State of Illinois

Department of Transportation

Bureau of Business Services

## Specifications and Questionnaire for a Diesel-Powered Generator

(Trailer Mounted)

January 2019

This specification and questionnaire covers a diesel powered, trailer mounted, generator to be used by the Department of Transportation for highway maintenance projects and in public emergency situations. To improve parts and service availability and increase tool life, the Department of Transportation is specifying units and accessories as outlined below.

Each bidder shall submit with his bid **two sets** of descriptive literature and specifications describing **all** the **equipment** and **options** proposed. This information shall be clearly marked to indicate the make, model, and accessories proposed to be furnished.

Bidders quoting on other-than-specified equipment must submit with their bid written proof of the following:

* The equipment proposed equals or exceeds that specified in all respects including capacity, operating features, and accessory items.
* The manufacturer of the equipment proposed has been actively involved in the manufacture of the equipment called for in the Proposal for a period of not less than 5 years.
* Parts and service for the equipment proposed are readily available within the State of Illinois.

It is the responsibility of each bidder to complete and return two sets of this questionnaire with the bid.

**Unless otherwise specified, the proposed equipment shall be complete in all parts and ready for immediate use upon delivery.**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Proposed with this Bid:** | | | | | | | | | | | |
| Make: |  | | | | | | |
| Model: | |  | | | | | |
| Manufactured by: | | | | | |  | | | | |
| Vendor: | | |  | | | | | |
|  | | | | | | |
|  | | | | | | |
| Contact name: | | | | |  | | |
| Telephone: | | | |  | | | |
| Email: |  | | | | | |

**All units shall include the following standard or optional accessories and equipment:**

The makes and models of the machines listed below are solely to provide bidders a minimum level of quality and size of machine requested. The machines listed below also meet the Departments’ requirements for functioning dependably in situations dictated by emergency situations. All machines quoted will be evaluated by compliance with the following specifications. Since the work performed and expected of these machines can be of an extreme emergency nature, the potential availability of parts and service will be equally important and considered in determining equality.

The complete unit shall consist of a trailer mounted, diesel powered, generator capable of providing both single and 3-phase electricity at 40-Kw and 60-Hz simultaneously. The generator must power a plasma cutter and heavy-duty hand tools simultaneously. The generator shall be equipped to run for extended periods of time. It shall be arranged to provide a compact assembly on a rigid frame, mounted on a single axle trailer with two (2) wheels, designed to be towed behind trucks at highway speeds.

All units considered must be equal to or exceed the requirements of:

Chicago Pneumatic CPDG40

Doosan G70WDO-3A-T4F

Generac Magnum MMG55DF4

Kohler 55REOZT4

**Generator:**

**Engine:**

The generator shall be provided with a current production four (4) cylinder, diesel engine, liquid cooled, turbo-charged, 66 H.P. The engine shall include the following items:

* Interim Tier 4 emissions
* Dry style air cleaner
* Fuel filter water separator
* 12-volt electrical system
* Alternator/regulator
* Maintenance free battery
* Engine oil cooler
* Cold weather starting aid

Complies:  Yes  No

|  |  |
| --- | --- |
| If no, describe: |  |
|  | |

Component provided:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Make: |  | | | | | | |
| Model: | |  | | | | | |
| Number of cylinders: | | | |  | | |
| Horsepower @ governed RPM: | | | | |  | | | |
| Rated H.P. | | |  | | |

The unit shall have approximately 80-gallons of fuel tank capacity. The tank or cap shall be clearly labeled “Diesel fuel only”.

Complies:  Yes  No

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| --- | --- | --- |
| Tank capacity: |  | Gallons |

The generator shall include a securable control panel with digital monitoring screen and lockable fuel cap.

Complies:  Yes  No

The fuel tank shall be sized to provide 24 hours of continuous service at capacity on a single tank of fuel.

Complies:  Yes  No

The engine controls and instruments shall be included as follows:

1. Key operated ignition or pass code
2. Starter switch with neutral safety switch
3. Fuel gauge
4. Hour meter - activated by engine oil pressure or engine RPM.
5. Engine oil pressure gauge (automatic shut-down).
6. High coolant temperature (automatic shut-down).
7. Low fuel level (automatic shut-down).
8. Air filter restriction indicator, gauge or warning light.

Complies:  Yes  No

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| --- | --- |
| If no, describe: |  |
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**Generator:**

The generator shall provide a minimum of 40-Kw electrical power at 60 Hz for an indefinite or extended length of time.

