
MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Erin Reinders, City Manager
Date: March 9, 2021
Re: OCCP Geothermal Update and PPA Revision Request

SUMMARY: Ounalashka/Chena Power, LLC (OCCP) required a Power Purchase Agreement (PPA) with the City of Unalaska to obtain financing for their Geothermal Project. In August of 2020, City Council approved Resolution 2020-55, and authorized entering into the PPA with OCCP. **OCCP has requested an amendment to the PPA, extending the deadline outlined in the PPA to obtain financing. The purpose of this meeting is for OCCP to provide Council with an update on the project in preparation of considering an amendment to the PPA at the March 23, 2021 meeting.** No action is required this evening.

PREVIOUS COUNCIL ACTION: The City continues to support efforts and programs for reliable and cost effective alternate energy sources, including geothermal. City Council has identified this support as a federal priority. To this end, during the fall lobby trip to Washington DC in 2019, City representatives sat alongside representatives from the Q-tribe and OC in a meeting with Department of Energy demonstrating support for a geothermal project on our island. In August of 2020, City Council approved Resolution 2020-55 and authorized entering into the PPA with OCCP.

November 26, 2019

- Work Session, Presentation from OCCP regarding their Geothermal Project

January 30, 2020

- Special Meeting for a Work Session for an update on OCCP geothermal project (standalone meeting)

February 25, 2020

- Work Session, Report from OCCP regarding their Makushin geothermal project

March 10, 2020

- Reports, City Attorney conflict of interest opinion related to OCCP
- Executive Session
 - Discussion regarding potential PPA between City of Unalaska and OCCP
 - Discussion regarding potential Power Sales Agreements between City of Unalaska and local seafood processing facilities

May 26, 2020

- Directive to the Manager, *“Report back to the City Council by June 16, 2020 for possible action committing to a PPA with OCCP at the Council Meeting on June 23, 2020 a cos/benefit/risk analysis for a potential Power Purchase Agreement concept that commits Unalaska for the purchase of 100MkWhr/year, at \$0.16/kWh, for 30 years taking into account the probability of securing sufficient load sources by fall of 2023 within the Unalaska City Limits.”*

June 23, 2020

- Work Session, Presentation and discussion of the financial feasibility and potential risks and rewards related to OCCP's proposed Makushin Geothermal Power Project
- Directive to the Manager, *"Negotiate and work cooperatively with OCCP LLC to develop a Power Purchase Agreement that enables the City Council to act on such agreement at the Council Meeting on July 14, 2020. Initial loads to be negotiated should be between 80mkwhr and 100mkwhr. Costs and rates to be negotiated within the Power Purchase Agreement."*

July 21, 2020

- Special Meeting for Work Session & Executive Session, Discussion of PPA with OCCP

August 11, 2020

- Executive Session, Discussion of PPA with OCCP
- Directive to the Manager, *"I move to direct staff to accept both the OCCP proposal to share in the upside and daily liquidated damages in the amount of \$20,000.00 per day with a cap of \$5 million. The heat pump contribution is to remain at \$10 million cost to OCCP. The Annual cost is to be \$16,300,000.00. The meter on the upside sharing starts at 100,000,000kwh. A minimum of two transmission lines to the delivery point of the City is required."*

August 25, 2020

- Regular Meeting, City Council approves Resolution 2020-55: Approving the PPA with OCCP and authorizing the City Manager to enter into the agreement

BACKGROUND: City staff began working with the OCCP team in late 2019 to address project planning and development questions and to draft a PPA. On January 15 and 16, 2020, the City team met with OCCP representatives for a working meeting in Anchorage. The focus of the meeting was developing framework of general concepts that OCCP can take to its potential lenders to determine if financing can be obtained.

Following these Anchorage meetings, discussions and work continued. Focus was on the PPA, understanding the project, identifying challenges, mitigating risks, expanding opportunities, identifying what would need to be done should the project move forward, and refining displaced costs. OCCP communicated that they planned to proceed with their fieldwork and research, which will help reduce the number of uncertainties and assumptions. We reached out to processors to garner their interest in the project and encourage them to attend the February 25, 2020 Council meeting, where OCCP would be presenting on their project. The City team met with the OCCP team while they were in town that week. Given travel and weather challenges, this meeting was not as in-depth as planned.

City staff met and talked with processors throughout March and April, striving to ensure they had an understanding of the overall concept of the project and potential agreements. Processors were unable to make a long term commitment at that time. The City team held a conference call with OCCP on April 24, 2020 and communicated the feedback we were getting from the processors. This was not done in person due COVID related challenges. The next step was for OCCP, along with the City, to meet with the processors. While those meetings were never organized, OCCP did provide a detailed document outlining several concepts for consideration to the City on May 19, 2020. We responded with some initial thoughts and questions in a timely fashion.

On May 26, 2020, City Council issued a directive to provide a report and cost/benefit/risk analysis regarding a PPA at a particular commitment level. Our focus then shifted to the Council Directive

and our long time consultant, Mike Hubbard, prepared the formal report and analysis. Brooks Chandler, our City Attorney, provided a memo related to non-recourse financing as another component of the assessment. This material was presented to Council at the June 23, 2020 Council Meeting. At the end of that meeting Council issued a directive to negotiate and work cooperatively with OCCP to develop a PPA for loads between 80mkwhr and 100mkwhr.

Given the complex nature of this topic and the time required to discuss it, a stand-alone special meeting was scheduled for July 21, 2020. This date was selected in coordination with OCCP. City Council provided direction to the City Team for further negotiations with OCCP.

City Council participated in a follow-up Executive Session on August 11, 2020. The City Team provided an update on the continued negotiations. City Council then issued a formal directive for continued negotiation. The PPA was then finalized consistent with Council Directives to the City Manager. At their August 25, 2020 meeting, City Council approved Resolution 2020-55 and authorized entering into the PPA.

DISCUSSION: A copy of the PPA is attached. Since the signing of the PPA, the City team has been regularly communicating with OCCP and are now meeting on a monthly basis. We have also welcomed Anchorage based consultant, Thomas Lovas of Energy & Resource Economics to the City's team. In accordance with the PPA, the City contracted with Electrical Power Systems (EPS) to conduct the Interconnection and Integration Study. Much of the details and results will depend on the final design of OCCP's project itself, which is not yet completed. We have worked to support OCCP's efforts in Air Source Heat Pump Study, as outlined in the PPA.

Tonight you will hear an update on the project from OCCP, as they review the attached PowerPoint. In that update you will hear OCCP's request to amend the PPA to extend by one year their deadline to obtain written commitment for project financing. **The letter requesting this extension and amendment is included in the packet.** The City team is reviewing the implications of the request, particularly on the Interconnection and Integration plan. We are working to develop an amendment that addresses OCCP's request for an extension as well as the implications to interconnection and integration. **We plan to bring an amendment to the PPA before Council for consideration at the March 23, 2021 meeting.**

FINANCIAL IMPLICATIONS: Primary financial implications of the PPA relate to the cost of purchasing power and the financial impacts with purchasing power from a City perspective. Ultimately, these costs will be passed along to the rate payers. In depth analysis of these financial implications of the PPA in various scenarios were provided to the City Council during the negotiation process.

Additionally, there are known expenses the City is agreeing to contribute in the PPA. This includes up to \$5 million for upgrading the City distribution system, with OCCP committing up to \$7 million. The City agreed to initially fund the integration and interconnection study, but will be reimbursed from OCCP after the fact. Associated funds are included in the CMMP City Council will be considering in upcoming meetings.

LEGAL: City Attorney Brooks Chandler has been engaged in discussions with OCCP from the beginning and remains so. **Mr. Chandler will provide a memorandum to Council about this issue that will be provided separately, but prior to the Council Meeting.**

STAFF RECOMMENDATION: No action is needed at this time.

PROPOSED MOTION: No action is required at this time.

ATTACHMENTS:

- [PPA between OCCP and City of Unalaska](#)
- [Letter from OCCP Requesting Extension](#)
- [OCCP Power Point Presentation](#)

POWER PURCHASE AGREEMENT

BETWEEN

CITY OF UNALASKA, a first-class Alaska municipal corporation

AND

OUNALASHKA CORPORATION/CHENA POWER, LLC, an Alaska limited liability company

Parties

This POWER PURCHASE AGREEMENT, dated August 31, 2020 (Agreement) is made between the City of Unalaska, a first-class Alaska municipal corporation (Purchaser) and Ounalashka Corporation/Chena Power, LLC (Seller) a licensed Alaska limited liability company duly organized under the laws of the State of Alaska.

Recitals

Whereas, the Purchaser owns and operates water, sewer and electric public utilities for the City of Unalaska;

Whereas, the Seller intends to develop and build a geothermal power system to generate electricity for sale to the Purchaser (Makushin Geothermal Project); and

Whereas, the Purchaser desires to purchase electric power from the Seller under the terms and conditions set forth herein; and

Whereas, upon complete satisfaction of the conditions precedent set forth in this Agreement, the Purchaser and Seller intend for this Agreement to become binding and fully enforceable on the Parties.

Now, therefore, the Purchaser and the Seller (jointly the Parties) in order to achieve the foregoing do agree and commit as follows.

Terms and Conditions

1. DEFINITIONS

- (a) "Agreement" means this Power Purchase Agreement.
- (b) "Actual Project Capability" means a Project Capability, as determined by an independent third-party engineer, that is less than the stated Project Capability and

such that the Purchaser is unable to meet 100% electrical demand with Energy from the Facility.

- (c) **“City Distribution System”** means all city-owned equipment interconnected with the City distribution and transmission lines up to the Delivery Point.
- (d) **“Commercial Operations Date”** means the date on which the last of the following events occurs: 1) construction of the Facility and the transmission lines from the Facility to the Delivery Point have been substantially completed in accordance with the terms and conditions of this Agreement and Applicable Laws and the Facility and transmission lines possess all the other material characteristics necessary for delivery of Energy to the Delivery Point pursuant to this Agreement; 2) the Facility has successfully completed all tests which must be performed prior to commercial operation as required by applicable laws, start up and testing procedures required by the Engineering Procurement Construction Contract between OCCP, LLC and its manufacturers and installers and has demonstrated as confirmed by an independent engineer retained by Seller in a written report consistent with Prudent Electrical Practices or the terms of the Interconnection/Integration Plan that the Facility is fully available to be operated and able to provide not less than the Project Capability to the Delivery Point and that output can be dispatched into the Purchaser’s system without disruption and on a commercial basis; 3) Seller has obtained all governmental approvals and Permits required to begin commercial operations and operate and maintain the Facility in accordance with this Agreement, and all such Permits and approvals are final and in full force and effect; and; 4) Seller and Purchaser have obtained the insurance specified in Section 18.
- (e) **“Commercial Operation Deadline”** means May 31, 2024 which is the date by which the Facility must have reached the Commercial Operations Date, or such other date as provided in this Agreement or as may be agreed to in a writing signed by both Parties.
- (f) **“Delivery Point”** means the interconnection point(s) between the Seller’s Facility and the City Distribution System. This may be comprised of a single point or points for transferring energy between the Seller’s Facility and the City Distribution System.
- (g) **“Energy”** means geothermal energy for electrical power generation expressed in kWh generated from the Facility and provided to Purchaser by Seller under this Agreement.

- (h) **“Equivalent Availability Factor”** means the ratio of hours the Facility is available for power generation at Project Capacity to the number of hours in a particular calendar month. The removal or derating of any operational component which would limit the ability to generate at Plant Capacity to the Delivery Point shall be considered Unavailable. An example of how Equivalent Availability Factor is calculated is attached as Exhibit D.
- (i) **“Facility”** means any Facility/facilities or component/components of/to the Makushin Geothermal Project used to produce Energy owned by the Seller including all electric power interconnection and transmission equipment located on Seller’s side of the Delivery Point. Transmission equipment shall include two subsea cables each capable of transmitting Energy to the Delivery Point. Facility includes an electric generating facility with a net output of 30 MVA at the Delivery Point, using geothermal fluid as the fuel source and located near the existing ST-1 well (“Project Site”). Additional capacity added to the Facility after the Commercial Operation Date shall not be subject to this Agreement unless the Parties have executed and approved an amendment to this Agreement.
- (j) **“Fixed Payment”** means the annual payment Purchaser and Seller agree will be paid for electrical energy which may be utilized during the initial Year of the Term and thereafter increased based on Section 5 requirements. The fixed payment shall be divided into 12 equal monthly payments.
- (k) **“Force Majeure”** means (a) any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, civil disturbances, sabotage, blockade, expropriation, confiscation, fire, unusual or extreme adverse weather-related events or natural disasters (such as lightning, landslide, earthquake, tornado, hurricane, storm or flood), pandemic, epidemic or any order, regulation or restriction imposed by any Governmental Authority, or (b) any other event of circumstance, which, in each case of clauses (a) and (b), (i) prevents a Party from performing any of its obligations under this Agreement, (ii) could not reasonably be anticipated as of the date of this Agreement, (iii) is not within the reasonable control of, or the result of negligence, willful misconduct, breach of contract, intentional act or omission or wrongdoing on the part of the affected Party (or any subcontractor or Affiliate of that Party), and (iv) which by the exercise of due diligence the affected Party is unable to overcome or avoid or cause to be avoided; provided, nothing in this clause (iv) shall be construed so as to require either Party to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or labor dispute in which it may be involved. A Force Majeure does not include any of the following: (1) events arising from the failure by Seller to construct, operate or maintain the Facility in

accordance with this Agreement; (2) any increase of any kind in any cost; (3) delays in or inability of a Party to obtain financing or other economic hardship of any kind; or (4) any changes in the financial condition of Purchaser, Seller, or any subcontractor or supplier affecting the affected Party's ability to perform its obligations under this Agreement.

- (l) **“Initial Synchronization”** means the date upon which the Facility is first synchronized at the Delivery Point with Purchaser's system.
- (m) **“Interconnection / Integration Plan”** means the document agreed by the Parties that represents requirements for system interconnection and integration of power to the Purchaser's existing system. The plan shall include two subsea cables each capable of transmitting Energy to the Delivery Point and shall consider city, state, federal codes and standards, in conjunction with the geothermal plant design basis and shall incorporate Prudent Electrical practices to integrate the City Distribution System taking into account methodology to improve Purchaser's Electrical System Integrity to the extent agreed in Section 11, or as mutually agreed in the actual plan which is to be attached as Exhibit B, when completed.
- (n) **“kWh”** means a kilowatt-hour of electric energy.
- (o) **“Local Tax”** means ad valorem real and personal property taxes levied by the City of Unalaska on the Facility.
- (p) **“Metered Energy”** means the Energy delivered to Purchaser by Seller at the Delivery Point as measured by the Purchaser's supplied Meter at the Delivery Point.
- (q) **“Metering Equipment”** means equipment required to provide a complete metering circuit including; cabinets, potential transformers (PT's), current transformers (CT's), raceway and interconnection wiring.
- (r) **“Month”** means a calendar month.
- (s) **“Outage”** means a duration of time in which the facility cannot provide 100% of required demand, requiring the Purchaser or self-generators to run additional generation, interrupt loads, or reduce loads. Outages shall be measured in hours. An outage of any period of time up to 60 minutes shall be equal to 1 hour. A sum of all single outages less than 60 minutes, in a 24-hour period shall be a maximum of 24 hours.
- (t) **“Peak Capacity”** has been reached when a measurement of power in MVA or KW has exceeded 1.5% for any duration of time, i.e., 30 MVA Peak Capacity = 30.405 MVA.

