

NEPAL ELECTRICITY AUTHORITY

(An Undertaking of Government of Nepal)
Project Management Directorate



DISTRIBUTION CONTROL CENTER PROJECT

*A component of
Electricity Grid Modernization Project*

BIDDING DOCUMENT FOR

**Design, Supply, Installation and Commissioning of Distribution Command and
Control Center**

(Procurement of Plant)

**Single-Stage, Two-Envelope
Bidding Procedure**

Issued on: 10 August 2020
Invitation for Bids No.: PMD/EGMP/DCC-077/78 - 01
OCB No.: PMD/EGMP/DCC-077/78 - 01
Employer: Nepal Electricity Authority
Country: Nepal

VOLUME -I OF III
August 2020

**Kathmandu Valley Smart Metering Project Phase II
Project Management Directorate
NEA Training Centre Complex, Kharipati
Bhaktapur, Nepal**

Telephone:

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SECTION IV 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 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. **The Contractor shall prepare and submit the final BOQ within 90 days of signing of Contract.**
- 4) Bidder shall quote the rates excluding taxes and duties applicable in Nepal like Custom, VAT etc, but shall include all taxes, duties outside Nepal and any applicable business, income taxes in Nepal like TDS etc.

**NEPAL ELECTRICITY AUTHORITY
PROJECT MANAGEMENT DIRECTORATE
Distribution Control Centre Project**

Electricity Grid Modernization Project

PMD/EGMP/DCC-077/78 - 01: Design, Supply, Installation and Commissioning of Distribution Command and Control Centre.

FC: Foreign Currency

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		CIP Project Site including insurance, clearing, forwarding and transportation to site (Excluding Taxes and Duties applicable in Nepal)			Total Amount (Excluding Taxes and Duties)	Remarks	
			Unit	Quantity	FC			FC		LC
					Currency#	Unit Rate	Amount	9=8		10
1	2	3	4	5	6	7	8 = (7) x (5)	9=8	10	
Part -A	SCADA DMS System									
A.	Software									
1	SCADA and Historian software		Lot	1						
2	DMS Software		Lot	1						
3	ISR software		Lot	1						
4	ICCP Communication		Lot	1						
5	Front End Processor software		Lot	1						
6	Data Replica Server Software		Lot	1						
7	Database development system (PDS) cum test bench for SCADA and ICCP Integration		Lot	1						
8	Outage Management software		Lot	1						
9	Associated Applications Outage Management		Lot	1						
10	Web / Network security software									
(a)	Host based IPS with Antivirus software for all machines		Lot	1						
(d)	Software for Web Server		Lot	1						
11	Web Access Thin Client Software		Lot	1						
12	Outage Management		Lot	1						
13	Backup Software		Lot	1						

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			Unit	Quantity	FC			FC	LC
					Currency#	Unit Rate	Amount	9=8	10
1	2	3	4	5	6	7	8 = (7) x (5)	9=8	10
B.	Hardware								
1	SCADA/DMS server		Nos	2					
2	ICCP Communication Server		Nos	2					
3	ISR (Historical) Server		Nos	2					
4	Interface Server (for integration with external applications/ domain)		Nos	1					
5	OMS Server (for Standalone System)		Nos	1					
6	Associated Hardwares and add ons for OMS		Nos	1					
7	Extendable storage bay comprising of following :								
(a)	LTO drive for back up		Nos	1					
(b)	SAN		Nos	2					
(c)	Antivirus Server		Nos	1					
(d)	Backup Server		Nos	1					
(e)	SAN Switch		Nos	2					
8	Communication Front End server for communication with field RTU, IEDs etc.		Nos	2					
9	PDS server cum test bench for SCADA and ICCP Integration and development system as test bench for cyber security		Lot	1					
10	Workstation Console with 26 inch Dual TFT Monitors		Nos	4					
11	Workstation (Training Console for DTS)		Nos	1					
12	Industrial grade 16 port serial server, 230V AC power input (19" Rack Mount type) for Control Centre		Nos	3					
C.	LAN Switches								
1	L3 Core Switch (24 port with 10 Gbps) for SCADA/DMS LAN		Nos	2					
2	L3 DMZ Switch (12 port with 10 Gbps)		Nos	2					
3	GPS Receiver Switch (12 port with 10 Gbps)		Nos	2					
4	L2 Access Switch for NoC, SoC and DCC		Nos	1					
5	Fibre and Ethernet Structured Passive Cabling		Lot	1					

