

## **REQUEST FOR PROPOSALS GENERATORS**

Notice is hereby given that the Santa Rosa County Board of County Commissioners is calling for and requesting proposals for standby generators and their installation at the following 5 county buildings:

SRC Auditorium	4530 Spikes Way
SRC Building Inspections	6051 Old Bagdad Hwy
SRC Public Works	6075 Old Bagdad Hwy
SRC Administrative Ctr.	6495 Caroline St
East Milton Gym	9604 Bobby Brown Rd

All proposals must be in writing and delivered by hand, mail, fax, or Fed EX to the Santa Rosa County Procurement Department, 6495 Caroline Street, Suite G, Milton, Florida 32570, and must be received by 10:00 a.m., April 17, 2007. Only proposals received by the aforesated time and date will be considered. All proposals shall be labeled, “**RFP Generators.**” Please provide twelve (12) copies of the document.

Questions concerning this request should be directed to Thad Allen at (850) 623-1569.

The Board of County Commissioners reserves the right to accept or reject any and all proposals in whole or in part, and to waive all informalities.

Santa Rosa County does not discriminate on the basis of race, color, national origin, sex, religion, age, or handicapped status in employment or provision of service.

By order of the Board of County Commissioners of Santa Rosa County, Florida.

### **Legal Notice**

One Issue – March 17, 2007 – Press Gazette, March 22, 2007 Navarre Press

Bill and Proof to Santa Rosa County Procurement Department, Attention: Orrin L. Smith, 6495 Caroline Street, Suite G, Milton, Florida 32570

March 17, 2007

**MEMORANDUM**

TO: Company Addressed

FROM: Santa Rosa County Procurement Department

SUBJECT: Request for Proposals - Generators

Notice is hereby given that the Santa Rosa County Board of County Commissioners is calling for and requesting proposals for standby generators and their installation at the following 5 county buildings:

SRC Auditorium	4530 Spikes Way
SRC Building Inspections	6051 Old Bagdad Hwy
SRC Public Works	6075 Old Bagdad Hwy
SRC Administrative Ctr.	6495 Caroline St
East Milton Gym	9604 Bobby Brown Rd

All proposals must be in writing and delivered by hand, mail, fax, or Fed EX to the Santa Rosa County Procurement Department, 6495 Caroline Street, Suite G, Milton, Florida 32570, and must be received by 10:00 a.m., April 17, 2007. Only proposals received by the aforesaid time and date will be considered. All proposals shall be labeled, "**RFP Generators.**" Please provide twelve (12) copies of the document.

Questions concerning this request should be directed to Thad Allen at (850) 623-1569.

The Board of County Commissioners reserves the right to accept or reject any and all proposals in whole or in part, and to waive all informalities.

Santa Rosa County does not discriminate on the basis of race, color, national origin, sex, religion, age, or handicapped status in employment or provision of service.

# **STANDBY EMERGENCY GENERATOR SPECIFICATIONS**

## **PART 1 - GENERAL:**

### **I. SCOPE**

- A. This is a performance specification for a Standby Emergency Generator Power System. No used equipment will be allowed.
- B. This section includes the performance specification for providing the standby power generation and includes, but is not limited to, a packaged engine generator system, weatherproof housing, exhaust silencer and fittings, fuel system, control panel, battery and charger, automatic transfer switch, and appurtenances, connections, and supplies required to provide a fully functioning system.
- C. The following references shall be followed for the design of the emergency power generation system.
  - 1. ANSI/NEMA 250: Enclosures for electrical equipment (1,000 volts maximum).
  - 2. ANSI/NEMA MG 1: Motors and generators.
  - 3. ANSI/NFPA: National electrical code.
  - 4. NFPA 110 Level 1.
  - 5. ANSI/NFPA 99: Health care facilities.
  - 6. ANSI/NEMA AB 1: Molded case circuit breakers.
  - 7. NEMA ICS 1: General Standards for industrial Control and Systems.
  - 8. NEMA ICS 2: Standards for Industrial Control Devices, Controllers, and Assemblies.
  - 9. NEMA ICS 6: Enclosures for Industrial Controls and Systems.
- D. The following documents are required before the Owner will accept the system for ownership and maintenance:
  - 1. Submit shop drawings showing plan and elevation views with overall and interconnection point dimensions, fuel consumption rate curves at various loads, ventilation and combustion requirements, and electrical diagrams including schematic and interconnection diagrams.
  - 2. Submit product data showing dimensions, weights ratings, interconnection points, and internal wiring diagrams for engine, generator, control panel, battery, battery rack, battery charger, exhaust silencer, vibrator isolators, fuel system, radiator, and remote annunciator.
  - 3. Submit record of system load test.
  - 4. Accurately record location of engine generator and mechanical and electrical connections.
  - 5. Submit 5 copies for each segment, per size, operation and maintenance data upon delivery of the emergency generator.

