AGREEMENT BETWEEN THE COUNTY OF SAN MATEO AND PETERSON POWER SYSTEMS, INC.

THIS AGREEMENT, entered into this _____ day of _____,

20_____, by and between the COUNTY OF SAN MATEO, hereinafter called

"County," and Peterson Power Systems, Inc., hereinafter called "Contractor";

$\underline{W} I \underline{T} \underline{N} \underline{E} \underline{S} \underline{S} \underline{E} \underline{T} \underline{H}$:

WHEREAS, pursuant to Government Code Section 31000, County may contract with independent contractors for the furnishing of such services to or for County or any Department thereof;

WHEREAS, it is necessary and desirable that Contractor be retained for the purpose of operating and maintaining the planned cogeneration system at the San Mateo Medical Center.

NOW, THEREFORE, IT IS HEREBY AGREED BY THE PARTIES HERETO AS FOLLOWS:

1. Exhibits and Attachments

The following exhibits and attachments are attached to this Agreement and incorporated into this Agreement by this reference:

Exhibit A—Services Exhibit B—Payments and Rates

2. Services to be performed by Contractor

In consideration of the payments set forth herein and in Exhibit B, Contractor shall perform services for County in accordance with the terms, conditions, and specifications set forth herein and in Exhibit A.

3. Payments

In consideration of the services provided by Contractor in accordance with all terms, conditions, and specifications set forth herein and in Exhibit A, County shall make payment to Contractor based on the rates and in the manner specified in Exhibit B. County reserves the right to withhold payment if County reasonably determines that

the quantity or quality of the work performed fails to comply with the terms, conditions and specifications set forth on Exhibit A; provided, however, that Contractor will have reasonable opportunity to remedy any such failures. Unless additional services or a change in the scope of services to be provided hereunder is requested by County and agreed to by Contractor, County's total fiscal obligation under this Agreement shall not exceed two million, six hundred thousand dollars (\$2,600,000).

4. <u>Term and Termination</u>

Subject to compliance with all terms and conditions, the term of this Agreement shall be from the date the cogeneration system is accepted by the County from the Design/Build Contractor, estimated to be as early as November 1, 2014, and run for a term of 10 years.

This Agreement may be terminated by Contractor, the Director of Public Works, or his/her designee at any time without a requirement of good cause upon sixty (60) days' written notice to the other party.

Contractor shall have no cancellation option except for failure of County to pay Contractor or failure of the county to perform their responsibility as outlined under "County Responsibilities" in Exhibit A.

In the event of termination, all finished or unfinished documents, data, studies, maps, photographs, reports, and materials (hereafter referred to as materials) prepared by Contractor under this Agreement shall become the property of County and shall be promptly delivered to County. Upon termination, Contractor may make and retain a copy of such materials. Contractor shall be entitled to receive payment for work/services provided on and prior to the effective date of termination of the Agreement. Such payment shall be that portion of the full payment which is determined by comparing the work/services completed to the work/services required by the Agreement. In the event of termination with or without cause, payments shall be made to the other party, or credited if payment would otherwise be due, depending on when the agreement is terminated in accordance with Table 1, Exhibit B.

5. Availability of Funds

County may terminate this Agreement or a portion of the services referenced in the Attachments and Exhibits based upon unavailability of Federal, State, or County funds by providing written notice to Contractor as soon as is reasonably possible after County learns of said unavailability of outside funding; provided, however, that County remains obligated hereunder to make payment to Contractor for run hours up to the time of notice.

6. Relationship of Parties

Contractor agrees and understands that the work/services performed under this Agreement are performed as an independent Contractor and not as an employee of County and that neither Contractor nor its employees acquire any of the rights, privileges, powers, or advantages of County employees.

7. Hold Harmless; Waiver.

General Hold Harmless. Contractor shall indemnify and save harmless 7.1 County and its officers, agents, employees, and servants from all claims, suits, or actions of every name, kind, and description against the County for (A) injuries to or death of any person, including Contractor or its employees/officers/agents (collectively, "Agents") directly caused by or resulting from the negligence or willful misconduct of Contractor or its Agents in the performance of the work or services required of Contractor under this Agreement (the "Services"); (B) damage to any property of any kind whatsoever and to whomsoever belonging directly resulting from the negligence or willful misconduct of Contractor or its Agents in the performance of the Services; or (C) any sanctions, penalties, or claims of damages resulting from Contractor's failure to comply, if applicable, with the requirements set forth in the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and all Federal regulations promulgated thereunder, as amended. However, Contractor's duty to indemnify and save harmless under this Section shall not apply to injuries to or death of any person or damage to any property of any kind whatsoever and to whomsoever belonging caused by, resulting from or related to the negligence or willful misconduct of the County, its Agents or any third party.

