

CITY COUNCIL STAFF REPORT

DATE:

January 7, 2015

CONSENT AGENDA

SUBJECT:

COGENERATION ENGINE/GENERATOR MAINTENANCE AGREEMENT

FROM:

David H. Ready, City Manager

BY:

Special Projects Coordinator

SUMMARY

The proposed action is to approve a ten (10) year maintenance agreement for the cogeneration plant engine/generator set with Western Energy Systems.

RECOMMENDATION:

1. Approve a ten (10) year maintenance service agreement with Western Energy Systems for the cogeneration plant engine/generator set in a form approved by the City Attorney.

STAFF ANALYSIS:

The City has contracted with Opterra Energy Systems (formerly Chevron) to rebuild its Municipal Cogeneration Plant. The work continues on the plant with an expected completion date of late March early April 2015. The City has successfully owned, operated and maintained cogeneration systems for more than thirty years. This new plant will represent quite a departure from the City's previous experience in that the equipment sophistication and size has greatly changed. The regulatory environment for cogeneration plants has also greatly changed in that with the old plants the city had to demonstrate compliance with air resources regulations twice each year, today that compliance must be demonstrated on a daily basis via telemetry systems.

As the City prepares for the commissioning of the new plant, long term maintenance agreements need to be negotiated and be put in-place. The original studies that led to the decision to rebuild the plant contemplated that major equipment items such as the engine/generator set and the chiller (see attached photos of the actual equipment) would require outside maintenance agreements. In addition the emissions control equipment would require technical maintenance as well as third party monitoring and

reporting to AQMD. The last full year that the City operated both of the Cogeneration Plants the Facilities Maintenance Budget to maintain these plants was set at \$755,868.

The agreement with Opterra contemplated that the City would receive some \$125,000 in rebates for the various energy conservation efforts that were undertaken. That level of rebate activity has been achieved and with some additional effort they have been able to qualify the City for a \$550,000 rebated from the Gas Company related to the cogeneration plant engine. This rebate will be received over a five year period upon completion of the plant. The rebate comes with the condition that the City put in-place a ten (10) year major maintenance agreement for the engine/generator set with an experienced third party vendor.

The engine/generator set that has been purchased for the City's plant is a 1.1Mw GE Jenbacher and the west coast authorized maintenance contractor for the equipment is Western Energy Systems. Western Energy Systems currently maintains over ninety (90) Jenbacher engines in this region. The actual agreement with Western is based on engine operating hours and calls for maintenance at 2,000 hour intervals with a major engine rebuild in Year seven (7) of operation. Staff, with the assistance of Opterra has negotiated an option in the agreement that after year five, should the City elect to carry out its own maintenance, the agreement can be modified from the SILVER Program agreement to a less costly Basic Program agreement. The SILVER Program for natural gas engines is attached and clearly describes what is expected of the City in performance it carries out as well as what the contractor will do.

The maintenance program would begin on the date that the City takes over the plant operations from Opterra. That day occurs only after a thirty day startup period where Opterra demonstrates full operational capabilities of the plant and all of its equipment.

FISCAL IMPACT:

The Silver agreement calls for an engine hour maintenance cost of \$19.58 plus parts, which when assuming 80% operating efficiency equates to an annual; maintenance cost of \$162,535. If at the end of year five the City elects to switch to the Basic plan the base cost for annual maintenance drops to \$74,519. In addition, in year seven (7) the major engine overhaul occurs at a cost of \$458,200. Both the annual (Silver Plan and Basic Plan) and major overhaul cost items are escalated annually based on CPI (see attached LTSA Annual Price Escalation Procedure) not to exceed 5% for the first three years and then at CPI for the remainder of the term. A history of the last nine years of CPI change is attached along with the calculation procedure. To cover the major maintenance in Year seven it is recommended that the dollars coming in from the Gas Company rebate be set aside in a reserve to fund this work. Funding for this long-term maintenance will be budgeted in each successive fiscal year Cogen Operating budget.

The first full year of maintenance should commence on or about July 1, 2015 and the funding for this agreement will be budgeted in the Cogen Fund in the 2015-16 budget.

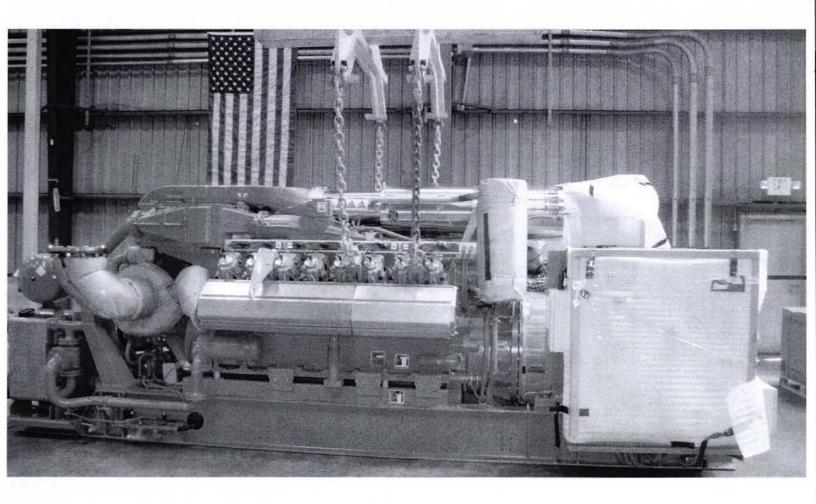
Allen F. Smoot, Special Projects Coordinator

David H. Ready, City Manager

Attachment:

- 1. Photos
- Agreement/Proposal
 SILVER Program
- 4. CPI Adjustment Procedure/History





AGREEMENT

FOR MAINTENANCE OF

EQUIPMENT

BETWEEN

Western Energy Systems® a division of Penn Detroit Diesel Allison, LLC.

AND

FOR



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	MAINTENANCE, REPAIR AND TESTING SERVICES

MAINTENANCE AGREEMENT

This Maintenance Agreement (the "Agreement") is made and entered into on ______, 201___, by and between xxxxxxxxxx, with its principle place of business located at xxxxxxxxxxxxxxx (the "Customer") and Western Energy Systems, a division of Penn Detroit Diesel Allison, LLC, with its principle place of business located at 8330 State Road, Philadelphia, PA 19136 (the "Contractor"). The Customer and/or the Contractor are sometimes separately referred to as "Party" and collectively as "Parties".

BACKGROUND

The Customer owns certain power generation Equipment installed at its Facility. The Customer and the Contractor are entering into this Agreement to set forth their respective agreements and understandings as to certain maintenance services to be provided by the Contractor to the Customer with respect to the Equipment.

NOW, THEREFORE, in consideration of the mutual promises and agreements set forth in this Agreement, and intending to be legally bound hereby, the Customer and the Contractor agree as follows:

1) CERTAIN DEFINITIONS

Capitalized terms used in this Agreement, and not otherwise defined, have the respective meanings set forth in Annex I.

2) TERM

The Term of this Agreement shall commence on the Effective Date and shall end on the date on which the Equipment has XXX Operating Hours (OPH) ("the Term"). The customer represents and warrants to the Contractor that on the Effective Date the Equipment will not have more than XXX OPH.

3) CONTRACTOR'S SERVICES

During the Term of this Agreement, the Contractor shall perform the following Services and provide the following parts, tooling and consumables for the Equipment.

- a) Maintenance Services. The Contractor will perform the maintenance services (the "Services") to be provided, as specifically described in Annex III. Such Services shall be coordinated with the Customer and to the extent applicable, scheduled in advance.
- b) Parts, Tooling and Consumables. The Contractor will provide all parts, tooling and consumables necessary to perform and complete the described Services. The Contractor will maintain adequate inventories and supplies necessary or required to ensure that an adequate supply of expendable parts is readily available. Such parts shall either be new, unused and either manufactured by the original equipment manufacturer or otherwise of comparable quality, or remanufactured to a condition and level of quality comparable to new and unused parts.

