

**INVITATION FOR BID**

Bid #VRNTL-15-B-06, for

“Purchase of Electric Utility Equipment and Materials”

THE VILLAGE OF RANTOUL, ILLINOIS, will receive separate sealed bids for the purchase of electric utility equipment and materials that will include the following items: a 2500kva (13.8kv-277/480v) three-phase, pad-mounted transformer and 350mcm underground primary jacketed cable (10,000’).

Bids will be received until closing time of **2:00 P.M.** prevailing time on **November 25, 2014** at the Rantoul Municipal Building, 333 South Tanner Street, Rantoul, Illinois. Any Bid received after the closing time will not be considered and will be returned unopened. Bids submitted by mail should be identified on the outside of the envelope as a bid for:

“Purchase of Electric Utility Equipment and Materials”

**“Purchase of a 2500kva 13.8kv-277/480v three-phase, pad-mounted transformer,  
Bid #VRNTL-15-B-06 Part #1; and/or**

**“Purchase of 350mcm underground primary jacketed cable (10,000’),  
Bid #VRNTL-15-B-06 Part #2;**

Bids should be addressed and submitted to the attention of:

Scot Brandon, Comptroller  
Village of Rantoul  
P.O. Box 38  
333 S. Tanner St.  
Rantoul, Illinois 61866

Any questions regarding the equipment or material, please contact:

G. Gregory Hazel, P.E., Director of Public Works  
200 W Grove Ave  
Rantoul, IL 61866  
(217) 892-6526

The Invitation for Bid (IFB) is available through the Village of Rantoul web site at <http://www.village.rantoul.il.us/Bids.aspx> or at the Rantoul Municipal Building, 333 South Tanner Street, Rantoul, Illinois.

The contract to be entered into shall be conditioned as provided by law. The Village of Rantoul, Illinois, reserves the right to reject any or all bids and to waive any informalities. No Bid shall be withdrawn after the opening of bids without consent of the Village of Rantoul, Illinois, for a period of sixty (60) days.

VILLAGE OF RANTOUL

Dated: November 5, 2014

By:

Scot Brandon  
Comptroller

## **INFORMATION FOR BIDDERS**

The Village of Rantoul is seeking to purchase the following 15kv electrical equipment and materials and will receive separate sealed bids for the purchase of a 2500kva (13.8kv-277/480v) three-phase, pad-mounted transformer and 10,000' of 350mcm copper underground primary jacketed cable.

### **General Requirements**

The Village of Rantoul is seeking separate bids from vendors who will furnish, design, fabricate, construct and deliver the specified electrical equipment and materials. This equipment and material consists of a 2500kva (13.8kv-277/480v) three-phase, pad-mounted transformer and 10,000' of 350mcm underground primary jacketed cable.

Bids will be received until closing time of **2:00 P.M.** prevailing time on **November 25, 2014** at the Rantoul Municipal Building, 333 South Tanner Street, Rantoul, Illinois.

Any Bid received after the closing time will not be considered and will be returned unopened.

Bids submitted by mail should be identified on the outside of the envelope as a bid for

“Purchase of Electric Utility Equipment and Materials”

**“Purchase of a 2500kva 13.8kv-277/480v pad-mounted transformer,**

**Bid #VRNTL-15-B-06 Part #1; and/or**

**“Purchase of 350mcm underground primary jacketed cable (10,000'),**

**Bid #VRNTL-15-B-06 Part #2;**

and should be addressed to:

Scot Brandon, Comptroller

Village of Rantoul

P.O. Box 38

333 S. Tanner St.

Rantoul, Illinois 61866

The Village of Rantoul reserves the right to reject any or all bids and to waive any informalities.

### **Project Time Line**

Bids will be received until closing time of **2:00 P.M.** prevailing time on **November 25, 2014**, at the Rantoul Municipal Building, 333 South Tanner Street, Rantoul, Illinois.

It is anticipated that the Village of Rantoul Board of Trustees will take formal action on the Bids at its regularly scheduled meeting of December 9, 2014.

The successful Bidder(s) will be notified following this date as to the project award and then can begin to furnish, design, fabricate, construct, and deliver the electrical equipment and materials. Bidder(s) agrees to hold his or her bid open for 60 days after the bid opening date.