The duty of Contractor to indemnify and save harmless as set forth by this Section shall include the duty to defend as set forth in Section 2778 of the California Civil Code.

7.2 [Intentionally Omitted]

7.3 NOTWITHSTANDING ANYTHING CONTAINED IN THIS AGREEMENT TO THE CONTRARY INCLUDING, BUT NOT LIMITED TO, SECTION 7.1 ABOVE, CONTRACTOR WILL NOT BE LIABLE FOR ANY LOST PROFITS, LOST REVENUE, LOST BUSINESS, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES, HOWEVER ARISING AND WHETHER OR NOT CONTRACTOR WAS ADVISED OR AWARE OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE OR IF SUCH LOSS OR DAMAGE COULD HAVE BEEN REASONABLY FORESEEN.

8. Assignability and Subcontracting

Contractor shall not assign this Agreement or any portion thereof to a third party or subcontract with a third party to provide services required by Contractor under this Agreement without the prior written consent of County. Any such assignment or subcontract without County's prior written consent shall give County the right to automatically and immediately terminate this Agreement.

9. Insurance

Contractor shall not commence work or be required to commence work under this Agreement unless and until all insurance required under this Section has been obtained and such insurance has been approved by County's Risk Management, and Contractor shall use diligence to obtain such insurance and to obtain such approval. Contractor shall furnish County with certificates of insurance evidencing the required coverage, and there shall be a specific contractual liability endorsement extending Contractor's coverage to include the contractual liability assumed by Contractor pursuant to this Agreement. These certificates shall specify or be endorsed to provide that thirty (30) days' notice must be given, in writing, to County of any pending change in the limits of liability or of any cancellation or modification of the policy.

- (1) <u>Workers' Compensation and Employer's Liability Insurance.</u> Contractor shall have in effect during the entire term of this Agreement workers' compensation and employer's liability insurance providing full statutory coverage. In signing this Agreement, Contractor certifies, as required by Section 1861 of the California Labor Code, (a) that it is aware of the provisions of Section 3700 of the California Labor Code, which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Labor Code, and (b) that it will comply with such provisions before commencing the performance of work under this Agreement.
- (2) <u>Liability Insurance.</u> Contractor shall take out and maintain during the term of this Agreement such bodily injury liability and property damage liability insurance as shall protect Contractor and all of its employees/officers/agents while performing work covered by this Agreement from any and all claims for damages for bodily injury, including accidental death, as well as any and all claims for property damage which may arise from Contractor's operations under this Agreement, whether such operations be by Contractor, any subcontractor, anyone directly or indirectly employed by either of them, or by an agent of either of them. Such insurance shall be combined single limit bodily injury and property damage for each occurrence and shall not be less than the amount specified below.

Such insurance shall include:

(a)	Comprehensive General Liability	\$1,000,000
(b)	Motor Vehicle Liability Insurance	\$1,000,000

County and its officers, agents, employees, and servants shall be named as additional insured on any such policies of insurance, which shall also contain a provision that (a) the insurance afforded thereby to County and its officers, agents, employees, and servants shall be primary insurance to the full limits of liability of the policy and (b) if the County or its officers, agents, employees, and servants have other insurance against the loss covered by such a policy, such other insurance shall be excess insurance only.

In the event of the breach of any provision of this Section, or in the event any notice is received which indicates any required insurance coverage will be diminished or canceled, County, at its option, may, notwithstanding any other provision of this Agreement to the contrary, immediately declare a material breach of this Agreement and suspend all further work and payment pursuant to this Agreement.

10. Compliance With Laws

All services to be performed by Contractor pursuant to this Agreement shall be performed in accordance with all applicable Federal, State, County, and municipal laws, ordinances, and regulations, including but not limited to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the Federal Regulations promulgated thereunder, as amended (if applicable), the Business Associate requirements set forth in Attachment H (if attached), the Americans with Disabilities Act of 1990, as amended, and Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap in programs and activities receiving any Federal or County financial assistance. Such services shall also be performed in accordance with all applicable ordinances and regulations, including but not limited to appropriate licensure, certification regulations, provisions pertaining to confidentiality of records, and applicable quality assurance regulations. In the event of a conflict between the terms of this Agreement and any applicable State, Federal, County, or municipal law or regulation, the requirements set forth in this Agreement.

Further, Contractor certifies that Contractor and all of its subcontractors will adhere to all applicable provisions of Chapter 4.106 of the San Mateo County Ordinance Code, which regulates the use of disposable food service ware.

Contractor will timely and accurately complete, sign, and submit all necessary documentation of compliance.

. .

