

# NEPAL ELECTRICITY AUTHORITY

(An Undertaking of Government of Nepal)



***KfW Development Bank (No.: 2015 68 112)  
Reconstruction and Improvement of Electricity in Earthquake Affected  
Districts of Rasuwa and Nuwakot  
Electrification Component  
Rasuwa Nuwakot Distribution System Reconstruction and Improvement  
Project***

**BIDDING DOCUMENT  
FOR**

**Design, Supply and Installation of  
Electrification Component consisting of 33/11kV New Substations and  
associated 33kV, 11kV & 0.4kV Lines**

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

Issued on:	9 July 2019
Invitation for Bids No.:	ICB-REIP-REC-2019-01
ICB No.:	ICB-REIP-REC-2019-01
Employer:	Nepal Electricity Authority
Country:	Nepal

VOLUME 1 OF 3

Rasuwa Nuwakot Distribution System Reconstruction and Improvement Project  
Distribution and Consumer Service Directorate  
Planning and Technical Service Department  
Nepal Electricity Authority  
Ratnapark, Kathmandu  
Phone No: +977 1 4153147

**Design, Supply and Installation of Electrification Component works consisting of 33/11kV New Substations and associated 33kV, 11kV & 0.4kV Lines under Reconstruction & Improvement of Electricity in Earthquake Affected Districts of Rasuwa and Nuwakot**

(Schedule of rates and prices)

Bidder's Name & Address:

**Plant and Equipment including mandatory Spares to be supplied from abroad including Type Test Charges for Type Tests to be conducted abroad**

1	2	3	4	5	6.00	7	8	9 = 6 x 8
Sl. No.	Item Description	Country of Origin	Type & Designation	Unit	Quantity	Currency (As per ITB 19.1)	Unit CIP Entry Border Point / CIF Port of Entry Price (^), as applicable	Total CIP Entry Border Point / CIF Port of Entry Price (^), as applicable
<b>A</b>	<b>Construction of new 33kV Single Ckt Line for Kalikasthan Substation (5 kms)</b>							
1	Supply of ACSR Dog Conductor (100 Sq mm)			Km.	15.75			
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	120.00			
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm, D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	7.45			
4	33 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	330.00			
5	70 KN B&S disc insulator string ( one string consisting of 3 nos disc insulator) complete with all Hardware & accessories as per TS			No.	240.00			
6	Preformed insulator bindings (suitable for ACSR conductor) for 33 kV pin insulator			No.	330.00			
7	Nuts & Bolts ,Washers (plain and spring)			MT	0.75			
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 33 kV stay set			Set	50.00			
9	Guy Strain Insulators designation 'C'			No.	100.00			
10	Stay wire (7/8 SWG or 7/4 mm )			Kg.	456.25			

11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	20.00			
12	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	835.15			
	<b>Sub- Total (A)</b>							
<b>B</b>	<b>Construction of new 33kV Single Ckt Line for Ratmate Substation (2 kms)</b>							
1	Supply of ACSR Dog Conductor (100 Sq mm)			Km.	6.30			
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	48.00			
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm, D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	2.98			
4	33 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	132.00			
5	70 KN B&S disc insulator string ( one string consisting of 3 nos disc insulator) complete with all Hardware & accessories as per TS			No.	96.00			
6	Preformed insulator bindings (suitable for ACSR conductor) for 33 kV pin insulator			No.	132.00			
7	Nuts & Bolts ,Washers (plain and spring)			MT	0.30			
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 33 kV stay set			Set	20.00			
9	Guy Strain Insulators designation 'C'			No.	40.00			
10	Stay wire (7/8 SWG or 7/4 mm )			Kg.	182.50			
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	8.00			
12	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	334.06			
13	33 kV , 400 Amp,3 phase, vertical mounted AB switch for tapping point of existing 33kV line as per TS			No.	1.00			
	<b>Sub- Total (B)</b>							
<b>C</b>	<b>11 kV HT LINE USING XLPE COVERED CONDUCTOR FROM KALIKASTHAN SUBSTATION (4 kms)</b>							
1	XLPE covered AAAC (Nominal Area 55 sq mm) conductor as per TS			km	12.60			

2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	96.00		
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	4.60		
4	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			MT	276.00		
5	11 kV , 70 KN B&S disc insulator complete with all Hardware & accessories as per TS			No.	168.00		
6	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator			No.	276.00		
7	Nuts & Bolts ,Washers (plain and spring)				0.46		
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 11 kV stay set			Set	40.00		
9	Guy Strain Insulators designation 'C'			No.	40.00		
10	Stay wire (7/8 SWG or 7/4 mm )			Set	239.24		
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	16.00		
12	GI WIRE 8 SWG for earthing & guarding purpose			kg	550.20		
	<b>Sub-Total( C )</b>						
<b>D</b>	<b>11 kV HT LINE USING XLPE COVERED CONDUCTOR FROM RATMATE SUBSTATION (6 kms)</b>						
1	XPPE covered AAAC (Nominal Area 55 sq mm) conductor as per TS			km	18.90		
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	144.00		
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	6.90		
4	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			MT	414.00		
5	11 kV , 70 KN B&S disc insulator complete with all Hardware & accessories as per TS			No.	252.00		
6	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator			No.	414.00		
7	Nuts & Bolts ,Washers (plain and spring)				0.69		

8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 11 kV stay set			Set	60.00			
9	Guy Strain Insulators designation 'C'			No.	60.00			
10	Stay wire (7/8 SWG or 7/4 mm )			Set	358.86			
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	24.00			
12	GI WIRE 8 SWG for earthing & guarding purpose			Kg	825.30			
	<b>Sub-Total( D )</b>							
<b>E</b>	<b>STRENGTHENING OF DISTRIBUTION NETWORK IN DHUNCHE, GOLJUNG,GATLANG, GREY, HAKU, TIRU AND KALIKASTHAN</b>							
<b>E1</b>	<b>REPLACEMENT OF BARE CONDUCTOR OF EXISTING 11KV LINE (13 KMS)</b>							
1	XPLE covered AAAC (Nominal Area 55 sq mm) conductor as per TS			Km.	40.95			
2	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	1.43			
3	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	182.00			
4	11 kV , 70 KN B&S disc insulator complete with all Hardware & accessories as per TS			No.	104.00			
5	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator			No.	182.00			
6	Nuts & Bolts ,Washers (plain and spring)			MT	0.14			
7	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 11 kV stay set			Set	52.00			
8	Guy Strain Insulators designation 'C'			No.	52.00			
9	Stay wire (7/8 SWG or 7/4 mm )			Kg.	310.96			
10	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	52.00			
11	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	1788.15			
	<b>Sub-Total (E1)</b>							

<b>E2</b>	<b>NEW 11kV LINE USING XLPE INSULATED AAAC CONDUCTOR OF 55 SQ.MM SIZE (17 kms)</b>							
1	XPLE covered AAAC (Nominal Area 55 sq mm) conductor as per TS			Km.	53.55			
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	408.00			
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	19.55			
4	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	1173.00			
5	11 kV , 70 KN B&S disc insulator complete with all Hardware & accessories as per TS			No.	714.00			
6	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator			No.	1173.00			
7	Nuts & Bolts ,Washers (plain and spring)			MT	1.96			
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 11 kV stay set			Set	170.00			
9	Guy Strain Insulators designation 'C'			No.	170.00			
10	Stay wire (7/8 SWG or 7/4 mm )			Kg.	1016.77			
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	68.00			
12	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	2338.35			
	<b>Sub-Total (E2)</b>							
<b>E3</b>	<b>NEW LT LINE USING XLPE INSULATED AB CABLE OF 3C*35SQ.M+35 SQ.MM (21 kms)</b>							
1	LT 3C X 35 + 35 (Insulated messenger wire) Sq.mm XLPE insulated AB cable with aluminium for phase conductor and aluminium alloy for messenger wire.			Km.	23.10			
2	8 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-15)			No.	588.00			
3	Fabrication and Supply of M.S. Galvanised items - clamp for eye-hook, Stay clamps, clamp for earth wire etc complete as required.			MT	2.94			
4	Suspension clamp suitable to 35 <b>sq. mm insulated messenger wire</b> for LT AB Cable			No.	294.00			

5	Anchor clamp suitable to <b>35 sq. mm insulated messenger wire for LT AB Cable</b>		No.	294.00			
6	Support hook for suspension / anchor clamps to be used for AB cable		No.	588.00			
7	Nuts & Bolts ,Washers (plain and spring)		MT	0.29			
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete LT stay set		Set	210.00			
9	Guy Strain Insulators designation 'A'		No.	210.00			
10	Stay wire (7/12 SWG or 7/2.5 mm )		Kg.	623.49			
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS		Set	84.00			
12	GI WIRE 8 SWG for earthing & guarding purpose		Kg.	2888.55			
	<b>Sub-Total (E3)</b>						
<b>E4</b>	<b>REPLACEMENT OF BARE CONDUTOR OF EXISTING LT LINE BY AB CABLE OF 3C*35SQ.MM+35SQ.MM (39 kms)</b>						
1	LT 3C X 35 + 35 (Insulated messenger wire) Sq.mm XLPE insulated AB cable with aluminium for phase conductor and aluminium alloy for messenger wire.		Km.	42.90			
2	Fabrication and Supply of M.S. Galvanised items - clamp for eye-hook, Stay clamps, clamp for earth wire etc complete as required.		MT	5.46			
3	Suspension clamp suitable to <b>35 sq. mm insulated messenger wire for LT AB Cable</b>		No.	546.00			
4	Anchor clamp suitable to <b>35 sq. mm insulated messenger wire for LT AB Cable</b>		No.	546.00			
5	Support hook for suspension / anchor clamps to be used for AB cable		No.	1092.00			
6	Nuts & Bolts ,Washers (plain and spring)		MT	0.55			
7	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete LT stay set		Set	195.00			
8	Guy Strain Insulators designation 'A'		No.	195.00			
9	Stay wire (7/12 SWG or 7/2.5 mm )		Kg.	579.15			
10	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS		Set	156.00			
11	GI WIRE 8 SWG for earthing & guarding purpose		Kg.	5364.46			

	<b>Sub-Total (E4)</b>							
<b>E5</b>	<b>ADDITIONAL 8MTR LONG STP IN EXISTING LT LINE (120 nos)</b>							
1	8 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-15)		No.	120.00				
2	Fabrication and Supply of M.S Galvanised items - clamp for eye-hook, Stay clamps, clamp for earth wire etc complete as required.		KG	600.00				
3	Suspension clamp suitable to 35 sq. mm insulated messenger wire for LT AB Cable		No.	120.00				
4	Support hook for suspension / anchor clamps to be used for AB cable		No.	120.00				
5	Nuts & Bolts ,Washers (plain and spring)		KG	60.00				
	<b>Sub-Total (E5)</b>							
<b>E6</b>	<b>REPLACEMENT OF DAMAGED POLES BY 11MTR LONG STP IN EXISTING 11kV LINE (10 nos)</b>							
1	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)		No.	10.00				
2	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.		KG	572.50				
3	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS		No.	30.00				
4	Preformed insulator bindings (suitable for ACSR conductor) for 33 kV pin insulator		No.	30.00				
5	Nuts & Bolts ,Washers (plain and spring)		KG	57.25				
	<b>Sub-Total (E6)</b>							
<b>E7</b>	<b>REPLACEMENT OF WOODEN POLES BY NEW 8 MTR LONG STP IN EXISTING LT LINE (60 nos)</b>							
1	8 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-15)		No.	60.00				
2	Fabrication and Supply of M.S Galvanised items - clamp for eye-hook, Stay clamps, clamp for earth wire etc complete as required.		KG	300.00				
3	Suspension clamp suitable to 35 sq. mm insulated messenger wire for LT AB Cable		No.	60.00				
4	Support hook for suspension / anchor clamps to be used for AB cable		No.	60.00				
5	Nuts & Bolts ,Washers (plain and spring)		KG	30.00				
	<b>Sub-Total (E7)</b>							
<b>E8</b>	<b>ADDITIONAL 11 MTR LONG STP IN EXISTING 11 kV LINE (25 nos)</b>							



1	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	25.00		
2	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			KG	1431.25		
3	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	75.00		
4	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator			No.	75.00		
5	Nuts & Bolts ,Washers (plain and spring)			KG	143.13		
	<b>Sub-Total (E8)</b>						
<b>E9</b>	<b>NEW STAY SETS FOR EXISTING 11 kV LINE (50 sets)</b>						
1	Fabrication and Supply of M.S. Galvanised items- Stay clamps			Kg.	250.00		
2	Nuts & Bolts ,Washers (plain and spring)			Kg.	25.00		
3	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to <b>complete 11 kV stay set</b>			Set	50.00		
4	Guy Strain Insulators designation 'C'			No.	50.00		
5	Stay wire (7/8 SWG or 7/4 mm )			Kg.	299.00		
	<b>Sub-Total (E9)</b>						
<b>E10</b>	<b>NEW 3-PHASE DISTRIBUTION TRANSFORMERS</b>						
1	Supply of 25 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core & copper winding along with all accessories as per TS			No.	3.00		
2	Supply of 50 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding & conservator along with all accessories as per TS			No.	7.00		
3	Supply of 100 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding ,conservator and externally operated tap changer along with all accessories as per TS			No.	3.00		
4	Supply of 9 kV, 1 phase, 5 KA <b>porcelain housing LA</b> with dis-connector with all accessories as per TS			No.	39.00		
5	Supply of 11 kV, 3 phase, 400 A Drop Out fuse with all accessories as per TS			Set	13.00		
6	Fabrication and Supply of M.S. Galvanised items for mounting of DT, LA, DO fuse etc			KG	1300.00		

7	Nuts & Bolts ,Washers (plain and spring)			KG	130.00			
8	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	39.00			
9	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 25 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	3.00			
10	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 50 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	7.00			
11	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 100 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	3.00			
12	3.5 core, 95+50 sq mm, 1.1 kV , PVC insulated, armoured cable with copper conductor to connect LT bushing to LTDB			Mtr	130.00			
13	Outdoor cable terminating kits suitable for 3.5 core, 95+50 sq mm, 1.1 kV , PVC insulated, armoured cable with copper conductor			Nos.	26.00			
	<b>Sub-Total (E10)</b>							
<b>E11</b>	<b>REPLACEMENT OF EXISTING 3 PHASE DISTRIBUTION TRANSFORMERS</b>							
1	Supply of 25 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core & copper winding along with all accessories as per TS			No.	2.00			
2	Supply of 50 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding & conservator along with all accessories as per TS			No	7.00			
3	Supply of 100 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding ,conservator and externally operated tap changer along with all accessories as per TS			No	4.00			

4	Supply of 200 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding ,conservator and externally operated tap changer along with all accessories as per TS			No	2.00			
5	Supply of 9 kV, 1 phase, 5 KA <b>porcelain housing LA</b> with dis-connector with all accessories as per TS			No.	45.00			
6	Supply of 11 kV, 3 phase, 400 Amp. Drop Out fuse with all accessories as per TS			Set	15.00			
7	Fabrication and Supply of M.S. Galvanised items for mounting of DT, LA, DO fuse etc			KG	1500.00			
8	Nuts & Bolts ,Washers (plain and spring)			KG	150.00			
9	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	45.00			
10	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 25 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	2.00			
11	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 50 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	7.00			
12	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 100 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	4.00			
13	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 200 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	2.00			
14	3.5 core, 95+50 sq mm, 1.1 kV , PVC insulated, armoured cable with copper conductor to connect LT bushing to LTDB			Mtr	170.00			
15	Outdoor cable terminating kits suitable for 3.5 core, 95+50 sq mm, 1.1 kV , PVC insulated, armoured cable with copper conductor			No.	34.00			
	<b>Sub-Total (E11)</b>							

<b>E12</b>	<b>SHIFTING OF SERVICE CONNECTIONS (1990 nos)</b>							
1	Pole mounted service connection distribution box alongwith mounting clamp with capacity for 10 connections			No.	199.00			
2	Pole mounted GI clamp to anchor/support at least 10 service lines on pole			No.	199.00			
3	2x6 sq mm PVC insulated co-centric Aluminium service cable			Mtr	49750.00			
	<b>Sub-Total (E12)</b>							
	<b>Sub-Total (E)</b>							
<b>F</b>	<b>New 33/11 kV S/S (2x 6/8 MVA AT RATMATE )</b>							
1	Supply of 6/8 MVA, 33/11 kV ONAF, power transformer with On Load tap Changer & all accessories as per TS			No.	2			
2	Supply of 33 kV, 1250 Amp VCBs with structure and all accessories as per TS			No.	3			
3	Supply of 33 kV, 630 Amp gang operated <b>DBCR Isolator</b> (without earth switch)with all accessories as per TS			No.	4			
4	Supply of 33 kV, 630 Amp gang operated <b>DBCR Isolator</b> (with earth switch)with all accessories as per TS			No.	1			
5	Supply of 33 kV, 1 phase, 400-200/1-1 Amp <b>Current transformer</b> (alongwith all accessories & 1 Junction Box for 3 CTs) as per TS			No.	9			
6	Supply of 30 kV, 1 phase, 10 KA <b>porcelain housing LA</b> with Surge Monitor and all accessories as per TS			No.	12			
7	Supply of 9 kV, 1 phase, 10 KA <b>porcelain housing LA</b> with all accessories as per TS			No.	12			
8	Supply of (33/√3 kV)/(110 /√3 Volts), <b>1 phase PT</b> (alongwith all accessories & 1 Junction Box for 3 single phase PTs) as per TS			No.	9			
9	33 kv <b>Bus Post Insulators</b> with fittings and accessories as per TS			No.	6			
10	Supply of 100 KVA, 33 kV/0.400 kV CRGO, Copper winding, station transformer along with all accessories as per TS			No.	1			
11	11 Mtr long Galvanised Steel Tubular Pole (410-SP-54) for Station transformer and DP structure for outgoing 11 kV feeders as per Technical Specification.			No.	10			
12	Galvanised fabricated structure for 33 kV bus & line gantry			MT	6.8			

13	Galvanised fabricated structure for station transformer, DP structure for outgoing 11 kV feeders, porcelain LA, Isolator, bus coupler isolator, CT & bus post insulator			MT	3.75			
14	Nuts, bolts, foundation bolts and washer and other accessories for structures.			MT	1.06			
15	70 KN B&S disc insulator string ( <b>one string consisting of 4 nos disc insulator</b> ) complete with all Hardware & accessories as per TS			Set	15			
16	Supply of ACSR Dog (for 33 kV bus, trf bays jumpers, droppers etc )			Meter	153.45			
17	100 sq.mm stranded bare copper conductor for main grid and raisers along with necessary lugs etc as per TS			Meter	250			
18	16 mm diamtere and 1.5-meter long (min.) copper clad steel and other accessories complete as per TS to be buried below ground and to be connected with earthmat (untreated)			Set	10			
19	Supply of 40 mm dia 3000 mm long GI pipe earth electrode with test link, RCC pit, RCC cover, placed on GI frame charcoal, salt and other accessories complete as per TS (treated for transformer, LA, tower with peak)			Set	25			
20	Supply of 20 mm dia, 3000 mm long GI Rod as earth electrodes for Un-Treated earthing with arrangement to fix raisers as per TS			Set	30			
21	Supply of 11 kV, XLPE insulated, armoured copper cable as per TS - 3Cx120 sq. mm.			Meter	560			
22	Out door termination kit suitable for termination of 11 kV for 3Cx120 sq. mm copper cable in cable box on 11kv side of transformer & DP structure of 11 kV out-going feeders			Set	8			
23	Supply of 33 kV, XLPE insulated, armoured copper single phase cable as per TS - 1Cx185 sq. mm.			Meter	3000			
24	Out door termination kit suitable for termination of 33 kV , 1Cx185 sq. mm copper cable to be used in 33 kV line			Set	30			
25	Supply of 1.1 kV, PVC insulated, armoured 3.5 Cx 50 Sq.mm Aluminium cable as per TS			Meter	75			
26	Supply of 1.1 kV, PVC insulated, armoured 4Cx16 Sq.mm Aluminium cable as per TS			Meter	150			
27	Supply of 1.1 kV PVC insulated, armoured 2C x 10 mm <sup>2</sup> copper cable as per TS			Meter	60			
28	Supply of 1.1 kV PVC insulated, armoured 2C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	210			
29	Supply of 1.1 kV PVC insulated, armoured 5C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	720			

