

General Specifications:

Scope of Work:

The scope of work/services required under the terms of this contract include, but are not limited to the inspection, testing and repair related services of generators located at various locations within the State as described in Exhibits A (beginning on page 3 of this document) & B (beginning on page 5 of this document).

All generators encompassed within Attachment C – Generator List & Locations shall have Generator maintenance services performed twice per year: one major annual inspection and one minor annual inspection and testing. The State reserves the right to cancel the need for the minor inspection if a funding problem develops. The State reserves the right to add and/or delete generators that come into and out of service as needed.

The Contractor must be an authorized service provider and service must be performed in accordance with the manufacturer's recommended maintenance schedule.

Site visits are not mandatory to place a bid. However if the bidder is interested, please contact the persons below to schedule a visit.

- Bureau of Community Preparedness (BCP): Johnathan Jones at 225-573-9185
- Bureau of Community Preparedness (BCP) Warehouse: Wymon Dawson at 225-931-4223
- Grambling State University/Intramural Facility: Damien Chatman at chatmand@gram.edu

The State is requesting a "turnkey" operation. The expression "turnkey" shall include, but may not be limited to all labor, materials, equipment, fuel, transportation, storage of equipment, insurance, licenses, etc. required to provide the two needed inspections/tests per year.

The Contractor shall submit his Louisiana Sales Tax License and current occupational license to show he is domiciled and licensed to do business within the State of Louisiana within 7 days of request.

The State shall not be restricted from utilizing its own personnel and equipment to perform work associated/included under the terms of this contract.

Permissible Working Hours/Periods:

The generators are located in various areas throughout the State. Work shall be scheduled between 8:30 a.m. and 4:00 p.m. CT Monday through Friday with the exception of transfer switch load testing. Transfer switch load testing shall be scheduled with an LDH representative and shall be completed in such a manner as not to interrupt the normal operations of the site. All work shall be scheduled at the State's convenience and in cooperation with an LDH representative. Contractor shall provide priority to LDH on all scheduled repairs. In the event that the Contractor wishes to work weekends, holidays or outside permissible working periods, Contractor must secure permission from LDH Logistics Program, and provide at least 72 hours of notification of intentions. The Contractor must also be aware of any local events that may impact his scheduled operation and may be required to

alter his schedule accordingly. This modification to the schedule will not be grounds for any additional cost/compensation. This condition applies primarily for generator repair related services.

Reports:

Contractor shall provide report sheets to LDH recording all activities related to the contract. Contact information to be provided upon award. If reports are not submitted on a timely basis, payment of Contractor's invoices may be delayed until proper report is submitted. Reports should accompany Contractor's invoices.

Technical Specifications

Inspection and Testing:

The annual minor inspection and testing shall be performed between October and November. The annual major inspection shall be performed between March and April.

Refer to Attachment C – Generator List & Locations for list of generator sizes (KW ratings) and their respective locations.

Exhibit A (beginning of page 3 of this document) and Exhibit B (beginning on page 5 of this document) shall be used to indicate the required level of inspection, maintenance and testing. For all inspections, maintenance and testing tasks, Contractor must note condition found, condition left and any action taken and/or recommended.

Exhibits A & B list the requirements to be completed on an annual basis. Exhibit A (beginning on page 3 of this document) lists the requirements for the minor inspection; Exhibit B (beginning on page 5 of this document) lists the requirements for the major inspection.

Copies of all test results and reports shall be sent to LDH Logistics Program no later than 30 days after completion of service work on all generators. Contact information to be provided upon award.

Minor Inspection/Testing:

The annual minor inspection and testing shall be performed between October and November. Minor service maintenance/inspections to each generator listed in Attachment C – Generator List & Locations shall consist of all labor and materials necessary to perform the minor service one time per year. The State of Louisiana reserves the right to cancel the need for these services, if a funding problem develops.