- c) Provided the Customer purchases, pays for and installs the necessary monitoring equipment, the Equipment will be remotely monitored by the Contractor to observe operating parameters and performance and shall be connected to monitoring systems so as to notify the Contractor in the event of a malfunction of the monitored devices. Upon receiving any such malfunction notification, the Contractor shall contact the Customer to review the malfunction. If necessary, the Contractor will dispatch service personnel to the Facility in a timely manner.
- d) Non-Scheduled Response Time. The Contractor shall use its best efforts to respond to calls for assistance and non-scheduled repairs within four (4) hours of the Customer's initial request. Such Customer requests may be oral, electronic, or in writing and, if oral, must be followed up in electronic or written form.
- e) Oil. The Contractor shall perform engine and gearbox lube oil changes, with Customer provided lube oil, provided that the lube oil changes take place at 2000 OPH intervals. Increased frequency of lube oil changes due to fuel gas quality or lube oil contamination resulting from Customer operations or cause shall be considered additional to this Agreement and shall be subject to additional labor charges as provided for herein.
- f) <u>Exclusions</u>. The Contractor shall not be required to perform any Services caused or necessitated by the following unless specifically authorized in writing by the Customer with charges for such maintenance and repair Services as provided in Annex VI.
 - i) Maintenance, parts, labor, freight, or services of any type not specifically included in Annex III.
 - ii) Increased quantities of spark plugs, filters or other maintenance and repair parts required as a result of Customer or third party maintenance, fuel gas quality, outside mechanical or electrical forces.
 - iii) Negligent acts or intentional misconduct by any Person or Persons other than the Contractor's personnel or subcontractors that impairs the operation of the Equipment.
 - iv) Damage to the Equipment or, any components associated with the Equipment because of fire, theft, or other risks now or hereafter normally covered by an "all risks" policy of insurance, including extended coverage.
 - v) The Customer's installation of additional equipment to the Equipment after the Effective Date and without prior written approval of the Contractor.
 - vi) Operation of the Equipment by the Customer not in compliance with the Equipment manufacturer's standard operating parameters or any project specific requirement.
 - vii) Repairs, adjustment, or maintenance caused by fuel gas quality not meeting the manufacturer's requirements as specified in TI 1000-0300, fuel pressure fluctuations, disturbances, disruptions, Customer's fuel supply or process.

- viii) Electrical fluctuations, disturbances, or disruptions, reasonably demonstrated by the Contractor to not have been caused by the Equipment.
- ix) Basic troubleshooting capable of being performed by the Customer, including visual inspection, tightening of clamps, bolts, screws to stop small coolant or lube oil leaks, tightening of wires and wire terminations should there be loose wires, refilling of lube oil and coolant as required to maintain system, initial inspection of system warnings, restarting of equipment after warnings or shutdowns, exchange of minor components, and other similar minor type repairs not detrimental to safe operation of the Equipment. A \$500.00 deductible shall be charged for each corrected repair call that should have been handled by Customer personnel.

x) Emissions Testing

- xi) Additional costs incurred by Contractor for Services required for the Equipment, resulting from Customer shutdown of the Equipment for a period of time equal to or greater than three (3) months.
- xii) Additional costs incurred by Contractor for Services required for the Equipment resulting from improper or inadequate maintenance and/or repair services performed by or on behalf of the Customer prior to the Effective Date.
- xiii) Failures in installation or operation of non-Contractor provided or commissioned components, interfaces, or equipment resulting in damages to Contractor provided equipment covered by this Agreement.
- xiv) Rigging and removal of Equipment for major repairs. These are defined as repairs involving removal and replacement of the engine, generator, and gearbox for major repairs during scheduled or corrective repair incidents.
- xv) Assembly or disassembly of walls, building components, structures, roofs, equipment or any other constraints to gain access to Equipment for performance of planned maintenance, component replacement or corrective repairs.

g) Contractor's Conduct.

- i) Contractor will perform its Services in a workmanlike, neat and orderly manner. The Contractor will use reasonable efforts in performing the Services so as to avoid errors. The Contractor shall take into account any and all applicable plans and/or specifications furnished by the Customer to the Contractor.
- ii) In performing the Services, Contractor's employees will work at all times in a safe and workmanlike fashion conforming to the requirements of the Occupational Safety and Health Act of 1970 (OSHA) and all other applicable federal, state, and local laws and regulations relating to safety and health in providing such services. Customer shall provide a work area conforming to said laws and regulations.

- iii) Contractor's employees shall be subject to Contractor's customary background screening, drug, alcohol, and physical testing.
- iv) The Contractor shall observe the Customer's project specific safety and security policies, provided that these policies have been communicated to the Contractor in writing.
- v) The Contractor will take all reasonable and customary safety precautions in connection with the work to be performed by, at, and around the Equipment. The Contractor will give all notices and will comply with all notices and applicable laws (including OSHA, if applicable) in connection with the performance of its services. If either Party discovers a safety violation such Party will immediately notify the responsible Party of such violation in writing except that no Party is obligated to perform any work on the Equipment unless and until the safety violation is corrected.

4) OBLIGATIONS OF THE CUSTOMER

The Customer shall be responsible for the following:

- a) To keep a daily operation log for the Equipment reflecting operation, inspections and maintenance work, outside services and analytical reports.
- b) To operate the Equipment in such a way the engines/modules (if more than one) are working for nearly the same operating time in order to enable their simultaneous maintenance.
- c) To operate the Equipment only within the limits of the Technical Instructions and the manufacturer's warranty provisions.
- d) To not make or implement any changes or modifications of the operating parameters of the Equipment except in case of an emergency to prevent damage to persons and/or property. The Customer shall notify the Contractor in a reasonable timeframe of any such changes or modifications.
- e) To provide all oil and grease necessary for the operation and maintenance of the Equipment.
- f) To monitor lube oil levels on a daily basis, add lube oil as required, and ensure the Equipment is not operated without required levels of lube oil. Carry out individual lube oil samples using Contractor provided oil sample kits. The results of the lube oil analyses must be forwarded to the Contractor promptly. All makeup oil, oil changes, and lube oil samples must be recorded in the daily operation log.
- g) To carry out the disposal of used oil from the Equipment in a lawful fashion.

- h) To perform routine daily, weekly, and monthly maintenance and inspections as called for in the manufacturer's maintenance schedule(s). These tasks are defined as "independent of the number of operating hours".
- To comply with all manufacturers' requirements for lubrication, lubrication change intervals, installation parameters for equipment installed, cooling water quality, anti-freeze and anti-corrosion compounds and fuel gas quality.
- j) To provide all necessary fuel for operations. The fuel provided by the Customer must meet all required fuel specifications for the Equipment.
- k) To provide the Contractor promptly with fuel gas analyses, which must be carried out by the Customer every three (3) months. The Contractor is not liable for damages, repairs, or adjustments resulting from unacceptable fuel gas quality.
- 1) To provide Contractor, free of charge, a secured room suitable for storage at site.
- m) To permit the Contractor to carry out scheduled maintenance and repair work during normal working time from 7:30 a.m. to 5:00 p.m. from Monday to Friday.
- n) To notify the Contractor in writing of any additional non-contract maintenance, repair, or testing required and to permit the Contractor access 24 hours/day, 7 days/week in order for the Contractor to provide these non-contract maintenance, repair, and testing services.
- o) To provide all coolant for the Equipment. Coolant must meet manufacturer's specifications.
- p) To inspect and maintain coolant at required levels.
- q) To provide all necessary permits and approvals for operation of the Equipment, including but not limited to EPA identification numbers for disposal of used oil and hazardous waste if required.
- r) To provide all necessary utilities for operations of the Equipment including, but not limited, to:
 - (i) Service electricity
 - (ii) Provide water of appropriate qualities for the different services at the site (iii)Lighting.
- s) To provide and maintain all necessary piping, wiring and equipment up to the applicable terminal points of the Equipment.
- t) To provide business and commercial interfaces with the electric utility and fuel supplier(s).
- u) To identify and provide contact data for emergencies 24-hours/day, 7-days/week.

