



March 8, 2019

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PUBLIC UTILITIES
COMMISSION

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 with Puna Geothermal Venture

For informational purposes, Hawaii Electric Light, Company, Inc. ("Hawaii Electric Light" or the "Company") hereby respectfully notifies the Commission that the Company and Puna Geothermal Venture ("PGV") have entered into an agreement ("Rebuild Agreement"), which sets forth the parties' respective responsibilities associated with restoration of facilities and reconnection of the PGV facility to the Companies' electric grid following destruction caused by the 2018 Kilauea volcanic eruptions.¹

The projects covered by the Rebuild Agreement that will be completed to bring PGV back into service include:²

- Pohoiki Switching Station – The Company will rebuild and commission the Pohoiki Switching Station (eight-breaker switching station, control house, SCADA, communication tower, and site work, including grading, fencing and ground grid).³
- Transmission Lines – The Company will reconstruct sections of two 69 kV transmission lines to reconnect the PGV to the Hawai'i Electric Light transmission system: (1) an approximately one-mile line segment of the 6500 transmission line; and (2) an approximately one-and-a-half-mile segment of the 8700 transmission line. For purposes of HRS § 269-27.6, both lines will maintain their previous overhead configuration.

The rebuilt Pohoiki Switching Station and 69 kV transmission lines are intended to be like-kind replacements of the destroyed infrastructure, i.e., the capacity of the Pohoiki Switching Station and 69 kV transmission lines will not be increased; they are being rebuilt to replicate the destroyed infrastructure at no cost to the Company or its customers.

For purposes of Paragraph 2.3(g)(2) of the Commission's General Order No. 7, the Rebuild Agreement projects do not involve any commitment of funds on the Company's part. That is, the

¹ A copy of the Rebuild Agreement is provided as Exhibit A hereto. Graphical depictions of the areas where facilities will be reconstructed pursuant to the Rebuild Agreement are provided in Exhibit B hereto.

² See Exhibit B, Figure 1 for high-level map of the location of PGV's facility.

³ See Exhibit B, Figures 2 and 3 for illustrations of the overrun switching station.

Company's commitment of funds for these projects (i.e., net of insurance and PGV contributions), will be zero.

With respect to the 6500 and 8700 transmission lines, the exact, original routes of the easements that these lines previously followed are not currently available or cleared of lava. However, a new road built by PGV (on its same leased property and to its geothermal facility) has been permitted and completed in the same general area.⁴ Therefore, the Company plans to reconstruct these lines along the new PGV-built road, which will avoid the need for and cost of constructing other new roads across the lava channel.⁵

The land on which the 6500 and 8700 lines will be reconstructed is zoned Agricultural and is not in a residential area. The only two residences left in the general vicinity of PGV's facility are 400-500 feet away from where the lines will be reconstructed. The change in visual impact for these residences as a result of reconstructing these lines should be minimal, as there is heavy foliage between the residences and the new PGV-built road, there are existing transmission lines between these residences and the new road, and the reconstructed lines will be no closer to the residences than the lines that were destroyed by the eruption.⁶

Because the Company's commitment of funds for these projects after contributions is zero, the line will be rebuilt in previous overhead configuration, and realignment is expected to have minimal impact on customers, the Company does not believe these projects require Commission approval or public hearing. However, if the Commission finds otherwise, the Company stands ready to abide by any such Commission determination.

Finally, the Company notes that prior to the 2018 Kilauea volcanic eruption, the Company and PGV were negotiating a possible amended and restated PPA which would, among other things, de-link the existing PPA from the cost of fossil-fuel and potentially lower costs to customers. Consistent with that intent, in Paragraph No. 7, PGV committed to continuing good faith negotiations to that end with the understanding that any amended and restated PPA will ultimately be subject to Commission review and approval.

Sincerely,



Kevin M. Katsura
Director
Regulatory Non-Rate Proceedings

Enclosures

cc: Division of Consumer Advocacy (with enclosures)

⁴ PGV leases this land from landowner Kapoho Land Development.

⁵ See Exhibit B, Figures 4 and 5 for images of the new road and re-routed lines.

⁶ See Exhibit B, Figures 6 and 7 for illustrations of the residences relative to the transmission lines.

REBUILD AGREEMENT
BETWEEN
PUNA GEOTHERMAL VENTURE
AND
HAWAII ELECTRIC LIGHT COMPANY, INC.

This REBUILD AGREEMENT ("Rebuild Agreement"), is made and entered into this 7th day of March, 2019 ("Effective Date"), by and between HAWAII ELECTRIC LIGHT COMPANY, INC. ("Hawai'i Electric Light" or "Company"), a Hawaii corporation with principal offices in Hilo, County of Hawaii, State of Hawaii, and PUNA GEOTHERMAL VENTURE ("PGV"), a Hawaii general partnership, doing business in Honuaula, Puna, County of Hawaii, State of Hawaii (PGV and Company are collectively referred to as the "Parties" or individually as a "Party"). Unless otherwise defined herein, all capitalized terms used in this Rebuild Agreement shall have the meanings assigned to such terms in the PPAs (as defined herein).

