NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE 220KV D/C New Butwal-Bardaghat Transmission Line

Schedule No.1: Plant and Equipment including Mandatory Spares to be supplied from abroad

			Descriptions											
Item No.	Item description	Country of origin	Esti	imated	CIP Project Site including insurance, clearing, forwarding and transportation to site (Excluding Taxes and Duties applicable in Nepal)		Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes						
			Unit	Quantity		FC		FC	LC					
					Currency#	Unit Rate	Amount							
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10					
	Fabrication & supply of different types of towers & tower extension parts complete with stubs, step bolts, hangers, D-shackles, bolts & nuts etc but excluding tower accessories such as danger plates, number plates, phase plates, anti-climbing devices		MT	1030.50			-	-	-					

			Descriptions										
Item No.	Item description	Country of origin	Est	imated	forwarding	CIP Project Site including insurance, clearing, warding and transportation to site (Excluding Taxes and Duties applicable in Nepal)		Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes				
						FC		FC	LC				
					Currency#	Unit Rate	Amount						
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10				
2	Emergency Restoration System (ERS) for 400 kV/ 220 kV; also suitable for 132 kV; detail scope will be as mentioned in the technical specification (Vol-II, Section 11) with Containers							-	-				
2.1	ERS Towers												
	ERS Towers mast sections including bolts & nuts as per requirement to build all of the following:												
2.1.2	ERS Suspension / Running angle Tower and Tension - 3 phase including guy plates and box sections (approx. 48m height (6 Nos. in one set : 4 Suspension plus 2 Tension)		Set	1									
	Articulated base /(gimbal)		Unit	6									
2.3	Foundation / Base Plates including stakes as per TS 'For ERS Tower												

	1	1	Lo. Local currency										
			Descriptions										
Item No.	Item description	Country of origin	Estimated		forwarding		g insurance, clearing, n to site (Excluding Taxes able in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes				
					FC			FC	LC				
			Unit	Quantity	Currency#	Unit Rate	Amount						
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10				
2.3.1	Normal soil		Unit	6									
2.3.2	Low bearing capacity soil		Unit	3									
2.4.4	ERS computer software with full option one time license for two user as per section 11.4.12		Nos	1									
2.5	Laptops for ERS software, built with rugged features and pre-loaded with genuine Windows operating system; other specs. As written in tech spec.		Nos.	2									
2.6	Conductor Hardware fittings for quad Moose/Twin Moose/ Twom Zebra/ Twin Bison/ Single Bear following type of arrangement of insulator string assembly:												
2.6.1	Hardware fittings including end attachment, yoke plates, suspension clamps, extension links, turnbuckles, corona/grading rings other fittings & components as per requirement for Horizontal Vee												

	T	1	LC: Local Currency										
			Descriptions										
Item No.	Item description	Country of origin	•		forwarding a		g insurance, clearing, n to site (Excluding Taxes able in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes				
						FC		FC	LC				
				Currency#	Unit Rate	Amount							
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10				
i)	For Quad Moose Conductor		Sets	24									
ii)	For Twin Moose Conductor		Sets	24									
iii)	For Twin Zebra Conductor		Sets	24									
iv)	For Twin Bison Conductor		Sets	24									
v)	For Bear Conductor		Sets	24									
2.6.2	Hardware fittings including end attachment, strain clamps, extension links, turnbuckles, corona/grading rings other fittings & components as per requirement for two Double tension insulator String assembly and one jumper assembly.												
i)	For Quad Moose Conductor		Sets	12									
ii)	For Twin Moose Conductor		Sets	12									
iii)	For Twin Zebra Conductor		Sets	12									
iv)	For Twin Bison Conductor		Sets	12									
v)	For Bear Conductor		Sets	12									
2.7 2.7.1	Earthwire/OPGW fittings Earthwire/OPGW Suspension												
2.7.1	assembly including clamp, fittings & components as required		Sets	7									

			Ec. Local Guirency										
			Descriptions										
Item No.	Item description	Country of origin	Estimated		forwarding a		ng insurance, clearing, on to site (Excluding Taxes cable in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes				
				Quantity		FC	1	FC	LC				
			Unit		Currency#	Unit Rate	Amount		20				
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10				
2.7.2	Earthwire/OPGW tension/dead- end assembly including strain/dead-end clamp, fittings & components as required		Sets	5									
2.8	Insulator Strings assembly												
2.8.1	Modular Composite long rod suspension insulator (160 kN)		Sets	40									
2.8.2	Modular Composite longrod post insulator (minm 90mm core dia, 120 kN tensile strength, 90 kN compressive strength)for 400KV lines.		Sets	20									
2.10	Guys & guy hardwares												
2.10.1	High strength galvanised steel guy wire (14.3 mm dia, minm 134 kN UTS, standard length 100 m)		Sets	150									
2.10.2	Guy wire thimble		Nos.	300									
2.10.3	Preformed guy grip		Nos.	300									
2.10.4	Guy hardware including turnbuckle & anchor shackles, as per requirement		Nos.	80									

r		LC: Local Currency											
			Descriptions										
Item No.	Item description	Country of origin	Estimated		forwarding a		g insurance, clearing, on to site (Excluding Taxes able in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes				
				Quantity	FC			FC	LC				
	2 3		Unit		Currency#	Unit Rate	Amount						
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10				
2.11	Guy Insulators												
2.11.1	Composite guy strain insulator / insulating rod (134 kN tensile strength) alongwith suitable end fittings		Sets	100									
2.12	Anchor Assemblies (min. 150 kN ultimate strength) including guy adaptor, extension rod												
2.12.1	Cross plate (2 nos. 600 mm x 300 mm) or eqvt. anchor assy. for normal soil (min anchor rod length 4.25m)		Nos	150									
2.12.2	Manta ray MR-1 (177mmx368 mm) or eqvt. Anchor assy. for normal soil (min anchor rod length with extension rod 4.25m) or eqvt.		Nos	150									
2.12.3	Triple helix (250mm-300mm- 350mm) anchor assy. For loose/marshy soils (minm anchor rod length 4.25m)		Nos	150									

	1	T	LC: Local Currency									
Item No.	Item description	Country of origin			forwarding		g insurance, clearing, n to site (Excluding Taxes able in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes			
						FC		FC	LC			
					Currency#	Unit Rate	Amount					
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10			
2.12.4	Rock anchor (55mm anchor dia) assy. (minm anchor length 3.1m) or eqvt.		Nos	150								
2.13	Construction Tools: all necessary construction hydraulic tools and hand tools shall be provided for assembly and erection of a complete emergency restoration structure; each set of the construction tools shall be included with as written in the technical specification		Nos	2								
2.14	Anchor Installation Tool Set											
2.14.1	Anchor Installation Tool Set and HPU as per section 11.4.10.		Set	1								
2.14.2	Normal /average Anchor tool set as per section 11.4.10		Set	1								
2.14.3	Marsh Anchor Installation Tool set as per section 11.4.10		Set	1								
2.14.4	Rock Anchor Drill Tool set as per section 11.4.10		Set	1								