- v) To provide telephone modem or Internet connections and communications services for use by Contractor if remote monitoring is required or provided.
- w) 24-hour, 7-day/week access to the system.

5) REMUNERATION

- a) During the Term, the Customer shall pay to the Contractor for the Services remuneration based on the actual operating hours of each engine/module included in the Equipment at the rate of \$xx.xx per operating hours (the "Base Rate"); provided that the remuneration shall not be less than \$xxxxxx.xx per calendar quarter.
- b) The Parties understand that this Agreement is priced on the basis of certain minimum expected operating hours during the Term of this Agreement. The defined yearly minimum operating hours for this Agreement is 6656, 80 % of 8322 projected operating hours. The Contractor shall have the right to invoice the defined yearly minimum operating hours.
- c) The Base Rate is based on the Contractor's 2013 price list. The Base Rate for each calendar year, during the Term of this Agreement, shall be adjusted annually for the average annual percentage change in costs through December 31st of the prior year. Base Rate price adjustments shall be effective January 1 of each year, during the Term of the Agreement, and shall be based on U.S. Bureau of Labor Statistics ("B.L.S.") Import Price Indexes and the appropriate C.P.I. as noted below.

Price adjustments shall be calculated by the end of January, for the prior year, using the defined B.L.S. indices. All price adjustments shall be effective January 1.

In the event the specified indices are discontinued by the B.L.S., the Parties shall negotiate and agree upon reasonably equivalent indices for annual price adjustments.

The adjusted price shall be determined as follows:

Po = Base rate at close of current calendar year.

P = New price following adjustment effective January 1 of each year calculated as follows:

55% M = Material, U.S. B.L.S., U.S. Import Price Indexes, Germany-Manufactured Articles where; M_1 = new January 1 period and M_0 = previous January 1 period.

45% L = Labor, U.S. B.L.S. C.P.I., Western Urban-All Urban Consumers (Series ID CUUR0100SA0) where; L_1 = new January 1 period and L_0 = previous January 1 period.

All adjustments shall be made on a blended calculation, using the stated percentages and references as follows; $P = Po * (45\% L_1/L_0 + 55\% M_1/M_0)$.

Annual adjustments shall not exceed 5 % annually during the initial three (3) years of the Term of this Agreement, not including changes in cost of lubricating oil if included herein.

- d) The Customer shall also pay (or reimburse the Contractor for) any and all Taxes under any existing or future Laws imposed on the Contractor or as to which the Contractor shall have any obligation to collect with respect to or relating to this Agreement, the Services of the performance by the Contractor or any of the obligations hereunder except only United States Taxes and State Taxes on or measured by the net income of the Contractor.
- e) Billing shall be made monthly and payment will be due thirty (30) days after the date of the invoice subject to Contractor's credit approval. Without limiting the rights and remedies available to the Contractor under this Agreement and applicable Law, all payments not received by the Contractor within such thirty (30) day period shall, to the extent permitted by applicable Law, bear a late charge of 1.8% per month on the unpaid amount until paid in full. All payments shall be check or wire transfer as decided by Customer. Credit card payments are specifically excluded
- f) If during the Term of this Agreement, any new legislation, taxes, or regulations are established relating to oil, used oil, or other waste removal requirements or fees the Contractor shall be entitled to pass such charges on to Customer if such services form a part of this Agreement.

6) INSURANCE

a) The Contractor shall provide and maintain insurance coverage as provided for in the Certificate of Insurance enclosed with Annex V herein.

7) TECHNICAL INSTRUCTIONS

- a) The manufacturer(s) of the Equipment may from time to time revise the Maintenance Schedule and/or Technical Instructions applicable to the Equipment. The Contractor shall provide to the Customer copies of the latest editions of Maintenance Schedules and/or Technical Instructions furnished to the Contractor by such manufacturer.
- b) The Parties shall make good faith efforts to agree upon whether any such revised Maintenance Schedule or Technical Instructions shall apply under this Agreement. The Contractor shall be entitled to an equitable adjustment to remuneration to be paid by the Customer under this Agreement in the event that any changes increase the cost or expense to the Contractor of providing the Services.

8) ASSIGNMENT

Neither Party shall have any right or power to assign this Agreement in whole or in part nor to delegate any of its obligations under this Agreement except in connection with the merger of a Party or the sale of substantially all of a Party's assets and business or except with the

prior written consent of the other Party, which consent shall not be unreasonably withheld. Any attempted assignment without the required consent of the other Party shall be null and void. Nothing contained herein shall restrict the Contractor from subcontracting portions of its work, provided that the Contractor shall remain responsible to the Customer for the performance by the subcontractor.

9) RESTRICTIONS

The following restrictions shall apply throughout the Term and for a three (3) year period following the end or termination of the Term.

a) Neither Party will solicit or employ any of the employees of the other Party so long as they are employed by such Party, and for a period of six (6) months following the termination of their employment, without obtaining the prior written consent of the respective Party.

10) TERMINATION

- a) This Agreement may be terminated prior to the end of the Term only as follows:
 - i) By the Customer and the Contractor by a written instrument executed by each of them;
 - ii) By the Contractor upon not less than thirty (30) days advance notice to the Customer (which notice shall state in reasonable detail the circumstances giving rise to the exercise by the Contractor of its right of termination) in the event of a material breach by the Customer of this Agreement which is not cured prior to the end of such period; provided that the Contractor shall be required to only give ten (10) days advance notice in the case of any failure of the Customer to make any payment to the Contractor as required under this Agreement;
 - iii) By the Customer upon not less than thirty 30) days advance notice to the Contractor (which notice shall state in reasonable detail the circumstances giving rise to the exercise by the Customer of its right of termination) in the event of a material breach by the Contractor of this Agreement which is not cured prior to the end of such period; provided that the period shall be extended beyond the thirty (30) days if the claimed breach is not reasonably capable of being cured within such thirty (30) day period as long as the Contractor shall continue to use good faith and reasonable efforts to cure the claimed breach;
 - iv) By a Party without notice or further action of any kind in the event of a Bankruptcy Event with respect to the other Party;
 - v) By a Party by notice to the other Party in the event any Law, or any order, judgment or decree of any Governmental Entity of competent jurisdiction, shall be enacted, issued or enforced, or made applicable hereto, which makes any material part of this Agreement or the arrangements contemplated herein unlawful; or

- vi) Termination or expiration of this Agreement in accordance with its terms shall not affect or impair (a) any rights, obligations or liabilities existing or arising under this Agreement prior to such termination or expiration, (b) any rights, obligations or liabilities under this Agreement that are expressly to survive the termination or expiration of this Agreement, or (c) any rights, obligations or liabilities accruing or arising under any other agreement between any one or more of the Parties or their Affiliates.
- b) Notwithstanding anything to the contrary contained in this Agreement, the Contractor shall have the right to suspend performance of any of its obligations under this Agreement in the event and during any period that the Customer has not paid the Contractor any amount due under this Agreement.

11) DISCLAIMER AND LIMITATION OF LIABILITY

- a) The Customer agrees that the Contractor will not be liable to the Customer, and the Customer will not make any claim against the Contractor or any of its Affiliates, employees, or agents, except only for Contractors gross negligence in rendering the Services or its willful and continuous failure to render the Services.
- b) THE CUSTOMER ACKNOWLEDGES AND AGREES THAT EXCEPT AS PROVIDED IN THE AGREEMENT, THE CONTRACTOR MAKES NO REPRESENTATIONS, WARRANTIES, GUARANTEEES OR CONDITIONS, EXPRESS, IMPLIED OR STATUTORY, WITH RESPECT TO THE PERFORMANCE, VALUE, UTILITY, SAFETY, COMPLIANCE WITH LAWS, OR OTHERWISE WITH RESPECT TO THE EQUIPMENT OR THE PARTS, TOOLING AND CONSUMABLES TO BE PROVIDED, OR THE SERVICES TO BE PERFORMED HEREUNDER, THE RESULTS OBTAINED THEREBY, NOR IS IT MAKING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED. THE MANUFACTURERS WARRANTY, IF ANY WITH RESPECT TO THE EQUIPMENT, PARTS, TOOLING AND CONSUMABLES SHALL BE THE ONLY WARRANTY APPLICABLE THERETO.
- c) Without limiting the generality of the foregoing, neither Party shall be liable for special, incidental, consequential, punitive or exemplary damages or for loss of profits, loss of time, inconvenience, loss of use of the Equipment or similar damages.
- d) Notwithstanding anything to the contrary contained herein or otherwise, in no event shall the Contractor be liable to the Customer for any amount in excess of the remuneration actually paid by the Customer to the Contractor under this Agreement.