R E C I T A L S:

WHEREAS, Company is an operating electric public utility subject to the Hawaii Public Utilities Law (Hawaii Revised Statutes, Chapter 269) and the rules and regulations of the Hawaii Public Utilities Commission ("Commission");

WHEREAS, Company and PGV are parties to that certain Purchase Power Contract, dated March 24, 1986, as amended (the "Original PPA");

WHEREAS, Company and PGV are parties to that certain Power Purchase Agreement dated February 7, 2011 (the "Expansion PPA") (the Original PPA and Expansion PPA are collectively referred to as the PPAs);

WHEREAS, on May 30, 2018, PGV provided Company with a Notice of Force Majeure Event resulting from the eruption in the Kilauea Lower East Rift Zone ("Volcanic Activity"), which rendered PGV's facility incapable of performing certain obligations under the PPAs;

WHEREAS, on June 22, 2018, Company provided PGV with a Notice of Force Majeure Event due to the same Volcanic Activity overrunning certain Company-owned facilities, i.e. Pohoiki Switching Station and 8700 and 6500 lines, and portions of PGV's related property;

WHEREAS, each Party is pursuing efforts with reasonable diligence to eliminate the impacts of their respective Force Majeure Events to the extent practicable;

WHEREAS, the Parties desire to cooperate with each other to cure the results of their respective Force Majeure Events;

WHEREAS, the Parties desire to set forth their respective responsibilities and certain cost obligations associated with the restoration of their respective facilities pursuant to the terms and conditions of this Rebuild Agreement.

NOW, THEREFORE, in consideration of the foregoing recitals, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each of PGV and Company agrees as follows:

A G R E E M E N T

1. Scope of Rebuild Agreement

(A) Company and PGV agree that this Rebuild Agreement shall govern the relationship of the parties with respect to the facilities and equipment listed in Exhibit A (Covered Facilities) hereto (the "Covered Facilities"). In the event of any conflict between the PPAs and this Rebuild Agreement, the terms of this Rebuild Agreement shall govern and control.

2. Waiver of Termination Rights and Right to Energy and Capacity Payments

(A) A Party (the "Waiving Party") will not declare an Event of Default and will waive its termination rights relating to the other Party's (the "Counter Party") Notice of Force Majeure Event for so long as the Counter Party is diligently performing its obligations under this Rebuild Agreement in order to enable the Facility to achieve a return to Normal Commercial Operations (as defined below) on or before December 31, 2019 ("Normal Commercial Operations Deadline").

(B) The detailed project schedule for the rebuild and reconnection of the Facility is set forth in Exhibit B (Project Schedule) hereto ("Project Schedule"). A Party (the "Requesting Party") may at any time request adequate assurances that the other Party (the "Responding Party") is exercising diligent efforts to meet the Project Schedule, as set forth in this Rebuild Agreement. If the Requesting Party determines, in its reasonable discretion, that the Responding Party is not diligently performing its obligations under this Rebuild Agreement and will be unable to meet the Project Schedule, then the Requesting Party may revoke its waiver of its rights as set forth in this Rebuild Agreement.

(C) PGV will waive its right to payment of any energy and capacity payments that would otherwise be due under the Original PPA and the Expansion PPA prior to the Facility's initial return to Normal Commercial Operations so long as the Company is engaged in reasonably diligent efforts to perform its obligations under this Rebuild Agreement.

3. Payment to Company for Rebuild of Covered Facilities.

(A) Insurance Proceeds and Deductible. The Company shall diligently pursue and use proceeds from an applicable insurance policy, to the extent proceeds are available, to fund the like-kind replacement of the destroyed Pohoiki Switching Station. However, PGV shall bear the mandatory \$1 million deductible, which shall be applied to the insurance proceeds described in subsection 3(B) below under such policy. Further, to the extent practicable, the rebuild Switching Station will be designed in accordance with the original Switching Station design and

that if there are material changes, any amounts that are not recoverable under the applicable insurance policy resulting from the change in design and specifications will be payable to the Company by PGV.

(B) Cash Advancement from PGV to Company for Long Lead Work. Within five (5) business days of the Effective Date of this Rebuild Agreement, PGV will provide a cash advance to Company in the amount of Two Million Three Hundred Forty Eight Thousand Three Hundred Twenty One and NO/100 Dollars (**\$2,348,321.00**) the form of wired funds transfer for the engineering design work and procurement of the long-lead items specified in Exhibit C (Long Lead Work) hereto to rebuild the Company's portion of the Pohoiki Switching Station and related transmission and distribution line repairs needed to reconnect the PGV Facility to the Company's grid ("Long-lead Work"). The Company will reimburse PGV for the advanced amount only to the extent that the Company is able to obtain insurance proceeds that cover the actual cost of such Long-lead Work and such reimbursement will be made only after PGV successfully restores the PGV Facility to Normal Commercial Operations. For purposes of this Rebuild Agreement, the Facility shall be deemed to be in "Normal Commercial Operations" following the completion of the following:

