

Tender No TPCODL/CCG/23-24/010
 Package Name Rate Contract for Supply of AB Cable of various sizes for TPCODL/TPNODL/TPWODL/TPSODL
 Pre-Bid Clarification

Sr. No.	Detailed Reference to TPCODL Technical Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	TPCODL Response
1	2	3	4	5
1	Annexure-I, Price Schedule/SI No. 1 & 6/ Page No. 18/265	1. 1.1KV L.T AB CABLE 2X35+1X35 SQ,MM 2. CABLE 1.1KV AB 2CX50+1CX35+1CX16 SQMM	GENERAL TECHNICAL REQUIREMENTS not available	1. Kindly consider 2CX35+1CX25 sq mm instead of 2CX35+1CX35 sq mm and Guaranteed Technical Paramaters for 2X35+1X25 sq mm is enclosed as Annexure-1 2. Guaranteed Technical Paramaters for 2X50+1X35+1CX16 sq mm is enclosed as Annexure-1
2	1.7 Qualification Criteria Point C Page No. Page 9 of 26	The bidder should have supplied similar or higher size and rating AB Cable for minimum 50% of the quantity tendered in the immediate past five financial years.	We are requesting you to please change the qualification Criteria Clause 1.7 in Para C supplied quantity similar or higher size and rating AB Cable for minimum 30%.	Accepted
3	TPWODL/ENGG/SPEC/050/2021	Dear sir, please provide technical specification for the following items-1. LT ABC 2 X 35 + 1 X 35 SQ.MM. 2. 2C X 50 + 1 C X 50 + 1 C X 16.	Dear sir, please provide technical specification for the following items-1. LT ABC 2 X 35 + 1 X 35 SQ.MM. 2. 2C X 50 + 1 C X 50 + 1 C X 16. (also mention meesenger are bare or insulated)	1. Kindly consider 2CX35+1CX25 sq mm instead of 2CX35+1CX35 sq mm and Guaranteed Technical Paramaters for 2X35+1X25 sq mm is enclosed as Annexure-1 2. Guaranteed Technical Paramaters for 2X50+1X35+1CX16 sq mm is enclosed as Annexure-1
4	1.1 (Tender documents)	Scope of work	There are 3 Technical specifications TPWODL/ENGG/SPEC/050/2021 ENG-LV-3002 and ENG-LV-3017 but Technical specification and GTP of following sizes are not in any three specifications: 1. 1.1KV L.T AB CABLE 2X35+1X35 SQ,MM 2. CABLE 1.1KV AB 2CX50+1CX35+1CX16 SQMM 3. CABLE ABC LT 4X70+1X50+1x16 SQMM XLPE.	Kindly follow ENG-LV-3017 for AB cables with insulated neutral and separate bare messenger wire. 1. Kindly consider 2CX35+1CX25 sq mm instead of 2CX35+1CX35 sq mm and Guaranteed Technical Paramaters for 2X35+1X25 sq mm is enclosed as Annexure-1 2. Guaranteed Technical Paramaters for 2X50+1X35+1CX16 sq mm is enclosed as Annexure-1 3. Kindly read cable ABC LT 4CX70+1CX70+1CX16 SQMM XLPE instead of 4CX70+1CX50+1CX16 SQMM XLPE. Messenger has the same size as of Phase/neutral wire. Kindly follow TPWODL/ENGG/SPEC/050/2021 for these 3 phase AB cables with Insulated messenger cum Neutral wire. Applicable to item # 7 & 8 of tender clause 1.1 table.
5			The specifications and GTP of CABLE 1.1KV AB 3Cx120+1x70+1x16SQMM XLPE and CABLE 1.1KV AB 3x95+1x70+1x16 SQMM XLPE are in TPWODL/ENGG/SPEC/050/2021 Please confirm are we follow the specification of above two sizes according to TPWODL specification only	Kindly follow TPWODL/ENGG/SPEC/050/2021 for these 3 phase AB cables with Insulated messenger cum Neutral wire. Applicable to item # 7 & 8 of tender clause 1.1 table.
6	Specification No. : ENG-LV-3017 and 3002 Cl. No. 14	Core Identification	In 4 core AB Cable 3 phase conductor identification is 1 ridge, 2 ridge and 3 ridge and the forth core is neutral printed by N letter but in 3 core items messenger is insulated. On which core will the word N be printed?	For 3 phase AB cables with Insulated messenger cum Neutral wire, please print N on Neutral cum messenger wire.
7	Specification No. : ENG-LV-3017 Cl. No. 12 (ii) & (iii)	Street light core Nominal size	Nominal Size is sq.mm but nominal No. of wire & Dia is 7/3.02 mm which is for 50 sq.mm. for 16 sq.mm. it should be 7/1.70 mm	For the Nominal area / number of strands / Dia of Strand / DC resistance of Phase & Neutral conductor IS 8130 to be followed.
8	TPWODL/ENGG/SPEC/050/2021 cl. 14(b)(i) & 15(b)(i)	Material	sizes 3cx120+70+16 and 3cx95+70+10 In Cl. No. 14(b)(i) Material is XLPE insulated as per IS 7098 Pt-I and in cl. No. 15(b)(i) material as per IS:14255. both should be same as there is difference in properties of XLPE in IS 7098 Pt-I & IS:14255	XLPE Insulation as per IS 14255

