(An Undertaking of Government of Nepal)
Project Management Directorate



KATHMANDU VALLEY TRANSMISSION CAPACITY REINFORCEMENT PROJECT PHASE II

A component of SASEC Power Transmission and Distribution System Strengthening Project

BIDDING DOCUMENT FOR

Procurement of Plant for
Design, Supply, Installation and Commissioning of 132kV underground line from
Bhaktapur Substation to Thimi Substation and bay extension works at Bhaktapur
Substation (Package A1.2)

Single-Stage, Two-Envelope Bidding Procedure

Issued on: 14 June 2022

Invitation for Bids No.: PMD/PTDSSP/KVTCRPII-078/79-01 ICB No.: PMD/PTDSSP/KVTCRPII-078/79-01

Employer: Nepal Electricity Authority

Country: Nepal

VOLUME -III OF III

Kathmandu Valley Transmission Capacity Reinforcement Project Phase II Project Management Directorate NEA Training Centre Complex, Kharipati Bhaktapur, Nepal

Telephone: +977-1-6615457

SECTION 4 PRICE SCHEDULE

Note:

- 1) Bidder is required to quote prices in this Schedule for all the individual items/sub-items.
- 2) The Prices of equipment's are inclusive of type test charges.
- 3) BOQ given is indicative only, the quantities mentioned above may undergo changes during detailed engineering to meet the functional requirement and scope of work defined in Employer's Requirements. Based on the detailed engineering and design, the Contractor shall prepare and submit the final BOQ within 90 days of signing of Contract.
- 4) The bidders are require to quote their price including all taxes and duties applicable in their country / Country of Origin, & all business taxes, income taxes (TDS etc) applicable in Nepal. The quoted price shall be exclusive of taxes and duties applicable in Nepal like custom, VAT etc.
- 5) The bid price is inclusive of all Environmental, Health and Safety management compliance cost.



PROJECT MANAGEMENT DIRECTORATE

Kathmandu Valley Transmission Capacity Reinforcement Project Phase II

Power Transmission and Distribution System Strengthning Project

PMD/PTDSSP/KVTCRPII - 078/79-01: Design, Supply, Installation and Commissioning of 132kV underground line from Bhaktapur Substation to Thimi Substation and bay extension works at Bhaktapur Substation

FC: Foreign Currency

LC:	Local	Currency	

Item No.	Item description	Country of origin			forwarding an	d transportation to d Duties applicabl	surance, clearing, o site (Excluding Taxes e 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) x (5)	9=8	10
	Part-A: EMPLOYER ASSESSED QUANTITIES								
PART 1	132 kV Underground Line								
Α	Cables along with clamps, glands, lugs, cable termination and								
	straight joints etc.								
1.0	Power Cables -								
	145kV, 1Cx800 sqmm (XLPE) copper cable for line from Bhaktapur to		KM	27					
	Thimi Substation and line bay along complete as per TS								
i i	Cable Protection System with all accessories as per TS		LS	1					
iii	Straight Through Joints including other necessary joints as per TS		No	49					
iv	Cable Sealing Ends, terminations suitable for outdoor termination at Bhaktapur SS		No	6					
V	Cable Sealing Ends, terminations suitable for GIS termination at Thimi SS		No	6					
В	Fabrication, galvanising and supply of following Steel Structures including nuts, bolts, all types of washers, packplates, step bolts and gusset plates including foundation bolts.								
1.0	Structure(Builtup beams girders, plate girders, angles etc including Foundation Bolts for cable bridge		MT	8					
2.0	Fastners and step bolts.(Nuts,Bolts & Washers)		MT	1					
С	Optical Fiber								
1.0	Un- Armoured U/G Optical Fiber (48 Fibers) along with required hardware sets including FODP, all cable fittings and accessories as required		Km	3.8					
2.0	PLB-HDPE (Permanently Lubricated High Density Poly Ethylene) pipe 40 mm. dia pipe for laving optical Fiber Cable.		Km	3.8					
D	Testing & Maintenance Equipment								
1.0	Mobile Cable Fault Location Equipment as per TS		Set	1					



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Kathmandu Valley Transmission Capacity Reinforcement Project Phase II

Power Transmission and Distribution System Strengthning Project

PMD/PTDSSP/KVTCRPII - 078/79-01: Design, Supply, Installation and Commissioning of 132kV underground line from Bhaktapur Substation to Thimi Substation and bay extension works at Bhaktapur Substation