30	Supply of 1.1 kV PVC insulated, armoured 10C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	360			
31	Supply of 1.1 kV PVC insulated, armoured 12C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	100			
32	Supply of C&R panel for 6/8 MVA, 33/11 kV ONAF power transformer with On Load tap Changer alongwith all other mandatory requirement <b>as per TS</b>			No.	2			
33	Supply of C&R panel alongwith all other mandatory system required line protection) for <b>33 kV Line as per TS</b>			No.	1			
34	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs, PTs, Ammeter, Voltmeter, Relay & accessories complete as per TS for 11kV incomer feeder from transformer.			No.	2			
35	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs & accessories complete as per TS for Bus-Coupler. This include trunking panel if required.			No.	1			
36	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs, PTs, Ammeter, Voltmeter, Relay & accessories complete as per TS for 11kV outgoing feeder.			No.	4			
37	110 V, 240AH, Lead Acid type Battery Set and all other accessories complete			Set	1			
38	110 V, Float-Cum-Boost Battery Charger with full wave, full control rectification working on 50 Hz, single phase AC Input Voltage. The charger will be suitable to charge 110V, 240AH, Lead Acid Battery. The charger will be supplied alongwith connectors etc. for connection with 110V, 240AH Battery Set.			No.	1			
39	110V DC Distribution Box as per TS			No.	1			
40	400 volts AC Distribution board/panel of sheet steel enclosed cubical, floor mounting type for catering auxiliary power supply of the substation alongwith CT operated 3 phase 4 wire energymeter & CTs complete as per TS.			No.	1			
41	Supply of Bay Marshalling Kiosk as per TS			No.	1			
42	Lighting System complete for switchyard including main gate & substation boundary as per TS			Set	1			
43	Lighting System complete for Control room building as per TS			Set	1			
44	Clamp & Connectors etc for sub-station having <b>2 nos. 33/11 kV transformers, 1 no. 33 kV line</b>			Lot	1			
45	33 kV, 400 Amp, 3 phase, vertical mounted AB switch for station transformer of existing 33kV line as per TS			Set	1			
46	33 kV, 3 phase DO fuse for station transformer as per TS			Set	1			

47	11 kV , 400 Amp,3 phase , vertical mounted AB switch for Outgoing DP as per TS			Set	4		
48	Dry Chemical Powder Type(6 Kg) for control room.			No.	1		
49	CO2 Type of 4.5Kg Capacity for Control Room.			No.	1		
50	CO2 Type Trolley Mounted of 22.5 Kg Capacity for Switch Yard.			No	1		
51	Digital IR Tester (2kV-5kV)			No.	1		
52	Digital multimeter			No.	2		
53	Earth resistance tester			No.	1		
54	Stainless Steel Oil sampling bottle (One Litre Capacity)			No.	2		
55	11 kV Discharge Rod(1 set of 3 rods)			Set	1		
56	Battery Voltage Tester			No.	2		
57	33 kV Discharge Rod (1 set of 3 rods)			Set	1		
	<b>Sub-Total (F)</b>						
<b>G</b>	<b>New 33/11 kV S/S (1x 6/8 MVA AT KALIKASTHAN )</b>						
1	Supply of 6/8 MVA, 33/11 kV ONAF, power transformer with On Load tap Changer & all accessories as per TS			No.	1		
2	Supply of 33 kV , 1250 Amp VCBs with structure and all accessories as per TS			No.	2		
3	Supply of 33 kV , 630 Amp gang operated <b>DBCR Isolator</b> (without earth switch)with all accessories as per TS			No.	2		
4	Supply of 33 kV , 630 Amp gang operated <b>DBCR Isolator</b> (with earth switch)with all accessories as per TS			No.	1		
5	Supply of 33 kV, 1 phase, 400-200/1-1 Amp <b>Current transformer</b> (alongwith all accessories & 1 Junction Box for 3 CTs) as per TS			No.	6		
6	Supply of 30 kV, 1 phase, 10 KA <b>porcelain housing LA</b> with Surge Monitor and all accessories as per TS			No.	9		
7	Supply of 9 kV, 1 phase, 10 KA <b>porcelain housing LA</b> with all accessories as per TS			No.	12		
8	Supply of (33/ $\sqrt{3}$ kV)/(110 / $\sqrt{3}$ Volts), <b>1 phase PT</b> (alongwith all accessories & 1 Junction Box for 3 single phase PTs) as per TS			No.	6		
9	33 kv <b>Bus Post Insulators</b> with fittings and accessories as per TS			No.	3		
10	Supply of 100 KVA, 33 kV/0.400 kV CRGO, Copper winding , station transformer along with all accessories as per TS			No.	1		

11	11 Mtr long Galvanised Steel Tubular Pole (410-SP-54) for Station transformer and DP structure for outgoing 11 kV feeders as per Technical Specification.			No.	10		
12	Galvanised fabricated structure for 33 kV bus & line gantry			MT	5.1		
13	Galvanised fabricated structure for station transformer, DP structure for outgoing 11 kV feeders, porcelain LA, Isolator, bus coupler isolator, CT & bus post insulator			MT	2.85		
14	Nuts, bolts, foundation bolts and washer and other accessories for structures.			MT	0.8		
15	70 KN B&S disc insulator string ( <b>one string consisting of 4 nos disc insulator</b> ) complete with all Hardware & accessories as per TS			Set	9		
16	Supply of ACSR Dog (for 33 kV bus, trf bays jumpers, droppers etc )			Meter	50		
17	100 sq.mm stranded bare copper conductor for main grid and raisers along with necessary lugs etc as per TS			Meter	250		
18	16mm diamtere and 1.5-meter long (min.) copper clad steel and other accessories complete as per TS to be buried below ground and to be connected with earthmat (untreated)			Set	10		
19	Supply of 40 mm dia 3000 mm long GI pipe earth electrode with test link, RCC pit, RCC cover, placed on GI frame charcoal, salt and other accessories complete as per TS (treated for transformer, LA, tower with peak)			Set	25		
20	Supply of 20 mm dia, 3000 mm long GI Rod as earth electrodes for Un-Treated earthing with arrangement to fix raisers as per TS			Set	30		
21	Supply of 11 kV, XLPE insulated, armoured copper cable as per TS - 3Cx120 sq. mm.			Meter	420		
22	Out door termination kit suitable for termination of 11 kV for 3Cx120 sq. mm copper cable in cable box on 11kv side of transformer & DP structure of 11 kV out-going feeders			Set	6		
23	Supply of 33 kV, XLPE insulated, armoured copper single phase cable as per TS - 1Cx185 sq. mm.			Meter	3000		
24	Out door termination kit suitable for termination of 33 kV , 1Cx185 sq. mm copper cable to be used in 33 kV line			Set	30		
25	Supply of 1.1 kV, PVC insulated, armoured 3.5 Cx 50 Sq.mm Aluminium cable as per TS			Meter	75		
26	Supply of 1.1 kV, PVC insulated, armoured 4Cx16 Sq.mm Aluminium cable as per TS			Meter	100		
27	Supply of 1.1 kV PVC insulated, armoured 2C x 10 mm <sup>2</sup> copper cable as per TS			Meter	40		



28	Supply of 1.1 kV PVC insulated, armoured 2C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	140			
29	Supply of 1.1 kV PVC insulated, armoured 5C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	480			
30	Supply of 1.1 kV PVC insulated, armoured 10C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	240			
31	Supply of 1.1 kV PVC insulated, armoured 12C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	65			
32	Supply of C&R panel for 6/8 MVA, 33/11 kV ONAF power transformer with On Load tap Changer alongwith all other mandatory requirement <b>as per TS</b>			No.	1			
33	Supply of C&R panel alongwith all other mandatory system required line protection) for <b>33 kV Line as per TS</b>			No.	1			
34	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs, PTs, Ammeter, Voltmeter, Relay & accessories complete as per TS for 11kV incomer feeder from transformer.			No.	1			
35	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs & accessories complete as per TS for Bus-Coupler. This include trunking panel if required.			No.	0			
36	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs, PTs, Ammeter, Voltmeter, Relay & accessories complete as per TS for 11kV outgoing feeder.			No.	4			
37	110 V, 240AH, Lead Acid type Battery Set and all other accessories complete			Set	1			
38	110 V, Float-Cum-Boost Battery Charger with full wave, full control rectification working on 50 Hz, single phase AC Input Voltage. The charger will be suitable to charge 110V, 240AH, Lead Acid Battery. The charger will be supplied alongwith connectors etc. for connection with 110V, 240AH Battery Set.			No.	1			
39	110V DC Distribution Box as per TS			No.	1			
40	400 volts AC Distribution board/panel of sheet steel enclosed cubical, floor mounting type for catering auxiliary power supply of the substation alongwith CT operated 3 phase 4 wire energymeter & CTs complete as per TS.			No.	1			
41	Supply of Bay Marshalling Kiosk as per TS			No.	1			
42	Lighting System complete for switchyard including main gate & substation boundary as per TS			Set	1			
43	Lighting System complete for Control room building as per TS			Set	1			

44	Clamp & Connectors etc for sub-station having 1 nos. <b>33/11 kV transformers, 1 no. 33 kV line</b>			Lot	1		
45	33 kV , 400 Amp,3 phase , vertical mounted AB switch for station transformer as per TS			Set	1		
46	33 kV, 3 phase DO fuse for station transformer as per TS			Set	1		
47	11 kV , 400 Amp,3 phase , vertical mounted AB switch for Outgoing DP as per TS			Set	4		
48	Dry Chemical Powder Type(6 Kg) for control room.			No.	1		
49	CO2 Type of 4.5Kg Capacity for Control Room.			No.	1		
50	CO2 Type Trolley Mounted of 22.5 Kg Capacity for Switch Yard.			No.	1		
51	Digital IR Tester (2kV-5kV)			No.	1		
52	Digital multi meter			No.	2		
53	Earth resistance tester			No.	1		
54	Stainless Steel Oil sampling bottle (One Litre Capacity)			No.	2		
55	11 kV Discharge Rod(1 set of 3 rods)			Set	1		
56	Battery Voltage Tester			No.	2		
57	33 kV Discharge Rod (1 set of 3 rods)			Set	1		
	<b>Sub-Total (G)</b>						
<b>H</b>	<b>New 11kV SWITCHING STATION AT DHUNCHE</b>						
1	Supply of 9 kV, 1 phase, 5 KA porcelain housing LA			Nos.	12		
2	Supply of 11 kV, 3 phase HG fuse			Set	4		
3	Supply of 11 kV , 400 Amp,3 phase , vertical mounted AB switch			Set	5		
4	Supply of 11 mtrs long steel tubular poles of 410 grade (410 SP-54)			No.	14		
5	ACSR DOG Conductor			Km.	0.5		
6	Supply of Galvanised fabricated structure for installation of LA, HG Fuse, AB switch etc			Kg	500		
7	Supply of Clamp and connectors			Lot (Lump Sum)	1		
8	11 kV , 70 KN B&S disc insulator complete with all Hardware & accessories as per TS			Sets	24		
9	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes for treated earthing with arrangement to fix raisers			Sets	14		

**Design, Supply and Installation of Electrification Component works consisting of 33/11kV New Substations and associated 33kV, 11kV & 0.4kV Lines under Reconstruction & Improvement of Electricity in Earthquake Affected Districts of Rasuwa and Nuwakot**

(Schedule of rates and prices)

Bidder's Name & Address:

**Plant and Equipment including mandatory Spares to be supplied from within Employer's Country including Type Test Charges for Type Tests to be conducted in Employer's Country**

1	2	3	4	5	6	7	8	9 = 6 x 8	10
Sl. No.	Item Description	Country of Origin	Type & Designation	Unit	Quantity	Currency (As per ITB 19.1)	Unit ExW Price	Total ExW Price	Mode of Transaction (Direct/ Bought-Out)
<b>A</b>	<b>Construction of new 33kV Single Ckt Line for Kalikasthan Substation (5 kms)</b>								
1	Supply of ACSR Dog Conductor (100 Sq mm)			Km.	15.75				
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	120.00				
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm, D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	7.45				
4	33 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	330.00				
5	70 KN B&S disc insulator string ( one string consisting of 3 nos disc insulator) complete with all Hardware & accessories as per TS			No.	240.00				
6	Preformed insulator bindings (suitable for ACSR conductor) for 33 kV pin insulator			No.	330.00				
7	Nuts & Bolts ,Washers (plain and spring)			MT	0.75				
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 33 kV stay set			Set	50.00				
9	Guy Strain Insulators designation 'C'			No.	100.00				
10	Stay wire (7/8 SWG or 7/4 mm )			Kg.	456.25				
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	20.00				

12	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	835.15				
	<b>Sub- Total (A)</b>								
<b>B</b>	<b>Construction of new 33kV Single Ckt Line for Ratmate Substation (2 kms)</b>								
1	Supply of ACSR Dog Conductor (100 Sq mm)			Km.	6.30				
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	48.00				
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm, D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	2.98				
4	33 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	132.00				
5	70 KN B&S disc insulator string (one string consisting of 3 nos disc insulator) complete with all Hardware & accessories as per TS			No.	96.00				
6	Preformed insulator bindings (suitable for ACSR conductor) for 33 kV pin insulator			No.	132.00				
7	Nuts & Bolts ,Washers (plain and spring)			MT	0.30				
8	Hardware Fittings (1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 33 kV stay set			Set	20.00				
9	Guy Strain Insulators designation 'C'			No.	40.00				
10	Stay wire (7/8 SWG or 7/4 mm)			Kg.	182.50				
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	8.00				
12	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	334.06				
13	33 kV , 400 Amp,3 phase, vertical mounted AB switch for tapping point of existing 33kV line as per TS			No.	1.00				
	<b>Sub- Total (B)</b>								
<b>C</b>	<b>11 kV HT LINE USING XLPE COVERED CONDUCTOR FROM KALIKASTHAN SUBSTATION (4 kms)</b>								
1	XLPE covered AAAC (Nominal Area 55 sq mm) conductor as per TS			km	12.60				
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	96.00				

3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	4.60				
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4	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS		MT	276.00				
5	11 kV , 70 KN B&S disc insulator complete with all Hardware & accessories as per TS		No.	168.00				
6	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator		No.	276.00				
7	Nuts & Bolts ,Washers (plain and spring)			0.46				
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 11 kV stay set		No.	40.00				
9	Guy Strain Insulators designation 'C'		No.	40.00				
10	Stay wire (7/8 SWG or 7/4 mm )		Set	239.24				
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS		Set	16.00				
12	GI WIRE 8 SWG for earthing & guarding purpose		No.	550.20				
	<b>Sub-Total( C )</b>							
<b>D</b>	<b>11 kV HT LINE USING XLPE COVERED CONDUCTOR FROM RATMATE SUBSTATION (6 kms)</b>							
1	XLPE covered AAAC (Nominal Area 55 sq mm) conductor as per TS		km	18.90				
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)		No.	144.00				
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.		MT	6.90				
4	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS		MT	414.00				
5	11 kV , 70 KN B&S disc insulator complete with all Hardware & accessories as per TS		No.	252.00				
6	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator		No.	414.00				
7	Nuts & Bolts ,Washers (plain and spring)			0.69				
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 11 kV stay set		No.	60.00				
9	Guy Strain Insulators designation 'C'		No.	60.00				
10	Stay wire (7/8 SWG or 7/4 mm )		Set	358.86				



<b>E</b>	<b>STRENGTHENING OF DISTRIBUTION NETWORK IN DHUNCHE, GOLJUNG, GATLANG, GREY, HAKU, TIRU AND KALIKASTHAN</b>							
<b>E1</b>	<b>REPLACEMENT OF BARE CONDUCTOR OF EXISTING 11KV LINE (13 KMS)</b>							
1	XPLE covered AAAC (Nominal Area 55 sq mm) conductor as per TS			Km.	40.95			
2	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm, D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	1.43			
3	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	182.00			
4	11 kV, 70 KN B&S disc insulator complete with all Hardware & accessories as per TS			No.	104.00			
5	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator			No.	182.00			
6	Nuts & Bolts ,Washers (plain and spring)			MT	0.14			
7	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attatch Anchor Plate to Anchor Rod) to complete 11 kV stay set			Set	52.00			
8	Guy Strain Insulators designation 'C'			No.	52.00			
9	Stay wire (7/8 SWG or 7/4 mm )			Kg.	310.96			
10	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	52.00			
11	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	1788.15			
	<b>Sub-Total (E1)</b>							
<b>E2</b>	<b>NEW 11KV LINE USING XLPE INSULATED AAAC CONDUCTOR OF 55 SQ.MM SIZE (17 kms)</b>							
1	XPLE covered AAAC (Nominal Area 55 sq mm) conductor as per TS			Km.	53.55			
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	408.00			
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm, D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	19.55			
4	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	1173.00			



5	11 kV , 70 KN B&S disc insulator complete with all Hardware & accessories as per TS		No.	714.00				
6	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator		No.	1173.00				
7	Nuts & Bolts ,Washers (plain and spring)		MT	1.96				
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 11 kV stay set		Set	170.00				
9	Guy Strain Insulators designation 'C'		No.	170.00				
10	Stay wire (7/8 SWG or 7/4 mm )		Kg.	1016.77				
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS		Set	68.00				
12	GI WIRE 8 SWG for earthing & guarding purpose		Kg.	2338.35				
	<b>Sub-Total (E2)</b>							
<b>E3</b>	<b>NEW LT LINE USING XLPE INSULATED AB CABLE OF 3C*35SQ.M+35 SQ.MM (21 kms)</b>							
1	LT 3C X 35 + 35 (Insulated messenger wire) Sq.mm XLPE insulated AB cable with aluminium for phase conductor and aluminium alloy for messenger wire.		Km.	23.10				
2	8 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-15)		No.	588.00				
3	Fabrication and Supply of M.S. Galvanised items - clamp for eye-hook, Stay clamps, clamp for earth wire etc complete as required.		MT	2.94				
4	Suspension clamp suitable to 35 sq. mm insulated messenger wire for LT AB Cable		No.	294.00				
5	Anchor clamp suitable to 35 sq. mm insulated messenger wire for LT AB Cable		No.	294.00				
6	Support hook for suspension / anchor clamps to be used for AB cable		No.	588.00				
7	Nuts & Bolts ,Washers (plain and spring)		MT	0.29				
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete LT stay set		Set	210.00				
9	Guy Strain Insulators designation 'A'		No.	210.00				
10	Stay wire (7/12 SWG or 7/2.5 mm )		Kg.	623.49				
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS		Set	84.00				
12	GI WIRE 8 SWG for earthing & guarding purpose		Kg.	2888.55				