(1) with respect to the Facility governed by the Original PPA, as amended, successful completion of the Acceptance Test and Capacity Test set forth in Attachment D (Acceptance and Capacity Testing Procedures) of the Expansion PPA but only to the extent required for the System Operator to safely and reliably accept the energy and capacity from that portion of the Facility governed by the Original PPA, as amended; and

(2) with respect to the portion of the Facility governed by the Expansion PPA, the successful completion of the Acceptance Test and Capacity Test set forth in Attachment D (Acceptance and Capacity Testing Procedures) of the Expansion PPA; provided, however, the Parties recognize that the minimum capacity requirement set forth in Attachment D may not be met as of the Normal Commercial Operations Deadline (i.e. December 31, 2019), and agree, provided PGV is engaged in reasonably diligent efforts to improve output, to extend the Commercial Operations Deadline for such requirement for an additional twelve (12) months after achievement of Normal Commercial Operations.

4. Compliance with Required Government Approvals

(A) Without limiting any other obligation under the terms of the Original PPA, as amended, and Expansion PPA, PGV will obtain, at its expense, any and all permits, licenses, approvals, certificates, entitlements and other authorizations issued by governmental authorities ("Government Approvals"), as well as any agreements with governmental authorities, required for the construction, ownership, operation and maintenance of PGV's Facility or any of the Covered Facilities, and all amendments, modifications, supplements, general conditions and addenda thereto. Further, upon the Effective Date of this Rebuild Agreement, PGV will provide the Company with the following information to be included as Exhibit D (Governmental Approvals) hereto:

(i) Listing of all Government Approvals that are required or that PGV understands are likely to be required by any governmental authority in order for PGV to return to Normal Commercial Operations; and

(ii) The current status of each of the Government Approvals listed in subparagraph (i) above, including whether such Government Approval has been obtained and whether PGV is currently in compliance with such Government Approval.

(B) PGV shall have a continuing obligation to update the information contained in Exhibit D and provide the Company with a monthly report detailing the status of all Government Approvals during the Term of the PPAs. Further, in addition to such monthly reporting, PGV shall promptly notify the Company whenever there is any event or change in circumstance that may impact PGV's ability to obtain or comply with any required Government Approval.

5. Community Outreach

Without limiting any other obligation under the terms of the Original PPA, as amended, and Expansion PPA, upon the Effective Date of this Rebuild Agreement, PGV shall provide the Company with a community outreach plan, to be included as Exhibit E (PGV's Community Outreach Plan) hereto, that details PGV's ongoing plan to reach out and engage with the community during and after rebuilding of PGV's Facility and return to Normal Commercial Operations. The purpose and scope of such plan shall be in PGV's discretion, provided, however, that any such plan shall, at a minimum, include provisions to inform the neighboring community, allay concerns, and implement, where commercially reasonable and possible, requests from the community to garner support for the Facility from the neighboring community and the return to Normal Commercial Operations.

6. Indemnification

PGV agrees to indemnify, defend, and hold harmless the Company from and against any losses, costs or expenses suffered, incurred or sustained by the Company due to any claim (whether or not well founded, meritorious or unmeritorious) by any third party relating to or arising from PGV's or the Company's efforts to place PGV's Facility back into Normal Commercial Operations, except to the extent attributable to the gross negligence or willful misconduct of the Company. This obligation shall be in addition to, and not in lieu of, any other obligation to indemnify, defend and hold harmless currently included within the PPAs.

7. Good Faith Efforts to Negotiate Amended and Restated PPA

The parties acknowledge that prior to the Force Majeure Events, the parties were negotiating a possible amended and restated PPA which would, among other things, de-link the Original PPA from the cost of fossil-fuel. PGV commits to continuing good faith negotiations to that end with the understanding that any amended and restated PPA will ultimately be subject to Commission review and approval.

8. Term of the Agreement.

The term of this Rebuild Agreement shall commence as of the Effective Date and shall continue for so long as both parties are diligently performing their respective obligations under this Rebuild Agreement. Notwithstanding the foregoing, in the event that the PPA is terminated for any reason, this Rebuild Agreement shall automatically be terminated as of the date of termination of the PPA(s).

9. Land Rights.

Without limiting any other obligation under the terms of the Original PPA, as amended, and Expansion PPA, PGV shall provide all necessary easements, rights of way, licenses and leases (collectively, "Land Rights") which are required for the construction, ownership, operation and maintenance of PGV's Facility or any Covered Facilities under this Rebuild Agreement.

10. PPAs Terms Remains Unchanged.

All of the terms and conditions of the PPAs remain unchanged and in full force and effect.

11. Miscellaneous.

(A) Notices.

All notices, consents and waivers under this Rebuild Agreement shall be sent in accordance with Section 25.2 (Notices) of the Expansion PPA.

(B) Entire Agreement.