11. Non-Discrimination and Other Requirements

- A. General non-discrimination. No person shall be denied any services provided pursuant to this Agreement (except as limited by the scope of services) on the grounds of race, color, national origin, ancestry, age, disability (physical or mental), sex, sexual orientation, gender identity, marital or domestic partner status, religion, political beliefs or affiliation, familial or parental status (including pregnancy), medical condition (cancer-related), military service, or genetic information.
- B. Equal employment opportunity. Contractor shall ensure equal employment opportunity based on objective standards of recruitment, classification, selection, promotion, compensation, performance evaluation, and management relations for all employees under this Agreement. Contractor's equal employment policies shall be made available to County upon request.
- C. Section 504 of the Rehabilitation Act of 1973. Contractor shall comply with Section 504 of the Rehabilitation Act of 1973, as amended, which provides that no otherwise qualified handicapped individual shall, solely by reason of a disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination in the performance of this Agreement. This Section applies only to contractors who are providing services to members of the public under this Agreement.
- D. Compliance with County's Equal Benefits Ordinance. With respect to the provision of benefits to its employees, Contractor shall comply with Chapter 2.84 of the County Ordinance Code, which prohibits contractors from discriminating in the provision of employee benefits between an employee with a domestic partner and an employee with a spouse. In order to meet the requirements of Chapter 2.84, Contractor must certify which of the following statements is/are accurate:
 - Contractor complies with Chapter 2.84 by:
 - offering the same benefits to its employees with spouses and its employees with domestic partners.
 - offering, in the case where the same benefits are not offered to its employees with spouses and its employees with domestic partners, a cash payment to an employee with a domestic partner that is equal to Contractor's cost of providing the benefit to an employee with a spouse.
 - Contractor is exempt from having to comply with Chapter 2.84 because it has no employees or does not provide benefits to employees' spouses.

- -

Contractor does not comply with Chapter 2.84, and a waiver must be sought.

- E. Discrimination Against Individuals with Disabilities. The Contractor shall comply fully with the nondiscrimination requirements of 41 C.F.R. 60-741.5(a), which is incorporated herein as if fully set forth.
- F. *History of Discrimination*. Contractor must check one of the two following options, and by executing this Agreement, Contractor certifies that the option selected is accurate:
 - No finding of discrimination has been issued in the past 365 days against Contractor by the Equal Employment Opportunity Commission, Fair Employment and Housing Commission, or any other investigative entity.
 - Finding(s) of discrimination have been issued against Contractor within the past 365 days by the Equal Employment Opportunity Commission, Fair Employment and Housing Commission, or other investigative entity. If this box is checked, Contractor shall provide County with a written explanation of the outcome(s) or remedy for the discrimination.
- G. *Violation of Non-discrimination provisions*. Violation of the non-discrimination provisions of this Agreement shall be considered a breach of this Agreement and subject the Contractor to penalties, to be determined by the County Manager, including but not limited to the following:
 - i) termination of this Agreement;
 - ii) disqualification of the Contractor from bidding on or being awarded a County contract for a period of up to 3 years;
 - iii) liquidated damages of \$2,500 per violation; and/or
 - iv) imposition of other appropriate contractual and civil remedies and sanctions, as determined by the County Manager.

To effectuate the provisions of this Section, the County Manager shall have the authority to examine Contractor's employment records with respect to compliance with this Section and/or to set off all or any portion of the amount described in this Section against amounts due to Contractor under this Agreement or any other agreement between Contractor and County.

Contractor shall report to the County Manager the filing by any person in any court of any complaint of discrimination or the filing by any person of any and all charges with the Equal Employment Opportunity Commission, the Fair Employment and Housing Commission, or any other entity charged with the investigation of allegations within 30 days of such filing, provided that within such 30 days such entity has not notified Contractor that such charges are dismissed or otherwise unfounded. Such notification shall include the name of the complainant, a copy of such complaint, and a description of the circumstance. Contractor shall provide County with a copy of their response to the Complaint when filed.

12. Compliance with County Employee Jury Service Ordinance

Contractor shall comply with Chapter 2.85 of the County's Ordinance Code, which states that a contractor shall have and adhere to a written policy providing that its employees, to the extent they live in San Mateo County, shall receive from the Contractor, on an annual basis, no fewer than five days of regular pay for jury service in San Mateo County, with jury pay being provided only for each day of actual jury service. The policy may provide that such employees deposit any fees received for such jury service with Contractor or that the Contractor may deduct from an employee's regular pay the fees received for jury service in San Mateo County. By signing this Agreement, Contractor certifies that it has and adheres to a policy consistent with Chapter 2.85. For purposes of this Section, if Contractor has no employees in San Mateo County, it is sufficient for Contractor to provide the following written statement to County: "For purposes of San Mateo County's jury service ordinance, Contractor certifies that it has no employees who live in San Mateo County. To the extent that it hires any such employees during the term of its Agreement with San Mateo County, Contractor shall adopt a policy that complies with Chapter 2.85 of the County's Ordinance Code."