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			Unit	Quantity	FC			FC		LC
					Currency#	Unit Rate	Amount	9=8		10
1	2	3	4	5	6	7	8 = (7) x (5)	9=8	10	
D.	Web system									
1	Web server for web access of SCADA		Nos	2						
2	External Firewall		Nos	2						
3	Internal Firewall		Nos	2						
4	External Intrusion Prevention System									
5	Internal Intrusion Prevention System									
6	Centralized Management workstation for console		Nos	26						
E.	Time & Frequency system									
1	GPS Time synchronization system		Nos	2						
2	Day & Date Digital Displays		Nos	2						
3	Digital Display for Time		Nos	2						
F.	Remote Monitors (Remote VDU with single TFT monitor)		Nos	4						
G.	Laptop (Craft Terminal) for maintenance Printer		Nos	2						
H.	Reputed make only- HP / Canon / Samsung etc) (* Locally if possible due to cartridge unavailability problem)									
1	Colour Laser Printer		Nos	2						
2	B/W Laser printer		Nos	2						
I.	Rack Mountable TFT with IP based KVM switch		Nos	2						
SUB TOTAL PART A										

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			Unit	Quantity	FC			FC	LC
					Currency#	Unit Rate	Amount	9=8	10
1	2	3	4	5	6	7	8 = (7) x (5)	9=8	10
Part -B	SCADA DMS System FRTU								
1	RTU base equipment comprising panels, racks, sub-racks, Power Supply modules, Communication Modules, interfacing equipment, required converters & all other required items/accessories including complete wiring for all modules.		Nos	30					
2	LDMS system alongwith software including Anti virus for three years.		Set	30					
(a)	Furniture for LDMS system (One table and One chair suitable for Computer operation)		Set	30					
(b)	Inverter		Nos	30					
3	OLTC transducer		Nos	50					
4	Heavy Duty Relay		Nos	700					
5	Contact Multiplying Relay (CMRs)		Nos	7500					
6	Multi Function Meters (MFMs)		Nos	300					
7	Time Synchronisation equipment without display		Nos	30					
8	CPU(Digital out Put Module)		Nos	60					
9	Analog Input Module (4 channels/card)		Nos	60					
10	Digital Input Module (32 channels/card)		Nos	280					
11	Digital Output Module (16 channels/card)		Nos	45					
12	Test Equipment for RTU								
(a)	Master Station cum RTU simulator & Protocol Analyser Software tool		Nos	1					
(b)	Laptop PC for above software tools alongwith interfacing hardware (Intel Core i5, 8GB RAM,1TB HDD, 15.6" display, Windows-10 with licensed MS office and Antivirus (Latest Version)		Nos	1					

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			Unit	Quantity	FC			FC	LC
					Currency#	Unit Rate	Amount		
1	2	3	4	5	6	7	8 = (7) x (5)	9=8	10
13	1.1KV Control Cables (Copper) for each C&R panels connection with RTU		LS	1					
(a)	Cat 6 for MFT								
(b)	14Cx1.5 sq.mm (Digital Input)								
(c)	4Cx2.5 sq.mm (Digital Output Trip/Close)								
(d)	PVC Conduit (Suitable size as per site requirement)								
(e)	Any other item required to complete the project (Details of items should be furnished)		LS	1					
14	GPRS based Modem for data connectivity from RTU to DCC to integrate with SCADADMS		Nos	13					
15	Communication equipment, switches etc as required for data and control connectivity from FRTU to DCC to integrate with the SCADA DMS. Breakdown list shall be provided with details with rate of items to be furnished		Set	300					
SUB TOTAL PART B									