**Equipment Specifications #VRNTL-15-B-06 Part #1**

The transformer specifications for Village of Rantoul Bid #VRNTL-15-B-06 Part #1 for a vendor to furnish, design, fabricate, construct, and deliver a 2500kva 13.8kv – 277/480v pad-mounted transformer are as follows:

**Three Phase, Oil Filled, Loop Feed, pad-mount transformer**

**Shall be designed to provide electric service to commercial and industrial loads.**

**Quantity:**  $\frac{1}{2500}$   
**KVA:**  $\frac{1}{2500}$

**Primary Voltage:** 13.8 / 7.9kv

**Secondary Voltage:** 277/480v

**Bil:** 95 KV

**Frequency:** 60 HZ

**Temperature Rise:** 65 degree C

**Taps:** (Taps @ 2.5% Above and Below Normal)  
(Taps @ 8170 / 7970 / 7620 / 7200 / 7020)

**Impedance:** 6.15%+/-  
**Connections:** Delta / Wye

**A. High Voltage Bushings and Terminals**

1. The high voltage bushings provided shall be 15KV, 200A, loadbreak Bushing Insert shall conform to ANSI/IEEE 386. The current carrying path shall be all copper. The unit shall have a hex-broached base to accommodate torque tool for installation assistance. A latched elbow indicator ring shall be provided.
2. The transformer shall be provided with six (6) high voltage bushings rated for full three-phase duty in accordance with ANSI C57.12.26 for loop feed configurations. (For this configuration the K dimension shall be 6.5 inches.)
3. The bushing height shall be in accordance with Figure 7 of ANSI C57.12.26.
4. Cable accessory parking stands shall be provided and shall be located such that the separable insulated connectors that are designed for operation after the transformer is in place can be operated by hot-line tools.

**B. Low Voltage Bushings and Terminals**

1. The low voltage bushings provided shall be one-piece epoxy or fiberglass polyester material with tinned copper or aluminum terminal spades. The low voltage bushings shall be bolted on and externally clamped. The low-voltage bushing terminals shall be in accordance with Figure 9 or ANSI C57.12.26.
2. The configuration of the secondary shall be per ANSI C57.12.26 Figure 8a for staggered low voltage terminal arrangement. These bushings shall be replaceable utilizing the access provided or through the removal of the cover.
3. The bushing height shall be in accordance with Figure 7 of ANSI C57.12.26.
4. A removable strap shall provide the tank to neutral bushing ground.

### **C. Tank and Terminal Compartment**

1. The transformer shall be compartmental type, self-cooling, tamper resistant and weather protected for mounting on a pad. The unit shall consist of a transformer tank, high voltage compartment and low voltage compartment assembled as an integral unit. There shall be no externally removable screws, bolts or other fastening devices.
2. The transformer shall have a sealed tank of sufficient strength to withstand a pressure of 7psi without permanently distorting the tank. The tank shall remain sealed for top oil temperature range of 50 degrees C to 105 degrees C. Cooling panels shall be provided on the back and sides of the tank when required by design. The tank shall include a pressure relief valve with a flow at 15 psig - 35 SCFM minimum. The tank shall have welded-in-place lifting lugs and jacking pads. The tank base must be designed to allow skidding or rolling in any direction.
3. The core and coil assembly shall be a wound core type with aluminum windings. The assembly shall be designed to reduce losses and noise and provide adequate short-circuit strength and heat dissipation. Internal leads shall be insulated, carefully trained and anchored to prevent phase to phase flashover. A tap changing mechanism shall be provided for accurate voltage adjustment without opening the tank. The tap changing mechanism shall be externally operated and shall be for de-energized operation only. Taps for two - 2 1/2% taps above and below rated voltage shall be provided and/or arrangement specified.
4. The dielectric coolant in the transformer shall be highly refined inhibited new mineral oil and meet the minimum requirements as specified in, "Functional Property Requirements,"

of ASTM D3487 and ANSI C57.106.

5. All transformer oil must be bulk tested for polychlorinated biphenyl's (PCBs) per ASTM D4059 and certified, as having no detectable level of PCB.
6. The high and low voltage compartments shall be adjacent, but of independent construction and shall be separated by a steel barrier. The compartment depths shall be in accordance with ANSI C57.12.26.
7. When facing the pad mounted transformer, the low voltage compartment shall be on the right.
8. The doors shall be designed to fit flush with the front and side panels of the cabinet. The doors shall be equipped with stainless steel hinges, pins and "stops" to secure the doors when open.
9. The low voltage door shall have a three (3)-point latching mechanism, vault handle, penta-head bolt that meets the dimension set forth in ANSI C57.12.28 and provisions for a single padlock. The interlocked bolt/padlock handle assembly shall require a spring-loaded bolt to be threaded into place before the padlock can be inserted.
10. The high voltage door fastenings shall not be accessible until the low voltage door is opened. The securing of the high voltage door shall include a penta-head bolt assembly.
11. The pad mounted equipment shall meet the requirements for tamper resistance set forth in ANSI C57.12.28 including but not limited to the pry test, pull test, and wire probe test.
12. The front sill shall be removable.
13. ANSI tank grounding provisions shall be furnished in each compartment.
14. The tank shall be complete with an engraved nameplate that shall comply with the requirements of ANSI C57.12.00.
15. Painting shall with an ANSI Standard primer and the color green.

