

MEPNN Supplier Scouting Opportunity Synopsis

| Item Information | |
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| Scouting Number | 2023-079 |
| Item to be Scouted | Shunt Reactor |
| Days to be scouted | 30 |
| Description | 13.8 kV (line-to-line voltage rating) shunt reactors, 25 MVA 3-phase rating, and one support structure per reactor. These are dry type, air core, single-phase shunt reactors, suitable for outdoor use. Shunt Reactors are used widely in AC networks to limit overvoltage or shortcut current in power transmission. With a growing number of high-voltage overhead lines in a fast-changing energy environment, both shunt and series reactors play a key role in stabilizing network systems and increasing grid efficiency. |
| State item to be used in | Colorado |

| Contact Information | |
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| Email | hammans@wapa.gov |
| First Name | Carol |
| Last Name | Hammans |
| Department / Company / MEP Center | Department of Energy, U.S. |
| Bureau / Division / MEP Center Regional Office | Western Area Power Administration/Rocky Mountain Region |

| Supplier Information | |
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| Type of supplier being sought | Manufacturer |
| Reason | BABA |

| Summary of technical specifications and performance requirements | |
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| Describe the manufacturing processes (elaborate to provide as much detail as possible) | <ul style="list-style-type: none"> • Core: Cut silicon steel laminations to size and stack them together with an insulating material. Press and heat-treat the stack to create a solid core. • Wind the coils: Form copper or aluminum windings into coils and place them around the core. Insulate the coils from each other and from the core. • Pot the coils: Encase the windings in a resin to protect them from moisture and contaminants. This also helps to improve heat transfer. • Test the reactor: Verify the reactor's performance by testing its inductance, resistance, and capacitance. |
| Provide dimensions / size / tolerances / performance specifications for the item | Quantity of 6: 13.8 kV, 25 MVA 3-phase rating, and one support structure per reactor. These are dry type, air core, single-phase shunt reactors, suitable for outdoor use. Additional specifications and drawings attached. |
| List required materials needed to make the product, including materials of product components | <ol style="list-style-type: none"> 1. Windings (copper) 2. Insulators (porcelain) 3. Bird Barriers 4. Lighting Arresters 5. Control panel (metal oxide) 6. Support Structures and hardware (aluminum, stainless steel, nonferrous or fiberglass) 7. Corona Rings |

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| Are there applicable certification requirements? | Yes |
| Certification(s) required | IEEE |
| Details | ANSI Standard C57.21 and International Standard IEC 289; shall meet the National Electrical Safety Code (NESC) heavy-loading zone criteria; shall meet the moderate seismic qualification level as stated in IEEE 693; See attached Specifications. |
| Are there applicable regulations? | Yes |
| Details | The BAA and implementing regulations in the FAR provide a two-part test for determining if a product qualifies as a domestic end product: (i) the item must be manufactured in the United States, and (ii) more than 60 percent of the cost of all the component parts are manufactured in the United States. |
| Additional Technical Comments | FAR provide a two-part test for determining if a product qualifies as a domestic end product: (i) must be manufactured in the United States, and (ii) more than 60 percent of the cost of all the component parts are US. |

Volume and Pricing

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| Estimated potential business volume | Six (6) each 13.8 kV, 25 MVA 3-phase rating Unknown about future requirements |
| Estimated target price / unit cost information (if unavailable explain) | Total \$400,000 |

Delivery Requirements

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| When is it needed by? | Immediate |
| Describe packaging requirements | F.O.B. Destination, Within Consignee's Premises – unload the equipment to a ground level pad or to a specific location within the yard as directed by the Government. Crating/container with itemized packing list. Shall be packaged in accordance with standard packaging requirements for items of this nature, shipped by truck. |
| Where will this item be shipped? | Ault Substation, Near Ault, Colorado - Weld County |

Additional Comments

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| Is there other information you would like to include? | <p>An RFI was posted on sam.gov requesting information regarding domestic end products and no responses were received. It is the Government's assumption that shunt reactor components are manufactured in foreign countries. Based on the market research conducted, there are no known suppliers of domestic end products of Shunt reactors as described.</p> <p>FAR provide a two-part test for determining if a product qualifies as a domestic end product: (i) must be manufactured in the United States, and (ii) more than 60 percent of the cost of all the component parts are US.</p> |
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