- (u) **“Permits”** means all applications, permits, licenses, franchises, certificates, concessions, consents, authorizations, approvals, registrations, orders, filings, entitlements, and similar requirements of whatever kind and however described that are required to be obtained from a Governmental Authority with respect to the development, siting, design, acquisition, construction, equipping, financing, ownership, possession, start-up, testing, operation or maintenance of the Facility, the production and delivery of Energy or any other transactions or matter contemplated by this Agreement (including those pertaining to electrical, building, zoning, environmental, and occupational safety and health requirements).
- (v) **“Plant Availability”** means that the Facility is operating at a capacity such that all power requirements of the Purchaser are met up to the Project Capability.
- (w) **“Plant Reliability”** is defined as the Facility’s ability to load follow demand, up to Project Capability.
- (x) **“Project Capability”** means the installed capability of the Facility to maintain Plant Reliability at the Delivery Point at Peak Capacity.
- (y) **“Project Finance”** means a loan from the Department of Energy or third-party lender sufficient to pay for and/or reimburse Seller for construction and initial operations costs and expenses associated with the Makushin Geothermal Project.
- (z) **“Project Site”** means the real property shown on the attached Exhibit A.
- (aa) **“Prudent Electrical Practices”** means those standards of design, engineering, construction, workmanship, operation, care and diligence normally practiced by internationally recognized engineering and construction firms and prudent operators of electric generation facilities similar to the Facility and electrical transmission systems in the Western United States during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety. Prudent Electrical Practice is not intended to be the optimum practice, method or act to the exclusion of all others, but rather is intended to be any of the practices, methods and/or actions generally accepted in the Western United States during the relevant time period. Prudent Electrical Practice includes taking reasonable steps to ensure that: (a) equipment, materials, resources, and supplies are available to meet the Party’s needs; (b) sufficient operating personnel or control procedures are available at all times and are adequately

experienced, trained and licensed as necessary to operate the Facility or Purchaser's system properly and efficiently, and are capable of responding to reasonably foreseeable emergency conditions; (c) preventive, routine, and non-routine maintenance and repairs are performed on a basis that ensures reliable long-term and safe operation, and are performed by knowledgeable, trained, and experienced personnel utilizing proper equipment and tools; and (d) appropriate monitoring and testing are performed to ensure equipment is functioning as designed.

- (bb) **"Purchaser"** means the City of Unalaska through its Public Utilities Department.
- (cc) **"Purchaser's Electric System Integrity"** means operation of Purchaser's electric power and transmission system in a manner that minimizes risks of injury or damage to persons and/or property and enables Purchaser to provide reliable electric power service to its customers.
- (dd) **"Seller"** means the Ounalashka Corporation/Chena Power, LLC, an Alaska limited liability company.
- (ee) **"Startup Period"** means the period that begins at Initial Synchronization and ends at the Commercial Operations Date.
- (ff) **"Year"** means each twelve (12) month period during the Term commencing on the Commercial Operation Date or the anniversary of such date.

2. GENERAL

- (a) During the Startup Period and continuing through the term of this Agreement, Seller shall deliver to Purchaser, and Purchaser shall receive from Seller electric energy output from the project Facility/facilities in accordance with the terms and conditions of this Agreement.
- (b) Subject to 2 (c) and (d) below, Seller shall sell exclusively to Purchaser; provided, however, that minimum payments are made by the Purchaser, as described in Section 5 of this Agreement.
- (c) Purchaser shall have the exclusive right to provide electric service to all new and existing customers within Purchaser's existing service area at the City's then existing tariff rates. Purchaser shall have the right of first refusal to provide electric service to all new customers located outside Purchaser's existing service area that

may request electric service from the Project, including to any operations owned and/or controlled by Seller and new customers owned in whole or in part by Ounalashka Corporation, Chena Power LLC or any subsidiary or affiliated entity at a rate equal to the City's cost of city purchased or city generated power plus applicable standard customer charges. The first right of refusal period shall expire thirty (30) days after Purchaser is provided written notice of such new customer ("Refusal Period"). At the expiration of the Refusal Period Seller shall have the exclusive right, in its sole discretion, to provide electrical service to new customer(s) under a separate agreement, the terms of which shall be negotiated exclusively between Seller and such third-party(ies). Any such Agreement between Seller and such third party(ies) shall not reduce Seller's obligation to provide 30 MVA to the Purchaser at the Delivery Point.

- (d) Seller shall convey title to and risk of loss of all energy delivered to the Purchaser at the Delivery Point.

3. FACILITY CONSTRUCTION AND COMMERCIAL OPERATION

- (a) Seller shall use reasonable commercial efforts to construct the Facility and achieve the Commercial Operation Date by the Commercial Operation Deadline. Seller shall provide Purchaser with periodic reports about the progress of the Facility construction and completion.
- (b) Seller shall provide Purchaser with at least 70 days advance notice of the date when Seller anticipates achieving Initial Synchronization.
- (c) Seller shall provide Purchaser with at least 45 days advance notice of when Seller anticipates beginning to demonstrate Commercial Operation has been achieved. Purchaser shall be allowed to observe the Facility during demonstration or testing required to establish Commercial Operation. Purchaser shall accommodate or allow reasonable correspondence and collaboration with Purchaser customers to facilitate adequate loading of Facility to allow completion of all tests required to complete the "start-up" process.
- (d) Energy exchange during the Start-Up Period shall be at no cost to the Purchaser or customers of the Purchaser.
- (e) Seller shall provide Purchaser written certification of Commercial Operations when Seller believes that all requirements under this Agreement for achieving

Commercial Operation Date of the Facility, including the conditions precedent specified in the definition of “Commercial Operation Date” in Section 1, have been satisfied. If Purchaser rejects certification of Commercial Operations, Purchaser shall state in detail the reasons for its rejection. The Parties shall immediately meet and confer to address Purchaser’s concerns. Commercial Operation shall be deemed to have occurred on the date that the requirements for Commercial Operation are satisfied, which date may be earlier or later than the date on which Purchaser accepts Seller’s certification that Commercial Operation has occurred and/or the date on which any concerns that Purchaser expresses in connection with Seller’s notice are resolved; provided the Parties acknowledge or are deemed to have acknowledged, or it is determined through dispute resolution, that all such requirements for Commercial Operation have been satisfied on such earlier date.

- (f) Seller shall provide Purchaser with as built drawings of the Facility and all equipment placed at the Delivery Point within sixty (60) days after the date of Commercial Operations.
- (g) Purchaser may inspect the Facility during the term hereof upon reasonable advance notice to Seller.

4. TERM

- (a) Subject to Sections 4 (b) and (c) below, this Agreement shall become effective on the date it is executed and delivered by both Parties and shall continue in effect for a period of thirty (30) years after the Commercial Operation Date (Term).
- (b) The Term of this Agreement may be extended by mutual agreement of the Parties for an additional period, provided that the Purchaser or the Seller request in writing an extension of this Agreement not less than eighteen (18) months prior to the expiration of the initial Term. In the event an extension request is submitted by either party, Purchaser and Seller shall each negotiate in good faith using commercially reasonable efforts to agree on the terms, conditions, and length of an extended term.
- (c) Seller and Purchaser agree that the purpose and intent of this Agreement is dependent on the successful completion of the construction of the Facility/Facilities and the related achievement of the Commercial Operation Date by the Commercial Operation Deadline. As such, in the event that either; 1) Seller fails to obtain Project Financing by June 10, 2021; or 2) construction of the Facility/Facilities is

at any time discontinued, abandoned or otherwise terminated by Seller in its sole discretion , or 3) Seller fails to provide written assurances to Purchaser that the Commercial Operation Deadline will be achieved in a form consistent with Prudent Utilities Practices, or 4) the Project fails to reach Commercial Operation by the Commercial Operation Deadline, then either Party may terminate this Agreement upon thirty (30) day's prior written notice to the other party. In the event that a party elects to terminate this Agreement pursuant to this Section 4 (c), neither Seller nor Purchaser shall have any further liability and/or obligations to the other hereunder after the termination date, except for obligations, liabilities and/or duties that accrued prior to such termination or that survive such termination by the terms of this Agreement.

5. FIXED PAYMENT

- (a) The Seller agrees to sell and the Purchaser agrees to purchase electrical energy which may be utilized immediately for a Fixed Payment of sixteen million three hundred thousand dollars per year (\$16,300,000.00). Each successive Year during the Term the Fixed Payment shall increase; 1) by one per cent (1%) plus; 2) by an amount equal to the total amount of Local Tax paid by Seller during the previous Year.
- (b) If Seller elects to construct the Project at a different location than the Project Site which decreases construction and operating costs by more than five per cent (5%), prices shall be revised downward to reflect the decreased construction and operating costs.
- (c) If Purchaser requests Seller to increase the generating capacity of the Facility above the Project Capability, the Fixed Payment shall be increased, via an addendum to this PPA in an amount to be negotiated by the Parties.
- (d) In the event the Facility fails to deliver Plant Availability at Project Capability the following adjustment to pricing and Seller actions are agreed. The intent of these adjustments are not to act as a penalty to the Seller, but to reduce Purchaser's actual financial hardship and to place Purchaser in the same position as if the Facility delivered Plant Availability at Project Capability as agreed. Purchaser and Seller recognize that determination of the actual financial impact to Purchaser in such circumstances is not easily capable of precise calculation and have adopted these provisions for that reason. This subsection does not supersede Purchaser's or Seller's rights to declare a Default under section 15.

(e) If in any month during the Term the Seller cannot provide the Plant Availability at the Delivery Point for reasons other than limitations within the Purchaser's Electric System Integrity and the Purchaser must either operate its generation equipment or generate power from its own facilities or purchase power from other sources to meet its load obligations or allow customers to self-generate power they otherwise would have been supplied by Purchaser or reimburse customers for their cost of fuel used to self-generate power, Seller shall reimburse the Purchaser the sum of the following : ("Reimbursement Payment"):

- 1) the cost of Purchaser's fuel
- 2) the cost of fuel of customers who self-generate
- 3) one cent (.01) per kilowatt hour for each kWh of energy generated by Purchaser and self-generators that would have been supplied by the Facility ("Administrative Charge"). Each successive Year during the Term the Administrative Charge shall increase by one per cent (1%).

The Reimbursement Payment or Increased Reimbursement Payment shall be treated as a deduction to the Fixed Price Payment made by the Purchaser in the following month.

(f) If at any period during the Term, Seller cannot provide the Project Capability at the Delivery Point for either a period of three consecutive calendar months, or six or more months in any Year, the Actual Project Capability will be determined and the Administrative Charge for those months shall be increased by .02 per kWh beginning with the next monthly payment ("Increased Reimbursement Payment").

(g) After Actual Project Capability has been determined, Seller shall then undertake the necessary means and methods to restore the Facility to Project Capability. The applicable Increased Reimbursement Payment shall continue until Seller has restored Project Capability. However, if instead of restoring Project Capability Seller negotiates lower Project Finance payments the Fixed Price shall be reduced in proportion to Seller's lower Project Finance payments.

(h) If Metered Energy delivered in any Year exceeds 100,000,000 kWh Purchaser shall make an additional payment to Seller calculated as set forth in Exhibit F ("Additional Payment"). The Additional Payment shall be paid in the first month of the following Year.

6. METERING AND PAYMENT OF INVOICES

- (a) Meters shall be owned and operated per city code. Purchaser shall read Purchaser's meter at the Delivery Point on the last day of each month after Initial Synchronization and continuing through the month following the end of the Term, unless otherwise mutually agreed to by the Parties. Purchaser shall prepare and render to Seller within five (5) business days after the end of each month a statement detailing daily and hourly records of Metered Energy during the preceding month. Seller shall have the right to monitor and witness such readings at its own cost and expense. Within five (5) business days after receipt of the statement of Metered Energy Seller shall prepare and render to Purchaser an invoice for Seller's calculation of the payments due to Seller for such month.
- (b) Each Year, monthly payments due shall be equal to one-twelfth of the Base Price (less applicable credits)
- (c) Purchaser shall pay the undisputed amount of Seller's invoices within thirty (30) days after receipt of the invoice. If either the invoice date or payment date is not a Business Day, then such invoice or payment shall be provided on the next following Business Day. Payment shall be made at the office of the Seller, as designated in writing by the Seller. If Purchaser disputes the accuracy of an invoice, or Seller disputes the accuracy of the statement of Metered Energy, the Parties shall use commercially reasonable efforts to resolve the dispute. Any adjustments which the Parties may subsequently agree to make regarding any such invoice shall be made by a credit or additional charge on the next invoice submitted.
- (d) If any payment due from either party under this Agreement shall not be paid when due and payable to the other party, the offending party agrees to compensate the harmed party at the amount in arrears times a rate equal to two percent (2%) over the prime rate as published by the "Money Rates" section of the New York City edition of the *Wall Street Journal*, or mutually agreed upon alternative ("Interest Rate").
- (e) At any time during normal business hours, either party shall have the right, upon reasonable prior notice to the other party, to examine and /or make copies of the records and data of the other party relating to this Agreement (including all records and data relating to or substantiating any charges paid by or to either party and including without limitation metering records of energy delivered) for the period such records and data are required to be maintained. All such records and data shall

be maintained for a minimum of seven (7) years after the creation of such records for data.

7. METER AND SUBSTATION LOCATION AND PROCEDURES

- (a) As a condition precedent the Parties agree to establish a mutually acceptable location for a new terminal switching station taking the undersea cable and fiber and converting to power acceptable for tie into the City Distribution System.
- (b) As a condition precedent the Parties agree to establish mutually acceptable locations for Metering Equipment locations.
- (c) Supply, operation, maintenance and ownership of revenue meters and all Metering Equipment shall be in accordance with paragraph 7(e), and the Interconnection/Integration Plan and Operating Procedures adopted as required by Section 11.
- (d) Purchaser and Seller shall supply each other with easements as needed for installation, operation and maintenance of equipment by the responsible party.
- (e) After the date of Commercial Operations meters shall be maintained and read by the Purchaser. Purchaser shall maintain the Meter according to the manufacturer's suggested maintenance and testing recommendations. The manufacturer's maintenance recommendations and Purchaser's maintenance records for the Meter will be made available to Seller upon reasonable written request. Meters shall be furnished and installed by Purchaser.
- (f) Purchaser shall test and calibrate the meters by comparison with accurate standards at intervals satisfactory to the Parties. Purchaser shall make special meter tests at any time at Seller's request using an independent party selected by Purchaser. The costs of all tests shall be borne by Purchaser; provided however, that if any special meter test made at Seller's request discloses that the meters are reading accurately, Seller shall reimburse Purchaser for the cost of such test. Meters registering no more than two percent (2%) above or below normal shall be deemed to be accurate. The readings of any meter which shall have been disclosed by the test to be inaccurate shall be corrected, based on the inaccuracy at the time of testing, for the shorter of (1) the number of days since the meter being tested was installed, (2) the number of days since the last test indicating that such meters were performing properly, or (3)

the one hundred eighty (180) days prior to the current test, in accordance with the percentage of inaccuracy found by such test.

- (g) To the extent that the adjustment period covers a period of deliveries for which payment has been made by Purchaser, Seller shall use the corrected measurements to re-compute the amount due (which amount shall not include interest) for the period of the inaccuracy and shall subtract the previous payments by Purchaser for such period from such re-computed amount. If the difference is a positive number, such difference shall be paid by the Purchaser to the Seller, and if the difference is a negative number, such difference shall be paid by the Seller to the Purchaser. Payment of such difference shall be made by means of a credit or an additional charge on the next statement rendered.

8. HEATING SYSTEM

Within one (1) month of executing this PPA, Seller will commission a feasibility study, at its cost, to survey Unalaska homes and business for conversion and use of air source heat pump (ASHP) technology. Assuming feasibility proven to the mutual satisfaction of Seller and Purchaser (metrics for feasibility are less greenhouse gas emissions and air pollution to the community, and less net cost to consumers for heating), Seller will design, procure, and install to entities who wish to convert their homes and business to ASHP at no cost to consumers. Seller shall pay for all design and installation costs up to a maximum of ten million dollars.