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LC: Local Currency

Item No.	Item description	Country of origin	Estimated		CIP Project Site including insurance, clearing, forwarding and transportation to site (Excluding Taxes and Duties applicable in Nepal)			Total Amount (Excluding Taxes and Duties)	Remarks	
			Unit	Quantity	FC			FC		LC
					Currency#	Unit Rate	Amount	9=8		10
1	2	3	4	5	6	7	8 = (7) x (5)	9=8	10	
Part - C	DC Area and Other Area									
1	Server Fram Area		Per Sqft.	1800						
2	NOC Area		Per Sqft.	600						
3	SOC Area		Per Sqft.	800						
4	BMS Room Area		Per Sqft.	200						
5	Power Room Area		Per Sqft.	800						
6	Staging Area		Per Sqft.	500						
7	Manager Cabin's Area		Per Sqft.	900						
8	Office Cabin's Area		Per Sqft.	1500						
9	Reception Area		Per Sqft.	200						
10	DCC Area		Per Sqft.	1400						
11	Rest rooms Area		Per Sqft.	600						
12	Other rooms		Per Sqft.	400						
13	4K Laser Videowall System 3X2 configuration, (each module size-70" diagonal) and each videowall with (two rows X three columns configuration)		Nos.	4						
	SUB TOTAL PART C									
Part - D	GPRS Communication Charges									
1	Communication Charges for 5 years		Nos.	13						
	SUB TOTAL PART D									
PART E	Construction of DCC Building, Supply and Delivery									
1	Prefabricated Modular type DC / DCC building, 3 storied complete with all accessories for full functioning of the scope of work with minimum requirement as specified. (scalable to 4 storied builing)		LS	1						

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Item No.	Item description	Country of origin	Estimated		CIP Project Site including insurance, clearing, forwarding and transportation to site (Excluding Taxes and Duties applicable in Nepal)			Total Amount (Excluding Taxes and Duties)	Remarks
			Unit	Quantity	FC			FC	LC
					Currency#	Unit Rate	Amount		
1	2	3	4	5	6	7	8 = (7) x (5)	9=8	10
2	Minimum 2.0 Ton capacity lift for equipment and peronnel for 3 floors complete		LS	1					
	Total of Prt E								
	Total For [(Part-A+ Part-B+ Part C+D+E)]								
	Total for Schedule 1 (Total of column 9 to be carried forward to Schdule 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.

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.

4.) Bidder shall quote the rates excluding taxes and duties applicable in Nepal like Custom, VAT etc, but shall include all taxes, duties outside Nepal and any applicable business taxes in Nepal like TDS (income tax) etc.

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:

Date:

Signature of Bidder:

(Printed Name)

(Designation)

(Common Seal)

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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 Factory Price (Excluding VAT) in LC		Inland transportation to site in LC		Total Amount (Excluding Taxes)	Custom, VAT and other taxes
				Unit Rate	Amount 6 = (4) x (5)	Unit Rate	Amount 8=(4)x(7)		
1	2	3	4	5	6 = (4) x (5)	7	8=(4)x(7)	9=6+8	10
Total For [(Part-A+ Part-B)]									
Total for Schedule 2 (Total of column 9 to be carried forward to Schdule 5: Grand Summary)									

- 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.
 2.) The Prices of equipments are inclusive of type test charges except for power transformers as mentioned in Sch 4(e).
- # 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:

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Distribution Control Centre Project

Electricity Grid Modernization Project

PMD/EGMP/DCC-077/78 - 01: Design, Supply, Installation and Commissioning of Distribution Command and Control Centre.

Schedule A-3: Design Services

Item No.	Item Description	Estimated		Unit Prices		Total Prices	
				Local Currency Portion	Foreign Currency Portion		
				NRs	Currency	LC	FC
1	2	3	4	5	6	7=3x5	8=3x6
1	Integration with following units/applications:						
1.1	Integration with Control Centres on ICCP	1	Lot				
1.2	Integration with various Applications						
(a)	Metering Applications	1	Lot				
(b)	Integration with various IT applications	1	Lot				
1.3	Integration of RTUs with DCC and & Integration of SAS with DCC.	1	Lot				
1.4	Integration Efforts of OMS with IT Applications/SCADA DMS.	1	Lot				
	Total for Schedule 3 (Total of column 7 & 8 to be carried forward to Schdule 5: Grand Summary)						

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

Date:

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PMD/EGMP/DCC-077/78 - 01: Design, Supply, Installation and Commissioning of Distribution Command and Control Centre.