This Rebuild Agreement, including all Exhibits, constitutes the entire agreement between the Parties relating to the subject matter hereof, superseding all prior agreements, understandings or undertakings, oral or written. Each of the Parties confirms that in entering into this Rebuild Agreement, it has not relied on any statement, warranty or other representation (other than those set out in this Rebuild Agreement) made or information supplied, by or on behalf of the other Party.

(C) Binding Effect.

This Rebuild Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective successors, legal representatives, and permitted assigns.

(D) Relationship of the Parties.

Nothing in this Rebuild Agreement shall be deemed to constitute either Party hereto as partner, agent or representative of the other Party or to create any fiduciary relationship between the Parties.

(E) Further Assurances.

If either Party determines in its reasonable discretion that any further instruments, assurances or other things are necessary or desirable to carry out the terms of this Rebuild Agreement, the other Party will execute and deliver all such instruments and assurances and do all things reasonably necessary or desirable to carry out the terms of this Rebuild Agreement.

(F) Severability.

If any term or provision of this Rebuild Agreement or the application thereof to any person, entity or circumstance shall to any extent be invalid or unenforceable, the remainder of this Rebuild Agreement, or the application of such term or provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Rebuild Agreement shall be valid and enforceable to the fullest extent permitted by law.

(G) No Waiver.

Except as otherwise provided in this Rebuild Agreement, no delay or forbearance of Company or PGV in the exercise of any remedy or right will constitute a waiver thereof, and the exercise or partial exercise of a remedy or right shall not preclude further exercise of the same or any other remedy or right.

(H) Modification or Amendment.

No modification, amendment or waiver of all or any part of this Rebuild Agreement shall be valid unless it is reduced to a paper writing and signed via manual signature by both Parties.

(I) Governing Law, Jurisdiction and Venue.

Interpretation and performance of this Rebuild Agreement shall be in accordance with, and shall be controlled by, the laws of the State of Hawai'i, other than the laws thereof that would require reference to the laws of any other jurisdiction. By entering into this Rebuild Agreement, the Parties submit themselves to the personal jurisdiction of the courts of the State of Hawai'i and agree that the proper venue for any civil action arising out of or relating to this Rebuild Agreement shall be Honolulu, Hawai'i.

(J) Electronic Signatures and Counterparts.

This Rebuild Agreement and any subsequent writings, including amendments, may be executed in counterparts, each of which shall be deemed an original, and all of which shall together constitute one and the same instrument binding all Parties. Duplicate, unexecuted and unacknowledged pages of the counterparts may be discarded, and the remaining pages assembled as one document. This Agreement and any subsequent writings, including amendments, may be executed and delivered by exchange of executed copies via email or other acceptable electronic means or formats (e.g., DocuSign, Adobe PDF). A Party's signature transmitted by email or other acceptable electronic means or formats shall be considered an original signature that is binding and effective for all purposes.

(K) Headings.

The paragraph headings of the various sections and schedules have been inserted in this Rebuild Agreement as a matter of convenience for reference only and shall not modify, define or limit any of the terms or provisions hereof and shall not be used in the interpretation of any term or provision of this Rebuild Agreement.

(L) No Third-Party Beneficiaries.

Nothing expressed or referred to in this Rebuild Agreement will be construed to give any person or entity other than the parties any legal or equitable right, remedy or claim under or with respect to this Rebuild Agreement or any provision hereof. This Rebuild Agreement and all of its provisions and conditions are for the sole and exclusive benefit of the Parties and their successors and permitted assigns.

(M) Settlement of Disputes.

Except as otherwise expressly provided, any dispute or difference arising out of this Rebuild Agreement or concerning the performance or the non-performance by either Party of its obligations under this Rebuild Agreement shall be determined in accordance with the dispute resolution procedures set forth in Article 16 (Dispute Resolution) of the Expansion PPA.

(N) Survival of Obligations.

The rights and obligations that are intended to survive a termination of this Rebuild Agreement are all of those rights and obligations that this Rebuild Agreement expressly provides shall survive any such termination and those that arise from PGV's or Company's covenants, agreements, representations, and warranties applicable to, or to be performed, at or during any time prior to or as a result of the termination of this Rebuild Agreement, including, without limitation: Section 3(B) (Cash Advancement from PGV to Company for Long Lead Work), Section 6 (Indemnification), and this Section 12 (Miscellaneous).

(O) Informational Filing.

The Parties acknowledge and agree that this Rebuild Agreement shall be submitted to the Commission as an informational filing. If approval is required by the Commission, the Parties acknowledge that their respective obligations hereunder may be conditioned upon receipt of such approval.

IN WITNESS WHEREOF, Company and PGV have caused this Agreement to be executed by their respective duly authorized representatives as of the Effective Date.

