

Brigham City Generation Plant



Brigham City Corporation
Public Power Department

Request for Qualifications

Responses are due prior to:
March 14 2025

Responses are to be emailed to:

Brigham City Recorder – Kristina Rasmussen
Subject: Proposal for Generation Plant
20 North Main
Brigham City, UT 84302
Phone: (435) 734-6600
Email address: krasmussen@bcutah.gov

**Notice
Brigham City Generation Plant
Request for Qualifications
(RFQ)**

PROJECT TITLE: Brigham City Generation Plant
PROJECT LOCATION: Brigham City, Utah

SUBMISSION DEADLINE: March 14, 2025
SUBMISSION TIME: 2:00 PM MDT
SUBMISSION PLACE: Brigham City Recorder – Kristina Rasmussen
20 North Main
Brigham City, UT 84302
Phone: (435) 734-6600
krasmussen@bcutah.gov

PROJECT DESCRIPTION: Brigham City invites interested and qualified firms to submit Proposal for services related to design, procure, and construct a Power Generation Plant.

PROJECT CONTACT: Tom Cooper
Public Power Director
(435) 734-6623 office
tcooper@bcutah.gov

RESPONDENTS: Carefully read all instructions of this request, requirements, and specifications. Provide all requested information properly and completely. Submit Proposal and Statement of Qualifications with appropriate details, information, and drawings.

Please submit responses/Proposals through email, mail or deliver to the Brigham City Administrator address above by the submission deadline. Proposals received after the submission deadline will not be considered.

The respondent may also contact Project Contact (listed above) for specific questions regarding the Proposal content. The bid title must be referenced on all Proposals and Statement of Qualifications and correspondence related to the RFQ. Significant questions that arise subsequent to the issue of this RFQ will be consolidated and answers will be provided to all respondents on record as receiving this RFQ. All questions should be received three (3) working days prior to the RFQ due date.



Respondents may call to verify that its Proposal and its Statement of Qualifications has received the hard copy prior to the RFQ closing. Following the deadline, the names of those responding to the RFQ will be made public. All other information will remain confidential, as required by law.

Unless specifically authorized by the City Administrator, telephonic Proposals or modifications of Proposals will not be considered. However, modifications by email for Proposals already submitted through the proper channels will be considered, if received prior to the time for the submission deadline.

Brigham City Generation Plant Request for Qualifications - (RFQ)

1. PROPOSED PROJECT

1.1. INTRODUCTION

Brigham City, Utah ("City"), is soliciting Proposals/Statement of Qualifications from qualified firms and Respondents to serve as the designer, engineer, and general contractor for the construction of a new 7.5 MW generating power plant with the ability to expand and interconnected into its electrical grid system. The location of the proposed power plant is approximately located at 100 E 900 S in Brigham City.

Brigham City is a nonprofit public power utility serving over 8,200 residential, commercial, and industrial customers and maintains and operates 110 miles of transmission and distribution power lines. The governing board for the public power utility is the elected mayor and city council. Brigham City owns and operates two small hydroelectric facilities and contracts with Utah Associated Municipal Power Systems (UAMPS) for additional power supply needs.

Brigham City continues to grow and needs to add additional generating sources to meet its growing demand for power and energy. After completing a feasibility study, Brigham City determined that constructing and operating a 7.5 MW reciprocating natural gas engines with generating units and air quality emission control systems is in its best interest in meeting the future demands for electricity.

1.2. PROJECT DESCRIPTION

The City is seeking Proposals for a qualified firm that can take this project from design through construction. The project will include the design of a 15 MW power plant and building with the plan to only install a nominal 7.5 MW of natural gas reciprocating engines and generating units at this time.

The planned project is to provide a phased approach by starting with 7.5 MW of generation and capacity to allow for expansion up to the full build output 15 MW as the city peaking need continues to grow. Brigham City will seek out the best available control technologies for efficiency and air emissions control. The generating equipment must comply with current air quality standards and allow for 100% operating time under state regulations.

Brigham City is seeking Proposals from qualified suppliers for reciprocating engines utilizing 100% natural gas as a fuel source. The generation equipment sizing will be dependent upon the successful bidder's equipment configuration. The City desires to have multiple shafts for operational flexibility and redundancy. The generating equipment should have fast start capabilities (up to full load within 8 minutes) and automatically synchronize into the grid. The plant must be able to be operated remotely with appropriate security cameras and detection systems. The plant and equipment must be able to operate in an emergency in a black start mode and able to serve specific loads during outages. The City will determine the final plant sizing upon awarding the contract. Preference will be given to suppliers using multiple shafts in the Proposal.