			Descriptions										
Item No.	Item description	Country of origin			forwarding		g insurance, clearing, n to site (Excluding Taxes able in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes				
						FC		FC	LC				
			Unit	Quantity	Currency#	Unit Rate	Amount						
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10				
2.15	Portable Diesel Generator Set, loading take 10-12 kW kVA capacity		No.	1									
2.16	Containers to accommodate all 6 nos. of ERS		Lot	1									
2.17	GPS Receiver: 2.2' monochrome display, high-sensitivity WAAS-enabled, Hot Fix and GLONASS support, worldwide basemap, supporting paperless geocaching, USB interface, rugged & waterproof etc.		set	1									
2.18	Total Station Surveying Equipment: latest features, speed, accuracy, ease-of-use and reliability; tech spec as mentioned in tech document		Nos.	2			-	-	-				

			Descriptions										
Item No.	Itom description	Country of origin	Estimated		CIP Project Site including insurance, clearing, forwarding and transportation to site (Excluding Taxo and Duties applicable in Nepal)			Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes				
			TT			FC	I	FC	LC				
			Unit	Quantity	Currency#	Unit Rate	Amount						
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10				
2.19	Tripod with chain pulley block system having capacity to lift 10 MT load		No.	1			-	-	-				
2.20	Motorised Capstan Hoist having lifting/pulling capacity of 10 MT		No.	1			-	-	-				
2.21	WALKIE-TALKIE Set: Water, shock, vibration & impact proof Walky-Talky with working frequency range 29 - 42 / 35 -50 / 136 -174 / 330 - 400 / 403 - 470 / 450 - 527 MHz with 16 Channel Capacity and having Battery backup of 10 to 12 Hrs (preferably Li-lon Battery)		Set	4			-	-	-				
3	Supply of Earthing of towers												
i.	Pipe Type		Nos.	45			-	-	-				
ii.	Counterpoise Type		Nos. 15 -					-	-				
4	Supply of following tower accessories												

	T	1	LG: Local Gurrency										
			Descriptions										
Item No.	Item description	Country of origin			forwarding a		g insurance, clearing, on to site (Excluding Taxes able in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes				
						FC		FC	LC				
			Unit	Quantity	Currency#	Unit Rate	Amount						
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10				
i.	Danger Plate		Nos.	60			-	-	-				
ii.	Number Plate		Nos.	60			-	-	-				
iii.	Phase Plate (Set of three)		Sets	120			-	-	-				
iv.	Circuit Plate(Set of two)		Sets	60			-	-	-				
V.	Anti climbimg device		Nos.	60			_	-	-				
vi.	Bird Guard(set of three)		Sets	40			-	-	-				
5	Supply of following Line												
5.1	GS Earthwire												
i)	7/3.35mm Earthwire		KM	22			-	-	-				
5.2	Conductor												
i)	ACSR Bison Conductor		KM	255			-	-	-				
5.3	Composite Insulators for 220kV line with Twin ACSR Bison conductor												
(i)	70kN Composite Long Rod Insulator		Nos	184			-	-	-				
(ii	120kN Composite Long Rod Insulator		Nos	1028			-	-	-				

			Descriptions											
Item No.	Itom description	Country of origin		imated	forwarding		g insurance, clearing, n to site (Excluding Taxes able in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes					
						FC		FC	LC					
			Unit	Quantity	Currency#	Unit Rate	Amount							
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10					
5.4	Hardware Fittings suitable for													
i)	Single "I" Suspension Insulator String with necessary clamps		Sets	140			-	-	-					
ii)	Single 'I' Suspension PILOT String with necessary clamps		Sets	37			-	-	-					
iii)	Double Tension Insulator String		Sets	480			-	-	-					
5.5	Conductor and Earthwire Accessories													
i)	Mid span compression joint for ACSR Bison conductor		Nos	164			-	-	-					
ii)	Repair Sleeve for ACSR Bison conductor		Nos	55			-	-	-					
iii)	Rigid Spacer for ACSR Bison conductor		Nos	706			-	-	-					
iv)	Bundle Spacer for ACSR Bison		Nos	2622			-	-	-					
V)	Vibration Damper for ACSR Bison conductor		Nos	2468			-	-	-					
vi)	Mid span compression joint for 7/3.35mm GS earthwire		Nos	15			-	-	-					
vii)	Flexible Copper Bond for 7/3.35mm GS Earthwire		Nos	103			-	-	-					

							Descriptions							
Item No.	Item description	Country of origin	Est	imated	forwarding a		g insurance, clearing, n to site (Excluding Taxes able in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes					
						FC		FC	LC					
			Unit	Quantity	Currency#	Unit Rate	Amount							
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10					
viii)	Vibration Damper for for 7/3.35mm GS Earthwire		Nos	206			-	-	-					
ix)	Earthwire Suspension Clamp		Nos	23			-	-	-					
x)	Earthwire Tension Clamp		Nos	81			-	-	-					
5.6	Supply of Fibre Cable & Accessories													
5.6.1	OPGW cable & Accessories													
i)	24 Fibre (DWSM) OPGW fibre optic cable		km	21			-	-	-					
ii)	Installation Hardware set for above 24 Fibre OPGW Fibre Optic cabling including all cable fittings & accessories as per below:		Sets*	21			-	-	-					
iii)	Joint Box		No.	7			-	-	-					
5.6.2	FODP				<u> </u>									

		T						EG. EGGAI GAITCHCY				
			Descriptions									
Item No.	Item description	Country of origin	Est	Estimated			g insurance, clearing, n to site (Excluding Taxes able in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes			
						FC		FC	LC			
			Unit	Quantity	Currency#	Unit Rate	Amount					
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10			
i)	FODP 48F : Indoor Type, rack mounted with FCPC coupling and pig tails (5 mtrs each).		No.	2			-	-	-			
5.6.3	Fibre Optic approach cable											
i)	24 Fibre (DWSM)		Km.	1			-	-	-			
5.7	Mandatory Spares of OPGW Cabling											
5.7.1	OPGW cable & Accessories											
i)	24 Fibre (DWSM) OPGW fibre		Km.	2			-	-	-			
ii)	Installation Hardware set for		Sets*	2			-	-	-			
iii)	Joint Box (24 fibre)		No.	1			-	-	-			
5.7.2	Fibre Optic approach cable											
i)	24 Fibre (DWSM)		Km.	1			-	-	-			
-								-	-			
6	Supply of following items for Aviation Requirements						-	-	-			
i)	Painting of normal tower above 45 mtr. From ground level		MT	30			-	-	-			
ii)	Span Markers		Nos.	5			-	-	-			
					1				1			

