

Corrigendum 2
NOTICE INVITING TENDER

The Tata Power Company Limited Invites Tenders (Two-Part Bidding Process), from interested and eligible Vendors for the following work required for its Transmission Receiving station.

Corrigendum to Tender issued vide advertisement published dated 26th March 2026.

A. Summary of the tendered packages:

Sr. No.	Description	Tender Reference no.	Bid Guarantee Fee / EMD (Rs.)	Tender Fee (Rs.)
1.	<p>SITC for 33 kV GIS along with associated equipment at Badlapur Receiving Station.</p> <p>SITC for 33KV GIS along with associated equipment for Badlapur, Parel & Kolshet Receiving Station.</p> <p>Bidders shall note that additional bays may be incorporated during the technical evaluation stage.</p>	CC26NK054	17,00,000/-	2,000 /-

Please note, above is a Corrigendum to the Tender CC26NK054 advertised on 26th March 2026. The bidders who have already participated in the Tender shall be retained as “participant” & they shall not be required to participate again by submitting the Tender Fee of INR 2,000 /-.

For additional technical details and Pre-qualification criteria for the subject works please refer section C below.

B. Guidelines for Participating:

Interested and eligible vendors can participate by submitting the following up to 1500 hours on **Wednesday, 15th April 2026.**

1. Payment of non-refundable Tender Fee, as indicated in table above to be paid by direct deposit in following bank account

Beneficiary Name – The Tata Power Co. Ltd.

Bank Name – HDFC Bank Ltd.

Branch Name – Fort Branch, Mumbai

Address – Maneckji Wadia Building, Nanik Motwani Marg, Fort, Mumbai 400023.

Branch Code – 60

Bank & Branch Code – 400240015

Account No – 00600110000763

Account type – CC

IFSC Code – HDFC0000060

- Submission of duly signed and stamped Authorization Letter indicating name of authorized person, contact number and e-mail id (mandatory) on Vendor's letterhead. The letter shall also mandatorily include payment details of Tender fee and Tender Reference no **CC26NK054**.

Authorization Letter along with proof of submission of tender fee should be e-mail to Mr. Nithishkumar Kuppusami (n.kuppusami@tatapower.com) and copy to Ms. Vaishali Kachare (vaishali.Kachare@tatapower.com) before "Last date and time for Payment of Tender Participation Fee"

Note: - Once the above-mentioned documents are received, detailed RFP shall be issued through our e-tender system.

- It is clarified that Bid Guarantee/EMD as mentioned in section "A" above, is not required to be submitted at this stage, and it will be required to be submitted in the form of Bank guarantee at the time of Bid Submission.

C. Corrigendum –

This corrigendum has been issued due to revision in BOQ for additional requirement & date extension for Paying Tender fee & submission of Authorization letter (for participation in tender).

Revised calendar of Events:

(a)	Access to NIT through Tata Power website	26 th March 2026.
(b)	Last date and time for Payment of Tender Participation Fee to get e-tender link for bid submission*	By 15 th April 2026, Thursday, 15:00 Hrs.
(c)	Last Date of receipt of pre-bid queries, if any.	By 22 nd April 2026
(d)	Last Date of Posting Consolidated replies to all the pre-bid queries as received	By 27 th April 2026
(e)	Last date and time of receipt of Bids along with EMD.	By 04 th May 2026, 15:00 Hrs

Note: -

* All future corrigendum's if any, to the said tender will be published on Tender section of above website (Tata Power --> Business Associates --> Tender Documents) only.

**These dates and time are as planned and tentative. In case of change the same shall be intimated to Authorized Person of Interested Bidder through E-Tender System.

Price bid Format for additional requirement of 33kV GIS at Parel & Kolshet:

SITC for 33KV GIS along with associated equipment at Kolshet Receiving Station:

S.No.	Description	Rating.	Unit	Qty
1	33kV GIS (operating at 22kV) with bus bar rating of 2500A, 31.5 kA, 3 Sec. as per enclosed SLD. [Design, engineering, manufacturing, assembly, testing at works, packaging, transport, delivery, unloading and shifting from place of storage to erection site, erection, site			