9. DISPATCH, OPERATIONS AND MAINTAINENCE.

- (a) After the Commercial Operation Date, Purchaser (or a designee on behalf of Purchaser) shall dispatch the Facility as necessary to meet Purchaser's need for electrical energy, up to the Project Capability.
- (b) Seller (or a designee on behalf of Seller) shall operate and maintain the Facility in accordance with Prudent Electrical Practices, Applicable Laws and Permits and in a manner that does not materially adversely affect Purchaser's Electric System Integrity. It shall be Seller's responsibility to provide suitable protective equipment as it concerns the Facility, such as fuses, circuit breakers, and relays, to adequately protect the Facility's and Purchaser's electric power equipment, and to ensure that the electric power interconnection for the Facility complies with all applicable legal, safety, and electrical code requirements.
- (c) To the extent not inconsistent with Prudent Electrical Practices and manufacturers' guidelines and recommendations generally applicable to the Facility, Seller shall

cause the Facility to promptly comply with all dispatch orders issued by Purchaser or on behalf of Purchaser.

- (d) At least sixty (60) days prior to the estimated date of Initial Synchronization, Seller shall provide Purchaser with a maintenance schedule for the Facility for the Facility's first year of operation. Thereafter, Seller shall submit to Purchaser annual maintenance schedules for the Facility no later than October 1 of each year that cover the twelve (12) month period starting January 1 and ending December 31 of the succeeding year and a long-term maintenance schedule that will encompass the immediately ensuing four (4) maintenance years. Purchaser shall provide written notice of any reasonable objections to the proposed then applicable annual maintenance schedule within ten (10) Business Days of Purchaser's receipt thereof. Seller shall furnish Purchaser with reasonable advance notice of any change in the annual maintenance schedule. Reasonable advance notice of any change in the annual maintenance schedule involving any shutdown of the entire Facility is as follows:

Scheduled Outage	Expected Duration	Advance Notice to Purchaser
(1)	Less than 2 days	At least 24 hours
(2)	2 to 5 days	At least 7 days
(3)	Major overhauls (over 5 days)	At least 30 days

- (e) The Facility shall be designed to operate with 100% Plant Availability and 100% Plant Reliability.
- (f) The Facility shall obtain and maintain an average Equivalent Availability Factor of ninety-five percent (95%).
- (g) Outages shall not exceed more than 87 hours in a 365-day period. If the number of Outages is exceeded, the Seller shall be required to install equipment to limit outages to less than 87 hours, provided same outages are a result of Facility.
- (h) Subject to the foregoing, Seller shall have the right to interrupt the supply of electrical power and energy for reasonable maintenance of lines, generation equipment and other facilities. Seller shall have no obligation or responsibility to Purchaser to provide standby generation in the event power delivery from the Facility is interrupted.
- (i) If either Seller's ability to supply available electric power and energy from the Facility or Purchaser's ability to receive and transmit available electrical power and energy from the Facility shall fail, be interrupted, or become defective through an act of Force Majeure, the affected party shall be excused from performance of obligations under this Agreement to the extent such performance is prevented or

delayed by such event or circumstance and the affected party shall not be liable therefore for damages caused thereby, provided the Party, as soon as practicable after becoming aware of the Force Majeure, declares the Force Majeure by giving a written notice (the "Force Majeure Notice") to the other Party and upon request by the other Party furnishes the other Party with a detailed description of the full particulars of the Force Majeure reasonably promptly (and in any event within fourteen (14) days after the request therefor), which shall include information with respect to the nature, cause and date and time of commencement of such event, and the anticipated scope and duration of the delay. The Party providing the Force Majeure Notice shall be excused from fulfilling its obligations under this Agreement until such time as the Force Majeure has ceased to prevent performance or other remedial action is taken, at which time the Party shall promptly notify the other Party of the resumption of its obligations under this Agreement. The relief provided by this section shall only apply if the affected party is taking commercially reasonable efforts to remedy such situation and such situation was not the result of the negligence or fault of the affected party. No event or circumstance shall be considered to excuse a party's obligations under this Agreement to the extent such event or circumstance could have been prevented, overcome or remedied if the affected party had exercised commercially reasonable efforts to do so, and shall expressly exclude a party's financial inability to perform.

- (j) **Operations Log.** Seller shall maintain an operations log, which shall include information on the actual average hourly, monthly and annual electric power output of the Facility, well availability and output, planned and unplanned maintenance outages, circuit breaker trip operations requiring a manual reset, partial de-ratings of equipment, and any other significant event related to the operation of the Facility. The operations record shall be available for inspection by Purchaser upon reasonable advance written request, and Seller shall make the data available on a real-time basis by remote access to Purchaser if Purchaser acquires the necessary equipment and software license to process the data by remote access.
- (k) **Monthly Reports.** If requested in writing by Purchaser, Seller shall provide to Purchaser an electronic monthly report, no later than thirty (30) days after the end of each calendar month identified in the written request, regarding the operations of the Facility that shall include: all reporting information maintained in the operations record and hourly electric power output of the Facility. The monthly report shall also include an estimate of monthly electric power output for the calendar year and such other information related to the operation of the Facility that Purchaser reasonably requests in writing.

10. OPERATING COMMITTEE AND OPERATING PROCEDURES

- (a) Purchaser and Seller shall each appoint one delegate and one alternate delegate to act on matters relating to the operation of the Facility under this Agreement. Such

delegates shall constitute the "Operating Committee". The Parties shall notify each other in writing of such appointments and any changes thereto. The Operating Committee shall have no authority to modify the terms or conditions of this Agreement.

- (b) The Operating Committee shall, acting reasonably, establish mutually agreeable written operating procedures ("Operating Procedures") in draft form no later than the Commercial Operations Date. Operating Procedures shall include: the method of day-to-day communications; metering, telemetering, telecommunications, and data acquisition procedures; operating and maintenance scheduling and reporting; operations log; and such other matters as may be mutually agreed upon by the Parties.

11. SYSTEMS INTERCONNECTION AND INTEGRATION

- (a) Within twenty months (20) of executing this Agreement, the Parties shall agree to the Interconnection/Integration Plan a copy of which shall be attached to this Agreement by reference as Exhibit B.
- (b) The Seller shall bear all cost of outside engineering, design and installation costs associated with the Interconnection and Integration requirements with the City Distribution System. The equipment necessary to interconnect at Project Capacity with the City system shall be approved by the City consistent with Prudent Electrical Practice.
- (c) Purchaser shall commission an engineering study to determine reliability upgrades required for the City Distribution System to accept Energy from the Facility. The first two million dollars, (\$2,000,000.00) in cost, for the engineering study and resulting reliability upgrades to the City Distribution System identified in the Interconnection/Integration Plan will be borne solely by the Seller. The next ten million dollars (\$10,000,000) in cost for reliability upgrades identified in the Interconnection/Integration Plan, will be shared equally by Purchaser and Seller. Seller's obligation to share costs are in addition to Seller's cost obligations under paragraph 11(b).
- (d) All equipment interconnected with the City Distribution System shall be installed in accordance with applicable City of Unalaska ordinances and the Interconnection/Integration Plan including but not limited to installation of a revenue grade meter(s) approved, installed and maintained by Purchaser, in equipment provided by the Seller at each Point of Delivery.

12. TAXES

The Parties shall pay to the appropriate taxing authority when due all sales, use and similar taxes levied on Seller's sales, and Purchaser's purchase from or use, occupancy, or operation of the Facility/facilities during or for any part of the Term.

13. COMPLIANCE WITH APPLICABLE LAW

The Parties shall comply with all local, state and federal laws, statutes, ordinances, rules, regulations, decrees, injunctions, orders and codes now or hereafter applicable to the Facility/facilities, regardless of whether they are of legislative, administrative or judicial origin or implement a new or changed governmental policy, including all of those which address planning, zoning, use, subdivision, occupancy, building, construction, maintenance, repair, health, safety, insurance, environmental conservation, environmental pollution and/or hazardous substances.

14. RIGHT OF ACCESS

Duly authorized representatives of either party shall be permitted entry and/or access to premises, facilities and property of the other party, to the extent related to the Facility/Facilities, at all reasonable times in order to carry out the provisions of this Agreement.

15. DEFAULT

- (a) Seller Events of Default. The following shall constitute an event of default on the part of Seller under this Agreement: 1) Seller shall fail to comply with any material provision of this Agreement, and such failure shall continue uncured for thirty (30) days after notice thereof by Purchaser, provided that if such failure is not capable of being cured within such period with the exercise of reasonable diligence, then such cure period shall be extended for an additional reasonable period of time (not to exceed one hundred and eighty (180) days) so long as Seller is exercising reasonable diligence to cure such failure; 2) Seller fails to achieve Commercial Operation by the Commercial Operation Deadline and such failure is not cured within ninety (90) Business Days after Notice from Purchaser; or 3) Seller abandons the Facility (i.e., ceased construction or operation of the Facility or the Facility has ceased production and delivery of the Energy for a consecutive sixty (60) day period and such cessation is not a result of an event of weather or Force Majeure) and such abandonment is not cured within sixty (60) Business Days after Notice from Purchaser.
- (b) Purchaser Events of Default. The following shall constitute events of default on the part of Purchaser under this Agreement:

- (i) Purchaser shall fail to make payments for undisputed amounts due under this Agreement to Seller within ten (10) days after notice from Seller that such payment is unpaid when due;
 - (ii) Purchaser shall fail to comply with any material provision of this Agreement (other than the obligation to pay money when due), and such failure shall continue uncured for thirty (30) days after notice thereof by Seller, provided that if such failure is not capable of being cured within such period of thirty (30) days with the exercise of reasonable diligence, then such cure period shall be extended for an additional reasonable period of time (not to exceed one hundred and eighty (180) days) so long as Purchaser is exercising reasonable diligence to cure such failure.

- (c) With Respect to Either Party. The following shall constitute events of default on the part of either Party under this Agreement: 1) a Party assigns this Agreement or any of its rights hereunder for the benefit of creditors other than a collateral assignment by Seller with respect to the financing of the Facility; 2) a petition in bankruptcy or insolvency or for reorganization or arrangement under the bankruptcy laws of the United States or under any insolvency act of any state if filed against a Party and is not dismissed within sixty (60) days of such filing, or the Party voluntarily taking advantage of any such law or act by answer; or 3) a Party consolidates or amalgamates with, or merges with or into, or transfers all or substantially all of its assets to, another entity and, at the time of such consolidation, amalgamation, merger or transfer, the resulting, surviving or transferee entity fails to assume all the obligations of such Party under this Agreement to which it or its predecessor was a party by operation of law or pursuant to an agreement reasonably satisfactory to the other Party;

- (d) Remedies for Default. If an event of Default occurs there will be no opportunity for cure except as specified in Sections 15 (a) and 15(b). The Party claiming Default may, for so long as the Event of Default is continuing, (i) deliver a written notice which establishes a date (which date shall be no earlier than thirty (30) days after the Non-Defaulting Party delivers notice) on which this Agreement shall be terminated (Termination Date), (ii) withhold any payments due under this Agreement, (iii) seek recovery of liquidated damages to the extent allowed under Section 16; and (iv) pursue any other remedies available at law or in equity, except to the extent such remedies are expressly limited by this Agreement.

- (e) Survival. Expiration or termination of this Agreement shall not affect any rights or obligations which have arisen or accrued prior to such expiration or termination. In addition, all rights and obligations for indemnity under Section 17 shall survive termination of this Agreement.

16. LIQUIDATED DAMAGES

Seller and Purchaser recognize that delivery of Energy is the essence of this Agreement and that the Purchaser will suffer financial loss if Energy is not delivered as promised in accordance with the Agreement. These losses include employee overtime hours, additional wear and tear on Purchaser's generation equipment, actual and estimated future expense of procuring an alternate supply of electricity, lost sales to customers who return to self-generating, lost opportunities for sales to prospective customers and general public inconvenience. They also recognize that such losses multiply over time and that there is significant difficulty and expense in proving in a legal proceeding the actual loss suffered by Purchaser if Energy is not delivered as promised. Accordingly, instead of requiring such proof, Seller and Purchaser agree that as liquidated damages for failure to supply Energy (but not as a penalty) Seller shall pay Purchaser Twenty Thousand Dollars (\$20,000) for each day a Seller Event of Default as described in Paragraph 15(a) exists up to a maximum of five million dollars (\$5,000,000).

17. INDEMNIFICATION

- (a) Each Party shall indemnify, defend and hold the other and its officers, directors, affiliates, agents, employees, contractors and subcontractors, harmless from and against any and all Claims, to the extent caused by the negligence or willful misconduct of the indemnifying Party or the indemnifying Party's own officers, directors, affiliates, agents, employees, contractors or subcontractors. In the event that any loss or damage with respect to any Claim is caused by the negligence or willful misconduct of both Seller and Purchaser, including their respective officers, directors, affiliates, agents, employees, contractors or subcontractors, such loss or damage shall be borne by Seller and Purchaser in the proportion that their respective negligence or willful misconduct bears to the total negligence or willful misconduct causing such loss or damage.
- (b) An Indemnitee seeking indemnification under this Section 16 shall give notice to the Indemnitor within twenty (20) days of receipt of notice of the assertion of any action or claim (including discovery of any loss, damage or injury giving rise to any claim by the Indemnitee), or the commencement of any action, suit, or proceeding, in respect of which indemnity may be sought hereunder. Failure to give such notice shall not relieve the Indemnitor of any liability hereunder, except that the Indemnitor shall be entitled to relief from its obligations under this Section 17 to the extent such failure to give such timely notice materially prejudiced the Indemnitor. The Indemnitee shall give the Indemnitor such information regarding the claim, action or proceeding as the Indemnitee may reasonably request. If a claim for indemnification arises from any action, suit or proceeding, the Indemnitor shall, at its expense assume the defense of such action, suit or proceeding, with counsel of its choice, reasonably satisfactory to the Indemnitee and the Indemnitor shall conduct the defense actively and diligently. The Indemnitee shall have the right, but not the duty, to participate in its own defense and to employ at its own expense counsel separate from counsel

employed by the Indemnitor. The Indemnitor shall be liable for the fees and expenses of counsel employed by the Indemnitee if the Indemnitor has not assumed the defense thereof. Whether or not the Indemnitor chooses to defend or prosecute any claim, the Indemnitees and the Indemnitor shall cooperate in the defense or prosecution thereof and shall furnish such records, information and testimony, and attend such conferences as are reasonably required. The Indemnitor will not consent to the entry of any judgment on or enter into any settlement with respect to a claim without the prior written consent of the Indemnitee, which shall not be unreasonably delayed, conditioned or withheld, unless the judgment or proposed settlement involves only the payment of money damages by the Indemnitor and does not impose an injunction or other equitable relief upon the Indemnitee. The Indemnitee shall not consent to the entry of any judgment on or enter into any settlement with respect to any claim without the prior written consent of the Indemnitor, which shall not be unreasonably delayed, conditioned or withheld.

18. INSURANCE

Within ten (10) days from the date of Seller's notice pursuant to section 3(b) and continuing through the entire Term, Seller shall obtain and maintain in force, insurance coverage in accordance with the requirements stated in Exhibit C, Insurance Requirements, which is attached hereto and incorporated into this Agreement.

Within ten (10) days from the date of receipt of notice from Seller pursuant to section 3(b) and continuing until the Commercial Operations Date, Purchaser shall obtain and maintain in force, insurance coverage in accordance with the requirements stated in Exhibit C, Insurance Requirements, which is attached hereto and incorporated into this Agreement.