Schedule No. 4 : Installation and Other Services

(a): Installation and Construction Charges

Sl. No.	Item Description	Installation Charges								
		Country of Origin	Type & Designation	Unit	Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)	
						Currency	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(3)	(4)	(5)	(6)	7	8	9=8x6	10	11=10x6
PART A	Erection and Commissioning including small items viz TBs. Lux . Ferrules. Channels, etc and Civil work viz. field excavation etc.			Set	30					
PART B	Installation and Commissioning of Hardware and Software required for SCADA/DMS			LS	1					
1	SCADA and Historian software			Lot	1					
2	DMS Software			Lot	1					
3	ISR software			Lot	1					
4	ICCP Communication			Lot	1					
5	Front End Processor software			Lot	1					
6	Data Replica Server Software			Lot	1					
7	Database development system (PDS) cum test bench for SCADA and ICCP Integration			Lot	1					
8	Outage Management software			Lot	1					
9	Associated Applications Outage Management			Lot	1					
10	Web / Network security software									
(a)	Host based IPS with Antivirus software for all machines			Lot	1					
(d)	Software for Web Server			Lot	1					
11	Web Access Thin Client Software			Lot	1					
12	Outage Management			Lot	1					
13	Backup Software			Lot	1					

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Electricity Grid Modernization Project

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Schedule No. 4 : Installation and Other Services

(a): Installation and Construction Charges

Sl. No.	Item Description	Installation Charges								
		Country of Origin	Type & Designation	Unit	Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)	
						Currency	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(3)	(4)	(5)	(6)	7	8	9=8x6	10	11=10x6
B.	Hardware									
1	SCADA/DMS server			Nos	2					
2	ICCP Communication Server			Nos	2					
3	ISR (Historical) Server			Nos	2					
4	Interface Server (for integration with external applications/ domain)			Nos	1					
5	OMS Server (for Standalone System)			Nos	1					
6	Associated Hardwares and add ons for OMS			Nos	1					
7	Extendable storage bay comprising of following :									
(a)	LTO drive for back up			Nos	1					
(b)	SAN			Nos	2					
(c)	Antivirus Server			Nos	1					
(d)	Backup Server			Nos	1					
(e)	SAN Switch			Nos	2					
8	Communication Front End server for communication with field RTU, IEDs etc.			Lot	2					
9	PDS server cum test bench for SCADA and ICCP Integration and development system as test bench for cyber security			Nos	1					
10	Workstation Console with 26 inch Dual TFT Monitors			Nos	4					
11	Workstation (Training Console for DTS)			Nos	1					
12	Industrial grade 16 port serial server, 230V AC power input (19" Rack Mount type) for Control Centre			Nos	3					

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Schedule No. 4 : Installation and Other Services

(a): Installation and Construction Charges

Sl. No.	Item Description	Installation Charges								
		Country of Origin	Type & Designation	Unit	Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)	
						Currency	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(3)	(4)	(5)	(6)	7	8	9=8x6	10	11=10x6
C.	LAN Switches									
1	L3 Core Switch (24 port with 10 Gbps) for SCADA/DMS LAN			Nos	2					
2	L3 DMZ Switch (12 port with 10 Gbps)			Nos	2					
3	GPS Receiver Switch (12 port with 10 Gbps)			Nos	2					
4	L2 Access Switch for NoC, SoC and DCC			Nos	1					
5	Fibre and Ethernet Structured Passive Cabling			Lot	1					
D.	Web system									
1	Web server for web access of SCADA			Nos	2					
2	External Firewall			Nos	2					
3	Internal Firewall			Nos	2					
4	External Intrusion Prevention System									
5	Internal Intrusion Prevention System									
6	Centralized Management workstation for console			Nos	26					
E.	Time & Frequency system									
1	GPS Time synchronization system			Nos	2					
2	Day & Date Digital Displays			Nos	2					
3	Digital Display for Time			Nos	2					
F.	Remote Monitors (Remote VDU with single TFT monitor)			Nos	4					
G.	Laptop (Craft Terminal) for maintenance Printer			Nos	2					

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Schedule No. 4 : Installation and Other Services