Complies:  Yes  No

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| --- | --- | --- |
| Electrical power: |  | Kw |
| Electrical power: |  | Hz |

The generator shall be equipped with a three (3) position selector switch for the following:

* 120/240-volt, 1-phase
* 120/208-volt, 3-phase
* 277/480-volt, 3-phase

Complies:  Yes  No

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| --- | --- |
| If no, describe: |  |
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**Trailer:**

The trailer shall be constructed of tubular steel and provided by the manufacturer specifically for the mounting of the specified generator.

Complies:  Yes  No

It shall include load-bearing fenders and all necessary reflectors, lights etc. to comply with **The Illinois Vehicle Code** requirements for towed equipment.

Complies:  Yes  No

The trailer shall be equipped with electric brakes and a battery back-up break-away system.

Complies:  Yes  No

Conductor Use:

1. Ground to towing vehicle.
2. Clearance and identification lights.
3. Left turn signal and disability lights.
4. Stop lights.
5. Right-turn signal and disability lights.
6. Tail lamps, three-bar marker lamps and other clearance or marker lamps.
7. Anti-lock brake device / Battery.

Complies:  Yes  No

The rear of the trailer shall be equipped with adjustable, stabilizing trailer type jacks.

Complies:  Yes  No

**Hitch:**

The trailer shall be equipped with a dual hitch ball style and 3” ID pintle eye type hitch.

Complies:  Yes  No

The eye shall be adjustable for pintle hook mountings from 20” to 26” measured from level ground.

Complies:  Yes  No

Swing-away style front tongue jack with sand type foot.

Complies:  Yes  No

**Tires and Wheels:**

The trailer shall be equipped with a single axle and two (2) tires and wheels.

Complies:  Yes  No

The wheels shall be steel, heavy-duty automotive type, minimum 15” diameter, painted or powder coated manufacturer’s standard color.

Complies:  Yes  No

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| --- | --- | --- |
| Wheel size: |  | Inches |

The tires shall be automotive type, all season radial with load range required to meet gross weight of the trailer.

Complies:  Yes  No

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| --- | --- | --- | --- | --- | --- |
| Tire size: |  | | | | |
| Load range: | | |  |
| Tread type: | |  | | |

**Finish:**

All exterior surfaces normally painted or powder coated shall be manufacturer’s standard color.

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| --- | --- |
| Describe finish: |  |

**General:**

Two (2) copies of all operators’ manuals, parts lists and warranty information shall be provided at the time of delivery.

Complies:  Yes  No

One (1) copy of the Service Manual for each machine shall be provided upon delivery.

Complies:  Yes  No

***Note:*** The manuals, parts lists, and service or shop manuals listed above may be furnished on DVD in lieu of paper.

Instruction must be performed by **qualified** factory or dealer personnel covering the operation, routine service and maintenance of the machine shall be provided upon delivery. The training shall be for all personnel in the assigned headquarters location of the machine. More than a single day may be required to satisfy this requirement.

Complies:  Yes  No

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| --- | --- |
| Describe training: |  |
|  | |

***Note:*** This is not a sales call*.* Training not meeting IDOT expectations will be cause to generate a “Complaint to Vendor”.

**Requirements Covering Items Detailed Above:**

All equipment cataloged as standard shall be furnished and in place and shall be included in the purchase price of the unit. Any parts, tools, and/or accessories not specifically called for but required for proper operation shall be provided.

Complies:  Yes  No

The component parts of the unit shall be of proper size and design to safely withstand maximum stresses imposed by a capacity load, and the manufacturer's rated loads for all component parts shall **not** be exceeded when the unit is so loaded.

Complies:  Yes  No

Full coverage warranty for a minimum 12 months shall be provided for all components and their installation. The bidder shall attach a copy of warranty with the bid.

Complies:  Yes  No

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| --- | --- |
| Describe warranty: |  |
|  | |

Warranty and service locations are critical to support equipment used many times during emergency operations. The ability to provide prompt local support for equipment supplied throughout Illinois is critical and will be considered in making award. Please list all service locations within and immediately surrounding Illinois:

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| --- | --- |
| Service locations: |  |
|  | |
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**Delivery:**

This machine is to be delivered in first-class operating condition with acceptance subject to Department of Transportation approval.

Complies:  Yes  No

**Bid Package:**

Bidders will need to send two copies of each of the following with their proposal.

1. Specification Questionnaire
2. Descriptive Literature