NEPAL ELECTRICITY AUTHORITY

(An Undertaking of Government of Nepal)
Project Management Directorate



TRANSMISSION LINE UPGRADING PROJECT

A component of Electricity Grid Modernization Project

BIDDING DOCUMENT FOR

Procurement of Plant for Design, Supply, Installation and Commissioning of 132kV Transmission Line Conductor Upgrading

> Single-Stage, Two-Envelope Bidding Procedure

Issued on: July 12, 2021

Invitation for Bids No.: PMD/EGMP/TLUP-77/78-01 (RE) OCB No.: PMD/EGMP/TLUP-77/78-01 (RE)

Employer: Nepal Electricity Authority

Country: Nepal

VOLUME –III OF III

June 2021

Transmission Line upgrading Project Project Management Directorate NEA Training Centre Complex, Kharipati Bhaktapur, Nepal

Telephone: 01-6615457

SECTION IV PRICE SCHEDULE

Note:

- Bidder is required to quote prices in this Schedule for all the individual items/sub-items. 1)
- The Prices of equipment's are inclusive of type test charges. 2)
- 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 detail engineering and design, the Contractor shall prepare and submit the final BOQ within 90 days of signing of Contract.
- es and duti etc) application, Ilike Custom, VAT The bidders are require to quote their price including all taxes and duties applicable in their county / Country of origin, & all business taxes, income taxes (TDS etc) applicable in Nepal. The quoted price

SPECIFICATION NO.: SCHEDULE - 1 PART 1 PAGE 1 OF 4

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE

Transmission Line Upgrading Project

Electricity Grid Mordernization Project (EGMP)

PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

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

LC: Local Currency

Item No.	Item description	Country of origin	Estimated		forwarding a	ect Site including in nd transportation to nd Duties applicabl	Custom, VAT and other taxes	
			Unit	Quantity		FC	LC	
			Oilit	,	Currency#	Unit Rate	Amount	
1	2	3	4	5	6	7	8 = (7) x (5)	9
	TRANSMISSION LINE CONDUCTOR UPGRADE							
	Part-A: EMPLOYER ASSESSED QUANTITIES							
PARTI	TRANSMISSION UPGRADE							
A	Design, Manufacture, Testing and Supply of HTLS Conductor with all necessary accessories to complete the specified scope of works as per technical specification excluding the acessories mentioned elsewhere							
A.1	High Tension Low Sag (HTLS) Conductor equivalaent ACSR Bear		Km	885.0				
A.2	High Tension Low Sag (HTLS) Conductor equivalaent ACSR Duck		Km	15.0				
	SUB TOTAL 'A'							
В	Insulators with hardware fitting and accessories							
B.1	Design, manufacture, testing and Supply of Disc Insulators 70 KN with fittings		Nos.	500				
B.2	Design, manufacture, testing and Supply of Disc Insulators 120 KN with fittings		Nos.	500				
	Accessories							
B.3	Vibration Damper for HTLS Conductor as per A.1		Nos	2680				
B.4	Vibration Damper for HTLS Conductor as per A.2		Nos	40				
B.5	Mid span compression joint for HTLS conductor (A.1)		Nos	80				
B.6	Mid span compression joint for HTLS conductor (A.2)		Nos	10				
B.7	Repair Sleeve for HTLS conductor (A.1)		Nos	80				
B.8	Repair Sleeve for HTLS conductor (A.2)		Nos	10				
	SUB TOTAL 'B'							

FC: Foreign Currency

SPECIFICATION NO.: SCHEDULE - 1 PART 1 PAGE 2 OF 4

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PROJECT MANAGEMENT DIRECTORATE

Transmission Line Upgrading Project

Electricity Grid Mordernization Project (EGMP)

PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

FC: Foreign Currency

Schedule	No.1: Plant and Equipment including Mandatory Spares to be supplied from	n abroad						LC: Local Currency
Item No.	Item description	Country of origin	Estimated		forwarding ar	ect Site including in ad transportation to ad Duties applicable	Custom, VAT and other taxes	
			Unit	Quantity		FC		LC
			Unit	Quantity	Currency#	Unit Rate	Amount	
1	2	3	4	5	6	7	8 = (7) x (5)	9
C.1	Design, fabrication & supply of towers & tower parts complete with stubs, step bolts, hangers, D-shackles, bolts & nuts etc as required but excluding tower accessories such as danger plates, number plates, phase plates, anti-climbing devices							
1	Tower as per Existing Design to replace existing tower		Nos	0				
2	Tower parts & members to replace existing missing members		MT	10				
	TOTAL OF PART I							
PART II	SUBSTATION WORKS							
D	Design, Manufacture, Testing and Supply of							
1	132 kV, 3 Phase, 5 Core Current Transformer with all accessories as per Technical Specification.		Nos	75				
2	133 kV, 3 Phase, GIS Current Transformer with all accessories to replace in existing GIS as per Technical Specification. (For Balaju)		Nos	3				
	TOTAL OF PART I							
	Sub-Total Part-A							