FC: Foreign Currency

LC:	Local	Currency
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Item No.	Item description	Country of origin	Estimated		forwarding and		nsurance, clearing, o site (Excluding Taxes le in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes
			Unit	Quantity	FC			FC	LC
			Ollik	Quantity	Currency#	Unit Rate	Amount		
1	2	3	4	5	6	7	8 = (7) x (5)	9=8	10
Е	Pipes								
1.0	HDPE pipe (PN6 180 mm dia)		Km	21					
2.0	Flexible pipe 180 mm dia at bends		Km	8					
3.0	GI pipe (NB 150mm x Heavy Duty) for crossing		Km	0.5					
	Sub-Total Part A(1)								
PART 2	Substation								
A	145 kV equipment								
1.0	145 kV, SF6 GIS Hybrid Line feeder bay Module as per section project								
а	1600A, 31.5 kA		Nos	2					
2.0	145 kV Surge Arrestors								
а	120 kV Surge Arrestors (1- Phase)		Nos	6					
3.0	145 kV Bus post insulators		Nos	6					
В	CONTROL & RELAY PANELS (WITH AUTOMATION)								
1.0	132 kV								
а	Line Control & Protection Panel with Line differential/Distance relay and necessary accessories as per TS		Set	2					
b	Line differential protection at other end. If required		Set	2					
С	Bus Bar Protection Panel (Adaptation work), including all relays & accessories to complete the scope of work.		Lot	1					



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Kathmandu Valley Transmission Capacity Reinforcement Project Phase II

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FC: Foreign Currency

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Item No.	Item description	Country of origin			forwarding an	d transportation to	surance, clearing, o site (Excluding Taxes le in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes
			Unit	Quantity		FC		FC	LC
			Onic	Quantity	Currency#	Unit Rate	Amount		
1	2	3	4	5	6	7	8 = (7) x (5)	9=8	10
	Air conditioning System for Control Building								
1.0	High wall type split AC unit of 2 TR capacity		Nos	6					
D	Fabrication, galvanising and supply of following Steel Structures								
	including nuts, bolts, all types of washers, packplates, step bolts								
	and gusset plates including foundation bolts.								
1.0	Lattice Structure including Foundation Bolts		MT	5					
	Pipe Structure including Foundation Bolts .		MT	1					
3.0	Fastners and step bolts.(Nuts,Bolts & Washers)		MT	1					
3.0	rastileis and step boits.(Nuts,boits & Washers)	+	IVI I						
	Sub-Total Part A(2)								
	Sub-Total Fait A(2)								
	SUB TOTAL PART A								
	Part-B: CONTRACTOR ASSESSED QUANTITIES								
PART 1	132 kV Underground Line								
Α	Erection Hardware								
	Al tube, bus-bar materials, cable trays, clamps, spacers, connectors								
	buried cable trenches/pipe equipment all accessories etc. to		LS	1					
	successfully complete the scope of work:								
В	Earthing including necesaary connectors/connections, risers etc, cable								
ļ .	earthimg set. complete in all respect								
	Earth Conductor (copper)		LS	1					
	Earth Rod (copper clad steel)		LS	1					
iii.	Cable Earthing arrangement		LS	1					
	0.11 B - t M 1 10t : 11th 1 1 : t - 1								
С	Cable Route Marker and Straight through Joint marker		LS	1					
	Sub-Total Part B(1)								



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Kathmandu Valley Transmission Capacity Reinforcement Project Phase II

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FC: Foreign Currency

LC: Local	Currency
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Item No.	Item description	Country of origin			forwarding and	d transportation to d Duties applicab	nsurance, clearing, o site (Excluding Taxes le in Nepal)	Total Amount (Excluding Taxes and Duties)	taxes
			Unit	Quantity	Currency#	FC Unit Rate	Amount	FC	LC
1	2	3	4	5	6	7	8 = (7) x (5)	9=8	10
	-		-				(., / / (0)		
PART 2	Substation								
Α	Erection Hardware								
	Insulator strings, Disc Insulators, Hardware, conductor, Al tube, bus-bar materials, cable trays, clamps, spacers, connectors including equipment connectors, Junction box, earthwire, buried cable trenches/pipe equipment, all accessories etc. for the following:								
1.0	145kV GIS Termination Arrangement: At Thimi								
	Line Bay		Set	2					
2.0	145kV Termination Arrangement: At Bhaktapur								
i	Line Bay		Set	2					
	Earthing and lightning protection including necesaary connectors/connections, risers etc. complete in all respect(but excluding LM structures for Lightning protection)								
	Earth Conductor (copper)		LS	1					
	Earth Rod (copper clad steel)		LS	1					
iii	Equipment for lightning protection		LS	1					
В	Illumination System								
а	Switchyard lighting Outdoor		LS	1					
С	POWER & CONTROL CABLES								
	Power Cables(PVC)- (1.1kV grade)		LS	1					
	Control Cable (PVC)- (1.1kV grade)		LS	1					
	Cable glands, lugs & straight through joints for Power & Control cables		LS	1					