Payments for Minor inspection shall be submitted to LDH Logistics Program for review/comment and approval along with completed reports for review. Contact information to be provided upon award.

Measurement and Payment:

Payment for these services will be measured per Lump Sum (one time per year) and shall cover

the maintenance service (inspection/testing) specified below for all Generators in Attachment C – Generator List & Locations of various types, KW ratings and sizes. Minor service maintenance to each generator shall include all labor, equipment, materials and incidentals necessary to accomplish the work. Also included under these bid items is the following:

- Oil - (Replace as needed)
- Lubricant - (Lubricate as needed)
- Antifreeze - (add as needed)
- Belts - (Check for cracks/wear and tear)

Exhibit A:

Minor Periodic Maintenance performed once every 12 months.

Provide Minor Annual preventative maintenance for 20 generators listed on Attachment C – Generator Log & Locations. Total cost shall be inclusive of this service for all generators and shall include travel and labor expenses.

Contractor shall perform minor annual servicing in accordance with the manufacturer's specifications and, at a minimum, shall include the following tasks:

1. Ensure the unit is disabled from automatically operating for safety purposes.
2. Check battery voltage
3. Check coolant level and coolant condition
4. Check and replace, as necessary, the oil, air and fuel filters; at a minimum they should be replaced annually.
5. Open normal source breaker at Automatic Transfer Switch (ATS).
6. Verify the generator starts, ATS transfer to emergency and power to the load is restored.
7. Allow the generator to run for 30 minutes and note any perceived problems.
8. Check gauges and meters and record the readings, including the fuel level.
9. Close normal source breaker at ATS
10. Verify the ATS transfers to normal
11. Verify proper generator shut down
12. Submit an annual report that summarizes gauge and meter readings, fuel levels and any problems detected.
13. Record running time in hours
14. Exercise the unit
15. Check for excessive vibration
16. Record housing condition
17. Record coolant temperature
18. Record oil pressure
19. Inspect for oil leaks
20. Inspect belts for wear or damage and note accordingly.
21. Inspect and tighten all bolts
22. Inspect choke
23. Inspect ignition wiring

24. Inspect crankcase breather
25. Check oil level and top off
26. Inspect all filters
27. Lubricate governor and linkage
28. Record coolant protection temperature
29. Check for coolant leaks
30. Inspect hoses and tighten clamps
31. Verify louver operation
32. Check operation of block heater
33. Visually inspect exhaust system silencer
34. Drain all exhaust silencer condensate
35. Visually observe exhaust emissions and record any abnormalities
36. Visually inspect exhaust system connections
37. Check fuel level
38. Compare fuel level indicator with actual fuel level
39. Check day tank float
40. Check fuel transfer pump operation
41. Check operation of solenoid
42. Check all electrical connections
43. Inspect alternator terminals
44. Confirm and record alternator output
45. Inspect and clean all battery terminals
46. Record all charger output
47. Check fluid levels in all batteries
48. Record all battery volts and amps
49. Record all battery specific gravity for each cell of each battery
50. Clean coolant system annually by manufacturer's specifications

NOTE: (A) After performing item #2, if it is determined that coolant must be changed; coolant can be billed at time of change.

(B) For item #5, with coordination with facility, ATS transfer to emergency power can be conducted during normal business hours at all sites.

Major Inspection/Testing:

The annual major inspection shall be performed between March and April. Major Service maintenance to each generator listed on Attachment C – Generator List & Locations shall consist of all labor and materials necessary to perform the annual major inspection, as per requirements dictated in Exhibit A (page 3 of this document) and B (page 5 of this document) and the replacement of parts/equipment listed below. This shall include maintenance to the engine, generator end, remote alarm test, and operational tests further delineated in Exhibits A & B.

Transfer switch testing shall be scheduled through LDH Logistics Program representative to ensure certain critical loads are not interrupted. Terminate transfer test and check operation and timing of re-transfer delay, program transition times and cool down times. Concurrence of any

adjustment shall be obtained prior to any adjustment.

