Request For Quote

Wastewater Treatment Plant Generator – COSTARS

July 24, 2025

Austin Borough
21 Turner Street
Austin, PA 16720

Austin Borough is currently accepting quotes for a 45 kw (53 kva) propane fueled generator and automatic transfer switch for their wastewater treatment plant located at:

92 PA-872

Austin, PA 16720

Detailed specifications for the proposed generator package are attached to this request.

All quotes must be made through the PA COSTARS program. All quotes must include the vendor's COSTARS Contract/Vendor number. Quotes made outside of the COSTARS program will not be accepted.

Please include any estimated lead times in your quote.

This request is for the design, fabrication, furnishing and testing of one (1) complete 45 kW (53 kVA) standby rating propane fueled generator package including the automatic transfer switch. See section 1.1.3 of the attached specification for work to be provided by others. Any quoted items that are listed in 1.1.3 will not be accepted.

All quotes should be emailed to rreitz@emengineers.com by August 1, 2025 at 11:00 am.

Any questions regarding this request for quote can be directed to:

Ryan Reitz - E&M Engineers and Surveyors

Phone: 814-362-5546 ext. 116

Email: rreitz@emengineers.com

45 KW (53 KVA) PROPANE FUELED GENERATOR/AUTOMATIC TRANSFER SWITCH SPECIFICATION FOR REVIEW 07112025

1.1 Summary

This specification covers the design, fabrication, furnishing and testing of one (1) complete 45 kW (53 kVA) standby rating propane fueled generator package including the Automatic Transfer Switch. Compliance with this specification does not relieve the Seller of the responsibility of designing, fabricating, and furnishing a system to reasonable engineering and industry standards necessary to meet the performance requirements. The equipment and services to be furnished include, but are not limited to the following:

1.1.1 Natural Gas Generator Package

1) Weather protected enclosure for equipment located outdoors
2) Propane fueled engine
3) Electrical generator, 240 Volts, 3 phase, 60 HZ, Delta grounded with 120-volt center tap (High Leg Delta)
4) Generator meets NFPA 110.Level 1
5) Engine control and alarm annunciator panel at generator
6) Rated RPM 1800
7) Exciter type Brushless, permanent magnet
8) Voltage regulator – solid state Volts/Hz
9) Insulation – NEMA MG1, Class H, 130 Degree C
10) Generator accepts the following rated loads in 2 steps
    a. Step 1- 10 HP across the line starter fan plus 10.6 kW auxiliary load
    b. Step 2- (2) 5 HP across the line starter pumps
11) Generator control and alarm annunciator panel at generator
12) Starters, batteries and battery charger (12 volts DC)
13) Cooling system block heater 1500 W, 240 volts
14) Local Emergency Stop switch
15) One (1) generator output circuit breaker with ground fault protection
16) Water Jacket cooling system with engine mounted radiator and immersion heaters
17) Integral radiators and fans
18) Dry type air cleaner/filter
19) Exhaust muffler/silencer
20) Mounting equipment to a common base with vibration isolation
21) Review drawings along with certified drawings and O&M manuals
22) Startup and training
    a. Load testing of Propane fueled generator to take place at site
    b. Functional test of control system
23) Initial fill of all fluids
24) Remote Annunciator Panel (quote as an option)

1.1.2 Automatic transfer Switch

1) Outdoor weatherproof type 3R
2) 240 volts 200 ampere
3) 35 KAIC withstand rated

4) 3 pole -240 Volts, 3 phase, 4 wire, 60 HZ, Delta grounded with 120 volt center tap (High Leg Delta)
5) Microprocessor controlled
6) Open transition (break before make)
7) Botton or top feed with front connection
8) Facility exerciser with load or no load option
9) Adjustable time delay prior to transfer and retransfer.

1.1.3 Work provided by others

1) Receiving, unloading and installing equipment
2) Construction installing of foundation anchors
3) Installation of supplied Propane Fueled Generator Package and the Automatic Transfer Switch.
4) External wiring and cabling.

1.2 References

Design, materials and workmanship, including the various accessories furnished herewith, shall fully comply with the requirements of the latest editions of all local, state and federal laws, codes and regulations. The following listed standards and codes (but not limited to) shall govern the design and selection of equipment and material supplied:

NFPA 110 Standard Overview on Generator Requirements (mandatory publications referenced within the NFPA 110).