13. Retention of Records, Right to Monitor and Audit

(a) Contractor shall maintain all required records for three (3) years after County makes final payment and all other pending matters are closed, and Contractor shall be subject to the examination and/or audit of County, a Federal grantor agency, and the State of California.

(b) Reporting and Record Keeping: Contractor shall comply with all program and fiscal reporting requirements set forth by appropriate Federal, State, and local agencies, and as required by County.

(c) Contractor agrees upon reasonable notice to provide to County, to any Federal or State department having monitoring or review authority, to County's authorized representatives, and/or to any of their respective audit agencies access to and the right to examine all records and documents necessary to determine compliance with relevant Federal, State, and local statutes, rules, and regulations, to determine compliance with this Agreement, and to evaluate the quality, appropriateness, and timeliness of services performed ("Permitted Purposes"). Access to and examination of Contractor's records and documents hereunder, together with any information, materials, and disclosures made in connection therewith are to be performed and used only for the Permitted Purposes; otherwise, such records, documents, materials and disclosures are to be kept confidential by the receiving party.

14. Merger Clause & Amendments

This Agreement, including the Exhibits and Attachments attached to this Agreement and incorporated herein by reference, constitutes the sole Agreement of the parties to this Agreement and correctly states the rights, duties, and obligations of each party as of this document's date. In the event that any term, condition, provision, requirement, or specification set forth in the body of this Agreement conflicts with or is inconsistent with any term, condition, provision, requirement, or specification in any Exhibit and/or Attachment to this Agreement, the provisions of the body of the Agreement shall prevail. Any prior agreement, promises, negotiations, or representations between the parties not expressly stated in this document are not binding. All subsequent modifications or amendments shall be in writing and signed by the parties.

15. Controlling Law and Venue

The validity of this Agreement and of its terms or provisions, the rights and duties of the parties under this Agreement, the interpretation of this Agreement, the performance of this Agreement, and any other dispute of any nature arising out of this Agreement shall be governed by the laws of the State of California without regard to its choice of law rules. Any dispute arising out of this Agreement shall be venued either in the San Mateo County Superior Court or in the United States District Court for the Northern District of California.

16. Notices

Any notice, request, demand, or other communication required or permitted under this Agreement shall be deemed to be properly given when both: (1) transmitted via facsimile to the telephone number listed below or transmitted via email to the email address listed below; and (2) sent to the physical address listed below by either being deposited in the United States mail, postage prepaid, or deposited for overnight delivery, charges prepaid, with an established overnight courier that provides a tracking number showing confirmation of receipt.

In the case of County, to:

Name/Title: James C. Porter Address:555 County Center, 5th Floor, Redwood City, 94063 Telephone: (650) 599-1421 Facsimile: (650) 361-8220 Email: jporter@smcgov.org

In the case of Contractor, to:

Name/Title: Matthew George General Service Manager Address: 2828 Teaganden St., San Leandro, CN 94577 Telephone: 510 895-8400 Eacsimile: mgeorge@petersonpower.com Email:

9

17. Electronic Signature

If both County and Contractor wish to permit this Agreement and future documents relating to this Agreement to be digitally signed in accordance with California law and County's Electronic Signature Administrative Memo, both boxes below must be checked. Any party that agrees to allow digital signature of this Agreement may revoke such agreement at any time in relation to all future documents by providing notice pursuant to this Agreement.

- For County: If this box is checked by County, County consents to the use of electronic signatures in relation to this Agreement.
- For Contractor:
 If this box is checked by Contractor, Contractor consents to the use of electronic signatures in relation to this Agreement.

IN WITNESS WHEREOF, the parties hereto, by their duly authorized representatives, have affixed their hands.

COUNTY OF SAN MATEO

By:_____ President, Board of Supervisors, San Mateo County

Date:_____

ATTEST:

By:_____ Clerk of Said Board

Peterson Power Systems, Inc.