12) INDEMNIFICATION

- a) To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless Customer and its Affiliates, and their officers agents, directors or employees (collectively referred to as the "Indemnities"), and each of them, against and from any and all allegations, losses, claims, liabilities, damages, fines and penalties or costs of whatsoever nature (including reasonable attorneys' fees), attributable to bodily injury, sickness, disease or death, including, without limitation any claims resulting from any injury or death of any employee or Contractor or its subcontractors, or to injury to or destruction of tangible property arising out of or resulting solely from negligent acts or omissions of Contractor or its subcontractors; or solely arising out of, resulting from or relating to: (A) the presence, discharge or release of petroleum, oil, or hazardous or toxic wastes, substances or materials, as those terms are defined in applicable federal, state and local environmental statutes, regulations and guidance documents arising out of, resulting from or relating to the Equipment sold, or Services provided, under this Agreement and attributable to any negligent or improper act or omission of Contractor or its subcontractors, or: (B) any negligent or improper act or failure to act by Contractor or its subcontractors pursuant to the terms and conditions of this Agreement. In the event that any claim is made or any action or proceeding is brought against the Indemnitees, or any of them, such Indemnity may, by notice to Contractor, require Contractor, at Contractor's expense, to resist such claim or take over the defense of any such action or proceeding and employ counsel for such purpose, such counsel to be subject to the prior approval of such Indemnity, which approval shall be deemed to have been given hereby in the case of counsel acting for the insurance underwriters of Contractor engaged in such resistance or defense.
- b) To the fullest extent permitted by law, the Customer shall defend, indemnify and hold harmless, Contractor and any parent, subsidiary, successor, assign, contractor, subcontractor or affiliated entity of Contractor (however organized), and their officers, directors, employees, agents, representatives and equity holders from and against any and all allegations, losses, claims, liabilities, damages, fines and penalties or costs of whatsoever nature (including reasonable attorneys' fees), and whether by reason of death or injury to any person, or loss of or damage to any tangible property or otherwise resulting solely from the negligent acts or omissions of Customer; or solely arising out of, resulting from or relating to: (A) the presence, discharge or release of petroleum, oil, or hazardous or toxic wastes, substances or materials, as those terms are defined in applicable federal, state and local environmental statutes, regulations and guidance documents arising out of, resulting from or relating to the Equipment sold, or Services provided, under this Agreement and not attributable to any negligent or improper act or omission of Contractor or its subcontractors, or: (B) any negligent or improper act or failure to act by Customer pursuant to the terms and conditions of this Agreement. In the event that any claim is made or any action or proceeding is brought against the Contractor for which it intends to seek indemnification hereunder, Contractor shall promptly notify Customer, and Customer may by notice to Contractor, at Customer's expense, resist such claim or take over the defense of any such action or proceeding and employ counsel for such purpose, such counsel to be subject to the prior reasonable approval of Contractor, which approval shall be deemed to have been given hereby in the

case of counsel acting for the insurance underwriters of Customer engaged in such resistance or defense.

13) FORCE MAJEURE EVENTS

Each Party shall be excused from its obligations under this Agreement and shall have no liability for any resulting damage in the event and to the extent that its performance (other than a payment obligation) is delayed or prevented by any circumstance reasonably beyond its control, including, without limitation, any fire, flood, epidemic, shortage of transportation, shortage of raw materials or delay in the delivery thereof, explosion, act of any Governmental Entity, any existing or future Laws, any legal interferences or restrictions, act of God or of the public enemy, strike, walkout, other labor dispute, riot or other civil disturbance, or act of terrorism (any such circumstance being referred to herein as a "Force Majure Event").

14) ADDITIONAL TERMS

a) All notices, requests, waivers, consents and other communications under the Agreement directed to either Party shall be in writing and shall be deemed to have been duly given only if delivered personally or by facsimile transmission or mailed (first class postage prepaid or certified, return receipt requested) to such Party at the following addresses of facsimile numbers or to such other address or facsimile number as either Party shall have last designated by notice to the other:

If to the Customer:

Address:

Fax Number:

If to the Contractor: Al Clark, President

Address: 8330 State Road

Philadelphia PA 19136

Fax Number: 215-335-2163

All such communications shall, if delivered personally as provided in this Section 14 or by mail in the manner and to the address provided in this Section 14 be deemed given upon receipt.

b) The Annexes are incorporated herein by reference. This Agreement and the Annexes constitute the final, complete and entire agreement between the parties hereto pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions, whether oral or written, or the Parties, and there are no warranties, representation or other agreements between or among the Parties

in connection with the subject matter hereof except as specifically set forth herein.

- c) This Agreement may be amended only by an instrument in writing duly executed and delivered by or on behalf of each Party hereto. This Agreement shall be construed and enforced in accordance with and governed by the internal laws of Pennsylvania applicable to contracts made and to be performed entirely within such State, without regard to conflicts of law principles.
- d) Any waiver of any breach of or failure to comply with any provisions of this Agreement shall be in writing and approved an executed by the Party which is not in breach of or non-compliance with this Agreement. Any such waiver shall not be interpreted as or constitute a continuing waiver of the relevant provision or a waiver of any other breach of, or failure to comply with, any other provision of this Agreement.
- e) This Agreement may be executed in any number of counterparts, each of which shall be an original and all of which shall constitute one and the same instrument.
- f) In the event that any provision of this Agreement is declared to be void or unenforceable, the remainder of this Agreement shall not be affected thereby and shall remain in full force and effect to the extent feasible in the absence of the void and unenforceable provision. The Parties furthermore agree to execute and deliver such amendatory contractual provisions to accomplish lawfully as nearly as possible the goals and purposes of the provision so held to be void or unenforceable.
- 15) Except as contemplated in Sections 11 and 12 this Agreement is intended to be for the sole benefit of the Parties, and it is not the intention of the Parties to confer third party beneficiary rights or remedies upon any other Person.
- 16) The provisions of sections 5, 10, 11, 12 and 14 shall survive termination or expiration of this Agreement.
- 17) The relationship between the Contractor and the Customer under this Agreement is that of independent contractors and not of employer-employee or principal-agent. The Contractor is not the legal representative of the Customer under this Agreement, nor is the Customer the legal representative of the Contractor under this Agreement. Neither the Contractor nor the Customer has the right or authority to assume or undertake any obligation or make any representation on behalf of the other.

18) IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed and delivered as to the date and year first above written.

THE CUSTOMER		
Ву:	 	
Its:	 	
THE CONTRACTOR		
Ву:	 	
Its:		

ANNEX I Certain Definitions

- A. The following terms used in the Agreement have the following respective meanings unless the context clearly requires otherwise.
 - "Affiliate" means, in the case of a particular Person, any other Person that directly or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, such Person. For purposes of this definition, "control" of a Person and words of correlative meaning means the power, direct or indirect, to direct or cause the direction of the management and policies of such Person, whether by contract or otherwise.
 - "Bankruptcy Event" means, with respect to a Person, (a) the adjudication of such Person as bankrupt or insolvent or the filing by such Person of a petition or application to any tribunal for the appointment of a trustee or receiver of such Person or any substantial part of the assets of such Person, or (b) the commencement of any voluntary or involuntary bankruptcy proceedings, reorganization proceedings or similar proceeding with respect to such Person or the entry of an order appointment a trustee or receiver or approving a petition in any such proceeding or (c) the making by such Person of an assignment for the benefit of creditors of all or substantially all of its assets or the admission by such Person in writing of inability to pay its debts as they become due.
 - "Base Rate" has the meaning set forth in Section 5.
 - "Equipment" means the list of covered equipment as detailed in Annex II.
 - "Effective Date" means the date the Agreement has been signed by both Parties.
 - "Facility" means the premises at which the Equipment is installed.
 - "Force Majure Event" has the meaning set forth in Section 13.
 - "Governmental Entity" means any United States, state, local or foreign court or government, governmental authority, governmental commission, governmental agency or political subdivision whatsoever.
 - "Hazardous Materials" means toxic substances, hazardous substances, or hazardous wastes as such terms are defined in any law, statute, ordinance, or regulations promulgated by any national, federal, state or local government authority.
 - "Laws" means and includes any and all laws, statues, treaties, rules, regulations, ordinance, principles of common law, and other pronouncements having the effect of law in the United States of American or any state, county, city or other political subdivision or of any governmental or regulatory authority or any foreign jurisdiction or multinational organization.

