

MEMORANDUM

TO: Haywood County Board of Commissioners

FROM: Mark D. Cathey, PE, Senior Project Manager, McGill Associates, P.A.

DATE: December 8, 2011

RE: Phase 3B – Landfill Gas Collection and Combustion System
Landfill Gas Engine/Generator Monitoring and Control Package
Francis Farm Landfill

The attached Project Summary, prepared by McGill Associates, provides a brief synopsis of the status of the landfill gas collection and combustion projects and associated contracts at the Francis Farm Landfill. The portion of the project requiring action by the Board pertains to the engine/generator system and the need to acquire the IEEE-1547 compliant utility interconnection switchgear. This required switchgear will enable automatic, synchronized, paralleled operation of the KSD Enterprises supplied engine/generator with Haywood EMC's electrical distribution system.

The recommendation to the Board is as follows:

1. Leave the Contract for the engine/generator with KSD Enterprises, LLC and modify/reduce the contracted scope of their work to include only the engine/generator system capable of operation on low Btu fuel (i.e., landfill gas).
2. Award the Contract for manufacturing, start-up and commissioning the utility interconnection switchgear, meeting the requirements of IEEE 1547, to PowerSecure, Inc. of Wake Forest, North Carolina in the amount of \$45,750.00.

LANDFILL GAS COLLECTION AND COMBUSTION SYSTEM
FRANCIS FARM LANDFILL
HAYWOOD COUNTY, NORTH CAROLINA

PROJECT SUMMARY

The Landfill Gas Collection and Combustion System for the Francis Farm Landfill has basically been comprised of three (3) major phases with Phase 1 being the installation of twenty-one (21) landfill gas extraction wells strategically located within the waste mass. Phase 1 was constructed in the fall of 2010. The initial part of Phase 2 was bid in April 2011 and covered the construction of the skid-mounted landfill gas flare system. The flare has been constructed and delivered to the site and will be placed into operation once the collection system is complete. The second part of Phase 2 referred to as Phase 2B was bid in June 2011 and covers the construction of the overall landfill gas piping collection system. This project is on schedule and due to be completed by the first week in January 2012.

Phase 3 covers the landfill gas engine/generator package which was bid on Friday, August 5, 2011. Only one (1) apparent responsive Bid was received from KSD Enterprises, LLC located in Clarksburg, West Virginia. The Contract was awarded to KSD Enterprises in September 2011 to supply the landfill gas engine/generator package in accordance with the project's technical specifications. After receiving the initial product submittals, it was discovered the required switchgear (utility interconnection equipment) meeting the requirements of the Institute of Electrical and Electronics Engineers Standard 1547 (IEEE 1547) – Standard for Interconnecting Distributed Resources with Electric Power Systems - was not included in the submittal package. Following a lengthy period of discussions with KSD Enterprises it was determined they only intended to supply the landfill gas engine/generator package and did not include the required switchgear in their Bid. Pressing KSD Enterprises to provide the full scope of goods and services as Bid and Contracted for would likely result in their defaulting on the Agreement with the County. Finding a replacement engine/generator is a problem as KSD has a relatively captive market on this size engine/generator capable of operating on low Btu fuel (i.e., landfill gas), especially for the price range quoted in the Bid. The size of the generator cannot be increased due to the 75KW ceiling imposed by Haywood EMC and their compliance with NC Utilities Commission. Utilizing a higher capacity engine/generator would have greatly increased the market competition and more than likely the number of responsive bids meeting all the requirements set forth in the Bid Documents.