#### **D. Additional Requirements**

1. The transformer primary shall include Bayonet fusing with internal isolation link.
2. Drain valve / Sampling device
3. Spare set of fuses shall be included.

#### **E. Testing and Losses**

1. All units shall be tested for no-load (85 deg C) losses, total (85 deg C) losses, percent impedance (85 deg C), excitation current (100% voltage). Each unit shall be subjected to a full wave voltage impulse and leak test. The manufacturer shall provide certification for all design and other tests listed in Table 17 of ANSI C57.12.00 including verification that the design had passed Short Circuit Criteria per ANSI C57.12.00 and C57.12.90.
2. The manufacturer shall provide the guaranteed average no-load losses for the unit at 85 degree C.

### **Material Specifications #VRNTL-15-B-06 Part #2**

The specifications for Village of Rantoul Bid #VRNTL-15-B-06 Part #2 for a vendor to furnish, design, fabricate, construct, and deliver 10,000' of 350 mcm copper underground primary jacketed cable as follows:

### **Compliance to Okoguard URO-J Product Data Section 2: Sheet 42 for 15kv Underground Primary Distribution Cable-Jacketed**

Red Identification Stripes

Filled strand copper conductor/105 degree C Rating

220 mils

133% Insulation Levels

EPR Cable with 1/3concentric neutral

- Central Conductor: Un-coated soft Copper. Compact round conductors per ASTM B-496. Class B stranded (37 Strands)
- Filled Strand: Water swellable powder meets or exceeds ICEA T-31-610 water penetration resistance and ANSI/NEMA class A connectorability requirements.
- Conductor Screen shall be an extruded semiconducting ethylene-propylene rubber meeting or exceeding the requirements of ICEA S-94-649 and AEIC CS8.
- Insulation shall be an extruded Ethylene Propylene Rubber (EPR) meeting or exceeding the requirements of ICEA S-94-649 and AEIC CS8. The EPR shall NOT contain any polyethylene in the compound formula.
- Insulation Screen shall be an extruded semiconducting ethylene-propylene rubber meeting or exceeding the requirements of ICEA S-94-649 and AEIC CS8-07.
- Cables with Compact Round Copper Conductor shall have an extruded semiconducting ethylene-propylene rubber insulation screens that meet the requirements of ICEA S-93-639/NEMA WC74 & S-97-682, AEIC CS8 and UL 1072.
- Concentric Conductor: Bare copper wires.
- Jacket: Black Okolene with red extruded stripes meets or exceeds the requirements of ICEA S-94-649 for polyethylene jackets.
  
- The conductor screen, insulation and insulation shield shall be applied via triple a tandem extrusion process to avoid any voids and contaminants.
- The EPR insulation must be formulated and compounded in house by the cable manufacturer. The EPR insulation must have a proven field experience record of over thirty (30) years.
- Cable shall be manufactured in the USA.
- The manufacturer shall provide a written 40 year WARRANTY.



**Delivery Location of Equipment**

The Bidder(s) agrees to furnish, design, fabricate, construct, and deliver a 2500kva (13.8kv-277/480v) three-phase, pad-mounted transformer and/or 10,000' of 350mcm underground primary jacketed cable to the Village of Rantoul Public Works Warehouse (Building 729), 621 Cook Street, Rantoul, Illinois 61866.

**Additional Information**

All Bidders must have a minimum of five (5) years of demonstrated success and experience in furnishing, designing, fabricating, constructing and delivering the specified electrical equipment. Any Bidder may also be invited to submit more detailed information, to make oral presentations, or both. The Village may make reasonable investigation deemed necessary and proper to determine the ability of the vendor to provide the removal of surplus material and provide guaranteed payment. The vendor shall furnish to the Village all information for this purpose that may be reasonably requested. The Village reserves the right to accept or reject any or all Bid proposals, or any part thereof, received from any vendor in connection with the request for Bids for any reason.

**Bid Evaluation**

Bids will be evaluated, scored, and the award recommendation based on adherence to the equipment and material specifications, apparent ability to deliver the equipment or material, and equipment and material prices.

**Requesting Agency**

This request for Bid is made by the Village of Rantoul, Champaign County, Illinois, having its principal office located in the Municipal Building, 333 S. Tanner Street, Rantoul, Illinois 61866. All inquiries including those for clarification of this request for Bid in connection with the specifications requested under this Bid request shall be made to:

Scot Brandon, Comptroller  
Village of Rantoul  
P.O. Box 38  
333 South Tanner Street  
Rantoul, IL 61866  
Tel: 217-892-6828  
Fax: 217-892-5501

## **BID FORM**

Bid submitted by \_\_\_\_\_ (hereinafter called the "BIDDER"), organized and existing under the laws of the State of \_\_\_\_\_, doing business as a \_\_\_\_\_ .  
*(Individual, Partnership or Corporation)*

To the Village of Rantoul, Illinois (hereinafter called the "VILLAGE").