Each party shall deliver to the other party an insurance certificate evidencing the required coverage, limits and additional insured provisions as required by Exhibit C.

19. REPRESENTATIONS and WARRANTIES

On the Effective Date, each Party represents, warrants and covenants to the other Party that:

- (a) It has or will timely acquire all regulatory authorizations necessary for it to legally perform its obligations under this Agreement;
- (b) There is not pending, or to its knowledge, threatened against it or, in the case of Seller, any of its Affiliates, any legal proceedings that could materially adversely affect its ability to perform under this Agreement;
- (c) No Event of Default with respect to it has occurred and is continuing and no such event or circumstance would occur as a result of its entering into or performing its

obligations under this Agreement;

- (d) It is acting for its own account and its decision to enter into this Agreement is based upon its own judgment, not in reliance upon the advice or recommendations of the other Party and it is capable of assessing the merits of and understanding, and understands and accepts the terms, conditions and risks of this Agreement.
- (e) It has not relied upon any promises, representations, statements or information of any kind whatsoever that are not contained in this Agreement in deciding to enter into this Agreement;
- (f) It has entered into this Agreement in connection with the conduct of its business and it has the capacity or ability to make or take delivery of the Energy as contemplated in this Agreement; and
- (g) It shall act in good faith in its performance under this Agreement.

20. CONDITIONS PRECEDENT

This Agreement is subject to the following conditions precedent, which shall be fully satisfied on or before the dates identified for each condition precedent:

- (a) Seller shall obtain a written commitment for Project Financing, by 6/10/2021.
- (b) The Parties shall negotiate in good faith to establish the Interconnection / Integration Plan” no later than 20 months after contract execution. The Interconnection/Integration Plan shall include but not be limited to; 1) a mutually acceptable Delivery Point; 2) a location for new distribution and transmission equipment required to connect to the Purchasers existing City Distribution System at Project Capacity, and 3) locations for metering equipment.
- (c) Seller shall have provided Purchaser a utility easement allowing placement, maintenance and operation of all equipment and connections at 1) the Delivery Point and 2) a location for new distribution and transmission equipment required to connect to the Purchasers existing City Distribution System at Project Capacity in a form reasonably satisfactory to Purchaser at no cost to Purchaser by 20 months after contract execution.
- (d) Seller shall have provided Purchaser fully executed Member Guarantees in the form attached hereto as Exhibit E no later than September 1, 2020.
- (e) The Parties have required insurance in place by the dates specified in Section 18.

Termination Caused by Failure to Satisfy Conditions Precedent. This Agreement may be terminated by either party due to the failure of any such condition precedent to timely or fully occur through no fault on the part of such Party. If and when such a termination should occur neither Purchaser nor Seller shall have any further claims, rights or remedies against each other under this Agreement except for obligations, liabilities and/or duties that accrued prior to such termination or that survive such termination by the terms of this Agreement.

21. Dispute Resolution

The Parties shall attempt in good faith to resolve all disputes arising out of or related to or in connection with this Agreement promptly by negotiation, as follows. Any Party may give the other Party written notice of any dispute not resolved in the normal course of business. Senior executives of both Parties shall meet at a mutually acceptable time and place within ten (10) days after delivery of such notice, and thereafter as often as they mutually agree, to attempt to resolve the dispute. The Parties further agree to provide each other with reasonable access during normal business hours to any and all non-privileged records, information and data pertaining to any such dispute. If the matter has not been resolved within thirty (30) days from the referral of the dispute to the Parties' senior executives, or if no meeting of the Parties' senior executives has taken place within fifteen (15) days after such referral, either Party may initiate legal action for resolution of the dispute. All negotiations pursuant to this Section 21 are deemed confidential hereunder. Transfers or assignments of the Facility shall not relieve Seller of any obligation hereunder except to the extent agreed to in writing by Purchaser.

22. GENERAL PROVISIONS.

- (a) Time of Performance. Time is of the essence of this Agreement. It is the express intention of all of the parties to this Agreement that no extensions or grace periods beyond the deadlines set forth in this Agreement shall be provided, because all intended extensions and grace periods have been taken into consideration in establishing such deadlines.
- (b) Parties Bound and Benefitted. The covenants, terms and conditions contained in this Agreement shall be binding upon and inure to the benefit of the assigns and successors of the respective parties hereto.
- (c) Amendment and Novation. No amendment or novation to or of this Agreement shall be effective unless it is completely and unambiguously contained in a writing executed by all of the parties to this Agreement. No such amendment or novation shall be effective unless and until it is supported by a resolution of the board of directors of each corporation, the council of each municipal corporation or the

policy-making authority of each other entity that is a party or a successor or assign of a party to this Agreement, which has expressly approved such amendment or novation.

- (d) Marginal Titles and Headings. The marginal titles, subtitles, headings and subheadings of the paragraphs, subparagraphs, sections and subsections herein are intended to be for reference and for the sake of convenience only and shall not be construed to narrow or broaden the scope of or affect whatever interpretation or construction would otherwise be given to the plain and ordinary meanings of the words herein.
- (e) Entire Agreement. This written Agreement is fully integrated, constitutes the entire agreement between the parties with respect to the subject matter hereof, and supersedes all other prior and contemporaneous agreements, contracts, representations, promises, acknowledgments, warranties and covenants, oral or written, by and between the parties with respect to such subject matter which are not expressly included herein. In the case of any conflict or inconsistency between this Agreement and any other prior agreement between the parties relating to any property or easement conveyed or exchanged herein, this Agreement shall prevail.
- (f) Applicable Law. This Agreement and the respective rights and obligations of the parties hereunder shall be construed and interpreted as a contract under the laws of the State of Alaska, without regard to its conflicts of law principles.
- (g) Exclusive Jurisdiction/Venue. In the event that a question, dispute or requirement for interpretation or construction should arise with respect to this Agreement, the jurisdiction and venue therefor shall lie exclusively with the courts for the Third Judicial District for the State of Alaska, or, alternatively, with the United States District Court for the District of Alaska, at Anchorage, Alaska, unless a nonwaivable federal or Alaska state law should require to the contrary.
- (h) Limited Waivers. Any failure or delay by any party to object to a default or exercise any rights or remedies under this Lease shall not constitute a waiver of the right to do so in the future, unless such failure is accompanied by an express written waiver by such party.
- (i) Interpretation. The language in all parts of this Agreement shall be construed (a) according to its fair meaning and common usage and (b) not strictly for or against any party to this Agreement.

- (j) Counterparts. This Agreement may be executed in counterparts, so long as each of the parties to this Agreement executes at least one counterpart; and all such executed counterparts shall collectively constitute one and the same original document
- (k) Warranties of Authority. Each party and each natural person who executes this Agreement on behalf of such party acknowledges, warrants and represents for the benefit of the other party(ies) to this Agreement: (a) that such person is duly authorized and empowered to execute this Agreement on behalf of such party; (b) that, if a corporation, limited liability company, joint venture, trust, partnership, limited liability partnership or other entity (i) such party has been duly formed and organized and is in good standing and (ii) all necessary and appropriate resolutions and actions by such party's board of directors, general partner(s), manager(s), members or other policy-making authority authorizing such party to enter into, execute and perform this Agreement and the transactions contemplated by this Agreement have been obtained; and (c) that all steps have been taken and acts performed that are conditions precedent to making this Agreement valid, enforceable and binding against such party in accordance with its terms and conditions.
- (l) Independent Counsel. Each party to this Agreement acknowledges that it has enjoyed the advice and representation of competent independent legal counsel in negotiating, entering into and executing this Agreement or waived its right to do so. The fact that this Agreement may have been drafted in whole or in part by one such party's counsel shall not cause any part of this Agreement to be construed against such party.
- (m) Severability. In the event that any term or condition of this Agreement is declared by a court of competent jurisdiction to be void or unenforceable, the remaining terms and conditions shall nevertheless be valid and enforceable; and such void or unenforceable term shall be modified to the minimum extent necessary to be valid and enforceable to the fullest extent permitted by applicable law and enforced as such.
- (n) Survival. All of the representations, warranties and covenants of the parties shall survive any and all deadlines contemplated by this Agreement and shall remain in full force and effect unless and until otherwise satisfied, terminated or discharged.
- (o) Attorneys Fees and Legal Costs. All of the attorneys fees and legal costs incurred by the respective parties in negotiating and forming this Agreement shall be borne by the respective parties. All legal costs and attorneys fees actually incurred by any

party to this Agreement to enforce any obligations of any other party under this Agreement or any instruments executed in connection herewith shall be paid to the prevailing party by the other party and shall bear interest at the legal rate.

- (p) No Third Party Beneficiaries. Nothing in this Agreement shall be construed to create any rights in, or grant remedies to, any third party as a beneficiary of this Agreement or of any duty, covenant, obligation or understanding established under this Agreement. Neither Party, by this Agreement, dedicates any part of the Facility to the public or to the service provided under this Agreement, nor affects the status of Purchaser as an unregulated utility enterprise of a municipal corporation, or Seller as an individual or entity.

23. NOTICES AND DEMANDS

Each notice required under this Agreement or by law shall: (a) be in writing; (b) contain a clear and concise statement setting forth the subject and substance thereof and the reasons therefor; and (c) be personally delivered, electronically transmitted (Email), or duly mailed by certified mail, return receipt requested, to each party to this Agreement at its address set forth below or to such other address as that party may have most recently given notice of to all of the other parties. All such notices shall be effective (a) when actually received by the recipient or an authorized representative or agent of the recipient or (b) three (3) business days after they are mailed, whichever occurs earlier.

24. MAILING ADDRESSES/POINTS OF CONTACT

OC/CP, LLC:

Attn: Natalie A. Cale
P. O. Box 149
Unalaska, Alaska 99685
Tel. No. (907) 581-1276

City:

City of Unalaska
Attn: City Manager
P. O. Box 610
Unalaska, Alaska 99685
Tel. No. (907) 581-1251

with a copy to:

Boyd, Chandler, Falconer & Munson
Attn: Brooks W. Chandler
911 West Eighth Avenue, Suite 302
Anchorage, Alaska 99501
Tel. No. (907) 272-8401

Formation

In witness whereof, Seller and Purchaser have duly executed, delivered and formed this Agreement through their authorized representatives, the effective date of which is August 31, 2020 ("Effective Date").

OC/CP, LLC:

By: OUNALASHKA CORPORATION, an
Alaska business corporation
Its Managing Member

Dated: August 31, 2020

By Christopher P. Salts, Sr.
Christopher P. Salts
Its Chief Executive Officer

Dated: 8.31, 2020

By Margaret A. Lekanoff
Margaret A. Lekanoff
Its Secretary

CITY OF UNALASKA:

Dated: 9/3, 2020

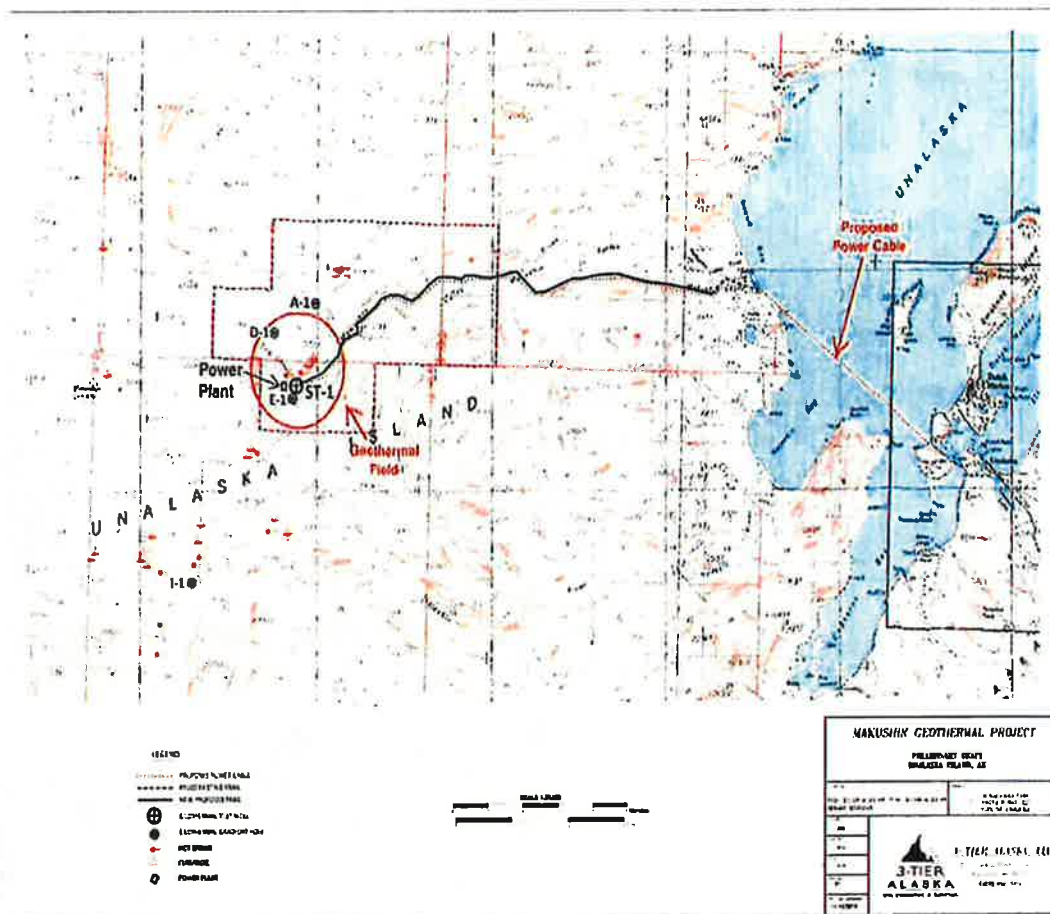
By [Signature]
Erin Reinders
Its City Manager

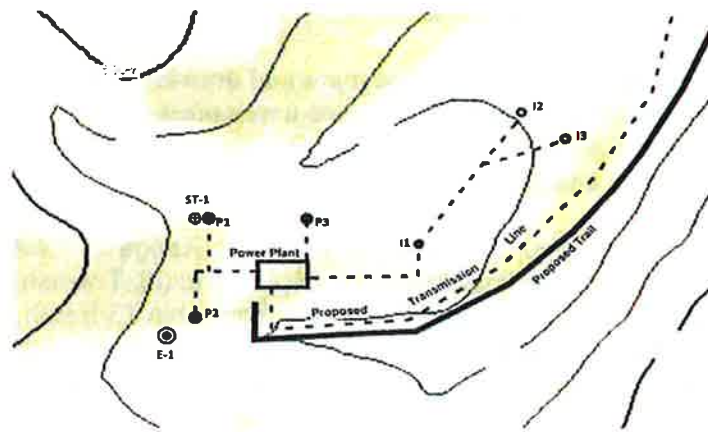
Exhibit A

Project Site

The project site is as generally depicted on the attached maps and drawings. Actual project site will be updated to reflect the as-built status when development is complete. Specifically, the Project Site or Project is the Facility described in this PPA and is included within the following legal boundaries:

"All of the area located in Sections 30 and 31, Township 72 South, Range 118 West (Unsurveyed), Seward Meridian; Sections 25, 26, 27, 33, 34, 35, and 36, Township 72 South, Range 119 West, Seward Meridian; Sections 2 and 3, Township 73 South, Range 120 West, Seward Meridian; located within the Records of the Aleutian Island Recording District, Third Judicial District, State of Alaska and more particularly shown cross-hatched in the attached."





1. THE CITY OF UNALASKA HAS REVIEWED THE PROJECT AND HAS DETERMINED THAT THE PROJECT IS IN ACCORDANCE WITH THE CITY'S ZONING ORDINANCES AND OTHER APPLICABLE REGULATIONS.