Research on suppliers willing to construct a switchgear system meeting the requirements of IEEE 1547 for utility grade switchgear for this scale project revealed only one reputable Company. PowerSecure, Inc., located in Wake Forest, North Carolina has the capability to design, manufacture, start-up and commission the required switchgear to meet the interconnect requirements of the project technical specifications. Their quote to provide the utility interconnection with HEMC, including start-up and commissioning and one-year warranty is \$45,000.00. This equipment will enable automatic, synchronized, paralleled operation of the KSD supplied engine/generator with Haywood EMC's electrical distribution system. PowerSecure, Inc., at the County's request, will provide a Performance Bond to the County for an additional fee of \$750.00. Therefore the total Contract Price to be awarded to PowerSecure, Inc., for the manufacturing, start-up and commissioning of the utility interconnection switchgear including the Performance Bond will be \$45,750.00.

NOTICE OF AWARD

**TO: PowerSecure, Inc.
1609 Heritage Commerce Court
Wake Forest, North Carolina 27587**

**Project Description: Phase 3B – Landfill Gas Collection & Combustion System
Landfill Gas Engine/Generator Monitoring and Control Package
Francis Farm Landfill
Haywood County, North Carolina**

The Owner has considered the Proposal submitted by you for the above described Project in response to its request for a proposal.

You are hereby notified that your Proposal has been accepted by the Haywood County Board of Commissioners in the amount of:

<u>Forty-Five Thousand Seven Hundred Fifty and 00/100 Dollars</u>	<u>\$45,750.00</u>
(Words)	(Numbers)

You are requested to execute the Agreement and furnish the requested Contractor's Performance Bond and Certificates of Insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement within ten (10) days from the date of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Proposal as abandoned. The Owner will be entitled to such other rights as may be granted by law.

You are requested to return an acknowledged copy of this Notice of Award to the Owner.

Dated this _____ day of _____, 2011.

**Haywood County
OWNER**

BY: _____

TITLE: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged this _____ day of _____, 2011.

**PowerSecure, Inc.
Seller**

BY: _____

TITLE: _____

AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____ 2011, by and between **Haywood County, North Carolina** ("Owner") and **PowerSecure, Inc.** (Seller"). Owner and Seller, in consideration of the mutual covenants set forth herein, agree as follows:

ARTICLE 1 - GOODS AND SERVICES

1.01 Seller shall furnish the Goods and Services as specified in the Technical Specifications or indicated in the Contract Documents. A general description of the Goods and Services are described as follows:

Landfill Gas Engine/Generator Monitoring and Control Package

1. NexGear® Advanced Paralleling Switchgear in a NEMA 3R Enclosure (Switchboard) to include:
 - a. Single Phase: 120/240 V; 400A
 - b. 400A/2 Pole SQD PowerPact P-Frame Circuit Breaker, Electrically Operated.
 - c. Woodward EasyGen 3200 with Display Screen.
 - d. SEL or GE Multifunction Utility Grade Protective Relay to meet Utility Interconnect Requirements in accordance with IEEE 1547.
 - e. Minimum protective functionality will include Under Voltage (27), Over Voltage (59), Under/Over Frequency (81), Phase Balance (46), Negative Sequence (47), Directional Current (67), Over Current (50/51), and Reverse Power-Gen (32).
 - f. All necessary CT's, relays and accessories.
2. Switchboard FOB Point of Destination.
3. Installation of Switchboard by others to include installation and connection of power conductors and Installation of control wiring only (termination of control wiring by PowerSecure, Inc.).
4. Control wiring termination.
5. Coordination with Haywood EMC.
6. One Year Warranty.
7. Start-Up and Commissioning.

The NexGear® Advanced Paralleling Switchgear will enable automatic, synchronized, paralleled operation of the 85kW KSD Generator with Haywood EMC.

ARTICLE 2 - THE PROJECT

2.01 The Project, for which the Goods and Services are to be provided under the Contract Documents, is as follows:

**Phase 3B – Landfill Gas Collection & Combustion System
Landfill Gas Engine/Generator Monitoring and Control Package
Francis Farm Landfill
Haywood County, North Carolina**

ARTICLE 3 - ENGINEER

3.01 The Contract Documents for the Goods and Services have been prepared by McGill Associates, P.A. located at 55 Broad Street in Asheville, North Carolina, 28801, who is hereinafter called Engineer and who is to assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the furnishing of the Goods and Services.

