

NEPAL ELECTRICITY AUTHORITY
PROJECT MANAGEMENT DIRECTORATE
 Marsyangdi Corridor 220 kV Transmission Line Project, Udipur-Markichowk-Bharatpur Section

Schedule No. 2: Plant and Equipment including Mandatory Spares Parts to be supplied from within Nepal including Type Test Charges

Item No.	Item Description	Unit	Quantity	Ex Factory Price (Excluding VAT)		Inland Transportation up to Site including insurance		Total Amount (Excluding Taxes)	VAT and other taxes	Total Amount
				Unit Rate	Amount	Unit Rate	Amount			
1	2	3	4	5	6=(4)x(5)	7	8=(4)x(7)	9=(6)+(8)	10	11=(9)+(10)
4.3	Insulators for 220kV line with HTLS Conductor									
A.	Option-1: Composite Insulators									
(i)	120kN Composite Long Rod Insulator	Nos	678							
(ii)	160kN Composite Long Rod Insulator	Nos	3684							
B	Option-2: Disc Insulators									
(i)	120kN Disc Insulator	Nos	10848							
(ii)	160kN Disc Insulator	Nos	62628							
4.4	Hardware Fittings suitable for HTLS conductor									
i)	Double "I" Suspension Insulator String (except clamps)	Sets	186							
ii)	Single 'I' Suspension PILOT String (except clamps)	Sets	306							
iii)	Double Tension Insulator String (except clamps)	Sets	1842							
4.5	Clamps for Hardware fittings suitable for HTLS conductor									
i)	Suspension clamp suitable for suspension insulator strings	Sets	372							
ii)	Suspension clamp suitable for suspension pilot insulator strings	Sets	612							
iii)	Dead end clamp for tension insulator string	Sets	3684							
4.6	Insulators for 220kV ckts with Twin ACSR Bison									
A.	Option-1: Composite Insulators									
(i)	120kN Composite Long Rod Insulator	Nos	168							
(ii)	160kN Composite Long Rod Insulator	Nos	360							
B	Option-2: Disc Insulators									
(i)	120kN Disc Insulator	Nos	2688							
(ii)	160kN Disc Insulator	Nos	6120							
4.7	Hardware Fittings suitable for Twin Bison conductor									
i)	Single "I" Suspension Insulator String with necessary clamps	Sets	63							
ii)	Double Tension Insulator String with necessary clamps	Sets	180							
iii)	Single 'I' Suspension PILOT String with necessary clamps	Sets	42							

NEPAL ELECTRICITY AUTHORITY
PROJECT MANAGEMENT DIRECTORATE
 Marsyangdi Corridor 220 kV Transmission Line Project, Udipur-Markichowk-Bharatpur Section

Schedule No. 2: Plant and Equipment including Mandatory Spares Parts to be supplied from within Nepal including Type Test Charges