FC: Foreign Currency LC: Local Currency

			Descriptions								
Item No.	Item description	Country of origin			CIP Project Site including insurance, clearing, forwarding and transportation to site (Excluding Taxes and Duties applicable in Nepal)			Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes		
						FC		FC	LC		
			Unit	Quantity	Currency#	Unit Rate	Amount				
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10		
iii)	Onstruction lights (to be provided as per IS 5613)						-	-	-		
a)	1 medium + 2 low intensity		Sets	1			-	-	-		
b)	1 Medium + 4 low intensity		Sets	1			-	-	-		
	TOTAL (Total of column 9 to be carried forward to Schedule No. 5: Grand Summary)						-	-	-		

Note:

- 1) Bidder is required to quote prices in this Schedule for all the individual items/sub-items.
- 2.) The Prices of equipments are inclusive of type test charges except.towers, conductors and earthwires.
- 3.) BOQ given above is indicative only based on the scope of work as given in Employer's Requirements. The quantities mentioned above may undergo change during detailed engineering to meet the functional requirement and scope of work defined in Employer's Requirements.
- # Specify currency in accordance with BDS ITB Clause 32.1, Part-I of the Bidding Documents.
- * Bidders should quote for one of the options for insulators.

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE 220KV D/C New Butwal-Bardaghat Transmission Line

			Descriptions							
Item No.	Item description	Estimated		Ex-Factory Price (Excluding VAT)		Inland Transportation Up to Site		Total Amount (Excluding Taxes)		
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount			
1	2	3	4	5	6= (4) x (5)	7	8	9		
1	Fabrication & supply of different types of towers & tower extension parts complete with stubs, step bolts, hangers, D-shackles, bolts & nuts etc but excluding tower accessories such as danger plates, number plates, phase plates, anti-climbing devices	МТ	1030.50		-		-	-		

			Descriptions								
Item No.	Item description	Estimated		Ex-Factory Price (Excluding VAT)		Inland Transportation Up to Site		Total Amount (Excluding Taxes)			
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount				
1	2	3	4	5	$6=(4) \times (5)$	7	8	9			
2	Emergency Restoration System (ERS) for 400 kV/ 220 kV; also suitable for 132 kV; detail scope will be as mentioned in the technical specification (Vol-II, Section 11) with Containers						-	-			
2.1	ERS Towers							-			
2.1.1	ERS Towers mast sections including bolts & nuts as per requirement to build all of the following:							-			
2.1.2	ERS Suspension / Running angle Tower and Tension - 3 phase including guy plates and box sections (approx. 48m height (6 Nos. in one set : 4 Suspension plus 2 Tension)	set	1					-			
2.2	Articulated base /(gimbal)	Unit	6					-			
2.3	Foundation / Base Plates including stakes as per TS 'For ERS Tower							-			

			Descriptions							
Item No.	Item description	Estimated		Ex-Factory Price (Excluding VAT)		Inland Transportation Up to Site		Total Amount (Excluding Taxes)		
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount			
1	2	3	4	5	6= (4) x (5)	7	8	9		
2.3.1	Normal soil	Unit	6					-		
2.3.2	Low bearing capacity soil	Unit	3					-		
2.4.4	ERS computer software with full option one time license for two user as per section 11.4.12	Nos	1					-		
2.5	Laptops for ERS software, built with rugged features and preloaded with genuine Windows operating system; other specs. As written in tech spec.	Nos.	2					-		
2.6	Conductor Hardware fittings for quad Moose/Twin Moose/ Twom Zebra/ Twin Bison/ Single Bear following type of arrangement of insulator string assembly:							-		

	Item description		Descriptions								
Item No.		Estimated		Ex-Factory Price (Excluding VAT)		Inland Tran	sportation Up to Site	Total Amount (Excluding Taxes)			
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount				
1	2	3	4	5	6= (4) x (5)	7	8	9			
2.6.1	Hardware fittings including end attachment, yoke plates, suspension clamps, extension links, turnbuckles, corona/grading rings other fittings & components as per requirement for Horizontal Vee							-			
i)	For Quad Moose Conductor	Sets	24					-			
ii)	For Twin Moose Conductor	Sets	24					-			
iii)	For Twin Zebra Conductor	Sets	24								
iv)	For Twin Bison Conductor	Sets	24					-			
v)	For Bear Conductor	Sets	24					-			
2.6.2	Hardware fittings including end attachment, strain clamps, extension links, turnbuckles, corona/grading rings other fittings & components as per requirement for two Double tension insulator String assembly and one jumper assembly.							-			
i)	For Quad Moose Conductor	Sets	12					-			
ii)	For Twin Moose Conductor	Sets	12					-			

			Descriptions								
Item No.	Item description	Estimated		Ex-Factory Price (Excluding VAT)		Inland Trans	sportation Up to Site	Total Amount (Excluding Taxes)			
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount				
1	2	3	4	5	6= (4) x (5)	7	8	9			
iii)	For Twin Zebra Conductor	Sets	12		` ` ` ` `			-			
iv)	For Twin Bison Conductor	Sets	12					-			
v)	For Bear Conductor	Sets	12					-			
2.7	Earthwire/OPGW fittings							-			
2.7.1	Earthwire/OPGW Suspension assembly including clamp, fittings & components as required	Sets	7								
2.7.2	Earthwire/OPGW tension/deadend assembly including strain/dead-end clamp, fittings & components as required	Sets	5								
2.8	Insulator Strings assembly							-			
2.8.1	Modular Composite long rod suspension insulator (160 kN)	Sets	40					-			
2.8.2	Modular Composite longrod post insulator (minm 90mm core dia, 120 kN tensile strength, 90 kN compressive strength)for 400KV lines.	Sets	20					-			
2.10	Guys & guy hardwares							-			

			Descriptions								
Item No.	Item description	Estimated		Ex-Factory Price (Excluding VAT)		Inland Transportation Up to Site		Total Amount (Excluding Taxes)			
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount				
1	2	3	4	5	6= (4) x (5)	7	8	9			
2.10.1	High strength galvanised steel guy wire (14.3 mm dia, minm 134 kN UTS, standard length 100 m)	Sets	150					-			
2.10.2	Guy wire thimble	Nos.	300					-			
2.10.3	Preformed guy grip	Nos.	300					-			
2.10.4	Guy hardware including turnbuckle & anchor shackles, as per requirement	Nos.	80					-			
2.11	Guy Insulators							-			
2.11.1	Composite guy strain insulator / insulating rod (134 kN tensile strength) alongwith suitable end fittings	Sets	100					-			
2.12	Anchor Assemblies (min. 150 kN ultimate strength) including guy adaptor, extension rod							-			
2.12.1	Cross plate (2 nos. 600 mm x 300 mm) or eqvt. anchor assy. for normal soil (min anchor rod length 4.25m)	Nos	150					-			