It is anticipated that the project will include the following general details, layout, location and specifications as described in Attachment A:

- Design, Engineer and Construction
- Procurement of the Equipment
- 2-3 Engine/Generators for combined nominal capacity of 7.5 MW with full infrastructure and conduits for spare engine locations and complete concrete pads in the initial construction. No overhead conduits will be permitted.
- Metal Building 190 ft by 65 ft to house the generation facility and equipment with proper maintenance space between engines, controls and electrical systems.
- The required laydown yard and construction area zone.
- Outdoor pads for ancillary equipment
- ADA Bathroom

1.3. EXISTING INFORMATION

The City staff have already invested time exploring and designing an option for completing the project. The City has recently acquired the lands necessary for the plant site. The selected site offers access to natural gas pipeline, water, and electrical systems. The Construction Summary Plan as shown in Attachment A provides:

- Project Layout/Conceptual Design
- Construction staging and material stockpiling areas.
- Access locations

The purpose of this RFQ is to analyze the planned construction sequencing and design with a qualified contractor. The City recognizes experienced contractors may provide additional value engineering and construction methodology input on this unique project.

1.4. ENVIRONMENTAL CONSIDERATIONS

The required environmental considerations and conditions for the project by the State of Utah is an air permit. The selected firm must hire an environmental consultant and coordinate with the City and assist the City in filing and obtaining the required air permit before any site construction. The City has elected to proceed with the best available emission control technology systems at the power plant which should include standard and proven selective catalyst reduction systems.

1.5. REQUIRED PERMITS

The following permits / certifications may be required:

- Division of Air Quality permit
- Brigham City building permit.

1.6. SCOPE OF SERVICES

The selected contractor will be responsible for developing the following documents and drawings:

- Electrical Engineering and Design for controls and both low and medium generating voltage
- Architectural Engineering and Design of the Building
- Structural, Geotechnical and Civil Engineering and Design of the Site and Building
- Mechanical Engineering and Design of Equipment and Piping

The City and selected contractor will be expected to communicate regularly including on-site meetings at the city's offices, to successfully complete a design that meets the city's goals and objectives. The City is seeking both design and engineering, and construction phase services from the selected contractor. The design and engineering services include participation in the design process with the City and serving as the subject matter expert to ensure the final design meets the project's goals. Along with this, the contractor will develop construction schedules and phasing plans, prepare detailed project construction cost estimates, and openly provide them to the City. The contractor will also investigate labor and materials required for construction, and in any other way deemed necessary, contribute to the development of the project.

1.7. PROJECT SCHEDULE

Critical Task	Deadline
RFQ available to interested parties	February 27, 2025
Proposals are due at the City	March 14, 2025 @ 2:00 pm
Execute Contract with UAMPS	April 16, 2025
Kickoff meeting for design & coordination	April 30, 2025
Submit air quality permit application	May 1, 2025
Place order for engine/generator sets	September 12, 2025
Testing and commissioning	April 1, 2027
Project Completion	April 30, 2027

*All dates are subject to change

1.8. CONTRACTOR ROLES AND RESPONSIBILITIES

The Contractor will prepare the design documents, as well as overall project objectives, key issues, and project risks and review these documents with the City. The design and engineering phase services include, but are not limited to, the following:

Collaborate with the City to develop project objectives that meet the overall goal, including value analysis/value engineering and construction cost saving ideas.

- Identify key project risks and assist in preparing mitigation plans for those risks.
- Develop and update a complete project schedule.
- Develop and openly provide detailed cost estimates at each design phase.
- Submits and seeks approval on behalf of the City all of the necessary building and environmental permits including the air quality permit from UDAQ.
- Identify and coordinate strategy for ordering of long lead time equipment or materials.
- Assist in the coordination of the final project construction documents.