	<b>Sub-Total (E3)</b>								
<b>E4</b>	<b>REPLACEMENT OF BARE CONDUTOR OF EXISTING LT LINE BY AB CABLE OF 3C*35SQ.MM+35SQ.MM (39 kms)</b>								
1	LT 3C X 35 + 35 (Insulated messenger wire) Sq.mm XLPE insulated AB cable with aluminium for phase conductor and aluminium alloy for messenger wire.			Km.	42.90				
2	Fabrication and Supply of M.S. Galvanised items - clamp for eye-hook, Stay clamps, clamp for earth wire etc complete as required.			MT	5.46				
3	Suspension clamp suitable to 35 <b>sq. mm insulated messenger wire</b> for LT AB Cable			No.	546.00				
4	Anchor clamp suitable to 35 <b>sq. mm insulated messenger wire for LT AB Cable</b>			No.	546.00				
5	Support hook for suspension / anchor clamps to be used for AB cable			No.	1092.00				
6	Nuts & Bolts ,Washers (plain and spring)			MT	0.55				
7	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete LT stay set			Set	195.00				
8	Guy Strain Insulators designation 'A'			No.	195.00				
9	Stay wire (7/12 SWG or 7/2.5 mm )			Kg.	579.15				
10	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	156.00				
11	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	5364.46				
	<b>Sub-Total (E4)</b>								
<b>E5</b>	<b>ADDITIONAL 8MTR LONG STP IN EXISTING LT LINE (120 nos)</b>								
1	8 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-15)			No.	120.00				
2	Fabrication and Supply of M.S Galvanised items - clamp for eye-hook, Stay clamps, clamp for earth wire etc complete as required.			KG	600.00				
3	Suspension clamp suitable to 35 <b>sq. mm insulated messenger wire</b> for LT AB Cable			No.	120.00				
4	Support hook for suspension / anchor clamps to be used for AB cable			No.	120.00				
5	Nuts & Bolts ,Washers (plain and spring)			KG	60.00				
	<b>Sub-Total (E5)</b>								



<b>E9</b>	<b>NEW STAY SETS FOR EXISTING 11 kV LINE (50 sets)</b>								
1	Fabrication and Supply of M.S. Galvanised items- Stay clamps			Kg.	250.00				
2	Nuts & Bolts ,Washers (plain and spring)			Kg.	25.00				
3	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to <b>complete 11 kV stay set</b>			Set	50.00				
4	Guy Strain Insulators designation 'C'			No.	50.00				
5	Stay wire (7/8 SWG or 7/4 mm )			Kg.	299.00				
	<b>Sub-Total (E9)</b>								
<b>E10</b>	<b>NEW 3-PHASE DISTRIBUTION TRANSFORMERS</b>								
1	Supply of 25 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core & copper winding along with all accessories as per TS			No.	3.00				
2	Supply of 50 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding & conservator along with all accessories as per TS			No.	7.00				
3	Supply of 100 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding ,conservator and externally operated tap changer along with all accessories as per TS			No.	3.00				
4	Supply of 9 kV, 1 phase, 5 KA <b>porcelain housing LA</b> with dis-connector with all accessories as per TS			No.	39.00				
5	Supply of 11 kV, 3 phase, 400 A Drop Out fuse with all accessories as per TS			Set	13.00				
6	Fabrication and Supply of M.S. Galvanised items for mounting of DT, LA, DO fuse etc			KG	1300.00				
7	Nuts & Bolts ,Washers (plain and spring)			KG	130.00				
8	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	39.00				
9	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 25 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	3.00				
10	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 50 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	7.00				

11	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 100 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	3.00				
12	3.5 core, 95+50 sq mm, 1.1 kV , PVC insulated, armoured cable with copper conductor to connect LT bushing to LTDB			Mtr	130.00				
13	Outdoor cable terminating kits suitable for 3.5 core, 95+50 sq mm, 1.1 kV , PVC insulated, armoured cable with copper conductor			Nos.	26.00				
	<b>Sub-Total (E10)</b>								
<b>E11</b>	<b>REPLACEMENT OF EXISTING 3 PHASE DISTRIBUTION TRANSFORMERS</b>								
1	Supply of 25 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core & copper winding along with all accessories as per TS			No.	2.00				
2	Supply of 50 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding & conservator along with all accessories as per TS			No	7.00				
3	Supply of 100 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding ,conservator and externally operated tap changer along with all accessories as per TS			No	4.00				
4	Supply of 200 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding ,conservator and externally operated tap changer along with all accessories as per TS			No	2.00				
5	Supply of 9 kV, 1 phase, 5 KA <b>porcelain housing LA</b> with disconnector with all accessories as per TS			No.	45.00				
6	Supply of 11 kV, 3 phase, 400 Amp. Drop Out fuse with all accessories as per TS			Set	15.00				
7	Fabrication and Supply of M.S. Galvanised items for mounting of DT, LA, DO fuse etc			KG	1500.00				
8	Nuts & Bolts ,Washers (plain and spring)			KG	150.00				
9	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	45.00				
10	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 25 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	2.00				

11	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 50 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS		No.	7.00				
12	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 100 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS		No.	4.00				
13	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 200 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS		No.	2.00				
14	3.5 core, 95+50 sq mm, 1.1 kV , PVC insulated, armoured cable with copper conductor to connect LT bushing to LTDB		Mtr	170.00				
15	Outdoor cable terminating kits suitable for 3.5 core, 95+50 sq mm, 1.1 kV , PVC insulated, armoured cable with copper conductor		No.	34.00				
	<b>Sub-Total (E11)</b>							
<b>E12</b>	<b>SHIFTING OF SERVICE CONNECTIONS (1990 nos)</b>							
1	Pole mounted service connection distribution box alongwith mounting clamp with capacity for 10 connections		No.	199.00				
2	Pole mounted GI clamp to anchor/support at least 10 service lines on pole		No.	199.00				
3	2x6 sq mm PVC insulated co-centric Aluminium service cable		Mtr	49750.00				
	<b>Sub-Total (E12)</b>							
	<b>Sub-Total (E)</b>							
<b>F</b>	<b>New 33/11 kV S/S (2x 6/8 MVA AT RATMATE )</b>							
1	Supply of 6/8 MVA, 33/11 kV ONAF, power transformer with On Load tap Changer & all accessories as per TS		No.	2				
2	Supply of 33 kV , 1250 Amp VCBs with structure and all accessories as per TS		No.	3				
3	Supply of 33 kV , 630 Amp gang operated <b>DBCR Isolator</b> (without earth switch)with all accessories as per TS		No.	4				
4	Supply of 33 kV , 630 Amp gang operated <b>DBCR Isolator</b> (with earth switch)with all accessories as per TS		No.	1				
5	Supply of 33 kV, 1 phase, 400-200/1-1 Amp <b>Current transformer</b> (alongwith all accessories & 1 Junction Box for 3 CTs) as per TS		No.	9				

6	Supply of 30 kV, 1 phase, 10 KA <b>porcelain housing LA</b> with Surge Monitor and all accessories as per TS		No.	12				
7	Supply of 9 kV, 1 phase, 10 KA <b>porcelain housing LA</b> with all accessories as per TS		No.	12				
8	Supply of (33/ $\sqrt{3}$ kV)/(110 / $\sqrt{3}$ Volts), <b>1 phase PT</b> (alongwith all accessories & 1 Junction Box for 3 single phase PTs) as per TS		No.	9				
9	33 kv <b>Bus Post Insulators</b> with fittings and accessories as per TS		No.	6				
10	Supply of 100 KVA, 33 kV/0.400 kV CRGO, Copper winding , station transformer along with all accessories as per TS		No.	1				
11	11 Mtr long Galvanised Steel Tubular Pole (410-SP-54) for Station transformer and DP structure for outgoing 11 kV feeders as per Technical Specification.		No.	10				
12	Galvanised fabricated structure for 33 kV bus & line gantry		MT	6.8				
13	Galvanised fabricated structure for station transformer, DP structure for outgoing 11 kV feeders, porcelain LA, Isolator, bus coupler isolator,CT & bus post insulator		MT	3.75				
14	Nuts, bolts, foundation bolts and washer and other accessories for structures.		MT	1.06				
15	70 KN B&S disc insulator string ( <b>one string consisting of 4 nos disc insulator</b> ) complete with all Hardware & accessories as per TS		Set	15				
16	Supply of ACSR Dog (for 33 kV bus, trf bays jumpers, droppers etc )		Meter	153.45				
17	100 sq.mm stranded bare copper conductor for main grid and raisers along with necessary lugs etc as per TS		Meter	250				
18	16 mm diamtere and 1.5-meter long (min.) copper clad steel and other accessories complete as per TS to be buried below ground and to be connected with earthmat (untreated)		Set	10				
19	Supply of 40 mm dia 3000 mm long GI pipe earth electrode with test link, RCC pit, RCC cover, placed on GI frame charcoal, salt and other accessories complete as per TS (treated for transformer, LA, tower with peak)		Set	25				
20	Supply of 20 mm dia, 3000 mm long GI Rod as earth electrodes for Un-Treated earthing with arrangement to fix raisers as per TS		Set	30				
21	Supply of 11 kV, XLPE insulated, armoured copper cable as per TS - 3Cx120 sq. mm.		Meter	560				
22	Out door termination kit suitable for termination of 11 kV for 3Cx120 sq. mm copper cable in cable box on 11kv side of transformer & DP structure of 11 kV out-going feeders		Set	8				
23	Supply of 33 kV, XLPE insulated, armoured copper single phase cable as per TS - 1Cx185 sq. mm.		Meter	3000				

24	Out door termination kit suitable for termination of 33 kV , 1Cx185 sq. mm copper cable to be used in 33 kV line			Set	30				
25	Supply of 1.1 kV, PVC insulated, armoured 3.5 Cx 50 Sq.mm Aluminium cable as per TS			Meter	75				
26	Supply of 1.1 kV, PVC insulated, armoured 4Cx16 Sq.mm Aluminium cable as per TS			Meter	150				
27	Supply of 1.1 kV PVC insulated, armoured 2C x 10 mm2 copper cable as per TS			Meter	60				
28	Supply of 1.1 kV PVC insulated, armoured 2C x 2.5 mm2 copper cable as per TS			Meter	210				
29	Supply of 1.1 kV PVC insulated, armoured 5C x 2.5 mm2 copper cable as per TS			Meter	720				
30	Supply of 1.1 kV PVC insulated, armoured 10C x 2.5 mm2 copper cable as per TS			Meter	360				
31	Supply of 1.1 kV PVC insulated, armoured 12C x 2.5 mm2 copper cable as per TS			Meter	100				
32	Supply of C&R panel for 6/8 MVA, 33/11 kV ONAF power transformer with On Load tap Changer alongwith all other mandatory requirement <b>as per TS</b>			No.	2				
33	Supply of C&R panel alongwith all other mandatory system required line protection) for <b>33 kV Line as per TS</b>			No.	1				
34	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs, PTs, Ammeter, Voltmeter, Relay & accessories complete as per TS for 11kV incomer feeder from transformer.			No.	2				
35	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs & accessories complete as per TS for Bus-Coupler. This include trunking panel if required.			No.	1				
36	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs, PTs, Ammeter, Voltmeter, Relay & accessories complete as per TS for 11kV outgoing feeder.			No.	4				
37	110 V, 240AH, Lead Acid type Battery Set and all other accessories complete			Set	1				
38	110 V, Float-Cum-Boost Battery Charger with full wave, full control rectification working on 50 Hz, single phase AC Input Voltage. The charger will be suitable to charge 110V, 240AH , Lead Acid Battery. The charger will be supplied alongwith connectors etc. for connection with 110V, 240AH Battery Set.			No.	1				
39	110V DC Distribution Box as per TS			No.	1				
40	400 volts AC Distribution board/panel of sheet steel enclosed cubical, floor mounting type for catering auxiliary power supply of the substation alongwith CT operated 3 phase 4 wire energymeter & CTs complete as per TS.			No.	1				
41	Supply of Bay Marshalling Kiosk as per TS			No.	1				



42	Lighting System complete for switchyard including main gate & substation boundary as per TS			Set	1			
43	Lighting System complete for Control room building as per TS			Set	1			
44	Clamp & Connectors etc for sub-station having <b>2 nos. 33/11 kV transformers, 1 no. 33 kV line</b>			Lot	1			
45	33 kV , 400 Amp,3 phase, vertical mounted AB switch for station transformer of existing 33kV line as per TS			Set	1			
46	33 kV, 3 phase DO fuse for station transformer as per TS			Set	1			
47	11 kV , 400 Amp,3 phase , vertical mounted AB switch for Outgoing DP as per TS			Set	4			
48	Dry Chemical Powder Type(6 Kg) for control room.			No.	1			
49	CO2 Type of 4.5Kg Capacity for Control Room.			No.	1			
50	CO2 Type Trolley Mounted of 22.5 Kg Capacity for Switch Yard.			No.	1			
51	Digital IR Tester (2kV-5kV)			No.	1			
52	Digital multimeter			No.	2			
53	Earth resistance tester			No.	1			
54	Stainless Steel Oil sampling bottle (One Litre Capacity)			No.	2			
55	11 kV Discharge Rod(1 set of 3 rods)			Set	1			
56	Battery Voltage Tester			No.	2			
57	33 kV Discharge Rod (1 set of 3 rods)			Set	1			
	<b>Sub-Total (F)</b>							
<b>G</b>	<b>New 33/11 kV S/S (1x 6/8 MVA AT KALIKASTHAN )</b>							
1	Supply of 6/8 MVA, 33/11 kV ONAF, power transformer with On Load tap Changer & all accessories as per TS			No.	1			
2	Supply of 33 kV , 1250 Amp VCBs with structure and all accessories as per TS			No.	2			
3	Supply of 33 kV , 630 Amp gang operated <b>DBCR Isolator</b> (without earth switch)with all accessories as per TS			No.	2			
4	Supply of 33 kV , 630 Amp gang operated <b>DBCR Isolator</b> (with earth switch)with all accessories as per TS			No.	1			
5	Supply of 33 kV, 1 phase, 400-200/1-1 Amp <b>Current transformer</b> (alongwith all accessories & 1 Junction Box for 3 CTs) as per TS			No.	6			
6	Supply of 30 kV, 1 phase, 10 KA <b>porcelain housing LA</b> with Surge Monitor and all accessories as per TS			No.	9			
7	Supply of 9 kV, 1 phase, 10 KA <b>porcelain housing LA</b> with all accessories as per TS			No.	12			
8	Supply of (33/√3 kV)/(110 /√3 Volts), <b>1 phase PT</b> (alongwith all accessories & 1 Junction Box for 3 single phase PTs) as per TS			No.	6			

9	33 kv <b>Bus Post Insulators</b> with fittings and accessories as per TS		No.	3				
10	Supply of 100 KVA, 33 kV/0.400 kV CRGO, Copper winding , station transformer along with all accessories as per TS		No.	1				
11	11 Mtr long Galvanised Steel Tubular Pole (410-SP-54) for Station transformer and DP structure for outgoing 11 kV feeders as per Technical Specification.		No.	10				
12	Galvanised fabricated structure for 33 kV bus & line gantry		MT	5.1				
13	Galvanised fabricated structure for station transformer, DP structure for outgoing 11 kV feeders, porcelain LA, Isolator, bus coupler isolator, CT & bus post insulator		MT	2.85				
14	Nuts, bolts, foundation bolts and washer and other accessories for structures.		MT	0.8				
15	70 KN B&S disc insulator string ( <b>one string consisting of 4 nos disc insulator</b> ) complete with all Hardware & accessories as per TS		Set	9				
16	Supply of ACSR Dog (for 33 kV bus, trf bays jumpers, droppers etc )		Meter	50				
17	100 sq.mm stranded bare copper conductor for main grid and raisers along with necessary lugs etc as per TS		Meter	250				
18	16mm diamtere and 1.5-meter long (min.) copper clad steel and other accessories complete as per TS to be buried below ground and to be connected with earthmat (untreated)		Set	10				
19	Supply of 40 mm dia 3000 mm long GI pipe earth electrode with test link, RCC pit, RCC cover, placed on GI frame charcoal, salt and other accessories complete as per TS (treated for transformer, LA, tower with peak)		Set	25				
20	Supply of 20 mm dia, 3000 mm long GI Rod as earth electrodes for Un-Treated earthing with arrangement to fix raisers as per TS		Set	30				
21	Supply of 11 kV, XLPE insulated, armoured copper cable as per TS - 3Cx120 sq. mm.		Meter	420				
22	Out door termination kit suitable for termination of 11 kV for 3Cx120 sq. mm copper cable in cable box on 11kv side of transformer & DP structure of 11 kV out-going feeders		Set	6				
23	Supply of 33 kV, XLPE insulated, armoured copper single phase cable as per TS - 1Cx185 sq. mm.		Meter	3000				
24	Out door termination kit suitable for termination of 33 kV , 1Cx185 sq. mm copper cable to be used in 33 kV line		Set	30				
25	Supply of 1.1 kV, PVC insulated, armoured 3.5 Cx 50 Sq.mm Aluminium cable as per TS		Meter	75				
26	Supply of 1.1 kV, PVC insulated, armoured 4Cx16 Sq.mm Aluminium cable as per TS		Meter	100				
27	Supply of 1.1 kV PVC insulated, armoured 2C x 10 mm2 copper cable as per TS		Meter	40				

28	Supply of 1.1 kV PVC insulated, armoured 2C x 2.5 mm2 copper cable as per TS			Meter	140			
29	Supply of 1.1 kV PVC insulated, armoured 5C x 2.5 mm2 copper cable as per TS			Meter	480			
30	Supply of 1.1 kV PVC insulated, armoured 10C x 2.5 mm2 copper cable as per TS			Meter	240			
31	Supply of 1.1 kV PVC insulated, armoured 12C x 2.5 mm2 copper cable as per TS			Meter	65			
32	Supply of C&R panel for 6/8 MVA, 33/11 kV ONAF power transformer with On Load tap Changer alongwith all other mandatory requirement <b>as per TS</b>			No.	1			
33	Supply of C&R panel alongwith all other mandatory system required line protection) for <b>33 kV Line as per TS</b>			No.	1			
34	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs, PTs, Ammeter, Voltmeter, Relay & accessories complete as per TS for 11kV incomer feeder from transformer.			No.	1			
35	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs & accessories complete as per TS for Bus-Coupler. This include trunking panel if required.			No.	0			
36	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs, PTs, Ammeter, Voltmeter, Relay & accessories complete as per TS for 11kV outgoing feeder.			No.	4			
37	110 V, 240AH, Lead Acid type Battery Set and all other accessories complete			Set	1			
38	110 V, Float-Cum-Boost Battery Charger with full wave, full control rectification working on 50 Hz, single phase AC Input Voltage. The charger will be suitable to charge 110V, 240AH, Lead Acid Battery. The charger will be supplied alongwith connectors etc. for connection with 110V, 240AH Battery Set.			No.	1			
39	110V DC Distribution Box as per TS			No.	1			
40	400 volts AC Distribution board/panel of sheet steel enclosed cubical, floor mounting type for catering auxiliary power supply of the substation alongwith CT operated 3 phase 4 wire energymeter & CTs complete as per TS.			No.	1			
41	Supply of Bay Marshalling Kiosk as per TS			No.	1			
42	Lighting System complete for switchyard including main gate & substation boundary as per TS			Set	1			
43	Lighting System complete for Control room building as per TS			Set	1			
44	Clamp & Connectors etc for sub-station having <b>1 nos. 33/11 kV transformers, 1 no. 33 kV line</b>			Lot	1			
45	33 kV, 400 Amp, 3 phase, vertical mounted AB switch for station transformer as per TS			Set	1			
46	33 kV, 3 phase DO fuse for station transformer as per TS			Set	1			



**Design, Supply and Installation of Electrification Component works consisting of 33/11kV New Substations and associated 33kV, 11kV & 0.4kV Lines under Reconstruction & Improvement of Electricity in Earthquake Affected Districts of Rasuwa and Nuwakot**

(Schedule of rates and prices)

Bidder's Name & Address:

Local Transportation, Insurance and other incidental services (including port clearance etc.) applicable for supply of Plant & Equipment.