(a): Installation and Construction Charges

Sl. No.	Item Description	Installation Charges								
		Country of Origin	Type & Designation	Unit	Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)	
						Currency	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(3)	(4)	(5)	(6)	7	8	9=8x6	10	11=10x6
H.	Reputed make only- HP / Canon / Samsung etc) (* Locally if possible due to cartridge unavailability problem)									
1	Colour Laser Printer			Nos	2					
2	B/W Laser printer			Nos	2					
I.	Rack Mountable TFT with IP based KVM switch			Nos	2					
	SUB TOTAL PART B1									
Part -B2	SCADA DMS System FRTU									
1	RTU base equipment comprising panels, racks, sub-racks, Power Supply modules, Communication Modules, interfacing equipment, required converters & all other required items/accessories including complete wiring for all modules.			Nos	30					
2	LDMS system alongwith software including Anti virus for three years.			Set	30					
(a)	Furniture for LDMS system (One table and One chair suitable for Computer operation)			Set	30					
(b)	Inverter			Nos	30					
3	OLTC transducer			Nos	50					
4	Heavy Duty Relay			Nos	700					
5	Contact Multiplying Relay (CMRs)			Nos	7500					
6	Multi Function Meters (MFMs)			Nos	300					
7	Time Synchronisation equipment without display			Nos	30					
8	CPU(Digital out Put Module)			Nos	60					
9	Analog Input Module (4 channels/card)			Nos	60					
10	Digital Input Module (32 channels/card)			Nos	280					

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Schedule No. 4 : Installation and Other Services

(a): Installation and Construction Charges

Sl. No.	Item Description	Installation Charges								
		Country of Origin	Type & Designation	Unit	Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)	
						Currency	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(3)	(4)	(5)	(6)	7	8	9=8x6	10	11=10x6
11	Digital Output Module (16 channels/card)			Nos	45					
12	Test Equipment for RTU									
(a)	Master Station cum RTU simulator & Protocol Analyser Software tool			Nos	1					
(b)	Laptop PC for above software tools alongwith interfacing hardware (Intel Core i5, 8GB RAM, 1TB HDD, 15.6" display, Windows-10 with licensed MS office and Antivirus (Latest Version)			Nos	1					
13	1.1KV Control Cables (Copper) for each C&R panels connection with RTU			LS	1					
(a)	Cat 6 for MFT									
(b)	14Cx1.5 sq.mm (Digital Input)									
(c)	4Cx2.5 sq.mm (Digital Output Trip/Close)									
(d)	PVC Conduit (Suitable size as per site requirement)									
(e)	Any other item required to complete the project (Details of items should be furnished)			LS	1					
14	GPRS based Modem for data connectivity from RTU to DCC			Nos	13					
15	Communication equipment, switches etc as required for data and control connectivity from FRTU to DCC to integrate with the SCADA DMS. Breakown list shall be provided with details with rate of items to be furnished			Set	300					
	SUB TOTAL PART B2									

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Schedule No. 4 : Installation and Other Services

(a): Installation and Construction Charges

Sl. No.	Item Description	Installation Charges									
		Country of Origin	Type & Designation	Unit	Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)		
						Currency	Unit Rate	Total Charges	Unit Rate	Total Charges	
(1)	(2)	(3)	(4)	(5)	(6)	7	8	9=8x6	10	11=10x6	
PART C	Installation and Commissioning of DC Area and Other Area			Lumpsum	1	USD					
1	Server Fram Area			Per Sqft.	1800						
2	NOC Area			Per Sqft.	700						
3	SOC Area			Per Sqft.	800						
4	BMS Room Area			Per Sqft.	200						
5	Power Room Area			Per Sqft.	800						
6	Staging Area			Per Sqft.	500						
7	Manager Cabin's Area			Per Sqft.	900						
8	Office Cabin's Area			Per Sqft.	1500						
9	Reception Area			Per Sqft.	200						
10	DCC Area			Per Sqft.	1400						
11	Rest rooms Area			Per Sqft.	500						
12	Other rooms			Per Sqft.	400						
13	4K Laser Videowall System 3X2 configuration, (each module size-70" diagonal) and each videowall with (two rows X three columns configuration)			Nos.	4						
	Sub-Total Part-C										

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Schedule No. 4 : Installation and Other Services

