



Date: July 28, 2021

To: All Vendors

Subject: Addendum #1

REFERENCE: **B 068-21, Supply of Aluminum Cable URD 500MCM**

This Addendum forms part of the contract and clarifies, corrects or modifies original proposal document.

Question 1: Section 3.6 of NBU specification calls for a "full" neutral. However, the bid description calls for a neutral consisting of 16-#12's or 25-#14's both of these are not full neutrals but rather 1/3 neutrals. Is BPUB desiring full neutral or 1/3 neutral?

Answer 1: Brownsville PUB needs the cable shall be one-third copper neutral. Attached is the revised specification.

The signature of the company agent, for the acknowledgement of this addendum, shall be required. **Complete information below and return via e-mail: hlopez@brownsville-pub.com or dsolitaire@brownsville-pub.com.**

I hereby acknowledge receipt of this addendum.

Company: _____

Agent Name: _____

Agent Signature: _____

Address: _____

City: _____ **State:** _____ **Zip:** _____

Phone Number: _____ **E-mail address:** _____

If you have any further questions about the Proposal, call 956-983-6375.

BY: Hugo E. Lopez
Purchasing

SPECIFICATIONS FOR 15-KV 500 MCM ALUMINUM URD POWER CABLE

1.0 SCOPE & CLASSIFICATION

1.1 Scope

This specification covers ethylene propylene rubber (EPR) insulated, 15 kV concentric neutral single conductor shielded URD power cable. Cable will be installed directly buried in earth, or underground in conduit, in wet or dry locations, in pole risers, and in open air in sunlight.

1.2 Classification

15 kV, insulation thickness 220 mils at 133% insulation level. Conductor size: 500 MCM Aluminum URD.

2.0 APPLICABLE SPECIFICATIONS

2.1 Unless otherwise stated in these specifications, cable shall be manufactured, tested and made ready for shipment in accordance with the latest edition of the applicable ASTM, AEIC CS, ICEA S, UL and NEMA standards.

3.0 REQUIREMENTS

3.1 The cable shall meet the requirements of ICEA S-94-649 and AEIC CS8 latest edition except where it conflicts with the requirements of this specification, in which case this specification shall apply.

3.2 Conductor

The center conductor shall be EC-H19 Class B compressed strand aluminum per ASTM B230 and B231.

3.3 Conductor Shield

An extruded layer of black thermoset semi-conducting EPR conductor shielding meeting the requirements of ICEA S-94-649 and AEIC CS8 shall be provided. The extruded shield shall be easily removable from the conductor. Thickness of conductor shield shall be according to AEIC CS8.

3.4 Insulation

The insulation shall be ethylene propylene rubber (EPR) meeting the requirements of ICEA S-94-649. The average thickness shall not be less than 220 mils for 133% rated cable. The minimum thickness at any point shall not be less than 90% of the specified thickness. Insulation shall be suitable for conductor temperatures not to exceed 90°C for normal operation, 130°C for emergency overload conditions, and 250°C for short-circuit conditions.

3.5 Insulation Shield

A layer of deformation resistant thermoset semi-conducting EPR meeting the requirements of ICEA S-94-649 shall be extruded over the insulation to serve as an

electrostatic shield. The shield compound should be compatible with the insulation and legibly identified as conducting. The thickness of the shielding shall be in accordance with ICEA S-94-649. Semi-conducting shield shall be free stripping from the insulation per AEIC CS8.

3.6 **Concentric Neutral**

The concentric neutral shall be bare annealed copper wires meeting the requirements of ASTM B-3 and spirally wound over the insulation shield. The cable shall be one-third copper neutral. 500 CU – (26-#12 CU or equivalent)

3.7 **Outer Jacket**

Jacket: Black with red extruded stripes meets or exceeds the requirements of ICEA S-94-649 for polyethylene jackets. The jacket shall be tightly fitting and shall be free stripping from the insulation shield. The minimum average thickness of the jacket shall not be less than 50 mils for cables with diameters up to 1.50" and 80 mils for cables with diameters over 1.50".

3.8 **Warranty**

The EPR insulation must have a proven field experience record over the twenty (20) years. The manufacturer shall provide a written 20 year WARRANTY.

4.0 **QUALITY ASSURANCE**

4.1 **Electrical Testing**

Each length of cable shall be tested in accordance with AEIC CS8 with the following exceptions:

4.1.1 Apparent Discharge Test shall be performed in accordance with AEIC CS8 except with maximum discharge of 5 picocoulombs to full test voltage of 200 volts/mil.

4.1.2 A.C. Voltage Withstand Test shall be performed in accordance with AEIC CS8 except partial discharge to be monitored during test. If partial discharge appears, cable is to be rejected.

4.1.3 D.C. Voltage Withstand Test shall be performed in accordance with AEIC CS8 except at 500 volts/mil.

4.2 **Test Reports**

Certified test reports including X-Y corona plot shall be provided for all cable provided under this specification. Said reports shall be from tests run on the same manufacturing run as the cable delivered to BPUB.

5.0 **IDENTIFICATION**

The following information shall be durably marked and repeated along the cable at regular intervals with unmarked surfaces not exceeding six inches.

- a. Manufacturer's name and/or trade name
- b. Conductor size, type and voltage
- c. Insulation type and thickness
- d. Rated voltage
- e. Year of manufacture
- f. Insulation shielding identified as semi-conducting
- g. Cable footage shall be marked every two (2) feet

6.0 PREPARATION FOR SHIPMENT

- 6.1 Cable shall be furnished uncut in one continuous length on substantially constructed non-returnable wooden reels. Maximum weight of a reel and cable shall not exceed 5000 lbs., diameter 72 inches and width 48 inches.
- 6.2 Watertight seals shall be applied to all cable ends to prevent the entrance of moisture during transit, out-of-door storage or installation.

7.0 DELIVERY

7.1 Delivery of cable will only be accepted during normal working hours. The BPUB Warehouse Receiving Hours are Monday thru Friday, except holidays, from 9:00 AM to 4:00 PM. A delivery ticket/packing slip must be furnished with each delivery by the carrier. The delivery ticket must show the BPUB's Purchase Order, number of reels, beginning & ending footage for each reel, etc. being delivered to the BPUB