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FC: Foreign Currency

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Item No.	Item description	Country of origin	s Esumated 1		forwarding an		nsurance, clearing, o site (Excluding Taxes le 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) x (5)	9=8	10
	Communication equipments								
	Adaptation works and extension of existing RTU at the Control Room (SDH, STM cards, including cable, connectors, other hardware and software required for data transmission to LDC and remote operation) as required to complete the total integration		LS	1					
b	Integration of all Bays under present scope with the SCADA of SIEMENS (SINAUT Spectrum) at Load Dispatch Centre, Kathmandu including supply of Hardware, Software, accessories etc. as per TS Section Project.		LS	1					
	Integration of all Bays under present scope with the SAS & MCC system including supply of Hardware, Software, accessories etc. as per TS Section Project.		LS	1					
	Sub-Total Part B(2)								
	SUB TOTAL PART B								
	Part-C: Mandatory Spares								
PART 1	132 kV Underground Line								
(1)	Cable Termination								
	Cable Termination Cable Termination for 132kV 1 set GIS 1 set AIS		Set	2					
''	Cable Termination 101 102KV 1 Set Old 1 Set Ald								
	Sub-Total Part C(1)								
	1.7								



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FC: Foreign Currency

LC:	Local	Currency
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Item No.	Item description	Country of origin			forwarding an	d Duties applicabl	site (Excluding Taxes	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes
			Unit	Quantity		FC		FC	LC
			Onic	Quantity	Currency#	Unit Rate	Amount		
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10
PART 2	Substation								
(I)	145kV GIS Hybrid								
1	General								
1.1	SF6 gas Pressure Relief Devices, 1Nos. of each type		Set	1					
1.2	SF6 Pressure gauge cum switch OR Density monitors and pressure switch as applicable (1 no. of each type)		Set	1					
1.3	Coupling device for pressure gauge cum switch for connecting Gas handling plant		Set	1					
1.4	Rubber Gaskets, "O" Rings and Seals for SF6 gas of each type		Set	1					
1.5	Molecular filter for SF6 gas with filter bags(20% of total weight)		Set	1					
1.6	All types of Control Valves for SF6 gas of each type		Set	1					
1.7	SF6 gas (20 % of total gas quantity)		Set	1					
1.8	All types of coupling for SF6 gas (1 no. of each type)		Set	1					
1.9	Pipe length (Copper or Steel as applicable) for SF6 Circuit of each type		Set	1					
1.1	Locking device to keep the Dis-connectors (Isolators) and Earthing switches in close or open position in case of removal of the driving Mechanism		Set	1					
1.11	SF6 to air bushing (132kV - 1 No. of each type & rating) as applicable		Set	1					
2	145KV SF6 CIRCUIT BREAKER:								
2.1	Complete Circuit Breaker pole of each type & rating complete with interrupter, main circuit enclosure and Marshalling Box with operating mechanism		No.	1					
2.2	Rubber gaskets, `O' rings and seals for SF6 gas (1 No. of each type)		Set	1					
2.3	Trip coil assembly with resistor as applicable		Set	1					
2.4	Closing coil assembly with resistor as applicable .		Set	1					
2.5	Relays, Power contactors, push buttons, timers & MCBs etc (1 No. of each type & rating)		Set	1					
2.6	Closing coil assembly (including valve, if applicable)		Set	1					
2.7	Trip coil assembly (including valve, if applicable)		Set	1					
2.8	Auxiliary switch assembly of each type		Set	1					