			Descriptions								
Item No.	Item description	Estimated		Ex-Factory Price (Excluding VAT)		Inland Transportation Up to Site		Total Amount (Excluding Taxes)			
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount				
1	2	3	4	5	6= (4) x (5)	7	8	9			
2.12.2	Manta ray MR-1 (177mmx368 mm) or eqvt. Anchor assy. for normal soil (min anchor rod length with extension rod 4.25m) or eqvt.	Nos	150					-			
2.12.3	Triple helix (250mm-300mm- 350mm) anchor assy. For loose/marshy soils (minm anchor rod length 4.25m)	Nos	150					-			
2.12.4	Rock anchor (55mm anchor dia) assy. (minm anchor length 3.1m) or eqvt.	Nos	150					-			
2.13	Construction Tools: all necessary construction hydraulic tools and hand tools shall be provided for assembly and erection of a complete emergency restoration structure; each set of the construction tools shall be included with as written in the technical specification	Nos	2					-			

			Descriptions								
Item No.	Item description	Estimated		Ex-Factory Price (Excluding VAT)		Inland Transportation Up to Site		Total Amount (Excluding Taxes)			
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount				
1	2	3	4	5	6= (4) x (5)	7	8	9			
2.14	Anchor Installation Tool Set				, , , ,			-			
2.14.1	Anchor Installation Tool Set and HPU as per section 11.4.10.	Set	1					-			
2.14.2	Normal /average Anchor tool set as per section 11.4.10	Set	1					-			
2.14.3	Marsh Anchor Installation Tool set as per section 11.4.10	Set	1					-			
2.14.4	Rock Anchor Drill Tool set as per section 11.4.10	Set	1					-			
2.15	Portable Diesel Generator Set, loading take 10-12 kW kVA capacity	Nos.	1					-			
2.16	Containers to accommodate all 6 nos. of ERS	Lot	1					-			

			Descriptions									
Item No.	Item description	Estimated		Ex-Factory Price (Excluding VAT)		Inland Transportation Up to Site		Total Amount (Excluding Taxes)				
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount					
1	2	3	4	5	6= (4) x (5)	7	8	9				
2.17	GPS Receiver: 2.2' monochrome display, high-sensitivity WAAS-enabled, Hot Fix and GLONASS support, worldwide basemap, supporting paperless geocaching, USB interface, rugged & waterproof etc.	set	1					-				
2.18	Total Station Surveying Equipment: latest features, speed, accuracy, ease-of-use and reliability; tech spec as mentioned in tech document	Nos.	2		-		-	-				
2.19	Tripod with chain pulley block system having capacity to lift 10 MT load		1		-		-	-				
2.20	Motorised Capstan Hoist having lifting/pulling capacity of 10 MT	No.	1		-		-	-				

	Item description		Descriptions								
Item No.		Estimated		Ex-Factory Price (Excluding VAT)		Inland Transportation Up to Site		Total Amount (Excluding Taxes)			
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount				
1	2	3	4	5	6= (4) x (5)	7	8	9			
2.21	WALKIE-TALKIE Set: Water, shock, vibration & impact proof Walky-Talky with working frequency range 29 - 42 / 35 -50 / 136 -174 / 330 - 400 / 403 - 470 / 450 - 527 MHz with 16 Channel Capacity and having Battery backup of 10 to 12 Hrs (preferably Li-Ion Battery)	Set	4		-		-	-			
								-			
3	Supply of Earthing of towers							-			
i.	Pipe Type	Nos.	45		-		-	-			
ii.	Counterpoise Type	Nos.	15		-		-	-			
4	Supply of following tower accessories							-			
i.	Danger Plate	Nos.	60		-		-	-			
ii.	Number Plate	Nos.	60		-		-	-			
iii.	Phase Plate (Set of three)	Sets	120				-	-			
iv.	Circuit Plate(Set of two)	Sets	60		-		-	-			
٧.	Anti climbimg device	Nos.	60		-		-	-			

					Des	criptions	Inland Transportation Up to Site Total Amount (Excluding Taxes)	
Item No.	Item description	Estimated		Ex-Factory Pr	ice (Excluding VAT)	Inland Tran	nsportation Up to Site	
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount	
1	2	3	4	5	6= (4) x (5)	7	8	9
vi.	Bird Guard(set of three)	Sets	40		_			-
								-
5	Supply of following Line							-
5.1	GS Earthwire							-
i)	7/3.35mm Earthwire	KM	22		-		-	-
5.2	Conductor							
i)	ACSR Bison Conductor	KM	255		-		-	-
5.3	Composite Insulators for 220kV line with Twin ACSR Bison conductor							
(i)	70kN Composite Long Rod Insulator	Nos	184		-		-	-
(ii	120kN Composite Long Rod Insulator	Nos	1028		-		-	-
5.4	Hardware Fittings suitable for							-
i)	Single "I" Suspension Insulator String with necessary clamps	Sets	140		-		-	-
ii)	Single 'I' Suspension PILOT String with necessary clamps	Sets	37		-		-	-

				Descriptions										
Item No.	Item description	Est	imated	Ex-Factory P	rice (Excluding VAT)	Inland Trai	nsportation Up to Site	Total Amount (Excluding Taxes)						
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount							
1	2	3	4	5	6= (4) x (5)	7	8	9						
iii)	Double Tension Insulator String	Sets	480		-		-	-						
								-						
5.5	Conductor and Earthwire Accessories							-						
i)	Mid span compression joint for ACSR Bison conductor	Nos	164		-		-	-						
ii)	Repair Sleeve for ACSR Bison conductor	Nos	55		-		-	-						
iii)	Rigid Spacer for ACSR Bison conductor	Nos	706		-		-	-						
iv)	Bundle Spacer for ACSR Bison	Nos	2622		_		-	-						
v)	Vibration Damper for ACSR Bison conductor	Nos	2468		-		-	-						
vi)	Mid span compression joint for 7/3.35mm GS earthwire	Nos	15		-		-	-						
vii)	Flexible Copper Bond for 7/3.35mm GS Earthwire	Nos	103	_	-		-	-						
viii)	Vibration Damper for for 7/3.35mm GS Earthwire	Nos	206		1		-	-						
ix)	Earthwire Suspension Clamp	Nos	23		-		-	-						
x)	Earthwire Tension Clamp	Nos	81		-		-	-						