ARTICLE 4 - POINT OF DESTINATION

4.01 The place where the Goods are to be delivered and the Services are to be performed is defined in the General Conditions as the Point of Destination and is designated as:

Francis Farm Landfill
485 Fairview Drive
Waynesville, North Carolina 28786

ARTICLE 5 - CONTRACT TIMES

5.01 Time of the Essence

All time frames for the delivery of the Goods and the furnishing of the Services as stated in the Contract Documents are of the essence of the Contract.

5.02 Date for Delivery of Goods and Completion of Services

The Goods are to be delivered to the Point of Destination within **Ninety (90)** calendar days of the date of the Notice to Proceed. The Services are to be complete within **Fourteen (14)** calendar days following receipt of written notification from Owner that start-up services and personnel training are required.

5.03 Liquidated Damages

Owner and Seller recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Goods are not delivered to the Point of Destination and the Services are not completed within the times specified in Paragraph 5.02 above, plus any extensions thereof allowed in accordance with Article 7 of the Standard General Conditions for Procurement Contracts. The parties also recognize that the timely performance of services by others involved in the Project are materially dependent upon Seller's specific compliance with the requirements of Paragraph 5.03. Further, they recognize the delays, expense, and difficulties involved in proving the actual loss suffered by Owner if the Goods are not delivered on time and the Services are not completed on time. Accordingly, instead or requiring such proof, Owner and Seller agree that as liquidated damages for delay (but not as a penalty,) Seller shall pay Owner \$1,000.00 for each day that expires after the time specified in Paragraph 5.03 for the delivery of the Goods to the Point of Destination and Seller shall pay Owner \$1,000.00 for each day that expires after the time specified in Paragraph 5.03 for the completion of the Services.

ARTICLE 6 - CONTRACT PRICE

6.01 Owner shall pay Seller for furnishing the Goods and Services in accordance with the Contract Documents in current funds as follows:

Landfill Gas Engine/Generator Monitoring and Control Package:	\$ 45,000.00
Performance Bond:	\$ 750.00
	=====
Total Contract Price:	\$ 45,750.00

ARTICLE 7 - PAYMENT PROCEDURES

7.01 Submittal and Processing of Payments for the Landfill Gas Engine/Generator Monitoring and Control Package.

Seller shall submit Applications for Payment in accordance with Article 10 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

7.02 Progress Payments

Owner shall make progress payments on account of the Contract Price for the Landfill Gas Engine/Generator Monitoring and Control on the basis of Seller's Applications for Payment as follows:

- A. The Seller may submit Application for Payment Number One (1) in accordance with Paragraph 10.01.A.1 of the General Conditions and accompanied by Engineer's recommendation of payment in accordance with Paragraph 10.02.A of the General Conditions, in an amount equal to Twenty-Five percent (25%) of the Lump Sum Contract Price for the Landfill Gas Engine/Generator Monitoring and Control Package less such amounts as Engineer may determine in accordance with Paragraph 10.02.A.3 of the General Conditions.
- B. Upon receipt of the second such Application for Payment, at the time the equipment is delivered to the Point of Destination, accompanied by Engineer's recommendation of payment in accordance with Paragraph 10.01.A.2 of the General Conditions, an amount sufficient to increase total payments to Seller to ninety percent (90%) of the Contract Price, less such amounts as Engineer may determine in accordance with Paragraph 10.02.A.3 of the General Conditions.

7.03 Final Payment

Upon receipt of the final Application for Payment, submitted after the completion of the installation and successful start-up of the Landfill Gas Engine/Generator Monitoring and Control Package, accompanied by Engineer's recommendation of payment in accordance with Paragraph 10.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer.

ARTICLE 8 - INTEREST

- 8.01 All monies not paid when due as provided in Article 10 of the General Conditions shall bear interest at the rate of three percent (3%) per annum.