Contractor's Signature

Date: 9/24/13

(Revised 7/1/13)

Exhibit A

In consideration of the payments set forth in Exhibit B, Contractor shall, at his expense, provide all labor, materials, and equipment to perform all services and repair of all components of the SMMC Cogeneration Plant as described below:

I. Description of Service - 85,000 hour 10 year long term service agreement scope of materials and services

- 24 hour / day remote monitoring and response
- All planned maintenance material, labor, and travel.
- All routine maintenance such as oil changes and valve adjustments
- All consumables and wear items of the plant including Lube Oil.
- All unplanned repairs parts and labor
- Performance Guarantees
- Availability Guarantees

CONTRACTOR shall provide preventative maintenance to ensure the safe and dependable operation of the PLANT. At a minimum, the services provided shall include the following:

- 1. All maintenance recommended by the manufacturers, including inspection and maintenance of all furnished components and wiring as described in Paragraph II of Exhibit A. For the term of this agreement the CONTRACTOR will repair, or at its option, replace any malfunctioning component or part. The CONTRACTOR reserves the right at its sole discretion to replace any such component or part with either a new or factory rebuilt part, or to replace complete assemblies instead of individual components.
- 2. A service report after each site visit describing the reason for the site visit, all work performed, and all parts replaced.
- 3. Train County staff to perform daily inspections which are not the responsibility of the CONTRACTOR.
- 4. Maintenance services needed to satisfy the manufacturer's performance guarantees per paragraph IV of Exhibit A.
- 5. Provide routine maintenance, as recommended by the respective manufacturers for generator controls (exciters, VAR control, speed control etc.), MCC, protective relays, battery bank, pumps, radiators, batteries and battery charger, fuel supply, valve clearance, exhaust system, instruments and control devices as more completely described in paragraph II of Exhibit A. After all maintenance activities, the MODULEs shall be operated to confirm proper operation.

11

- 6. Oil Changes Complete all required oil changes using OEM approved lubricants and parts. Lubricating oil and filters shall be changed. Oil changes shall be conducted based on results of oil sampling.
- 7. Top End Overhauls Complete all top end overhauls as needed using OEM parts and guidelines. Top end overhauls in accordance to Caterpillar media # SEBU6682-08. In addition to reference on hours of 10,000 to 14,000, the final considerations are: "Top end overhauls are scheduled according to recession of the exhaust valve stems. This measurement provides and accurate indication of the rate of valve wear. This measurement can be used to predict when a cylinder head requires replacement.
- 8. Major Overhauls Complete all major overhauls as needed using OEM parts and guidelines. Major overhauls in accordance to Caterpillar media # SEBU6682-08. including the service hours of the engine, the wear metal analysis of the lube oil, or an increase in the levels of noise and vibration. In addition to the reference of hours of 20,000 to 28,000 the final considerations are determined by several factors. Such as, an increase in oil consumption, and increase of crankcase blowby and/or a decrease and variation of cylinder compression.
- 9. EMERGENCY SERVICE Respond to unscheduled emergency service requests due to a malfunction which disables a MODULE by providing a manufacturer's service representative on-site. Contractor will respond to to emergency services within four hours.
- 10. Parts Inventory Maintain an inventory to assure compliance with Performance and Availability Guarantees outlined in Paragraph IV of Appendix A.
- 11. Coordination of Non-emergency service Non-emergency service shall not be performed during on peak hours, as determined by the local utility. Contractor shall not shut down more than one unit at a time, regardless of on, part, or off peak periods Provide 120 hour's notice prior to arrival on site. Check in with COUNTY's representative prior to service activities. Failure to insure units are back on line during on peak shall result in a penalty as identified in Exhibit B.
- 12. Service Records Maintain records of all service activities and retain records of each service activity.
- 13. Safety Comply with all safety requirements of the COUNTY and local laws and regulations.
- 14. Project Schedule and Progress Reports Provide the COUNTY an estimate of time to complete all scheduled and unscheduled maintenance activities.
- 15. 24 hour / day remote monitoring and response

- 16. Every effort will be made to perform all overhauls (top end and major) during the non peak months as determined by the local utility. However, at times overhauls may need to be performed during on peak periods to assure system reliability and performance.
- 17. All services proposed for this location will be performed by the Contractor's Factory Certified Technicians.
- 18. Contractor shall provide detailed monthly performance reports to County.
- 19. Contractor shall provide necessary data and input to County to comply with annual BAAQMD requirements.
- 20. Contactor shall make available all data required by a third party Performance Data Provider (PDP) to satisfy the PG&E reporting requirements related to SGIP rebates.

II. DESCRIPTION OF PLANT

Balance of Plant (BOP) Supplied by Johnson Controls under separate Contract. General Cogeneration System Description

The CHP system recovers heat from the engine exhaust, jacket water and lubricating oil cooler of three (3) 250 kWe EnviroGen cogeneration modules. Each module consists of:

- One (1) Caterpillar G3412NA engine operating at 1,800 rpm
- One (1) 4-pole generator producing 250 kWe at 480 VAC
- One (1) exhaust heat recovery heat exchanger:
 - o Patented water tube configuration
 - Integral water jacket
- One (1) engine isolation heat exchanger:
 - o Stainless steel, brazed plate or plate and frame construction
- One (1) Three-way Catalyst
- Isolation valves, expansion tanks, flow control valves and instrumentation

The Caterpillar engine, Marathon generator, jacket water heat recovery equipment engine and generator controls will be mounted in a weather-proof enclosure creating a cogeneration module, as detailed in the attached "Module" description.

