SCOPE OF WORK/SERVICES

The scope of work/services required under the terms of this Contract include, but not limited to the inspection and testing of generators located at various locations within the State as described on the attached Exhibit A. Also included under the terms of this Contract is generator repair related services.

The entire list of generators (Table I) shall have one major (annual) and one minor inspection and testing each year. Generator maintenance services are to be performed twice a year: one Major Annual (annual) inspection and one minor inspection and testing during course of year. 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 need be this Contract period.

It is the bidder's responsibility to visit and evaluate each location in order to bid accordingly.

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/testing’s per year.

# IMPORTANT NOTICE TO ALL BIDDERS

Work under this Contract can be described as a preventative maintenance/service and repair Contract. 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 8:00 a.m. and 3:30 p.m. Monday through Friday with the exception of transfer switch load testing. Transfer switch load testing shall be scheduled with a DCFS 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 DCFS representative. Contractor shall provide priority to DCFS 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 DCFS EP Director or his representative, 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 DCFS recording all activities related to the Contract within 72 hours. 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**

**INSPECTIONS AND TESTINGS**

The Minor inspection and testing shall be performed in November-December timeframe. The Major inspection shall be performed in April-May after award. The process for major and minor service shall repeat itself all years and renewal years thereafter. The State of Louisiana reserves the right to cancel the need for the minor inspection, if a funding problem develops. The State of Louisiana reserves the right to add and/or delete generators that come into and out of service as need be and adjust unit cost accordingly during this Contract period.

Refer to Table I for list of generator sizes (KW ratings) and their respective locations. It is the bidder's responsibility to evaluate each generator (and types) and bid accordingly.

Exhibit A shall be used to indicate the required level of inspection, maintenance and testing. For all inspections, maintenance and testing task, Contractor must note condition found, condition left and any action taken and recommended.

Exhibits A and B lists the requirements to be completed on an annual basis which includes completing all items in both Exhibit A and B. Exhibit A lists the requirements for the minor inspection; Exhibit B lists the requirements for the major inspection.

Copies of all test results and reports shall be sent to DCFS Emergency Preparedness Section no later than 72 hours after completion of service work on all generators.

# MINOR INSPECTION/MAINTENANCE

The Minor inspection and testing shall be performed in November-December timeframe. Minor service maintenance/inspections to each generator listed in Table I shall consist of all labor and materials necessary to perform the minor service one time per year, as per requirements dictated in Exhibit A and the replacement of parts/equipment listed below. 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 DCFS Emergency Preparedness Section for review/comment and approval along with completed reports for review within 72 hours of completion.

**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 Table I 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 need be)
* Lubricant (lubricate as need be)
* Anti-freeze (add as need be)
* Belts (check for cracks/wear and tear)

Payment for this work shall be made under: Line Item 1.

# Exhibit A

Minor Periodic Maintenance performed once every 12 months.

Disable Unit from automatically operating for safety purposes.

Provide Minor Annual preventative maintenance for five generators listed below. 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. Check battery voltage
2. Check coolant level and coolant condition
3. Check and replace, as necessary, the oil, air and fuel filters; at a minimum they should be replaced annually.
4. Open normal source breaker at ATS
5. Verify the generator starts, ATS transfer to emergency and power to the load is restored.
6. Allow the generator to run for 30 minutes and note any perceived problems.
7. Check gauges and meters and record the readings, including the fuel level.
8. Close normal source breaker at ATS
9. Verify the ATS transfers to normal
10. Verify proper generator shut down
11. Submit an Annual report that summarizes gauge and meter readings, fuel levels and other problems detected.
12. Record running time in hours
13. Exercise the unit
14. Check for excessive vibration
15. Record housing condition
16. Record coolant temperature
17. Record oil pressure
18. Inspect for oil leaks
19. Inspect belts for wear or damage and note accordingly.
20. Inspect and tighten all bolts
21. Inspect choke
22. Inspect ignition wiring
23. Inspect crankcase breather
24. Check oil level and top off
25. Inspect all filters
26. Lubricate governor and linkage
27. Record coolant protection temperature
28. Check for coolant leaks
29. Inspect hoses and tighten clamps
30. Verify louver operation
31. Check operation of block heater
32. Visually inspect exhaust system silencer
33. Drain all exhaust silencer condensate
34. Visually observe exhaust emissions and record any abnormalities
35. Visually inspect exhaust system connections
36. Check fuel level
37. Compare fuel level indicator with actual fuel level
38. Check day tank float
39. Check fuel transfer pump operation
40. Check operation of solenoid
41. Check all electrical connections
42. Inspect alternator terminals
43. Confirm and record alternator output
44. Inspect and clean all battery terminals
45. Record all charger output
46. Check fluid levels in all batteries
47. Record all battery volts and amps
48. Record all battery specific gravity for each cell of each battery
49. 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 each facility, ATS transfer to emergency power can be conducted during normal business hours at all sites.