HAWAII ELECTRIC LIGHT COMPANY, INC.
("Company")

By: Sharon M. Suzuki
Name: Sharon M. Suzuki
Title: President

PUNA GEOTHERMAL VENTURE
("PGV")

By: Connie Stechman
Name: Connie Stechman
Title: Secretary

EXHIBIT A

COVERED FACILITIES

1. 69 kV breaker and a half (8 breaker) switching station
2. Control room with protective relaying, battery systems
3. Communications and SCADA system
4. Microwave antenna tower
5. Segment of 8700 69 kV transmission line
6. Segment of 6500 69 kV transmission line

EXHIBIT B
PROJECT SCHEDULE

PGV Activity Description	Start Date	Completion Date
Plant Access (grading and permitting of pioneer road)	December 7, 2018 (A)	December 13, 2018 (A)
Surface equipment assessment and recovery	December 13, 2018(A)	September 30, 2019
Temporary Air Quality Monitoring Stations	December 1, 2018	January 14, 2019 (A)
Well Pads and Substation Permitting, Excavation and Cleaning Work	February 5, 2019 (A)	September 30, 2019
Monitoring Well 4 Permitting and Drilling	January 14, 2019 (A)	February 27, 2019 (A)
Permanent Air Quality Monitoring Stations	January 2018 (A)	March 27, 2019
Wellfield Permitting, Workover and Testing (KS 9, KS 13, KS 14, KS 15, KS 16)	December 26, 2018 (A)	September 9, 2019
PGV Substation Work	June 30, 2019	September 30, 2019
PGV Substation testing	October 1, 2019	October 31, 2019
Plant Startup and testing	November 1, 2019	November 30, 2019

(A) Actual Date

HELCO Activity Description

HELCO 6500 Line and Distribution Service Power (1-2MW)
Kapoho Substation Reenergize and 5MW PGV service
HELCO Switching Station Construction, Commissioning and Testing
HELCO 6500 Line Construction to switching station
HELCO 8700 Line Construction to switching station

EXHIBIT C

LONG LEAD WORK

Procurement of Long Lead Engineering Design Work and Materials →16 Weeks

QTY	MATERIALS	UNIT	PRICE	TOTAL	LEAD TIME (WKS)
<i>69KV PARTS</i>					
8	69 kv circuit breakers	EA	\$60,000.00	\$480,000.00	22
18	Pasacor V switches	EA	\$9,000.00	\$162,000.00	22
6	Lightning arrestors	EA	\$500.00	\$3,000.00	16
5	Terminal structure	EA	\$10,000.00	\$50,000.00	16
18	Switch support structure	EA	\$3,000.00	\$54,000.00	16
11	Buss support structure	EA	\$2,000.00	\$22,000.00	16
11	69 kv PT's	EA	\$3,000.00	\$33,000.00	32
2	50 KVA station service transformer	EA	\$35,000.00	\$70,000.00	22
2	Fuse Support Structure	EA	\$1,500.00	\$3,000.00	16
		SUB		\$877,000.00	
		w/Loading		\$1,028,721.00	
<i>COMMUNICATIONS</i>					
1	Antenna tower	EA	\$40,000.00	\$40,000.00	16
1	Network router	EA	\$30,000.00	\$30,000.00	16
2	Network switch	EA	\$10,000.00	\$20,000.00	16
2	Firewall	EA	\$20,000.00	\$40,000.00	16
1	RTU	EA	\$20,000.00	\$20,000.00	16
		SUB		\$150,000.00	
		w/Loading		\$175,950.00	
<i>SERVICES</i>					
1	OUTSIDE ENGINEERING (ELEC)	EA	\$223,000.00	\$223,000.00	
1	OUTSIDE ENGINEERING (CIVIL)	EA	\$20,000.00	\$20,000.00	
1	OUTSIDE ENGINEERING (COMM)	EA	\$20,000.00	\$20,000.00	
		SUB		\$263,000.00	
		w/Loading		\$341,058.40	
		TOTAL		\$1,290,000.00	
		w/Loading		\$1,545,729.40	

LONG LEAD MATERIALS - >10 Weeks

QTY	MATERIALS	UNIT	PRICE	TOTAL	LEAD TIME (WKS)
<i>69KV PARTS</i>					
35	550 kV BIL insulators	EA	\$200.00	\$7,000.00	10
1200	2" bus (feet){est}	FT	\$10.00	\$12,000.00	12
4	SMD-2 FUSES	EA	\$4,000.00	\$16,000.00	12
1	48 VDC BATTERY SYSTEM	EA	\$10,000.00	\$10,000.00	12
1	125 VDC BATTERY SYSTEM	EA	\$10,000.00	\$10,000.00	12
4	WIRED LINE PROTECTION PANEL	EA	\$25,000.00	\$100,000.00	12
4	WIRED BUS PROTECTION PANEL	EA	\$25,000.00	\$100,000.00	12
5	HANDHOLE(5X7)	EA	\$7,000.00	\$35,000.00	12
			SUB	\$290,000.00	
			w/Loading	\$340,170.00	
<i>COMMUNICATIONS</i>					
1	MICROWAVE RADIO, 6 GHZ	EA	\$100,000.00	\$100,000.00	12
1	ANTENNA TOWER, 180 FT	EA	\$250,000.00	\$250,000.00	12
			SUB	\$350,000.00	
			w/Loading	\$410,550.00	
<i>SERVICES</i>					
1	OUTSIDE ENGINEERING (CIVIL)	EA	\$20,000.00	\$20,000.00	
1	OUTSIDE ENGINEERING (COMM)	EA	\$20,000.00	\$20,000.00	
			SUB	\$40,000.00	
			w/Loading	\$51,872.00	
			TOTAL	\$680,000.00	
			w/Loading	\$802,592.00	