(a): Installation and Construction Charges

Sl. No.	Item Description	Installation Charges								
		Country of Origin	Type & Designation	Unit	Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)	
						Currency	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(3)	(4)	(5)	(6)	7	8	9=8x6	10	11=10x6
PART D	Civil work for DCC Building and Store Building									
1	Earth Works:-									
1.01	Site Clearance Work including cutting & uprooting shrubs, thick herbs & vegetables, top soil cutting , levelling & removal of waste, transporting to the specified place as per instruction by site engineer all complete before and after construction.			sqm	683.92					
1.02	Earth Work in Excavation in foundation (Gravel mixed soil) for lift up to 1.5 m. including timbering, pumping out water from the foundation , stacking the soil 0.90 m. minimum from the edge of foundation, filling the excavated clean & grub of soil in foundation trench & disposing the excess soil upto a lead of 10.00 m as per instruction & specification complete work (Machine 80% manual 20%)			cum	604.5					
1.03	Earth Filling in foundation & Floor in 15 c.m. layers with water sprinkling & compaction with jumper as per specification and instruction all complete.			cum	300					
2	Soling and brick Works:-									
2.01	Flat brick Soling in foundation , finishing to approved level, line and dimensions as per instruction & specification all complete work.			Sq.m	403					

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Schedule No. 4 : Installation and Other Services

(a): Installation and Construction Charges

Sl. No.	Item Description	Installation Charges								
		Country of Origin	Type & Designation	Unit	Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)	
						Currency	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(3)	(4)	(5)	(6)	7	8	9=8x6	10	11=10x6
2.04	Chimney Bhatta (Terai) Brickwork in cement sand mortar in 1:4 sub-structure, super -structure with 1 st class bricks in perfect line and level including wetting the bricks, packing the joints and curing the work in all types and thickness of walls, column etc. as per instruction & specification complete work			Cum	37.817					
3	Concrete Works:-									
3.01	Plain Cement Concrete (1:3:6.) M10 in foundation & wall with cement, sand and aggregate including mixing, laying, finishing to approved level, line and dimensions and curing as per instruction & specification complete work.			Cum	30.225					
3.02	M25 (1:1.5:3) for R.C.C. Work in Sub-structure and Super structure with cement sand and graded coarse aggregate (river bed foruwa) including mixing with concrete, lead upto 30m, compacting the concrete mix with vibrator machine,laying, finishing to approved level lines and dimensions and curing as per instruction & specification complete work.			Cum	362.7					
4	Steel Works/ Metal Works:-									
	TMT Reinforcement bar (Fe 500) for RCC Works, tested including straightening, cleaning, cutting, bending and fixing in position with 20 B.G. annealed binding wire as per drawing, specifications and instructions by site-engineer all complete work.			Kg	42707.9					

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Schedule No. 4 : Installation and Other Services

(a): Installation and Construction Charges

Sl. No.	Item Description	Installation Charges								
		Country of Origin	Type & Designation	Unit	Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)	
						Currency	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(3)	(4)	(5)	(6)	7	8	9=8x6	10	11=10x6
5	FormWorks:-									
	Formwork/ Centering & Shuttering with 18mm thick Plywood for all type of concrete works necessary propping, scaffolding, staging, supporting inclusive wedging and cutting holes for utilization work till the support is fully unyielding as per instructions & specifications complete work			sqm	132					
6	Floor Finish Works:-									
	50 mm th. Plain Cement Concrete (1:2:4) Screeding Including Cement sand Punning (1:1) for flooring all complete as per specifications and instruction.			sqm	403					
7	Compound Wall Construction:-									
	All Civil works compound wall construction including earthwork excavation, concrete works, steel reinforment, plaster, painting, barbed wire and concretina etc all complete as per specification and instruction .(2.5 m high B/M wall and 0.5m high anglesupport on top)			Rm	50					
8	Septic Tank & Soak Pit Construction:-									
	Septic Tank as per specification and approved design according to International/ British standards and soak pit as per approved drawing excluding concrete & reinforcement (For 50 users)			Nos.	1					

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Schedule No. 4 : Installation and Other Services