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FC: Foreign Currency

LC:	Local	Currency
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Item No.	Item description	Country of origin	• Esumaieo		forwarding an	d transportation to d Duties applicabl	surance, clearing, o site (Excluding Taxes le in Nepal)	Total Amount (Excluding Taxes and Duties)	taxes
			Unit	Quantity		FC		FC	LC
				quantity	Currency#	Unit Rate	Amount		
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10
3	145 KV ISOLATORS :								
	Complete set of 3-phase dis-connector including main circuit, enclosure, driving mechanism		Set	1					
3.2	3-phase Earthing switch including main circuit, enclosure, driving mechanism.		Set	1					
	Copper contact fingers for dis-connector male & female contact for dis- connector of each type and rating		Set	1					
	Copper contact fingers for earthing switch male & female contacts, for one complete earthing switch of each type and rating		Set	1					
	Open / Close contactor assembly, timers, key interlock for one complete (3 phase) dis-connector and (3 phase) earthing switch (1 No. of each type and rating)		Set	1					
3.6	Push button switch - (1 No. of each type & rating) as applicable		Set	1					
3.7	Limit switch and Aux. Switches for complete 3 phase equipment			1					
3.7.1	For isolator		Set	1					
3.7.2	For earth switch		Set	1					
4	145KV CURRENT TRANSFORMER								
4.1	Gas insulated complete CT of each type and rating with enclosure.		No.	1					
4.2	Secondary bushing of each type		Set	1					



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Kathmandu Valley Transmission Capacity Reinforcement Project Phase II

Power Transmission and Distribution System Strengthning Project

PMD/PTDSSP/KVTCRPII - 078/79-01: Design, Supply, Installation and Commissioning of 132kV underground line from Bhaktapur Substation to Thimi Substation and bay extension works at Bhaktapur Substation

FC: Foreign Currency

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

I C·	l ocal	Currency
LU.	Locai	Currency

Item No.	Item description	Country of origin	Estimated		forwarding and		surance, clearing, site (Excluding Taxes e in Nepal)	Total Amount (Excluding Taxes and Duties)	Custom, VAT and other taxes
			Unit	Quantity		FC		FC	LC
				quantity	Currency#	Unit Rate	Amount		
1	2	3	4	5	6	7	$8 = (7) \times (5)$	9=8	10
5	Line protection panel :								
a)	Distance / Line Differential Protection relay- Main-1		No.	1					
6	Breaker Relay panel:								
a)	Breaker failure relay		No.	1					
b)	Trip circuit supervision relay		Nos.	1					
c)	Self reset trip relay (relay of each type)		Set	1					
d)	Hand reset trip relay(relay of each type)		Set	1					
e)	Timer relay(relay of each type)		Set	1					
f)	DC supervision relay(relay of each type)		Set	1					
g)	Flag relays(relay of each type)		Set	1					
h)	Auxiliary relays(relay of each type)		Set	1					
	Sub-Total Part C(2)						-		
	SUB TOTAL PART C						-		
	Total For PART 1 Bhaktpur-Thimi UG [(Part-A+ Part-B+ Part C)]						_		
NI-4-	Total for Schedule 1 (Total of column 9 to be carried forward to Sch		and Sumr	nary)					

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

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.

* Strike-out whichever is not applicable.

Name of Bidder: Signature of Bidder: (Printed Name) (Designation) (Common Seal)

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Kathmandu Valley Transmission Capacity Reinforcement Project Phase II

Power Transmission and Distribution System Strengthning Project

PMD/PTDSSP/KVTCRPII - 078/79-01: Design, Supply, Installation and Commissioning of 132kV underground line from Bhaktapur Substation to Thimi Substation and bay extension works at Bhaktapur Substation

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

LC: Local Currency (ALL Price in Local Currency)

Item No.	Item description	Unit	Quantity	Ex Faxtory P	rice (Excluding VAT) in LC	<u> </u>	ortation to site LC	Total Amount (Excluding Taxes)	Custom, VAT and other taxes
				Unit Rate	Amount	Unit Rate	Amount		
1	2	3	4	5	6 = (4) x (5)	7	8=(4)x(7)	9=6+8	10
PART 1	132 kV Underground Line								
	Part-A: EMPLOYER ASSESSED QUANTITIES								
	Part-B: CONTRACTOR ASSESSED QUANTITIES								
	Part-C: Mandatory Spares								
Part 2	Substation								
	Part-A: EMPLOYER ASSESSED QUANTITIES								
	Part-B: CONTRACTOR ASSESSED QUANTITIES								
	Part-C: Mandatory Spares								
	Total for Schedule 2 (to be carried forward to Schdule 5: Gra	nd Summa	ary)						

Note: 1) Bidder is required to quote prices in this Schedule for all the items in Schedule 1 which they wish to supply from within Nepal.

- # Specify currency in accordance with BDS ITB Clause 32.1, Part-I of the Bidding Documents.
- * Strike-out whichever is not applicable.
 - ^a Specify currency in accordance with ITB 19.1 of the BDS.
 - ^b Column 5 Price shall include all customs duties and sales and other taxes already paid or payable on the components and raw materials used in the manufacture or assembly of the item or the customs duties and sales and other taxes already paid on previously imported items.