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9	14(b)(ii)	Nominal Thickness	In Cl. No. 14(b)(i) Material XLPE is as per IS:7098 Nominal Thickness of size 3cx120+70+16 is 1.6 and in size 3cx95+70+10 is 1.5. these thickness is not mention in IS:7098 however these are in IS:14255	XLPE Insulation as per IS 14255
10	14(b)(iii)	Tolerance in Insulation Thickness	As per clause No. 9.3 of IS 7098 Part-1 it should be clause No. 7.3 of IS 14255	Tolerance as per clause 7.3 of IS 14255
11	Cl. No. 15(b)(i) & 15(b)(ii)	Street Light	In Cl. No. 15(b)(i) material is as per IS:14255:1995 and 15(b)(ii) Nominal thickness 1.2 but in 15(b)(iii) Tolerance in Insulation Thickness is as per clause No. 9.3 of IS 7098 Part-1 however it should be as per cl. No. 7.3 of IS:14255.	Tolerance as per clause 7.3 of IS 14255
12	ENG-LV-3017 Cl. No. 11 (a)(iii)	Minimum No. of Wire and Diameter	In specification No. ENG-LV-3017 Cl. No. 11 (a)(iii) and TPWODL/ENGG/SPEC/050/2021 cl. 14(a)(iii) Minimum No. of wire and Diameter is mentioned but in ENG-LV-3002 Cl. No. 11 (iv) diameter : "Shall be suitably selected to meet conductor DC resistance as per IS 8130" is mentioned However in IS:8130 Min No. of wire and DC resistance is specified but Dia of wire is not specified in IS:8130	For the Nominal area / number of strands / Dia of Strand / DC resistance of Phase & Neutral conductor IS 8130 to be followed.
13	ENG-LV-3002 Cl. No. 11 (iv)			
14	TPWODL/ENGG/SPEC/050/2021 cl. 14(a)(iii)			
15	Annexure-I, Price Schedule/SI No. 1 & 6/ Page No. 18/265			Please refer the revised price schedule attached as Annexure-A (Price Schedule)

Annexure-1

Guaranteed Technical Parameters for 2CX35+1CX25 sq mm

S.No.	Description	Units	Requirement
1.	Type of Cable		LT ABC cable with cross linked polyethylene insulated Phase & neutral core twisted around the bare earth cum messenger wire
2.	Size of Aerial Bunched cable		2Cx35 mm ² (P)+1Cx25 mm ² (M)
3.	Rated Voltage	kV	1.1
4.	System Voltage	kV	0.415
5.	Nominal Area of Phase & Neutral Conductor	Sq. mm	35
6.	Nominal Area of Messenger	Sq. mm	25
7.	Phase Core & Neutral core		Stranded compacted circular aluminum conductor, XLPE Insulated
8.	Messenger Wire		Stranded compacted circular aluminum alloy conductor
9.	Maximum conductor temperature during continuous operation	deg C	90
10.	Maximum conductor temperature during short circuit	deg C	250
11.	Phase Core Phase Neutral insulated		
a)	Conductor		
(i)	Material		EC Grade Aluminum of H4 Grade to IS 8130
(ii)	No. of Cores & Nominal size	Sq mm	2CX35
(iii)	Minimum number of wires/Diameter		6/ Shall be suitably selected to meet conductor DC resistance as per IS 8130
(iv)	Max. DC Resistance of Phase conductor at 20 deg. C	Ohm/km	0.868
(v)	Shape of Conductor		Stranded Compacted Circular
(vi)	Short circuit current rating of conductor for 1 sec	kA	3.29
(vii)	Continuous current rating in air at 40 deg. C	A	125
b)	Insulation		
(i)	Material		XLPE insulation as per IS 14255
(ii)	Nominal Thickness	Mm	1.2
(iii)	Tolerance is Insulation Thickness	Mm	XLPE Insulation as per IS 14255 clause No.7.3
12)	Earth cum Messenger wire		
a)	Messenger wire		
(i)	Material		Aluminum Alloy Wire
(ii)	Nominal size	Sq. mm	25
(iii)	No. and Nominal dia of each strand	No.mm	7/2.14
(iv)	App. Calculated Breaking Load	KN	7
(v)	Calculated Maximum resistance at 20 deg C	Ohm/km	1.38
(vi)	Shape of conductor		Stranded circular compacted
(vii)	Short circuit rating for 1 sec	kA	2.35