"Maintenance Schedule" means the Maintenance Schedule attached as <u>Annex III</u> as the same may be amended from time to time as provided herein.

"Person" means any individual, corporation, partnership, Limited Liability Company, trust, business organization, Governmental Entity or other entity whatsoever.

"Services" shall mean only those Services described in Annex III.

"Taxes" means all United States state local, foreign, and other gross income, gross receipts, profits, goods and services, social security, sales, use ad valorem, single business, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, business license, occupation, real property gains, severance, stamp, occupation, premium, property, windfall profits, customs, duties, or other taxes, fees, assessments, environmental, alternative minimum, windfall and capital taxes, and all other obligations of the same or a similar nature to any of the foregoing, together with any interest and nay penalties, additions to tax, or additional amounts with respect thereto.

"Term" has the meaning set forth in Section 2.

"<u>Technical Instructions</u>" means the Technical Instructions attached hereto as <u>Annex IV</u>. These may be amended from time to time as provided herein.

B. Unless the context of this Agreement requires otherwise, (i) words of any gender include each other gender; (ii) words using the singular or plural number also include the plural or singular number, respectively, (iii) the terms "herein", "hereby" and derivative or similar words refer to this entire Agreement; (iv) the term "Section" or "Annex" refers to the specified Section or Annex of this Agreement. This Agreement is being entered into by and among competent and sophisticated parties who are experienced in business matters. Therefore, any ambiguous language in this Agreement will not necessarily be construed against any particular party as the drafter of the language.

ANNEX II List of Covered Equipment

- XX (XX) GE Jenbacher XXXXXX containerized engine-generator sets
 XX (XX) GE Jenbacher Di.ANE XT control panel

ANNEX III Description of Maintenance Services and Maintenance Schedule

Western Energy Systems® will provide Gold Services as specifically described in Annex III enclosures.

ANNEX IV Technical Instructions

The GE Jenbacher O&M manuals for the specific project provide Equipment specific Technical Instructions, maintenance, and product information. The following Technical Instructions may be additional to those provided in the GE Jenbacher O&M manuals for the specific project. The following Technical Instructions are incorporated herein by reference only. Copies will be made available upon written request.

- 1. I 9003 0 Daily Inspection
- 2. TI 1000-0099A Approval Procedures for Lube Oils
- 3. TI 1000-0099B Limit Values for Waste Oil
- 4. TI 1000-0099C Procedure for Determination of Plant Specific Oil Life
- 5. TI 1000-0099D Initial pH Values of Used Lubricating Oils
- 6. TI 1000-0099K Analysis of Used Lubricating Oils
- 7. TI 1000-0112 Sampling Lubricating Oil
- 8. TI 1000-0200 Composition of cooling water in closed primary circuits
- 9. TI 1000-0201 Antifreezing compound
- 10. TI 1000-0204 Anti-Corrosive Additive for Cooling Water
- 11. TI 1000-0300 Fuel Gas Quality
- 12. TI 1000-1109 Lubricating oil for type 2, 3, 4 and 6 GE Jenbacher engines.
- 13. TI 1100-0110 Boundary Conditions for GE Jenbacher gas engines
- 14. TI 1100-0111 General Conditions Operating and Maintenance
- 15. TI 1400-0091 Lack of Condensate-Fuel Gas
- 16. TI 2300-0005 Safety Instructions

ANNEX V WES Certificate of Insurance

ANNEX VI

WES Schedule of Charges for Non-Agreement Maintenance, Repair and Testing Services

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Gaseous Fueled Power Generation Systems
Co-Generation • Landfill • Biogas

SILVER Program for Natural Gas or clean Biogas

SILVER programs provide scheduled, defined GEJ maintenance, services, and component replacement by WES factory trained and qualified technicians. Inspections and service are subject to OPH and not driven by kWh or load factor. Customer personnel perform routine daily, weekly, monthly inspections and services highlighted in yellow on the GEJ Maintenance Schedule.

<u>Customer personnel</u> perform the following:

additional charges)

- Routine daily, weekly, monthly inspections and services as called for in GEJ "Maintenance Schedules" for the specific project. Typical inspections and services include:
 - o Daily visual inspection for coolant, exhaust, and fuel gas leaks; inspection of vibration dampers; inspect fuel gas piping and drain condensate; inspect heat exchangers and coolant piping, drain condensate as required; check and maintain strainers and filters.
 - o Daily entries and updating of Operating Logbook documents.
- o Daily checks of manometer readings at air intake filter housing.
- o Cleaning of air intake housing and replacement of air filter(s) as required between scheduled maintenance intervals by Customer.
- o Daily checks of engine oil pressure and replacement of oil filter if required between scheduled maintenance intervals by Customer.
- Weekly ignition voltage inspections and recording of measurements, inspection and re-gapping of spark plug electrodes as required to accomplish GEJ projected intervals.
 (WES allows for and provides spark plugs based on GEJ projected useful life for natural gas and clean biogas applications. Estimated useful life of spark plugs on natural gas or clean biogas varies by Type engine however is subject to fuel gas quality, engine operation, and spark plug maintenance. Additional quantities of spark plugs beyond GEJ projected useful life will result in
- o Monitor and draw lube oil and coolant samples on a scheduled basis.
- o Monitor and draw fuel gas samples for testing by WES or fuel system testing as may be required to determine compliance with GEJ requirements per TI 1000-0300.
- o Monitor and add coolant, coolant inhibitor, and lube oil as required.
- o Customer personnel will provide and add make up lube oil, provide lube oil for oil changes by WES during planned maintenance intervals, and will dispose of used oil at GEJ defined maintenance intervals however subject to lube oil analysis and lube oil condition.
- o Inspect, clean, and maintain engine starting batteries, cables, and terminals.
- o Inspect coolant levels, pressures, and draw coolant samples annually.
- o Grease generator bearings per generator manufacturer's requirements



WES factory trained and qualified technicians provide the following services:

- Perform planned maintenance, inspections, component replacement, minor, and major overhauls at GEJ recommended 2000 OPH service intervals for each Jenbacher engine-generator set.
- · Review Owner daily entries and updating of Operating Logbook documents
- Provide lube oil sample kits for use by Owner to draw oil samples per GEJ recommendations.
- Review lube oil samples for Owner and provide comment as required.
- Conduct coolant testing on an annual basis and provide reports to Owner.
- Inspect Di.ANE controls, program settings; download operating systems for trend analysis and review of system performance.

WES factory trained and qualified technicians will perform the following inspections and services at GEJ recommended 2000 OPH intervals. Inspections and services vary depending upon total OPH on the units. Inspections and services are subject to OPH and not driven by KWh or load factor.