Payments for Minor inspection shall be submitted to LDH Logistics Program for review/comment and approval along with completed reports for review. Contact information to be provided upon award.

Measurement and Payment:

Payment for these services will be measured per Lump Sum (one time per year) and shall cover the maintenance service (inspection/testing) specified below for all Generators and shall cover the annual services (inspections/testing) specified in Exhibits A & B for all generators in Attachment C – Generator List & Locations of various types, KW ratings and sizes. Major Service maintenance to each generator shall include all labor, equipment and materials and incidentals necessary to accomplish the work. Also included under this bid item is the following:

- Filters -- (Replace oil, fuel and air filters) at all major annual services.
- Oil -- (Replace at all major annual services)
- Antifreeze Analysis – Send sample for testing- Contact information to be provided upon award.
- Oil Analysis – Send sample for testing- Contact information to be provided upon award.
- Fuel Analysis – Send sample for testing- Contact information to be provided upon award.

Exhibit B:

Major annual maintenance performed once every 12 months. Includes all items from Exhibit A (beginning on page 3 of this document).

Provide major annual preventative maintenance plus all items listed on minor annual preventative maintenance for 20 generators as listed on Attachment C – Generator List & Locations. Total cost shall be inclusive of this service for all generators annually and shall include travel and labor expenses.

Contractor shall perform major annual servicing in accordance with the manufacturer's specifications and, at a minimum, shall include the following tasks:

1. Ensure the unit is disabled from automatically operating for safety purposes.
2. Replace filters (oil, fuel and air) per manufacturer's specifications
3. Perform 5-minute no-load operational run of the unit looking for any post service problems
4. Verify integrity of frame ground and re-torque hardware to specifications.
5. Check generator external and conduit entry condition
6. Inspect condition of leads and terminal/lug
7. Check conditions of brushes, slip rings, condition and tightness if applicable
8. Lubricate generator bearings per manufacturer's specifications.
9. Perform below Remote Alarm Test:
 - a. perform remote alarms annunciate

- b. Generator Running
 - c. Generator Over-crank shutdown
 - d. Generator Over-speed shutdown
 - e. Generator Low Oil Pressure Shutdown
 - f. Generator High Coolant Temp Shutdown
 - g. Generator Low Coolant Temperature
 - h. Generator Low Coolant Level Shutdown
 - i. Generator Main Tank Low Fuel
 - j. Generator Crank Battery Charge Fail
 - k. Generator Not in Automatic
10. Perform below Operational Test with Load Transfer.
- a. Obtain permission from LDH representative to perform site-load transfer test
 - b. Check transfer switch operation and position
 - c. Check auto-start system
 - d. Confirm the ATS ON EMERGENCY alarm annunciates
 - e. Check engine instruments
 - f. Check voltage and frequency, and load
 - g. Contractor to load test the Generator for 60 minutes: for the first 30 minutes, 50% for the second 30 minutes, 100%. Contractor to record Hz, Amps, Temp, Freq, every 15 minutes.

*Terminate transfer test and check operation and timing of re-transfer delay, program transition times and cool down times. Obtain concurrence from LDH representative before adjusting.

Hourly Repairs Related Services

- Payment for this work is to be made on an hourly basis and shall include all incidental materials, equipment, transportation, licenses, etc.
- Charges for electrician, Generator Technician-Mechanic shall be used for the repairs of any generator(s) only. No supplemental/special hourly rates will be paid for work performed beyond normal working hours, weekends, holidays or emergency declared situations. Overtime shall be paid only if trade personnel are required to work after-hours.
- For any necessary repair related work which is not considered part of the normal yearly major and minor maintenance services (inspections/testing), an approval shall be obtained from LDH Facilities Maintenance Section and a written Notice to Proceed with the work shall be necessary. Notice to Proceed should describe the work to be performed and an estimated cost for the work.