Detailed Scope of Supply

- Three (3) Elite Envirogen 250 kWe CHP Modules
- Two (2) duplex (lead/lag), VFD controlled, electric motor driven circulating pumps, close-coupled, totally enclosed fan cooled motors for cogeneration heat recovery circuit:
 - Pumps are redundant and start alternately.
 - Circuit is temperature controlled to 196°F delivery temperature to the hot side of the client heat exchanger.
- One (1) Series M-10 Alfa-Laval (or equal) plate and frame heat exchanger for servicing facility process hot water loop(s).
 - Heat exchanger in quotation is sized for approximately 369 gpm flow on cold (building) side with 25°F Δ T, 160°F entering water temperature.
 - o Deviations may result in revision of quoted price.
- One (1) SRC single core (or equal), vertical discharge dry cooler with VFD controlled fan for excess cogeneration loop heat dump
- Two (2) 3-way valves for temperature control
- As required: isolation valves, expansion tanks, flow control valves and instrumentation

Cogeneration Loop Instrumentation:

- Temperature on all fluid inlets and outlets from:
 - o Modules (6)
 - Jacket Water isolation heat exchanger (6)
 - Exhaust gas heat exchanger (6)
 - o Dry cooler (2)
- System pressure sensors before and after jacket water and cogeneration loop pumps
- Exhaust backpressure at engine outlet and prior to exhaust gas heat exchanger
- Exhaust gas temperature in three locations:
 - Engine outlet
 - o Exhaust heat exchanger inlet
 - o Exhaust heat exchanger outlet
- Pete's Plugs located at each sensor and switch for trouble-shooting.

Exhaust and Emissions System

- One Extreme Duty exhaust silencer for each module sized for approximately 42 dB(A) sound power reduction. Depending upon final system location the silencers will either be unit mounted or shipped loose for remote mounting.
- Each module is equipped with non-selective catalyst reduction (NSCR) exhaust aftertreatment for the reduction of NOx, CO and VOC constituents. The system will comply with BAAQMD BACT and 2013 SGIP requirements where applicable.

- -

14

Electrical

• One Motor Control Center (MCC) for control of pumps and valves including pumps and valves. The MCC will be located in the enclosure.

III. Description of expected utilization

Maximum Operating Hours of Plant	8,497hours / year*
Running hours per start	12 hour minimum
Term of agreement	84,970* hours of operation or 10 years whichever comes first
Mode of Operation	Grid Parallel - Combined Heat and Power
Fuel	Pipeline Natural Gas

*This is the highest number of expected hours of operation. However, higher hours of operation per year is theoretically possible and therefore acceptable, and desirable under the terms of this agreement for all parties.

IV. Performance and Availability:

Guarantee of Performance: The intent of this agreement is to provide a guarantee of performance and availability for each MODULE. The guarantee of performance and availability shall commence 90 days after, County acceptance and full payment for each MODULE.

"Acceptance" shall be defined as the day the County begins receiving beneficial use of heat and electric power from the MODULE within the performance guarantees set forth in herein. Definition of "Operating Hours" – Operating hours shall be understood to mean the operating time of a MODULE when it is producing electrical power and thermal heat to the PLANT. Hourly Payments under this Agreement shall commence on the date when acceptance, as defined above, occurs. Certain conditions may arise that necessitate operation of the MODULE producing electrical power only without recovering heat energy or at partial output. These "non heat recovery" and "part load" run hours will be counted as Operating Hours.

"Available for Operation" shall be understood to mean the sum of the effective operating hours according to the MODULE service hour meter and the standstill hours. All "Available for Operation" hours will be excluded from "Downtime" hours.

"Standstill Hours" shall be understood to mean those periods of time when, through no fault of the CONTRACTOR or the MODULE manufacturer, the MODULE is not in operation.

"Downtime" shall be understood to mean any time in which, through no fault of the COUNTY, the MODULE is not available to provide power and heat. The time needed for all Service activities and repairs shall be understood as included in the definition of Downtime.

"On peak non-emergency service events" A deduction of "80 "hours shall be applied to Contractor's banked credit hours for each event for each engine where an engine was not available during summer peak due to non emergency service. The deduction can only be counted once during a billing month.

Penalty: The Guarantee of Performance allows for downtime of the PLANT up to 6% of the period of time covered by the Agreement. For every hour of plant downtime beyond this a penalty of \$16.67 per hour per module will be assessed against the CONTRACTOR. The penalty will be assessed at the end of each applicable year as a credit to the COUNTY account.