1	2	3	4	5	6	7	8 = 6 x 7
Sl. No.	Item Description	Country of Origin	Type & Designation	Unit	Quantity	Unit Price (NPR)	Total Price (NPR)
<b>A</b>	<b>Construction of new 33kV Single Ckt Line for Kalikasthan Substation (5 kms)</b>						
1	Supply of ACSR Dog Conductor (100 Sq mm)			Km.	15.75		
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	120.00		
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm, D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	7.45		
4	33 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	330.00		
5	70 KN B&S disc insulator string ( one string consisting of 3 nos disc insulator) complete with all Hardware & accessories as per TS			No.	240.00		
6	Preformed insulator bindings (suitable for ACSR conductor) for 33 kV pin insulator			No.	330.00		
7	Nuts & Bolts ,Washers (plain and spring)			MT	0.75		

8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 33 kV stay set			Set	50.00		
9	Guy Strain Insulators designation 'C'			No.	100.00		
10	Stay wire (7/8 SWG or 7/4 mm )			Kg.	456.25		
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	20.00		
12	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	835.15		
	<b>Sub- Total (A)</b>						
<b>B</b>	<b>Construction of new 33kV Single Ckt Line for Ratmate Substation (2 kms)</b>						
1	Supply of ACSR Dog Conductor (100 Sq mm)			Km.	6.30		
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	48.00		
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	2.98		
4	33 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	132.00		
5	70 KN B&S disc insulator string ( one string consisting of 3 nos disc insulator) complete with all Hardware & accessories as per TS			No.	96.00		
6	Preformed insulator bindings (suitable for ACSR conductor) for 33 kV pin insulator			No.	132.00		
7	Nuts & Bolts ,Washers (plain and spring)			MT	0.30		
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 33 kV stay set			Set	20.00		
9	Guy Strain Insulators designation 'C'			No.	40.00		
10	Stay wire (7/8 SWG or 7/4 mm )			Kg.	182.50		

11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	8.00		
12	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	334.06		
13	33 kV , 400 Amp,3 phase, vertical mounted AB switch for tapping point of existing 33kV line as per TS			No.	1.00		
	<b>Sub- Total (B)</b>						
<b>C</b>	<b>11 kV HT LINE USING XLPE COVERED CONDUCTOR FROM KALIKASTHAN SUBSTATION (4 kms)</b>						
1	XPLE covered AAAC (Nominal Area 55 sq mm) conductor as per TS			km	12.60		
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	96.00		
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm, D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	4.60		
4	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			MT	276.00		
5	11 kV , 70 KN B&S disc insulator complete with all Hardware & accessories as per TS			No.	168.00		
6	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator			No.	276.00		
7	Nuts & Bolts ,Washers (plain and spring)				0.46		
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 11 kV stay set			Set	40.00		
9	Guy Strain Insulators designation 'C'			No.	40.00		
10	Stay wire (7/8 SWG or 7/4 mm )			Set	239.24		
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	16.00		
12	GI WIRE 8 SWG for earthing & guarding purpose			kg	550.20		

	<b>Sub-Total( C )</b>						
<b>D</b>	<b>11 kV HT LINE USING XLPE COVERED CONDUCTOR FROM RATMATE SUBSTATION (6 kms)</b>						
1	XPLE covered AAAC (Nominal Area 55 sq mm) conductor as per TS			km	18.90		
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	144.00		
3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	6.90		
4	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			MT	414.00		
5	11 kV , 70 KN B&S disc insulator complete with all Hardware & accessories as per TS			No.	252.00		
6	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator			No.	414.00		
7	Nuts & Bolts ,Washers (plain and spring)				0.69		
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 11 kV stay set			Set	60.00		
9	Guy Strain Insulators designation 'C'			No.	60.00		
10	Stay wire (7/8 SWG or 7/4 mm )			Set	358.86		
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	24.00		
12	GI WIRE 8 SWG for earthing & guarding purpose			Kg	825.30		
	<b>Sub-Total( D )</b>						
<b>E</b>	<b>STRENGTHENING OF DISTRIBUTION NETWORK IN DHUNCHE, GOLJUNG,GATLANG, GREY, HAKU, TIRU AND KALIKASTHAN</b>						



<b>E1</b>	<b>REPLACEMENT OF BARE CONDUCTOR OF EXISTING 11kV LINE (13 KMS)</b>						
1	XPPE covered AAAC (Nominal Area 55 sq mm) conductor as per TS			Km.	40.95		
2	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	1.43		
3	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	182.00		
4	11 kV , 70 KN B&S disc insulator complete with all Hardware & accessories as per TS			No.	104.00		
5	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator			No.	182.00		
6	Nuts & Bolts ,Washers (plain and spring)			MT	0.14		
7	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 11 kV stay set			Set	52.00		
8	Guy Strain Insulators designation 'C'			No.	52.00		
9	Stay wire (7/8 SWG or 7/4 mm )			Kg.	310.96		
10	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	52.00		
11	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	1788.15		
	<b>Sub-Total (E1)</b>						
<b>E2</b>	<b>NEW 11kV LINE USING XLPE INSULATED AAAC CONDUCTOR OF 55 SQ.MM SIZE (17 kms)</b>						
1	XPPE covered AAAC (Nominal Area 55 sq mm) conductor as per TS			Km.	53.55		
2	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	408.00		

3	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			MT	19.55		
4	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	1173.00		
5	11 kV , 70 KN B&S disc insulator complete with all Hardware & accessories as per TS			No.	714.00		
6	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator			No.	1173.00		
7	Nuts & Bolts ,Washers (plain and spring)			MT	1.96		
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete 11 kV stay set			Set	170.00		
9	Guy Strain Insulators designation 'C'			No.	170.00		
10	Stay wire (7/8 SWG or 7/4 mm )			Kg.	1016.77		
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	68.00		
12	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	2338.35		
	<b>Sub-Total (E2)</b>						
<b>E3</b>	<b>NEW LT LINE USING XLPE INSULATED AB CABLE OF 3C*35SQ.M+35 SQ.MM (21 kms)</b>						
1	LT 3C X 35 + 35 (Insulated messenger wire) Sq.mm XLPE insulated AB cable with aluminium for phase conductor and aluminium alloy for messenger wire.			Km.	23.10		
2	8 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-15)			No.	588.00		
3	Fabrication and Supply of M.S. Galvanised items - clamp for eye-hook, Stay clamps, clamp for earth wire etc complete as required.			MT	2.94		
4	Suspension clamp suitable to 35 sq. mm insulated messenger wire for LT AB Cable			No.	294.00		

5	Anchor clamp suitable to <b>35 sq. mm insulated messenger wire for LT AB Cable</b>			No.	294.00		
6	Support hook for suspension / anchor clamps to be used for AB cable			No.	588.00		
7	Nuts & Bolts ,Washers (plain and spring)			MT	0.29		
8	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete LT stay set			Set	210.00		
9	Guy Strain Insulators designation 'A'			No.	210.00		
10	Stay wire (7/12 SWG or 7/2.5 mm )			Kg.	623.49		
11	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	84.00		
12	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	2888.55		
	<b>Sub-Total (E3)</b>						
<b>E4</b>	<b>REPLACEMENT OF BARE CONDUTOR OF EXISTING LT LINE BY AB CABLE OF 3C*35SQ.MM+35SQ.MM (39 kms)</b>						
1	LT 3C X 35 + 35 (Insulated messenger wire) Sq.mm XLPE insulated AB cable with aluminium for phase conductor and aluminium alloy for messenger wire			Km.	42.90		
2	Fabrication and Supply of M.S. Galvanised items - clamp for eye-hook, Stay clamps, clamp for earth wire etc complete as required.			MT	5.46		
3	Suspension clamp suitable to <b>35 sq. mm insulated messenger wire for LT AB Cable</b>			No.	546.00		
4	Anchor clamp suitable to <b>35 sq. mm insulated messenger wire for LT AB Cable</b>			No.	546.00		
5	Support hook for suspension / anchor clamps to be used for AB cable			No.	1092.00		
6	Nuts & Bolts ,Washers (plain and spring)			MT	0.55		
7	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to complete LT stay set			Set	195.00		
8	Guy Strain Insulators designation 'A'			No.	195.00		

9	Stay wire (7/12 SWG or 7/2.5 mm )			Kg.	579.15		
10	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	156.00		
11	GI WIRE 8 SWG for earthing & guarding purpose			Kg.	5364.46		
	<b>Sub-Total (E4)</b>						
<b>E5</b>	<b>ADDITIONAL 8MTR LONG STP IN EXISTING LT LINE (120 nos)</b>						
1	8 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-15)			No.	120.00		
2	Fabrication and Supply of M.S Galvanised items - clamp for eye-hook, Stay clamps, clamp for earth wire etc complete as required.			KG	600.00		
3	Suspension clamp suitable to 35 sq. mm insulated messenger wire for LT AB Cable			No.	120.00		
4	Support hook for suspension / anchor clamps to be used for AB cable			No.	120.00		
5	Nuts & Bolts ,Washers (plain and spring)			KG	60.00		
	<b>Sub-Total (E5)</b>						
<b>E6</b>	<b>REPLACEMENT OF DAMAGED POLES BY 11MTR LONG STP IN EXISTING 11kV LINE (10 nos)</b>						
1	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	10.00		
2	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			KG	572.50		
3	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	30.00		
4	Preformed insulator bindings (suitable for ACSR conductor) for 33 kV pin insulator			No.	30.00		
5	Nuts & Bolts ,Washers (plain and spring)			KG	57.25		
	<b>Sub-Total (E6)</b>						

<b>E7</b>	<b>REPLACEMENT OF WOODEN POLES BY NEW 8 MTR LONG STP IN EXISTING LT LINE (60 nos)</b>						
1	8 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-15)			No.	60.00		
2	Fabrication and Supply of M.S Galvanised items - clamp for eye-hook, Stay clamps, clamp for earth wire etc complete as required.			KG	300.00		
3	Suspension clamp suitable to 35 sq. mm insulated messenger wire for LT AB Cable			No.	60.00		
4	Support hook for suspension / anchor clamps to be used for AB cable			No.	60.00		
5	Nuts & Bolts ,Washers (plain and spring)			KG	30.00		
	<b>Sub-Total (E7)</b>						
<b>E8</b>	<b>ADDITIONAL 11 MTR LONG STP IN EXISTING 11 kV LINE (25 nos)</b>						
1	11 mtr long Galvanised Steel Tubular Pole of 410 grade (410 SP-54)			No.	25.00		
2	Fabrication and Supply of M.S. Galvanised items- Pole Top Bracket, V-Cross arm, Back Clamps for V-Cross arm , D P Channel, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, Guarding arm etc complete as required.			KG	1431.25		
3	11 kV Porcelain pin Insulator with 900 mm creepage distance alongwith 10 KN Pin, nut and washers complete as per TS			No.	75.00		
4	Preformed insulator bindings (suitable for ACSR conductor) for 11 kV pin insulator			No.	75.00		
5	Nuts & Bolts ,Washers (plain and spring)			KG	143.13		
	<b>Sub-Total (E8)</b>						
<b>E9</b>	<b>NEW STAY SETS FOR EXISTING 11 kV LINE (50 sets)</b>						
1	Fabrication and Supply of M.S. Galvanised items- Stay clamps			Kg.	250.00		
2	Nuts & Bolts ,Washers (plain and spring)			Kg.	25.00		

3	Hardware Fittings ( 1 set consists of Anchor plate - 1 no., Anchor rod - 1 no., Turnbuckle -1 no., Thimbles -2 nos., Guy grips - 4 nos., fasteners to attach Anchor Plate to Anchor Rod) to <b>complete 11 kV stay set</b>			Set	50.00		
4	Guy Strain Insulators designation 'C'			No.	50.00		
5	Stay wire (7/8 SWG or 7/4 mm )			Kg.	299.00		
	<b>Sub-Total (E9)</b>						
<b>E10</b>	<b>NEW 3-PHASE DISTRIBUTION TRANSFORMERS</b>						
1	Supply of 25 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core & copper winding along with all accessories as per TS			No.	3.00		
2	Supply of 50 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding & conservator along with all accessories as per TS			No.	7.00		
3	Supply of 100 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding ,conservator and externally operated tap changer along with all accessories as per TS			No.	3.00		
4	Supply of 9 kV, 1 phase, 5 KA <b>porcelain housing LA</b> with disconnecter with all accessories as per TS			No.	39.00		
5	Supply of 11 kV, 3 phase, 400 A Drop Out fuse with all accessories as per TS			Set	13.00		
6	Fabrication and Supply of M.S. Galvanised items for mounting of DT, LA, DO fuse etc			KG	1300.00		
7	Nuts & Bolts ,Washers (plain and spring)			KG	130.00		
8	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	39.00		
9	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 25 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	3.00		

10	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 50 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	7.00		
11	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 100 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	3.00		
12	3.5 core, 95+50 sq mm, 1.1 kV , PVC insulated, armoured cable with copper conductor to connect LT bushing to LTDB			Mtr	130.00		
13	Outdoor cable terminating kits suitable for 3.5 core, 95+50 sq mm, 1.1 kV , PVC insulated, armoured cable with copper conductor			Nos.	26.00		
	<b>Sub-Total (E10)</b>						
<b>E11</b>	<b>REPLACEMENT OF EXISTING 3 PHASE DISTRIBUTION TRANSFORMERS</b>						
1	Supply of 25 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core & copper winding along with all accessories as per TS			No.	2.00		
2	Supply of 50 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding & conservator along with all accessories as per TS			No	7.00		
3	Supply of 100 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding ,conservator and externally operated tap changer along with all accessories as per TS			No	4.00		
4	Supply of 200 KVA, 11 kV/0.400 kV, 3 phase distribution transformer with CRGO core, copper winding ,conservator and externally operated tap changer along with all accessories as per TS			No	2.00		
5	Supply of 9 kV, 1 phase, 5 KA <b>porcelain housing LA</b> with dis-connector with all accessories as per TS			No.	45.00		

6	Supply of 11 kV, 3 phase, 400 Amp. Drop Out fuse with all accessories as per TS			Set	15.00		
7	Fabrication and Supply of M.S. Galvanised items for mounting of DT, LA, DO fuse etc			KG	1500.00		
8	Nuts & Bolts ,Washers (plain and spring)			KG	150.00		
9	Supply of 40 mm dia 3000 mm long GI pipe (medium grade) earth electrodes alongwith clamping arrangement to connect 8 SWG GI wire as per TS			Set	45.00		
10	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 25 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	2.00		
11	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 50 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	7.00		
12	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 100 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	4.00		
13	LT Distribution box (compatible to IP-55 enclosure protection) with suitable rated MCB for incomer & MCCB for 4 <b>no. 3 phase</b> outgoing LT feeders suitable for 3-Phase <b>11/0.400 kV, 200 kVA, Distribution Transformer</b> suitable for pole mounting without energy meter as per TS			No.	2.00		
14	3.5 core, 95+50 sq mm, 1.1 kV , PVC insulated, armoured cable with copper conductor to connect LT bushing to LTDB			Mtr	170.00		
15	Outdoor cable terminating kits suitable for 3.5 core, 95+50 sq mm, 1.1 kV , PVC insulated, armoured cable with copper conductor			No.	34.00		
	<b>Sub-Total (E11)</b>						
<b>E12</b>	<b>SHIFTING OF SERVICE CONNECTIONS (1990 nos)</b>						



1	Pole mounted service connection distribution box alongwith mounting clamp with capacity for 10 connections			No.	199.00		
2	Pole mounted GI clamp to anchor/support at least 10 service lines on pole			No.	199.00		
3	2x6 sq mm PVC insulated co-centric Aluminium service cable			Mtr	49750.00		
	<b>Sub-Total (E12)</b>						
	<b>Sub-Total (E)</b>						
<b>F</b>	<b>New 33/11 kV S/S (2x 6/8 MVA AT RATMATE )</b>						
1	Supply of 6/8 MVA, 33/11 kV ONAF, power transformer with On Load tap Changer & all accessories as per TS			No.	2		
2	Supply of 33 kV , 1250 Amp VCBs with structure and all accessories as per TS			No.	3		
3	Supply of 33 kV , 630 Amp gang operated <b>DBCR Isolator</b> (without earth switch)with all accessories as per TS			No.	4		
4	Supply of 33 kV , 630 Amp gang operated <b>DBCR Isolator</b> (with earth switch)with all accessories as per TS			No.	1		
5	Supply of 33 kV, 1 phase, 400-200/1-1 Amp <b>Current transformer</b> (alongwith all accessories & 1 Junction Box for 3 CTs) as per TS			No.	9		
6	Supply of 30 kV, 1 phase, 10 KA <b>porcelain housing LA</b> with Surge Monitor and all accessories as per TS			No.	12		
7	Supply of 9 kV, 1 phase, 10 KA <b>porcelain housing LA</b> with all accessories as per TS			No.	12		
8	Supply of (33/ $\sqrt{3}$ kV)/(110 / $\sqrt{3}$ Volts), <b>1 phase PT</b> (alongwith all accessories & 1 Junction Box for 3 single phase PTs) as per TS			No.	9		
9	33 kv <b>Bus Post Insulators</b> with fittings and accessories as per TS			No.	6		
10	Supply of 100 KVA, 33 kV/0.400 kV CRGO, Copper winding , station transformer along with all accessories as per TS			No.	1		
11	11 Mtr long Galvanised Steel Tubular Pole (410-SP-54) for Station transformer and DP structure for outgoing 11 kV feeders as per Technical Specification.			No.	10		
12	Galvanised fabricated structure for 33 kV bus & line gantry			MT	6.8		