# MAJOR INSPECTION/TESTINGS

The Major inspection shall be performed in April-May after award. Major Service maintenance to each generator listed on Table I shall consist of all labor and materials necessary to perform the Major (annual) service once a year, as per requirements dictated in Exhibits A and B 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 and B.

Transfer switch testing shall be scheduled through DCFS Emergency Preparedness Section 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.

Payment for Major Annual Maintenance shall be submitted to the State of Louisiana for review/comment and approval along with completed report within 72 hours of completion.

**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 Table I 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
* Anti-freeze Analysis – send sample for testing – results to be provided to the State of Louisiana
* Oil Analysis – send sample for testing – results to be provided to the State of Louisiana
* Fuel Analysis – send sample for testing – results to be provided to the State of Louisiana

Payment for this work shall be made under: Line Item 2.

# EXHIBIT B

Major Annual Maintenance performed once every 12 months. Includes all items in Exhibit A.

Provide Major (Line 2) Annual preventative maintenance plus all items listed on Minor (Line 1) Annual preventative maintenance for five generators listed below. Total cost shall be inclusive of this service for all generators quarterly 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. Replace filters (oil, fuel and air) per manufacturer's specifications
	2. Perform five-minute no-load operational run of the unit looking for any post service problems
	3. Verify integrity of frame ground and re-torque hardware to specifications.
	4. Check generator external and conduit entry condition
	5. Inspect condition of leads and terminal/lug
	6. Check conditions of brushes, slip rings, condition and tightness if applicable
	7. Lubricate generator bearings per manufacturer's specifications.
	8. Perform below Remote Alarm Test:
		1. Perform Remote Alarms Annunciate
		2. Generator Running
		3. Generator Over-Crank Shutdown
		4. Generator Over-Speed Shutdown
		5. Generator Low Oil Pressure Shutdown
		6. Generator High Coolant Temp Shutdown
		7. Generator Low Coolant Temperature
		8. Generator Low Coolant Level Shutdown
		9. Generator Main Tank Low Fuel
		10. Generator Crank Battery Charge Fail
		11. Generator Not in Automatic
	9. Perform below Operational Test with Load Transfer
		1. Obtain permission from company representative to perform site-load transfer test
		2. Check transfer switch operation and position
		3. Check auto-start system
		4. Confirm the ATS ON EMERGENCY alarm annunciates
		5. Check engine instruments
		6. Check voltage and frequency, and load
		7. Contractor to load test the Generator for 2 hours: 25% load for the first 30 minutes, 50% for the second 30 minutes, 100% for the last hour. 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 company representative before adjusting.

# HOURLY REPAIRS RELATED SERVICES

Repair related services which are not part of the scope of work specified for major and minor maintenance related services (inspections and testing) shall be performed by a Louisiana licensed electrician and/or certified Generator Technician-Mechanic (as necessary). All electrical work shall be performed by a State of Louisiana licensed electrician as provided in LSA R. S. 37:2150 et seq.

* + - * 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 DCFS Emergency Preparedness 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.

Quantities listed for labor related items of work have been estimated and are for bidding purposes only. Actual quantities may be more or less than the estimated bid quantities. Quantities shown have been based on a period of one year Payment for this work shall be made under: Line Item 3.

# TABLE I

GENERATOR LOCATIONS AND TYPE OF EQUIPMENT:

# BOSSIER CITY CIVIC CENTER

620 Benton Road

Bossier City, LA 71111-3703

Make: Cummins Onan

Model: DQKAB-7230703

Size: 2000 KW; Voltage: 480 Volts

SN: 33174716

# HEYMAN CENTER

1373 South College Road

Lafayette, LA 70503-2909

Make: MTU Onsite Energy

Model: CD600PV6T2

Size: 600 KW; Voltage: 120/208 Volts

SN: D16\*037011\*C3\*A

# SOUTHEASTERN LOUISIANA UNIVERSITY - KINSIOLOGY BLDG

400 Tennesse Street

Hammond, LA 70402

Make: Generac Doosan

Model: 10819430200

Size: 600 KW; Voltage: 120/208 Volts

SN: 900250EUYOB

# LSU AG CTR MEGA SHELTER - ALEXANDRIA

8125 Highway 71, South

Alexandria, LA 71302

Make: Cummins

Model: 275 ODQHAA

Size: 275 KW; Voltage: 480 Volts

SN: 16659

# LSU AG CTR MEGA SHELTER - ALEXANDRIA

8125 Hwy. 71, South

Alexandria, LA 71302

Make: Kohler

Model: 2000REOZMB

Size: 2000 KW; Voltage: 480 Volts

SN: 35213054