- 2000-4000-6000-8000-12,000-14,000-16,000-18,000-22,000-24,000-26,000-28,000-32,000-34,000-36,000-38,000-42,000-44,000-46,000-52,000-54,000-56,000-58,000-62,000-64,000-66,000-68,000-72,000-74,000-76,000-78,000 & 82,000 OPH intervals:
- o Review Owner daily entries and updating of Operating Logbook documents
- o Inspect Di.ANE controls, program settings; download operating systems for trend analysis and review of system performance.
- o Inspect, adjust and record data for:
 - Intake and exhaust valve to valve lifter clearances
 - Intake and exhaust valve lash adjustments
 - Intake and exhaust valve stem projection (recession)
- o Inspect rocker arms, valve lifters, adjusting screws, tappets, and lock nuts
- o Inspect valve cover gaskets and replace as required.
- o Inspect, maintain, and make adjustments to ignition systems inclusive of:
 - Inspect and tighten connections and terminals at ignition box.
 - Inspect ignition harness.
 - Inspect ignition pickups for debris, clean as required, inspect mounting distance.
 - Inspect ignition coils and record ignition voltages.
 - Inspect ignition plug sockets and springs.
 - Inspection, re-gapping, and changing of spark plugs.
- o Inspect and clean crankcase ventilation system, replace filter cartridge and media
- o Inspect, clean, adjust, and lubricate regulator rod linkage as required.
- o Inspect, clean, and adjust throttle valve.
- o Inspect, clean, lubricate, and adjust throttle valve: actuator control rod assemblies.
- o Subject to OPTION, WES field technicians perform lube oil and filter changes at defined GEJ maintenance intervals however subject to lube oil analysis and lube oil condition. Increased frequency of lube oil changes result in additional charges. WES may, subject to Owner decision, provide all lube oil including make up oil for Owner personnel routine maintenance.
- o Inspect plate and frame heat exchangers, measure and record differential pressures, disassemble, clean, and reassemble heat exchangers as required.
- Inspect gas train filter and clean filter housing.
- o Inspection of the electrical generator assembly, interior compartments, assembly, generator bearings, and generator coupling inclusive of:
 - Inspect and lubricate generator bearings per manufacturer's requirements.
 - Inspect and clean generator compartment, cooling air intake and outlets.
 - Inspect auxiliary wiring for chafing and terminations.
 - Inspect and check surge suppressor, varister and rectifier diodes per manufacturer's recommendations.

WES factory trained and qualified technicians will perform the following inspections and services at 10,000-50,000 & 70,000 OPH intervals. This will include the following:

- o Review Owner daily entries and updating of Operating Logbook documents
- Inspect Di.ANE controls, program settings; download operating systems for trend analysis and review of system performance.
- Inspect, adjust and record data for:
 - Intake and exhaust valve to valve lifter clearances
 - Intake and exhaust valve lash adjustments
 - Intake and exhaust valve stem projection (recession)
- o Inspect rocker arms, valve lifters, adjusting screws, tappets, and lock nuts
- Inspect valve cover gaskets and replace as required.
- o Inspect, maintain, and make adjustments to ignition systems inclusive of:
 - Inspect and tighten connections and terminals at ignition box.
 - Inspect ignition harness.
 - Inspect ignition pickups for debris, clean as required, inspect mounting distance.
 - Inspect ignition coils and record ignition voltages.
 - Inspect ignition plug sockets and springs.
 - Inspection, re-gapping, and changing of spark plugs.
- o Inspect and clean crankcase ventilation system, replace filter cartridge and media
- o Inspect, clean, adjust, and lubricate regulator rod linkage as required.
- o Inspect, clean, and adjust throttle valve. Inspect and install new bearings as required.
- Inspect, clean, lubricate, and adjust throttle valve: actuator control rod assemblies.
- O Provided the lube oil option is selected WES field technicians will perform lube oil and filter changes at defined GEJ maintenance intervals. WES may, subject to Owner decision, provide all lube oil including make up oil for Owner personnel routine maintenance.
- o Inspect plate and frame heat exchangers, measure and record differential pressures.
- o Inspect gas train filter, clean filter housing, and install new gas train filter element.
- o Inspection of the electrical generator assembly, interior compartments, assembly, generator bearings, and generator coupling inclusive of.
 - Inspect and lubricate generator bearings per manufacturer's requirements.
 - Inspect and clean generator compartment, cooling air intake and outlets.
 - Inspect auxiliary wiring for chafing and terminations.
 - Inspect and check surge suppressor, varister and rectifier diodes per manufacturer's recommendations.
- o Inspect turbocharger, intake compressor housing and wheel assembly, exhaust housing and wheel assembly, check and record end play to determine turbocharger condition.
- Inspect engine cooling pump and check for wear and leaks.
- o Inspect electric starter motor for proper operation.
- o Inspect gas mixer assembly.
- Inspect exhaust manifold assembly, inclusive of insulation, flexible compensators, and mounting hardware.

WES factory trained and qualified technicians will perform the following inspections and services at 20,000-40,000 & 80,000 OPH intervals. This will include the following:

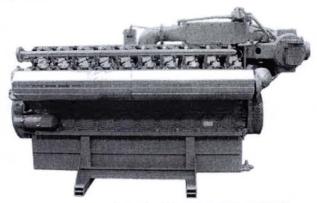
- o Review Owner daily entries and updating of Operating Logbook documents
- Inspect Di.ANE controls, program settings; download operating systems for trend analysis and review of system performance.
- o Inspect, adjust and record data for:
 - Intake and exhaust valve to valve lifter clearances
 - Intake and exhaust valve lash adjustments
 - Intake and exhaust valve stem projection (recession)
- Inspect rocker arms, valve lifters, adjusting screws, tappets, and lock nuts
- o Inspect valve cover gaskets and replace as required.
- o Inspect, maintain, and make adjustments to ignition systems inclusive of:
 - Inspect and tighten connections and terminals at ignition box.
 - Inspect ignition harness.
 - Inspect ignition pickups for debris, clean as required, inspect mounting distance.
 - Inspect ignition coils and record ignition voltages.
 - Inspect ignition plug sockets and springs.
 - Inspection, re-gapping, and changing of spark plugs.
- o Inspect and clean crankcase ventilation system, replace filter cartridge and media
- o Inspect, clean, adjust, and lubricate regulator rod linkage as required.
- o Inspect, clean, and adjust throttle valve. Inspect and install new bearings as required.
- o Inspect, clean, lubricate, and adjust throttle valve: actuator control rod assemblies.
- o Provided the lube oil option is selected WES field technicians will perform lube oil and filter changes at defined GEJ maintenance intervals. WES may, subject to Owner decision, provide all lube oil including make up oil for Owner personnel routine maintenance.
- o Inspect plate and frame heat exchangers, measure and record differential pressures.
- Inspect gas train filter, clean filter housing, and install new gas train filter element.
- o Inspection of the electrical generator assembly, interior compartments, assembly, generator bearings, and generator coupling inclusive of.
 - Install new generator coupling.
 - Install new generator bearings per manufacturer's recommendations.
 - Inspect and clean generator compartment, cooling air intake and outlets.
 - Inspect auxiliary wiring for chafing and terminations.
 - Inspect and check surge suppressor, varister and rectifier diodes per manufacturer's recommendations.
- o Remove and recondition turbocharger assembly.
- o Install exchange engine cooling pump.
- o Inspect electric starter motor for proper operation.
- Inspect gas mixer assembly.
- o Inspect exhaust manifold assembly, inclusive of insulation, flexible compensators, and mounting hardware.

<u>WES factory trained and qualified technicians</u> will perform a minor overhaul at GEJ recommended 30,000 OPH interval, inclusive of the following inspections, services, and scheduled component replacements.

