

REQUEST FOR PROPOSAL



BURLINGTON ELECTRIC DEPARTMENT

585 Pine street
Burlington, VT 05401-4891
Phone: 802-865-7456

RFP #

014-22

DATE:

09/10/2021

REQUEST FOR QUOTATION

THIS IS AN INQUIRY,
NOT AN ORDER

PLEASE QUOTE PROMPTLY

ALL RFP'S RESPONSES ARE TO BE
UPLOADED TO OUR SECURE
WEB SITE USING YOUR UNIQUE LOGIN

DELIVERY REQUIRED BY:	QUOTATION DUE BY	REQUISITION NO:	DEPT:
	NLT 09/28/2021 10:00am EST		

QTY	DESCRIPTION
1	<p>BURLINGTON ELECTRIC DEPARTMENT, A LOCAL GOVERNMENT AGENCY IN THE STATE OF VERMONT IS SEEKING PROPOSALS FOR THE FOLLOWING ITEMS LISTED BELOW.</p> <p>WE WILL NOT ACCEPT ANY SUBSTITUTIONS FOR ANY OF THE ITEMS. ALL ITEMS MUST INCLUDE FREIGHT TO OUR 585 PINE ST LOCATION.</p> <p>PLEASE INCLUDE LEAD-TIME FOR ALL ITEMS LISTED BELOW</p> <p>2500 FT WIRE 1/0 ALU, 15KV URD 3-CONDUCTOR, CIRCUIT FEET FILLED, PARALLELED PER REEL 3 X 1/C-15KV (ECWPRI00080). PER OUR SPECIFICATION S0125</p> <p>REEL SIZE CAN NOT EXCEED THE FOLLOWING: FIT THE MAXIMUM WIRE YOU CAN ON A REEL... 48" WIDE X 72" HIGH AND NOT WEIGH MORE THAN 7,000 LBS PER REEL.</p> <p>DELIVERY REQUIREMENT: <u>SHIP FOB DESTINATION FREIGHT ALLOWED</u> , 585 Pine Street, Burlington VT 05401</p> <p>BED RESERVES THE RIGHT TO ACCEPT OR REJECT ANY OR ALL PROPOSALS RECEIVED IN RESPONSE TO THIS RFP OR TO TAKE OTHER ACTION CONSISTENT WITH THE BEST INTEREST OF BED. BED RESERVES THE RIGHT TO NEGOTIATE SEPARATELY WITH ANY SOURCE TO SERVE THE BEST INTEREST OF BED.</p> <p><u>EXCEPTIONS TO THIS RFP SHALL BE SUBMITTED IN WRITING & ACCEPTED BY B.E.D. ON THE AWARDED P.O. TO BE BINDING. ALL SUBMITTED BIDS BECOME THE PROPERTY OF BURLINGTON ELECTRIC DEPARTMENT. AFTER THE AWARDING OF THE CONTRACT TO THE SUCCESSFUL BIDDER, ALL BIDS ARE OPEN FOR PUBLIC VIEWING</u></p> <p><u>ALL PROPOSALS MUST BE SUBMITTED VIA THE SECURE WEB SITE.</u> BED WILL NO LONGER ACCEPT FAXED BIDS, EMAIL OR MAILED. <u>ALL RFP'S MUST INCLUDE OUTLINE DRAWING SHOWING DIMENSIONS OF TRANSFORMER. IF ANY INFORMATION IS MISSING THE RFP WILL BE DEEMED INVALID AND WILL NOT BE EVALUATED</u></p>

VENDOR MUST COMPLETE THIS INFORMATION

- SHIPMENT CAN BE MADE _____ DAYS FROM RECEIPT OF ORDER
- F.O.B. DESTINATION FREIGHT ALLOWED BURLINGTON ELECTRIC DEPT. DOCK.
- TERMS _____ DISCOUNT OF _____ % IF PAID NET _____ DAYS
- QUOTE VALID _____ DAYS

SIGNED _____ DATE: _____

TITLE: _____ COMPANY: _____

**B.E.D. RESERVES THE RIGHT TO ACCEPT OR DECLINE ANY AND ALL BIDS.
ALL BIDS BECOME THE PROPERTY OF BURLINGTON ELECTRIC DEPARTMENT**

Jeffrey W. Turner

**FOR INQUIRE ON ABOVE QUOTE PLEASE CALL
PURCHASING DEPARTMENT DIRECT AT:**

JEFF TURNER 865-7456
email: jturner@burlingtonelectric.com

**BURLINGTON ELECTRIC DEPARTMENT
MATERIAL SPECIFICATION**

**#1/0 Aluminum, 15 kV - 133%,
Ethylene Propylene Rubber (EPR) OR TR-XLPE Insulation Level,
1/3 Concentric Neutral Cable with Overall Jacket
Three (3) phases, paralleled per reel**

SCOPE

This specification covers single conductor, 1/3 concentric neutral, jacketed cables, for use on 13800 Grd Y/7970 volt, 60 hertz underground electrical distribution systems. These cables shall be capable of operating continuously in either wet or dry locations, whether conduit encased or directly buried in earth, at a conductor temperature of 105°C normal, 140°C emergency and 250°C short circuit duty.

