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March 2, 2020

The Honorable Chair and Members of the
Hawai'i Public Utilities Commission
Kekuanaoa Building, First Floor
465 South King Street
Honolulu, Hawai'i 96813

Dear Commissioners:

Subject: Hawai'i Electric Light Company, Inc.
Rebuild Agreement and PPA Negotiations with Puna Geothermal Venture
Quarterly Update

The Commission requested in its letter dated May 9, 2019 that Hawai'i Electric Light Company, Inc. (hereinafter "Hawaiian Electric" or the "Company")¹ keep the Commission updated quarterly, beginning on June 1, 2019, regarding the status of permits required for the Puna Geothermal Venture ("PGV") facility to come back online (including but not limited to those set forth in Exhibit D, PGV's Government Approvals, of Exhibit A (Rebuild Agreement) to the Company's March 8, 2019 letter) and status of negotiations of a restated PPA, and updated, as necessary, regarding any other relevant developments, until the Commission determines otherwise. In addition, the Commission issued Order No. 36923 on December 31, 2019, resuming the proceeding in Docket No. 2019-0119. In response to the Commission's letter and Orders, Hawaiian Electric respectfully submits its quarterly report on relevant developments for the months of December 2019, January 2020, and February 2020.

Status of Permits

PGV has provided the Company with an update regarding the status of PGV's permits as well as a revised Exhibit D, which is attached hereto as Attachment 1. In Summary, every permit required to operate the PGV facility remains, and has remained without interruption, in full force and effect and is active. PGV needs no other permit to resume operations of its facility.

a. Geothermal Resource Permit (GRP 2)

- This permit is issued, administered and enforced by the County of Hawai'i and governs the operation of PGV's facility.
- Regulatory oversight is by the County Planning Department.
- This permit remains in full force and effect and continues to be active.

¹ Hawaiian Electric Company, Inc., Maui Electric Company, Limited, and Hawai'i Electric Light Company, Inc. are each doing business as "Hawaiian Electric" and have jointly registered "Hawaiian Electric" as a trade name with the State of Hawai'i Department of Commerce and Consumer Affairs, as evidenced by Certificate of Registration No. 4235929, dated December 20, 2019..

- Above and beyond, PGV has contracted the services of an acoustical engineer, and has completed noise survey number 2 of 3. This second survey follows the base line survey performed in late 2019. This second noise survey was performed during geothermal well drilling activities. The third noise survey will be performed after the facility has returned to operational status. Under PGV direction, the acoustical engineer will review the data collected from all three noise surveys and will provide a report at one of PGV's future scheduled Community Meetings.
- Above and beyond, PGV provides weekly wellfield and plant activity updates to the Department of Land and Natural Resources, Hawai'i County (Planning and Civil Defense departments respectively), Hawai'i Department of Health Clean Air Branch, Hawai'i Department of Health Safe Drinking Water Branch for Underground Injection Control, Hawai'i Department of Health Noise Branch and the United States Environmental Protection Agency Clean Water Branch for Underground Injection Control.

b. County Building Permits.

- PGV's three Air Quality Monitoring Stations permit application continue to be reviewed by the Department of Public Works at the Structural division for final building approval. In the interim, all three Monitoring Stations have been in full operation on a 24/7 basis and are compliant with DOH Clean Air Branch permit requirements. Noise levels, hydrogen sulfide emissions, wind direction, wind speed and rainfall are the primary elements being monitored. For the Department of Health, Clean Air Branch's Noncovered Source permit with PGV, hydrogen sulfide (H₂S) and noise levels are the two primary elements of interest. Particulate matter emissions are monitored during drilling activities.
 - Above and beyond, all three Monitoring Stations are equipped with Sulfur Dioxide (SO₂) monitoring capabilities. This is not a Clean Air Branch permit requirement. However, PGV voluntarily installed SO₂ monitoring as a result of the post eruption residual emissions that are still active. There are still numerous fissures continuing to emit SO₂ and H₂S.
 - Above and beyond, PGV's backup generators at the Monitoring Stations are in good working condition. These backup generators will provide power to the Monitoring Stations in the event that Hawaiian Electric power supply, or the UPS battery systems are interrupted. The backup generators are not a DOH permit requirement, but an additional safety and reliability measure to keep the Monitoring Stations in operation at all times.
 - Above and beyond, PGV has provided internet access to the noise and H₂S data recorded at the three Monitoring Stations. This information can currently be accessed from the Ormat website www.ormat.com or more directly by typing in the IP address 107.85.101.148/pgvpublic/. Having this data made available to the public is not a DOH requirement. PGV voluntarily provides this data to anyone interested in the interest of safety and transparency.