Name of Bidder:
Signature of Bidder:
(Printed Name)
(Designation)
(Common Seal)

Date:



²⁾ The Prices of equipments are inclusive of type test charges.

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Kathmandu Valley Transmission Capacity Reinforcement Project Phase II

Power Transmission and Distribution System Strengthning Project

PMD/PTDSSP/KVTCRPII - 078/79-01: Design, Supply, Installation and Commissioning of 132kV underground line from Bhaktapur Substation to Thimi Substation and bay extension works at Bhaktapur Substation

Schedule A-3: Design Services

				Unit P	rices	Total Prices	
Item No.	Item Description	Estim	nated	Local Currency Portion	Foreign Currency Portion		
		Quantity	Unit	NRs	Currency	LC	FC
1	2	3	4	5	6	7=3x5	8=3x6
PART 1	Total For PART 1	Not Applicable					
II	Total for Schedule 3 (Total of column 7 & 8 to be carried forward to Schdule 5: Grand Summary)						

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Name of Bidder: Signature of Bidder: (Printed Name) (Designation) (Common Seal) Date:



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Kathmandu Valley Transmission Capacity Reinforcement Project Phase II

Power Transmission and Distribution System Strengthning Project

PMD/PTDSSP/KVTCRPII - 078/79-01: Design, Supply, Installation and Commissioning of 132kV underground line from Bhaktapur Substation to Thimi Substation and bay extension works at Bhaktapur Substation

Schedule No. 4: Installation and Other Services

SI.	installation onlinges							
No.	Item Description			Portion	n in Foreigr	Currency	Portion in Nepale	ese Currency (in NPR)
		Unit	Qty.	Currency#	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(5)	(6)	7	8	9=8x6	10	11=10x6
	Part-A : EMPLOYER ASSESSED QUANTITIES							
PART 1	132 kV Underground Line							
Α	Cables along with clamps, glands, lugs, cable termination and straight joints etc.							
1.0	Power Cables -							
ı	145kV, 1Cx800 sqmm (XLPE) copper cable for line from Bhaktapur to Thimi Substation and line bay along complete as per TS	KM	27					
	Cable Protection System with all accessories as per TS	LS	1					
	Straight Through Joints including other necessary joints as per TS	No	49					
	Cable Sealing Ends, terminations suitable for outdoor termination at Bhaktapur SS	No	6					
V	Cable Sealing Ends, terminations suitable for GIS termination at Thimi SS	No	6					
В	Fabrication, galvanising and supply of following Steel Structures including nuts, bolts, all types of washers, packplates, step bolts and gusset plates including foundation bolts.							
1.0	Structure(Builtup beams girders, plate girders, angles etc including Foundation Bolts for cable bridge	MT	8					
2.0	Fastners and step bolts.(Nuts,Bolts & Washers)	MT	1					
	Out to LET an							
С	Optical Fiber							

SI.		Installation Charges									
No.	Item Description			Portion	n in Foreign	Currency	Portion in Nepale	ese Currency (in NPR)			
	·	Unit	Qty.	Currency#	Unit Rate	Total Charges	Unit Rate	Total Charges			
(1)	(2)	(5)	(6)	7	8	9=8x6	10	11=10x6			
1.0	Un- Armoured U/G Optical Fiber (48 Fibers) along with required hardware sets including FODP, all cable fittings and accessories as required	Km	3.8								
2.0	PLB-HDPE (Permanently Lubricated High Density Poly Ethylene) pipe 40 mm. dia pipe for laying optical Fiber Cable.	Km	3.8								
D	Testing & Maintenance Equipment										
1.0	Mobile Cable Fault Location Equipment as per TS	Set	1								
E	Laying of Pipes on pit										
1.0	HDPE pipe (PN6 180 mm dia)	Km	21								
2.0	Flexible pipe 180 mm dia at bends	Km	8								
3.0	GI pipe (NB 150mm x Heavy Duty) for crossing	Km	0.5								
	Sub-Total Part A(1)										
PART 2	Substation										
A	145 kV equipment										
1.0	145 kV, SF6 GIS Hybrid Line feeder bay Module as per section project										
а	1600A, 31.5 kA for 1 sec	Nos	2								
2.0	145 kV Surge Arrestors										
а	120 kV Surge Arrestors (1- Phase)	Nos	6								
3.0	145 kV Bus post insulators	Nos	6								
В	CONTROL & RELAY PANELS (WITH AUTOMATION)										
1.0	132 kV										