	testing and commissioning of 33kV GIS along with prewired bay mounted LV panel including BCP, MFM (including independent for Bus PTs), Aux relays, RCP panels, etc. as per specification for following bays]:			
1.1	Incomer	2500A	No.	2
1.2	Tie Breaker / Bus Coupler.	2500A	No.	1
1.3	Tie isolator.	2500A	No.	1
1.4	Out Going.	1250A	No.	17
1.5	Station Transformer.	1250A	No.	1
1.6	Capacitor Bank.	1250A	No.	2
1.7	Bus PT (Set of 3 Phases)	22kV	No.	4
1.8	Surge Arrestor (Set of 3 Phases).		No.	2
1.9	33 kV Dummy Panels (tentative) - Optional Price to be quoted. Actual requirement & billing will be done based on site final layout considering price mentioned in this line item.		No.	3
1.10	Dummy plugs for Incomer terminals (For Inner Cone - (1 Set = 3 phase dummy plug) means Total = 8 sets) (For Outer Cone - (1 Set = 3 phase dummy plug) means Total =4 sets)		Lot	1
1.11	Dummy plugs for Tie breaker terminals (For Inner Cone - (1 Set = 3 phase dummy plug) means Total = 4 sets) (For Outer Cone - (1 Set = 3 phase dummy plug) means Total =2 sets)		sets	1
1.12	Dummy plugs for Tie Isolator terminals (For Inner Cone - (1 Set = 3 phase dummy plug) means Total = 4 sets) (For Outer Cone - (1 Set = 3 phase dummy plug) means Total =2 sets)		sets	1
1.13	Dummy plugs for out going feeder terminals includes O/G: For Inner Cone - (1 Set = 3 phase dummy plug) means Total = 17 sets For Outer Cone - (1 Set = 3 phase dummy plug) means Total = 17 sets		sets	17
1.14	Dummy plugs for out going feeder terminals includes Station Trafo.: (For Inner Cone - (1 Set = 3 phase dummy plug) means Total = 2 sets) (For Outer Cone - (1 Set = 3 phase dummy plug) means Total = 1 sets)		sets	1
1.15	Dummy plugs for out going feeder terminals includes Cap Bank : (For Inner Cone - (1 Set = 3 phase dummy plug) means Total = 2 sets) (For Outer Cone - (1 Set = 3 phase dummy plug) means Total = 1 sets)		sets	1
1.16	Voltage plug (1 set = 3 phase)		Set	1
1.17	Current plug (1 set = 3 phase)		Set	2
1.18	Spares for 33 kV GIS: As per section-B table		Lot	1
1.19	GIS Cable terminations- (1 set = 3 phase) 1Cx 630 sqmm XLPE Copper cable - For I/C		Set	8
1.20	GIS Cable terminations- (1 set = 3 phase) 1Cx 630 sqmm cable - Tie breaker		Set	12
1.21	GIS Cable terminations- (1 set = 3 phase) 1Cx 630 sqmm cable - Tie isolator		Set	4

1.22	GIS Cable terminations- (1 set = 3 phase) 3Cx 400 sqmm XLPE Aluminum cable - Outgoing feeders (16 for O/G in current scope+4 spares).		Set	20
1.23	GIS Cable terminations- (1 set = 3 phase) 3Cx 400 sqmm cable - Station transformer		Set	2
1.24	GIS Cable terminations- (1 set = 3 phase) 3Cx 400 sqmm cable - Capacitor Bank		Set	2
1.25	Separate panel with control TNC switches mounted for breaker and isolator close open along with 1. breaker & isolator status indicating lamps 2. SLD mimic to be shown with above control switches		Lot	2
1.26	Recommended Spares -		Lot	1
	Recommended Spares by manufacture			
	Details indicating unit prices to be submitted separately. Lump sum price to be indicated here.			
1.27	Special Erection / Maintenance Tools & Tackles		Lot	1
	Special Erection / Maintenance Tools & Tackles as per Section 11.0			
	Details indicating unit prices to be submitted separately. Lumped price to be indicated here.			
1.28	Services for Installation, Testing and Commissioning of 33kV GIS at Parel		Lot	1
2	Other Requirements (If any):			
	Total Price			

S.No.	Description	Rating.	Unit	Qty
B	Automation System			
B 1.0	33kV GIS Sub-Station Automation Design, Engineering, Supply, Supervision, Erection, Integrated Testing & Commissioning (Lump sum) work and contract of 33kV Substation Automation System. Refer all of scope of work and specific requirements given in SAS Specification Sub-Station Automation System). SAS Vendor shall indicate or flag additional requirement if any, before bidding only and no cost variation will be allowed after award of contract. Vendor to co-ordinate with peer switchgear team, sub-vendors etc., and provide the complete integrated SAS solution. Bidder shall refer the RFP & technical specification for more details.			
B 1.1	Pre-wired Redundant Gateway (RTU based Hardwire Only) Power Supply: Redundant 48 V DC, MCBs, Mounting: To be supplied with Pre-wired panels. 220V/110VDC to 48VDC redundant convertors along with, Diode oring units and AC & DC MCB's to be considered for all panels for redundant 48V DC power supply arrangement Redundant Managed L3 Ethernet Switch (to be mounted in Gateway panel) Communication Ports: 24 PORT L3 W/100/1000 MBPS, 8 FO-MM with SFP, 2 FO-SM 1 GBPS Ports with SFP & remaining Copper Ports. Power Supply: Redundant 48 V DC along with MCB's <u>GW & L3 Switch Mounting:</u> To be supplied with prewired panels (Rittal , size: 2300 mm x 800 mm x 800 mm, both side opening). The Panel Quantity shall be based on the configuration and with suitable clearance on maintenance aspects.		Set	1