**PART 1 - GENERAL: (cont.)**

6. Include instructions for normal operation, routine maintenance requirements, service manuals for engine and fuel system, oil sampling and analysis for engine wear, and emergency maintenance procedures.
7. Provide a full five-year warranty for engine and alternator against wear and defects from date of startup or three months after delivery, whichever occurs first, including the generator and transfer switch.
8. Furnish service and maintenance of emergency generator system for two years every four months from date of startup or three months after delivery, whichever occurs first.
9. Provide two additional sets of each fluid (except fuel), oil, and air filter element require for the engine generator system.
10. Furnish one set of tools for each segment (3 total) for preventive maintenance of the engine generator system. Package tools in an adequately sized metal box that is fitted for padlock and turned over to the Owner.
11. List of special tools, maintenance materials, and replacement parts.

## **PART 2 - PRODUCTS:**

I. The generator shall be one of the following power systems. All control panels, breakers, transfer switches, and other appurtenances shall be provided by the same manufacturer or authorized distributor and will be guaranteed to operate with the system. All parts of the system shall be covered under the warranty. The accepted generator manufacturer shall have a facility authorized service center within 150 miles of Santa Rosa County.

A. Approved generator manufacturers are:

1. Caterpillar
2. Kohler
3. Onan
4. Generac

B. Approved automatic transfer switch manufacturers are:

1. Caterpillar
2. Kohler
3. Onan
4. Generac
5. ASCO
6. Zenith

## II. ENGINE

A. Type: Water-cooled inline or V-type, natural gas internal combustion engine, operating at no more than 1800 rpm. Where natural gas is not available as fuel source, a diesel generator shall be provided with skid-mounted double wall fuel storage tank.

B. The engine shall have a rating sufficient to operate at 100 percent load for duration of the power outage specified elevation and ambient temperature limits. The unit has been sized to start all motors at each location.

C. The engine shall have an electronic governor.

D. The generator shall be capable of delivering full load amps with up to 5% total harmonic distortion.

E. Safety devices: engine shutdown on high water temperature, low oil pressure, overspeed, and engine overcrank. Limits as selected by manufacturer.

## **PART 2 - PRODUCTS: (cont.)**

- F. Engine Accessories: lube oil filter, intake air filter, lube oil cooler, gear-drive water pump. Include water temperature gage, and lube oil pressure gage on engine-generator control panel. For diesel fuel units, include fuel filter, fuel pumps, fuel priming pumps, fuel primer gage, as required.
- G. Engine starting: DC starting system with positive engagement, number and voltage of starter motors in accordance with manufacturer's instructions. Include remote starting control circuit, with MANUAL-OFF-REMOTE selector switch on engine-generator control panel.
- H. Engine Jacket Heater: thermal circulation type water heater with integral thermostatic control, sized to maintain engine jacket water at 90 degrees F (32 degrees C), and suitable for operation on 120 volts AC.
- I. Radiator: radiator using glycol coolant, with blower type fan, sized to maintain safe engine temperature in ambient temperature of 110 degrees F (43 degrees C). Radiator air flow restriction: 0.5 inches of water (9.34 mm of mercury), maximum.