13	Galvanised fabricated structure for station transformer, DP structure for outgoing 11 kV feeders, porceclain LA, Isolator, bus coupler isolator,CT & bus post insulator			MT	3.75		
14	Nuts, bolts, foundation bolts and washer and other accessories for structures.			MT	1.06		
15	70 KN B&S disc insulator string ( <b>one string consisting of 4 nos</b>			Set	15		
16	Supply of ACSR Dog (for 33 kV bus, trf bays jumpers, droppers etc )			Meter	153.45		
17	100 sq.mm stranded bare copper conductor for main grid and raisers along with necessary lugs etc as per TS			Meter	250		
18	16 mm diamtere and 1.5-meter long (min.) copper clad steel and other accessories complete as per TS to be buried below ground and to be connected with earthmat (untreated)			Set	10		
19	Supply of 40 mm dia 3000 mm long GI pipe earth electrode with test link, RCC pit, RCC cover, placed on GI frame charcoal, salt and other accessories complete as per TS (treated for transformer, LA, tower with peak)			Set	25		
20	Supply of 20 mm dia, 3000 mm long GI Rod as earth electrodes for Un-Treated earthing with arrangement to fix raisers as per TS			Set	30		
21	Supply of 11 kV, XLPE insulated, armoured copper cable as per TS - 3Cx120 sq. mm.			Meter	560		
22	Out door termination kit suitable for termination of 11 kV for 3Cx120 sq. mm copper cable in cable box on 11kv side of transformer & DP structure of 11 kV out-going feeders			Set	8		
23	Supply of 33 kV, XLPE insulated, armoured copper single phase cable as per TS - 1Cx185 sq. mm.			Meter	3000		
24	Out door termination kit suitable for termination of 33 kV , 1Cx185 sq. mm copper cable to be used in 33 kV line			Set	30		
25	Supply of 1.1 kV, PVC insulated, armoured 3.5 Cx 50 Sq.mm Aluminium cable as per TS			Meter	75		
26	Supply of 1.1 kV, PVC insulated, armoured 4Cx16 Sq.mm Aluminium cable as per TS			Meter	150		
27	Supply of 1.1 kV PVC insulated, armoured 2C x 10 mm <sup>2</sup> copper cable as per TS			Meter	60		
28	Supply of 1.1 kV PVC insulated, armoured 2C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	210		

29	Supply of 1.1 kV PVC insulated, armoured 5C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	720		
30	Supply of 1.1 kV PVC insulated, armoured 10C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	360		
31	Supply of 1.1 kV PVC insulated, armoured 12C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	100		
32	Supply of C&R panel for 6/8 MVA, 33/11 kV ONAF power transformer with On Load tap Changer alongwith all other mandatory requirement <b>as per TS</b>			No.	2		
33	Supply of C&R panel alongwith all other mandatory system required line protection) for <b>33 kV Line as per TS</b>			No.	1		
34	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs, PTs, Ammeter, Voltmeter, Relay & accessories complete as per TS for 11kV incomer feeder from transformer.			No.	2		
35	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs & accessories complete as per TS for Bus-Coupler. This include trunking panel if required.			No.	1		
36	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs, PTs, Ammeter, Voltmeter, Relay & accessories complete as per TS for 11kV outgoing feeder.			No.	4		
37	110 V, 240AH, Lead Acid type Battery Set and all other accessories complete			Set	1		
38	110 V, Float-Cum-Boost Battery Charger with full wave, full control rectification working on 50 Hz, single phase AC Input Voltage. The charger will be suitable to charge 110V, 240AH, Lead Acid Battery. The charger will be supplied alongwith connectors etc. for connection with 110V, 240AH Battery Set.			No.	1		
39	110V DC Distribution Box as per TS			No.	1		
40	400 volts AC Distribution board/panel of sheet steel enclosed cubical, floor mounting type for catering auxiliary power supply of the substation alongwith CT operated 3 phase 4 wire energymeter & CTs complete as per TS.			No.	1		
41	Supply of Bay Marshalling Kiosk as per TS			No.	1		
42	Lighting System complete for switchyard including main gate & substation boundary as per TS			Set	1		

43	Lighting System complete for Control room building as per TS			Set	1		
44	Clamp & Connectors etc for sub-station having <b>2 nos. 33/11 kV transformers, 1 no. 33 kV line</b>			Lot	1		
45	33 kV , 400 Amp,3 phase, vertical mounted AB switch for station transformer of existing 33kV line as per TS			Set	1		
46	33 kV, 3 phase DO fuse for station transformer as per TS			Set	1		
47	11 kV , 400 Amp,3 phase , vertical mounted AB switch for Outgoing DP as per TS			Set	4		
48	Dry Chemical Powder Type(6 Kg) for control room.			No.	1		
49	CO2 Type of 4.5Kg Capacity for Control Room.			No.	1		
50	CO2 Type Trolley Mounted of 22.5 Kg Capacity for Switch Yard.			No.	1		
51	Digital IR Tester (2kV-5kV)			No.	1		
52	Digital multimeter			No.	2		
53	Earth resistance tester			No.	1		
54	Stainless Steel Oil sampling bottle (One Litre Capacity)			No.	2		
55	11 kV Discharge Rod(1 set of 3 rods)			Set	1		
56	Battery Voltage Tester			No.	2		
57	33 kV Discharge Rod (1 set of 3 rods)			Set	1		
	<b>Sub-Total (F)</b>						
<b>G</b>	<b>New 33/11 kV S/S (1x 6/8 MVA AT KALIKASTHAN )</b>						
1	Supply of 6/8 MVA, 33/11 kV ONAF, power transformer with On Load tap Changer & all accessories as per TS			No.	1		
2	Supply of 33 kV , 1250 Amp VCBs with structure and all accessories as per TS			No.	2		
3	Supply of 33 kV , 630 Amp gang operated <b>DBCR Isolator</b> (without earth switch)with all accessories as per TS			No.	2		
4	Supply of 33 kV , 630 Amp gang operated <b>DBCR Isolator</b> (with earth switch)with all accessories as per TS			No.	1		
5	Supply of 33 kV, 1 phase, 400-200/1-1 Amp <b>Current transformer</b> (alongwith all accessories & 1 Junction Box for 3 CTs) as per TS			No.	6		
6	Supply of 30 kV, 1 phase, 10 KA <b>porcelain housing LA</b> with Surge Monitor and all accessories as per TS			No.	9		

7	Supply of 9 kV, 1 phase, 10 KA <b>porcelain housing LA</b> with all accessories as per TS			No.	12		
8	Supply of (33/ $\sqrt{3}$ kV)/(110 / $\sqrt{3}$ Volts), <b>1 phase PT</b> (alongwith all accessories & 1 Junction Box for 3 single phase PTs) as per TS			No.	6		
9	33 kv <b>Bus Post Insulators</b> with fittings and accessories as per TS			No.	3		
10	Supply of 100 KVA, 33 kV/0.400 kV CRGO, Copper winding , station transformer along with all accessories as per TS			No.	1		
11	11 Mtr long Galvanised Steel Tubular Pole (410-SP-54) for Station transformer and DP structure for outgoing 11 kV feeders as per Technical Specification.			No.	10		
12	Galvanised fabricated structure for 33 kV bus & line gantry			MT	5.1		
13	Galvanised fabricated structure for station transformer, DP structure for outgoing 11 kV feeders, porcelain LA, Isolator, bus coupler isolator, CT & bus post insulator			MT	2.85		
14	Nuts, bolts, foundation bolts and washer and other accessories for structures			MT	0.8		
15	70 KN B&S disc insulator string ( <b>one string consisting of 4 nos disc insulator</b> ) complete with all Hardware & accessories as per TS			Set	9		
16	Supply of ACSR Dog (for 33 kV bus, trf bays jumpers, droppers etc )			Meter	50		
17	100 sq.mm stranded bare copper conductor for main grid and raisers along with necessary lugs etc as per TS			Meter	250		
18	16mm diamtere and 1.5-meter long (min.) copper clad steel and other accessories complete as per TS to be buried below ground and to be connected with earthmat (untreated)			Set	10		
19	Supply of 40 mm dia 3000 mm long GI pipe earth electrode with test link, RCC pit, RCC cover, placed on GI frame charcoal, salt and other accessories complete as per TS (treated for transformer, LA, tower with peak)			Set	25		
20	Supply of 20 mm dia, 3000 mm long GI Rod as earth electrodes for Un-Treated earthing with arrangement to fix raisers as per TS			Set	30		
21	Supply of 11 kV, XLPE insulated, armoured copper cable as per TS - 3Cx120 sq. mm.			Meter	420		

22	Out door termination kit suitable for termination of 11 kV for 3Cx120 sq. mm copper cable in cable box on 11kv side of transformer & DP structure of 11 kV out-going feeders			Set	6		
23	Supply of 33 kV, XLPE insulated, armoured copper single phase cable as per TS - 1Cx185 sq. mm.			Meter	3000		
24	Out door termination kit suitable for termination of 33 kV , 1Cx185 sq. mm copper cable to be used in 33 kV line			Set	30		
25	Supply of 1.1 kV, PVC insulated, armoured 3.5 Cx 50 Sq.mm Aluminium cable as per TS			Meter	75		
26	Supply of 1.1 kV, PVC insulated, armoured 4Cx16 Sq.mm Aluminium cable as per TS			Meter	100		
27	Supply of 1.1 kV PVC insulated, armoured 2C x 10 mm <sup>2</sup> copper cable as per TS			Meter	40		
28	Supply of 1.1 kV PVC insulated, armoured 2C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	140		
29	Supply of 1.1 kV PVC insulated, armoured 5C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	480		
30	Supply of 1.1 kV PVC insulated, armoured 10C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	240		
31	Supply of 1.1 kV PVC insulated, armoured 12C x 2.5 mm <sup>2</sup> copper cable as per TS			Meter	65		
32	Supply of C&R panel for 6/8 MVA, 33/11 kV ONAF power transformer with On Load tap Changer alongwith all other mandatory requirement <b>as per TS</b>			No.	1		
33	Supply of C&R panel alongwith all other mandatory system required line protection) for <b>33 kV Line as per TS</b>			No.	1		
34	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs, PTs, Ammeter, Voltmeter, Relay & accessories complete as per TS for 11kV incomer feeder from transformer.			No.	1		
35	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs & accessories complete as per TS for Bus-Coupler. This include trunking panel if required.			No.	0		
36	Supply of 11 kV, 3-ph, 1250A, indoor type control and relay panel consisting of 12kV VCB, CTs, PTs, Ammeter, Voltmeter, Relay & accessories complete as per TS for 11kV outgoing feeder.			No.	4		

37	110 V, 240AH, Lead Acid type Battery Set and all other accessories complete			Set	1		
38	110 V, Float-Cum-Boost Battery Charger with full wave, full control rectification working on 50 Hz, single phase AC Input Voltage. The charger will be suitable to charge 110V, 240AH, Lead Acid Battery. The charger will be supplied alongwith connectors etc. for connection with 110V, 240AH Battery Set.			No.	1		
39	110V DC Distribution Box as per TS			No.	1		
40	400 volts AC Distribution board/panel of sheet steel enclosed cubical, floor mounting type for catering auxiliary power supply of the substation alongwith CT operated 3 phase 4 wire energymeter & CTs complete as per TS.			No.	1		
41	Supply of Bay Marshalling Kiosk as per TS			No.	1		
42	Lighting System complete for switchyard including main gate & substation boundary as per TS			Set	1		
43	Lighting System complete for Control room building as per TS			Set	1		
44	Clamp & Connectors etc for sub-station having 1 nos. <b>33/11 kV transformers, 1 no. 33 kV line</b>			Lot	1		
45	33 kV, 400 Amp,3 phase, vertical mounted AB switch for station transformer as per TS			Set	1		
46	33 kV, 3 phase DO fuse for station transformer as per TS			Set	1		
47	11 kV, 400 Amp,3 phase, vertical mounted AB switch for Outgoing DP			Set	4		
48	Dry Chemical Powder Type(6 Kg) for control room.			No.	1		
49	CO2 Type of 4.5Kg Capacity for Control Room.			No.	1		
50	CO2 Type Trolley Mounted of 22.5 Kg Capacity for Switch Yard.			No.	1		
51	Digital IR Tester (2kV-5kV)			No.	1		
52	Digital multi meter			No.	2		
53	Earth resistance tester			No.	1		
54	Stainless Steel Oil sampling bottle (One Litre Capacity)			No.	2		
55	11 kV Discharge Rod(1 set of 3 rods)			Set	1		
56	Battery Voltage Tester			No.	2		
57	33 kV Discharge Rod (1 set of 3 rods)			Set	1		
	<b>Sub-Total (G)</b>						

<b>H</b>	<b>New 11kV SWITCHING STATION AT DHUNCHE</b>						
1	Supply of 9 kV, 1 phase, 5 KA porcelain housing LA			Nos.	12		
2	Supply of 11 kV, 3 phase HG fuse			Set	4		
3	Supply of 11 kV, 400 Amp, 3 phase, vertical mounted AB switch			Set	5		
4	Supply of 11 mtrs long steel tubular poles of 410 grade (410 SP-54)			No.	14		
5	ACSR DOG Conductor			Km.	0.5		



**Design, Supply and Installation of Electrification Component works consisting of 33/11kV New Substations and associated 33kV, 11kV & 0.4kV Lines under Reconstruction & Improvement of Electricity  
(Schedule of rates and prices)**

Bidder's Name & Address:

**Installation Charges**

1	2	5	6.00	10	11 = 6 x 10
Sl. No.	Item Description	Unit	Quantity	Portion in Local Currency	
				Unit Price (NPR)	Total Price (NPR)
(1)	(2)	(4)			
<b>A</b>	<b>Construction of new 33kV Single Ckt Line for Kalikasthan Substation</b>				
1	Route survey and pole spotting of 11 KV line as per TS.	Km.	5.00		
2	Erection of 11 mts. long steel tubular pole including foundation with muffing and copas per approved drawing & TS. This includes supply of foundation material	No.	120.00		
3	Stringing of 3- ph 3-wire 33 kV S/C line with ACSR Dog conductor including installation of all fabricated material, insulators, hardware fittings, guarding along the line (in busy area and at various crossings), continuous earth wire along the line & jumpering etc. as per TS. This shall also include supply and installation of mid span joints, repair sleeves PG clamps, danger plate & anti-climbing device. Danger plate & anti-climbing device will be installed on all Double/four Pole structures and poles on both side of various crossings. Cost of the Danger plate & anti-climbing device is to be included in this item	Km	5.00		
4	11 kV Stay Set complete in all respect as per TS	Set	50.00		
5	Earthing of pole using 40 mm dia 3000 mm long pipe as earth electrodes in the pit treated with Charcoal & Salt (Alternatively Calcium Bentonite clay & black soil) as per TS. This includes supply of all materials required for completion of job except supply of 40 mm dia GI pipe which is included in supply portion.	Set	20.00		
	<b>Sub- Total (A)</b>				
<b>B</b>	<b>Construction of new 33kV Single Ckt Line for Ratmate Substation</b>				
1	Route survey and pole spotting of 11 KV line as per TS	Km.	2.00		
2	Erection of 11 mts. long steel tubular pole including foundation with muffing and copas per approved drawing & TS. This includes supply of foundation material	No.	48.00		

3	Stringing of 3- ph 3-wire 33 kV <b>S/C line with ACSR Dog</b> conductor including installation of all fabricated material, insulators, hardware fittings, guarding along the line <b>(in busy area and at various crossings)</b> , continous earth wire along the line & jumpering etc. as per TS. This shall also include supply and installation of mid span joints, repair sleeves PG clamps, danger plate & anti-climbing device. Danger plate & anti-climbing device will be installed on all Double/four Pole structures and poles on both side of various crossings. Cost of the Danger plate & anti-climbing device is to be included in this item.	Km	2.00		
4	11 kV Stay Set complete in all respect as per TS	Set	20.00		
5	Earthing of pole using 40 mm dia 3000 mm long pipe as earth electrodes in the pit treated with Charcoal & Salt (Alternatively Calcium Bentonite clay & black soil ) as per TS. This includes supply of all materials required for completion of job except supply of 40 mm dia GI pipe which is included in supply portion.	Set	8.00		
6	Erection of AB switch on double pole of 33kV Line at tapping point.	No.	1.00		
	<b>Sub- Total (B)</b>				
<b>C</b>	<b>11 kV HT LINE USING XLPE COVERED CONDUCTOR FROM KALIKASTHAN SUBSTATION</b>				
1	Route survey and pole spotting of 11 KV line as per TS.	Km.	4.00		
2	Erection of 11 mts. long steel tubular pole including foundation with muffing and copas per approved drawing & TS. This includes supply of foundation material	No.	96.00		
3	Stringing of 3- ph 3-wire 11 kV <b>S/C line with XLPE insulated AAAC</b> conductor of 55 sq mm size, including installation of all fabricated material, insulators, hardware fittings, guarding along the line <b>(in busy area and at various crossings)</b> , continous earth wire along the line & jumpering etc. as per TS. This shall also include supply and installation of mid span joints, repair sleeves PG clamps, danger plate & anti-climbing device. Danger plate & anti-climbing device will be installed on all Double Pole structures and poles on both side of various crossings. Cost of the Danger plate & anti-climbing device is to be included in this item.	Km	4.00		
4	11 kV Stay Set complete in all respect as per TS	Set	40.00		
5	Earthing of pole using 40 mm dia 3000 mm long pipe as earth electrodes in the pit treated with Charcoal & Salt (Alternatively Calcium Bentonite clay & black soil ) as per TS. This includes supply of all materials required for completion of job except supply of 40 mm dia GI pipe which is included in supply portion.	Set	16.00		
	<b>Sub- Total (C)</b>				
<b>D</b>	<b>11 kV HT LINE USING XLPE COVERED CONDUCTOR FROM RATMATE SUBSTATION</b>				

1	Route survey and pole spotting of 11 KV line as per TS.	Km.	6.00		
2	Erection of 11 mts. long steel tubular pole including foundation with muffing and copas per approved drawing & TS. This includes supply of foundation material	No.	144.00		
3	Stringing of 3- ph 3-wire 11 kV <b>S/C line with XLPE insulated AAAC</b> conductor of 55 sq mm size, including installation of all fabricated material, insulators, hardware fittings, guarding along the line ( <b>in busy area and at various crossings</b> ), continuous earth wire along the line & jumpering etc. as per TS. This shall also include supply and installation of mid span joints, repair sleeves PG clamps, danger plate & anti-climbing device. Danger plate & anti-climbing device will be installed on all Double Pole structures and poles on both side of various crossings. Cost of the Danger plate & anti-climbing device is to be included in this item.	Km	6.00		
4	11 kV Stay Set complete in all respect as per TS	Set	60.00		
5	Earthing of pole using 40 mm dia 3000 mm long pipe as earth electrodes in the pit treated with Charcoal & Salt (Alternatively Calcium Bentonite clay & black soil ) as per TS. This includes supply of all materials required for completion of job except supply of 40 mm dia GI pipe which is included in supply portion.	Set	24.00		
<b>Sub- Total (D)</b>					
<b>E STRENGTHENING OF DISTRIBUTION NETWORK IN DHUNCHE, GOLJUNG,GATLANG, GREY, HAKU, TIRU AND KALIKASTHAN</b>					
<b>E1 REPLACEMENT OF BARE CONDUCTOR OF EXISTING 11KV LINE</b>					
1	Survey of existing 11 KV line	Km.	13.00		
2	Dismantling of existing conductor, damaged insulators & fabricated items like cross arm, clamps etc from 3 ph existing line and to transport & deposit the same to the designated store of NEA	Km.	13.00		
3	Stringing of 3- ph 3-wire 11 kV <b>S/C line with XLPE insulated AAAC</b> conductor of 55 sq mm size, including replacement of damaged fabricated material, insulators, hardware fittings, guarding along the line ( <b>in busy area and at various crossings</b> ), continuous earth wire along the line etc. as per TS. This shall also include supply and installation of mid span joints, repair sleeves PG clamps, danger plate & anti-climbing device. Danger plate & anti-climbing device will be installed on all Double Pole structures and poles on both side of various crossings. Cost of the Danger plate & anti-climbing device is to be included in this item.	Km	13.00		
4	11 kV Stay Set complete in all respect as per TS	Set	52.00		
5	Earthing of pole using 40 mm dia 3000 mm long pipe as earth electrodes in the pit treated with Charcoal & Salt (Alternatively Calcium Bentonite clay & black soil ) as per TS. This includes supply of all materials required for completion of job except supply of 40 mm dia GI pipe which is included in supply portion.	Set	52.00		