B 1.2	<p>Loose Supplied Siemens A800 Gateway Cards for integration at Kolshet Below mentioned Cards to supplied at Kolshet with required licenses :- 1) CP-8050 WITH 2 GB MEMORY CARD 2) CI-8551 3) CP-8520</p> <p>(Note - Operating Voltage of existing Gateway - 48V DC)</p>		Set	0
B 1.3	<p>Pre-wired Miscellaneous RTU Panel I/O Requirement: with 240DI, 120 DO, 32 AI with Auxiliary relay for each Digital Output</p>			1
	<p>Power Supply: Redundant 48 V DC. Consider 220VDC to 48VDC redundant convertors along with, Diode oring units and AC & DC MCB's to be considered for all panels for redundant 48V DC power supply arrangement</p>			1
	<p>Accessories: Mounting kit, Pre-fabricated cables for I/Os, Field termination interface modules, Disconnecting (Knife edge CKT4U) type Terminal blocks for Digital Inputs, Droppable stud type terminal blocks (Elemax KLTD4) for all Digital Outputs and power supplies. Omron Relays to be considered as Interfacing Relay between DO Card and TBs for all DOs.</p>		Set	1
B 1.4	<p>Mounting: To be supplied with prewired panels (Rittal , size: 2300 mm x 800 mm x 800 mm, both side opening). The Panel Quantity shall be based on the configuration and with suitable clearance on maintenance aspects.</p>			1
	<p>GPS Receiver with PRP GPS Receiver Clock with Time, Date and Frequency Display Unit with dual antenna, Surge protector and 50 meter antenna cable, 4 NTP/SNTP ports. Ports should compulsory support PRP. Mounting Arrangement : GPS Receiver to be mounted in Gateway Panel. Remote display Time, Date and Frequency Display Unit on a wall in C/R or R/R Power Supply: Redundant 48 V DC</p>		Set	1
B 1.5	<p>Networking Accessories Networking accessories for integration of BCPUs, Gateway, Condition monitoring devices : All required networking accessories like LIU, patch panel (for each Ethernet switch), patch chords (Fibre optic, UTP) of suitable length, The connectors will be selected to match that of the IEDs and SFPs on the switches, Conduits for all nonarmoured cables, I/O boxes with Quad face plate, 24 Port Patch panels for each L2/L3switch, RJ45 connectors etc. Bidder to consider 20% of spare qty of each component.</p>		Set	1

B 1.6	<p>Managed L2 Ethernet Switch and LIUs for 33 kV BCPU & other IEDs communication and integration with Gateway Mounting Arrangement: DIN Rail/Rackmounted in Switchgear based on feasibility To be mounted in Dummy Panel / Switchgear/ Separate Network Panel (Adjacent to the switchgear) along with cable termination accessories. (Bidder shall refer the specification for more details) Qty: Minimum 2 Nos. of Switches with FO & Copper ports (20 FO and 4 Copper)for each bus-section and as per distribution of GIS panels and shall be based on Bidder's offered solution. Each Switch shall have 20% spare FO and Cu ports. (Bidder to consider quantity of L2 Switches / 1 Set / Station based on No. of Bus Sections and GIS Panel Layout of the respective station) 1 Set = 2 nos of Ethernet Switch / 2 No. of LIU (Note :- In case Dummy Panel is not available. Set of DIN Rail Mounted Switch to be considered. For 3 Bay, 1 Set of DIN Rail Mounted Switch and LIU to be considered. Mentioned quantity is with assumption Dummy Panel is available and Rack Mounted Switches of 24 Ports will be supplied) Supply :- 110V/220V DC Univeral Supply Support</p>		Set	2
B 1.7	<p>Redbox (PRP to Non-PRP Converter) for integration of 22kV PRP Network with Non-PRP Network of 110kV Red Box :Redundancy Box for interfacing PRP network to non-PRP network, with 2 × MM Fiber Optic SFP ports (PRP A & B inputs) and 1 × RJ45 LAN port (non-PRP output). Operates on 48V DC power supply. To be supplied as a loose item, complete with required SFP compatibility.</p>		nos	1
B 1.8	<p>Configuration Laptop Configuration Laptop with Hardware: Laptop with latest processor, 1 TB HDD, 8 GB RAM, DVD RW, 4 USB Ports, 1 ethernet port, 1 HDMI port, 15" Display with 1 no. serial to USB converter. Software: Microsoft Windows compatible with latest version of configuration software, Microsoft Office License pack, Antivirus Quick heal Total Security with three-year subscription, Configuration & maintenance software tools, Diagnostic tools. Logic building Application of RTU, Gateway, Configuration Software and protocol analyzer</p>		nos	1
B 1.9	Unarmoured CAT6 UTP Cable (1 Lot = 300 metres)		Lot	1
B 1.10	Armoured CAT6 UTP Cable (1 Lot = 500 metres)		Lot	1
B 1.11	4P X 0.36 Sq. mm armoured multistrand pair, overall shielded, for integration of MFM and other IEDs (1Lot =500 mtrs)		Lot	2
B 1.12	4P X 0.36 Sq. mm unarmoured multistrand pair, overall shielded, for integration of MFM and other IEDs (1 Lot = 250 metres)		Lot	1
B 1.13	8 Core Armoured Multi-mode Fibre Optic Cable (1 Lot = 2000 metres)		Lot	1
B 1.14	8 Core Armoured Single-mode Fibre Optic Cable (1 Lot = 500 metres)		Lot	1