- PGV's Grading and Grubbing permit for the facility driveways and the substation earthwork was received on December 7, 2018. This permit remains active as bulldozing, rock crushing and grading continues.
 - PGV's building permit application # A2020-BH000068, for the electrical substation rebuild, was submitted to the County on January 23, 2020. The approved permit was issued to PGV on February 18, 2020. Concrete work is scheduled for the next four weeks or so.
- c. Plan Of Operation (POO).
- This permit is approved, administered and enforced by the State Department of Land and Natural Resources ("DLNR") for the operation of all geothermal wells.
 - Regulatory oversight resides within the DLNR Engineering Department.
 - This permit remains in full force and effect and continues to be active.
- d. Well Permits - Geothermal Wells. Several permits for maintenance and drilling of specific geothermal wells have been issued by DLNR and each remains in full force and effect and is active.
- KS-14 well maintenance ACTIVE since 12/21/2018
 - Maintenance workover was completed at the end of October 2019. As of December 2019, additional maintenance work is required for production well KS-14. Start time for this work is under consideration.
 - KS-9 well maintenance ACTIVE since 4/5/2019
 - KS-16 well maintenance ACTIVE since 4/5/2019
 - KS-15 well maintenance ACTIVE since 7/16/2019
 - Maintenance workover is completed and Reinjection well KS-15 is available for operations.
 - KS-13 well maintenance ACTIVE since 7/20/2019
 - Maintenance workover was completed at the end of December 2019. Reinjection well KS-13 is available for operations.
 - KS-18 drilling (new well) ACTIVE since 8/9/2019
 - Drilling commenced in late October and PGV is currently at about 2,200 feet deep.
 - KS-17 drilling (new well) ACTIVE since 8/19/2019
- e. Well Permits - Groundwater Wells. Two groundwater wells have also been permitted through DLNR's Commission on Water Resource Management and each remains in full force and effect and is active.
- MW-4 new water well Active since 6/11/18
MW-4 continues to provide water for all wellfield maintenance and drilling activities.
 - MW-5 new water well Active since 3/8/19
 - MW-5 has been drilled to about 820 feet and waiting on a new plan to continue forward.

- Above and beyond, PGV continues to hold bi-weekly status update conference calls with onsite DLNR representative and DLNR staff personnel from Honolulu.
- f. Non-Covered Source Permit (NSP) No. 0008-02-N.
- This permit is issued, administered and enforced by the Hawai'i State Department of Health ("DOH") for the operation of the PGV's facility.
 - Regulatory oversight resides within the Clean Air Branch.
 - A contested case hearing, for the draft renewal permit, is scheduled for the last week of April 2020.
 - This permit remains in full force and effect and is active.
- g. Non Covered Source Permit (NSP) No. 0008-03-N.
- This permit is issued, administered and enforced by the DOH for the operation of the PGV's wellfield.
 - Regulatory oversight resides within the Clean Air Branch.
 - This permit remains in full force and effect and is active.
- h. Underground Injection Control (UIC) Permit No. UH-1529.
- This permit is issued, administered and enforced by the DOH for the operation of PGV's reinjection wells.
 - Regulatory oversight resides within the Safe Drinking Water Branch.
 - This permit remains in full force and effect and is active.
- i. Underground Injection Control (UIC) HI 596002.
- This permit is issued, administered and enforced by the U.S. Environmental Protection Agency Region IX for the operation of PGV's reinjection wells.
 - Regulatory oversight resides within the Clean Water Branch of DOH.
 - This permit remains in full force and effect and is active.

Status of PGV's work and Test Energy:

Please see PGV's December 2019 Progress Report related to Force Majeure Event dated January 14, 2020, provided as Attachment 2 hereto.

Although PGV had originally planned to return to operations by year end 2019, they experienced an unexpected equipment malfunction during PGV's restart attempt in December 2019. Due to their equipment malfunction, PGV currently anticipates that restart of the facility will now take place sometime in the beginning of the second quarter 2020. Restart activities will be in accordance with the signed "Acceptance of Test Energy" letter agreement dated November 6, 2019.

Status of Rebuilding of Transmission Lines

As a result of the Commission's directives in the May 9, 2019 letter, the Company immediately ceased work on the transmission lines and filed an Application for Approval to Construct 69 kV Overhead Transmission Line Segments to Reconnect the PGV facility on June 7, 2019 (see Docket No. 2019-0119). In this application, Hawaiian Electric proposed to construct certain 69 kV overhead transmission line segments necessary to reconnect the PGV generating facility to the Company's electric system. Although this Docket was temporarily suspended, the Company continued to prepare for such work by monitoring the delivery of steel poles, which have a long-lead time, and which PGV has paid for 100% of the cost of the poles. In addition, the Company worked with PGV to contract an environmental consultant to provide a greenhouse gas ("GHG") emissions analysis for the overhead transmission line, which PGV provided advance payment for the consultant's work. Although the GHG analysis may not be required, the Company submitted the GHG analysis on January 10, 2020, in this docket to avoid any potential delay if it is later determined to be required.

As directed by the Commission's Order No. 36923, the Company worked with the Consumer Advocate and filed a procedural schedule on January 15, 2020. A Company representative provided Hawaiian Electric's statement at the Public Hearing held by the Commission on January 29, 2020, at the Pahoa Neighborhood facility. Company personnel are currently preparing responses to information requests that were submitted by the Consumer Advocate and Tawhiri Power LLC on February 19, 2020.