Banking: All "Available for Operation" hours above the 94% guarantee are accumulated and tracked on a rolling 12 month cycle, to be used as offset for any periods of time of penalty.

"Available" hours calculation per Module:

- 8,760 hours / year/module
- 525 hours /year/module(6%) maximum planned and unplanned Downtime without penalty
- 8,235 hours Available for Operation per year /module- guaranteed

Guaranteed Performance data is based on the following site conditions:

Site test conditions:	Full Load	
Elevation	100' above mean sea level	
Air inlet temperature	68-84 degrees Fahrenheit	
Relative Humidity	20% - 40%	
Ambient air temperature	not to exceed 90°F	
Coolant	25% ethylene glycol / 75% water	

Electrical output (480V):

Guaranteed: 250kW Minimum @ 1.0 pf per Module

Steady state gross electrical kW output measured at the generator output breaker using the package instrumentation.

Fuel Consumption	
Nominal	11,134 Btu / kWe – hour @ 1.0 pf LHV
Guaranteed	11,691 Btu / kWe – hour @ 1.0 pf LHV

Emissions:

NOx:

Not exceed a NOx emissions standard of 0.07 lbs/MW-hr, for compliance with SGIP 2013 Handbook.

CO: 0.6 gr/bhp-hr or current BAAQMD requirements

Heat Production:

Nominal Guaranteed 4,542,000 Btu/hour/module 3,910,000 Btu/hour/module

Calculated Jacket Water and Exhaust heat gross thermal production measured using flow and temperature measurement devices as follows: Temperature: package mounted temperature sensor at hot side of HX-1

Performance guarantees are based on fuel meeting meeting Caterpillar Fuel Gas Specification per publication number SEBU 6400-05 or PG&E GAS Rules 21.

Volumetric flow will be measured at the generator inlet using the packaged electromagnetic flow measurement and PG&E gas data for the day of testing found at: <u>http://www.pge.com/pipeline/operations/gas_quality/index.shtml</u>

County Responsibilities

The daily inspections performed by the COUNTY must be performed by competent and trained personnel familiar with this type of equipment. To ensure the safe and dependable operation of the PLANT, the CONTRACTOR will provide at a minimum, the specialized training required for operation of the PLANT.

- II. COUNTY personnel will be provided daily inspection log sheets and trained on performing daily inspections and oil sampling.. This log will be custom made and site specific and will include visual inspections such as coolant level, coolant leaks, other leaks, unusual noises and vibrations.
- III. EMERGENCY SERVICE Maintain an on Call contact list of County facility service personnel as well as access to the plant to assist CONTRACTOR responding to unscheduled emergency service requests due to a malfunction which disables a MODULE.
- IV. Provide Coordination Non-emergency service (except top ends and overhauls) shall not be performed during on peak hours, as defined by the local utility. COUNTY's trained representative will be available to aid coordination with 120 hours notice prior to arrival on site.

- -

17

- V. Service Records Provide safe keeping of CONTRACTOR service records and County Operator Logs on site for review by Contractor service personnel as needed in performance of service activities described herein.
- VI. Safety County will supply training on site specific equipment to comply with all safety requirements of the CONTRACTOR and local laws and regulations.
- VII. County shall provide a fuel gas composition analysis from the utility upon request by Contractor.
- VIII. County will use Contractor supplied oil sample kits to sample oil every 250 hours for the first year and every 500 hours thereafter and mail them to Peterson for analysis. If County fails to perform Oil Analysis or inspections as described herein Contractor shall perform the oil analysis and inspections at Contractors currently published labor and travel rates and bill the county until such time as the County resumes providing these services.
- IX. County will perform a visual daily walk through inspection and notify Peterson of any problems or concerns with the Cogeneration systems performance. Any failures downtime or repairs that result from this service not being performed will be the responsibility of the County.
- X. County will maintain connectivity to the remote monitoring system.
- XI. County shall supply fuel meeting PG&E specifications as defined in PG&E Gas Rules 21.

<u>Exhibit B</u>

In consideration of the services provided by Contractor in Exhibit A and subject to the terms of the Agreement, County shall pay Contractor based on the following fee schedule and terms:

County shall make monthly payments to Contractor in arrears net 30 days. The charges shall be based on the number of hours of operation per module per month as described in Exhibit A. Should the County usage fall below 4,000 hours per year the contract rates and guarantees shall be subject to renegotiation.

The hours of operation will be recorded separately for each 250kW module. For this project there are three (3) separate 250kW modules for a total of 750 kW.

Total Cost for Module 1 equals the total hours of operation times \$8.25 plus applicable sales tax.

