PROJECT DESCRIPTION
Emergency Power Generator Service/Maintenance & Emergency Repairs

Minnesota State University, Mankato is seeking a qualified contractor to enter into a five-year Maintenance/Service Master Contract to provide emergency power generator service and maintenance of Minnesota State University, Mankato’s five emergency power generators. Vendor to provide annual maintenance, load testing, and emergency response services.

Generator are located and described below:

**CARKOSKI COMMONS**
Katolight 210KW Diesel
3 phase, 60Hz, 120/208 volts
729 amps per terminal
Model D-210FPX4
Serial no. 87815-M-33375
Located in Carkoski Commons Basement

**UTILITY PLANT NORTH UNIT**
Katolight 600KW Diesel
480/277 volts
Model no. D66 FRX4
Serial no. R-39226

**UTILITY PLANT SOUTH UNIT**
Katolight 600KW Diesel
480/277 volts
902 amps per terminal
Model no. D600 FRX4
Serial no. WA 511789 52549

**SECURITY GENERATOR**
Kohler 100KW Natural Gas
3 phase, 60 cycle, 120/208 volts
347 amps per terminal
Model no. 100RZG 125KVA
Serial no. 2233322
Located on the North Side of Wiecking Center (outdoors)

**UNIVERSITY DINING CENTER GENERATOR**
MTU 30 KW; Diesel
Model #: 285NSL1700-2; Serial #: 95090602544
Voltage: 277/480
KW: 30
Automatic Transfer Switch Make: NA  Model: NA  Serial No.: NA
Annual Inspection and Report Items Shall Include:

___ Check Oil Level  ___ Maintain Correct Electrolyte Level
___ Inspect Engine Fuel System  ___ Inspect Charger and/or Alternator
___ Check Engine Operation  ___ Inspect Engine Starting System
___ Check Engine Room Ventilation  ___ Check Engine Gauges
___ Inspect Isolators  ___ Check Generator Output
___ Inspect Exhaust System  ___ Test Auto Start/Stop System
___ Inspect Air Induction System  ___ Test Fault Lamps
___ Check Coolant Level  ___ Check Transfer Switch
___ Inspect/Set Jacket Water Heater  ___ Check/Adjust Exerciser
___ Check/Tighten Fan Belts and Hoses  ___ Test Transfer Switch (Load)
___ Inspect Radiator  ___ Tst Idle Shutdown Timer
___ Test Battery, Clean Terminals  ___ Check/Tighten Electrical connections
___ Check Circuit Breaker  ___ Check/Test Voltage Regulator
___ Check/Adjust Electrical Meters  ___ Check Visual and Audible Alarms
___ Test Hi-Temp Safety Circuit  ___ Test/Adjust Over Speed Safeties
___ Clean Air Filter  ___ Test Oil Pressure Safeties
___ Check Remote Electrical Equipment

Annual Service Items Shall Include:

Change engine oil
Change oil filter
Change fuel filter
Change air filter (if needed)
Repair minor leaks
Perform load bank test
Dispose of old fluids per EPA and MPCA standards

Cooling System Service Includes:

Drain and refill cooling system, add coolant additives
Replace cooling system hoses and engine thermostats
Dispose of old fluids per EPA and MPCA standards

Annual Battery Service Includes:

Complete electrical system check
Battery charger adjustment
Test engine and start amperage
Remove and dispose of old batteries per EPA and MPCA standards
Install new low antimony batteries designed for standby applications
Service Frequency Table – FY – July 1 – June 30

<table>
<thead>
<tr>
<th>Maintenance Item</th>
<th>FY’20</th>
<th>FY’21</th>
<th>FY’22</th>
<th>FY’23</th>
<th>FY’24</th>
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<tbody>
<tr>
<td>Annual Inspections</td>
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<td>X</td>
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<tr>
<td>Annual Service</td>
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<td>X</td>
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<tr>
<td>Cooling System Service</td>
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<tr>
<td>Battery Service (30 month cycle) per NFPA</td>
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<td>X</td>
<td>X</td>
<td>X</td>
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</tbody>
</table>

Load Bank specifications:

Load banking shall be 3 hours with first 20 minutes 25% load, second 20 minutes at 50%, third 20 minutes at 75% and 2 hours at 100%. Readings shall be recorded at 15 minute intervals and shall include Generator amps, Generator Volts, KW, Ambient Temp, Frequency, Oil Pressure, Water Temp, Battery charge, Real Time Meter (RTM)

Load banking at the Utility Plant for the two 600 KW generators shall also be 3 hours with 20 minutes at 25% load, 20 minutes at 50% load and the remainder of the time at the maximum percent load as can be applied with the existing load banks in place which appears to be 50% also.

Service and maintenance of the existing permanently mounted load banks at the utility plant shall be included in the bids.

Annual reporting Requirements:

After each annual inspection the vendor shall provide a report showing all maintenance and service items checked. Vendor shall also include any repair issues or observed problems along with recommendations in the annual report.

Vendor shall provide sample reports with the RFP submission showing the typical format of what they intend to provide with each test and inspection should they be awarded the contract.