(a): Installation and Construction Charges

Sl. No.	Item Description	Installation Charges								
		Country of Origin	Type & Designation	Unit	Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)	
						Currency	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(3)	(4)	(5)	(6)	7	8	9=8x6	10	11=10x6
9	Store Building Construction:- All civil works for store building complete in all respect as per technical specification and approved drawing including finishing, steel truss CGI sheet, doors windows, shutters, brickworks etc and including excavation,PCC, RCC, reinforcement steel which shall be paid separately under respective items (close type store)			Sqm	150					
10	UnderGround Water Tank Construction:- UnderGround Water Tank as per specification and approved design according to International/British standards as per approved drawing excluding concrete & reinforcement.			Nos.	3					
11	Restoration Works:- All works for restoration of security barrack building complete in all respect as per required on site and instruction of site Engineer including finishing, steel truss CGI sheet, doors windows, shutters, brickworks, electrical works etc and including excavation, PCC, RCC, reinforcement steel including metallic racks for storing goods.			LS	1					

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Schedule No. 4 : Installation and Other Services

(a): Installation and Construction Charges

Sl. No.	Item Description	Installation Charges								
		Country of Origin	Type & Designation	Unit	Qty.	Portion in Foreign Currency			Portion in Nepalese Currency (in NPR)	
						Currency	Unit Rate	Total Charges	Unit Rate	Total Charges
(1)	(2)	(3)	(4)	(5)	(6)	7	8	9=8x6	10	11=10x6
12	Prefabricated Modular type DC / DCC building, 3 storied complete with all accessories for full functioning of the scope of work with minimum requirement as specified. (scalable to 4 storied builing)			LS	1					
13	Minimum 2.0 Ton capacity lift for equipment and peronnel for 3 floors complete			LS	1					
	Total of Part D, Civil Works of DCC / Store									
	Total For [(Part-A+ Part-B+ Part C + Part D)]									
	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:

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

Sl. No.	Description	Item for which training is to be imparted.	Country where training is to be imparted	Nos. of Trainee	Training duration in days	Total Training Charges		
						Currency	Unit rate	Total Training Charges
1	2		3	4	5	6	7	8 = 4x5 x 7
A	Training to Owners personnel on Design , testing and Maintenance aspect as per Section Project, Technical Specification at manufacturer's works	i) Training Services for RTU/FRTU		20	10			
		ii) Training services for DMS/SCADA		22	10			
		iii) Training services for DC/DCC/NOC/SOC		30	22			
		iv) Out of Pocket Expenses @ 2% of i) +ii)						
	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:

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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

Sl. No.	Description of the Test	Item for which training is to be imparted.	Training duration in days	Training Charges for Contractors Trainers		
				Currency	Unit rate	Total Training Charges
1	2	3	4	5	6	7 = 4x 6
a)	On Job training on operation, maintenance and testing & commissioning aspect at each substation as per section Project, Technical Specification	i) Training Services for FRTU	900	USD		
		ii) Training services for DMS/SCADA	440	USD		
		iii) On job Training @ 15% of FRTU training cost	During installation	USD		
	Total for Training Charges (Total of column 7 to be carried forward to Schedule 5: Grand Summary)					

2. On Job Training in Nepal: The traveling and living expenses 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, arrangements for trainees and premises for conducting the training shall be arranged by OWNER.