The contractor will be responsible for construction means, methods, sequencing, and coordination of the project, including, self-performing the major parts of the work, or selecting and managing subcontractors to perform minor portions of the work, if necessary. The contractor will assume the risk of delivering the Project as contracted. The construction phase services will include, but are not limited to, the following:

- Completing all work within the agreed contract
- Procure the engine and generator units in a timely manner.
- Procuring all construction material, equipment, and labor contracts to vendors and subcontractors
- Managing and coordinating the construction team
- Obtaining required permits
- Reporting of progress schedules
- Scheduling and submittal processes
- Managing subcontractor(s)
- Performing quality assurance and quality control
- Complying with all environmental considerations and requirements
- Bonding and insuring the construction.
- Complying with all federal, state, and local permitting requirements
- Ensuring construction job site safety
- Providing project start-up services
- Providing as-built record drawing information
- Conducting project close-out
- Providing warranty period services

1.9. DESIGN & CONSTRUCTION CONTRACT

The selected contractor is to prepare final contract documents for the project and will be subject to the City's review and approval. The City intends to assign the Design and Construction Contract to Utah Associated Municipal Power Systems ("UAMPS") and UAMPS will enter into the contract with the selected contractor on behalf of the City. The terms and conditions of the construction contract shall be approved by the City and must be satisfactory to UAMPS.

The City may elect to hire and retain professional services to perform inspection services. The City has designated Tom Cooper. as the Project Manager. The Project Manager will have the authority to approve changes and render decisions upon authorization of the City. The Project Manager will be available during working hours and furnish information in a timely manner.

2.0 INSTRUCTIONS TO RESPONDENTS

2.1 OBTAINING THE REQUEST FOR QUALIFICATIONS

The RFQ documents are available for download at www.bcutah.gov. The documents may be downloaded for free. The City required each Respondent to go through the purchasing process as a way to help track downloads and interested parties.



2.2 ADMINISTRATIVE GUIDANCE

The information provided in this RFQ is designed to provide interested respondents with sufficient information to submit responses meeting minimum requirements, but it is not intended to limit response content or to exclude any relevant or essential data therefrom. Respondents are at liberty and are encouraged to expand upon the specifications to give additional evidence of their ability to provide the services requested in this RFQ.

2.3 SCOPE OF TERMS & CONDITIONS

Before submitting a response, the respondent shall understand all contract conditions referred to in this document, and any addenda issued before the RFQ submission date. It shall be the respondent's responsibility to ensure that the response includes all addenda issued prior to the RFQ submission date. By submitting a response, the respondent acknowledges and accepts the Terms and Conditions described herein.

2.4 RESPONSE PREPARATION COSTS

Brigham City is not liable for any cost incurred by the respondent associated with the preparation of the response or the negotiation of a contract for services prior to the issuing of the contract.

2.5 RESTRICTIONS

All Proposals and Statement of Qualification must clearly set forth any restrictions or provisions deemed necessary by the respondent to effectively service the proposed project.

2.6 RFQ RESPONSE

Any response submitted pursuant to this RFQ shall constitute an offer by the respondent to the City. The representations submitted pursuant to this RFQ shall be binding upon each respective respondent for (a) sixty (60) days from the submission deadline or (b) until the successful respondent and the City enter into an agreement pursuant to this RFQ, whichever occurs first.

A respondent may withdraw or modify its response, including the representations made on the Bid Form, prior to the submission deadline. Any such withdrawal or modification must be in writing and must be signed by the same authorized officer or agent who originally signed the Bid Form.

2.7 ADDENDUM TO THE RFQ

In the event that it becomes necessary to revise this RFQ in whole or in part, an addendum will be provided to all respondents and potential respondents of whom the City has recorded as having received this RFQ. A statement issued in an addendum shall have the effect of modifying this RFQ as outlined in said addendum.

Any other communication, whether verbal or written, received by any representative of the respondent from sources other than the official addendum should be confirmed by the respondent with the RFQ contact as being true and accurate prior to incorporating such information into its response. This refers to both formal and informal conversations and communications.

2.8 DISCLOSURE OF RESPONSE CONTENT

Under the Government Records Access and Management Act, Section 63-2-101 et seq., Utah Code Ann., as amended ("GRAMA") certain information in the submitted response may be open for public inspection. If the respondent desires to have information contained in its response protected from such disclosure, the respondent may request such treatment by providing a "written claim of business confidentiality and a concise statement of reasons supporting the claim of business confidentiality" with the response (GRAMA, Section 63G-2-309(1)). To do this, the Respondent must provide the City with a written claim of business confidentiality and a concise statement of reasons supporting this claim. This information must be submitted together with the Proposal to be considered.