NFPA 70 National Electric Code (NEC)

NFPA 37 Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines

NFPA Level 1

Transfer switch UL 1008 and UL 1066

1.3 Submittals

A. Proposal:

1) The Proposal shall be provided with a statement of compliance with this Specification or shall be provided with a statement of non-compliance with a concise tabulation of all deviations.

2) The Equipment Vendor's recommendations will be given consideration only when accompanied by a statement of non-compliance and descriptions of all deviations.

3) The time required to submit approval Drawings shall be stated.

4) The time required to submit Certified Drawings, after approval Drawings are returned, shall be stated.

5) Delivery time for equipment after receipt of Certified Drawings shall be stated.

6) The Vendor's Proposal shall include, but not be limited to, the following information:

a. Complete technical information brochures, bulletins, etc., on the equipment.

b. Outline Drawings giving maximum dimensions and approximate weights.

7) All documentation/drawings shall be specific to the equipment supplied. Any generic documents shall clearly indicate the model number, options, and/or configuration of the equipment being supplied.

B. Preliminary and Certified Drawings:

1) The Vendor shall submit Preliminary Shop Drawings for approval. After the Preliminary Shop Drawings are approved and returned, the manufacturer may begin fabrication. Final Drawings, certified for construction, shall be submitted after return of Approval Drawings.

2) Shop Drawings are required for the following items:

a. Engine-generator set, with radiator.

b. Engine control and annunciator panel

c. Generator control and annunciator panel

d. Vibration isolators.

e. Exhaust silencer and flexible exhaust connector, including mounting details.

f. Generator breaker.

g. Generator weatherproof enclosure.

h. Transfer Switch enclosure

i. Transfer Switch power and control wiring.

3) Shop Drawings should cover the following information:

a. Generator ratings, propane fuel consumption rate, ventilation and combustion cfm requirements.

b. Plan and Elevation Drawings showing dimensions, front and side views, foundation and anchor bolt plans, equipment weights and mounting details.

c. Include plans and elevations or riser views clearly indicating entrance points for each of the interconnections required.

d. Electrical Diagrams including Schematic and Interconnection Wiring Diagrams for all equipment (generator and transfer switch), accompanied by legends and written step-by step sequence of operation for each Schematic Wiring Diagram.

e. Weatherproof enclosure including equipment arrangements and construction details of the structural steel base, wall and roof panels, propane fuel connection, and acoustic treatment. Provide full identification and information on all equipment.

C. Certifications:

1) Certified generator engine horsepower curves shall be submitted showing the manufacturer's approval of the engine rating for stand-by application.

2) Manufacturer's certified test reports indicating that the exhaust emissions from the engine-generator sets to be provided conforms to the applicable requirements of the environmental regulatory agency at the installation site.

3) Certification of engine, generator and transfer switch replacement parts in stock at manufacturer's local franchised service facility.

4) Certified drawings shall be furnished in electronic format (AutoCAD - .dwg). These are required for design and construction purposes. If “as-built” conditions differ from certified drawings, the Seller shall modify the drawings to reflect the “as-built” condition and re-issue as certified to the Buyer.

D. Operating and Maintenance Instructions:

1) Six copies of all Installation, Operating and Maintenance Manuals shall be furnished.

2) In addition to the instructions, the manual shall include the manufacturer's recommended maintenance schedule for all equipment provided, based on the equipment, the conditions of operation, and the environment. The information shall be tabulated in easy-to-read form.

1.4 Quality Assurance

A. Seller shall have a Certificate of ISO 9001 Compliance.

B. Design, materials and workmanship of the equipment including the various accessories furnished shall fully comply with the requirements of the latest editions of all local, state and federal laws, codes and regulations.

C. All components and materials used in construction of all equipment shall be new and free from defects.

D. The engine-generator set, and its control cabinets shall all be tested as a complete generating unit at the Seller’s factory. All operations of the equipment as specified herein shall be verified by this testing. The Owner shall be notified two weeks before this test is to be completed, and may at their option, witness these tests. If the witness tests fail to meet the Specification and must be retested, all expenses for the revisit for future testing shall be paid by the Seller.