ARTICLE 9 - SELLER'S REPRESENTATIONS

- 9.01 Seller makes the following representations:

- A. Seller has examined and carefully studied the Contract Documents.
- B. If, in Seller's judgment, any local condition may affect cost, progress or the furnishing of the Goods and Services, Seller has visited the Point of Destination and become familiar with and is satisfied as to the local conditions that may affect cost, progress or the furnishing of the Goods and Services.

- C. Seller is familiar with and is satisfied as to all local federal, state and local Laws and Regulations that may affect cost, progress and the furnishing of the Goods and Services.
- D. Seller has carefully studied and correlated the information known to Seller, and information and observations obtained from Seller's visits, if any, to the Point of Destination, with the Contract Documents.
- E. Seller has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Seller has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Seller.
- F. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing Goods and Services.
- G. Seller agrees to comply with the Buy American Provisions of the American Recovery and Reinvestment Act of 2009 (ARRA) as administered by the Office of Energy Efficiency and Renewable Energy (EERE).

ARTICLE 10 - CONTRACT DOCUMENTS

10.01 Contents

- A. The Contract Documents consist of the following items as contained herein:
 - 1. This Agreement
 - 2. Performance Bond
 - 3. Insurance Certificates
 - 4. Notice to Proceed
 - 5. Standard General Conditions
 - 6. Special Terms and Conditions
 - 7. A Desk Guide to the Buy American Provisions of the American Recover and Reinvestment Act of 2009
 - 8. Technical Specifications
- B. There are no Contract Documents other than those listed above in this Article 10.
- C. The Contract Documents may only be amended, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 11 - MISCELLANEOUS

11.01 Defined Terms

Terms used in this Agreement will have the meanings indicated in the General Conditions.

11.02 Successors and Assigns

Owner and Seller each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

11.03 Severability

Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken and all remaining provisions shall continue to be valid and binding upon Owner and Seller. The Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, Owner and Seller have signed this Agreement in duplicate. One counterpart each has been delivered to Owner and Seller. All portions of the Contract Documents have been signed or identified by Owner and Seller or on their behalf.

Owner: Haywood County, North Carolina

Seller: PowerSecure, Inc.

By: _____

By: _____

Title: Chairman, Haywood County Board of Commissioners

Title: _____

[Corporate Seal]

[Corporate Seal]

Attest: _____

Attest: _____

Address for giving notice:

Haywood County

215 N. Main Street

Waynesville, North Carolina 28786

Address for giving notice:

Designated Representative:

Name: David B. Francis

Title: Project Manager – Francis Farm LE

Address: 215 N. Main Street

Waynesville, North Carolina 28786

Phone: 828 – 452 – 6643 (work)

828 – 400 – 0212 (cell)

Facsimile: 828 – 452 – 6661

E-Mail: dbfrancis@haywoodnc.net

Designated Representative:

Name: _____

Title: _____

Address: _____

Phone: _____

Facsimile: _____

E-Mail: _____

NOTICE TO PROCEED

**TO: PowerSecure, Inc.
1609 Heritage Commerce Court
Wake Forest, North Carolina 27587**

DATE: _____

**PROJECT: Phase 3B – Landfill Gas Collection & Combustion System
Landfill Gas Engine/Generator Monitoring and Control Package
Francis Farm Landfill
Haywood County, North Carolina**

You are hereby notified that the Goods are to be delivered to the Point of Destination within **Ninety (90)** calendar days of the date of the Notice to Proceed. The date the Goods are to be delivered is therefore _____, 2012. The Services are to be complete within **Fourteen (14)** calendar days following receipt of written notification from Owner that start-up services and personnel training are required.

**Haywood County
OWNER**

BY: _____

TITLE: _____

ACCEPTANCE OF NOTICE

Receipt of the above **NOTICE TO PROCEED** is hereby acknowledged by _____ this the _____ day of _____, 2011.

PowerSecure, Inc.

SELLER

BY: _____

TITLE: _____