	<b>Sub- Total (E1)</b>				
<b>E2</b>	<b>NEW 11kV LINE USING XLPE INSULATED AAAC CONDUCTOR OF 55 SQ.MM SIZE</b>				
1	Route survey and pole spotting of 11 KV line as per TS.	Km.	17.00		
2	Erection of 11 mts. long steel tubular pole including foundation with muffing and copas per approved drawing & TS. This includes supply of foundation material	No.	408.00		
3	Stringing of 3- ph 3-wire 11 kV <b>S/C line with XLPE insulated AAAC</b> conductor of 55 sq mm size, including installation of all fabricated material, insulators, hardware fittings, guarding along the line ( <b>in busy area and at various crossings</b> ), continous earth wire along the line & jumpering etc. as per TS. This shall also include supply and installation of mid span joints, repair sleeves PG clamps, danger plate & anti-climbing device. Danger plate & anti-climbing device will be installed on all Double Pole structures and poles on both side of various crossings. Cost of the Danger plate & anti-climbing device is to be included in this item.	Km	17.00		
4	11 kV Stay Set complete in all respect as per TS	Set	170.00		
5	Earthing of pole using 40 mm dia 3000 mm long pipe as earth electrodes in the pit treated with Charcoal & Salt (Alternatively Calcium Bentonite clay & black soil ) as per TS. This includes supply of all materials required for completion of job except supply of 40 mm dia GI pipe which is included in supply portion.	Set	68.00		
	<b>Sub- Total (E2)</b>				
<b>E3</b>	<b>NEW LT LINE USING XLPE INSULATED AB CABLE OF 3C*35SQ.M+35 SQ.MM</b>				
1	Route survey and pole spotting of LT line as per TS.	Km.	21.00		
2	Erection of 8 mts. long steel tubular pole including foundation with muffing and copas as per approved drawing & TS. This includes supply of foundation material	No.	588.00		
3	Stringing of LT AB cable 3C X 35 +35 (insulated messenger wire) alongwith installation of clamps , supporthook, anchor and suspension clamps , jointing of cable , continous earth wire along the line etc. This shall also include supply and installation of mid span joints, repair sleeves etc	Km	21.00		
4	LT Stay Set complete in all respect as per TS	Set	210.00		
5	Earthing of pole using 40 mm dia 3000 mm long pipe as earth electrodes in the pit treated with Charcoal & Salt (Alternatively Calcium Bentonite clay & black soil ) as per TS. This includes supply of all materials required for completion of job except supply of 40 mm dia GI pipe which is included in supply portion.	Set	84.00		
	<b>Sub- Total (E3)</b>				
<b>E4</b>	<b>REPLACEMENT OF BARE CONDUTOR OF EXISTING LT LINE BY AB CABLE OF 3C*35SQ.MM+35SQ.MM</b>				

1	Survey of existing LT line	Km.	39.00		
2	Dismantling of existing conductor, insulators, and all fabricated items like cross arm, clamps etc from 3 ph existing LT line and to transport & deposit the same to the designated store of NEA	Km.	39.00		
3	Stringing of LT AB cable 3C X 35 +35 (insulated messenger wire) alongwith installation of clamps , supporthook, anchor and suspension clamps , jointing of cable , continous earth wire along the line etc. This shall also include supply and installation of mid span joints, repair sleeves etc	Km	39.00		
4	LT Stay Set complete in all respect as per TS	Set	195.00		
5	Earthing of pole using 40 mm dia 3000 mm long pipe as earth electrodes in the pit treated with Charcoal & Salt (Alternatively Calcium Bentonite clay & black soil ) as per TS. This includes supply of all materials required for completion of job except supply of 40 mm dia GI pipe which is included in supply portion.	Set	156.00		
<b>Sub- Total (E4)</b>					
<b>E5 ADDITIONAL 8MTR LONG STP IN EXISTING LT LINE</b>					
1	Erection of 8 mts. long steel tubular pole including foundation with muffing and copas as per approved drawing & TS. This includes supply of foundation material	No.	120.00		
<b>Sub- Total (E5)</b>					
<b>E6 REPLACEMENT OF DAMAGED POLES BY 11MTR LONG STP IN EXISTING 11kV LINE</b>					
1	Up-rooting the existing poles including dismantling of all items and deposit the same in designated store(s) of NEA	No.	10.00		
2	Erection of 11 mts. long steel tubular pole including foundation with muffing and copas as per approved drawing & TS. This includes supply of foundation material	No.	10.00		
<b>Sub- Total (E6)</b>					
<b>E7 REPLACEMENT OF WOODEN POLES BY NEW 8 MTR LONG STP IN EXISTING LT LINE</b>					
1	Up-rooting the existing poles including dismantling of all items and deposit the same in designated store(s) of NEA	No.	60		
2	Erection of 8 mts. long steel tubular pole including foundation with muffing and copas as per approved drawing & TS. This includes supply of foundation material	No.	60		
<b>Sub- Total (E7)</b>					
<b>E8 ADDITIONAL 11 MTR LONG STP IN EXISTING 11 kV LINE</b>					

1	Erection of 11 mts. long steel tubular pole including foundation with muffing and copas as per approved drawing & TS. This includes supply of foundation material	No.	25.00		
	<b>Sub- Total (E8)</b>				
<b>E9</b>	<b>STRAIGHTENING OF TILTED POLES IN EXISTING 11 kV LINE</b>				
1	Starightening of existing pole using rope etc. & then providing foundation as per approved drawing & TS. This includes supply of foundation material	No.	50.00		
	<b>Sub- Total (E9)</b>				
<b>E10</b>	<b>NEW STAY SETS FOR EXISTING 11 kV LINE</b>				
1	Erection of 11 kV Stay Set complete in all respect as per TS	Set	50.00		
	<b>Sub- Total (E10)</b>				
<b>E11</b>	<b>NEW 3-PHASE DISTRIBUTION TRANSFORMERS</b>				
1	Installation of 3-Phase 11/0.400 kV, 25 kVA Distribution Transformer alongwith all associated equipment & accessories including fixing of MS galvanised items, LA, DO Fuse & LT Distribution box etc . All connections of DT from HT Line , LTDB upto LT lines is part of this item. HT & LT lines may be with bare conductor or with covered conductor/AB cable. Supply of connector(s) required to complete HT & LT side connections is included in this item This item also includes supply & installation of Danger plate, sign board, anti-climbing device.	No.	3.00		
2	Installation of 3-Phase 11/0.400 kV, 50 kVA Distribution Transformer alongwith all associated equipment & accessories including fixing of MS galvanised items, LA, DO Fuse & LT Distribution box etc . All connections of DT from HT Line , LTDB upto LT lines is part of this item. HT & LT lines may be with bare conductor or with covered conductor/AB cable. Supply of connector(s) required to complete HT & LT side connections is included in this item This item also includes supply & installation of Danger plate, sign board, anti-climbing device.	No.	7.00		
3	Installation of 3-Phase 11/0.400 kV, 100 kVA Distribution Transformer alongwith all associated equipment & accessories including fixing of MS galvanised items, LA, DO Fuse & LT Distribution box etc . All connections of DT from HT Line , LTDB upto LT lines is part of this item. HT & LT lines may be with bare conductor or with covered conductor/AB cable. Supply of connector(s) required to complete HT & LT side connections is included in this item This item also includes supply & installation of Danger plate, sign board, anti-climbing device.	No.	3.00		
4	Earthing of pole using 40 mm dia 3000 mm long pipe as earth electrodes in the pit treated with Charcoal & Salt as per TS. This includes supply of all materials required for completion of job except supply of 40 mm dia GI pipe which is included in supply portion.	Set	39.00		
	<b>Sub- Total (E11)</b>				

<b>E12</b>	<b>REPLACEMENT OF EXISTING 3 PHASE DISTRIBUTION TRANSFORMERS</b>				
1	Dismantling of existing DTs alongwith all accessories and transporting it to store	No.	15.00		
2	Installation of 3-Phase 11/0.400 kV, 25 kVA Distribution Transformer alongwith all associated equipment & accessories including fixing of MS galvanised items, LA, DO Fuse & LT Distribution box etc . All connections of DT from HT Line , LTDB upto LT lines is part of this item. HT & LT lines may be with bare conductor or with covered conductor/AB cable. Supply of connector(s) required to complete HT & LT side connections is included in this item This item also includes supply & installation of Danger plate, sign board, anti-climbing device.	No.	2.00		
3	Installation of 3-Phase 11/0.400 kV, 50 kVA Distribution Transformer alongwith all associated equipment & accessories including fixing of MS galvanised items, LA, DO Fuse & LT Distribution box etc . All connections of DT from HT Line , LTDB upto LT lines is part of this item. HT & LT lines may be with bare conductor or with covered conductor/AB cable. Supply of connector(s) required to complete HT & LT side connections is included in this item This item also includes supply & installation of Danger plate, sign board, anti-climbing device.	No.	7.00		
4	Installation of 3-Phase 11/0.400 kV, 100 kVA Distribution Transformer alongwith all associated equipment & accessories including fixing of MS galvanised items, LA, DO Fuse & LT Distribution box etc . All connections of DT from HT Line , LTDB upto LT lines is part of this item. HT & LT lines may be with bare conductor or with covered conductor/AB cable. Supply of connector(s) required to complete HT & LT side connections is included in this item This item also includes supply & installation of Danger plate, sign board, anti-climbing device.	No.	4.00		
5	Installation of 3-Phase 11/0.400 kV, 200 kVA Distribution Transformer alongwith all associated equipment & accessories including fixing of MS galvanised items, LA, DO Fuse & LT Distribution box etc . All connections of DT from HT Line , LTDB upto LT lines is part of this item. HT & LT lines may be with bare conductor or with covered conductor/AB cable. Supply of connector(s) required to complete HT & LT side connections is included in this item This item also includes supply & installation of Danger plate, sign board, anti-climbing device.	No.	2.00		
6	Earthing of pole using 40 mm dia 3000 mm long pipe as earth electrodes in the pit treated with Charcoal & Salt as per TS. This includes supply of all materials required for completion of job except supply of 40 mm dia GI pipe which is included in supply portion.	Set	45.00		
	<b>Sub- Total (E12)</b>				
<b>E13</b>	<b>SHIFTING OF SERVICE CONNECTIONS</b>				

1	Mounting service connection distribution box and GI clamp (to anchor/support service lines) on pole, Replacing the existing service line & charging the service line from LT line /Junction box. This also includes connections to existing energy meters at consumer end to complete the service connection in all respect. The cost of Piercing type connectors to feed Junction Box/service line from LT line is also to be included in this item	No. of connections	1990.00		
	<b>Sub-Total (E13)</b>				
	<b>Sub-Total (E)</b>				



F	New 33/11 kV S/S (2x 6/8 MVA AT RATMATE )				
1	Foundation for 6/8 MVA, 33/11 kV transformer including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc as per approved drawing	No.	2.00		
2	Installation, testing & commissioning of 6/8 MVA, 33/11 kV transformer along with all accessories complete as per TS	No.	2.00		
3	Foundation of 33 kV , 1250 Amp VCBs including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc as per approved drawing	No.	3.00		
4	Erection with structure, testing & commissioning of 33 kV , 1250 Amp VCBs	No.	3.00		
5	Foundation of 33 kV , 630 Amp DBCR Isolator <u>without earth switch</u> including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc as per approved drawing	No.	4.00		
6	Erection alongwith structure , testing & commissioning of 33 kV , 630 Amp DBCR Isolator <u>without earth switch</u>	No.	4.00		
7	Foundation of 33 kV , 630 Amp DBCR Isolator <u>with earth switch</u> including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc as per approved drawing	No.	1.00		
8	Erection alongwith structure , testing & commissioning of 33 kV , 630 Amp DBCR Isolator <u>with earth switch</u>	No.	1.00		
9	Foundation of 33kV CT including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc ( one combine foundation for three CTs) as per approved drawing.	No.	3.00		
10	Erection alongwith structure , testing & commissioning of 33 kV, 1 phase Current Transformer including testing & commissioning	No.	9.00		
11	Foundation for 30 kV, 1 phase, 10 KA porcelain LA s per approved drawing (One combined foundation for 3 LA) for transformer including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc	No.	2.00		
12	Erection alongwith structure 30 kV, 1 phase, 10 KA porcelain LA including testing & commissioning	No.	6.00		
13	Installation of 30 kV, 1 phase, 10 KA porcelain LA <u>on line gantry</u> including testing & commissioning for 33 kV line	No.	3.00		
14	Foundation for $[33/\sqrt{3}]$ kV/ $[110/\sqrt{3}]$ Volts, 1 phase PT as per approved drawing (One combined foundation for 3 PTs) including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc	No.	3.00		
15	Erection alongwith structure $[33/\sqrt{3}]$ kV/ $[110/\sqrt{3}]$ Volts, 1 phase PT including testing & commissioning	No.	9.00		
16	Foundation for 33 kV post insulator including shuttering, Reinforcement bar, concreting (M25), excavation, back filling,as etc as per approved drawing	No.	6.00		

17	Erection alongwith structure 33 kV post insulators along with all fittings and accessories	No.	6.00		
18	Erection, testing & commissioning of 100 kVA, 33/0.400 kV, 3 ph, 50 Hz, ONAN, Outdoor Station Transformer on double pole steel tubular pole including PCC (1:2:4) foundation with for pole,erection poles and all steel fabricated structures, installation of transformer and all accessories viz AB switch, DO fuse,LA etc complete in all respect	Set	1.00		
19	Foundation of <b>bus gantry</b> tower including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc as per approved drawing	No.	6.00		
20	Erection of <b>33 kV bus gantry</b> (consisting of 2 towers & 1 beam) as per approved drawing. This also includes the erection of one spike per gantry for lightning protection and its earthing	No.	3.00		
21	Foundation of <b>line gantry</b> tower including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc as per approved drawing	No.	2.00		
22	Erection of <b>33 kV line gantry</b> (consisting of 2 towers & 1 beam) as per approved drawing. This also includes the erection of one spike per gantry for lightning protection and its earthing	No.	1.00		
23	Stringing of 33 kV Bus bar, Line bay & transformer bay, as required, including all droppers, jumpers and inter connection with all outdoor equipments using ACSR dog conductor & insulator with hardware, clamps, connector etc complete in all respect	Meter	153.45		
24	Earthing and grounding conductor as per approved Electrical Layout for Substation using 100 sq mm stranded bare copper conductor for main grid and raisers along with necessary lugs as per TS	Meter	250.00		
25	Earthing using 16mm diameter and 1.5 meter long (min.) copper clad steel and other accessories complete as per TS to be buried below ground and to be connected with earthmat (untreated)	Set	10.00		
26	Earthing - using 40 mm dia 3000 mm long pipe earth electrodes with test links, RCC pits, CI cover hinged to CI frame, Charcoal, Salt (Alternatively Calcium Bentonite clay & black soil as per TS) and other accessories required for connection with earth mat ( including supply of all materials required for treated earth pit except supply items like 40 mm dia GI pipe with fixing arrangement)	Set	25.00		
27	Drilling of hole in all kinds of soil/boulder/rock upto 50 mtr depth below ground level at 4 locations for installation of 40 mm dia MS rod using any suitable method as per IS standard. This includes supply of all materials (excluding 40 mm dia MS rod), equipments, labours, tools etc required for boring and protecting the soil from falling back into the pit during the process all complete as per technical specification. This includes installation of 40 mm dia rod in the pit and back filling the same with soil free from foreign material.	Meter	200.00		
28	Earthing - using 20 mm dia, 3000 mm long GI Rod as earth electrodes and other accessories etc. ( Untreated) to be buried below ground and other accessories required for connection with earth mat ( including supply of all materials required for untreated earth pit except supply items like 20 mm dia GI rod with fixing arrangement)	Set	30.00		

29	Mobilisation /transportation charges of plant & machinery,tools & tackles,men & materials etc. for drilling of holes	LS	1.00		
30	Laying of 11 kV HT, XLPE insulated , copper Cable in ground including termination in cable box on 11kv side of transformer & DP structure of 11 kV out-going feeders and indoor 11kv VCB panel - <b>3 Core x 120 mm2</b>	Meter	560.00		
31	Laying of 33 kV HT, XLPE insulated , copper Cable in ground including termination - <b>1 Core x 185 mm2</b>	Meter	3000.00		
32	Erection of double pole structure using steel tubular pole including concrete foundation for pole, erection of poles and all steel fabricated structures along with all accessories, viz LA, AB switch etc complete in all respect for 11kV outgoing feeder.	No.	4.00		
33	Laying of 1.1 KV grade PVC insulated, armored <b>3.5cx50 mm2 Aluminum cable</b> including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	75.00		
34	Laying of 1.1 KV grade PVC insulated, armored <b>4C x 16 mm2 Aluminum cable</b> including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	150.00		
35	Laying of 1.1 KV grade PVC insulated, armored <b>2C x 10 mm2 copper cable</b> including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	60.00		
36	Laying of 1.1 KV grade PVC insulated, armored <b>2C x 2.5 mm2 copper cable</b> including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	210.00		
37	Laying of 1.1 KV grade PVC insulated, armored <b>5C x 2.5 mm2 copper cable</b> including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	720.00		
38	Laying of 1.1 KV grade PVC insulated, armored <b>10C x 2.5 mm2 copper cable</b> including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	360.00		
39	Laying of 1.1 KV grade PVC insulated, armored <b>12C x 2.5 mm2 copper cable</b> including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	100.00		
40	Installation (including foundation, as per approved drawing, alongwith supply of all foundation material), testing & commissioning of 33 kV C&R panel <b>for Power trf.</b>	No.	2.00		
41	Installation (including foundation, as per approved drawing, alongwith supply of all foundation material), testing & commissioning of 33 kV C&R panel <b>for 33 kV line</b>	No.	1.00		

