

Annexure - II**BILL OF QUANTITY FOR TRANSMISSION LINE MATERIALS BASED ON DETAILED SURVEY -
(TYPICAL FOR REFERENCE)**

Sl. No	Item Description	Unit	Quantity
1	Fabrication, galvanising and supply of various type of tower & tower parts, tower body / leg (equal & unequal) extensions (complete) excluding bolts & nuts, step bolts and stubs but including hangers, D-shackles, pack washer etc.		
(a)	High Tensile Steel	MT	
(b)	Mild Steel	MT	
2	Fabrication, galvanising and supply of stubs & cleats for various type of towers, tower extensions (complete) with pack washers, excluding bolts & nuts		
(a)	High Tensile Steel	MT	
(b)	Mild Steel	MT	
3	Supply of bolts & nuts including step bolts and spring washers for towers & tower extensions, excluding for stubs		
(a)	Hexagonal Bolts & Nuts including Step Bolts	MT	
(b)	Anti theft Bolts & Nuts	MT	
4	Supply of Hexagonal Bolts & nuts including washers for Stubs	MT	
5	Supply of Earthing of Towers		
(a)	Pipe Type Earthing	Nos	
(b)	Counterpoise Type	Nos	
6	Supply of following Tower Accessories		
(a)	Danger Plate	Nos	
(b)	Number Plate	Nos	
(c)	Phase Plate (Set of three)	Sets	
(d)	Circuit Plate (Set of two)	Sets	
(e)	Anti-Climbing Device	Nos	
(f)	Bird-Guard (Set of six)	Sets	
7	Design, Manufacture and Supply of following Line Materials for Transmission line		
(a)	Conductor (ACSR MOOSE ETC)	kM	
(b)	OPGW	kM	
(c)	GS Earthwire	kM	
(d)	Insulators Strings without hardware - Disc Insulators / Long Rod Insulators		
(i)	120 KN	Nos	
(ii)	160KN	Nos	
(e)	Insulator Strings - Hardware Fittings		
(i)	Double "I" Suspension Insulator String (Suitable for 2 x n, 120 KN Disc insulators or 2x3, 120 KN Long rod insulators)	Sets	
(ii)	Single "I" Suspension PILOT Insulator String (Suitable for 1 x n, 120 KN Disc Insulators or 1x3, 120KN Long rod insulators)	Sets	
(iii)	Single "I" Suspension Insulator String (Suitable for 1 x n, 120 KN Disc Insulators or 1x3, 120KN Long rod insulators)	Sets	

Sl. No	Item Description	Unit	Quantity
(iv)	Double tension Insulator String (Suitable for 2 x n, 120/160 KN Disc Insulators or 2x3, 160KN Long rod insulators)	Sets	
(f)	Accessories for Conductor & Earthwire		
(i)	Mid span compression joint for conductor	Nos	
(ii)	Mid span compression joint for GS earthwire	Nos	
(iii)	Repair Sleeve for Conductor	Nos	
(iv)	Flexible Copper Bond for GS Earthwire	Nos	
(v)	Quadruple Spacer Damper for Conductor	Nos	
(vi)	Vibration Damper for 7/3.66mm GS Earthwire	Nos	
(vii)	Bundle Spacer for Conductor	Nos	
(viii)	Quadruple Rigid Spacer for Conductor	Nos	
(ix)	Earthwire Suspension Clamp	Nos	
(x)	Earthwire Tension Clamp	Nos	
(xi)	OPGW Suspension Clamps	Nos	
(xii)	OPGW Tension Clamps	Nos	
(xiii)	OPGW Suspension Clamps	Nos	
(xiv)	OPGW Grounding and Parallel groove Clamps	Nos	
(xv)	OPGW Vibration Dampers	Nos	
(xvi)	Armor rods for OPGW	Nos	
(xvii)	FO Approach cable	m	
(xviii)	x Way joint box for OPGW	Nos	
	8 Benching		
(a)	All kinds of soil except fissured rock & hard rock	Cum	
(b)	Fissured Rock	Cum	
(c)	Hard Rock	Cum	
	9 Work Associated with Tower Foundations for various type of towers		
(a)	Excavation in various types of soils		
(i)	Dry Soil	Cum	
(ii)	Wet Soil	Cum	
(iii)	Dry Fissured Rock	Cum	
(iv)	Wet Fissured Rock	Cum	
(v)	Hard Rock	Cum	
(b)	Concreting (including all associated works related to foundation)		
(i)	M25 Nominal Concrete Mix	Cum	
(c)	Reinforcement steel	MT	
	10 Protection of tower footings (supply and installation)		
(a)	Random rubble stone masonry including excavation (1:5 cement mortar)	Cum	
(b)	Stone bound in galvanising wire netting including excavation	Cum	
(c)	M15 (1:2:4)Nominal mix Concrete for top seal cover of revetment	Cum	
(d)	Backfilling and gap levelling of volumes enclosed by revetment	Cum	
Note:	Any other item not listed above but are required may kindly be added.		