- o Review Owner daily entries and updating of Operating Logbook documents
- Inspect Di.ANE controls, program settings; download operating systems for trend analysis and review of system performance.
- o Inspect, adjust and record data for:
 - Intake and exhaust valve to valve lifter clearances
 - Intake and exhaust valve lash adjustments
 - Intake and exhaust valve stem projection (recession)
- o Inspect rocker arms, valve lifters, adjusting screws, tappets, and lock nuts
- Inspect valve cover gaskets and replace as required.
- o Inspect, maintain, and make adjustments to ignition systems inclusive of:
 - Inspect and tighten connections and terminals at ignition box.
 - Inspect ignition harness.
 - Inspect ignition pickups for debris, clean as required, inspect mounting distance.
 - Inspect ignition coils and record ignition voltages.
 - Install new spark plug sockets and springs.
 - Inspection, re-gapping, and changing of spark plugs.
- o Inspect and clean crankcase ventilation system, replace filter cartridge and media
- o Inspect, clean, adjust, and lubricate regulator rod linkage as required.
- o Inspect, clean, and adjust throttle valve. Inspect and install new bearings as required.
- o Inspect, clean, lubricate, and adjust throttle valve: actuator control rod assemblies.
- o Provided the lube oil option is selected WES field technicians will perform lube oil and filter changes at defined GEJ maintenance intervals. WES may, subject to Owner decision, provide all lube oil including make up oil for Owner personnel routine maintenance.
- o Inspect plate and frame heat exchangers, measure and record differential pressures.
- o Inspect gas train filter, clean filter housing, and install new gas train filter element.
- o Inspection of the electrical generator assembly, interior compartments, assembly, generator bearings, and generator coupling inclusive of.
 - Inspect and lubricate generator bearings per manufacturer's requirements.
 - Inspect and clean generator compartment, cooling air intake and outlets.
 - Inspect auxiliary wiring for chafing and terminations.
 - Inspect and check surge suppressor, varister and rectifier diodes per manufacturer's recommendations.
- o Inspect turbocharger, intake compressor housing and wheel assembly, exhaust housing and wheel assembly, check and record end play to determine turbocharger condition.
- Inspect engine cooling pump and check for wear and leaks
- o Inspect electric starter motor for proper operation.
- o Inspect gas mixer assembly.
- Inspect gas mixture bypass valve.
- o Remove and install a new torsional vibration damper.
- o Inspect GEJ Diane XT control cabinets and install new filters on fan-ventilator plates.
- o Remove cylinder heads and install GEJ exchange cylinder heads. Cores will be inspected for reusability and returned for core credit. Partial or full core charges apply if cylinder heads are found to be not in acceptable condition.
- o Inspect rocker arm mechanisms and valve train regulation, inspect and record valve recession.
- o Remove cylinder kits and install new components inclusive of:
 - Pistons, piston rings, and piston cooling devices
 - Cylinder liners and scraper rings
 - New connecting rod bearings.
 - New connecting rods.
- o Inspect camshafts and cam follower assemblies. Install new valve tappet adjusting screws and nuts. Additional charges apply if camshafts and cam follower assemblies require replacement.
- o Remove and inspect main bearings. Additional charges apply if bearing(s) need to be replaced.

GEJ 60,000 operating hour intervals provide for major overhauls on non-natural applications. WES performs major overhauls utilizing GE Jenbacher re-manufactured, exchange long engine block assemblies in order to minimize downtime. Depending upon the Type engine, GEJ Exchange engine blocks include the following services and components:

- Cylinder block assembly has been inspected, crankshaft gallery bored and machined as required, cylinder packing bores inspected, machined, and re-sealed as required.
- · New, updated pistons, piston rings, cylinder liners
- · New connecting rods (updated to latest style)
- New, updated main, rod, and thrust bearings
- · New, updated camshafts
- · New, updated camshaft bearings
- · Reconditioned crankshaft
- · New front and rear crankshaft seals incorporating latest technology



Typical Type 3 Long Block

- New vibration dampers
- Reconditioned front and rear gear trains with GEJ exchange gear wheel assemblies, new gear train bushings and bearings
- · Reconditioned engine lube oil pump
- · Updated lube oil filter assemblies
- GEJ exchange water pump
- GEJ exchange cylinder heads with new, updated valve seats, new intake and exhaust valves, new valve springs, rotators, and keeper assemblies.
- Reconditioned rocker arm assemblies with new tappets and adjusting screws.
- Complete new, updated ignition system with ignition rail, external ignition coils, wires, spark plug sockets, and ignition box.



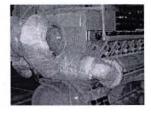


Upgraded Ignition Boxes IC 500- IC 920- IC 922 Replacements vary depending on original ignition box.

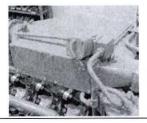
Typical Updated Ignition Rail

- New spark plugs
- GEJ exchange electric motor starter
- Reconditioned exhaust manifolds with new compensator segments, gaskets, seals, and upgraded exhaust manifold insulation. (Long block only, inspected on short block)

- Reconditioned intercooler
- New thermocouples (Long block only, inspected on short block)
- - Updated Exhaust Manifolds
 - Updated Flexible Compensators
 - Updated Manifold Insulation



New turbocharger with external insulation



GEJ factory cleaned and pressure tested intercoolers; upgrade turbo bypass valves

- Upgraded exchange turbocharger bypass
- GEJ exchange intercooler console with new throttle valve
- Reconditioned throttle actuator assembly
- Reconditioned gas mixer assembly

Updated Exchange Type 3 Gas Mixer Long blocks provided with updated gas version with internal actuating mechanism and sensor.



WES Major Overhaul Field Services

- Removal of old engine and generator.
- Provide and reinstall GEJ exchange block assembly.
- Inspection of gas train and gas train safety devices. Install new gas regulator diaphragms.
- Removal of electric generator assembly for reconditioning:
 - The generator is reconditioned by a factory qualified electric supplier and will include the following:
 - Disassembly, cleaning, inspection of stator, rotor, and windings
 - Inspection of RTD's (if so equipped)
 - Vacuum and pressure test, clean, degrease, and epoxy impregnation of windings
 - New generator bearings
 - Reassembly of generator assembly and bench power testing.
 - Inspection and testing of voltage regulator and power factor cards
 - o Delivery and reinstallation of electric generator assembly to frame rails
- Provide and install new generator-engine coupling.
- Inspect plate and frame heat exchangers for repairs or resealing.
- Inspection of pre-chamber gas compressor. (Type 6)
- If required, provide pricing for reconditioned or exchange gearbox (Type 6, older Type 3)
- Supply and installation of new coupling assembly and rim.
- Supply and installation of new sylomer strips, new rubber mounts between engine, generator, and engine-generator frame assembly.
- New air intake filter
- Cold and hot alignments of engine and generator assembly
- Inspection of CANBUS and Ethernet cables FROM Di.ANE panel to M1 panel.
- Engine-generator set vibration testing and documentation
- Engine-generator set startup, performance testing, and startup documentation
- Updated parts and service manuals and CD's. (Long Block only)

NOTE: All items involving inspection, for all operating hour intervals, may result in additional charges for parts and services required for reconditioning, replacement, or upgrading. These are provided as additional charge only because some or all of these items may have been addressed prior to scheduled service intervals, inspections, minor or major overhauls.

Minimum Requirements for SILVER Programs

- 1. All WES LTSA offers are based strictly on WES Proposal Format, Programs, Form of Agreement, Terms and Conditions.
- 2. Equipment must be installed with reasonable access and must be available for planned maintenance and component replacement at WES request.
- 3. Equipment must be installed to GEJ Technical Instructions and installation requirements.
- 4. Fuel gas must comply with GEJ requirements per TI 1000-0300.
- 5. Coolant and lube oil must comply with GEJ requirements. Lube oil and coolant samples must be provided in accordance with manufacturer's requirements and forwarded to WES on a timely basis for review. Lube oil and coolant analysis reports must be part of Operating Logs and available for WES review.
- 6. Owner completed Operating Logs must provide daily operating details, maintenance tasks performed, and for Corrective Repair coverage, each maintenance task is to be documented in WES provided Maintenance Protocols, signed by the engineer and operator, and available to WES upon request.
- 7. Spark plug ignition voltages of individual spark plugs have to be recorded by means of a WES provided Maintenance Protocol for ignition voltages and available to WES upon request.
- 8. Owner personnel must promptly notify WES of any operational issues or irregularities that may require attention or repair.

Exclusions

The following exclusions apply unless specifically provided for in a WES proposal.