13)	Core identification		RIDGES REQUIRED for Phase identification: 1 ridge for phase For neutral core identification non contact type laser printing or ink jet printing to be provided with 'N' printed on it at every span of 1 ft.
14)	Formation of cable		Two cores XLPE insulated shall be twisted around the bare earth cum messenger wire
15)	Approx. weight of the messenger	Kg/Km	To be provided by the bidder
16)	Standard drum length	Mtr.	500/As per PO
17)	Tolerance in drum length	%	± 5%
18)	Reference Standard		IS 14255
19)	Embossing on XPLE cable		Embossing on phase insulation of the cable: manufacturer name 1100 V , size of cable, ISI, month & year of manufacturing, Property of TPWODL/ TPCODL/ TPNODL/ TPSODL, PO number & date, Sequential marking shall be available after every 1 meter in the cable.

Guaranteed Technical Parameters for 2CX50+1CX35+1CX16 sq mm

S.No.	Description	Units	Requirement
1.	Type of Cable		LT ABC cable with cross linked polyethylene insulated Phase, street lighting and neutral core twisted around the bare messenger wire
2.	Size of Aerial Bunched cable		2Cx50 mm ² (P)+1Cx35 mm ² (M)+1CX16 mm ² (Street Light)
3.	Rated Voltage	kV	1.1
4.	System Voltage	kV	0.415
5.	Nominal Area of Phase & Neutral Conductor	Sq. mm	50
6.	Nominal Area of Messenger	Sq. mm	35
7.	Phase Core & Neutral core		Stranded compacted circular aluminum conductor, XLPE Insulated
8.	Messenger Wire		Stranded compacted circular aluminum alloy conductor
9.	Maximum conductor temperature during continuous operation	deg C	90
10.	Maximum conductor temperature during short circuit	deg C	250
11.	Phase Core Phase Neutral insulated		
a)	Conductor		
(i)	Material		EC Grade Aluminum of H4 Grade to IS 8130
(ii)	No. of Cores & Nominal size	Sq mm	2CX50
(iii)	Minimum number of wires/Diameter		6/ Shall be suitably selected to meet conductor DC resistance as per IS 8130
(iv)	Max. DC Resistance of Phase conductor at 20 deg. C	Ohm/km	0.641 (As per IS 8130)