- LEGEND**
- PROPERTY
 - HIGHWAY
 - EXISTING OR NEW
 - EXISTING OR NEW
 - EXISTING OR NEW
 - EXISTING OR NEW
 - EXISTING OR NEW



MUNICIPAL GOVERNMENT

CITY OF UNALASKA

3-TIER ALASKA

Gov Lot 9, Section 2, T735, R118W, S4



This plan is a legal description of the
 Governmental Lot 9, Section 2,
 T735, R118W, S4.



Exhibit B

Interconnection / Integration Plan

[to be provided by the Parties within 20 months of Agreement

Exhibit C

Insurance Requirements

1. Within ten (10) days from the date of Seller's notice pursuant to section 3(b), Seller and Purchaser shall secure and maintain all insurance required.

2. Seller and Purchaser shall maintain in effect at all times specified by Section 18, insurance in accordance with the applicable laws relating to workers' compensation and employers' liability insurance, regardless of whether such coverage or insurance is mandatory or merely elective under the law.

3. Insurance coverage and limits shall be at a level as reflected in Paragraph 8 for the risks associated with the Facility contemplated by this Agreement. Required insurance coverages are to be purchased by respective Seller and Purchase at their sole expense. Purchaser may increase the limits of required coverage each five (5) years during the term of the Agreement provided the increased limits are commercially reasonable coverage limits.

4. Seller and Purchaser shall notify one or the other of any reduction of the aggregate limits under any of the required insurance policies, and if requested in writing, purchase additional limits of coverage as may be deemed appropriate by Purchaser in order to satisfy Seller's insurance obligations.

a. Seller and Purchaser shall maintain such insurance in full force and effect at all times specified by Section 18 of the Agreement. Seller shall maintain completed operations coverage, for two (2) years after the expiration or termination of this Agreement.

5. Seller and Purchaser shall ensure that any policies of insurance that Seller/Purchaser or any of its subcontractors and suppliers are required to carry as insurance by this Agreement) shall:

a. Be placed with such insurers and under such forms of policies as may be reasonably acceptable to Seller/ Purchaser.

b. With the exception of workers' compensation and employers' liability,

(i) be endorsed to name Purchaser/Seller as an additional insured; and

(ii) apply severally and not collectively to each insured against whom claim is made or suit is brought, except that the inclusion of more than one insured shall not operate to increase Seller's / Purchaser's limits of liability as set forth in the insurance policy.

c. Include within automobile coverage(s), owned, non-owned, hired and borrowed vehicles.

d. Be primary insurance with respect to the interest of Seller/ Purchaser respectively as an additional insured with any insurance maintained by Seller / Purchaser as excess and not contributory insurance with the insurance required under this Agreement.

e. Include a waiver of the insurer's right of subrogation against Seller/ Purchaser. Seller/Purchaser also hereby waives all rights of subrogation against Purchaser/Seller.

f. Provide that the policies will not be cancelled, or their limits or coverage reduced or restricted without at least thirty (30) days prior written notice to Seller / Purchaser.

6. Seller / Purchaser shall instruct and require its insurance agent/broker to complete and return an insurance certificate, in an ACORD form, as evidence that insurance policies providing the required coverage, limits and additional insured provisions as outlined within this Exhibit C are in full force and effect. Seller / Purchaser shall be fully responsible for all deductibles and self-insured retention's related to their respective insurance provided herein. At least sixty (60) days prior to the Startup Period, the completed insurance certificate form is to be returned to Seller/ Purchaser in accordance with the notice provisions included in the Agreement.

7. The insurance requirements of the Agreement and acceptability to Seller / Purchaser of insurers and insurance to be maintained by Seller/Purchaser, its subcontractors/suppliers, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the insured under the Agreement. Seller /Purchaser is fully and solely responsible for the level of insurance coverage it requires of its subcontractors and suppliers. Purchaser/Seller will look to Seller/Purchaser and thereby Seller's /Purchaser's insurer for coverage for claims arising from the negligent acts or omissions of Seller/Purchaser or any subcontractor/supplier of Seller's /Purchaser's choosing.

8. Evidence of the following coverages shall be provided on an ACCORD Form or equivalent:

\$5,000,000 General Liability

\$10,000,000 Aggregate Liability

\$1,000,000 Automobile Liability

Statutory Worker's Compensation

Exhibit D

Equivalent Availability Factor

Availability measures are concerned with the fraction of time in which a unit is capable of providing service and accounts for outage frequency and duration. Equivalent Availability Factor (EAF) shows the percentage of capacity that could be delivered if it had to be dispatched. The EAF metric takes into account both scheduled maintenance and unplanned outages.

Equivalent Availability Factor (EAF) definition from IEEE Std 762-2006: "Equivalent availability factor (EAF): The fraction of a given operating period in which a generating unit is available without any outages and equipment or seasonal deratings."

The geothermal power plant will consist of a number of independent units composed of steam screw expanders, wet steam ORCs and low and high temperature brine ORCs. Each unit can be operated separately.

Each unit is capable of operating separately, and if any unit is operating and not derated, or capable of being operated, though it might not be in operation, and no matter its output and power delivered, the EAF for that unit is 100% for that time period. If all units are in the state described above the geothermal plant is at 100% EAF. Scheduled and unscheduled maintenance/outage, are also components of EAF.

It is agreed for illustrative purposes that:

1. Total equipment hours available (TEHA) per year = 5 ORCs x 24 hours/day x 365 days = 43,800 hours
2. Twelve 4-hour monthly maintenance checks (MMC) will be performed in a year (final number of hours or frequency may be different)
3. Four 12-hour quarterly maintenance checks (QMC) will be performed in a year (final number of hours or frequency may be different)
4. An annual 48-hour service check (ASC) will be performed (final number of hours may be different)
5. Unplanned failures (UF) may occur and are calculated as: number of ORC's down * number of repair hours
6. A unit may be derated (UD) for a period of time. Downtime is calculated as: derating fraction * number of days derated * 24 hours in a day

Total hours unavailable (THU) = MMC+QMC+ASC+UF+UD

Then EAF (%) = $1.0 - (\text{THU}/\text{TEHA}) * 100$

If MMC = 240, QMC = 240, and QMC = 240, then EAF (%) = $1.0 - (720 + \text{UF} + \text{UD})/\text{TEHA} * 100$

Exhibit E

Member Guaranty

THIS GUARANTEE (this "Guarantee") is made and entered into this 31st day of August, 2020, by and among Ounalashka Corporation, an Alaska Native Claims Act corporation organized under the laws of the State of Alaska, Chena Power LLC, an Alaska limited liability corporation (collectively the "Guarantor"), and the City of Unalaska an Alaska municipal corporation ("Purchaser"). Guarantor and Purchaser are each referred to herein as a "Party" and collectively as the "Parties." Capitalized terms used but not defined in this Guarantee shall have the meanings ascribed to them in the PPA (as defined below).

RECITALS

A. Guarantors are members of, Ounalashka Corporation/ Chena Power LLC, a limited liability company organized under the Laws of the State of Alaska ("Seller"). Seller has, as of the date hereof, entered into that certain Power Purchase Agreement (the "PPA") with the Purchaser, for the purchase by Purchaser of Energy.

B. Guarantor, directly or indirectly, owns all of the equity interests in Seller.

C. As a condition precedent to the execution of the PPA, the Purchaser requires the execution of this Guarantee.

NOW, THEREFORE, in order to induce the Purchaser to buy Energy from Seller as provided in the PPA, in consideration of the foregoing recitals, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Guarantor agrees as follows:

- 1. Guarantee.** Guarantor hereby unconditionally and irrevocably guarantees to the Purchaser the prompt, punctual and full payment and performance of (a) the obligations and covenants of Seller under the PPA to pay when due any amounts owing under the PPA for Liquidated Damages under the terms of the PPA, as now or hereafter amended, in accordance with the terms and conditions thereof (the "Obligation").
- 2. Term.** This Guarantee is a continuing guarantee of payment. This Guarantee shall remain in full force and effect until the earlier to occur of (a) the termination of the PPA in accordance with its terms and (b) the date Seller has fully discharged the Obligation.
- 3. Enforcement.** Guarantor's obligations are primary obligations and independent of all of Seller's obligations to the Purchaser. Upon default by Seller with respect to the Obligation, the Purchaser shall have no obligation to proceed against Seller, and may proceed directly against Guarantor without proceeding against Purchaser or any other person or pursuing any other remedy. Guarantor agrees to reimburse the Purchaser for all costs and expenses (including, without limitation, court and arbitration costs and reasonable attorneys' fees) incurred by the Purchaser in connection with the enforcement of the Purchaser's rights under this Guarantee.
- 4. Invalidation of Payments.** Guarantor's obligations hereunder shall not be affected by the commencement of any proceedings by or against Seller under the Bankruptcy Code (U.S.C. Title

11) or any other liquidation, conservatorship, bankruptcy, moratorium, rearrangement, receivership, insolvency, reorganization or similar debtor relief laws affecting the rights of creditors generally, any stay or ruling thereunder, or the disallowance of any claim thereunder. If all or any part of any payment to or for the benefit of the Purchaser in respect of the Obligations shall be invalidated, declared to be fraudulent or preferential, set aside or required for any reason to be repaid or paid to a trustee, receiver or other third party, then any Obligation that otherwise would have been satisfied by that payment or partial payment shall be revived and continue in full force and effect as if that payment had not been made. Guarantor shall be fully and primarily liable for such Obligation and as set forth in this Guarantee.

5. Waiver of Defenses. The Purchaser may, without notice to or consent of Guarantor (a) extend or, with the prior written consent of Seller, alter, the time, manner, place or terms of payment or performance of the Obligations, or (b) waive, or, with the prior written consent of Seller, amend any terms of the PPA or any other agreement executed pursuant to the PPA, without in any way changing, releasing or discharging Guarantor from liability hereunder. Guarantor hereby waives any defenses which Seller or any other person liable for the Obligation may have or assert regarding (i) the insolvency, bankruptcy, liquidation or dissolution of Seller or such other person or (ii) the invalidity, illegality, voidability or unenforceability of all or any portion of the Obligation as a result of ultra vires or other lack of authority, defective formation or other organizational deficiencies or similar types of defenses. Guarantor further waives notice of the acceptance of this Guarantee, presentment, demand, protest, and notices of protest, nonpayment, default or dishonor of the Obligation, and all other notices or demands of any kind or nature whatsoever with respect to the Obligation. Nothing in this Guarantee shall limit or otherwise affect the rights of Purchaser under the terms of the PPA.

6. Representation and Warranties. Each Guarantor represents and warrants to the Purchaser that: (a) Guarantor has received, or will receive, direct or indirect benefit from the making of this Guarantee; (b) Guarantor is a corporation duly organized, validly existing and in good standing under the Laws of the State of Alaska; (c) Guarantor has the requisite corporate power to enter into this Guarantee and to perform its obligations hereunder; (d) the execution, delivery and performance of this Guarantee have been duly and validly authorized by all necessary corporate action on the part of Guarantor; (e) this Guarantee has been duly executed and delivered by Guarantor and constitutes the valid and binding obligation of Guarantor, enforceable against Guarantor in accordance with its terms; (f) the execution, delivery and performance of this Guarantee will not (i) violate any provision of the certificate of incorporation or bylaws (or other governing instruments) of Guarantor or (ii) violate any judgment, order, ruling, or regulation applicable to Guarantor; (g) the execution, delivery and performance of this Guarantee by Guarantor will not be subject to any consent, approval or waiver from any Governmental Body or other third Person; (h) Guarantor possesses the necessary financial capability to fulfill the Obligation; and (i) there are no bankruptcy, insolvency, reorganization or receivership proceedings pending against, being contemplated by or, to Guarantor's knowledge, threatened against Guarantor.

7. Assignment. This Guarantee and the rights and obligations hereunder shall not be assignable or transferable by Guarantor except with the prior written consent of the Purchaser.

8. Amendments and Waivers. No amendment, modification or waiver in respect of this Guarantee shall be effective unless, in the case of an amendment or modification, such

amendment or modification shall be in writing and signed by Guarantor and the Purchaser, and, in the case of a waiver, such waiver shall be in writing, specifically refer to this Guarantee and be signed by the Person against which such waiver is sought to be enforced.

9. Notices. All notices and other communications shall be in writing and shall be delivered by hand or sent, postage prepaid, by express mail or reputable overnight courier service to the address for the Sellers set forth in Section 23 of the PPA or, in the case of Guarantor Chena Power LLC, to the following address:

Chena Power LLC
PO Box 58740
Fairbanks, Alaska 99711
Attn: Bernie Karl

Each Party may change its address for notice by notice to the other in the manner set forth above. All notices shall be deemed to have been duly given at the time of receipt by the Party to which such notice is addressed.

10. Governing Law. This Guarantee and the legal relations between the Parties shall be governed by and construed in accordance with the Laws of the State of Alaska, without regard to principles of conflicts of Laws that would direct the application of the Laws of another jurisdiction.

11. Counterparts. This Guarantee may be executed in counterparts, each of which shall be deemed an original instrument, but all such counterparts together shall constitute but one agreement.

12. Entire Agreement. This Guarantee constitutes the entire agreement between the Parties pertaining to the subject matter hereof, and supersedes all prior agreements, understandings, negotiations and discussions, whether oral or written, of the Parties pertaining to the subject matter hereof.

13. Severability. If any term or other provision of this Guarantee is held invalid, illegal or incapable of being enforced under any rule of law, all other conditions and provisions of this Guarantee shall nevertheless remain in full force and effect so long as the economic or legal substance of the transactions contemplated hereby is not affected in a materially adverse manner with respect to either Party.

IN WITNESS WHEREOF, the Parties have executed this Guarantee on the day and year first written above.

[Signature page follows]

GUARANTOR:

OUNALASHKA CORPORATION

By: /s/ Christopher P. Salts, Jr.
Name: Christopher P. Salts
Title: Chief Executive Officer

GUARANTOR:

CHENA POWER, LLC

By: /s/ Bernie Karl
Name: Bernie Karl
Title: Chief Executive Officer

PURCHASER:

CITY OF UNALASKA

By: /s/ Erin Reinders
Name: Erin Reinders
Title: City Manager

Exhibit F

Additional Payment

The formula for the Additional Payment only applies when Metered Energy for a Year exceeds 100,000,000 kWh. If that occurs, an Additional Payment is due calculated as follows:

Additional Payment = Facility Rate x (kWh through Meter for Year) – Fixed Payment

$$\text{Facility Rate} = \frac{\text{Fixed Payment}}{100 \text{ million kWh}} - \frac{\frac{\text{Fixed Payment}}{100 \text{ million kWh}} - \frac{\text{Fixed Payment}}{\text{kWh through Meter for the Year}}}{2}$$

EXAMPLE

Year 1- Fixed Payment = \$16,300,000

kWh through meter = 125,000,000

Facility Rate = 16,300,000/ 100 million kWh – [(16,300,000/ 100 million kWh) – (16,300,000/125 million kWh) / 2]

Facility Rate = .163-[(.163-.1304)/2]

.163-(.0326/2)= .1467

Additional Payment = (.1467 X 125,000,000)-\$16,300,000

18,337,500-16,300,000 =2,037,500

Additional Payment is 2,037,500



February 25, 2021

Ms. Erin Reinders
City Manager
City of Unalaska
43 Raven Way
PO Box 610
Unalaska, AK 99685

Dear Erin:

On behalf of OCCP, LLC, I am submitting written intent to amend the PPA by extending the project financing deadline by one (1) year, from 6/10/2021 to 6/10/2022.