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

(d): Maintenance Charges

SI No	Description	Unit	Qty.	Total Maintenance Charges	
				Currency	Total Maintenance Charges
A.	Annual Maintenance Contract services for SCADA System Hardware				
1	Annual Maintenance contract for hardware supplied for Part A - SCADA system during 1 year after Warranty Period with spares	Lot	1		
2	Annual Maintenance contract for hardware supplied for Part A - SCADA system during 2nd year after Warranty Period with spares	Lot	1		
3	Annual Maintenance contract for hardware supplied for Part A - SCADA system system during 3rd year after Warranty Period with spares	Lot	1		
4	Annual Maintenance contract for hardware supplied for Part B - SCADA system FRTU during 1 year after Warranty Period with spares	Lot	1		
5	Annual Maintenance contract for Part B - SCADA system FRTU during 2nd year after Warranty Period with spares	Lot	1		
6	Annual Maintenance contract for Part B - SCADA system FRTU during 3rd year after Warranty Period with spares	Lot	1		
B.	Annual Technical services for SCADA System Software				
11	Annual Technical Support for Annual Maintenance contract for SCADA/ DMS/ DCC/ DC/NOC/SOC system during 1st year after Warranty Period	Lot	1		
12	Annual Technical Support for Annual Maintenance contract for SCADA/ DMS/ DCC/ DC/NOC/SOC system during 2nd year after Warranty Period	Lot	1		
13	Annual Technical Support for Annual Maintenance contract for SCADA/ DMS/ DCC/ DC/NOC/SOC system during 3rd year after Warranty Period	Lot	1		
C.	Annual Maintenance Contract services for DC, DCC, NOC and SOC Civil Build and Non IT Infrastructure Setup				
7	Annual Maintenance contract for Part C - DC and other area during 1 year after Warranty Period with spares	Lot	1		
8	Annual Maintenance contract for Part C - DC and other area during 2nd year after Warranty Period with spares	Lot	1		
9	Annual Maintenance contract for Part C - DC and other area during 3rd year after Warranty Period with spares	Lot	1		
10	Annual Maintenance contract for Part C - DC and other area during 4th year after Warranty Period with spares	Lot	1		

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

(d): Maintenance Charges

SI No	Description	Unit	Qty.	Total Maintenance Charges	
				Currency	Total Maintenance Charges
E.	O&M including supply of Manpower for SCADA System				
18	O&M including supply of manpower during 1st year after GO Live declaration for Part A - SCADA system and Part B - SCADA system FRTU	Lot	1		
19	O&M including supply of manpower during 2nd year after GO Live declaration for Part A - SCADA system and Part B - SCADA system FRTU	Lot	1		
20	O&M including supply of manpower during 3rd year after GO Live declaration for Part A - SCADA system and Part B - SCADA system FRTU	Lot	1		
D.	O&M including supply of Manpower for DC, DCC, NOC and SOC Civil Build and Non IT Infrastructure Setup				
14	O&M including supply of manpower during 1st year after GO Live declaration for Part C - DC and other area	Lot	1		
15	O&M including supply of manpower during 2nd year after GO Live declaration for Part C - DC and other area	Lot	1		
16	O&M including supply of manpower during 3rd year after GO Live declaration for Part C - DC and other area	Lot	1		
17	O&M including supply of manpower during 4th year after GO Live declaration for Part C - DC and other area	Lot	1		

Date: _____

Signature: _____

Printed Name: _____

Designation: _____

Common Seal: _____

NOTE:

1. The bidder is required to quote the rate considering the defect liability period and extended defect liability period as per GCC (SCC) Clause 27 for the spares and services.

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

(e) Type Test Charges for Type Tests to be conducted abroad

SI. No.	Description of Tests	Testing Location	TEST CHARGES	
			Currency #	Amount
1	2	3	4	5
1	Quality Assurance (QA), Factory Acceptance Test (FAT) and Site Acceptance Test (SAT)	Abroad		
	SCADA DMS Hardware and Field Devices Tests			
	Total of Type Tests charges (Total of column 5 to be carried forward to Schedule 5: Grand Summary)			

Date: _____ Signature: _____

Printed Name: _____

Designation: _____

Common Seal: _____

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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

Date:

Signature: _____
 Printed Name: _____
 Designation: _____
 Common Seal: _____

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

(f) Type Test Charges for Type Tests to be conducted in Nepal.

Sl. No.	Description of Tests		Testing Location	TEST CHARGES	
				Currency #	Amount
1	2		3	4	5
1	Quality Assurance (QA), Factory Acceptance Test (FAT) and Site Acceptance Test (SAT)	SCADA DMS Hardware and Field Devices Tests	Nepal		
Total of Type Tests charges (Total of column 5 to be carried forward to Schedule 5: Grand Summary)					

Date: _____ Signature: _____

Printed Name: _____

Designation: _____

Common Seal: _____

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Schedule No. 5: Grand Summary

Sl. No.	Description	Total Price Foreign	Total Price Local
		1	2
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) Maintenance charges	-	
	(e) Type Tests charges for type Tests to be conducted abroad	-	
	(f) Type Tests charges for type Tests to be conducted Nepal	-	
	GRAND TOTAL [1+2+3+4]	-	-