42	Installation (including foundation, as per approved drawing, along with supply of all foundation material) , testing & commissioning of 11 kV, 1250 Amp C&R Cum VCB <b>Incoming Feeder Panels</b> as per approved drawing. This includes all inter-panel connections (all material except cable required for this purpose will be included in this item.)	No.	2.00		
43	Installation (including foundation, as per approved drawing, along with supply of all foundation material) , testing & commissioning of 11 kV, 1250 Amp C&R Cum VCB <b>Bus Coupler Panels (alongwith Trunking panel , if required)</b> as per approved drawing. This includes all inter-panel connections (all material except cable required for this purpose will be included in this item.)	No.	1.00		
44	Installation (including foundation, as per approved drawing, along with supply of all foundation material) , testing & commissioning of 11 kV, 1250 Amp C&R Cum VCB <b>Out Going Feeder Panels</b> as per approved drawing. This includes all inter-panel connections (all material except cable required for this purpose will be included in this item.)	No.	4.00		
45	Installation, testing & commissioning of 110 V, 240AH, Lead Acid type <b>Battery Set</b> alongwith supply & installation of accessories complete as per TS.	Set	1.00		
46	Installation, testing & commissioning of 110V, <b>Float-Cum-Boost Battery Charger &amp; in-built DCDB</b> alongwith supply & installation of all accessories to complete the DC power system ( with 110V, 240AH Battery) as per TS.	No.	1.00		
47	Installation of (floor/wall mounted including supply of all material required for installation), testing & commissioning of <b>400 Volts AC Distribution board/panel</b> alongwith supply & installation of all accessories to complete auxiliary AC power supply system as per TS.	No.	1.00		
48	Installation of (floor/wall mounted including supply of all material required for installation), testing & commissioning of <b>110 Volts DC Distribution board/panel</b> alongwith supply & installation of all accessories to complete auxiliary DC power supply system as per TS.	No.	1.00		
49	Installation of Bay Marshalling Kiosk (including foundation, as per approved drawing, along with supply of all foundation material) , testing & commissioning complete with cabling as per TS	No.	1.00		
50	Installation of all fittings & fixtures as per approved layout complete with cabling, switch boards etc <b>for switchyard Lighting System</b> , main-gate & substation boundary as per TS	Set	1.00		
51	Installation of all fittings & fixtures as per approved layout complete with cabling, switch boards etc for <b>control room building lightng</b> as per TS	Set	1.00		
52	Soil Investigation & Contour Survey of Substation area (New Sub-station)	Per S/S	1.00		

53	Earth work in PSS site with ordinary soil (vide classification of soil item - A) obtained from borrow pits free from logs, stumps, roots, rubbish or any other ingredients likely to deteriorate or affect the stability of the site surface including breaking the clods maximum to 60 mm. cube, placing the earth in layers not exceeding 225 mm in loose thickness, rough dressing including cost of cutting and removing shrubs, roots falling in borrow area all complete as per approved design, as per technical specification. ( Mode of Measurement: Sectional measurement after required compaction.)	Cu. Meter	100.00		
54	Earthwork in excavation and filling in PSS site, all types of soil in open areas/ nallas/ channels, to the required slopes, shapes, levels, elevations and profile, including trimming of bottom and slopes of excavation, bailing out rain (dewatering), pumping, removal of slush, preparing embankments/ marginal banks, loosening, dressing, spreading material in layers not exceeding 200mm, as per directions of Engineer-in-charge, water flooding, compacting to achieve 95 percent consolidation at optimum moisture content, finishing etc. all complete, for all leads within the leveling boundary and all lifts, with all labour, material, tools, tackles and equipment, safeguards and incidentals, as necessary, as per drawings, specification and directions of Engineer-in-Charge.	Cu. Meter	5000.00		
55	Earthwork in excavation in PSS site, all types of soil in open areas/ nallas/ channels, to the required slopes, shapes, levels, elevations and profile, and disposal of excess excavated earth upto a lead of 2.0 KM or as directed by Engineer-in-charge. All kinds of soil	Cu. Meter	100.00		
56	Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete including construction of 600 mm high and 230 mm wide cement concrete (1:3:6) (1 cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size) toe wall at the lowest portion of stone pitching area etc. completed as per the instruction of Engineer-In-Charge.	Sq. Meter	200.00		
57	Gravel filling in switchyard area excluding road, trenches etc. Including Antiweed Treatment after neatly levelled and compacted the ground (All completed as per TS)	Cu. Meter	67.50		
58	Construction of Boundary Wall ( including supply of all material) with fixing of MS angle & Barbed Wire fencing all along the boundary wall including supply and fixing of main gate - complete with painting etc all as per approved drawing & TS (Measurement for this purpose will include length of gate along boundary wall)	Meter	300.00		
59	Construction of retaining wall with random rubble masonry in cement sand mortar (1:6) including levelling up with cement concrete (1:6:12), providing weep holes of PVC pipes (150 mm dia) with necessary filter material at the mouth of weep holes, 50 mm thick cement concrete (1:2:4) copping on the top of wall, 100 mm thick PCC (1:4:8) below RR masonry work, excavation of foundation for all lifts up to 6.00 Mtr. above lower level including pointing on exposed portion of wall. Item of excavation, PCC (1:2:4 & 1:4:8) shall be measured and paid seperately under respective items of BPS	Cu. Meter	1500.00		

60	Supplying-providing stone work packed in steel wire crates as per approved design and drawing including all lead and lifts along boundary wall and other places as required (work shall be carried out as per TS)	Cu. Meter	100.00		
61	Erection of security fencing & switchyard gate and construction of toe wall as per approved drawings & TS. Supply of all the material required for this work is included in this item.	Meter	55.00		
62	Construction of Drainage System in the Substation premises all complete as approved Drawing and Specification. Cross section of drain should be at least 450 X 650 MM.	Meter	350.00		
63	Construction of 3.75 meter wide RCC Approach Road within substation boundary (including supply of all material) all complete as per approved drawing & TS including cement concrete kerb stone along two side of road.	Meter	100.00		
64	Construction of 4 meter wide RCC Access Road outside substation boundary (including supply of all material) all complete as per approved drawing & TS including cement concrete kerb stone along two side of road.	Meter	150.00		
65	Construction (including supply of all material) of Cable Trench alongwith pre-cast RCC Trench Cover, cast in situ RCC base and wall, Brick Work wherever required all complete as approved Drawing & TS outside the control room building. - <b>0.50 Meter wide Trench ( 650 mm deep)</b>	Meter	50.00		
66	<b>Building Works of Control Building, Office Building and Staff Quarter</b>				
i	Excavation in all types of soil and rock including backfilling disposal etc. for all leads and lifts	Cu.M	3000.00		
ii	One layer brick soiling	Cu.M	100.00		
iii	Providing and laying of Plain Cement Concrete (PCC) (1:4:8) (1 cement: 4 Coarse Sand : 8 stone aggregate of 40 mm nominal size) including centering and shuttering.	Cu.M	150.00		
iv	Providing and laying of Plain Cement Concrete (PCC) (1:2:4) (1 cement: 2 Coarse Sand :4 stone aggregate of 20 mm nominal size) including centering and shuttering.	Cu.M	53.00		
v.	Providing and laying of Reinforced Cement Concrete Design Mix M25 including pre cast, shuttering, Grouting of pockets & underpinning but excluding steel reinforcement	Cu.M	1323.75		
vi.	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo-Mechanically Treated bars of grade Fe-500D or more.	MT	123.75		
67	<b>All civil works including brick work, internal finish, water supply and sanitation work and all Electrical works (for control room, office building and staff quarter) for following buildings as per technical specification and approved drawings but excluding external finish, excavation, PCC, RCC and reinforcement steel (Fe-500), which shall be measured and paid seperately under respective items of BPS :</b>				
	i) Office building	Sq.Meter	165.00		
	ii) Staff quarter				

	Ground Floor	Sq.Meter	276.00		
	First Floor	Sq.Meter	276.00		
	iii) Control Room Building excluding electrification work.	Sq.Meter	162.00		
68	<b>External finish as per specification for following buildings:</b>				
	i) Office building	Sq.Meter	165.00		
	ii) Staff quarter	Sq.Meter	552.00		
	iii) Control Room Building	Sq.Meter	162.00		
69	Guard Room with toilet and pantry all complete as per drawing.	Sq ft	120.00		
70	Sinking of Tubewell and installation of motor operated submersible pump of suitable capacity and reputed make (All items to be supplied by the contractor. Make of motor/pump to be approved by NEA). Work shall be executed as per TS.	No.	1.00		
	<b>Sub-Total (F)</b>				

<b>G</b>	<b>New 33/11 kV S/S (1x 6/8 MVA AT KALIKASTHAN )</b>				
1	Foundation for 6/8 MVA, 33/11 kV transformer including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc as per approved drawing	No.	1.00		
2	Installation, testing & commissioning of 6/8 MVA, 33/11 kV transformer along with all accessories complete as per TS	No.	1.00		
3	Foundation of 33 kV , 1250 Amp VCBs including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc as per approved drawing	No.	2.00		
4	Erection with structure, testing & commissioning of 33 kV , 1250 Amp VCBs	No.	2.00		
5	Foundation of 33 kV , 630 Amp DBCR Isolator <b>without earth switch</b> including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc as per approved drawing	No.	2.00		
6	Erection alongwith structure , testing & commissioning of 33 kV , 630 Amp DBCR Isolator <b>without earth switch</b>	No.	2.00		
7	Foundation of 33 kV , 630 Amp DBCR Isolator <b>with earth switch</b> including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc as per approved drawing	No.	1.00		
8	Erection alongwith structure , testing & commissioning of 33 kV , 630 Amp DBCR Isolator <b>with earth switch</b>	No.	1.00		
9	Foundation of 33kV CT including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc ( one combine foundation for three CTs) as per approved drawing.	No.	2.00		
10	Installation of 33 kV, 1 phase Current Transformer including testing & commissioning	No.	6.00		
11	Foundation for 30 kV, 1 phase, 10 KA porcelain LA s per approved drawing (One combined foundation for 3 LA) for transformer including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc	No.	1.00		
12	Erection alongwith structure 30 kV, 1 phase, 10 KA porcelain LA including testing & commissioning	No.	3.00		
13	Installation of 30 kV, 1 phase, 10 KA porcelain LA <b>on line gantry</b> including testing & commissioning for 33 kV line	No.	3.00		
14	Foundation for $[33/\sqrt{3}]$ kV/ $[110/\sqrt{3}]$ Volts, 1 phase PT as per approved drawing (One combined foundation for 3 PTs) including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc	No.	2.00		
15	Erection alongwith structure $[33/\sqrt{3}]$ kV/ $[110/\sqrt{3}]$ Volts, 1 phase PT including testing & commissioning	No.	6.00		
16	Foundation for 33 kV post insulator including shuttering, Reinforcement bar, concreting (M25), excavation, back filling,as etc as per approved drawing	No.	3.00		



17	Erection alongwith structure 33 kV post insulators along with all fittings and accessories	No.	3.00		
18	Erection, testing & commissioning of 100 kVA, 33/0.400 kV, 3 ph, 50 Hz, ONAN, Outdoor Station Transformer on double pole steel tubular pole including PCC (1:2:4) foundation with for pole,erection poles and all steel fabricated structures, installation of transformer and all accessories viz AB switch, DO fuse,LA etc complete in all respect	Set	1.00		
19	Foundation of <b>bus gantry</b> tower including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc as per approved drawing	No.	4.00		

20	Erection of <b>33 kV bus gantry</b> (consisting of 2 towers & 1 beam) as per approved drawing. This also includes the erection of one spike per gantry for lightning protection and its earthing	No.	2.00		
21	Foundation of <b>line gantry</b> tower including shuttering, Reinforcement bar, concreting (M25), excavation back filling,as etc as per approved drawing	No.	2.00		
22	Erection of <b>33 kV line gantry</b> (consisting of 2 towers & 1 beam) as per approved drawing. This also includes the erection of one spike per gantry for lightning protection and its earthing	No.	1.00		
23	Stringing of 33 kV Bus bar, Line bay & transformer bay, as required, including all droppers, jumpers and inter connection with all outdoor equipments using ACSR dog conductor & insulator with hardware, clamps, connector etc complete in all respect	Meter	50.00		
24	Earthing and grounding conductor as per approved Electrical Layout for Substation using 100 sq mm stranded bare copper conductor for main grid and raisers along with necessary lugs as per TS	Meter	250.00		
25	Earthing using 16mm diameter and 1.5 meter long (min.) copper clad steel and other accessories complete as per TS to be buried below ground and to be connected with earthmat (untreated)	Set	10.00		
26	Earthing - using 40 mm dia 3000 mm long pipe earth electrodes with test links, RCC pits, CI cover hinged to CI frame, Charcoal, Salt (Alternatively Calcium Bentonite clay & black soil as per TS) and other accessories required for connection with earth mat ( including supply of all materials required for treated earth pit except supply items like 40 mm dia GI pipe with fixing arrangement)	Set	25.00		
27	Drilling of hole in all kinds of soil/boulder/rock upto 50 mtr depth below ground level at 4 locations for installation of 40 mm dia MS rod using any suitable method as per IS standard. This includes supply of all materials (excluding 40 mm dia MS rod), equipments, labours, tools etc required for boring and protecting the soil from falling back into the pit during the process all complete as per technical specification. This includes installation of 40 mm dia rod in the pit and back filling the same with soil free from foreign material. □	Meter	200.00		
28	Mobilisation /transportation charges of plant & machinery,tools & tackles,men & materials etc. for drilling of holes	LS	1.00		
29	Earthing - using 20 mm dia, 3000 mm long GI Rod as earth electrodes and other accessories etc. ( Untreated) to be buried below ground and other accessories required for connection with earth mat ( including supply of all materials required for untreated earth pit except supply items like 20 mm dia GI rod with fixing arrangement)	Set	30.00		
30	Laying of 11 kV HT, XLPE insulated , copper Cable in ground including termination in cable box on 11kv side of transformer & DP structure of 11 kV out-going feeders and indoor 11kv VCB panel - <b>3 Core x 120 mm2</b>	Meter	420.00		
31	Laying of 33 kV HT, XLPE insulated , copper Cable in ground including termination - <b>1 Core x 185 mm2</b>	Meter	3000.00		

32	Erection of double pole structure using steel tubular pole including concrete foundation for pole, erection of poles and all steel fabricated structures along with all accessories, viz LA, AB switch etc complete in all respect for 11kV outgoing feeder.	No.	4.00		
33	Laying of 1.1 KV grade PVC insulated, armored <b>3.5cx50 mm2 Aluminum cable</b> including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	75.00		
34	Laying of 1.1 KV grade PVC insulated, armored <b>4C x 16 mm2 Aluminum cable</b> including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	100.00		
35	Laying of 1.1 KV grade PVC insulated, armored <b>2C x 10 mm2 copper cable</b> including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	40.00		

36	Laying of 1.1 KV grade PVC insulated, armored <b>2C x 2.5 mm2</b> copper cable including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	140.00		
37	Laying of 1.1 KV grade PVC insulated, armored <b>5C x 2.5 mm2</b> copper cable including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	480.00		
38	Laying of 1.1 KV grade PVC insulated, armored <b>10C x 2.5 mm2</b> copper cable including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	240.00		
39	Laying of 1.1 KV grade PVC insulated, armored <b>12C x 2.5 mm2</b> copper cable including its termination along with supply & installation of all accessories like double compression type cable glands, ferules, lugging etc. as per approved cable schedule.	Meter	65.00		
40	Installation (including foundation, as per approved drawing, alongwith supply of all foundation material), testing & commissioning of 33 kV C&R panel <b>for Power trf.</b>	No.	1.00		
41	Installation (including foundation, as per approved drawing, alongwith supply of all foundation material), testing & commissioning of 33 kV C&R panel <b>for 33 kV line</b>	No.	1.00		
42	Installation (including foundation, as per approved drawing, along with supply of all foundation material) , testing & commissioning of 11 kV, 1250 Amp C&R Cum VCB <b>Incoming Feeder Panels</b> as per approved drawing. This includes all inter-panel connections (all material except cable required for this purpose will be included in this item.)	No.	1.00		
43	Installation (including foundation, as per approved drawing, along with supply of all foundation material) , testing & commissioning of 11 kV, 1250 Amp C&R Cum VCB <b>Bus Coupler Panels (alongwith Trunking panel , if required)</b> as per approved drawing. This includes all inter-panel connections (all material except cable required for this purpose will be included in this item.)	No.	0.00		
44	Installation (including foundation, as per approved drawing, along with supply of all foundation material) , testing & commissioning of 11 kV, 1250 Amp C&R Cum VCB <b>Out Going Feeder Panels</b> as per approved drawing. This includes all inter-panel connections (all material except cable required for this purpose will be included in this item.)	No.	4.00		
45	Installation, testing & commissioning of 110 V, 240AH, Lead Acid type <b>Battery Set</b> alongwith supply & installation of accessories complete as per TS.	Set	1.00		
46	Installation, testing & commissioning of 110V, <b>Float-Cum-Boost Battery Charger &amp; in-built DCDB</b> alongwith supply & installation of all accessories to complete the DC power system ( with 110V, 240AH Battery) as per TS.	No.	1.00		

47	Installation of (floor/wall mounted including supply of all material required for installation), testing & commissioning of <b>400 Volts AC Distribution board/panel</b> alongwith supply & installation of all accessories to complete auxiliary AC power supply system as per TS.	No.	1.00		
48	Installation of (floor/wall mounted including supply of all material required for installation), testing & commissioning of <b>110 Volts DC Distribution board/panel</b> alongwith supply & installation of all accessories to complete auxiliary DC power supply system as per TS.	No.	1.00		
49	Installation of Bay Marshalling Kiosk (including foundation, as per approved drawing, along with supply of all foundation material) , testing & commissioning complete with cabling as per TS	No.	1.00		
50	Installation of all fittings & fixtures as per approved layout complete with cabling, switch boards etc <b>for switchyard Lighting System</b> , main-gate & substation boundary as per TS	Set	1.00		
51	Installation of all fittings & fixtures as per approved layout complete with cabling, switch boards etc for <b>control room building lightng</b> as per TS	Set	1.00		
52	Soil Investigation & Contour Survey of Substation area (New Sub-station)	Per S/S	1.00		