We did not anticipate the pandemic's effect on travel to Washington D.C. and elsewhere lasting as long as it has. This has directly impacted our ability to seek financing from Federal agencies. Changes of personnel in departmental posts at the DOE and other agencies have also made it difficult to interact without being physically present in Washington D.C. Since Biden's inauguration, additional changes in personnel have, and continue to, occur. These are among the reasons we are seeking an extension in the financing deadline.

Per Article 22(c), this amendment must be in writing and include resolutions from the OCCP Board of Directors and by the City Council. OCCP's resolution will specifically state:

We hereby resolve to amend the Power Purchase Agreement, executed on August 31, 2020 between the City of Unalaska and Ounalashka Corporation/Chena Power, in order to extend the date to obtain project financing by one (1) year, from 6/10/21 to 6/10/22 in Article 4 (c) and 20 (a).

OCCP's resolution is attached to this letter.



Extending the project financing deadline from 6/10/2021 to 6/10/2022 will **not** impact the project completion schedule, as OCCP, LLC is self-financing the 2021 project construction budget, pushing ahead with the road to the geothermal area during the 2021 construction season , which has always been the plan.

Thank you for your time and attention to this matter, and please let us know when to expect this before the City Council. If there is additional information or clarity around this request, do not hesitate to reach out to me and OCCP will promptly respond.

Sincerely,



Christopher P. Salts, Sr.
Director – OCCP, LLC

Attachments – OCCP, LLC Resolution to Extend Project Financing

**RESOLUTION 21-02-01
OF THE BOARD OF DIRECTORS
OF
OUNALASHKA CORPORATION/CHENA POWER**

NOW THEREFORE BE IT RESOLVED, that the Ounalashka Corporation/Chena Power of Directors hereby resolve to amend the Power Purchase Agreement, executed on August 31, 2020 between the City of Unalaska and Ounalashka Corporation/Chena Power, in order to extend the date to obtain project financing by one (1) year, from 6/10/21 to 6/10/22 in Article 4 (c) and 20 (a).

This resolution read and approved at a duly convened meeting of the Ounalashka Corporation/Chena Power Board of Directors held on Thursday, February 25, 2021, at which time a quorum was present.

Thursday, February 25, 2021

Date

Bernie Karl, President

Natalie A. Cale, Secretary/Treasurer

MAKUSHIN GEOTHERMAL PROJECT BRIEFING

March 9, 2021

Ounalashka Corporation and
Chena Power Partnership
OCCP, LLC

Presents

Makushin Geothermal Project Briefing
to the
City of Unalaska





A BRIEF RECAP FOR PERSPECTIVE



- For a perspective, one year ago:
 - Project was scheduled to be completed in fall of 2022.
 - Financing focus was a DOE TITLE XVII loan.
 - Under a teaming agreement with Kaishan for power plant technology.
 - In negotiations for Power Purchase Agreement with the City.
 - Considering seven different power plant sizes and working from high level estimates (lack of detail).
 - Then the COVID Pandemic hit...





TODAY, MARCH 9, 2021



- Directly related to COVID 19:
 - The project completion date slipped one year, to the end of 2023.
- But the silver lining is:
 - We have excellent project definition – cost and construction and logistic plans.
 - Overall development costs remained the same, and project confidence has gone up.
 - We are methodically transitioning from the planning to execution phases.





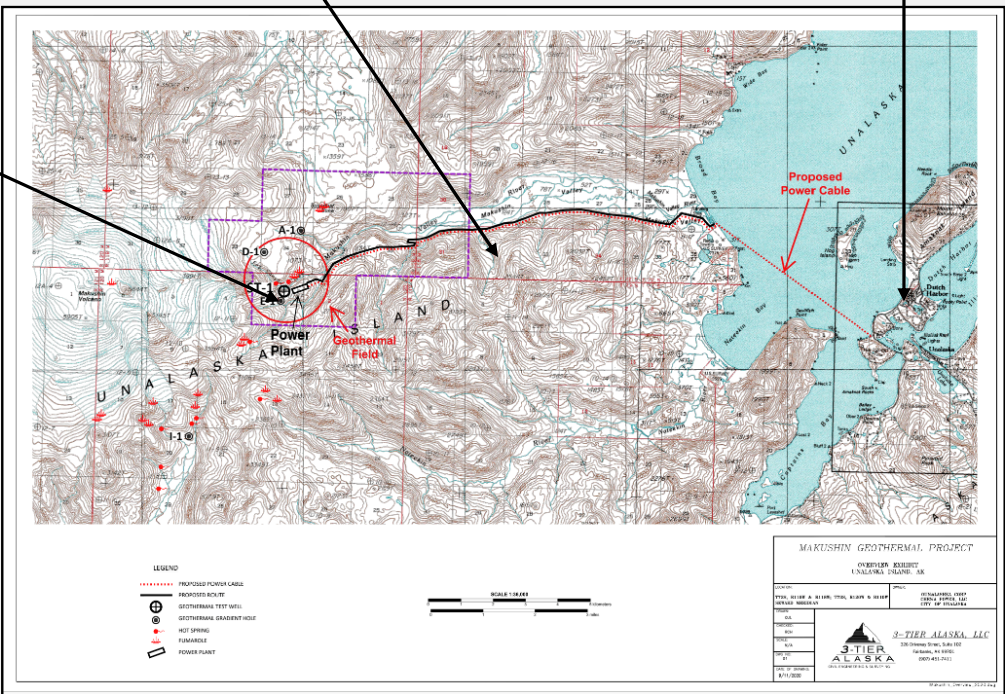
OVERVIEW OF MAKUSHIN VALLEY AND DEVELOPMENT



Power Plant site

10 miles terrestrial road and transmission line, 3.2 miles subsea

Unalaska



Slide 4

DM1

David Matthews, 9/16/2020



KEY ACCOMPLISHMENT SINCE LAST BRIEFING



- A 30-year power purchase agreement with **you**.
- Construction and logistic plans developed.
- Environmental studies and survey base lines established.
- Major permit applications submitted.
- Class 3 estimate prepared, backed by numerous quotes.
- Competitive bidding the power plant and resource gathering field.
- Project valuation and financial decks developed.
- Integration / Interconnection plan with Unalaska underway.
- Long term financing underway.





WORKED ALL WINTER CAT D-9 AND CAT 245 UNDER RETROFIT





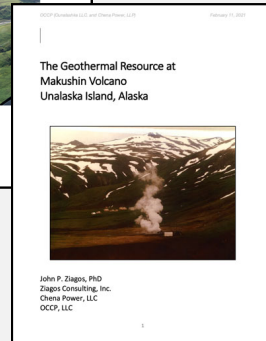
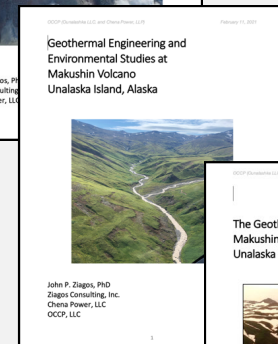
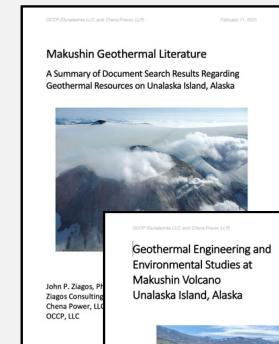
INDIVIDUAL ACCOMPLISHMENTS



- The entire MGP database has been cataloged and gleaned for useful information.
- Makushin Geothermal Resources, Engineering and Environmental evaluation reports have been written and drilling targets selected.
- Dozens of Request for Proposal's and bid responses cataloged.
- Internal project control systems and protocols have been established.
- A class 3 (budget authorization) estimate has been prepared.



And there is more...





MGP DESIGN CRITERIA DOCUMENT UNDER REVIEW



December 11, 2020

OUNALASHKA CORPORATION / CHENA POWER

Makushin Geothermal Project

DESIGN CRITERIA
PEI-GE-AA-DSG-001



PROJECT NUMBER:
166920

CONTENTS

1.0	INTRODUCTION	2
2.0	PROJECT LAYOUT	2
3.0	CODES AND STANDARDS	7
4.0	LANGUAGE AND UNITS OF MEASURE	9
5.0	PROJECT SPECIFIC CONDITIONS	10
5.1	SITE-SPECIFIC CONDITIONS	10
5.2	RESOURCE CONSIDERATIONS	13
5.3	WIND, SEISMIC, LOADING DESIGN	14
5.4	SITE SOIL CONDITIONS AND GROUND STABILITY	15
5.5	COLD WEATHER AND SNOW	15
5.6	AVALANCHES	16
5.7	SITE REMOTENESS	16
5.8	VOLCANIC ACTIVITY	17
5.9	NOISE	17
5.10	EMISSIONS	17
6.0	PLANT PERFORMANCE	18
6.1	PERFORMANCE CRITERIA	18
6.2	OUTPUT SENSITIVITY	18
6.3	DESIGN LIFE	18
6.4	POWER PURCHASE AGREEMENT (PPA) REQUIREMENTS	19
7.0	SYSTEM CONFIGURATIONS	28
7.1	RESOURCE GATHERING SYSTEM CONFIGURATION	28
7.2	POWER PLANT CONFIGURATION	29
7.3	POWER DELIVERY CONFIGURATION	30
7.4	EQUIPMENT & SCOPE OF SUPPLY	31
8.0	RESOURCE GATHERING SYSTEM DESIGN	33
9.0	POWER PLANT DESIGN	35
9.1	MECHANICAL REQUIREMENTS	35
9.2	ELECTRICAL REQUIREMENTS	40
9.3	INSTRUMENTATION & CONTROL REQUIREMENTS	43
9.4	CIVIL, STRUCTURAL, ARCHITECTURAL REQUIREMENTS	45
9.5	REDUNDANCY	45
9.6	EQUIPMENT DESIGN CONSIDERATIONS FOR GEOTHERMAL ENVIRONMENTS	46
9.7	INSPECTION & TESTING	48
9.8	HEALTH, SAFETY AND ENVIRONMENT	50
9.9	CONSTRUCTABILITY, MAINTAINABILITY AND OPERABILITY	51
9.10	SHUTDOWN PHILOSOPHY	51
9.11	HAZARDOUS AREA CLASSIFICATION PHILOSOPHY	51
9.12	DIVISION OF RESPONSIBILITY	52
9.13	TIE-INS AND INTERFACES	52
9.14	O&M, TRAINING, SPECIAL TOOLS, SPARE PARTS	52
9.15	RECORD DRAWINGS	53
9.16	COATINGS	53
10.0	POWER DELIVERY DESIGN	54

MAKUSHIN GEOTHERMAL PROJECT
PEI-GE-AA-DSG-001
HLY 315-145 (166920)

DESIGN CRITERIA
REV. B (11/18/2020)

A Design Criteria is being developed by Power Engineers & OCCP teams with input from City for the entire project and for site specific conditions, in part to address risk.





REGULATORY APPROVALS PROGRESSING



Excerpt from regulatory agency and permit status table

Ref #	Agency Name	Type of Permit/Approval	Reason for Permit / Approval	Responsible Party	Comments	Permitting Requirements	Permit Status
Right-of-way							
1	USACE	Utility access permit for access road and for transmission line	Required before construction. Jurisdictional determination report and permitting under Nation Wide 12 criteria	OCCP, LLC	Required to access plant site, 10 miles, from beach and to install terrestrial transmission line, camps, PDCM'S	Still being determined as of 1/11/21	Application submitted and under review as of 1/11/21
2	Alaska State Historic Preservation Office (AK SHPO)	Level 1 determination for 2020 work	Enter properties and access for historical significance for 2020 work season	OCCP, LLC	scouting for road and camp locations and cataloging archeological features	file reports and have reviewed	closed out
3	Alaska State Historic Preservation Office (AK SHPO)	Section 106 of the National Historic Preservation Act	Cultural resources Desktop assessment of entire Makushin Geothermal Project	OCCP, LLC	Identify affected areas from development and correlate with historical significant areas	MOA with the USACE taking lead, some areas found to be impacted	as of 1/11/21, MOA under development
4	USACE	Subsea cable cross, part of NW 12 permit	Required before construction. Jurisdictional determination report and permitting under Nation Wide 12 criteria	OCCP, LLC	Desk top study spring of 2021, the cable route survey Fall of 2021, the permit can be submitted	unknown	not started
5	NPS	part of Section 106 of NHPA	East substation on Amaknak island need findings of effect letter from Park service	OCCP, LLC	National park service likely has jurisdiction of the WW2 artifacts	Identif in relation to development and show mitigation	not started
Water							
6	ADEC	APDES - SWPPP	Alaska pollutant discharge elimination system Storm Water pollution prevention plan	OCCP, LLC	Can start early, but expect USACE Comments on requirements	develop plan and submit	not applied as of 1/21/21
7	ADEC	Camp drinking water	Clean water standards for inhabitants	OCCP, LLC	Underway	submit design and application	not applied as of 1/21/21
8	ADEC	camp septic system	water water system	OCCP, LLC	underway	submit design and application	not applied as of 1/21/21
9	ADEC / EPA	Reinjection of Geothermal waters	Injection of geothermal fluids is a permitted category	OCCP, LLC	Underway	Submit after information of resource determined	not started
Wildlife, Archaeology & Historic							
10	ADF&G	Alaska Department of Fish and Game, active stream crossing	access across biologically active stream requires permits	OCCP, LLC	Needed to cross Makushin River during 2020 survey season	crossing limited to certain vehicle types and time of year	closed out
11	ADF&G	Alaska Department of Fish and Game, active stream crossing	access across biologically active stream requires permits	OCCP, LLC	Need to cross and enter Makushin River for road, bridge construction	unknown	not applied as of 1/21/21



- We keep track of all regulatory agencies and permits.
- Eight different agencies involved.
- 17 different permits for current regulatory approach.

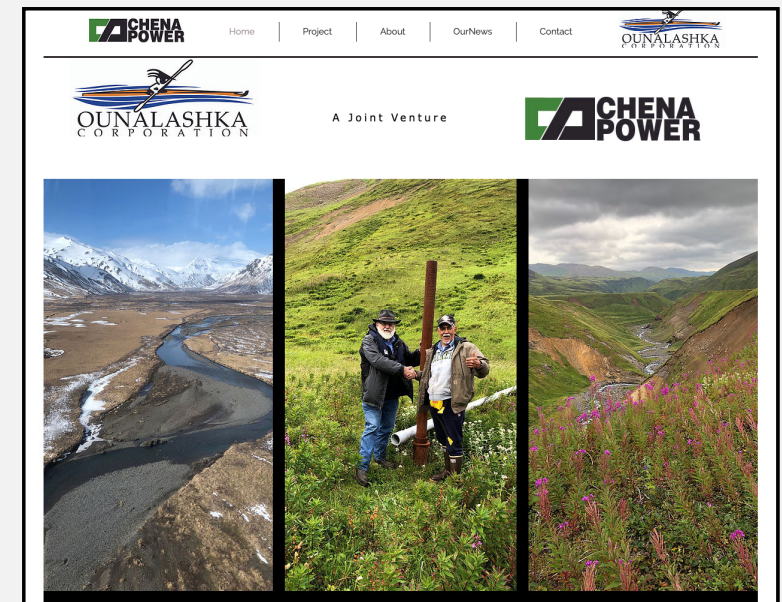




MGP WEB SITE ESTABLISHED



- Web site established for project communications, information and updates.
- Drives awareness and support for Project.
- Interest in project has grown substantially.
- Views and subscription requests increasing weekly.
- <https://www.alaskageothermal.info/>





OCCP HIRES POWER ENGINEERS



- OCCP is pleased to announce that effective September 8, 2020 Power Engineers, (POWER), of Hailey, ID (<https://www.powereng.com/our-services/power-generation/geothermal-2/>) has been hired for the Owners Engineer (OE) role on the Makushin Geothermal Project.
- POWER is a premier geothermal design firm with experience across technology types of geothermal power production.
- They are a leader in assessment, planning, development and design and have worked on more than 2,000 MW of new renewable energy generation projects worldwide.



