



CITY OF DANVILLE
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E-mail: purchasing@danvilleva.gov Internet: www.danville-va.gov
TAX ID # 54-600-1243

REQUEST FOR QUOTATION

QB 24-25-097

RFQ NUMBER: 0004105
RFQ DATE: 04/07/25

THIS IS NOT AN ORDER

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UTILITIES STOREROOM
UTILITY SERVICE CENTER
864 MONUMENT ST
DANVILLE, VA 24541

Deliver To: Witcher, David

Instructions:

It is understood that our terms and conditions listed on back will apply to any order that may result from this solicitation.

Note any exceptions for our consideration.

F.O.B. Destination: It is the basic policy of the City to receive goods F.O.B. (free on board) Destination, which means that freight charges are paid by the seller who owns and assumes all risk for the goods until they are accepted at the designated delivery point. The cost of shipping the goods may be included in the quoted price or by the seller as a separate line item.

Quote Required By	Send Quote To
04/22/25	LORI FLANIGAN

R047912

ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	EXTENSION
*****QB-24-25-097*****			"THREE - PHASE RECLOSERS"		
YOU ARE INVITED TO PROVIDE A BID FOR THE FOLLOWING "THREE - PHASE RECLOSERS"					
CITY OF DANVILLE VIRGINIA DEPARTMENT OF UTILITIES STOREROOM ALL BIDS SHALL INCLUDE SHIPPING AND HANDLING COST TO DELIVER TO SHIP TO ADDRESS ABOVE ONLY SEALED BIDS WILL BE ACCEPTED.					
BIDS WILL BE ACCEPTED BY THE DIRECTOR OF PURCHASING CAROL HENLEY BY 2:00 PM TUESDAY APRIL 22, 2025					
MAIL SEAL BIDS OR HAND DELIVER TO: CITY OF DANVILLE PURCHASING DEPT 427 PATTON ST ROOM 304					
TOTAL					

Payment Terms	Freight Terms	Delivery Promised	Telephone	Fax
Quote Valid Until	Vendor Quotation No.	Signature and Title		

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BID

RFQ NUMBER: Q004105
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ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	EXTENSION
			<p>DANVILLE, VA 24541</p> <p>MARK ON THE OUTSIDE OF THE ENVELOPE:</p> <p>QB-24-25-097</p> <p>ELECTRONIC SUBMISSIONS CAN BE MADE AT</p> <p>www.eva.virginia.gov</p> <p>IF ADDENDA ARE ISSUED, SUPPLIERS THAT HAVE SUBMITTED AN ELECTRONIC BID WILL NEED TO RESUBMIT TO THE LATEST VERSION OF THE SOLICITATION.</p>		
001	2	EA	Three - phase recloser & control panel manufactured per the attached specification E21-01_ ThreePhRec1		
				TOTAL	

Payment Terms	Freight Terms	Delivery Promised	Telephone	Fax
Quote Valid Until	Vendor Quotation No.	Signature and Title		

Three-phase Electronic Recloser- Independent Phase Operation

1.0 Scope

This specification covers the design, construction, and delivery requirements for a single pole mounted three-phase electronic recloser, equipped per this specification, with a bidder supplied and fully certified Schweitzer SEL-651R controller with all required control cabling, power cabling, and wiring/junctions between the recloser, control power transformer, and controller. The recloser shall be designed to operate for any combination of single or three-phase trip and single or three-phase lockout.

2.0 Applicable Standards

The recloser shall be manufactured and tested per applicable ANSI/IEEE standards with test reports available upon request.

3.0 Ratings

Maximum Design Voltage (kV)	27.0
Nominal Operating Voltage (kV)	12.47/7.2 and 24.9/14.4 Grounded Wye
Basic Insulation Level (kV)	125
Rated Frequency (Hz)	60
60 Hz Withstand Voltage (kV)	
Dry, one minute	60
Wet, ten seconds	50
Continuous Current (A)	630
Overload Current, 8 HR 25% (A)	787
Symmetric Interrupting Current (A)	12,500
Minimum Life time Operations	10,000
Creepage Distances	
Terminal to Terminal (in)	41.5
Lower Terminal to Ground (in)	30.0
Operating Temperature (*F)	-40 °C to +55 °C

4.0 Construction

The recloser system shall consist of three individual single-phase reclosers with unified pole mounting frame, a junction box integrated into the frame, and one recloser control. Each pole of the recloser shall be identical to allow complete replacement of any individual recloser without disassembly or removing from service to replace any of the other reclosers.

4.1 Operating Handle and Indicators

A yellow manual operating handle shall be provided under a sleet hood for each phase.

4.1.1 Pulling the handle down when in the closed position shall result in a manual opening operation. With the handle in the open position, the recloser is in a "lock-out" position and shall not accept an electrical close signal from the control. Returning the handle to the closed position shall not close the recloser, but will allow the recloser to be closed by a signal initiated from the control.