EXHIBIT D

PGV'S GOVERNMENT APPROVALS

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 Permit (NSP) No. 0008-02-N	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.	Shielded, primarily Air Quality for a 41 MW Nominal Power Plant	Active, regulates injection of fluids	Shielded, regulates injection of fluids

EXHIBIT E

PGV'S COMMUNITY OUTREACH PLAN

Brief Background

Historically, for various reasons, the PGV project has generated much interest from various stakeholders' on Hawai'i Island and the State. Support for and opposition to the PGV project from community members, government agencies, business organizations, government officials, legislators, cultural practitioners, and the utility have been well documented during the past several decades. Today, PGV trusts that the majority of the various stakeholders are supportive of geothermal energy production.

Routine Community Meetings

Prior to the 2018 eruption event, PGV performed outreach and engaged with the neighboring community for routine and non-routine activities. On a routine basis, PGV would hold quarterly community meetings, usually at the Pahoa Community Center. Invitees included nearby residents, County representatives (Mayor, Civil Defense, Fire, Police, Councilmembers, etc.), State Agencies (DLNR, DOH Clean Air Branch, DOH Safe Drinking Water Branch, DOH Hazard Evaluation and Emergency Response), State legislators (both House and Senate members), media representatives and HELCO. PGV's routine Community Meeting would generally consist of a Plant Update provided by the Plant Manager. Updates would include plant safety performance, generation levels and mention of upcoming activities in the coming quarter. PGV's Business Development representative would then provide any updates on other matters of interest, such as pending legislation, company support to nearby schools or non-profits organizations etc. All routine Community Meetings would end with a period dedicated to a question and answer session. In general, the majority of our routine quarterly meetings was attended by about one dozen or so folks.

In addition to the routine Quarterly Community Meetings, PGV would also meet with the three largest nearby community associations (Leilani Estates, Nanawale and Kapoho). PGV would participate as guests during these community association meetings and would provide operational and administrative updates, before providing a question and answering period.

Non- Routine Community Meetings

Prior to the 2018 eruption event, Community Meetings for Non-routine activities (i.e., primarily the drilling of geothermal wells) at PGV would generally be scheduled on a monthly or as needed basis. PGV personnel, including drilling engineers would provide the community and other stakeholders with the latest drilling information (depth, how much longer in this section of drilling etc.). These meetings were usually attended by more nearby residents (as much as 40 or so).

Community Outreach During the Rebuilding of PGV's Facility

The 2018 volcanic eruption event has been described by volcanologists and other scientists as an unprecedented eruption episode in modern history. The PGV facility was relatively fortunate

with regards to lava impact. PGV's electrical substation, three geothermal wells, drilling equipment, miscellaneous equipment and a storage area was inundated by lava.

Year 2019 will be the period for restoring the PGV facility back to commercial operations. As part of PGV's continued efforts to keep the nearby community apprised of activities taking place at the Facility, PGV proposes the following outreach schedule for the duration of the rebuilding period of the Facility:

Community Outreach Schedule DURING the Rebuilding Period				
Activity/Event	When	Location	Time	Agenda
Community Outreach Meeting, for Neighboring Community and All Other Interested Stakeholders	March 15, 2019	Pahoa Community Center	5 – 7 PM	PGV updates of rebuilding activities, discussion of driveway access to nearby lava-locked residents, discuss planned activities for the next two months, question and answering period
Community Outreach Meeting, Neighboring Community and Interested Stakeholders	May 17, 2019	Pahoa Community Center	5 – 7 PM	PGV updates of rebuilding activities, discuss planned activities for the next two months, question and answering period
Community Outreach Meeting, Neighboring Community and Interested Stakeholders	July 19, 2019	Pahoa Community Center & PGV Site	5 – 7 PM	PGV updates and plan to do site visit on chartered bus
Community Outreach Meeting, Neighboring Community and Interested Stakeholders	September 20, 2019	Pahoa Community Center	5 – 7 PM	PGV updates of rebuilding activities, discuss planned activities for the next two months, question and answering period
Community Outreach Meeting, Neighboring Community and Interested Stakeholders	November 15, 2019	Pahoa Community Center	5 – 7 PM	PGV updates of rebuilding activities, discuss planned activities for the next two months, question and answering period
Community Outreach Meeting, Neighboring Community and Interested Stakeholders	December 20, 2019	Pahoa Community Center & PGV Site	5 – 7 PM	PGV updates and plan to do site visit on chartered bus

The “Community Outreach Schedule DURING the Rebuilding Period” is focused on PGV’s neighboring communities and is geared towards providing updates of all activities during the rebuilding period. In addition to this specific outreach schedule, PGV will in parallel be engaged in a much broader, higher level communications plan that would include stakeholders beyond the neighboring communities. The higher level communications plan will continue to include all of the neighboring communities, the County, the State, Federal, private, non-profits, academia, the utility and the geothermal industry. This higher level communications plan will be a collaborative effort with all applicable stakeholders that PGV will reach out to when the plan is initiated in the coming months.