Pricing elements of any response will not be considered protected. All material contained in and/or submitted with the response becomes the property of the City and may be returned only at the city's option.

2.9 MANDATORY PRE-PROPOSAL MEETING

Interested respondents desiring to submit Proposal must attend the Mandatory Pre-Proposal Site Visit that will be held on March 3, 2025, at 2:00 pm. Meet at the Brigham City City Hall (20 North Main Street), discuss, and then travel together to the project site.

2.10 COMMUNICATIONS

Communications and/or questions regarding the RFQ document and project shall be directed to:

Tom Cooper
Public Power Director
(435) 734-6623 office
tcooper@bcutah.gov

2.11 COSTS OF PREPARING PROPOSALS

All costs associated with preparing Proposals are the sole responsibility of the Respondent.

2.12 REQUIRED AVAILABILITY OF KEY PERSONNEL

When Respondent lists personnel in the section of the Proposal, they are considered key personnel. The Respondent agrees to make the personnel available to complete work on the Contract at whatever level the project requires. Personnel changes will be reviewed by the City to ensure the replacement is equally qualified and has adequate experience. The City will only allow changes in key personnel when caused by circumstances outside the control of the Respondent (e.g., employee leaves employment of the Respondent). Changes in key personnel for the convenience or benefit of the Respondent will not be allowed.

2.13 SUBMISSION OF PROPOSALS

Proposals will be received via email, mail or hand delivered to the Brigham City Administrator Kristina Rasmussen at krasmussen@bcutah.org or 20 North Main, Brigham City, UT 84302

Proposals will be accepted until 2:00p.m. local time, on March 10, 2025. Each Proposal should be prepared simply and provide a straightforward and concise description of the person's or entity's ability to perform the required services. Emphasis should be on completeness, clarity



of content, responsiveness to the requirements, and an understanding of the City's needs. Project experience and the proposed key personnel shall also be included.

The City reserves the right to request that the Respondent clarify any part of its Proposal. Responses to such requests must be made in writing and will become part of the Proposal. Unsolicited supplementary information and materials received after the Proposal deadline will not be considered in the evaluation. All Proposals, including electronic media, will become and remain property of the City.

2.14 NEGOTIATIONS

Following the evaluation of Proposals, UAMPS will enter negotiations with the highest-ranking and most qualified Respondent to finalize the scope of work, fee, and contract for the phase. If UAMPS is unsuccessful in negotiating a contract with the selected Respondent, UAMPS may then, at its sole discretion, negotiate with the second highest-level and second most qualified Respondent or may decide to terminate the selection process.

2.15 PAYMENT

The proposed term for payments for the design, engineering and construction work are to be submitted by the Respondent. The City reserves the right to negotiate the payment terms in the final agreement.

3.0 PROPOSAL REQUIREMENTS/STATEMENT OF QUALIFICATIONS

3.1 QUALIFICATIONS

Each respondent must submit a complete and concise Statement of Qualifications in response to this RFQ and must demonstrate the respondent's ability to meet the requirements of this RFQ. It is very important that the submittals be clear, and in the recommended format so they may be evaluated in an objective manner by the City. The Statements of Qualifications must include the following sections:

Section 1. Signed Cover Letter Stating Interest In Project: Cover letter should indicate respondent's willingness to enter into an agreement with the City. An officer of the company who has the authority to commit their firm to the proposed project must sign the Proposal. The following statement should be added to the title page:

I hereby acknowledge that I have received, read, and understood the foregoing Brigham City Generation Plant Request for Qualification. The Proposal that has been submitted herewith complies with the requirements of said RFQ and applicable provisions of the Brigham City Municipal Code. Upon acceptance of this RFQ, the undersigned agrees to complete all required work as described in this RFQ according to the terms and conditions described herein. I hereby warrant that the information presented in this Proposal is true, accurate and complete.

Name of Company:

Signature:

Title:

Address:



Phone Number:

Email:

Section 2. General Firm Qualifications and Capacity: Include firm location, where the work will be performed, and the firm's background and demonstrated ability to perform the required services for this project. The Proposal shall include a brief history of the firm, current contractor licenses in Utah, and current types of insurance coverages and amounts to cover the project, any past disputes, court actions and claims against the firm (last 3 years). The ability to provide and perform maintenance service upon completion of the project. The firm's ability to store and deliver and supply parts and materials for the project during its lifetime.