					Des	criptions		
Item No.	Item description	Est	imated	Ex-Factory Pr	rice (Excluding VAT)	Inland Trai	nsportation Up to Site	Total Amount (Excluding Taxes)
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount	
1	2	3	4	5	6= (4) x (5)	7	8	9
5.6	Supply of Fibre Cable & Accessories							-
5.6.1	OPGW cable & Accessories							-
i)	24 Fibre (DWSM) OPGW fibre optic cable	km	21		-		-	-
ii)	Installation Hardware set for above 24 Fibre OPGW Fibre Optic cabling including all cable fittings & accessories as per below:	Sets*	21		-		-	-
iii)	Joint Box	No.	7		-		-	-
5.6.2	FODP							-
i)	FODP 48F : Indoor Type, rack mounted with FCPC coupling and pig tails (5 mtrs each).	No.	2		-		-	-
5.6.3	Fibre Optic approach cable							-

					Des	scriptions		
Item No.	Item description	Est	imated	Ex-Factory Pr	Ex-Factory Price (Excluding VAT)		nsportation Up to Site	Total Amount (Excluding Taxes)
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount	
1	2	3	4	5	6= (4) x (5)	7	8	9
i)	24 Fibre (DWSM)	Km.	1		-		-	-
5.7	Mandatory Spares of OPGW Cabling							-
5.7.1	OPGW cable & Accessories							-
i)	24 Fibre (DWSM) OPGW fibre	Km.	2		-		-	-
ii)	Installation Hardware set for	Sets*	2		-		-	-
iii)	Joint Box (24 fibre)	No.	1		-		-	-
5.7.2	Fibre Optic approach cable							-
i)	24 Fibre (DWSM)	Km.	1		-		-	-
6	Supply of following items for Aviation Requirements				-		-	-
i)	Painting of normal tower above 45 mtr. From ground level	MT	30		-		-	-
ii)	Span Markers	Nos.	5		-		-	-
iii)	Onstruction lights (to be provided as per IS 5613)				-		-	-
a)	1 medium + 2 low intensity	Sets	1		-		-	-

			Descriptions										
Item No.	Item description	Est	imated	Ex-Factory Price (Excluding VAT)		Inland Trai	nsportation Up to Site	Total Amount (Excluding Taxes)					
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount						
1	2	3	4	5	6= (4) x (5)	7	8	9					
b)	1 Medium + 4 low intensity	Sets	1		-		-	-					
	Total Ex-works Price (Total of Column 9 to be carried forward to Schedule-5: Grand Summary)			-		-	-						

Note:

- 1) Bidder is required to quote prices in this Schedule for all the individual items/sub-items.
- 2.) The Prices of equipments are inclusive of type test charges except.towers, conductors and earthwires.
- 3.) BOQ given above is indicative only based on the scope of work as given in Employer's Requirements. The quantities mentioned above may undergo change during detailed engineering to meet the functional requirement and scope of work defined in Employer's Requirements.
- # Specify currency in accordance with BDS ITB Clause 32.1, Part-I of the Bidding Documents.
- * Bidders should quote for one of the options for insulators.

			Descriptions										
Item No.	Item description	Esti	imated	Ex-Factory Price (Excluding VAT) Inland Transportation			nsportation Up to Site	Total Amount (Excluding Taxes)					
		Unit	Quantity	Unit Rate	Amount	Unit Rate	Amount						
1	2	3	4	5	6= (4) x (5)	7	8	9					

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE 220KV D/C New Butwal-Bardaghat Transmission Line

Schedule A-3: Design Services

				Unit F	Foreign Currency Portion Currency 6		
Item No.	Item Description	Estima	ted	Local Currency portion	Currency	Total Prices	
		Quantity	Unit	NRs	Currency	LC	FC
1	2	3	4	5	6	7=3x5	8=3x6
1	Any special tower required to be designed	1	No.				0
2	ERS	0	No.				
	Total (Total of column 7 and 8 to be carried forward to Schedule No. 5: Grand Summary)						-

Note:

* 1) Bidder is required to quote prices in this Schedule for all the individual items/sub-items.

2.) BOQ given above is indicative only based on the scope of work as given in Employer's Requirements. The quantities mentioned above may undergo change during detailed engineering to meet the functional requirement and scope of work defined in Employer's Requirements.

Specify currency in accordance with BDS ITB Clause 32.1, Part-I of the Bidding D Strike out if not applicable

TENDER NO.:- RE: ICB-PMD-KGTCP-073/74-02 SCHEDULE - 4(a): PAGE 1 of 10

NEPAL ELECTRICITY AUTHORITY PROJECT MANAGEMENT DIRECTORATE 220KV D/C New Butwal-Bardaghat Transmission Line

						Installation Cha	irges	
SI. No.	Item Description	Unit	Estimated Qty.		Portion in Foreign Irrency* Unit Rate (6) (7)	Currency		epalese Currency n NRs)
				Currency*	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(4)	(5)	(6)	(7)	(8)=(5)X(7)	(9)	(10)=(5)X(9)
	Survey							
	a) Detailed survey including route alignment, profiling, tower spotting	KM	21					=
	b) Check Survey with detail tower spotting	KM	21					-
	c) Cadastral Survey	KM	21					-
2.1	Detailed soil Investigation							
i.	All kind of soil except FR & HR	Loc.	15					-
ii.	Fissured/soft rock	Loc.	7					-
3	Benching							
	All kind of soil except FR & HR	Cum.	5000					
	Fissured Rock	Cum.	2000					-
")	Fissured Nock	Cuiii.	2000					-
4	Work associated with tower foundations.							
	Suspension Tower DA							
	Foundation for Basic Body (including -4.5m, -3m, -1.5m, +/- 0m Body			1				
	Extension)							
i)	Dry Foundation	Nos.	2					-
ii)	Wet Foundation	Nos.	3					-
iii)	Partially Submerged Foundation	Nos.	2					-
iv)	Fully Submerged Foundation	Nos.	2					-
v)	Dry Fissured Rock	Nos.	1					-
	Wet Fissured Rock	Nos.	1					-
vii)	Submerged Fissured Rock	Nos.	1					-
	Sandy Soil Foundation	Nos.	1					-
								=
b)	Common Foundation for +1.5m, +3m, +4.5m +6m, +7.5m, +9m Body							=
	Extension							
i)	Dry Foundation	Nos.	1					-
	Wet Foundation	Nos.	1					-
iii)	Partially Submerged Foundation	Nos.	1					-