B 1.15	PVC flexible conduit rodent proof design with steel wires embedded (200 Mtr)		Set	1
B 1.16	Satellite Workstation for SCADA Power Supply : 230V AC To be supplied with operator workstation with hardware viz dual headed LED monitor, Optical Keyboard & Mouse and latest windows OS, Software's with Antivirus Trend Micro (Apex one) with three-year subscription & Standard MS office latest version <i>(Refer Automation specification for More details)</i>		nos	0
B 1.17	Temperature & Humidity Transmitter and integration with gateway on RS485 Modbus RTU		Nos	0
B 1.18	Automation mandatory Spares (As per the Spares list indicated in the SAS Specification)		Set	1
B 1.19	Installation integration with New SAS at Parel and with existing SAS at Kolshet and Commissioning Services a) Design, Engineering, Installation, Testing and Commissioning of Sub-station Automation System as per SOW. b) Co-ordination with switchgear team & other sub vendors. c) Preparation of interconnecting cable schedule, Cable laying and termination, continuity check of all power, communication and field cables, d) Powering up of all supplied materials and Configuration of all supplied equipment e) Commissioning and integration of all supplied equipment as per the approved architecture f) All BCPUs, MFM looping and Condition Monitoring Units and Integration with New/Existing Gateway g) Integration of 3rd Party Devices such as Transformer Monitoring Devices, Chargers, UPS, Temp Humidity Sensors etc h) Testing and Integration of BCPUs with existing DRCA System, Firewall and Analysis system as per the approved architecture and testing up to Central DR System i) I/O testing, Pre- SAT testing, testing with Purchaser's Unified SCADA System j) Integrated FAT & SAT for Hardware and Software k) Final As built Document & Drawings Submission in AutoCAD & Pdf format. l) Warranty for Hardware & Software inclusive of patch management and software upgradation for the period of 5 Years		LS	1
B 1.20	Services of M/S Siemens for integration at Kolshet:- i) For mounting of additional cards in existing Siemens A800 Gateway ii) License activation in new cards iii) Configuraiton of BCPU signals and MFM Signals as per SCADA Signal List iv) Integrated Testing of all Signals upto SCADA Master		LS	0
B 1.21	Services of M/s Kalkitech for configuration, integration with both local DRCA System of the respective station & Centralised DRCA system.		LS	1
B 1.22	Training: (Sub-Station Automation & 3rd party items) 10 Engineers x 3 man-days (30 mandays) at Vendor's work		LS	1

S.No.	Description	Rating.	Unit	Qty
A	PREWIRED METERING PANELS		Parel	
1	Supply of Secure make Apex 150 ABT type meters.(No internal CTR and PTR to be programmed inside Meter)		Nos	19
2	Design, Engineering, Manufacturing, Inspection, loading, Supply, Transport, Unloading at site, Storage, Erection, Testing, Commissioning of Prewired metering panels with Accessories		Nos	3
B	COMMUNICATION ACCESSORIES			
1	Supply and connection of Serial Device server (Make Moxa, Model – Nport 5232)		Nos	6
2	Supply, laying, termination and connection of Armoured CAT6 (Twisted pair cable) between meters to communication panel		mtrs	200
3	RJ45 I/O Boxes with I/Os (4 Port)		Nos	10
4	CAT6 Patch cables for connectivity between I/O and Meters / L3 switches (2 mts)		Nos	30
5	RJ 45 Connectors		Nos	38
6	Media Converters (Optical to Ethernet) (with 1310nm/1550nm) LC SFP type FOT (Make CTC Union, model FMC-2000MS)		Nos	3
1	Services for preparation of cable schedule and ICS, Installation, testing, configuration of ABT Meters and final commissioning of all material mentioned under supply scope.		LS	1
1	TTB		Nos	1
2	Secure Make Apex ABT Meter		Nos	1

S.No.	Description	Rating.	Unit	Qty
A	PREWIRED METERING PANELS		Parel	
1	Design, Engineering, Manufacturing, Inspection, loading, Supply, Transport, Unloading at site, Storage, Erection, Testing, Commissioning of Prewired metering panels with Accessories		Nos	5
B	COMMUNICATION ACCESSORIES			
1	CAT 6 LAN cable (pre-crimped 7 feet)		Nos	34
2	Armoured CAT 6 LAN cable for Interpanel		mtrs	200
3	L3 switch for FO connectivity with minimum 12CU+ 4SFP slots with 80 km loaded 4 No.s SFP (As per specs)		Nos	1
4	Fiber Optic Cable 48 core Armoured Single mode with HDPE duct		mtrs	1000
5	Media Converters (Optical to Ethernet) (with 1310nm/1550nm) LC SFP type FOT Dual AC+DC powersupply		Nos	15
6	FOP Patch chords LC-PC-LC-PC (5 meters) Single mode		Nos	15
7	FOP Patch chords LC-PC-SC-PC (5 meters) Single mode		Nos	8
8	LIU 19 inch rack mountable LC-PC type single mode 48 core (AFS/Commscope/ TE/Tyco make only)		Nos	5
9	LIU Din rail mounting 12 core Single mode LC-PC LIU		Nos	5
10	I/O Box with RJ45 I/O loaded 4 No.s in each box		Nos	17
11	RJ45 connectors		Nos	68