SI.			Installation Charges									
No.	Item Description			Portion	ı in Foreign	Currency	Portion in Nepale	ese Currency (in NPR)				
	·	Unit	Qty.	Currency#	Unit Rate	Total Charges	Unit Rate	Total Charges				
(1)	(2)	(5)	(6)	7	8	9=8x6	10	11=10x6				
а	Line Control & Protection Panel with Line differential/Distance relay and necessary accessories as per TS	Set	2									
b	Line differential protection at other end. If required	Set	2									
С	Bus Bar Protection Panel (Adaptation work), including all relays & accessories to complete the scope of work.	Lot	1									
С	Air conditioning System for Control Building											
1.0	High wall type split AC unit of 2 TR capacity	Nos	6									
D	Fabrication, galvanising and supply of following Steel Structures including nuts, bolts, all types of washers, packplates, step bolts and gusset plates including foundation bolts.											
1.0	Lattice Structure including Foundation Bolts	MT	5									
2.0	Pipe Structure including Foundation Bolts .	MT	1									
3.0	Fastners and step bolts.(Nuts,Bolts & Washers)	MT	1									
	Sub-Total Part A(2)											
	SUB TOTAL PART A											

SI.	<u> </u>		Installation Charges					
No.	Item Description	Unit	04	Portion	n in Foreign	Currency	Portion in Nepale	ese Currency (in NPR)
			Qty.	Currency#	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(5)	(6)	7	8	9=8x6	10	11=10x6
	Part-B: CONTRACTOR ASSESSED QUANTITIES							
PART 1	132 kV Underground Line							
Α	Erection Hardware							
	Al tube, bus-bar materials, cable trays, clamps, spacers, connectors buried cable trenches/pipe equipment all accessories etc. to successfully	LS	1					
	complete the scope of work:	LS	1					
В	Earthing including necesaary connectors/connections, risers etc, cable							
<u> </u>	earthimg set. complete in all respect Earth Conductor (copper)	LS	1					
	Earth Rod (copper clad steel)	LS	1 1					
II	Cable Earthing arrangement	LS	1					
<u> </u>	Cable Lartning arrangement	LO	1					
С	Cable Route Marker and Straight through Joint marker	LS	1					
	Sub-Total Part B(1)							
PART 2	Substation							
A	Erection Hardware							
	Insulator strings, Disc Insulators, Hardware, conductor, Al tube, bus-bar							
	materials, cable trays, clamps, spacers, connectors including equipment							
	connectors, Junction box, earthwire, buried cable trenches/pipe							
1.0	equipment, all accessories etc. for the following: 145kV GIS Termination Arrangement: At Thimi							
	Line Bay	Set	2					
2.0	145kV Termination Arrangement: At Bhaktapur							
i	Line Bay	Set	2					

SI.		Installation Charges						
No.	Item Description		_	Portion	ı in Foreign	Currency	Portion in Nepale	ese Currency (in NPR)
		Unit	Unit Qty.	Currency#	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(5)	(6)	7	8	9=8x6	10	11=10x6
3.0	Earthing and lightning protection including necessary connectors/connections, risers etc. complete in all respect(but excluding LM structures for Lightning protection)							
i	Earth Conductor (copper)	LS	1					
ii	Earth Rod (copper clad steel)	LS	1					
iii	Equipment for lightning protection	LS	1					
В	Illumination System							
а	Switchyard lighting Outdoor	LS	1					
С	POWER & CONTROL CABLES							
а	Power Cables(PVC)- (1.1kV grade)	LS	1					
b	Control Cable (PVC)- (1.1kV grade)	LS	1					
С	Cable glands, lugs & straight through joints for Power & Control cables	LS	1					
D	Communication equipments							
а	Adaptation works and extension of existing RTU at the Control Room (SDH, STM cards, including cable, connectors, other hardware and software required for data transmission to LDC and remote operation) as required to complete the total integration	LS	1					
b	Integration of all Bays under present scope with the SCADA of SIEMENS (SINAUT Spectrum) at Load Dispatch Centre, Kathmandu including supply of Hardware, Software, accessories etc. as per TS Section Project.	LS	1					
С	Integration of all Bays under present scope with the SAS & MCC system including supply of Hardware, Software, accessories etc. as per TS Section Project.	LS	1					
	Sub-Total Part B(2)							
	SUB TOTAL PART B							