1						Installation Cha	harges			
SI. No.	Item Description	Unit	Estimated Qty.		Portion in Foreign	Currency		epalese Currency n NRs)		
				Currency* Unit Rate		Total Charges	Unit Rate	Total Charges		
(1)	(2)	(4)	(5)	(6)	(7)	(8)=(5)X(7)	(9)	(10)=(5)X(9)		
iv)	Fully Submerged Foundation	Nos.	0					-		
	Dry Fissured Rock	Nos.	1					-		
	Wet Fissured Rock	Nos.	1					-		
	Submerged Fissured Rock	Nos.	1					-		
viii)	Sandy Soil Foundation	Nos.	0					-		
	Common Foundation for +18m, +25m Body Extension									
	Dry Foundation	Nos.	0					-		
	Wet Foundation	Nos.	1					-		
iii)	Partially Submerged Foundation	Nos.	0					-		
	Fully Submerged Foundation	Nos.	0					-		
v)	Dry Fissured Rock	Nos.	1					-		
	Wet Fissured Rock	Nos.	0					-		
	Submerged Fissured Rock	Nos.	0					-		
viii)	Sandy Soil Foundation	Nos.	0					-		
	Tension Tower DB									
	Foundation for Basic Body (including -4.5m, -3m, -1.5m, +/- 0m Body Extension)									
i)	Dry Foundation	Nos.	1					-		
	Wet Foundation	Nos.	3					-		
iii)	Partially Submerged Foundation	Nos.	2					-		
iv)	Fully Submerged Foundation	Nos.	1					-		
v)	Dry Fissured Rock	Nos.	2					-		
	Wet Fissured Rock	Nos.	1					-		
	Submerged Fissured Rock	Nos.	1					-		
viii)	Sandy Soil Foundation	Nos.	1					-		
b)	Common Foundation for +1.5m, +3m, +4.5m +6m, +7.5m, +9m Body									
	Extension									
	Dry Foundation	Nos.	1					-		
	Wet Foundation	Nos.	1					-		
iii)	Partially Submerged Foundation	Nos.	1					-		
iv)	Fully Submerged Foundation	Nos.	1					-		
	Dry Fissured Rock	Nos.	1					-		
	Wet Fissured Rock	Nos.	1					-		
	Submerged Fissured Rock	Nos.	0					-		
viii)	Sandy Soil Foundation	Nos.	0					-		

						Installation Cha	arges	
SI. No.	Item Description	Unit	Estimated Qty.		Portion in Foreign			epalese Currency n NRs)
				Currency*	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(4)	(5)	(6)	(7)	(8)=(5)X(7)	(9)	(10)=(5)X(9)
4.3	Tension Tower DC							
a)	Foundation for Basic Body (including -4.5m, -3m, -1.5m, +/- 0m Body Extension)							
i)	Dry Foundation	Nos.	1					-
	Wet Foundation	Nos.	1					-
iii)	Partially Submerged Foundation	Nos.	1					-
iv)	Fully Submerged Foundation	Nos.	1					-
v)	Dry Fissured Rock	Nos.	1					-
	Wet Fissured Rock	Nos.	1					-
	Submerged Fissured Rock	Nos.	0					-
viii)	Sandy Soil Foundation	Nos.	0					-
b)	Common Foundation for +1.5m, +3m, +4.5m +6m, +7.5m, +9m Body Extension							
i)	Dry Foundation	Nos.	1					-
ii)	Wet Foundation	Nos.	1					-
iii)	Partially Submerged Foundation	Nos.	1					-
iv)	Fully Submerged Foundation	Nos.	0					-
v)	Dry Fissured Rock	Nos.	1					-
vi)	Wet Fissured Rock	Nos.	0					-
vii)	Submerged Fissured Rock	Nos.	0					=
viii)	Sandy Soil Foundation	Nos.	0					-
4.4	Tension Tower DD							
a)	Foundation for Basic Body (including -4.5m, -3m, -1.5m, +/- 0m Body Extension)							
	Dry Foundation	Nos.	1					-
	Wet Foundation	Nos.	1					=
iii)	Partially Submerged Foundation	Nos.	1					-
iv)	Fully Submerged Foundation	Nos.	1					-
v)	Dry Fissured Rock	Nos.	1					=
	Wet Fissured Rock	Nos.	1					-
	Submerged Fissured Rock	Nos.	0					=
viii)	Sandy Soil Foundation	Nos.	0					-
b)	Common Foundation for +1.5m, +3m, +4.5m +6m, +7.5m, +9m Body Extension							
i)	Dry Foundation	Nos.	0					-

						Installation Cha	Total Charges Unit Rate Total Charges	
SI. No.	Item Description	Unit	Estimated Qty.		Portion in Foreign	Currency Total Charges		
				Currency*	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(4)	(5)	(6)	(7)	(8)=(5)X(7)	(9)	(10)=(5)X(9)
ii)	Wet Foundation	Nos.	1					-
iii)	Partially Submerged Foundation	Nos.	0					-
iv)	Fully Submerged Foundation	Nos.	0					-
v)	Dry Fissured Rock	Nos.	0					-
vi)	Wet Fissured Rock	Nos.	1					-
vii)	Submerged Fissured Rock	Nos.	0					-
viii)	Sandy Soil Foundation	Nos.	0					-
c)	Common Foundation for +18m, +25m Body Extension							-
i)	Dry Foundation	Nos.	0					-
ii)	Wet Foundation	Nos.	1					-
iii)	Partially Submerged Foundation	Nos.	0					-
iv)	Fully Submerged Foundation	Nos.	1					-
v)	Dry Fissured Rock	Nos.	0					-
vi)	Wet Fissured Rock	Nos.	0					-
vii)	Submerged Fissured Rock	Nos.	0					-
viii)	Sandy Soil Foundation	Nos.	0					-
4.5	Temporary fencing during tower foundation works	Nos.	240					-
4.6	Temporaty access road to the tower locations	Km	3.5					-
5	Erection of following types of towers & tower extension parts							
	complete with stubs, step bolts, hangers, D-shackles, bolts & nuts etc							
	but excluding tower accessories such as danger plates, number							
	plates, phase plates, anti-climbing devices							
	Suspension Tower DA		1					
a)	Basic Tower		22					
a) i)	Stubs	Nos.	88					
a)ii)	Basic tower body	Nos.	22					-
b)	-4.5 m Leg Extension	Nos.	2	1		-		-
c)	-3 m Leg Extension	Nos.	6	1		-		-
d)	-1.5 m Leg Extension	Nos.	8	1				-
e)	+/- 0 m Leg Extension	Nos.	56	1				-
f)	+1.5 m Leg Extension	Nos.	8	+				-
g)	+3 m Leg Extension	Nos.		1				-
h)	+4.5 m Leg Extension	Nos.	6					-