POWER HEADQUARTERS

Washington Montana
Oregon Idaho Wyoming

3940 Glenbrook Drive
P.O. Box 1066
Hailey, ID 83333 USA
P: (208) 788-3456
F: 208-788-2082

OUR COMPANY

Since POWER Engineers began in 1976, we have grown into a 100% employee-owned, flexible and progressive consulting services and engineering firm. As innovators, we encourage new ideas and fresh approaches. As trusted advisors, we strive to be our clients' first choice. These traits, combined with deep technical skill, account for the mutual success of our clients, employees and shareholders.

OFFICE LOCATIONS

CONTACT US





AIR SOURCE HEAT PUMP (ASHP) CITY STUDY AND EVALUATION



Goals:

- **Reduce individual and business heating bills, and**
- **Reduce fossil fuel-based heating fuel use.**
 - OCCP has completed a cost benefit analysis for conversion of Unalaska homes and business to ASHPs. Program will provide equipment and installation at no cost to users up to \$10M.
 - OCCP hired **OptimERA** in Unalaska to perform data acquisition.
 - OptimERA has hired Warren Taylor, PE to assist in categorization, evaluation, and selection of equipment.



OptimERA
WiFi

Contact Information

Telephone: (907) 581-4983
Email: optimerawifi@gmail.com

Address:
P.O. Box 921134
Dutch Harbor, AK 99692





OCCP/CITY INITIATE UTILITY DISTRIBUTION SYSTEM UPGRADES STUDY



- Unalaska and OCCP initiated a contract with **Electric Power Systems (EPS)** of Anchorage Alaska, (<https://epsinc.com/>), to assist in determining strength and resiliency of City's existing power grid in light of a 30MW plant coming online.
- Study will identify and quantify infrastructure improvements to allow delivery of electrical power from MGP to all current and potential electrical utility customers.
- OCCP has committed up to \$7M to assist with the City distribution upgrades.





OCCP INITIATES GEOCHEMICAL STUDY WITH GEOLOGICA GEOTHERMAL GROUP



- OCCP initiated a contract with **Geologica Geothermal Group (GGG)** of San Francisco, CA, (<https://geologica.net>) to assist in geochemical analyses.
- Study will determine whether or not geochemical mitigation will be necessary to reduce scaling given the chemical composition of ST-I brines.
- GGG provides high-quality global geothermal resource exploration, development, and assessment services, with over 30 years of geothermal experience in an extensive list of geothermal projects and clients all over the World and the US.

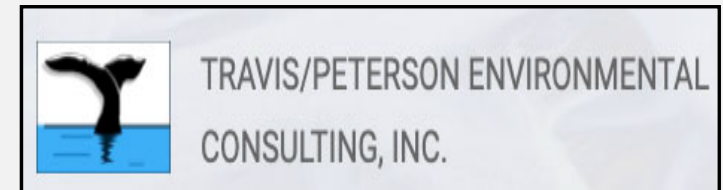




ROAD AND TRANSMISSION LINE ROUTING AND DESIGN



- OCCP has contracted with:
 - **3-Tier Alaska** (Fairbanks), <https://www.3tieralaska.com/>
 - **Travis Peterson Environmental Inc.**, (Anchorage) <http://www.tpeci.com/>, and
 - **Northern Land Use Research Alaska** (Fairbanks), <https://northernlanduse.com/>.
- They will assist in routing delineation, wetland, biological, and archeological resource identification, and design of access/maintenance road from Broad bay to powerhouse site.
- Work began in summer of 2020. **Permit applications were submitted to the USACE in October 2020** for a planned start of construction in April 2021.





IRT TEAM AUGUST VISIT ON LEFT
ANDY DIETRICK ON RIGHT
FLYING DRONE





GEOTECHNICAL ENGINEERING



- OCCP hired **Shannon & Wilson, Inc.** to perform geotechnical services and preliminary foundation engineering. Shannon & Wilson is a nationwide firm, with long history of working in Alaska, including Unalaska.
- Work scope will take place late summer 2021 in Makushin valley.

 SHANNON & WILSON

<https://www.shannonwilson.com/>

2355 Hill Road, Fairbanks, AK. 99709

GEOTECHNICAL ENGINEERING & ENVIRONMENTAL SCIENCE

*Technical Excellence
& Shared Success*

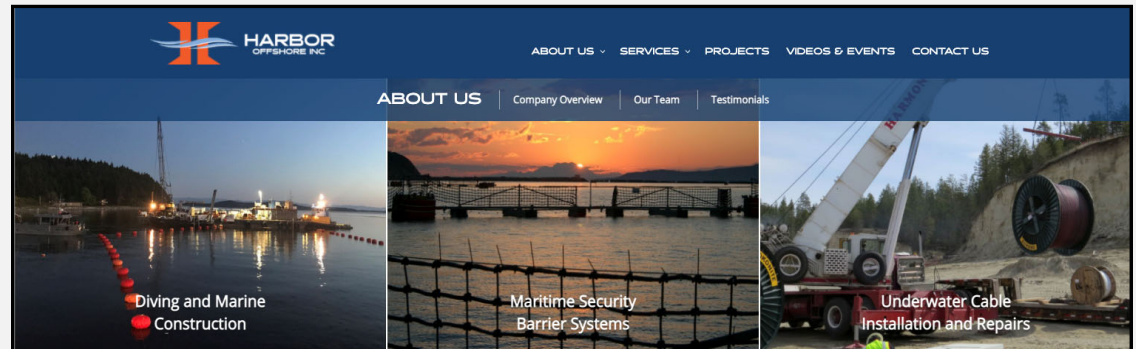




MARINE SURVEY AND INSTALLATION



- OCCP has hired **TerraSond Limited** for performing the Marine desk top study and survey.
- In separate contract **Harbor Offshore** is hired to perform the sub-sea cable installation.
- Both firms have long history of working in Alaska, including Unalaska.
- Work scope will take place summer 2021.

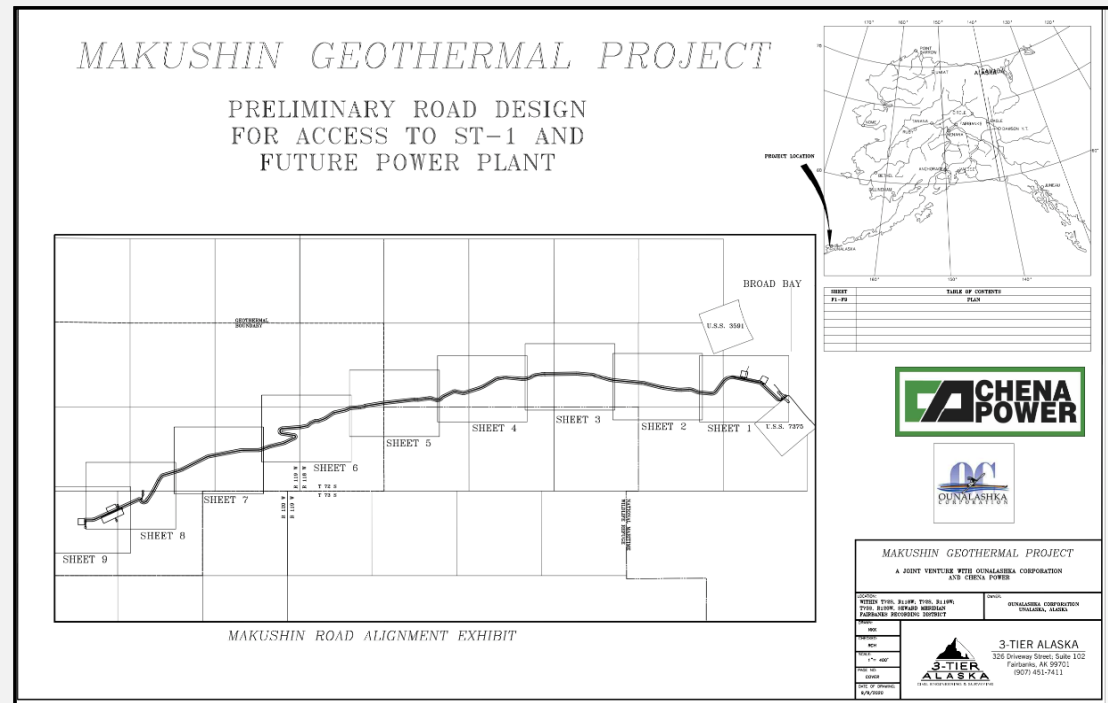




PRELIMINARY ROAD DESIGN COMPLETED IN NINE MAPS

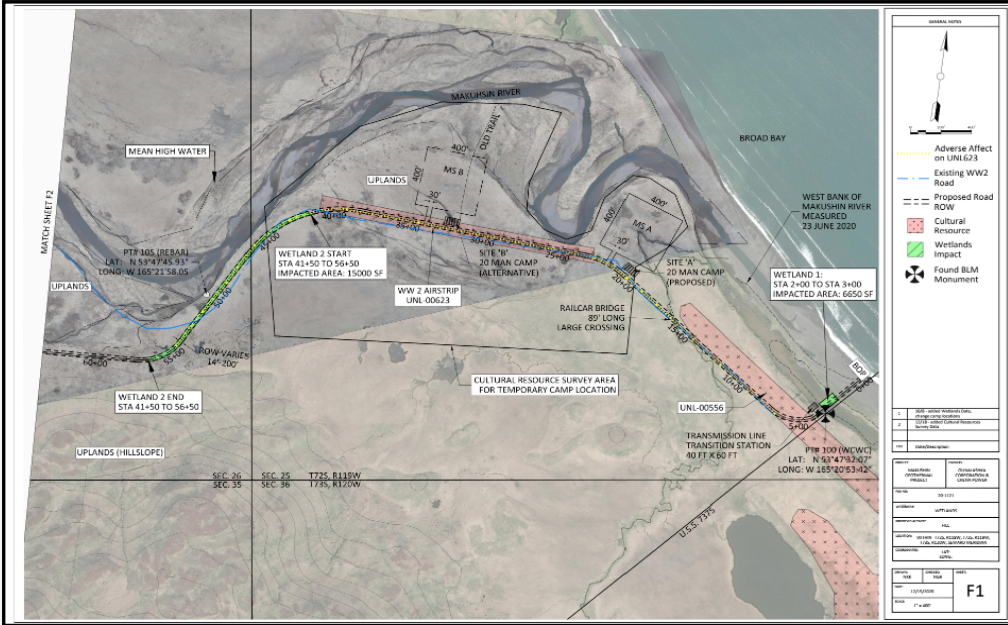


- Total road length is about 10 miles from east switch yard to power plant
- Minimum impact to wetlands by routing on hillside, eight wetland area crossings.
- ROW varies from 30' to 200'.
- Three bridges.
- Numerous culverts.

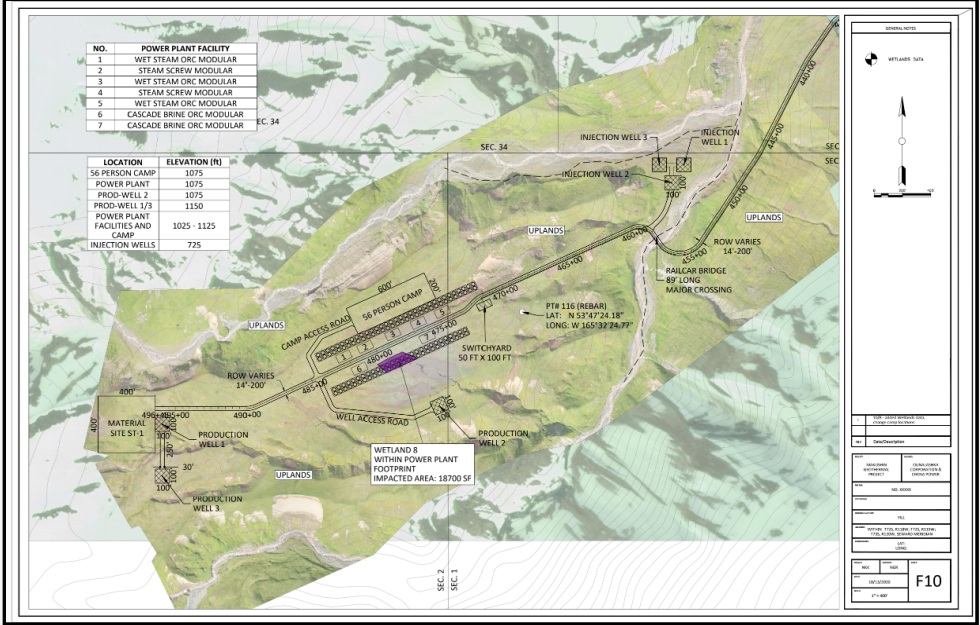




FIRST AND LAST ALIGNMENT MAPS FOR ROADS AND PADS



Broad Bay Area

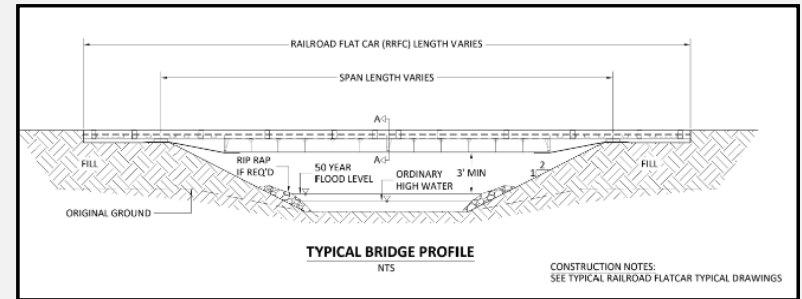
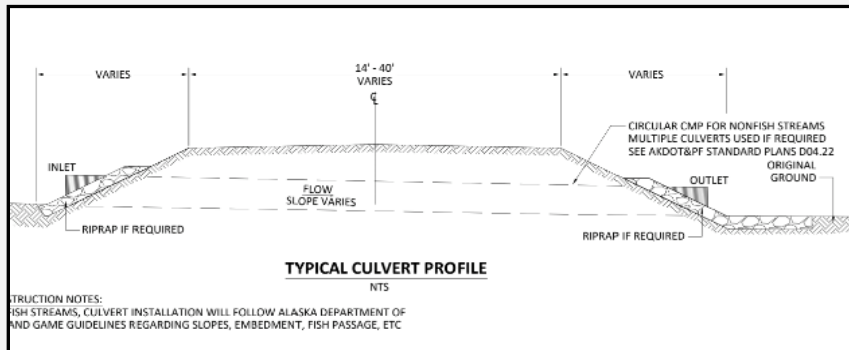
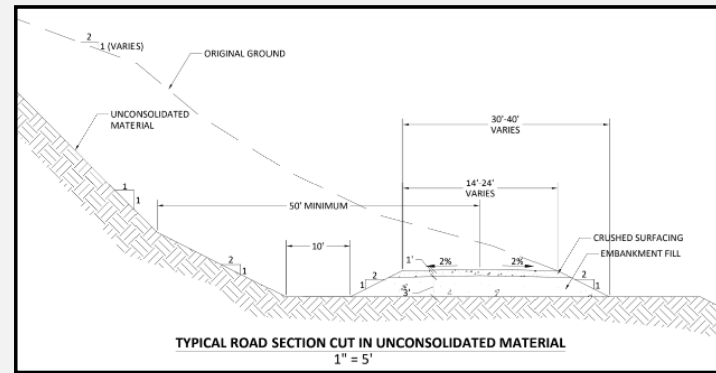
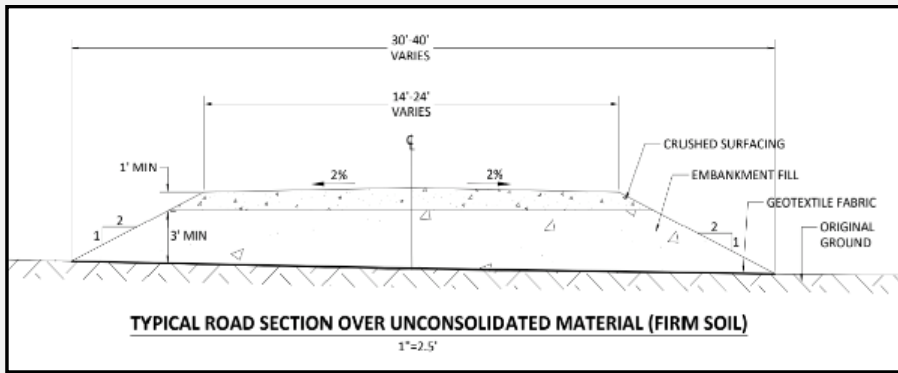


Power plant site and wells at Lower Fox Canyon Plateau





EIGHT TYPICAL ROAD SECTIONS DETAILED, ALONG WITH CULVERT AND BRIDGE DETAILS





10 EACH, 89-FOOT RR FLAT CARS
PURCHASED FOR BRIDGES





THE POWER PLANT AND RESOURCE GATHERING SYSTEM



- Request for proposal (RFP) were sent to prospective **Engineering, Procurement, Construction (EPC)** contractors December 21, 2020.
- Four of the most qualified geothermal EPC's in the geothermal technology space are preparing proposals for delivery to OCCP on February 5, 2021. They are:
 - **ORMAT Technologies**(Israel) \$5.2B market cap, projects in 25 countries
 - **Kaishan USA** – parent Zhejiang Kaishan Compressor Co Ltd. (China) \$12B market cap. Projects in approximately 10 countries
 - **Turboden** (Italy) Owned by Mitsubishi Heavy Industries (Japan). Projects in 45 countries and 396 plants operating.
 - **Atlas Copco** (Swedish). \$60B market cap. Power plants in multiple countries.
- Bids will be evaluated on a best value basis.