### **Information for Bidders:**

In compliance with the Request for Bid, the **Bidder** hereby offers to furnish, design, construct, fabricate, and deliver a 2500kva (13.8kv-277/480v) three-phase, pad-mounted transformer and/or 6000' of 350mcm underground primary jacketed cable.

By submission of this Bid, the undersigned certifies, and in the case of a joint Bid, each party thereto certifies as to his or her own organization, that in connection with the bid:

- a. The price in the BID has been arrived at independently, without consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other BIDDER or with any competitor;
- b. Unless otherwise required by law, the prices which have been quoted in the BID have not knowingly been disclosed by the BIDDER prior to opening, directly or indirectly to any other BIDDER or to any competitor; and,
- c. No attempt has been made or will be made by the BIDDER to induce any other person or firm to submit or not to submit a BID for the purpose of restricting competition.
- d. He or she is the person in the BIDDER'S organization responsible within that organization for the decision as to the prices being bid and shall also certify that he has not participated, and will not participate, in any action contrary to Paragraph "a" through "c" above.
- e. He or she is not the person in the BIDDER'S organization responsible within that organization for the decision as to the prices being proposed but that he has been authorized to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to Paragraphs "a" through "c", above, and as their agent shall so certify; and shall also certify that he has not participated, and will not participate in action contrary to Paragraphs "a" through "c" above.

**BIDDER ACKNOWLEDGES RECEIPT OF THE FOLLOWING ADDENDA:**

<u>Addenda No.</u>	<u>Date</u>	<u>Signature</u>
_____	_____	
_____	_____	
_____	_____	

*Note: Failure to acknowledge any Addendum shall be considered sufficient cause for rejection of your bid.*

BIDDER offers to furnish and deliver the facilities for the following **sums**. (Sales tax is not applicable. BIDS shall include all other applicable taxes and fees.)

**2500kva 13.8kv - 277 /480v three-phase pad-mounted transformer**

**Bid #VRNTL-15-B-06 Part #1**

**Bid:**

Furnish and deliver a 2500kva 13.8kv – 277/480v three-phase, pad mounted transformer, in the lump sum amount of,

\_\_\_\_\_ Dollars and \_\_\_\_\_ Cents.  
*(in writing)*

\$ \_\_\_\_\_  
*(in figures)*

Respectfully submitted:

**Vendor Information:**

VENDOR/ COMPANY NAME: \_\_\_\_\_

ADDRESS : \_\_\_\_\_

*(Indicate whether a Corporation, Partnership or Private Enterprise:)*

FEIN NUMBER \_\_\_\_\_

NAME OF REPRESENTATIVE *(Please Print)*: \_\_\_\_\_

TITLE OF REPRESENTATIVE: \_\_\_\_\_

SIGNATURE OF REPRESENTATIVE: \_\_\_\_\_

CONTACT PHONE # \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_

FAX # \_\_\_\_\_

*(SEAL - if BID is by a corporation)*

Attest \_\_\_\_\_

Title \_\_\_\_\_

**350 mcm copper underground jacketed primary cable (10,000')**  
**Bid #VRNTL-15-B-06 Part #2**

**Bid:**

Furnish and deliver 10,000' of 350mcm copper underground jacketed primary cable, in the lump sum amount of,

\_\_\_\_\_ Dollars and \_\_\_\_\_ Cents.  
*(in writing)*

\$ \_\_\_\_\_  
*(in figures)*

Respectfully submitted:
<b>Vendor Information:</b>
VENDOR/ COMPANY NAME: _____
ADDRESS : _____
_____
<i>(Indicate whether a Corporation, Partnership or Private Enterprise:)</i>
FEIN NUMBER _____
NAME OF REPRESENTATIVE <i>(Please Print)</i> : _____
TITLE OF REPRESENTATIVE: _____
SIGNATURE OF REPRESENTATIVE: _____
CONTACT PHONE # _____
FAX # _____
<i>(SEAL - if BID is by a corporation)</i>

Attest \_\_\_\_\_

Title \_\_\_\_\_

TO: Rantoul Press  
Fax: (217) 893-9451

FROM: Scot Brandon

DATE: November 5, 2014

RE: Legal Ad

=====

Please place the attached ad in your Wednesday, November 12, 2014 publication.

If you have any questions please call me at 892-6828.