### **III. GENERATOR**

- A. Generator: ANSI/NEMA MG 1; three phase, four pole, re-connectable brushless synchronous generator with brushless exciter.
- B. Insulation: ANSI/NEMA MG1, Class F.
- C. Temperature Rise: 130 degrees C standby.
- D. Enclosure: ANSI/NEMA MG1; open drip proof.

### **IV. AUTOMATIC TRANSFER SWITCH (ATS)**

- A. Provide an automatic transfer switch that is recommended by the manufacturer of the generator set. The ATS shall be rated as UL 1008. The switch shall be NEMA 3R with a dead front enclosure.
- B. Indicating Lights: Mount in cover of enclosure to indicate NORMAL SOURCE AVAILABLE, ALTERNATE SOURCE AVAILABLE, SWITCH POSITION.
- C. Test Switch: Required.

## **PART 2 - PRODUCTS: (cont.)**

- D. Return To Normal Switch: Mount in cover of enclosure to initiate manual transfer from alternate to normal source.
- E. Transfer Switch Auxiliary Contacts: 1 normally open; 1 normally closed.
- F. Alternate Source Monitor: Monitor alternate source voltage and frequency; inhibit transfer when voltage is below 85 percent or frequency varies more than 3 percent from rated nominal voltage.
- G. Provide adjustable time delay on transfer and re-transfer.
- H. The ATS shall be supplied with surge protection.

### V. ACCESSORIES

- A. Natural Gas Fuel System: Where required, the owner will contract along with unit installation for the connection to the natural gas system that will include a meter/regulator. If the generator requires an additional regulator, then the manufacturer shall supply an acceptable unit.
- B. Diesel Fuel System: The fuel storage tank shall provide volume shown on the Generator Tabulation Form. Tank shall be double walled painted steel fuel tank used as the base of the generator with fuel gauge, overfill protection, stage II vapor recovery, audible leak detectors, per DEP and EPA requirements. All joints shall be fully welded before preparation and painting. Provide low-level fuel indicator. The painting shall be 100% shop applied as follows:
  - 1. Organic Zinc-rich/Urethane/Urethane Coating System
    - a. Surface Preparation: SSPC-SP6 Commercial Blasting Cleaning
    - b. Prime Coat: Series 90-97 Tnemac-Zinc at 2.5 to 3.5 mils DFT
    - c. Intermediate and Finish: Series 1075 Endura-Shield-Color at 2.0 to 3.0 mils DFT each coat
    - d. Minimum Total DFT: 7.0 mils
  - 2. The bottom of the fuel tank shall be coated with 8 mil coal tar epoxy.
  - 3. In addition, the fuel tank will be manufactured so the bottom of the tank will not come in full contact with the concrete slab.
- C. Batteries: Heavy duty, diesel starting type lead-acid storage batteries. Match battery voltage to starting system. Include necessary cables and clamps.

**PART 2 - PRODUCTS: (cont.)**

- D. Battery charger: Current limiting type designed to float at 2.17 volts per cell and equalize at 2.33 volts per cell. Include overload protection. Full wave rectifier, DC voltmeter and ammeter, and 120 volts AC fused input. Provide enclosure to meet ANSI/NEMA 250, Type 1 requirements, and unit to be mounted inside of generator enclosure.
- E. Generator Enclosure:
1. Standard: Enclosures shall be painted steel, 14-gauge construction, with stainless steel hardware. Doors shall be keyed and pad lockable.
  2. Sound Attenuated: Enclosures shall be painted steel, 14-gauge construction, with stainless steel hardware. Doors shall be weather-protective seals; keyed and pad lockable. Non-hydroscopic sound-insulating materials. The maximum “dB” rating shall be 72 dB. The panel openings shall be designed so as not to allow wind-driven rain to enter the enclosure and cause damage to the unit while in operation. The enclosure shall be designed to withstand 110 mph wind speed.
  3. High Wind Enclosures: Enclosure designed to withstand 130 mph wind speed, Exposure C, Importance Factor 1.15, partially enclosed condition in accordance with methodology contained in ASCE 7-98. Provide sealed shop drawings by an Engineer licensed in the State of Florida. All other conditions of E.2 above and Generator Tabulation Form apply.
- F. Enclosure shall also be designed with removal louvers for servicing generator. Generator enclosure to house battery tray, battery charger, generator circuit breakers. All electrical controls shall be contained within NEMA 4X rated enclosures.
- G. Exhaust Silencer: The exhaust silencer shall be type shown on the Generator Tabulation Form. For standard enclosures the silencer may be mounted outside the unit. On sound attenuated enclosures the silencer shall be mounted inside the unit.
- H. Engine-Generator Control Panel: ANSI/NEMA 250, Type 1 generator mounted control panel enclosure with engine and generator controls and indicators. Include provision for padlock and the following equipment and features:
1. All indications for protection and diagnostics according to NFPA 110 Level 1, including remote and local annunciation.
  2. Frequency Meter: 45-65 Hz range, 3-1/2 inch (89 mm) dial.
  3. AC Output Voltmeter: 3-1/2 inch (89 mm) dial, 2 percent accuracy, with phase selector switch.