						(in NRS)		
SI. No.	Item Description	Unit	Estimated Qty.		Portion in Foreign	Currency		
				Currency*	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(4)	(5)	(6)	(7)	(8)=(5)X(7)	(9)	(10)=(5)X(9)
	+6 m Leg Extension	Nos.	6					-
	+7.5 m Leg Extension	Nos.	4					-
	+9 m Leg Extension	Nos.	4					-
I)	+18 m Leg Extension	Nos.	4					-
m)	+25 m Leg Extension	Nos.	4					-
,			-					
1.1.2	Tension Tower DB							
a)	Basic tower	Nos.	19	† †				
	Stubs	Nos.	76	† †				_
	Basic tower body	Nos.	19	1				_
b)	-4.5 m Leg Extension	Nos.	2					-
c)	-3 m Leg Extension	Nos.	4					_
	-1.5 m Leg Extension	Nos.	6					-
	+/- 0 m Leg Extension	Nos.	52					-
	+1.5 m Leg Extension	Nos.	6	1				<u> </u>
	+3 m Leg Extension	Nos.	6	1				-
	+4.5 m Leg Extension	Nos.	12	+				<u>-</u>
	+6 m Leg Extension	Nos.	11					-
			10					
	+7.5 m Leg Extension	Nos.	6					-
k)	+9 m Leg Extension	Nos.	6	1				-
4.4.0	T . T . DO			1				
	Tension Tower DC							
a)	Basic tower	Nos.	10					
	Stubs	Nos.	40					-
	Basic tower body	Nos.	10					-
b)	-4.5 m Leg Extension	Nos.	2					-
	-3 m Leg Extension	Nos.	2	1				-
d)	-1.5 m Leg Extension	Nos.	4					-
	+/- 0 m Leg Extension	Nos.	24	1				-
	+1.5 m Leg Extension	Nos.	4	1				-
	+3 m Leg Extension	Nos.	4					-
	+4.5 m Leg Extension	Nos.	6					-
	+6 m Leg Extension	Nos.	4					-
	+7.5 m Leg Extension	Nos.	2					-
k)	+9 m Leg Extension	Nos.	4					-
l)	+18 m Leg Extension	Nos.	0					-
m)	+25 m Leg Extension	Nos.	0					-
1.1.4	Tension Tower DD							

				Installation Charges					
SI. No.	Item Description	Unit	Estimated Qty.		Portion in Foreign		epalese Currency n NRs)		
				Currency*	Unit Rate	Total Charges	Unit Rate	Total Charges	
(1)	(2)	(4)	(5)	(6)	(7)	(8)=(5)X(7)	(9)	(10)=(5)X(9)	
a)	Basic tower	Nos.	9						
a)(i)	Stubs	Nos.	36					-	
a)(ii)	Basic tower body	Nos.	9					-	
b)	-4.5 m Leg Extension	Nos.	2					-	
c)	-3 m Leg Extension	Nos.	2					-	
d)	-1.5 m Leg Extension	Nos.	2					-	
e)	+/- 0 m Leg Extension	Nos.	24					-	
f)	+1.5 m Leg Extension	Nos.	3					-	
g)	+3 m Leg Extension	Nos.	3					-	
h)	+4.5 m Leg Extension	Nos.	2					-	
i)	+6 m Leg Extension	Nos.	2					-	
j)	+7.5 m Leg Extension	Nos.	2					-	
k)	+9 m Leg Extension	Nos.	2					-	
l)	+18 m Leg Extension	Nos.	4					-	
m)	+25 m Leg Extension	Nos.	4					-	
6	Complete Installation, Demonstration, Dismantaling and Packaging of ERS Tower	Set	1					-	
7	Installation of Earthing of towers								
	Pipe Type	Nos.	50	+				-	
ii.	Counterpoise Type	Nos.	15	+				-	
11.	Counterpoise Type	NOS.	13					-	
8	Installation of following tower accessories								
i	Danger Plate	Nos.	60					-	
ii.	Number Plate	Nos.	60	† †				-	
iii.	Phase Plate (Set of three)	Sets	180	1				-	
iv.	Circuit Plate(Set of two)	Sets	60	† †				-	
٧.	Anti climbing device	Nos.	60	†				-	
vi.	Bird Guard(set of three)	Sets	40					-	
9	Protection of tower footing								
i)	Random rubble stone masonary including excavation (1:5	Cu.m.	4000					-	
ii)	Stone bound in galvanising wire netting including excavation	Cu.m.	3500					-	
iii)	Back filling and levelling of volumes enclosed by revetment	Cu.m.	3000					-	
iv)	M15 Conc. Nominal Mix 1:2:4 for top seal cover	Cu.m.	200					-	

	Item Description	Unit		Installation Charges					
SI. No.			Estimated Qty.		Portion in Foreign	epalese Currency n NRs)			
				Currency*	Unit Rate	Total Charges	Unit Rate	Total Charges	
(1)	(2)	(4)	(5)	(6)	(7)	(8)=(5)X(7)	(9)	(10)=(5)X(9)	
10	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 earthwire/ OPGW accessories (Twin bundle Conductor) .except joint box								
(i)	Normal Stretch (Double Ckt. Portion)	kms	21					-	
(ii)	Installation / Erection of Joint Box	No.	6					-	
11 (i)	Installation / Erection of FODP 48F: Indoor type, rack mounted with FCPC coupling and pig tails (5m each)	No.	2					-	
(ii)	Installation / Erection of Fibre Optic Approach cable 24 Fibre (DWSM)	km	1					-	
12	Pile Foundation:								
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).	No.	2						
	a) 1200mm diameter R.C.C.vertical bored pile upto 30 m from the pile cap.	meter	1000					-	
12.2	Extra over item 12.1 for boring including socketing, anchoring (if required) with required size,nos. & depth of Reinforcement in weathered rock, shale, fissured rock soft rock and hard rock upto a maximum depth of 5.0m.	meter	64					-	

		Unit		Installation Charges				
SI. No.	Item Description		Estimated Qty.		Portion in Foreign		on in Nepalese Currency (in NRs)	
				Currency*	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(4)	(5)	(6)	(7)	(8)=(5)X(7)	(9)	(10)=(5)X(9)
	Excavation whereever required for pile cap /tie etc. (other than boring) for all depth and size, in all types of soils including disposal of excavated materials for all lifts and leads, decent etc.as directed by Engineer - In - charge, together with all labour, tools & tackles, sheeting, sheet piling, dewatering etc. complete as required for proper sheet piling, dewatering etc. complete as required for proper execution of the job.	cu.m	14					-
	Back filling with available excavated earth for all leads and lifts in sides of foundations and other under ground facilities in horizontal layers not exceeding 20 cm. in depth conso- lidating each deposited layer by ramming and watering etc.	cu.m	2					-
12.5	Form work for placing plain or reinforced cement concrete of any type including blockout and section at any elevation including all labour,							
	materials, equipments, waste for form, shoring, shuttering, strutting, propping, scaffolding, tieing, nailing, caulking, dismantling & removal of forms etc. complete.	sq.m	400					-
	Supply and placing of steel reinforcement of specified grade for R.C.C. work in pile,pile cap, pedestal / chimney, tie beam (if required) including straightening, cutting, bending, binding etc. all complete	MT	90					-
	Providing and laying in position M25 Grade concrete of specified 28 days strength for pile caps, pedestal/chimney and tie beam(if required), excluding reinforcement steel and form work but including cement, all necessary tools and tackles,labour, materials, equipments for handling,transportation, batching, mixing,placing, vibrating,dewatering etc. all complete (excluding cost of concrete in piles which is included in item no.12.1).	cu.m	350					-
	Providing and laying plain cement concrete 1:4:8 (1cement : 4 coarse sand: 8 graded stone aggregate 40mm nominal size) including cement, all necessary tools and tackles, labour, materials, equipments for handling,transportation, mixing,placing, vibrating,dewatering etc.all complete.	cu.m	20					-