SI.			Installation Charges					
No.	Item Description			Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)	
		Unit	Unit Qty.	Currency#	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(5)	(6)	7	8	9=8x6	10	11=10x6
	PART-C: Civil Works (As per technical specification)							
1.0	Excavation in all types of soil and rock including dismantiling of road surface/footpath, backfilling disposal etc. for all leads and lifts	Cu.Mtr.	7,500.00					
2.0	Providing and laying of Plain Cement Concrete (1:3:6) including shuttering but excluding steel reinforcement.	Cu.Mtr.	75.00					
3.0	Providing and laying of Plain/Reinforced Cement Concrete (1:2:4) including shuttering, Grouting of pockets & underpinning but excluding steel reinforcement.		50.00					
4.0	Providing and laying of Reinforced Cement Concrete Mix M20 including pre cast, shuttering, Grouting of pockets & underpinning but excluding steel reinforcement.		300.00					
5.0	Providing and laying of Reinforced Cement Concrete Mix M25 including pre cast, shuttering, Grouting of pockets & underpinning but excluding steel reinforcement		600.00					
6.0	Providing, Laying, Fitting & Placing of Steel Reinforcement (Fe 500)	MT.	90.00					
7.0	Local sand filling around and under foundation, cable pits and other foundations as applicable	Cu.Mtr.	3,000.00					
8.0	Stone soling below foundations whereever specified in approved drawings during detailed Engineering	Cu.Mtr.	70.00					
9.0	Road Reconstruction Work- Construction of black top (Bituminous / asphalt) road with wideblack top pavement, Water bound macadam of suitable thickness as per design below pavement shall be laid as per technical specification/road standard Water Bound Macadam of thickness and wearing course of asphalt							
9.1	concrete mixture & associated work according to existing road and road standard (upto 140 mm depth)		3,500.00					

SI.				Installation Charges				
No.	Item Description			Portion	n in Foreigr	n Currency	Portion in Nepalese Currency (in NPR)	
	·	Unit Qty.	Currency#	Unit Rate	Total Charges	Unit Rate	Total Charges	
(1)	(2)	(5)	(6)	7	8	9=8x6	10	11=10x6
	Additional Base / Sub Base required for laying below pavement as applicable all work complete	Cu.Mtr.	1,000.00					
	Footpath restoration work excluding base/subbase as per road standard all complete	Sq.Mtr.	1,800.00					
	PileFoundation							
	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 and placing the reinforcement steel but including the cost of boring including temporary guide casing (supplying and providing M.S Liner), Betonite solution and the length of pile to be embedded in the pile cap(Length of pile for payment shall be measured from bottom of pile cap), all necessary labour, materials, plants, tools and tackles etc. complete as necessary for proper execution of the job.							
	a. 750 mm diameter RCC vertical bored pile	R.m.	40.00					
10.2	Conducting integrity test on all pile using electronic 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		1.00					
11.0	Supplying & laying hume pipe of grade (NP-3) excluding concrete and							
	reinforcement							
	300mm dia	R.m.	100.00					
	450mm dia	R.m.	100.00					
	600mm dia	R.m.	50.00					
	900mm dia	R.m.	50.00					
11.5	1200 mm dia	R.m.	50.00					

(a) Installation and Construction Charges

SI.	Installation Onlinges							
No.	Item Description			Portion	in Foreign	Currency	Portion in Nepalese Currency (in NPR)	
		Unit Qty.	Currency#	Unit Rate	Total Charges	Unit Rate	Total Charges	
(1)	(2)	(5)	(6)	7	8	9=8x6	10	11=10x6
12.0	Stone Masonry Works (1:4)	Cu.Mtr.	100.00					
13.0	First Class Brick Masonry Works (1:4)	Cu.Mtr.	100.00					
14.0	Plastering Works over Masonry (1:4)	Sq.Mtr.	200.00					
15.0	Pointing Works over Stone Masonry (1:3)	Sq.Mtr.	100.00					
16.0	Soil Investigation as per TS	Location	3.00					
17.0	Initial Foot survey, GIS mapping, reporting of existing network, GPR Survey etc complete	LS	1.00					
18.0	Trenchless digging & placing of HDPE pipe or PLB-HDPE, using HDD method							
18.1	180 mm HDPE	Km	8.00					
18.2	PLB HDPE	Km	1.20					
	Sub-Total Part-C							
	Total for Schedule 4(Total of column 9 and 11 to be carried forward		·					
	to Schedule 5: Grand Summary)							

Specify currency in accordance with ITB Clause 12.1 and corresponding BDS clauses, Vol.I of the Bidding Documents.