Section 3. Project Team: Indicate key professionals that will be specifically assigned to work on this project. Also identify project manager. Detailed resumes for key professionals and project manager should be included as an appendix to the Proposal. Describe team members' educational background, related experience, experience in providing similar services to governmental entities, and individual references within such entities.

Section 4. Project Data, Approach & Innovative Ideas: Describe the Respondent's approach to completing the design and construction phases of the project with the additional space to install additional capacity in the proposed building. Include innovative ideas or special approaches to managing and completing the project. Briefly describe the Respondent's management plan for the project, including generating engines and generator unit, engine controls, cost controls, quality control, safety management and dispute resolution. Provide the specification for the engines and generator data including operating data, performance specifications, fast start abilities and production information. Provide emission control equipment and specific reduced emission data with and without controls. Provide any information that would be beneficial in assessing and evaluating the equipment and the overall project. Provide a preliminary construction schedule for the project and a final completion date no later than March 2027. Show key project milestones. Discuss any anticipated potential project barriers and/or problems. Clearly state all required approvals by the City in the approach and required coordination for interconnection and testing of the facility. Provide a cost estimate and detail information on a 5-year operation and maintenance schedule assuming 2,000 operating hours per year for the plant.

Section 5. Not to Exceed Pricing and Fees: The Respondent shall provide a not-to-exceed price for the total project based on the description of the design, engineering, procurement, and construction services. The Proposal shall provide a breakdown of the major components of the total project costs (design, building, engines, major equipment, administrative, etc. costs) . Based on the experience of the firm and lessons learned in the business, the Proposal may contain pricing options for additional or reduced services and/or added features and equipment to enhance or to reduce the cost for the benefit of the City. The Proposal will include a schedule of progress payments to be paid by the City for the work performed by the contractor. The City is seeking to select the most qualified contractor not solely on cost but on the best design, features,



specifications, and operating criteria along with costs in the Proposal. The City reserves the right to negotiate the final contact price with the selected contractor.

Section 6. Past Work & References: Descriptions of at least three (3) recent related projects including the overall construction costs and references with contact information willing to talk with the City.

3.2 PROPOSAL INFORMATION

Each respondent is solely responsible for any information submitted or omitted from its Proposal. All materials contained in, or submitted with, a Proposal shall become the property of the City and may be returned only at the City's option.

The format and style of the Proposal is at the discretion of the respondent. Respondents are encouraged to provide any supplemental information and attachments relevant to the response.

Include any other supplemental information the Respondent believes is relevant and of value to the City, but which is not otherwise requested in this RFQ. The final Proposal should not exceed 30 pages with resumes limited to 1 page per person.

3.3 REPRESENTATIONS & WARRANTIES

By submitting a Proposal, each respondent represents and warrants that:

- 3.3.1. Its Proposal is made in good faith.
- 3.3.2. Its Proposal is not submitted in the interest of, or on behalf of, another person or entity.
- 3.3.3. It has not directly or indirectly induced or solicited any other respondent to submit a bid other than in good faith.
- 3.3.4. It has not directly or indirectly induced or solicited any other person or entity to abstain from submitting a Proposal.
- 3.3.5. It has not been sought by collusion to obtain for itself any advantage over other respondents or the City.
- 3.3.6. It shall not violate, or cause any other person or entity to violate, any Federal, State, or municipal law, including (but not limited to) the Utah Municipal Officers and Employees Ethics Act.

4 EVALUATION OF PROPOSALS

4.1 THE APPRAISAL PROCESS

All Proposals submitted in response to this RFQ will be evaluated in a manner consistent with the standards set forth in this RFQ.

As an initial step in the evaluation process, the City shall review all Proposals received by the submission deadline.

Next step, any timely, yet non-responsive Proposals (i.e., those Proposals not conforming to the requirements set forth in this RFQ) will be eliminated. All remaining timely and responsive Proposals shall then be cursorily reviewed by the City to eliminate from further considerations those bids which in the sole discretion and judgment of the City fail to offer sufficient or



substantive provisions which are required to warrant further consideration. The City reserves the right to disqualify any Proposal that significantly deviates from the terms, conditions, and specifications contemplated by this RFQ.