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NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE

Transmission Line Upgrading Project

Electricity Grid Mordernization Project (EGMP)

PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

FC: Foreign Currency

Item No.	Item description	Country of origin	Estir	mated	CIP Project forwarding and an	Custom, VAT and other taxes		
						FC	LC	
			Unit	Quantity	Currency#	Unit Rate	Amount	
1	2	3	4	5	6	7	8 = (7) x (5)	9
	Part-B: CONTRACTOR ASSESSED QUANTITIES							
PART I	TRANSMISSION UPGRADE							
F	Supply of Earthing of towers as required		Lot	1				
Н	Erection Hardware			-				
1	All necessary accessories, hardware and fittings (Tension, suspension clamps, Connector etc) required to complete the HTLS stringing works completely		Lot	1				
2	Twenty (20) percent spare parts equivalent in cost of all necessary accessories, hardware & fittings of item no. H.1	,	Lot	1				
3	All tools and tackles required for the installation of the HTLS conductor.		Lot	1				
PART II	SUBSTATION WORKS							
I	Erection Hardware							
	Conductor, Al tube, bus-bar materials, cable trays, clamps, spacers, connectors including equipment connectors, Junction box, earthwire, buried cable trenches/pipe equipment & lighting, all accessories etc. as required		LS	1				
J	Earthing and lightning protection including necesary connectors/connections, risers etc. complete in all respect including counterpoise earthing where required							
	Earth Conductor (copper)		LS	1				
2.0	Earth Rod (copper clad steel)		LS	1				

SPECIFICATION NO.: SCHEDULE - 1 PART 1 PAGE 4 OF 4

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE

Transmission Line Upgrading Project

FC: Foreign Currency

Electricity Grid Mordernization Project (EGMP)

PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

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

LC: Local Currency

Item No.	Item description	Country of origin	Estimated		forwarding an	ct Site including in d transportation to nd Duties applicable	Custom, VAT and other taxes	
			Unit	Quantity		FC	LC	
				- Cuarinty	Currency#	Unit Rate	Amount	
1	2	3	4	5	6	7	8 = (7) x (5)	9
K	POWER & CONTROL CABLES							
1	Power Cables(PVC)- (1.1kV grade)		LS	1				
2	Control Cable (PVC)- (1.1kV grade)		LS	1				
3	Cable glands, lugs & straight through joints for Power & Control cables		LS	1				
L	132kV 1200 Sq.mm Cu XLPE Cable with termination for connection from existing GIS to GIS complete with earthing and other accessories. Tentative length required 60m (Balaju SS)		LS	1				
М	Hot line Maintenance Tools and equipments for transmission Line, complete as per TS		LS	1				
	Sub-Total Part-B							
	Part-C: Mandatory Spares							
	Sub-Total Part-C							
	Total of [(Part-A+ Part-B+ Part C)]							
	Carried to General 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.
- 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)

Name of Bidder:

SPECIFICATION NO.: SCHEDULE - 2 PART 1 PAGE 1 OF 2

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE

Transmission Line Upgrading Project

Electricity Grid Mordernization Project (EGMP)

PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

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		ortation to site LC	Total Amount (Excluding Taxes)	Custom, VAT and other taxes
				Unit Rate	Amount	Unit Rate	Amount		
1	2	3	4	5	$6 = (4) \times (5)$	7	8=(4)x(7)	9=6+8	10
0.0	TRANSMISSION LINE CONDUCTOR UPGRADE								
	Part-A: EMPLOYER ASSESSED QUANTITIES								
	Sub-Total Part-A								
	Part-B: CONTRACTOR ASSESSED QUANTITIES								
	Part-B. CONTRACTOR ASSESSED QUANTITIES								
<u> </u>									
	Sub-Total Part-B								

SPECIFICATION NO.: SCHEDULE - 2 PART 1 PAGE 2 OF 2

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE

Transmission Line Upgrading Project

Electricity Grid Mordernization Project (EGMP)

PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

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		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-C: Mandatory Spares								
	Sub-Total Part-C								
	Total of [(Part-A+ Part-B+ Part C)]								
	Carried to General 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.
- 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.