Name of Bidder:
Signature of Bidder:
(Printed Name)
(Designation)
(Common Seal)

Date:

PROJECT MANAGEMENT DIRECTORATE

Kathmandu Valley Transmission Capacity Reinforcement Project Phase II

Power Transmission and Distribution System Strengthning Project

PMD/PTDSSP/KVTCRPII - 078/79-01: Design, Supply, Installation and Commissioning of 132kV underground line from Bhaktapur Substation to Thimi Substation and bay extension works at Bhaktapur Substation

Schedule No. 4: Installation and Other Services (Common for all)

(b)Training Charges for training to be imparted abroad

SI.		Item for which training is to be imparted.	Country where	Nos. of	Training		Total 7	Training Charges
No	Description		training is to be	Trainee	duration in	Currency	Unit rate	Total
			imparted		davs			Training Charges
1	2		3	4	5	6	7	$8 = 4x5 \times 7$
Δ	Training to Owners personnel on Design , testing and Maintenance aspect as per Section	i) Cable termination and jointing for 132kV		4	5			
/ \	Project, Technical Specification at	ii) Cable Fault Locator		4	5			
	manufacturer's works	iii) Hybrid GIS		4	5			
	Total for Training Charges (total of coulmn 8							
	to be carried forward to Schedule 5: Grand							
	summary)							

Name of Bidder:
Signature of Bidder:
(Printed Name)
(Designation)
Common Seal)

Date:



PROJECT MANAGEMENT DIRECTORATE

Kathmandu Valley Transmission Capacity Reinforcement Project Phase II

Power Transmission and Distribution System Strengthning Project

PMD/PTDSSP/KVTCRPII - 078/79-01: Design, Supply, Installation and Commissioning of 132kV underground line from Bhaktapur Substation to Thimi Substation and bay extension works at Bhaktapur Substation

Schedule No. 4: Installation and Other Services (Common for all)

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

SI. No.			Training		Training Charges	for Contractors Trainers
	Description of the Test	Item for which training is to be imparted.	duration in	Currency	Unit rate	Total
			days			Training Charges
1	2	3	4	5	6	7 = 4x 6
	On Job training on operation, maintenance and	i) Cable termination and jointing for 132kV	5			
		and 66kV System				
a)	substation as per section Project, Technical	ii) Hybrid Switchgear	5			
	Specification	iii) Control and Relay Panel, SAS	5			
		iv) Cable Fault Locator, DAS system	5			
	Total for Training Charges (Total of column					-
	7 to be carried forward to Schedule 5:					
	Grand Summary)					
2. On Jo	bb Training in Nepal: The traveling and living expense	es of Owner's personnel for the training programme	conducted in Nepal	shall be borne by	the Owner.	

Date:	Signature:	
	Printed Name: _	
	Designation:	
	Common Seal:	

NOTE: To and fro charges and accommodation for the Instructor (Trainer) and Training material for the Trainees shall be included in the prices quoted by the bidder. However, arrangments for trainees and premises for conducting the training shall be arranged by OWNER.



PROJECT MANAGEMENT DIRECTORATE

Kathmandu Valley Transmission Capacity Reinforcement Project Phase II

Power Transmission and Distribution System Strengthning Project

PMD/PTDSSP/KVTCRPII - 078/79-01: Design, Supply, Installation and Commissioning of 132kV underground line from Bhaktapur Substation to Thimi Substation and bay extension works at Bhaktapur Substation

Schedule No. 4: Installation and Other Services (Common for all) (d) Maintenance Charges

SI No	Description	Unit	Qty.	Total Maintenance Charges		
01110	2000.,p.10.1.	Oint	Qty.	Currency	Total Maintenance Charges	
	NOT APPLICABLE				-	
	Total Maintenance Charges (To be carried forward to Schedule 5: Grand Summary)				-	

Date:	Signature:	
	Printed Name: _	
	Designation:	
	Common Seal:	

NEPAL ELECTRICITY AUTHORITY PROJECT MANAGEMENT DIRECTORATE Kathmandu Valley Transmission Capacity Reinforcement Project Phase II

Power Transmission and Distribution System Strengthning Project

PMD/PTDSSP/KVTCRPII - 078/79-01: Design, Supply, Installation and Commissioning of 132kV underground line from Bhaktapur Substation to Thimi Substation and bay extension works at Bhaktapur Substation

Schedule No. 5: Grand Summary

SI. No.	Description	Total Price Foreign ()*	Total Price Local ()*
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 to Employer's		
	Personnel by Bidder's Instructor in Nepal		
	(d) Maintenance Charges		
	GRAND TOTAL [1+2+3+4]		