E. The Automatic Transfer Switch shall be tested at the factory and the results issued to the Owner for review and approval.

E. The Vendor shall include a minimum of one day in their project schedule to accommodate Owner representatives inspecting the equipment prior to shipment. The Seller shall furnish evidence of the testing they have performed prior to this inspection. The Owner's representative shall inform the Seller in writing what they wish to see demonstrated at least 30 days in advance.

1.5 Delivery, Storage and Handling

1.5.1 Protection for Shipment: The equipment shall be suitably packaged or crated and protected to ensure there is no damage to the equipment. All equipment openings shall be protected against entrance of dirt, dust, moisture or other deleterious elements. All surfaces which may be subject to corrosion or oxidation shall be protected in accordance with Seller's standards. Equipment shall be delivered with, at minimum, shrink wrapping applied.

1.5.2 Packaging: Adequate removable means shall be provided for lifting the complete assembly by forklifts and cranes or moving the units on rollers.

1.5.3 Shipping

A. Seller shall provide the Owner's representative 2 weeks' notice prior to delivering equipment. The Seller shall also observe delivery requirement defined in the Purchaser's purchase order.

B. The Seller will be expected to supply normal erection supervision and technicians for field testing of engine, generator, instruments, relays, automatic transfer switch, etc., as required. Any additional services required above the one-man day on site which shall be included in the purchase price shall be billed at the Seller's normal rates. These rates shall be provided with the quotation.

1.6 Service Conditions: Equipment shall be suitable for operation both continuously and with long periods of inactivity in the ambient and latitude conditions of Austin Borough, Pennsylvania.

1.7 Warranty 1)

A. The generator set furnished and automatic transfer switch under this Section shall be guaranteed against defective parts and workmanship under terms of the manufacturers and dealer's standard warranty, but in no event, shall it be for a period of less than one year from date of initial start-up of the system and shall include labor and travel time for necessary repairs at the job site. Submittal data received without written warranties as specified will be rejected in their entirety.

B. Provide quotations for extended warranty coverage for two (2) additional years beyond normal warranty and for four (4) additional years beyond normal warranty.

1.8 Maintenance

A. The Seller shall provide the spare parts and consumables required during the installation, startup, and on-site testing for all equipment furnished.

B. Special Tools – Special tools required to perform routine maintenance tasks shall be included in the main scope of supply.

C. The Seller shall include a spare parts listing with pricing, a complete bill of materials, and three (3) copies of operation/maintenance manuals.

D. The Seller shall provide a copy of and make available to the Owner, their Standard Service Contract, which at the Owner's option, may be accepted or refused. This Contract copy shall be part of the required submittals.

1.9 Startup and Operator Training

A. Provide rates for start-up supervision.

B. Provide rates for operator training upon completion of startup

2.0 TECHNICAL REQUIREMENTS

2.1 General Requirements

A. The generator and automatic transfer switch package will be installed at the facility to allow the Wastewater Treatment plant to continue operation during a utility service loss of power.

B. The generator package shall be automatically started on loss of normal service bus voltage to the Wastewater Treatment plant. Normal incoming utility supplies power at 240-volt 3 phase Delta with High Leg grounded with center tap to provide 120-volt power.

C. The generator and transfer switch with accessories will be installed remotely outside the Wastewater Building.

D. A complete engine, electrical generator and automatic transfer switch control system shall be provided to control the generator and generator breaker.

2.2 Testing

A. A functional test of the generator control system shall be conducted at the Supplier's facility to demonstrate the system is free from defects and will perform to the specifications guaranteed by the Supplier. The owner's Operations and Engineering shall be presented with two (2) weeks advanced notice.

B. Complete generator system shall be tested on-site to verify proper performance and operation. The generator will be loaded to nameplate rating and operated for 4 hours. Critical operating parameters shall be recorded during testing. The owner's Operations and Engineering shall be presented with two (2) weeks advanced notice.

C. Test results shall be signed-off by Owner's Energy Operations, Owner's Energy Engineering, and Owner's Construction. All three (3) signatures warrant a completed test.

END OF SPECIFICATION