12	Cable dressing, laying, Splicing, interpanel CAT6 LAN cable crimping and routing		Lot	1
1	Services for Supervision during Erection, installation.		LS	1
1	TTB		Nos	1

SUPPLY: Protection system				
S.No.	Description	Rating.	Unit	Qty
1	Completely pre-wired Simplex control Type-H Protection panel comprising of protection schemes and accessories as per specification along with IEDs, its networking accessories between IED to gateway, IED to DRCA system, relevent LIUs, switches, patch cords etc. for successful commissioning of underfrequency load shedding scheme.		Set	2
3	Protection Relay integration with SCADA & DRCA system at above mentioned stations: Ethernet Swiches, Converters, Communciation Cables (FO & UTP) and Networking accessories like LIU, patch panel (for each Ethernet switch), Pre-fabricated Patch cords (Fibre optic, UTP) of suitable length, Conduits for all non-armoured cables, I/O boxes with Quad face plate, RJ45 connectors etc.		Lot	2
Spares				
1	IED of each model number/ order code/ MLFB shall be supplied as spares		Lot	1
2	Auxilliary trip relay		Each Type	1
Services				
1	Services for preparation of cable schedule and ICS, commissioning of protection, automation and communication system along with appropriate human resources, numerical relay testing kit for relay panel commissioning and integration of relays with SCADA, DRCA system to view disturbance record and parameterization from remote		LS	1

S.No.	Description	Preferr ed make	Unit	Qty
1	12 core Single mode armoured FO-cable	Finolex/ Apar/Bi rla	metr e	500
2	Fiber Termination Box Suitable to terminate 24-core Single Mode underground Fiber optic cable 19" Rack Mounting with Connectors loaded with SM type pigtaills LC type couplers and cassettes. Rodent Proof design.	AFS/Co mmsco pe	Nos.	1
3	Fiber Termination Box Suitable to terminate 12-core Single Mode underground Fiber optic cable DIN RAIL Mounting with Connectors loaded with SM type pigtaills LC type couplers and cassettes. Rodent Proof design.	AFS/Co mmsco pe/Pres ton	Nos.	1
4	Simplex FO Single mode patch cord LCPC-SCPC type simplex - 10 meter	AFS/Co mmsco	Nos.	4

		pe/Tyc o/3M		
5	Simplex FO Single mode patch cord LCPC-LCPC type simplex - 2 meter	AFS/Co mmsco pe/Tyc o/3M	Nos.	10
6	Simplex FO Single mode patch cord LCPC-LCPC type simplex - 10 meter	AFS/Co mmsco pe/Tyc o/3M	Nos.	4
7	Simplex FO Single mode patch cord LCPC-FCPC type simplex - 10 meter	AFS/Co mmsco pe/Tyc o/3M	Nos.	4
8	PVC flexible conduit of 0.75 inch diameter	Repute d make	Met er	200
9	Media converter: Fiber to Ethernet / Single mode / LC type / 1310nm/ 40km and 10/100/1000Mbps ethernet with dual power supply 230VAC and 48-72VDC	CTC Union	Nos.	4
10	Attenuator 10dB single mode LC-PC	AFS/Co mmsco pe/Tyc o/3M	Nos.	4
11	Armoured CAT6 cable	Repute d Make	Met ers	200
12	Jelly filled armoured telephony cable (50 pair) with HDPE duct (40/33mm)	Repute d Make	Met ers	500
13	Analog phones with roseette & I/O box with Patch panel 24 port with kronex, CAT6 cables	Repute d make	No.s	4
14	Extension of existing Public address system to new building with required speakers and announcement console. Seamless integration with existing PA system	MEcall	No.s	0
15	Services for Engineering, Erection, Installation, FO cables splicing / termination, CAT6 cables punching / crimping, commissioning services of Communication systems and integration with existing systems		Lot	1

S.No.	Description	Rating.	Unit	Qty
	SITC of following equipment as per specifications			
1	LV CABLES			
1.1	LV Power cables, Aluminum, XLPE, Armored (1.1 kV Class) as per standard specification.		NA	NA
1.2	Control / Instrumentation / SCADA cables, Copper, PVC, Armoured (1.1 kV Class)		NA	NA
1.3	Cable carrier system as per specification		NA	NA
2	Earthing:			
2.1	Earthing mat design shall be done by Tata Power. Bidder shall indicate the no and location of risers to be tapped from the mat to the floor but executed by Tata Power. Further earthing arrangements from riser to all the equipments including GIS shall be in the scope of the bidder.		Lot	1
2.2	Procurement of earthing related material and laying for Main Earthing Grid shall not be in scope of the bidder.			1
2.3	Material required for earthing of equipment to riser is in the scope of bidder.			1