Community Outreach After the Rebuilding Period and the Return to Normal Operations

Once PGV returns back to Normal Operations, PGV will assess the communities’ and stakeholder interest for continuing with much more frequent outreach meetings. At a minimum, PGV will hold routine quarterly meetings. The following is a representative schedule for routine quarterly Community Meetings starting in 2020:

Community Outreach Schedule AFTER the Rebuilding Period				
Activity/Event	When	Location	Time	Agenda
Quarterly Community Outreach Meeting	January 17, 2020	Pahoa Community Center	5 – 7 PM	PGV Operational updates, Business Development updates, question and answering period
Quarterly Community Outreach Meeting	April 17, 2020	PGV Site	5 – 7 PM	PGV Operational updates, Business Development updates, question and answering period
Quarterly Community Outreach Meeting	July 17, 2020	Pahoa Community Center	5 – 7 PM	PGV Operational updates, Business Development updates, question and answering period
Quarterly Community Outreach Meeting	October 16, 2020	Pahoa Community Center	5 – 7 PM	PGV Operational updates, Business Development updates, question and answering period

Figure 1 - Overall location map (with Lava)

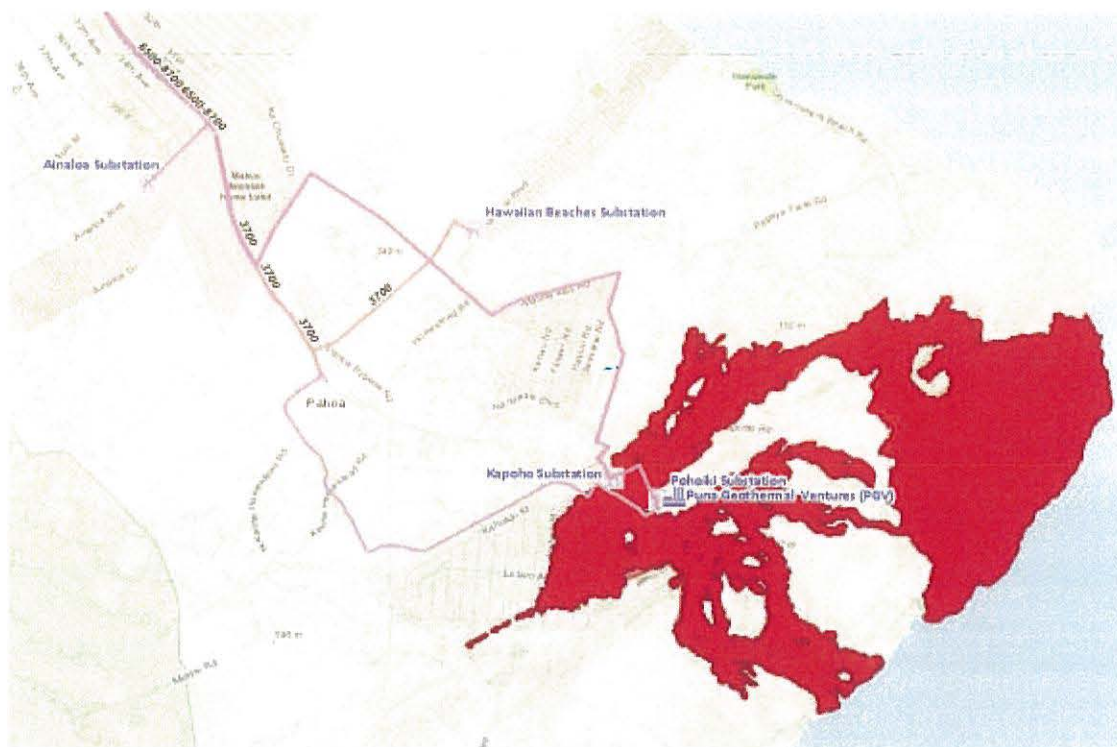


Figure 2 - Pictures of overrun switching station (looking from PGV plant side)