Item No.	Item Description	Unit	Quantity	Ex Factory Price (Excluding VAT)		Inland Transportation up to Site including insurance		Total Amount (Excluding Taxes)	VAT and other taxes	Total Amount
				Unit Rate	Amount	Unit Rate	Amount			
1	2	3	4	5	6=(4)x(5)	7	8=(4)x(7)	9=(6)+(8)	10	11=(9)+(10)
4.8	Conductor and Earthwire Accessories									
i)	Mid span compression joint for HTLS conductor	Nos	508							
ii)	Mid span compression joint for ACSR Bison conductor	Nos	61							
iii)	Mid span compression joint for 7/3.35mm GS earthwire	Nos	41							
iv)	Repair Sleeve for HTLS conductor	Nos	153							
v)	Repair Sleeve for ACSR Bison conductor	Nos	19							
vi)	Flexible Copper Bond for 7/3.35mm GS Earthwire	Nos	376							
vii)	Vibration Damper for for 7/3.35mm GS Earthwire	Nos	752							
viii)	Vibration Damper for ACSR Bison conductor	Nos	932							
ix)	Rigid Spacer for HTLS conductor	Nos	2722							
x)	Rigid Spacer for ACSR Bison conductor	Nos	303							
xi)	Bundle Spacer for ACSR Bison conductor	Nos	945							
xii)	Earthwire Suspension Clamp	Nos	37							
xiii)	Earthwire Tension Clamp	Nos	303							
xiv)	Vibration Damper for HTLS conductor	Nos	8140							
xv)	Bundle Spacer for HTLS conductor	Nos	7236							
xvi)	Spacer damper for HTLS conductor (as an alternative to (xiv) & (xv))	Nos	7236							
4.9	Suply of Fibre Cable & Accessories									
4.9.1	OPGW cable & Accessories									
i)	24 Fibre (DWSM) OPGW fibre optic cable	km	70							
ii)	Installation Hardware set for above 24 Fibre OPGW Fibre Optic cabling including all cable fittings & accessories except joint box									
a)	Suspension Assembly	Sets	30							
b)	Dead End Assembly	Sets	4							
c)	Tension Assembly (For joint Box Location)	Sets	42							
d)	Pass through Assembly	Sets	125							
e)	Special Fitting Assembly at suspension tower (for joint box locations)	Sets	2							
f)	Vibration Damper	Sets	600							
g)	Down Lead Clamp assemblies	No.	646							
iii)	Joint Box (24 fibre)	No.	21							

NEPAL ELECTRICITY AUTHORITY
PROJECT MANAGEMENT DIRECTORATE
 Marsyangdi Corridor 220 kV Transmission Line Project, Udipur-Markichowk-Bharatpur Section

Schedule No. 4: Installation and other Services
 (a): Installation and Construction Charges

Sl. No.	Item Description	Unit	Qty.	Installation Charges				
				Portion in Foreign Currency			Portion in Nepal Currency (in NRs)	
				Currency#	Unit Rate	Amount	Unit Rate in NRs	Amount NRs
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(6)	(8)	(9)=(4)x(8)
e)	+/- 0 m Leg Extension	Nos.	40					
f)	+1.5 m Leg Extension	Nos.	0					
g)	+3 m Leg Extension	Nos.	0					
h)	+4.5 m Leg Extension	Nos.	0					
i)	+6 m Leg Extension	Nos.	0					
j)	+7.5 m Leg Extension	Nos.	0					
k)	+9 m Leg Extension	Nos.	0					
l)	+18 m Leg Extension	Nos.	22					
m)	+25 m Leg Extension	Nos.	22					
5.6	Suspension Tower MA							
a)	Basic tower	Nos.	10					
b)	-4.5 m Leg Extension	Nos.	0					
c)	-3 m Leg Extension	Nos.	2					
d)	-1.5 m Leg Extension	Nos.	3					
e)	+/- 0 m Leg Extension	Nos.	20					
f)	+1.5 m Leg Extension	Nos.	3					
g)	+3 m Leg Extension	Nos.	12					
h)	+4.5 m Leg Extension	Nos.	0					
i)	+6 m Leg Extension	Nos.	12					
j)	+7.5 m Leg Extension	Nos.	0					
k)	+9 m Leg Extension	Nos.	3					
5.7	Tension Tower MD							
a)	Basic tower	Nos.	14					
b)	-4.5 m Leg Extension	Nos.	8					
c)	-3 m Leg Extension	Nos.	8					
d)	-1.5 m Leg Extension	Nos.	28					
e)	+/- 0 m Leg Extension	Nos.	8					



NEPAL ELECTRICITY AUTHORITY
PROJECT MANAGEMENT DIRECTORATE
 Marsyangdi Corridor 220 kV Transmission Line Project, Udipur-Markichowk-Bharatpur Section

Schedule No. 4: Installation and other Services
 (a): Installation and Construction Charges