(v)	Shape of Conductor		Stranded Compacted Circular
(vi)	Short circuit current rating of conductor for 1 sec	kA	4.7
(vii)	Continuous current rating in air at 40 deg. C	A	149
b)	Insulation		
(i)	Material		XLPE insulation as per IS 14255
(ii)	Nominal Thickness	Mm	1.5
(iii)	Tolerance in Insulation Thickness	Mm	XLPE Insulation as per IS 14255 clause No.7.3
12)	Earth cum Messenger wire		
a)	Messenger wire		
(i)	Material		Aluminum Alloy Wire
(ii)	Nominal size	Sq. mm	35
(iii)	No. and Nominal dia of each strand	No.mm	7/2.54
(iv)	App. Calculated Breaking Load	KN	9.8
(v)	Calculated Maximum resistance at 20 deg C	Ohm/km	0.986
(vi)	Shape of conductor		Stranded circular compacted
(vii)	Short circuit rating for 1 sec	kA	3.29
13)	Street Light Core		
a)	Conductor		
(i)	Material		EC grade aluminium of H4 grade to IS: 8130
(ii)	Nominal size	Sq. mm	16
(ii)	Nominal no. of wire		6
(iii)	Max DC resistance at 20 deg. C	Ohm/Km	1.91(As per IS 8130)
(iv)	Shape of conductor		Stranded compacted circular
b)	Insulation		
(i)	Material		As per IS: 14255
(ii)	Nominal thickness	mm	1.2
(iii)	Tolerance in Insulation Thickness		XLPE Insulation as per IS 14255
14)	Core identification		RIDGES REQUIRED for Phase identification: 1 ridge for phase For neutral core identification non-contact type laser printing or ink jet printing to be provided with 'N' printed on it at every span of 1 ft.
15)	Formation of cable		Two cores XLPE insulated shall be twisted around the bare earth cum messenger wire
16)	Approx. weight of the messenger	Kg/Km	To be provided by the bidder
17)	Standard drum length	Mtr.	500/As per PO
18)	Tolerance in drum length	%	± 5%
19)	Reference Standard		IS 14255
20)	Embossing on XPLE cable		Embossing on phase insulation of the cable: manufacturer name 1100 V , size of cable, ISI, month & year of manufacturing, Property of TPWODL/ TPCODL/ TPNODL/ TPSODL, PO number & date, Sequential marking shall be available after every 1 meter in the cable.

TPCODL

TP Central Odisha Distribution Limited

TPNODL

TP Northern Odisha Distribution Limited

TPSODL

TP Southern Odisha Distribution Limited

TPWODL

TP Western Odisha Distribution Limited

CENTRALIZED CONTRACTS GROUP

NIT No.: TPCODL/CCG/23-24/010

Annexure-A, Price Schedule*Unit of Measurement is Meter*

S N	Item Description	TPCODL	TPNODL	TPWODL	TPSODL	Total Qty	Unit Rate (Rs)	Unit Rate with GST (Rs)	Total Amount with GST (Rs)
1.	1.1KV L.T AB CABLE 2X35+1X35 SQ.MM	4,00,000	7,00,000			11,00,000			
2	CABLE ABC LT 4X35+1X35+1x16 SQMM XLPE	3,00,000			21,630	3,21,630			
3.	1.1KV LT ABC XLPE CABLE 4X50+1X50+1X16	2,50,000	15,00,000		83,430	18,33,430			
4.	CABLE ABC LT 4X70+1X70+1x16 SQMM XLPE	1,01,000				1,01,000			
5.	1.1KV LT ABC XLPE CABLE 4X95+1X95+1X16	2,00,000	3,40,800		29,664	5,70,464			
6.	CABLE 1.1KV AB 2CX50+1CX35+1CX16 SQMM		50,000			50,000			
7.	CABLE 1.1KV AB 3Cx120+1x70+1x16SQM M XLPE			2,30,000		2,30,000			
8.	CABLE 1.1KV AB 3x95+1x70+1x16 SQMM XLPE			19,51,000		19,51,000			
9	CABLE 1.1KV AB 1X35+1X25 SQMM		0			0			
10	CABLE ABC LT 4X70+1X50+1x16 SQMM		2,00,000			2,00,000			

NOTE:

ii) All rates are to be quoted on delivered basis at TPCODL Store -Cuttack or Bhubaneswar, TPWODL Store- Burla, Sambalpur, TPNODL Store- Sovarampur, Balia, Balasore, Odisha, and TPSODL Store- Berhampur, Odisha (PAN TPSODL), should be inclusive of freight, insurance, loading & unloading, handling charges and any other charges which may be applicable.

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TPWODL

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iii) The overall period of the rate contract/PO shall be for a period of 1 year. PO/ Release order shall be issued as per requirement of TPCODL. Rates will remain firm and fixed during the rate contract/PO validity of 1 year.

iv) The bids will be evaluated commercially on itemwise lowest cost.

v) The bidders are advised to quote prices strictly in the above format. Failing to do so, bids are liable for rejection.

vi) The bidder must fill each and every column of the above format. Mentioning "extra/inclusive" in any of the column may lead for rejection of the price bid.

vii) No cutting/ overwriting in the prices is permissible.

viii) Quantities mentioned above is for evaluation purpose only and not guaranteed. Quantities may change as per actual requirements.

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