(Common Seal)

- ^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:	Date:
(Printed Name)	
(Designation)	

Name of Bidder: Package A-2 Signature of Bidder:

SPECIFICATION NO SCHEDULE 3, PART 1 PAGE 1 of 1

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE

Transmission Line Upgrading Project

Electricity Grid Mordernization Project (EGMP)

PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

Schedule A-3: Design Services

				Unit F	Prices	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
0		Not Applicable					
	Total carried forward to General Summary)						

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

Date:

Name of Bidder PACKAGE A2 Signature of Bidder

SPECIFICATION NO: SCHEDULE 4, PART 1 PAGE 1 of 4

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PROJECT MANAGEMENT DIRECTORATE

Transmission Line Upgrading Project

Electricity Grid Mordernization Project (EGMP)

PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

Schedule No. 4: Installation and Other Services

FC: Foreign Currency

SI.						Installat	tion Charges			
No.	Item Description	Country of	Type &	Unit	Otre	Portion in Foreign Currency			-	lese Currency (in PR)
		Origin	Designation	Unit	Qty.	Currency#	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(3)	(4)	(5)	(6)	7	8.00	9=8x6	10.00	11=10x6
0.0	TRANSMISSION LINE CONDUCTOR UPGRADE									
	Part-A: EMPLOYER ASSESSED QUANTITIES					<u> </u>				
PARTI	SUB TRANSMISSION UPGRADE									
Α	Check Survey of existing Transmission line (Determination of tower type, span length, sag, hardware & accessories require in each tower, finding of missing members and earthing in each tower etc)									
A.1	Pathlaiya Dhalkebar DC Line			LS	1					
A.2	Kusaha Duhabi DC Line			LS	1					
A.3	Suichatar - Matatirtha DC ACSR Bear			LS	1					
A.4	Suichatar - Balaju SC ACSR Duck			LS	1					
A.5	Suichatar - Teku DC ACSR Bear			LS	1					
В	Dismantling and storing of Existing ACSR Conductor, hardware & accessories and Stringing, tensioning, clamping, jointing etc of HTLS Conductor including fitting of all necessary line materials complete and Testing and Commissioning of Line									
B.1	Dismantling of Existing ACSR Conductor, hardware, accessories, fittings and storage at NEA Site store			Km	900.0					
B.2	Stringing of HTLS conductor with installation of all <i>required</i> hardwares and accessories and testing and commissioning of Transmission line as specified									
B.2.1	High Tension Low Sag (HTLS) Conductor equivalaent ACSR Bear			Km	885.00					
B.2.2	High Tension Low Sag (HTLS) Conductor equivalaent ACSR Duck			Km	15.00					
	SUB TOTAL 'A'									
В	Insulators with hardware fitting and accessories									
B.1	Design, manufacture, testing and Supply of Disc Insulators 70 KN with fittings			Nos.	500					
B.2	Design, manufacture, testing and Supply of Disc Insulators 120 KN with fittings			Nos.	500					
	Accessories									
B.3	Vibration Damper for HTLS Conductor as per A.1			Nos	2680					
B.4	Vibration Damper for HTLS Conductor as per A.2			Nos	40					
B.5	Mid span compression joint for HTLS conductor (A.1)			Nos	80					
B.6	Mid span compression joint for HTLS conductor (A.2)			Nos	10					
B.7	Repair Sleeve for HTLS conductor (A.1)			Nos	80					
B.8	Repair Sleeve for HTLS conductor (A.2)			Nos	10					
										,

SPECIFICATION NO: SCHEDULE 4, PART 1 PAGE 2 of 4

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE

Transmission Line Upgrading Project

Electricity Grid Mordernization Project (EGMP)

PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

Schedule No. 4: Installation and Other Services

(a): Installation and Construction Charges

FC: Foreign Currency

SI.		Installation Charges											
No.	Item Description	Country of	Type &	Unit	Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (i NPR)				
		Origin	Designation			Currency#	Unit Rate	Total Charges	Unit Rate	Total Charges			
(1)	(2)	(3)	(4)	(5)	(6)	7	8.00	9=8x6	10.00	11=10x6			
C.1	Design, fabrication & supply 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												
1	Tower as per Existing Design to replace existing tower			Nos	0								
2	Tower parts & members to replace existing missing members			MT	10								
	TOTAL OF PART I												
PART II	SUBSTATION WORKS												
D	Design, Manufacture, Testing and Supply of												
1	132 kV, 3 Phase, 5 Core Current Transformer with all accessories as per Technical Specification.			Nos	75								
2	133 kV, 3 Phase, GIS Current Transformer with all accessories to replace in existing GIS as per Technical Specification. (for Balaju SS)			Nos	3								
_	TOTAL OF PART I		_	_			_						
	Sub-Total Part-A												