ALTERNATIVE EVALUATION EPC SELECTION CRITERIA



Technology will be selected on the best value basis and it must fit the Unalaska grid demands:

- Load following and turn-down,
- Capital costs,
- Life cycle cost,
- To name a few.



EVALUATION CRITERIA			
Scale of 1 - 10 on how individual bidder is evaluated in each category. One (1) is poor, ten (10) is excellent			
Eval Tab	CATEGORY	WEIGHT	
	Company Criteria	15%	
CC 1	EPC qualifications and experience	10%	Best =10, worst = 1
CC 2	Locations for Major work manufacturing	5%	Best and comprehensive =10, worst = 1
	Technical Criteria	35%	
TC 1	Preliminary engineering docs & conform to RFP	10%	Best =10, worst = 1
TC 2	OCCP schedule synchronization	15%	Best =10, worst = 1
TC 3	Technology reliability verification	10%	Best =10, worst = 1
	Cost Criteria	50%	
CST 1	Overall costs/kW - ranking	15%	Assign \$ value to bid differences - equalize bids, convert to \$/kW
CST 2	Field labor installation costs	15%	less field install cost = 10, most field install cost = 1
CST 3	Life cycle and Annual O&M costs	20%	Best =10, worst = 1

WORKSHEET			
	Weight factor	Ranking	Category Score
EPC qualification and experience	10%	0	0
Locations or Major work manufacturing	5%	0	0
Preliminary engineering docs & Conform to RFP	10%	0	0
OCCP schedule synchronization	15%	0	0
Technology reliability verification	10%	0	0
Overall costs/kW - ranking	15%	0	0
Field labor installation costs	15%	0	0
Life cycle and Annual O&M costs	20%	0	0
Overall Score			0

Use individual work sheets for each bidder and rank per each category with consistent methodology across the bidder field. Enter results into the "Ranking" column in the Worksheet



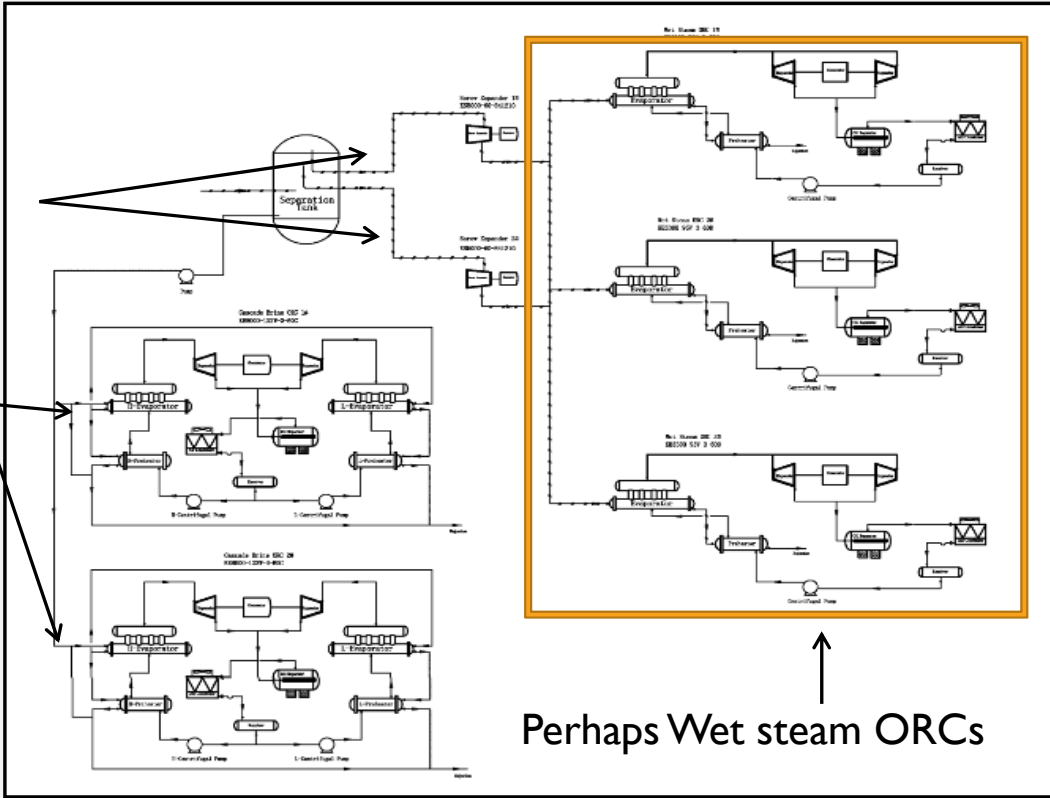


GENERATION TECHNOLOGY AT THE POWER PLANT



Perhaps Steam Expanders

Perhaps Cascade brine ORC's



- OCCP has arrived at a preferred power generation solution with a cascading hybrid plant. Technology providers will consider and provide their own solution.
- Total gross power 36 MWg.
- Total net power 30 MWe.

Perhaps Wet steam ORCs

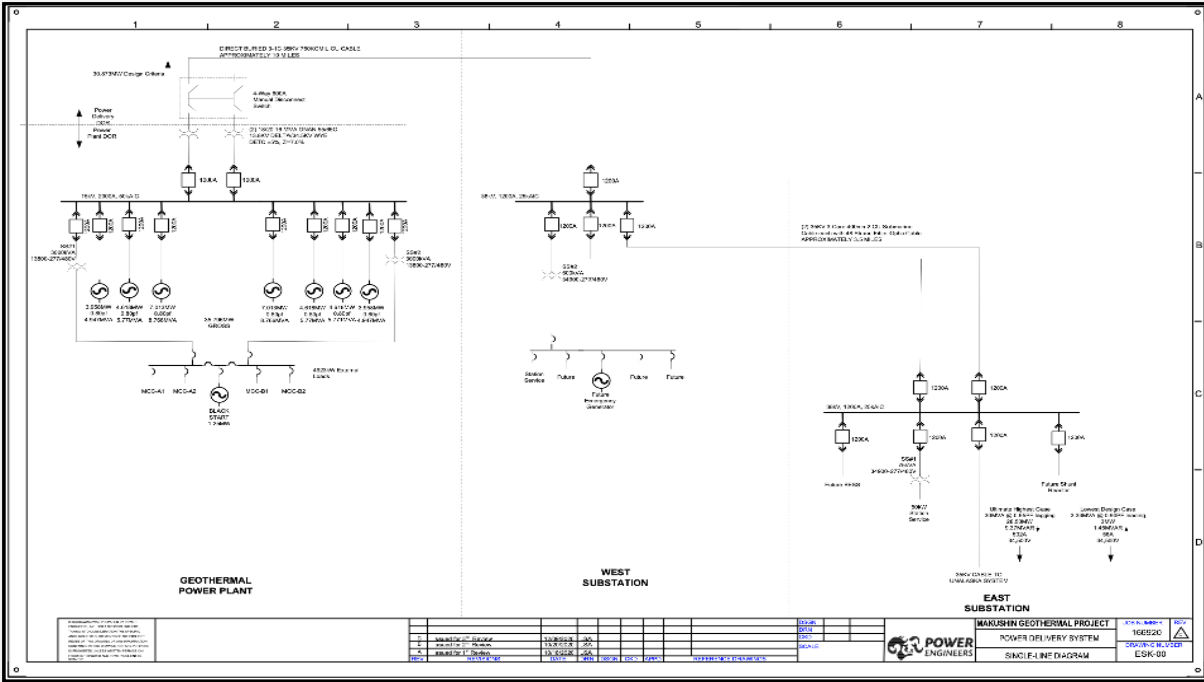




POWER DELIVERY SCHEME



- Up to seven power modules, delivering varying amounts of power all hooked together
- 36MVA Main Power Transformer
- Direct buried 3-IC 35KV 750 CMIL cable (two 18MVA)
- West substation with expansion switch
- 2 ea. 35KV 3-Core 400MM2 CU Submarine cable, with 48 strand fiber optic cable
- East substation, meter line to Unalaska System and switches for future BESS.





INTERCONNECTION / INTEGRATION PLAN



- OCCP, Power Engineers, Unalaska City Utilities, and EPS held their first planning meeting on October 21, 2020.
- Discuss initial design concept for power delivery.
- Discussed Unalaska voltage regulations requirements.
- Discussed Power tie-in location.
- Discussed metering specification.
- Discussed scope of work for City Distribution upgrades.
- Drafts of project design criteria have been exchanged and comments received.





OCCP APPLIES FOR RCA UTILITY STATUS



OCCP applied to the Regulatory Commission of Alaska for generation and transmission utility status certificate

Tracking Number	Date	Type	Description	Related Matters
<input type="checkbox"/> TR2100638 ▶ View File(s)	1/28/2021	Comments	Public Comment for U-20-083 by Brooks W. Chandler Filed By: Brooks W. Chandler More Details	U-20-083
<input type="checkbox"/> TR2100576	1/26/2021	Comments	Public Comment for U-20-083 by Andy Dietrick Filed By: Andy Dietrick More Details	U-20-083
<input type="checkbox"/> TR2100215 ▶ View File(s)	1/11/2021	Petition	Petition by OCCP for an Exemption from Regulation Filed By: Natalie Cale More Details	U-20-083
<input type="checkbox"/> 21-0010 ▶ View File(s)	1/11/2021	Initiating-Chair	U-20-083(1): ORDER ADDRESSING TIMELINE FOR DECISION, DESIGNATING COMMISSION PANEL, AND APPOINTING ADMINISTRATIVE LAW JUDGE More Details	U-20-083
<input type="checkbox"/> TR2100146 ▶ View File(s)	1/7/2021	Public Notice-Outgoing	Public Notice-Outgoing for Ounalashka Chena Power, LLC More Details	U-20-083
<input type="checkbox"/> TR2100021 ▶ View File(s)	1/4/2021	Petition	Petition by OCCP to Classify Financial Information Supporting its Application as Confidential and Cover Letter for Ounalashka Chena Power, LLC (Confidential routed to commission vault 011321) Filed By: Natalie Cale More Details	U-20-083
<input type="checkbox"/> TR2100020 ▶ View File(s)	1/4/2021	Petition	Petition for Expedited Consideration of Application for new Certificate of Public Convenience and Necessity and Affidavit of Natalie A. Cale in Support of Petition for Expedited Consideration of Application for new CPCN for Ounalashka Chena Power, LLC Filed By: Natalie Cale More Details	U-20-083
<input type="checkbox"/> TR2007262 ▶ View File(s)	12/31/2020	Application	Application for New Certificate of Public Convenience and Necessity (CPCN) for Ounalashka Chena Power, LLC Filed By: Natalie Cale More Details	U-20-083





PROJECT FINANCING UPDATE



- OCCP is considering selling equity in the project in the form of:
 - Equity for cash,
 - Debt equity financing, and
 - Tax equity.
- Several irons in the fire that we are vetting:
 - DOE Title XVII loan,
 - AEA/AIDEA bonds / Financing,
 - Private investment firms,
 - USDA RUS system loan program, and
 - Grants from CARES act and other grant potential.
- The goal is to have long-term financing method selected and secured by the end of the first quarter 2022.





CONTINUING STEPS



- Monitor environmental permit application status.
- Evaluate the EPC technology providers tender response for best value.
- Enter EPC contract negotiations with short list of technology EPC providers.
- Make ready construction equipment and multiple shipments of same to Unalaska to support access road installation in the 2021 season.
- Perform marine survey and geotechnical work in 2021.
- Work the long-term financing from all angles.



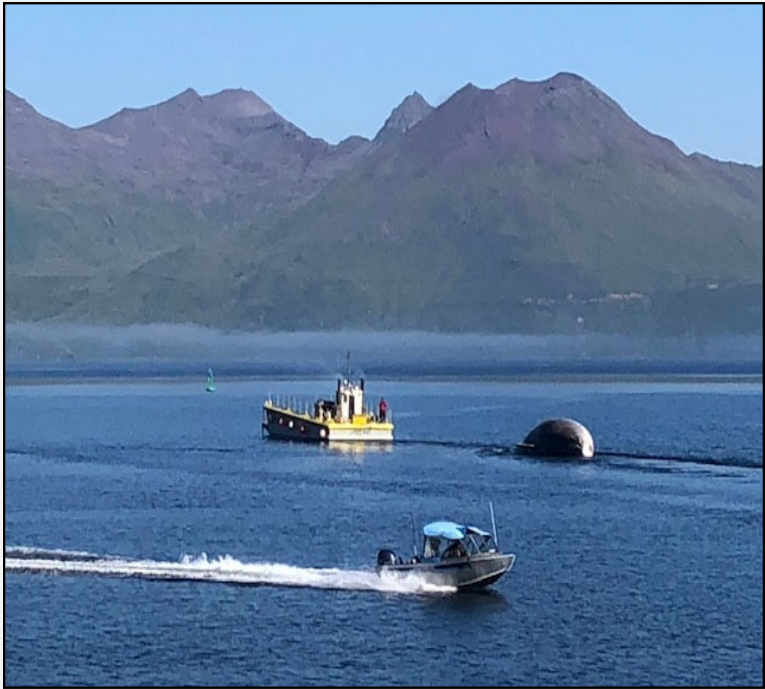


OUR PASSION: BRING CLEAN,
AFFORDABLE, AND STABLE
ENERGY TO UNALASKA



Connie Mae and Fin whale

Christmas boat parade



We are very happy to be part of your community and look forward to working with you in the future!





THE END



THANK YOU FOR YOUR TIME!

ANY QUESTIONS?