2.4	Miscellaneous Support Structures, base frames and fixtures for all equipment		Lot	1
3	Safety:			1
3.1	Safety Equipment's		Lot	1
3.2	Safety Boards for GIS & SAS Panels.			1
	SLD LOTO Key boards		Lot	1
	Tool arrangement boards			1
3.3	LOTO accessories		Lot	1
3.4	Safety Signage boards		Lot	1
3.5	Safety tools & tackles		Lot	1
4	Misc. items			1
4.1	Spares for electrical auxiliaries (As per standard specification mention in Section-B for each equipment/ system within battery limit)		Lot	1
4.2	Supply of ISI marked 33 kV and 1.1 kV insulating mats as per IS 15652 as per specifications		Lot	1
4.3	Supply and installation of metal nameplates per feeder as per Tata Power standard requirement as per specification		Lot	1
4.4	Housekeeping and cleaning/removal of waste material like big rocks and excavated soil, solar panel pallets, plastic waste, wooden material & any other scrap material at sites shall be removed/disposed from plant.		Lot	1
4.5	It is complete liability of contractor for disposing of material undisputedly outside the plant area.			1
4.6	Construction Power supply equipment/system as per Clause no. A2.14 in above section-A.		Lot	1
4.7	PVC flexible conduit rodent proof design with steel wires embedded (200 Mtr)		Lot	1
5	Other Requirements (If any):			
	Total Price			

SITC for 33KV GIS along with associated equipment at Kolshet Receiving Station:

S.N o.	Description	Rating	Unit	Qty
1	33kV GIS (operating at 22kV) with bus bar rating of 2500A, 31.5 kA, 3 Sec. as per enclosed SLD. [Design, engineering, manufacturing, assembly, testing at works, packaging, transport, delivery, unloading and shifting from place of storage to erection site, erection, site testing and commissioning of 33kV GIS along with prewired bay mounted LV panel including BCP, MFM (including independent for Bus PTs), Aux relays, RCP panels, etc. as per specification for following bays]:			
1.1	Incomer	2500A	No.	2
1.2	Tie Breaker / Bus Coupler.	2500A	No.	1
1.3	Tie isolator.	2500A	No.	1
1.4	Out Going.	1250A	No.	9
1.5	Station Transformer.	1250A	No.	1
1.6	Capacitor Bank.	1250A	No.	2
1.7	Bus PT (Set of 3 Phases)	22kV	No.	4
1.8	Surge Arrestor (Set of 3 Phases).		No.	2

1.9	33 kV Dummy Panels (tentative) - Optional Price to be quoted. Actual requirement & billing will be done based on site final layout considering price mentioned in this line item.		No.	2
1.10	Dummy plugs for Incomer terminals (For Inner Cone - (1 Set = 3 phase dummy plug) means Total = 8 sets) (For Outer Cone - (1 Set = 3 phase dummy plug) means Total =4 sets)		Lot	1
1.11	Dummy plugs for Tie breaker terminals (For Inner Cone - (1 Set = 3 phase dummy plug) means Total = 4 sets) (For Outer Cone - (1 Set = 3 phase dummy plug) means Total =2 sets)		sets	1
1.12	Dummy plugs for Tie Isolator terminals (For Inner Cone - (1 Set = 3 phase dummy plug) means Total = 4 sets) (For Outer Cone - (1 Set = 3 phase dummy plug) means Total =2 sets)		sets	1
1.13	Dummy plugs for out going feeder terminals includes O/G: For Inner Cone - (1 Set = 3 phase dummy plug) means Total = 9 sets For Outer Cone - (1 Set = 3 phase dummy plug) means Total = 9 sets		sets	9
1.14	Dummy plugs for out going feeder terminals includes Station Trafo.: (For Inner Cone - (1 Set = 3 phase dummy plug) means Total = 1 sets) (For Outer Cone - (1 Set = 3 phase dummy plug) means Total = 1 sets)		sets	1
1.15	Dummy plugs for out going feeder terminals includes Cap Bank : (For Inner Cone - (1 Set = 3 phase dummy plug) means Total = 2 sets) (For Outer Cone - (1 Set = 3 phase dummy plug) means Total = 1 sets)		sets	2
1.16	Voltage plug (1 set = 3 phase)		Set	1
1.17	Current plug (1 set = 3 phase)		Set	2
1.18	Spares for 33 kV GIS: As per section-B table		Lot	1
1.19	GIS Cable terminations- (1 set = 3 phase) 1Cx 630 sqmm XLPE Copper cable - For I/C		Set	8
1.20	GIS Cable terminations- (1 set = 3 phase) 1Cx 630 sqmm cable - Tie breaker		Set	0
1.21	GIS Cable terminations- (1 set = 3 phase) 1Cx 630 sqmm cable - Tie isolator		Set	4
1.22	GIS Cable terminations- (1 set = 3 phase) 3Cx 400 sqmm XLPE Aluminum cable - Outgoing feeders (8 for O/G in current scope+4 spares).		Set	12
1.23	GIS Cable terminations- (1 set = 3 phase) 3Cx 400 sqmm cable - Station transformer		Set	1
1.24	GIS Cable terminations- (1 set = 3 phase) 3Cx 400 sqmm cable - Capacitor Bank		Set	2
1.25	Separate panel with control TNC switches mounted for breaker and isolator close open along with 1. breaker & isolator status indicating lamps 2. SLD mimic to be shown with above control switches		Lot	2
1.26	Recommended Spares -		Lot	1