Any remaining bids will then be reviewed and evaluated in detail. If the City discovers at any point in the evaluation process that a Proposal is lacking required or requested information, the City may remove said Proposal from further consideration.

At the conclusion of this initial evaluation phase, Proposals will be evaluated based on the evaluation criteria outlined in Section 4.2. Based on these criteria, the City will select one (1) and up to three (3) finalists. Respondents that are not selected as finalists will be notified at this time. The City will proceed in the order of the finalists to interview, resolve any matters in the Proposal and seek to finalize a contract with an agreed price. Based solely on the discretion of the City, the City may proceed to enter into a contract with the selected contractor. After completion of the contract, the City will give notice to any other finalists not selected for the work.

4.2 EVALUATION CRITERIA

In determining which respondent is the most favorable responsible respondent and best proposal, the City shall evaluate the Proposals received in accordance with the following criteria:

- 4.2.1. The respondent's relevant qualifications and project experience. Preferential recognition for projects located in Utah and the western region.
- 4.2.2. The respondent's professional reputation (with the City and other entities or individuals), including character, integrity, reputation, judgment, experience, and efficiency.
- 4.2.3. The quality and efficiency of equipment, goods and services proposed, as well as the quality of previous goods or services provided by the respondent.
- 4.2.4. The respondent's ability, capacity, and skill of the proposed team to provide the Scope of Work. The respondents use Utah based subcontractors for the work.
- 4.2.5. The efficiency and betterment of a respondent's approach to the work, and the effect thereof on the respondent's ability to perform the Scope of Work.
- 4.2.6. Any litigation, prosecution, or other claims by or against a respondent.
- 4.2.7. Availability to perform the Scope of Work, as well as the proposed schedule of completion contained in the Proposal.
- 4.2.8. The ability of a respondent to provide future maintenance work, parts inventory, response time, local and available skilled labor, and service with respect to the Scope of Work.
- 4.2.9. Which Proposal will provide the best economic advantage including the not-to-exceed price to the City.
- 4.2.10. Preference to U.S. made products and equipment.

4.3 AWARD OF CONTRACT

Upon completion of the evaluation process contemplated by the City and this RFQ, the City may, but is not required to, negotiate with and award a contract for the Scope of Work to the lowest responsible respondent whose Proposal is determined in the sole discretion of the City to be in the best interests of the City.



4.4 RIGHT TO REJECT

The City reserves the right to reject any and all Proposals and to waive any formality in the Proposals received, to accept or reject any or all of the items in the Proposal, and award the contract subject to this RFQ, in whole or in part, if it is deemed in the City's best interest. The City reserves the right to negotiate any and all elements of the Proposals if there are any such action deemed to be in the best interest of the City.

The City may reject any Proposal not in compliance with all prescribed public proposal and bidding procedures and requirements, and may, for a good cause, reject all statements of Qualification and Proposals upon finding by the City it is in the public interest to do so. The City reserves the right to accept or reject any or all Proposal documents or portions thereof and to waive any informality or irregularity in any Proposal, at the sole discretion of the City, which is determined to serve the best interest of the City. The City shall be the sole judge of the merits of the respective Proposals received.

Attachment A

Concept Plant Design, Specifications and Information

Additional Specification, Standards and Requirements for the Generating Plant

The Respondent shall note any exceptions, added or reduced features, design benefits or changes, and any other costs saving or any other ideas or options that may be beneficial to the sole judgement of the City in submitting the Proposal to RFQ.