Sl. No.	Item Description	Unit	Qty.	Installation Charges				
				Portion in Foreign Currency			Portion in Nepal Currency (in NRs)	
				Currency#	Unit Rate	Amount	Unit Rate in NRs	Amount NRs
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(6)	(8)	(9)=(4)x(8)
f)	+1.5 m Leg Extension	Nos.	4					
g)	+3 m Leg Extension	Nos.	0					
h)	+4.5 m Leg Extension	Nos.	38					
i)	+6 m Leg Extension	Nos.	0					
j)	+7.5 m Leg Extension	Nos.	19					
k)	+9 m Leg Extension	Nos.	0					
6	Installation of Earthing of towers							
i.	Pipe Type	Nos.	133					
ii.	Counterpoise Type	Nos.	53					
7	Installation of following tower accessories							
i.	Danger Plate	Nos.	186					
ii.	Number Plate	Nos.	186					
iii.	Phase Plate (Set of three)	Sets	420					
iv.	Circuit Plate(Set of two)	Sets	420					
v.	Anti climbing device	Nos.	186					
vi.	Bird Guard(set of three)	Sets	90					
8	Protection of tower footing							
i)	Random rubble stone masonry including excavation (1:5 cement concrete)	Cu.m.	4200					
ii)	Stone bound in galvanising wire netting including excavation	Cu.m.	2350					
iii)	Back filling and levelling of volumes enclosed by revetment	Cu.m.	6300					
iv)	M15 Conc. Nominal Mix 1:2:4 for top seal cover	Cu.m.	340					
9	Installation of insulator strings complete with arcing horns & necessary hardware, installing of bundle conductor including fixing of conductor accessories, installing & stringing of one earthwire including fixing of one earthwire accessories (Twin bundle Conductor) .							
(i)	Normal Stretch (Double Ckt. Portion)	kms	59					



NEPAL ELECTRICITY AUTHORITY
PROJECT MANAGEMENT DIRECTORATE
 Marsyangdi Corridor 220 kV Transmission Line Project, Udipur-Markichowk-Bharatpur Section

Schedule No. 4: Installation and other Services
 (a): Installation and Construction Charges

Sl. No.	Item Description	Unit	Qty.	Installation Charges				
				Portion in Foreign Currency			Portion in Nepal Currency (in NRs)	
				Currency#	Unit Rate	Amount	Unit Rate in NRs	Amount NRs
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)x(6)	(8)	(9)=(4)x(8)
(ii)	Normal Stretch (Multi Ckt. Portion, two circuit with TWIN HTLS & two circuit with TWIN ACSR Bison conductor)	kms	8					
10	OPTIC FIBRE CABLING							
A.	OPGW cable & Accessories							
(a)	24 Fibre (DWSM) OPGW fibre optic cable	km	70					
(b)	Installation Hardware set for above 24 Fibre OPGW Fibre Optic cabling including all cable fittings & accessories except joint box	km	70					
(c)	Joint box (24 Fibres)	No.	21					
B.	FODP							
(a)	FODP 48F : Indoor Type, rack mounted with FCPC coupling and pig tails	No.	4					
C.	Fibre Optic approach cable							
(a)	24 Fibre (DWSM)	km	2					
(b)	Installation hardware set for above 24 Fibre, Fibre Optic Approach Cable	Sets	2					
11	A) Installation of following items for aviation requirements							
	i) Span markers	No.	20					
	ii) Obstruction lights (to be provided as per IS 5613)		0					
	a) 1 Medium + 2low intensity	Sets	12					
	b) 1 Medium + 4low intensity	Sets	8					
	B) Painting of towers	MT	480					
12	Pile Foundation:							
	No. of Pile Foundation	No.	1					
12.1	Boring, providing and installation of bored Cast-in-situ RCC vertical piles of specified diameter and of any length below the pile cap with M25 grade of cement concrete, excluding the cost of supply & placing the reinforcement steel but including the cost of boring with temporary Guide casing, bentonite solution and the length of pile to be embeded in the pile cap (length of pile for payment shall be measured from bottom of pile cap), all necessary labour, materials, plants, tools & tackles etc., complete, as necessary for proper execution of the job. (Boring in weathered rock, shale, fissured rock and soft rock excluded).							