Total Cost for Module 2 equals the total hours of operation times \$8.25 plus applicable sales tax

Total Cost for Module 3 equals the total hours of operation times \$8.25 plus applicable sales tax

Hourly Fee - The fee for the Services provided by this Agreement is subject to adjustment as provided within this agreement, commencing on the effective date set forth in the Agreement, and payable each month thereafter throughout the term of this Agreement (herein "Hourly Fee.")

Taxes - Applicable Taxes on materials and parts are not included in the hourly fee. The cost for materials and parts is estimated to be approximately 60% of the contract total. Taxes will be charged on the actual taxable items, e.g. parts, oil, and components provided at the applicable sales tax rates..

Adjustment - During the Term of this Agreement the fee shall be adjusted on March 1st of each subsequent year after initiation of services, based upon the percentage changes in the special index specified below, between the reference base period of December 2013 and December of the most recent year. All calculations for the special index shall be based upon the latest versions of the Producer Price Index and Employment Cost Index data published as of February 20 each year. Under no conditions will the Hourly Fee drop below the initial Base Month Rate established in the Agreement.

1) Producer Price Index Reports (PPI) of the U.S. Governments Bureau of Labor Statistics, http://data.bls.gov.

(i) Engine Equipment Parts	333618-f
(ii) Lube Oil	324191

and

 Employment Cost Index (ECI) - Labor Review issued by the U.S. Government Department of Labor, Bureau of Labor Statistics http://bls.gov, Workers by Occupational group; Installation, Maintenance and Repair

Revisions to the Hourly Fee made pursuant to this Exhibit shall be calculated as follows:

- The values for the current period for each of the three BLS index series specified above shall be rebased to the reference base period December 2013; this shall be done by dividing the current value of each index by its value for the reference base period, and then multiplying the result by 100
- ii) The rebased index shall be assigned a relative weight of 50% Parts, 40% Labor, 10% Lube Oil; these relative weights represent the base period of December 2013.
- iii) Multiply the rebased current value for each of the indexes by its relative weight.
- iv) The sum of these figures shall be the value of the special index for the current time period;
- v) Multiply the current value of the special index by the original base price, and then divide by 100; this final figure shall be the adjusted price for the current time period.
- vi) If December ECI data are not available for any year, the ECI data for the immediately preceding September shall be used as the basis for adjustment. If December PPI data are not available for any year, the PPI data for the immediately preceding November, October, or September, whichever is the most recent month which has published data, shall be used as the basis for adjustment of the materials index series. If no ECI or PPI data have been published for those months, then the contracting parties shall agree upon substitute series by February 20th.

Example - using 2011 as the base year index INITIAL HOURLY FEE \$24.75 / hour

The composite weighted average of the three indexes is 101.52 Adjusted rate would be \$25.13

The resulting value calculated in this manner shall constitute the new Hourly Fee, which shall be applicable until again adjusted in the same manner at the next March 1st anniversary.

Table 1 Contract Termination Fee Schedule based on Major Engine Overhaul Cycles.

	Cancellation Rebate paid
Reference Months	by Contractor to County
1 -12	Zero
13	\$6,500.00
14	\$7,000.00
15	\$7,500.00
16	\$8,000.00
17	\$8,500.00
18	\$9,000.00
19	\$9,500.00
20	\$10,000.00
21	\$10,500.00
22	\$11,000.00
23	\$11,500.00
24	\$12,000.00
25	\$12,500.00
26	\$13,000.00
27	\$13,500.00
28	\$14,000.00
29	\$14,500.00
30	\$15,000.00
31	\$15,500.00
32	\$16,000.00
33	\$16,500.00
34	\$17,000.00
35	\$17,500.00
36	\$18,000.00
36	\$18,500.00

The Definition of a Major Overhaul is described in Paragraph I, 8 Exhibit A.

- 1. NOTE: It is expected that at least two (2) Major Overhauls shall occur during the 10 year contract.
- 2. A Major Overhaul should occur every 34 -44 months on each of the three engines (Modules)
- 3. For example if the County cancelled the Service Agreement at month 32 the rebate would be \$16,000.00 per engine (Module) to the County.
- 4. However, should the contractor need to perform an overhaul at month 30 and the county cancels the contract at 32 months the cancellation payment due would be based on reference month 2 in the overhaul cycle and the rebate would be Zero dollars.
- 5. Please note that the termination fee may be different for each engine since the overhaul dates may be slightly different and hence the corresponding Reference month may be different.

- 6. Likewise if the overhaul is extended past the 36 months and the County cancels the contract prior to the overhaul the maximum cancellation fee shall be reference month 36.
- 7. For example if the Contractor is able extend the overhaul to month 44 and the county cancels the contract in month 38. The cancellation fee will be reference month 36 or \$18,500.00/engine (Module).
- 8. The reference period for a particular unit re-starts upon the completion of a major overhaul of that unit.