SPECIFICATION NO:

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE

Transmission Line Upgrading Project

Electricity Grid Mordernization Project (EGMP)

PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

Schedule No. 4: Installation and Other Services

(a): Installation and Construction Charges

FC: Foreign Currency

LC: Local Currency

SI. Installation Charges										
No.	Item Description		Type &		_	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)	
		Country of Origin	Designation	Unit	Qty.	Currency#	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(3)	(4)	(5)	(6)	7	8.00	9=8x6	10.00	11=10x6
	Part-B: CONTRACTOR ASSESSED QUANTITIES									
PARTI	SUB TRANSMISSION UPGRADE									
F	Earthing of towers as required			Lot	1					
Н	Erection Hardware									
1	All necessary accessories, hardware and fittings (Tension, suspension clamps, Connector etc) required to complete the HTLS stringing works completely			LS	1					
PART II	SUBSTATION WORKS									
Н	Erection Hardware									
	All necessary accessories, hardware and fittings (Tension, suspension clamps, Connector etc) required to complete the HTLS stringing works completely			LS	1					
I	Earthing and lightning protection including necesary connectors/connections, risers etc. complete in all respect(but excluding LM structures for Lightning protection)									
1	Earth Conductor (copper)			LS	1					
2	Earth Rod (copper clad steel)			LS	1					
J	POWER & CONTROL CABLES									
1	Power Cables(PVC)- (1.1kV grade)			LS	1					
2	Control Cable (PVC)- (1.1kV grade)			LS	1					
3	Cable glands, lugs & straight through joints for Power & Control cables			LS	1					
E	132kV 1200 Sq.mm Cu XLPE Cable with termination for connection from existing GIS to GIS complete with earthing and other accessories. Tentative length required 60m (Balaju SS)			LS	1					
F	Reprogramming of the protection system in all substation			LS	1					
	Sub-Total Part-B									

SPECIFICATION NO:

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE

Transmission Line Upgrading Project

Electricity Grid Mordernization Project (EGMP)

PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

Schedule No. 4 : Installation and Other Services

FC: Foreign Currency

(a): Insta	llation and Construction Charges								LC: Local Curre	ncy		
SI.			Installation Charges									
No.	Item Description	Country of	Type &		_	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)			
			Designation	Unit	Qty.	Currency#	Unit Rate	Total Charges	Unit Rate	Total Charges		
(1)	(2)	(3)	(4)	(5)	(6)	7	8.00	9=8x6	10.00	11=10x6		
	PART-C: Civil Works (As per technical specification)											
1	Excavation in all types of soil and rock including backfilling disposal etc. for all leads and lifts			Cu.Mtr.	100							
2	Providing and laying of Plain Cement Concrete (PCC) (1:4:8)			Cu.Mtr.	20							
3	Providing and laying of Plain Cement Concrete (PCC) (1:2:4)			Cu.Mtr.	20							
4	Providing and laying of Reinforced Cement Concrete Design Mix (M25) including pre cast, shuttering, Grouting of pockets & underpinning but excluding steel reinforcement.			Cu.Mtr.	100							
5	Providing and laying Plain Cement Concrete 1:5:10 (1 cement : 5 sand : 10 Stone aggregate)			Cu.Mtr.	20							
6	Steel Reinforcement (Fe 500)			MT	1							
	Sub-Total Part-C											
	Total of [(Part-A+ Part-B+ Part C)]											
	Carried to General 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:	
Date.	١

Name of Bidder PACKAGE A-2 Signature of Bidder

SPECIFICATION NO: SCHEDULE 4c, PART 1, PAGE 1 of 1

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE

Transmission Line Upgrading Project

Electricity Grid Mordernization Project (EGMP)

PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

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

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

SI. No.			Training		Training Charges for Contractors Tra	
	Description of the Test	Item for which training is to be imparted.	duration in days	Currency	Unit rate	Total Training Charges
1	2	3	4	5	6	7 = 4x 6
		i) HTLS Conductor	6			
		ii) Hardwares	6			
a)						
b)	Training of Hotline Maintenance Equipment		15			
	Total for Training Charges (Total of					
	column 7 to be carried forward to					
	Schedule 5: Grand Summary) b Training in Nepal: The traveling and living exp					

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.

NEPAL ELECTRICITY AUTHORITY

PROJECT MANAGEMENT DIRECTORATE **Transmission Line Upgrading Project**

Electricity Grid Mordernization Project (EGMP)PMD/EGMP/TLUP-077/78-01 (RE), Transmission Line Upgrading Project

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 in Nepal		
	GRAND TOTAL [1+2+3+4]		