Bidders must complete the "1/0 Aluminum, 15 kV, 1/3 Concentric Neutral, Jacketed Cable Data Sheet" (page 6 of this specification) and return it with their quotation. BED will not consider quotations that are not accompanied by a completed "1/0 Aluminum, 15 kV, 1/3 Concentric Neutral, Jacketed Cable Data Sheet."

INDUSTRY STANDARDS

The cable shall be in compliance with the latest edition of the applicable industry standards (listed below) except where this specification conflicts with the industry standards, in which case this specification shall take precedence. Specific exceptions to this specification or to applicable industry standards shall be clearly noted with each quotation.

AEIC CS-8	"Specification for Extruded Dielectric Shielded Power Cables Rated 5-46 KV"
ANSI/ICEA S-94-649	"Standard For Concentric Neutral Cables Rated 5-46 KV"
ANSI/ICEA T-32-645	"Guide for Establishing Compatibility of Sealed Conductor Filler Compound with Conducting Stress Control Material"
ANSI/ICEA T-31-610	"Test Method for Conducting Longitudinal Water Penetration Resistance Tests On Blocked Conductors"

STANDARD CONSTRUCTION

Stranded aluminum and filled conductor; extruded, semi-conducting, thermosetting conductor shield; thermosetting Ethylene Propylene Rubber (EPR) OR Tree-Retardant Cross-Linked Polyethylene (TR-XLPE) based insulation; extruded, semi-conducting, thermosetting insulation shield; bare copper concentric neutral wires; encapsulating linear low density polyethylene (LLDPE) jacket.

See the "Alternate Cable Construction" section on page 5 of this specification. Manufacturers are strongly

Material Specification	1/0 Aluminum, 15 kV - 133%, EPR Insulation,	Approved: <i>Chaka J. Elliott</i>
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Burlington Electric Department	(3) phases, paralleled per reel	Page 1 of 6

encouraged to quote the standard and alternate cable constructions meeting this specification.

The conductor shield, the insulation and the insulation shield shall meet the electrical and dimensional requirements of the latest revisions of AEIC CS8 and ICEA S-94-649.

The conductor shield, the insulation and the insulation shield shall meet the requirements for voids, contaminants, protrusions, indents and irregularities of the latest revision of AEIC CS8.

The conductor shield, the insulation and the insulation shield shall be extruded and cured in a single pass (triple extruded).

CONDUCTOR

One, 1/0, 19 strand, filled, class B concentric lay stranding, compressed aluminum conductor.

STRAND FILLING COMPOUND

The interstices of the conductor shall be filled with a sealant to impede longitudinal water penetration; however, the outer surface of the conductor shall be free from the sealant compound. The sealant must be compatible with the conductor shield in accordance with the latest edition of ICEA T-32-645-1993.

CONDUCTOR SHIELD

The conductor shield shall consist of a black, semi-conducting, thermosetting compound extruded over the conductor. This material shall be compatible with the conductor metal and the insulation, free stripping from the stranded conductor, and shall be uniformly and firmly bonded to the overlying insulation. The thermal characteristics of this material shall be equal to or better than those of the insulation.

INSULATION

The insulation shall be a high quality, heat, moisture, ozone and corona-resistant thermosetting Ethylene Propylene Rubber (EPR) or Tree-Retardant Cross-Linked Polyethylene (TR-XLPE) based compound meeting the requirements of ICEA S-94-649 and AEIC CS8. It shall be contrasting in color from the extruded semi-conducting shields.

The nominal thickness of the insulation shall be 220 mils (133% insulation). In-plant repairs of the insulation are prohibited.

INSULATION SHIELD

The insulation shield shall consist of a black, semi-conducting, thermosetting compound extruded over the insulation. This material shall be compatible with the insulation, the concentric neutral wires and the jacket material. The thermal characteristics of this material shall be equal to or better than those of the insulation.

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The insulation shield shall bond to the insulation sufficiently to prevent trapping of moisture or air at the interface; however, the insulation shield shall be free stripping from the insulation, and the tension necessary to remove the insulation shall be 4 to 24 pounds per 0.5 inch width when tested in accordance with AEIC CS8. The shield shall strip cleanly from the insulation, leaving it free of any significant residue of semiconducting or other material, which would have to be removed before splicing or terminating.

The outer surface of the insulation shield shall be smooth. It shall be conspicuously identified as semi-conducting in indelible non-conducting ink of a contrasting color along its entire length.

