Annexure – ‘B’

**11KV AERIAL BUNCHED XLPE CABLE**

* 1. COMPOSITION OF THE CABLE

The composite cable shall comprise three single core cables twisted around a bare aluminum alloy messenger wire, which will carry the weight of the cable. The cable is to be installed in open atmosphere acceptable to rain, solar radiation and other weather adversities.

* 1. RATED VOLTAGE

The rates voltage of the cables shall be 6.35KV/11 KV and the maximum operating voltage shall be 12 KV.

* 1. APPLICABLE STANDARDS

Unless otherwise stipulated in this Specification, the following standards shall be applicable:

* + 1. IS: 7098 (Part-II)- 1985- Cross linked Polyethylene Insulated PVC Sheathed Cables.
    2. IS: 8130-1984- Conductors for Insulated cables.
    3. IS: 398 (Part-IV)- 1979- Aluminum Alloy Conductors. iv) IS: 10810/1984: Methods of test of cable.

v) IS: 10418/1982: Drums for electrical cable.

* 1. DETAILS OF SINGLE CORE CABLE

1. The cable conductors shall be of round, stranded and compacted aluminum of nominal cross sectional area 185 sqmm & 150 sqmm. Corresponding nominal conductor diameter and number of wires in the conductor shall be as given in GTP.
2. Conductor Screen: The conductor screen shall be of extruded semi• conducting cross-linked polyethylene compound of thickness not less than 0.5mm.
3. Insulation: The insulation shall be of extruded cross linked polyethylene (XLPE) of nominal insulation thickness 3.6mm and its properties shall conform to IS 7098 (Part-H).
4. Insulation Screen: The insulation screen shall comprise extruded semi• conducting compound and/or semi-conducting tape. Thickness of screen shall not be less than 0.6mm.
5. Metallic Screen: The metallic screen shall consist of Copper Tap Applied Helically on core of thickness not less than 0.05mm.
6. Outer Sheath: The outer sheath shall be black polyethylene and it shall conform to the technical requirements of ST-2 of IS: 5831:1984.
7. MESSENGER
   1. The messenger wire shall be aluminium alloy, generally conforming to IS:398 (Part-

IV) - 1979, and shall be suitably compacted to have smooth round surface to avoid damage to the outer insulating sheath of single core phase cables twisted around the messenger.

* 1. There shall be no joints in any wire of the stranded messenger conductor except those made in the base rod or wires before finally drawing.