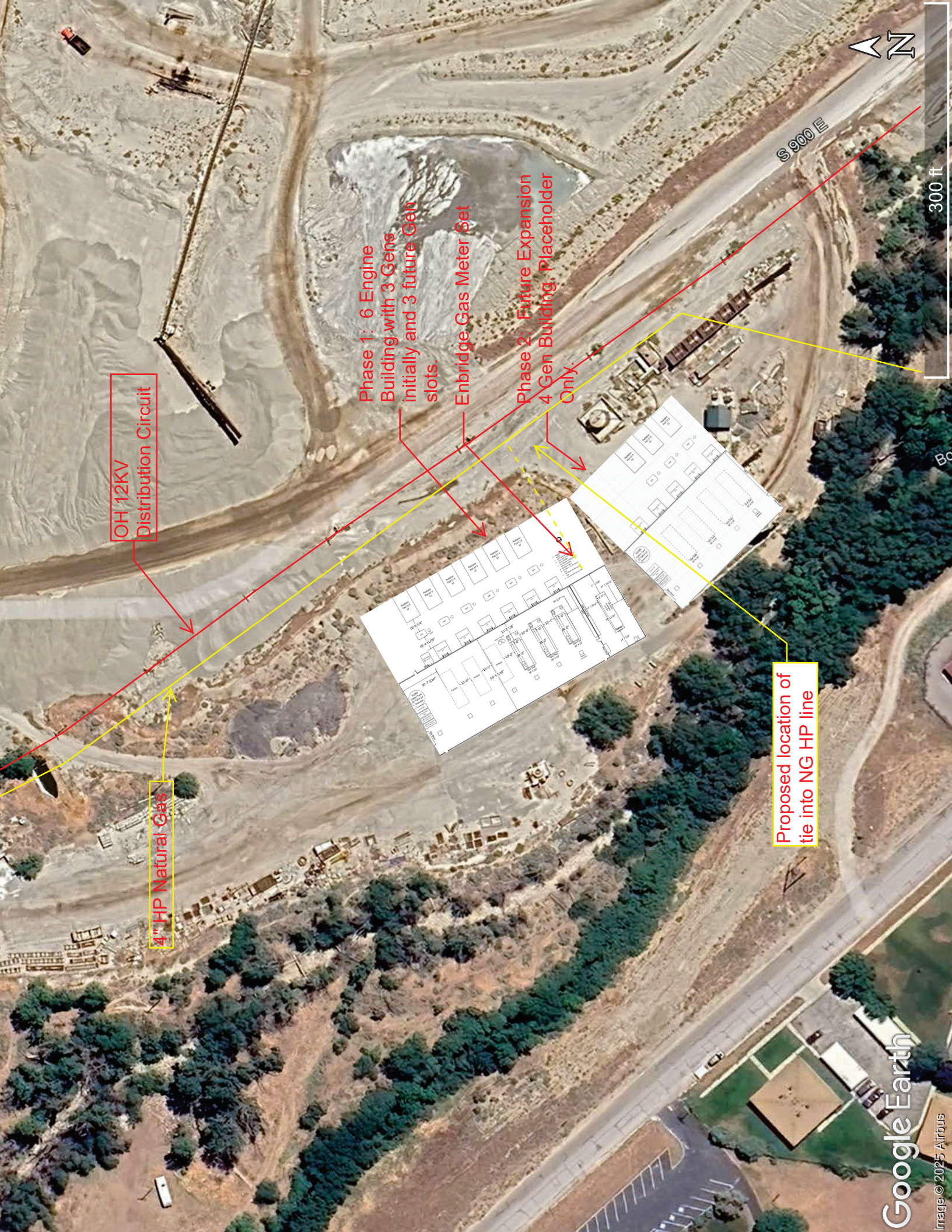
- Building Design and Specifications:
 - Metal Building Design and insulated per site requirements and built to seismic requirements.
 - The building dimension will be 190 feet long x 65 feet wide. Please note any exception.
 - Plan for the installation and housing of 7.5 MW of generating equipment with sufficient space to increase the Plant with an additional 7.5 MW.
 - Provide an outdoor concrete pad at least 30 feet wide and same length as building for radiators and any ancillary equipment outside.
 - Plan on and describe using NG for heating the building and the details for cooling the building.
 - Provide details for any safety requirements, detection systems and security systems being offered.
 - Provide separate switchgear room with sufficient work and safety space
 - Provide single ADA bathroom with toilet, with urinal and sink and with easy to clean surfaces.
 - Plan for all electrical, water, wastewater and NG pipes be stubbed ten (10) feet outside from the building.
 - Provide a general description of lighting, access doors and garage doors.
 - The City prefers all wiring to be in conduits and underground and not visible where possible. Cable trays will be allowed. Respondent should note locations of any visible cable trays or conduits.
 - All electrical wiring and conduits are designed underground. Conduits for spare engines and equipment will be located for correct stub up through slab location at genset and all other electrical and mechanical equipment. Plant and balance of plant equipment conduit along walls or overhead will not be permitted. Lighting and other necessary electric equipment by nature is installed overhead. It is allowable for this conduit to be installed overhead, with functionality and aesthetics in mind.
- Engine/Generator Design Conditions for Equipment:
 - 4,510 Ft. asl
 - 107F Outside Temperature
 - 40% relative humidity