						Installation Cha	Installation Charges					
SI. No.	Item Description		Estimated Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (in NRs)					
				Currency*	Unit Rate	Total Charges	Unit Rate	Total Charges				
(1)	(2)	(4)	(5)	(6)	(7)	(8)=(5)X(7)	(9)	(10)=(5)X(9)				
	Conducting Standard Penetration Test (SPT) at various elevations in pile bore holes in all kind of soils including all labour, materials, tools and tackles, equipments etc. required elevations in pile bore holes in all kind of soils including all for successful completion of the job.	Nos.	80					-				
	Supply and Providing M.S. liner of 6mm. thick in piles upto 10m. Depth (maxm.) from bottom of pile cap, limited to the approved drawing, including supply, straightening, bending, welding,all supports, labours, tools and tackles, plants & equipments, with primer and paintinting etc. (complete) as required for successful completion of the job	MT	58					-				
	Conducting integrity test on pile using eloctronic control unit, hand held hammer, accelerometer, computer with required software to assess as-installed pile characterestics including mobilisation of necessary manpower, equipments, materials etc. required for successful completion of the job	Nos.	32					-				
	TOTAL INSTALATION SERVICES (Total of column 8 and 10 to be carried forward to Schedule No. 5: Grand Summary)					-		-				

Note:

- * 1) Bidder is required to quote prices in this Schedule for all the individual items/sub-items.
- Φ 2.) BOQ given above is indicative only based on the scope of work as given in Employer's Requirements. The quantities mentioned above may undergo change during detailed engineering to meet the functional requirement and scope of work defined in Employer's Requirements.

Specify currency in accordance with BDS ITB Clause 32.1, Part-I of the Bidding Documents. Strike out if not applicable

	o. Item Description			Installation Charges				
SI. No		Unit	Estimated Qty.		Portion in Foreign Currency		Portion in Nepalese Currency (in NRs)	
				Currency*	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(4)	(5)	(6)	(7)	(8)=(5)X(7)	(9)	(10)=(5)X(9)

TENDER NO.:- RE: ICB-PMD-KGTCP-073/74-02 SCHEDULE 4(b): PAGE 1 of 1

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE 220KV D/C New Butwal-Bardaghat Transmission Line

Schedule No. 4 : Installation and Other Services (b):Training Charges for training to be imparted abroad

SI.		Item for which training	Country where	Nos. of	Training	Training Charges	
No.	Description	is to be imparted.	training is to be imparted	Trainee	duration in days	Currency	Total Training Charges
1	2		3	4	5	6	7 = 4x5 x 6
1	Training on Applicable standards and codes for Transmission Line including IEC, IS & BS including supply of one set of ALL APPLICABLE STANDARDS for the EMPLOYER			6	10 days		
	Total for Training Charges (Total of column 7 to be carried forward to Schedule No. 5: Grand Summary)						-

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NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE 220KV D/C New Butwal-Bardaghat Transmission Line

Schedule No. 4: Installation and Other Services

(c):Training Charges for training to be imparted to Employer's Personnel by Bidder's Instructor in Nepal

SI. No.	Description of the Test	Item for which training is to be	Duration		Training Charges		
	Description of the Test	imparted.	Duration	No. of Trainees	Currency	Total Training Charges	
1	2	3	4		5	6 = 4x 5	
1	Structural design of Electrical Transmission Tower using conventional design method as well as using PLS Tower for Engineers		30 days	8			
2	Foundation Design for Engineer		30 days	8			
3	TL design using PLS CADD including coding and decoding of .wir files for Engineers		30 days	8			
4	ERS On site training as per section 11.7		5 days	15			
	Total for Training Charges (total of column 6 To be carried forward to Schedule 5: Grand Summary)					-	

PROJECT MANAGEMENT DIRECTORATE 220KV D/C New Butwal-Bardaghat Transmission Line

Schedule No. 4: Installation and Other Services

(d): Type Test charges for Type Tests to be conducted abroad

SI. No.	Description of Tests	Country of Testing	Unit	Qty.	Unit Rate	Currency #	Amount (USD)
	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(5) x (6)
1	Type Testing of Bison Conductor			1			-
2	Proto Type Testing of Special Tower		No.	1			-
3	Proto Type Testing of ERS Towers		No.	1			-
	TOTAL (Total of column 7 to be carried forward to						
	Schedule No. 5: Grand Summary)						-

Specify currency in accordance with BDS ITB Clause

^{32.1,} Part-I of the Bidding Documents.

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE

220KV D/C New Butwal-Bardaghat Transmission Line

Schedule No. 5: Grand Summary

		Total	Price	
SI. No.	Description	Total Price Foreign (US Dollar)*	Total Price Local (NPR)*	
1	TOTAL SCHEDULE NO. 1			
	Plant and Equipment including Mandatory Spares to be supplied from abroad.	-		
2	TOTAL SCHEDULE NO. 2			
	Plant and Equipment including Mandatory Spares Parts to be supplied from within Nepal			
3	TOTAL SCHEDULE NO. 3			
	Design Services	-		
4	TOTAL SCHEDULE NO. 4			
	(a) Installation and construction charges	-	-	
	(b) Training charges for training to be imparted abroad	-		
	(c) Training charges for training to be imparted in Nepal		-	
	(d) Type Tests charges for type Tests to be conducted abroad	-		
	TOTAL [1+2+3+4]	-	-	
	TOTAL PRICE IN USD		-	
	Custom @ 1%		-	
	VAT @ 13% on Installation Charges		-	
	Grand Total	-	-	
	Total in USD		_	
	Total in NRs.		-	

NEPAL ELECTRICITY AUTHORITY PROJECT MANAGEMENT DIRECTORATE 220KV D/C New Butwal-Bardaghat Transmission Line

Schedule No. 6: Recommended Availability/Optional Spares parts and Recommended Test Equipment (in line with Technical Specifications)

Item No.	Name & Description of Parts	Name of Original Manufacturer	Part No.	Number of Units in each set	Total No. of Sets to be provided	Unit Price	Total Price	Remarks
		wanuracturer		in each set	provided			