53	Earth work in PSS site with ordinary soil (vide classification of soil item - A) obtained from borrow pits free from logs, stumps, roots, rubbish or any other ingredients likely to deteriorate or affect the stability of the site surface including breaking the clods maximum to 60 mm. cube, placing the earth in layers not exceeding 225 mm in loose thickness, rough dressing including cost of cutting and removing shrubs, roots falling in borrow area all complete as per approved design, as per technical specification. ( Mode of Measurement: Sectional measurement after required compaction.)	Cu. Meter	100.00		
54	Earthwork in excavation and filling in PSS site, all types of soil in open areas/ nallas/ channels, to the required slopes, shapes, levels, elevations and profile, including trimming of bottom and slopes of excavation, bailing out rain (dewatering), pumping, removal of slush, preparing embankments/ marginal banks, loosening, dressing, spreading material in layers not exceeding 200mm, as per directions of Engineer-in-charge, water flooding, compacting to achieve 95 percent consolidation at optimum moisture content, finishing etc. all complete, for all leads within the leveling boundary and all lifts, with all labour, material, tools, tackles and equipment, safeguards and incidentals, as necessary, as per drawings, specification and directions of Engineer-in-Charge.	Cu. Meter	5000.00		
55	Earthwork in excavation in PSS site, all types of soil in open areas/ nallas/ channels, to the required slopes, shapes, levels, elevations and profile, and disposal of excess excavated earth upto a lead of 2.0 KM or as directed by Engineer-in-charge. All kinds of soil	Cu. Meter	100.00		
56	Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete including construction of 600 mm high and 230 mm wide cement concrete (1:3:6) (1 cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size) toe wall at the lowest portion of stone pitching area etc. completed as per the instruction of Engineer-In-Charge.	Sq. Meter	200.00		
57	Gravel filling in switchyard area excluding road, trenches etc. Including Antiweed Treatment after neatly levelled and compacted the ground (All completed as per TS)	Cu. Meter	67.50		
58	Construction of Boundary Wall ( including supply of all material) with fixing of MS angle & Barbed Wire fencing all along the boundary wall including supply and fixing of main gate - complete with painting etc all as per approved drawing & TS (Measurement for this purpose will include length of gate along boundary wall)	Meter	300.00		
59	Construction of retaining wall with random rubble masonry in cement sand mortar (1:6) including levelling up with cement concrete (1:6:12), providing weep holes of PVC pipes (150 mm dia) with necessary filter material at the mouth of weep holes, 50 mm thick cement concrete (1:2:4) copping on the top of wall, 100 mm thick PCC (1:4:8) below RR masonry work, excavation of foundation for all lifts up to 6.00 Mtr. above lower level including pointing on exposed portion of wall. Item of excavation, PCC (1:2:4 & 1:4:8) shall be measured and paid seperately under respective items of BPS	Cu. Meter	2000.00		

60	Supplying-providing stone work packed in steel wire crates as per approved design and drawing including all lead and lifts along boundary wall and other places as required (work shall be carried out as per TS)	Cu. Meter	100.00		
61	Erection of security fencing & switchyard gate and construction of toe wall as per approved drawings & TS. Supply of all the material required for this work is included in this item.	Meter	55.00		
62	Construction of Drainage System in the Substation premises all complete as approved Drawing and Specification. Cross section of drain should be at least 450 X 650 MM.	Meter	350.00		
63	Construction of 3.75 meter wide RCC Approach Road within substation boundary (including supply of all material) all complete as per approved drawing & TS including cement concrete kerb stone along two side of road.	Meter	100.00		
64	Construction of 4 meter wide RCC Access Road outside substation boundary (including supply of all material) all complete as per approved drawing & TS including cement concrete kerb stone along two side of road.	Meter	150.00		
65	Construction (including supply of all material) of Cable Trench alongwith pre-cast RCC Trench Cover, cast in situ RCC base and wall, Brick Work wherever required all complete as approved Drawing & TS outside the control room building. - <b>0.50 Meter wide Trench ( 650 mm deep)</b>	Meter	50.00		
66	<b>Building Works of Control Building, Office Building and Staff Quarter</b>				
i	Excavation in all types of soil and rock including backfilling disposal etc. for all leads and lifts	Cu.M	3000.00		
ii	One layer brick soiling	Cu.M	100.00		
iii	Providing and laying of Plain Cement Concrete (PCC) (1:4:8) (1 cement: 4 Coarse Sand : 8 stone aggregate of 40 mm nominal size) including centering and shuttering.	Cu.M	150.00		
iv	Providing and laying of Plain Cement Concrete (PCC) (1:2:4) (1 cement: 2 Coarse Sand :4 stone aggregate of 20 mm nominal size) including centering and shuttering.	Cu.M	53.00		
v.	Providing and laying of Reinforced Cement Concrete Design Mix M25 including pre cast, shuttering, Grouting of pockets & underpinning but excluding steel reinforcement	Cu.M	1323.75		
vi.	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo-Mechanically Treated bars of grade Fe-500D or more.	MT	123.75		
67	<b>All civil works including brick work, internal finish, water supply and sanitation work and all Electrical works (for control room, office building and staff quarter) for following buildings as per technical specification and approved drawings but excluding external finish, excavation, PCC, RCC and reinforcement steel (Fe-500), which shall be measured and paid seperately under respective items of BPS :</b>				
	i) Office building	Sq.Meter	165.00		

	ii) Staff quarter				
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	Ground Floor	Sq.Meter	276.00		
	First Floor	Sq.Meter	276.00		
	iii) Control Room Building excluding electrification work.	Sq.Meter	162.00		
68	<b>External finish as per specification for following buildings:</b>				
	i) Office building	Sq.Meter	165.00		
	ii) Staff quarter	Sq.Meter	552.00		
	iii) Control Room Building	Sq.Meter	162.00		
69	Guard Room with toilet and pantry all complete as per drawing.	Sq ft	120.00		
70	Sinking of Tubewell and installation of motor operated submersible pump of suitable capacity and reputed make (All items to be supplied by the contractor. Make of motor/pump to be approved by NEA) Work shall be executed as per TS.	No.	1.00		
1	Erection of double pole structure using steel tubular pole including PCC (1:2:4) foundation for pole, erection poles and all steel fabricated structures along with, LA, HG Fuse, AB switch, installation of requisite fabricated steel items, disc insulators, pipe type treated earthing, making all connections/ jumpers etc to make the swithcing station functionally ready.	Set	7.00		
2	Earthing of pole using 40 mm dia 3000 mm long pipe as earth electrodes in the pit treated with Charcoal & Salt (Alternatively Calcium Bentonite clay & black soil) as per TS. This includes supply of all materials required for completion of job except supply of 40 mm dia GI pipe which is included in supply portion.	Set	14.00		
	<b>Sub-Total (G)</b>				
<b>H</b>	<b>New 11kV SWITCHING STATION AT DHUNCHE</b>				
1	Erection of double pole structure using steel tubular pole including PCC (1:2:4) foundation for pole, erection poles and all steel fabricated structures along with, LA, HG Fuse, AB switch, installation of requisite fabricated steel items, disc insulators, pipe type treated earthing, making all connections/ jumpers etc to make the swithcing station functionally ready.	Set	7.00		
2	Earthing of pole using 40 mm dia 3000 mm long pipe as earth electrodes in the pit treated with Charcoal & Salt (Alternatively Calcium Bentonite clay & black soil) as per TS. This includes supply of all materials required for completion of job except supply of 40 mm dia GI pipe which is included in supply portion.	Set	14.00		
	<b>Sub-Total (H)</b>				
<b>I</b>	<b>STAFF QUARTER IN DHUNCHE</b>				
1	Site Clearance and Preparation	LS	1		
2	Excavation in all types of soil and rock including disposal etc. for all leads and lifts	Cu Mtr	200		
3	Earthwork in filling with compaction	Cu Mtr	150		
4	One layer flat brick soiling	Cu Mtr	86.98		

5	Providing and laying of Plain Cement Concrete (PCC) (1:4:8) (1 cement: 4 Coarse Sand : 8 stone aggregate of 40 mm nominal size) including centering and shuttering.	Cu Mtr	14.35		
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6	Providing and laying of Reinforced Cement Concrete Design Mix M25 including pre cast, shuttering, Grouting of pockets & underpinning but excluding steel reinforcement	Cu Mtr	114.25		
7	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo-Mechanically Treated bars of grade Fe-500D or more.	kg	13,226.32		
8	All civil works including brick work, internal finish, water supply and sanitation work and Electrical works as per technical specification and approved drawings but excluding PCC, RCC and reinforcement steel				
i.	Ground Floor	Sq. Mtr	92.903		
ii.	First Floor	Sq. Mtr	92.903		
iii.	Second Floor	Sq. Mtr	92.903		
9	<b>External finish as per specification for following:</b>				
i.	Ground Floor	Sq. Mtr	92.903		
ii.	First Floor	Sq. Mtr	92.903		
iii.	Second Floor	Sq. Mtr	92.903		
10	Construction of Boundary Wall ( including supply of all material) with fixing of MS angle & Barbed Wire fencing all along the boundary wall including supply and fixing of main gate - complete with painting etc all as per approved drawing & TS (Measurement for this purpose will include length of gate along boundary wall)	Meter	200		
11	Guard Room with toilet and pantry all complete as per drawing.	Sq Ft	120		
12	Construction of retaining wall with random rubble masonry in cement sand mortar (1:6) including levelling up with cement concrete (1:6:12), providing weep holes of PVC pipes (150 mm dia) with necessary filter material at the mouth of weep holes, 50 mm thick cement concrete (1:2:4) copping on the top of wall, 100 mm thick PCC (1:4:8) below RR masonry work, excavation of foundation for all lifts up to 6.00 Mtr. above lower level including pointing on exposed portion of wall. Item of excavation, PCC (1:2:4 & 1:4:8) shall be measured and paid seperately under respective items of BPS	Cu Mtr	750		
	<b>Sub-Total (I)</b>				
	<b>Total for Schedule - 4 (A+B+C+D+E+F+G+H+I)</b>				













**Design, Supply and Installation of Electrification Component works consisting of 33/11kV New Substations and associated 33kV, 11kV & 0.4kV Lines under Reconstruction & Improvement of Electricity in Earthquake Affected Districts of Rasuwa and Nuwakot**

**(GRAND SUMMARY)**

Sl. No.	Description	Total Price	
		in Foreign Currency	in Local Currency
<b>1</b>	<b>TOTAL SCHEDULE NO. 1</b>		
	Plant and Equipment including mandatory Spares to be supplied from abroad including Type Test Charges for Type Tests to be conducted abroad	0	Not Applicable
<b>2</b>	<b>TOTAL SCHEDULE NO. 2</b>		
	Plant and Equipment including mandatory Spares to be supplied from within Employer's Country including Type Test Charges for Type Tests to be conducted in Employer's Country		
<b>3</b>	<b>TOTAL SCHEDULE NO. 3</b>		
	Local Transportation, Insurance and other incidental services (including port clearance etc.) applicable for supply of Plant & Equipment.	Not Applicable	0
<b>4</b>	<b>TOTAL SCHEDULE NO. 4</b>		
	Installation Charges		0
<b>5a</b>	<b>TOTAL SCHEDULE NO. 5a</b>		
	Training Charges for Training to be imparted abroad	Not Applicable	Not Applicable
<b>5b</b>	<b>TOTAL SCHEDULE NO. 5b</b>		
	Training Charges for Training to be imparted within Employer's Country	Not Applicable	Not Applicable
<b>5c</b>	<b>TOTAL SCHEDULE NO. 5c</b>		
	Maintenance Charges	Not Applicable	Not Applicable
<b>6a</b>	<b>TOTAL SCHEDULE 6a</b>		
	Break-up of Type Test Charges for Type Tests to be conducted abroad <i>[Total of this Schedule is included in Schedule-1 above]</i>	Not Applicable	Not Applicable
<b>6b</b>	<b>TOTAL SCHEDULE 6b</b>		
	Break-up of Type Test Charges for Type Tests to be conducted in Employer's Country <i>[Total of this Schedule is included in Schedule-2 above]</i>	Not Applicable	Not Applicable
<b>7</b>	<b>TOTAL SCHEDULE NO. 7</b>		
	Taxes and Duties not included in Bid Price		
	<b>GRAND TOTAL [1+2+3+4+5a+5b+5c]</b>	<b>0.00</b>	<b>0.00</b>

Date:

Signature:

Place:

Printed Name:

Designation:

Common Seal:

**Design, Supply and Installation of Electrification Component works consisting of 33/11kV New Substations and associated 33kV, 11kV & 0.4kV Lines under Reconstruction & Improvement of Electricity in Earthquake Affected Districts of Rasuwa and Nuwakot**

(Schedule of rates and prices)

Bidder's Name & Address:

Break-up of Type Test Charges for Type Tests to be conducted abroad

1	2	3	4	5	6	7	8 = 5 x 7
Sl. No.	Description	Testing Location	Unit	Qty	Currency (As per ITB 19.1)	Unit Test Charges	Total Test Charges
	<b>Not Applicable</b>						
	<b>Total for Schedule 7a</b>						

**Design, Supply and Installation of Electrification Component works consisting of 33/11kV New Substations and associated 33kV, 11kV & 0.4kV Lines under Reconstruction & Improvement of Electricity in Earthquake Affected Districts of Rasuwa and Nuwakot**

(Schedule of rates and prices)

Bidder's Name & Address:

Type Test Charges for Type Tests to be conducted in Employer's Country

1	2	3	4	5	6	7 = 4 x 6
Sl. No.	Description	Unit	Qty	Currency (As per ITB 19.1)	Unit Test Charges	Total Test Charges
<b>Not Applicable</b>						
	<b>Total for Schedule 7b</b>					

**Design, Supply and Installation of Electrification Component works consisting of 33/11kV New Substations and associated 33kV, 11kV & 0.4kV Lines under Reconstruction & Improvement of Electricity in Earthquake Affected Districts of Rasuwa and Nuwakot**

**(SUMMARY OF TAXES & DUTIES not included in bid price)**

Bidder's Name

To:

Bidder's Address:

Sl. No.	Item Nos.	Total Price in Foreign Currency ( )*	Total Price in Local Currency( )*
1	<i>.....(indicate names of various Taxes and Duties in Employer's Country).....</i>		
	Total Duty, as applicable: (a) On Schedule 1 @ rate of ..... on items nos. .... (b) On Schedule 2 @ rate of ..... on items nos. ....		
2	<i>.....(indicate names of various Taxes and Duties in Employer's Country).....</i>		
	Total Duty, as applicable: (a) On Schedule 1 @ rate of ..... on items nos. .... (b) On Schedule 2 @ rate of ..... on items nos. ....		
3	<i>.....(indicate names of various Taxes and Duties in Employer's Country).....</i>		
	Total Duty, as applicable: (a) On Schedule 1 @ rate of ..... on items nos. .... (b) On Schedule 2 @ rate of ..... on items nos. ....		
	.....		
	.....		
	<b>GRAND TOTAL [1+2+3.....]</b>		

\* Specify currency in accordance with ITB Clause 19.1 and corresponding BDS clauses, Vol.I of the Bidding Documents.

Note:

Date:

Place:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Design, Supply and Installation of Electrification Component works consisting of 33/11kV New Substations and associated 33kV, 11kV & 0.4kV Lines under Reconstruction & Improvement of Electricity in Earthquake Affected Districts of Rasuwa and Nuwakot

(Schedule of rates and prices)

Bidder's Name:

To:

Bidder's Address:

Additional Spare Parts and Test Equipment is furnished below:

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:

Place:

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Common Seal: \_\_\_\_\_

## Letter of Price Bid

[Bidder's Letterhead]

Date: ....., 2019

ICB No.: ICB-REIP-REC- 2019-01

Invitation for Bid No.: ICB-REIP-REC- 2019-01

To: [ . . . insert complete name of the employer . . . ]

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Document, including Addenda issued in accordance with Instructions to Bidders (ITB) 8.
- (b) We offer to design, manufacture, test, deliver, install, pre-commission, and commission in conformity with the Bidding Document the following Plant and Services: [ . . . insert narrative . . . ]
- (c) The total price of our Bid, excluding any discounts offered in item (d) below is the sum of

*amount of foreign currency in words], [amount in figures], and [amount of local currency in words], [amount in figures]*

*The total bid price from the Grand Summary (Schedule No. 6 should be entered by the Bidder inside this box. Absence of the total bid price in the Letter of Price Bid may result in the rejection of the bid.*

- (d) The discounts offered and the methodology for their application are as follows: [ . . . insert discounts and methodology for their application if any . . . ]
- (e) Our Bid shall be valid for a period of [ . . . insert bid validity period as specified in ITB 20.1 of the BDS . . . ] days from the date fixed for the submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- (f) If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Document.
- (g) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (h) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date .....

# Price Schedules

## PREAMBLE

### General

1. The Price Schedules are divided into separate Schedules as follows:
  - Schedule 1 Plant and Equipment including mandatory Spares to be supplied from abroad
  - Schedule 2 Plant and Equipment including mandatory Spares to be supplied from within Employer's Country
  - Schedule 3 Local Transportation, Insurance and other incidental services (including port clearance etc.) applicable for supply of Plant & Equipment.
  - Schedule 4 Installation Services.
  - Schedule 5a Training Charges for Training to be imparted abroad – **Not Applicable**
  - Schedule 5b Training Charges for Training to be imparted within Employer's Country – **Not Applicable**
  - Schedule 5c Maintenance Charges– **Not Applicable**
  - Schedule 6 Grand Summary (Schedule Nos.1 to 4)
  - Schedule 7a Break-up of Type Test Charges for Type Tests to be conducted abroad – **Not Applicable**
  - Schedule 7b Break-up Type Test Charges for Type Tests to be conducted in Employer's Country – **Not Applicable**
  - Schedule 8 Taxes and Duties – **Not Applicable**
  - Schedule 9 Optional Spare Parts – **Not Applicable**
2. The Schedules do not generally give a full description of the plant to be supplied and the services to be performed under each item. Bidders shall be deemed to have read the Employer's Requirements and other sections of the Bidding Document and reviewed the Drawings to ascertain the full scope of the requirements included in each item prior to filling in the rates and prices. The entered rates and prices shall be deemed to cover the full scope as aforesaid, including overheads and profit.
3. If bidders are unclear or uncertain as to the scope of any item, they shall seek clarification in accordance with ITB 7 prior to submitting their bid.

### Pricing

4. Prices shall be filled in indelible ink, and any alterations necessary due to errors, etc., shall be initialed by the Bidder.



As specified in the Bid Data Sheet and Special Conditions of Contract, prices shall be fixed and firm for the duration of the Contract, or prices shall be subject to adjustment in accordance with the corresponding Appendix (Price Adjustment) to the Contract Agreement.

5. Bid prices shall be quoted in the manner indicated and, in the currencies, specified in the Instructions to Bidders in the Bidding Document.  
For each item, bidders shall complete each appropriate column in the respective Schedules, giving the price breakdown as indicated in the Schedules.  
Prices given in the Schedules against each item shall be for the scope covered by that item as detailed in Section 6 (Employer's Requirements) or elsewhere in the Bidding Document.
6. Payments will be made to the Contractor in the currency or currencies indicated under each respective item.
7. When requested by the Employer for the purposes of making payments or part payments, valuing variations or evaluating claims, or for such other purposes as the Employer may reasonably require, the Contractor shall provide the Employer with a breakdown of any composite or lump sum items included in the Schedules.

### Schedules of Rates and Prices

- Schedule 1 Plant and Equipment including mandatory Spares to be supplied from abroad
- Schedule 2 Plant and Equipment including mandatory Spares to be supplied from within Employer's Country
- Schedule 3 Local Transportation, Insurance and other incidental services (including port clearance etc.) applicable for supply of Plant & Equipment.
- Schedule 4 Installation Services.
- Schedule 5a Training Charges for Training to be imparted abroad – **Not Applicable**
- Schedule 5b Training Charges for Training to be imparted within Employer's Country – **Not Applicable**
- Schedule 5c Maintenance Charges– **Not Applicable**
- Schedule 6 Grand Summary (Schedule Nos.1 to 4)
- Schedule 7a Break-up of Type Test Charges for Type Tests to be conducted abroad – **Not Applicable**
- Schedule 7b Break-up Type Test Charges for Type Tests to be conducted in Employer's Country – **Not Applicable**
- Schedule 8 Taxes and Duties – **Not Applicable**
- Schedule 9 Optional Spare Parts – **Not Applicable**