- Engine and Generator Technology:
 - Reciprocating Internal Combustion Engine
 - Preference to US product and assembled. Please note in Proposal.
 - Pipeline Quality Natural Gas with no more than 50 psi natural gas pressure.
 - Rated for continuous duty operation
 - Respondent should state the environmental consultant in seeking the air permit and expected timeline.
 - Generator Specifications
 - 12,470 Volt AC
 - Temperature Rise (over 40 °C ambient) 105 °C, or better
 - Identify any proposed monitoring or shutdown systems
 - Rated for continuous duty operation
 - Generator Control Cabinet
 - Minimum Electrical Efficiency of 44% at site (ISO 3046/1)
 - Minimum BTU/ekW-hr 7512 LHV site (ISO 3046/1)
 - The controls are to be mounted in an enclosure cabinet next to generator. This cabinet will sit at finished floor level and all conduit will be bottom fed into the cabinet. This cabinet will house starting batteries, battery charger, battery disconnect, switchgear and balance of system interconnects/input/outputs, engine proprietary software program connector, accessory 120V 20 AMP outlet, ventilation for battery compartment. This cabinet will also house an AC distribution panel for all package AC accessories, i.e. jacket water heater, crank case ventilation, winding heater, oil heaters, pre-lube pump and any other AC package genset ancillary components. All these circuits will be bottom fed underground into cabinet.
 - The generator control panel will be mounted on the generator control box and will receive a start signal from the switchgear. All controls for paralleling the gensets will be located in the switchgear. All data at the generator control panel will be available at the HMI on the switchgear master section.
 - A remote E-Stop and generator annunciator will also be mounted on each of these generator control cabinets.
 - A horn will be mounted on the generator control box that will sound 30 seconds before engine starts when called upon, when in auto.
 - All wiring and circuits coming into this generator control cabinet will be bottom entry.
 - All conduits run and wiring paths for future expansion of the Plant should be included in the design.
- Switchgear and Control Specification and Design:
 - Switchgear controls will use Programmable Logic Controls (PLC). Schneider Electric equipment is preferred. Please note in the Proposal of any exception. Woodward and

other modular type controls will not be permitted on engine or switchgear. All switchgear paralleling control systems will be PLC based.

- Capable of paralleling all generator sets with utility as primary mode of operation while also maintaining load sharing capability in an islanding scenario.
 - The Respondent will demonstrate islanding capability of system to load bank.
 - Provide logic and interface for Investor-owned utility (IOU) to communicate and control the system and dispatch the plant outside of the owner's control. The Respondent must understand IOU reserves requirements and be able to implement these points into their control system.
 - Provide separate entrance door to the Plant's electrical control room.
 - Plant will be operated remotely. This will be the primary method of control. Remote control will provide identical granularity to system monitoring and parameters as HMI in the switchgear.
 - Switchgear lineup will be located on at finished floor level and all conduit, wire, cable will be bottom feed. Space and all required conduits will be provided and in place for all future switchgear generator breaker sections.
 - For safety, 10 feet will be required in front of the switchgear. This will allow for the racking and withdrawing of breakers safely and the ability for personnel to safely ground the system for periodic maintenance and phase the system.
- Other Equipment or Materials at the Plant:
 - The Respondent should note and provide details in the Proposal for the following equipment:
 - UPS system
 - IT Racking
 - Air compressor sizing for any equipment requirements and maintenance (plan on spare or note if plans to add air compressor).
 - Size of storage tank for emission control liquids (plan for the spare).
 - Size of storage tank for fresh oil (plan for spare).
 - Size of storage tank for used oil (plan for spare).
- Respondents to Specify Engine and Generator Performance Guarantees:
 - ekW
 - Fuel Consumption
 - Emissions Technology and Reductions
 - 12-month warranty for all equipment from COD



OH 12KV
Distribution Circuit

4" HP Natural Gas

Phase 1: 6 Engine
Building with 3 Gens
Initially and 3 future Gen
slots.

Enbridge Gas Meter Set

Phase 2: Future Expansion
4 Gen Building, Placeholder
Only.

Proposed location of
tie into NG HP line

S 900 E

300 ft