CONCENTRIC NEUTRAL

One third (1/3) rated neutral, helically applied, consisting of a minimum of six (6) No. 14 AWG annealed, bare copper wires, equally spaced, wrapped around the insulation shield. Alternate concentric neutral configurations (quantity and size of bare copper wires) with equivalent ampacity may be quoted.

JACKET

An insulating, black, linear low density polyethylene jacket shall be extruded over the insulation shield and the concentric neutral wires. It shall comply with the physical requirements listed in ICEA S-94-649. Chlorinated jackets are not acceptable. The jacket shall have a nominal thickness of 50 mils. The jacket shall be free stripping from the insulation shield and the concentric neutral wires.

Three, equally spaced, longitudinal red stripes shall be extruded in the jacket.

The jacket shall be marked with the following information by means of surface or indent print with unmarked surfaces not exceeding six inches:

- 1) Manufacturer
- 2) Type of insulation (EPR OR TR-XLPE)
- 3) Size of conductor (1/0)
- 4) Conductor material (AL)
- 5) Rated voltage (15 kV)
- 6) Year of manufacture
- 7) Insulation thickness (220 mil)
- 8) Sequential footage marking

QUALITY ASSURANCE

Each master reel from which cable is supplied shall be tested in accordance with AEIC CS8, ICEA S-94-649, and ICEA Publication T-32-645.

Certified test reports shall be furnished for all cable supplied to demonstrate accurate compliance with all required AEIC and ICEA production tests as listed in AEIC CS8. An X-Y plot of the Apparent Discharge Characteristic shall be included with the certified test reports.

REQUIRED INFORMATION

In addition to price and delivery, the following information shall be provided by the manufacturer for each cable construction quoted:

- 1) Dielectric losses, in watts per foot, for the cable when operated at 13800 Grd Y/7970 volts.
- 2) Conductor diameter, diameter over the insulation, overall cable diameter, and cable weight per foot.
- 3) Warranty information.

SHIPMENT

Water tight seals shall be applied to all cable ends to prevent the entrance of moisture during transit, outdoor storage or installation.

Cable shall be supplied three (3) phases, paralleled per reel.

All reels shall be non-returnable. The drum diameter shall not be less than 36 inches. Overall reel width shall not exceed 52 inches. Flange diameter shall not exceed 77 inches.

Reels shall be labeled as specified in AEIC CS8, with the exception that durable labels will be securely attached to both flanges of the reel.

When the length of cable on each reel is specified by the Burlington Electric Department, the tolerance shall be minus zero to plus five percent (-0% / +5%).

WARRANTY

All cable under this specification shall be quoted with a forty (40) year replacement warranty.

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ALTERNATE CABLE CONSTRUCTION

Manufacturers should also quote a cable construction with longitudinal water blocking around the concentric neutral wires as an alternate. BED will evaluate all quotations received.

CONSTRUCTIONS

Stranded and filled aluminum conductor; extruded, semi-conducting, thermosetting conductor shield; EPR or TR-XLPE based insulation; extruded, semi-conducting, thermosetting insulation shield; longitudinally water blocked, bare copper concentric neutral wires; encapsulating linear low density polyethylene (LLDPE) jacket.

CONDUCTOR

One, 1/0, 19 strand, filled, class B concentric lay stranding, compressed aluminum conductor.

LONGITUDINAL WATER BARRIER

A longitudinal water barrier, consisting of a dusting of water swellable powder and/or a water swellable tape, shall be applied over the neutral wires. The water swellable powder / tape shall be compatible with the insulation shield, the concentric neutral wires, and the jacket material.

QUALITY ASSURANCE

In addition to the tests listed on page 3 of this specification, after jacketing, strand filled and longitudinally water blocked cables shall also be subjected to a water penetration test in accordance with ANSI/ICEA T-31-610. The certified test reports shall also demonstrate accurate compliance with the water penetration test.

BURLINGTON ELECTRIC DEPARTMENT
1/0 Aluminum, 15 kV, EPR, 1/3 Concentric Neutral, Jacketed Cable Data Sheet

Vendor: _____ Quotation Date: _____

Cable manufacturer: _____

*** BED will not consider quotations that are not accompanied by a completed copy of this sheet. ***

	Standard strand filled Cable Construction	Strand filled conductor and longitudinally water blocked
Product or Catalog Number		
Price per Foot		
Delivery (Weeks)		
Minimum Order (Feet)		
Warranty Period		
Conductor Diameter (inches)		
Type of Insulation		
Diameter Over Insulation (inches)		
Overall Cable Diameter (inches)		
Cable Weight (pounds per foot)		
Dielectric Losses when operated at 13800 Grd Y/7970 volts (watts per foot)		

Exceptions to this specification: _____

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