OF 3)

Amended Date: October 22, 2020 **Expiration Date: October 16, 2023**

In accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information semi-annually:

(Make Copies for Future Use)

For Period: _____ Date: _____

Facility Name: _____

Location: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record. In making this certification for the partnering facility conditions in Items 2, 3, and 7 of this form, I am relying on information provided by other partners that these partners independently certify.

Responsible Official (Print): _____

Title: _____

Responsible Official (Signature): _____

1. Report the CO_2e emitted by CIP Generating Station during each reporting period for purposes of the facility's individual GHG emissions cap:

Emission Year Reporting For _____					
Reporting Period	Campbell Industrial Park Generating Station Emissions (Metric Tons of CO_2e)			Campbell Industrial Park Generating Station Emissions (Total CO_2e)	
	CO_2 (Non-biogenic)	CH_4	N_2O	Metric Tons	Short Tons
January 1 – June 30 (1st Semi-annual Period)					
July 1 – December 31 (2nd Semi-annual Period)					
Total Emissions →					

MONITORING REPORT FORM
GHG EMISSIONS
COVERED SOURCE PERMIT NO. 0548-01-C
(CONTINUED, PAGE 2 OF 3)

Amended Date: October 22, 2020 **Expiration Date: October 16, 2023**

(Reproduce this Sheet as Needed for Each Partnering Facility)

2. Report the total combined CO_2e emitted by all partnering facilities during each reporting period for purposes of the total combined GHG emissions cap for these facilities:

Emission Year Reporting For_____					
Reporting Period	Total Combined Emissions from All Partnering Facilities (Metric Tons of CO_2e)			Total CO_2e [a]	
	CO_2 (Non-biogenic)	CH_4	N_2O	Metric-tons	Short Tons
January 1 – June 30 (1st Semi-annual Period)					
July 1 – December 31 (2nd Semi-annual Period)					
Total Emissions →					

Provide information in Item 2 to all other partnering facilities during each reporting period for reporting the total combined partnering facility emissions.

3. For incidences when the individual cap for CIP Generating Station and total combined cap for all partnering facilities are exceeded, report the emissions in excess of the total combined cap using the following equation:

$$X = XG \frac{(A-C)}{\sum_{A_i>C_i}(A_i-C_i)} = \_\_\_\_\_$$

Where:

X = Adjusted portion in metric tons or short tons of GHG emissions that are in excess of total combined cap specified in Attachment II-GHG, Special Condition No. C.1.b. The equation applies to all affected facilities that do not meet the individual and total combined GHG emission caps specified in Attachment II – GHG, Special Condition Nos. C.1.a and C.1.b, respectively.
XG = Total combined actual GHG emissions from affected facilities minus total combined GHG emissions cap.
A = Actual GHG emissions from the affected facility.
C = GHG emissions cap for the affected facility.
$\sum_{Ai>ci}(Ai - Ci)$ = The sum of the difference between the actual emissions and cap emissions for all facilities that did not achieve the individual facility-wide GHG emissions cap.

4. Report the maximum monthly net generation of the PGV facility for the reporting period in MWh _____

Provide the information from Item 4 to all partnering facilities during each reporting period for implementing alternate operating scenario GHG emission cap adjustments.

MONITORING REPORT FORM
GHG EMISSIONS
COVERED SOURCE PERMIT NO. 0548-01-C
(CONTINUED, PAGE 3 OF 3)

Amended Date: October 22, 2020 **Expiration Date: October 16, 2023**

(Reproduce this Sheet as Needed for Each Partnering Facility)

5. Report the maximum monthly combined net generation of other renewable energy projects starting commercial operation on the island of Hawaii in calendar year 2020 and beyond in MWh _____

6. Provide a list of renewable energy projects starting operation on any island during the reporting period, including the project description, location, and maximum rated generating capacity in MWh.

7. Report the sum of the difference between the actual emissions and cap emissions for all facilities that did not achieve the individual facility-wide GHG emissions cap:

Emission Year Reporting For_____		
Reporting Period	$\sum_{A_i>C_i}(A_i - C_i)$	
	Metric Tons	Short Tons
January 1 – June 30 (1st Semi-annual Period)		
July 1 – December 31 (2nd Semi-annual Period)		

Provide the information in Item 7 to all other partnering facilities for incidences when the total combined partnering facility GHG emissions cap is exceeded.