Status of Rebuilding of Pohoiki Switching Station

In addition to rebuilding the overhead transmission line segments, the Company must also rebuild the Pohoiki Switching Station that was destroyed during the 2018 Kilauea eruptions. The Company continued its work on procuring long-lead materials and contracting the Civil Structural Architectural ("CSA") work for the Pohoiki Switching Station. PGV provided advance payment for this work. Final plan approval was issued by the County of Hawai'i. The contractor for the CSA work has begun preparations for construction.

Community Outreach

Exhibit E of the Rebuild Agreement provided PGV's extensive Community Outreach Plan. During this quarter, PGV conducted its community meeting on January 22, 2020, with presenters from PGV, the Company and the County of Hawai'i. PGV provided updates of the project and was available to answer questions from the community.

Status of Negotiations of a Restated PPA

As noted in the rebuild agreement, prior to the 2018 volcanic eruption in the Kilauea Lower East Rift Zone, PGV and Hawaiian Electric were in discussions to amend and restate the power purchase agreement ("PPA") with PGV for a proposed PGV repowering project that will consist of decommissioning the older original equipment and installing new more efficient

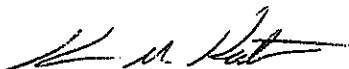
equipment which will increase the generating capacity of the facility from 38 MW to 46 MW. As part of these discussions, and as directed in the May 9, 2019 letter, the goal of the parties was to consolidate the two existing contracts into one contract, agree to reduced pricing de-linked from the volatility of fossil fuel prices and expedite anticipated cost savings to customers. Just prior to the end of 2019, the parties reached an agreement on the pricing and terms for an amended and restated PPA which achieved these goals. On December 31, 2019, the Company filed an application for Commission review and approval of the PPA under Docket No. 2019-0333, which also included, as permitted by the May 9, 2019 letter, a Performance Incentive Mechanism (PIM) for consideration by the Commission.

Conclusion

The Company appreciates this opportunity to update the Commission on the status of PGV-related issues with respect to the rebuilding and resumption of operations of the facility and PPA renegotiations. The Company will continue to update the Commission as progress continues on PGV's rebuild efforts, however, further updates on the PPA renegotiations will cease as Commission review of the PPA moves forward in Docket No. 2019-0333.

The Company looks forward to successfully bringing PGV back into service and restoring a valuable renewable resource to the Company's grid. Please contact Sharon Hirai at (808) 969-0428 should you have any questions regarding this matter.

Sincerely,



Kevin M. Katsura
Director
Regulatory Non-Rate Proceedings

Enclosures

cc: Division of Consumer Advocacy

EXHIBIT D – GOVERNMENTAL APPROVALS
[February 26, 2020]

Each of the permits listed is in full force and effect and is active, and no further action or approval is required by Puna Geothermal Venture to start up the facility.

Government Agency	County of Hawaii Planning Commission	State of Hawaii Department of Land and Natural Resources (DLNR)	State of Hawaii Department of Health Clean Air Branch (HDOH - CAB)	State of Hawaii Department of Health Safe Drinking Water Branch	United States Environmental Protection Agency (EPA) Region IX
Permit	Geothermal Resource Permit (GRP 2)	Plan of Operation (POO)	Non Covered Source Permits (NSP) No. 0008-02-N (Power Plant) & No. 0008-03 (Wellfield)	Underground Injection Control (UIC) UIC Permit No. UH-1529	Underground -Injection Control (UIC) HI 596002
Status/Scope	Active, primarily for land use issues. Allows Facility to increase up to 60 MW	Active, primarily for wellfield development and maintenance. As of 1/17/06, allows development of up to 28 Wells and up to 60 MW.	Active, Primarily Air Quality for a 41 MW Nominal Power Plant & Wellfield	Active, regulates injection of fluids	Active, Regulates injection of fluids



1/14/2020

Hawaii Electric Light Company, Inc.
Sharon Suzuki, President
1200 Kilauea Avenue
Hilo, Hawaii 96720-4295

Delivery by email and mail

Dear Mrs. Suzuki:

Subject: December 2019 Progress Report related to Force Majeure Event

References:

Power Purchase Contract For Unscheduled Energy Made Available from A Qualifying Facility dated March 4, 1986, as amended ("1986 PPA")

Power Purchase Agreement between Puna Geothermal Venture ("PGV") and Hawaii Electric Light Company, Inc. dated February 7, 2011 ("2011 PPA") PGV Notice of Force Majeure of May 30, 2018 ("PGV Notice of Force Majeure")

Rebuild Agreement Between Puna Geothermal Venture and Hawai'i Electric Light Company, Inc. dated March 7, 2019

The plant remained offline for the month of December 2019 due to the lava intrusion. However, this month the plant made progress in its ability to return to service.

Ongoing wells recovery work continued: OEC-13 passed pressure testing and was filled with pentane. Continued preparation on OEC-11 and OEC-14 as well as continued work on substation. Plant is close to starting up.

PGV signed an amended PPA with HELCO in order to continue the good relationship with HELCO.



Work continues for tie in of the 13.8kV switchgear. Another subcontractor, Ludwig Construction crew, is building foundations at 69KV switchyard.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Warner".

Evan Warner
Asset Manager