	Recommended Spares by manufacture			
	Details indicating unit prices to be submitted separately. Lump sum price to be indicated here.			
1,27	Special Erection / Maintenance Tools & Tackles		Lot	1
	Special Erection / Maintenance Tools & Tackles as per Section 11.0			
	Details indicating unit prices to be submitted separately. Lumped price to be indicated here.			
1.28	Services for Installation, Testing and Commissioning of 33kV GIS at Parel		Lot	1
2	Other Requirements (If any):			
	Total Price			

S.No.	Description	Rating.	Unit	Qty
B	Automation System			
B 1.0	33kV GIS Sub-Station Automation Design, Engineering, Supply, Supervision, Erection, Integrated Testing & Commissioning (Lump sum) work and contract of 33kV Substation Automation System. Refer all of scope of work and specific requirements given in SAS Specification Sub-Station Automation System). SAS Vendor shall indicate or flag additional requirement if any, before bidding only and no cost variation will be allowed after award of contract. Vendor to co-ordinate with peer switchgear team, sub-vendors etc., and provide the complete integrated SAS solution. Bidder shall refer the RFP & technical specification for more details.			
B 1.1	Pre-wired Redundant Gateway (RTU based Hardwire Only) Power Supply: Redundant 48 V DC ,MCBs, Mounting: To be supplied with Pre-wired panels. 220V/110VDC to 48VDC redundant convertors along with, Diode oring units and AC & DC MCB's to be considered for all panels for redundant 48V DC power supply arrangement Redundant Managed L3 Ethernet Switch (to be mounted in Gateway panel) Communication Ports: 24 PORT L3 W/100/1000 MBPS, 8 FO-MM with SFP, 2 FO-SM 1 GBPS Ports with SFP & remaining Copper Ports. Power Supply: Redundant 48 V DC along with MCB's <u>GW & L3 Switch Mounting:</u> To be supplied with prewired panels (Rittal , size: 2300 mm x 800 mm x 800 mm, both side opening). The Panel Quantity shall be based on the configuration and with suitable clearance on maintenance aspects.		Set	0
B 1.2	Loose Supplied Siemens A800 Gateway Cards for integration at Kolshet Below mentioned Cards to supplied at Kolshet with required licenses :- 1) CP-8050 WITH 2 GB MEMORY CARD 2) CI-8551 3) CP-8520 (Note - Operating Voltage of existing Gateway - 48V DC)		Set	2

B 1.3	Pre-wired Miscellaneous RTU Panel I/O Requirement: with 240DI, 120 DO, 32 AI with Auxiliary relay for each Digital Output			1
	Power Supply: Redundant 48 V DC. Consider 220VDC to 48VDC redundant convertors along with, Diode oring units and AC & DC MCB's to be considered for all panels for redundant 48V DC power supply arrangement			1
	Accessories: Mounting kit, Pre-fabricated cables for I/Os, Field termination interface modules, Disconnecting (Knife edge CKT4U) type Terminal blocks for Digital Inputs, Droppable stud type terminal blocks (Elemex KLTDM4) for all Digital Outputs and power supplies. Omron Relays to be considered as Interfacing Relay between DO Card and TBs for all DOs.		Set	1
	Mounting: To be supplied with prewired panels (Rittal , size: 2300 mm x 800 mm x 800 mm, both side opening). The Panel Quantity shall be based on the configuration and with suitable clearance on maintenance aspects.			1
B 1.4	GPS Receiver with PRP GPS Receiver Clock with Time, Date and Frequency Display Unit with dual antenna, Surge protector and 50 meter antenna cable, 4 NTP/SNTP ports. Ports should compulsory support PRP. Mounting Arrangement : GPS Receiver to be mounted in Gateway Panel. Remote display Time, Date and Frequency Display Unit on a wall in C/R or R/R Power Supply: Redundant 48 V DC		Set	0
B 1.5	Networking Accessories Networking accessories for integration of BCPUs, Gateway, Condition monitoring devices : All required networking accessories like LIU, patch panel (for each Ethernet switch), patch chords (Fibre optic, UTP) of suitable length, The connectors will be selected to match that of the IEDs and SFPs on the switches, Conduits for all nonarmoured cables, I/O boxes with Quad face plate, 24 Port Patch panels for each L2/L3switch, RJ45 connectors etc. Bidder to consider 20% of spare qty of each component.		Set	1
B 1.6	Managed L2 Ethernet Switch and LIUs for 33 kV BCPUs & other IEDs communication and integration with Gateway Mounting Arrangement: DIN Rail/Rackmounted in Switchgear based on feasibility To be mounted in Dummy Panel / Switchgear/ Separate Network Panel (Adjacent to the switchgear) along with cable termination accessories. (Bidder shall refer the specification for more details) Qty: Minimum 2 Nos. of Switches with FO & Copper ports (20 FO and 4 Copper)for each bus-section and as per distribution of GIS panels and shall be based on Bidder's offered solution. Each Switch shall have 20% spare FO and Cu ports. (Bidder to consider quantity of L2 Switches / 1 Set / Station based on No. of Bus Sections and GIS Panel Layout of the respective station) 1 Set = 2 nos of Ethernet Switch / 2 No. of LIU		Set	2