Figure 3 - Picture of overrun switching station



Figure 4 - Photo of new PGV road



Figure 5 - Re-routed 6500 and 8700 Lines

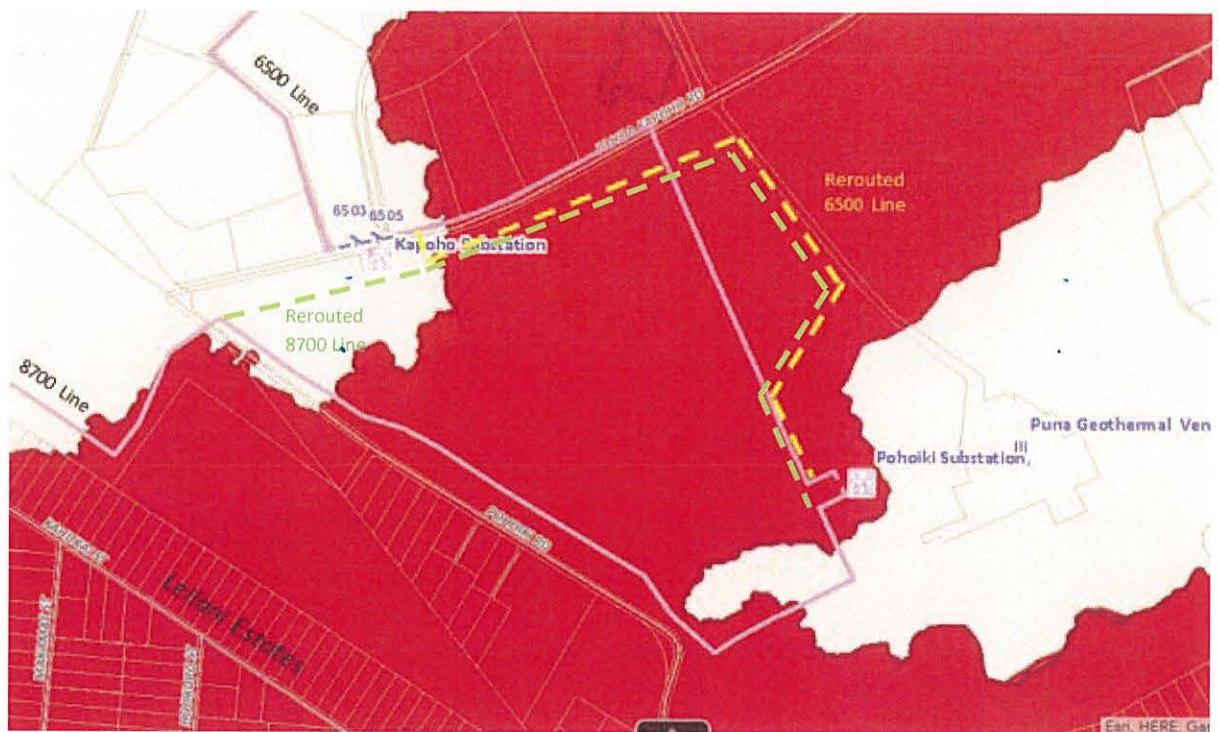


Figure 6 - Location of residences

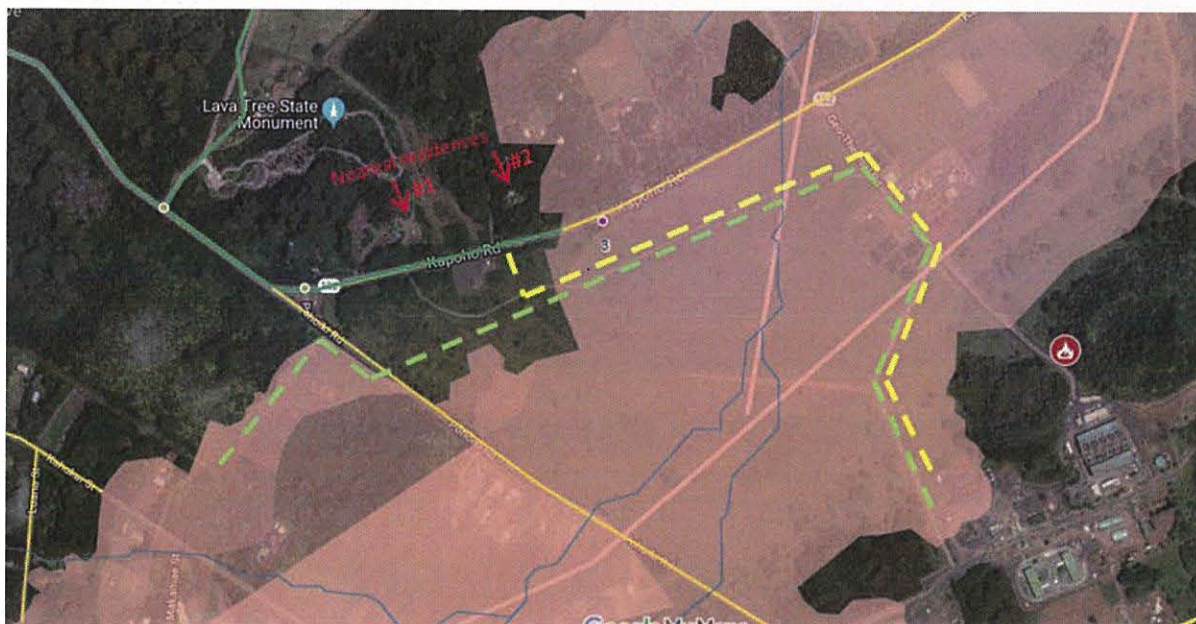


Figure 7 - Heavy Foliage between customer and road