- 1. Maintenance, parts, labor, freight or services for any equipment not specifically included in our proposal.
- 2. Maintenance, parts, labor, freight, or services of any type not specifically performed or authorized by WES.
- 3. Increased quantities of spark plugs, filters, lube oil, coolant, or covered parts of any type required as a result of owner or third party maintenance, fuel gas quality, or outside mechanical or electrical forces.
- 4. Any consequential or contingent damages, costs, penalties, fines.
- 5. Equipment damages or repairs of any type associated with:
 - a. Operator or other Owner personnel errors or negligence
 - b. Weather related damages
 - c. Short circuit or electrical failures
 - d. Failures or damages of any kind associated with improper installation or operation
 - e. Coolant or lube oil failures
 - f. Owner control system induced failures
 - g. Engine overspeeds or failures due to any type of centrifugal force
 - h. Force Majure
- 6. Operation of the Equipment by the Owner personnel or Owner sub-contractor not in compliance with the Equipment manufacturer's standard operating parameters
- 7. Rigging and removal of equipment for major repairs
- 8. Assembly or disassembly of walls, building components, structures, roofs, equipment, or any other constraint(s) to gain access to equipment for performance of planned maintenance, component replacement, or corrective repairs.
- 9. Availability or Performance Guarantees are specifically excluded unless discussed and understood in advance of a WES commercial offer



01 December 2014

Mr. Patrick Sweeny Director of Maintenance and Facilities City of Palm Springs 425 N. Civic Drive Palm Springs, CA 92262

RE: Long Term Service Agreement

Dear Patrick:

We are pleased to submit a Long Term Service Agreement (LTSA) proposal for your consideration. This proposal includes a number of different LTSA programs from which you may choose. Individual LTSA program details are provided in Appendix A, Long Term Service Agreement Options, a copy of which is enclosed herein. The following assumptions are factored into these offers:

1. Project Name:

Municipal Plant COGEN

Address:

City, State, Zip Code Palm Springs, CA.

•

Comments:

3. Equipment OPH:

4. Term of Agreement: 10 Years, 8320 OPH/year, 83,000 OPH total

5. Minimum OPH Provision: The contract price is based on expected minimum operating hours (OH) to be reached per year.

The defined yearly minimum OH for this agreement is 6656 OH (80% of expected annual OPH).

We will invoice the minimum annual OPH.

6. Validity of Proposal: The proposal is valid for sixty (60) days from the date of this proposal.

2. Type Equipment: 1 JGS 416 1117 kW, 480 Volts, 1.0 P.F., 3 Phase, GEJ V# C86, Natural Gas

7. Freight and Duty: Ocean and domestic inland freight charges are included.

0 at time of proposal

8. Taxes, Permits and Fees: U.S Customs Duty is included however no allowances are made for local, state, or Federal taxes,

permits, and fees.



A Division of Penn Power Group

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				Page 2 of 4
9. Type of Agreement:		<u>\$/OPH</u>	\$/kWhe	Total Cost
A NES-WES Silver Program w/o Lu	be Oil	\$19.58	\$.0173	\$1,625,353
B NES-WES Basic Program w/o Lub	oe Oil 40,001 – 83,000 OPH	\$17.33	\$.0153	\$745,190
Basic Plan Pricing effective at 40,001 OPH if City chooses to switch to Basic Plan after 40,000 OPH. Total blended base cos of Silver and Basic Plans over 83,000 OPH if switch to Basic is made: \$1,528,528				
C Major Overhaul at 60,000 OPH		Lump Sum a	t time of Service	\$458,200
10. Scope of Agreement:				
Each program, combined with Bala engine generator set and the following	•	ludes Field and	l Shop Labor, Pa	rts and Materials for the
GEJ Container Package	☐ Radiators		┌ Cooling Syste	m Electric Motors
Engine Cooling/Radiator Pumps	Heat Recovery Equipm	ent	SCR/Oxicats	
Generator Circuit Breaker	Generator Set Motor Co	ontrol Center	□ Pre-Chamber	Compressor
☐ Gas Blower	☐ Gas Cleaning System		☐ Engine Batter	ries
	☐ Vibration Analysis			ment
Emissions Testing			Coolant Char	nges
Major Engine Overhaul	☑ Minor Engine Overhaul		✓ Generator Re	econditioning
Other Equipment: This LTSA proposal	covers the GEJ JGS 416 engit	ne-generator set	and associated SCR	Oxicat only.
Comments: ,				
11. Engine Lubricating Oil:				
f Included	▼ NOT Included			
Comments:				
Engine lubricating oil is changed subject to GEJ scheduled intervals. Oil samples are required per GEJ scheduled intervals, no less than monthly. Oil analysis may advise increased frequency of oil change subject to fuel gas quality, wear elements, or coolant contamination. Increased demand for lube oil will result in additional charges as required.				
Oil samples should be drawn on a regular basis, no less than quarterly. Oil analysis may advise increased frequency of oil change. Increased demand for lube oil will result in additional charges as required.				
Any proposed lube oil and filter changes are included only during scheduled maintenance intervals. Routine oil level inspections and addition of make-up oil are performed by Owner personnel unless we provide operating services. Additional oil and filter changes required beyond scheduled maintenance intervals, for any reason, will be additional charges as required				

Comments: Engine lube oil sample kits are provided for Owner's use.

☐ NOT Included

charges as required.

12. Engine Lubricating Oil Samples:

▼ Included

13. Used Oil Disposal:	
「Included	▼ NOT Included
Comments:	
14. Coolant:	
☐ Included	i VOT Included
Comments:	
15. Coolant Samples:	
✓ Included	NOT Included
Comments: WES	Technicians will draw Coolant Samples annualy
16. Fuel Gas Samples:	
☐ Included	▼ NOT Included
Comments:	
17. General Comments:	
18. Annual Increases:	The proposal will increase on an annual basis on the basis of an agreed upon CPI, not to exceed 5 % annually for the initial three (3) year period.

This proposal is subject strictly to Western Energy Systems Agreement for Maintenance of Equipment.

We appreciate the opportunity to submit this proposal and look forward to working with you on this project. Upon your acceptance of this Proposal, we will forward a project specific Maintenance Agreement for your approval and signature. Please contact us with any of your questions.

Best Regards,

Richard Whittemore VP - Product Support Western Energy Systems

CC: Al Clark, Western Energy Systems Steve Hall, Western Energy Systems

Customer Acceptance of Proposal:			
Type Agreement Selected:			
Name:			
Signature:			
Date:			

Enclosures: Appendix A-NES-WES Long Term Service Agreement Options
Appendix B-WES Agreement For Maintenance of Equipment



Power Systems Specialists
Gaseous Fueled Power Generation Systems
Co-Generation • Landfill • Biogas

LTSA Annual Price Escalator Procedure

Price adjustments shall be calculated by the end of January, for the prior year, using the defined B.L.S. indices. All price adjustments shall be effective January 1.

In the event the specified indices are discontinued by the B.L.S., the Parties shall negotiate and agree upon reasonably equivalent indices for annual price adjustments.

The adjusted price shall be determined as follows:

Po = Base rate at close of current calendar year.

P = New price following adjustment effective January 1 of each year calculated as follows:

55% M = Material, U.S. B.L.S., U.S. Import Price Indexes, Germany-Manufactured Articles (Series ID EIUCOGERTOT) where; M_1 = new January 1 period and M_0 = previous January 1 period.

45% L = Labor, U.S. B.L.S. C.P.I., Western Urban-All Urban Consumers (Series ID CUUR0400SA0) where; L_1 = new January 1 period and L_0 = previous January 1 period.

All adjustments shall be made on a blended calculation, using the stated percentages and references as follows; $P = Po * (45\% L_1/L_0 + 55\% M_1/M_0)$.

LTSA Annual Price Escalator History		
2005 - 2006	1.5%	
2006 - 2007	2.6%	
2007 - 2008	2.4%	
2008 - 2009	3.6%	
2009 - 2010	0.0%	
2010 - 2011	1.9%	
2011 - 2012	2.6%	
2012 - 2013	0.6%	
2013 - 2014	1.5%	

