

	Genral & Technical Specification	2019-0422
Rudrapur	Annexure-I	Rev no 00

General Specification:

- Scope:** Supply of Single core multi strand XLPO insulated & sheath copper conductor **DC** cables for Solar.
- Prices quoted shall be on F.O.R site basis (NBCC -KIDWAI NAGAR, DELHI) & shall be firmed till completion of delivery. Consignee address to be provided alongwith dispatch clearance.
- Delivery schedule:** As follows:-

S.No.	Lot No.	Quantity	Delivery period
1	1 st Lot	4000 Mtr	Within 60 days from date of issue of PO.
2	2 nd Lot	3000 Mtr	Within 90 days from date of issue of PO.
3	3 rd Lot	3000 Mtr	Within 120 days from date of issue of PO.
4	4 th Lot	2000 Mtr	Within 150 days from date of issue of PO.

- Cables shall be inspected at vendor's work by BHEL Rudrapur/Third party.
- Bidders shall submit technical datasheet for cables of offered Make.
- Bidders shall submit quality plan for Type Test, Acceptance Test, Routine Test & optional Test alongwith technical bid.

Technical Specification:- Cables shall have the following characteristics:

- Temp. Range: -10 Degree C to +90 Degree C.
- Voltage rating 0.6/1 kV.
- Excellent resistance to heat, cold, water, oil, abrasion, UV radiation.
- Flexible – Class 5 (as per IEC 60228).
- DC cable shall be single core multi strand Electrolytic Annealed Tinned Copper Conductor.
- The construction of DC Cable shall be in a two layer construction with a low smoke halogen-free, flame retardant and sunlight resistant electron beam cross-linked compound outer layer and halogen-free thermoset polyolefin inner layer. DC cables insulation & sheath shall also confirm:
 - Suitable for continuous operating temperature of 90°C wet or dry
 - Vertical Flame Performance: EN 60332-1 or equivalent
 - Excellent UV and Ozone resistant
 - Suitable for wet, damp and humid locations
 - Specially designed for excellent flexibility
 - Compatible with all major connectors
 - Cold bend and impact: -40°C
- 4 SQMM cable's outer layer/sheath shall be of "Black & Red" Colour (50-50% of each colour of total quantity). Outer layer/sheath with partial "RED" colour is also accepted.
- Make of cables (required): LAPP, POLYCAB & HAVELLS. Refer Sr. no 06 of customer approved make list for DC Cables.



Signature and seal of Bidder

Sheet 1/3

	Genral & Technical Specification	2019-0422	
Rudrapur	Annexure-I	Rev no	00

Standards:

- i. Shall meet EN:50618.
- ii. Shall meet IEC: 60228
- iii. Shall meet TUV 2Pfg 1169/08.2007



Signature and seal of Bidder

Sheet 2/3

**SUPPLYING, INSTALLATION, TESTING AND COMMISSIONING OF 1.25MWP SOLAR
POWER GENERATION SYSTEM WORK IN OFFICE BLOCKS AND RESIDENTIAL
BLOCKS WITH 10 YEARS COMPREHENSIVE MAINTENANCE AT KIDWAI NAGAR
(EAST), NEW DELHI.**

S. No.	Detail of Materials	Manufacturer's Name
(A)	SOLAR SYSTEM WORKS	
1.0	SPV Modules Meeting IEC specifications, CEC& UL IEC 61215, IEC 61730	Photon Energy Systems / TATA / Premier / Havells/ Aryav Greens/ Bajaj
2.0	Solar String Inverter	Delta Electronics / KACO / SMA/SAMIL Power/ Havells/ Solar Edge
3.0	Accessories/PV Module Connecters	Phoenix Contact / Entrlec / TycoSolarlok / Huber + Suhner
4.0	Array Junction Boxes	Hensel / Spelsberg / TTPL / Phoenix Mecanno
5.0	Surge Protection Device	Phoenix Contact / Schneider / DEHN/JMV
6.0	DC Cables	Havells / Polycab / LAPP
7.0	LT Cables PVC / XLPE Insulated	Havells / Skytone / RR Kabel / Polycab / Finolex / KEI/ Elektron
8.0	Cable Terminations & Joints	Raychem / Mahindra / M-seal / Cabseal
9.0	DCW HDPE Pipes	Rex Ployextrusion / ISI marked
10.0	HDPE Pipes - 6 Kg pressure	Finolex / Supreme / AKG
11.0	Cable Tray / Under Floor Channels / Trunking Channels	Indeana / AKG / Maheshwari Electricals/Indiatech/ KME
12.0	MCB / ELCB / Double Door Distribution Board Type-B, Type-C	Legrand/ Schneider / L&T / Hager/ C&S/ Havells
13.0	Steel Structure	TATA / Jindal Hissar / SAIL / Vizag