4.1.2 A four-digit mechanical counter shall be provided under the sleet hood for each phase.

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- 4.1.3 A red/green (closed/open) indicator flag shall be visible to provide contact position indication.
- 4.2 Recloser Mechanism
 - 4.2.1 The mechanism shall consist of a single coil mono-stable magnetic actuator capable of fast opening and closing operations with no recharging delay.
 - 4.2.2 The mechanism and internal wiring shall be housed within a high impact, UV resistant, thermoset polymer enclosure suitable for outdoor environments. Vents shall be provided to allow water drainage.
 - 4.2.2.1 Provisions shall be made for surge arrester mounting on the source and load sides.
 - 4.2.3 A capacitor shall be used to store the necessary energy for operating the magnetic actuator.
 - 4.2.4 The recloser shall be capable of operating fully from either an external 120 or 240VAC source or an internal 24 VDC battery.
- 4.3 Recloser Bushings
 - 4.3.1 Cycloaliphatic epoxy shall be utilized as the dielectric insulating medium and shall provide complete encapsulation of the internal vacuum interrupters and be completely bonded to the source and load side bushing terminals.
 - 4.3.2 NEMA two-hole flat pad terminals shall be provided for source and load side risers
- 4.4 Vacuum Interrupters
 - Interrupters shall be Eaton Axial-Magnetic vacuum interrupters or equivalent.
- 4.5 Current Transformers (CTs)
 - 4.5.1 The CTs shall be an integral part of the primary bushings and have a 1000:1 ratio for use with controller protection, metering, and event history functions.
 - 4.5.2 The CTs shall be protected by a clamping circuit internal to the recloser to minimize the possibility of hazardous voltage entering the control compartment or exposed due to the control cable being disconnected.
- 4.6 Voltage Sensors
 - Voltage sensors shall be integrated into the interrupter module for the source (3) and load side (3) utilizing a resistive voltage divider design.
 - 4.6.1 Accuracy shall be $\pm 2\%$ for voltage and $\pm 1.5^\circ$ for phase degree.
 - 4.6.2 The sensors shall be compatible with SEL and Eaton controls.
- 4.7 Mounting Frame
 - The pole mounting configuration shall be specified in the bid document and be constructed of galvanized steel. All required wiring, junctions, and connections shall be provided to combine the individual phases
 - 4.7.1 Horizontal Construction Installation
 - Design shall be for single wood pole center mount installation with provisions for the outside phase bushings to be mounted parallel or

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perpendicular to the line conductors. Phase bushing spacing shall be approximately 30"

4.7.2 Vertical Construction Installation

Design shall be for individual phases with a 5' phase-to phase spacing

4.7.3 The frame shall have provisions for lifting lugs and have multiple grounding connections.

4.8 Recloser Control Panel

4.8.1 A Schweitzer SEL-651R control panel shall be supplied by the bidder and shall be certified as compatible with all functions of the recloser.

4.8.2 The control shall provide an accessory for synchronizing the internal clock to satellite GPS time. The satellite-synchronized clock shall provide an IRIG-B demodulated output accurate to within ± 100 nanoseconds (average) of UTC time

4.8.3 Communications means shall be three EIA-232 serial, one EIA-485, one USB, two metallic Ethernet, and one single fiber Ethernet port for external communication.

4.8.3.1 Any additional communications means shall be specified in the bid document

4.8.4 Control Panel Cabling

4.8.4.1 All required recloser control and control power transformer to control panel cables shall be 40' in length

4.8.4.2 The control cable shall be a 42-pin type

5.0 Testing

5.1 Recloser Production Testing

The recloser shall be subjected to the following production tests:

5.1.1 Functional test to ensure unit is operating.

5.1.2 Measurement of mechanical characteristics to ensure full performance.

5.1.3 Electrical TCC trip test.

5.1.4 High-potential withstand test to verify dielectric strength of the unit.

5.2 Production Test Data

Certified test data bearing the seal of a Registered Professional Engineer shall be available upon request for the following:

5.2.1 Interrupter ratings per IEEE Std C37.60TM-2012 standard

5.2.2 Load current, line charging and cable charging interruptions per IEEE Std C37.60TM -2012 standard

5.2.3 Dielectric ratings (BIL, Dry and Wet withstand, and Partial Discharge) per IEEE Std C37.60TM -2012 standard

5.2.4 Continuous current heat run per IEEE Std C37.60TM -2012 standard

5.2.5 Mechanical Life per IEEE Std C37.60TM -2012 standard

6.0 Assembly, Packaging, and Delivery

6.1 Component Assembly

The recloser and specified components shall be factory assembled to be

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"site ready" for installation with all required components prewired with suitable guards and coverings to protect from animal contact, including:

- 6.1.1 Recloser Unit installed in mounting frame.
- 6.1.2 Source and load side arrestors (Hubbell PN 2216097354 or equivalent).
- 6.1.3 Control power transformer.
- 6.1.4 Cabling, wiring, and junctions for the interfaces between the recloser, control panel, and control power transformer.
- 6.2 Packaging
 - 6.2.1 Recloser unit shall be pallet mounted and securely packaged to prevent damage during handling, travel, and unloading
 - 6.2.2 Packaging shall be suitable for outdoor storage
- 6.3 Delivery
 - 6.3.1 Delivery shall be to the rear of 864 Monument St; access is via the intersection of Goodyear Blvd and Industrial Ave (Google Map coordinates 36.578264, -79.383063)
 - 6.3.2 Delivery shall be made on a flatbed trailer to allow for forklift removal
 - 6.3.3 Delivery time shall be scheduled and be between the hours of Monday 9:00 AM and Friday 13:30 PM
 - 6.3.4 Notifications
 - 6.3.4.1 The following personnel shall be notified by email with an expected delivery date when the shipment is released for transport.
witchdl@danvilleva.gov
coxds@danvilleva.gov
lewiscc@danvilleva.gov
 - 6.3.4.2 The following personnel shall be notified by email or phone one day prior to delivery so unloading can be scheduled:
witchdl@danvilleva.gov (434) 799-5268
coxds@danvilleva.gov (434) 773-8139
lewiscc@danvilleva.gov (434) 799-5268
 - 6.3.4.3 Any additional costs incurred by DPL due to lack of the required notifications or delivery requirements shall be borne by the bidder

Specify either horizontal or vertical mounting in PR