**PART 2 - PRODUCTS: (cont.)**

4. AC Outlet Ammeter: 3-1/2 inch (89 mm) dial, 2 percent accuracy, with phase selector switch.
5. Output voltage adjustment.
6. Push-to-test indicator lamps, one each for low oil pressure, high water temperature, over-speed, and over-crank.
7. Engine start/stop selector switch.
8. Engine running time meter.
9. Oil pressure and water temperature gages.
10. Auxiliary Relay: 3 PDT, operates when engine runs, with contact terminals pre-wired to terminal strip.
11. Provision for regularly scheduled starting and operation of engine generator for maintenance purposes.

**VI. REMOTE COMMUNICATIONS**

- A. Remote Alarm Contacts: Pre-wire SPCT contacts to terminal strip for remote alarm functions required by ANSI/NFPA 99.
- B. All alarm conditions shall be made available for connection to control unit at the generator site for transmission to a central communication facility. Additionally, all level monitored by the microprocessor shall also be made available through 4-20 ma signals or other compatible method.
- C. The supplier of the generator set is responsible for labeling where these signals are available, but not for connecting them to the local monitoring system.

### **PART 3 - EXECUTION:**

#### I. INSTALLATION

- A. The cost of installation, all applicable permits, and components shall be included in the proposal price.

#### II. TESTING

A. An Auto Test Run will be performed at the first of each month with the auto switch back to regular power.

- B. Provide full load test utilizing portable test bank, for four (4) hours minimum.

C. During test, record the following at 20 minute intervals:

1. Kilowatts
2. Amperes
3. Voltage
4. Coolant temperature
5. Ambient temperature
6. Frequency
7. Oil pressure

D. Test alarm and shutdown circuits by simulating conditions.

E. Manufacturer's representative should be present to prepare, start, test, and adjust systems. Adjust generator output voltage and engine speed.

**PART 4 – LOCATION INFORMATION:**

AUDITORIUM – All areas are to be powered for full service. This includes lighting, air conditioning, and phone system.

BUILDING INSPECTIONS - All areas are to be powered for full service. This includes lighting, air conditioning, and phone system.

PUBLIC WORKS - All areas are to be powered for full service. This includes lighting, air conditioning, and phone system.

ADMINISTRATIVE CENTER- ONLY the areas indicated are to be powered for full service. This includes lighting, air conditioning, and phone system. These include the Board of County Commissioners Meeting Room, Human Resource/Risk Management, Procurement, and Finance areas.

EAST MILTON GYM - All areas are to be powered for full service. This includes lighting, air conditioning, and phone system.

<u>LOCATION</u>	<u>SQ FT</u>	<u>FUEL</u>	<u>MAIN BREAKER</u>	<u>MNTHLY USAGE</u>
Auditorium	11783	Natural Gas	2500 amp	16560 kWh
Building Inspections	12035	Natural Gas	600 amp	17280 kWh
Public Works	13200	Natural Gas	400 amp	8800 kWh
Administrative Center	11785	Natural Gas	2500 amp	72960 kWh
East Milton Gym	17400	Diesel	600 amp	5520 kWh