	<p>(Note :- In case Dummy Panel is not available. Set of DIN Rail Mounted Switch to be considered. For 3 Bay, 1 Set of DIN Rail Mounted Switch and LIU to be considered. Mentioned quantity is with assumption Dummy Panel is available and Rack Mounted Switches of 24 Ports will be supplied)</p> <p>Supply :- 110V/220V DC Univeral Supply Support</p>			
B 1.7	<p>Redbox (PRP to Non-PRP Converter) for integration of 22kV PRP Network with Non-PRP Network of 110kV</p> <p>Red Box :Redundancy Box for interfacing PRP network to non-PRP network, with 2 × MM Fiber Optic SFP ports (PRP A & B inputs) and 1 × RJ45 LAN port (non-PRP output). Operates on 48V DC power supply.</p> <p>To be supplied as a loose item, complete with required SFP compatibility.</p>		nos	0
B 1.8	<p>Configuration Laptop</p> <p>Configuration Laptop with Hardware: Laptop with latest processor, 1 TB HDD, 8 GB RAM, DVD RW, 4 USB Ports, 1 ethernet port, 1 HDMI port, 15" Display with 1 no. serial to USB converter.</p> <p>Software: Microsoft Windows compatible with latest version of configuration software, Microsoft Office License pack, Antivirus Quick heal Total Security with three-year subscription, Configuration & maintenance software tools, Diagnostic tools. Logic building Application of RTU, Gateway, Configuration Software and protocol analyzer</p>		nos	0
B 1.9	Unarmoured CAT6 UTP Cable (1 Lot = 300 metres)		Lot	0
B 1.10	Armoured CAT6 UTP Cable (1 Lot = 500 metres)		Lot	0
B 1.11	4P X 0.36 Sq. mm armoured multistrand pair, overall shielded, for integration of MFM and other IEDs (1Lot =500 mtrs)		Lot	2
B 1.12	4P X 0.36 Sq. mm unarmoured multistrand pair, overall shielded, for integration of MFM and other IEDs (1 Lot = 250 metres)		Lot	1
B 1.13	8 Core Armoured Multi-mode Fibre Optic Cable (1 Lot = 2000 metres)		Lot	1
B 1.14	8 Core Armoured Single-mode Fibre Optic Cable (1 Lot = 500 metres)		Lot	0
B 1.15	PVC flexible conduit rodent proof design with steel wires embedded (200 Mtr)		Set	1
B 1.16	<p>Satellite Workstation for SCADA</p> <p>Power Supply : 230V AC</p> <p>To be supplied with operator workstation with hardware viz dual headed LED monitor,Optical Keyboard & Mouse and latest windows OS, Software's with Antivirus Trend Micro (Apex one) with three-year subscription & Standard MS office latest version</p> <p><i>(Refer Automation specification for More details)</i></p>		nos	0
B 1.17	Temperature & Humidity Transmitter and integration with gateway on RS485 Modbus RTU		Nos	0
B 1.18	Automation mandatory Spares (As per the Spares list indicated in the SAS Specification)		Set	1

B 1.19	<p>Installation integration with New SAS at Parel and with existing SAS at Kolshet and Commissioning Services</p> <p>a) Design, Engineering, Installation, Testing and Commissioning of Sub-station Automation System as per SOW.</p> <p>b) Co-ordination with switchgear team & other sub vendors.</p> <p>c) Preparation of interconnecting cable schedule, Cable laying and termination, continuity check of all power, communication and field cables,</p> <p>d) Powering up of all supplied materials and Configuration of all supplied equipment</p> <p>e) Commissioning and integration of all supplied equipment as per the approved architecture</p> <p>f) All BCPUs, MFM looping and Condition Monitoring Units and Integration with New/Existing Gateway</p> <p>g) Integration of 3rd Party Devices such as Transformer Monitoring Devices, Chargers, UPS, Temp Humidity Sensors etc</p> <p>h) Testing and Integration of BCPUs with existing DRCA System, Firewall and Analysis system as per the approved architecture and testing up to Central DR System</p> <p>i) I/O testing, Pre- SAT testing, testing with Purchaser's Unified SCADA System</p> <p>j) Integrated FAT & SAT for Hardware and Software</p> <p>k) Final As built Document & Drawings Submission in AutoCAD & Pdf format.</p> <p>l) Warranty for Hardware & Software inclusive of patch management and software upgradation for the period of 5 Years</p>		LS	1
B 1.20	<p>Services of M/S Siemens for integration at Kolshet:-</p> <p>i) For mounting of additional cards in existing Siemens A800 Gateway</p> <p>ii) License activation in new cards</p> <p>iii) Configuraiton of BCPUs signals and MFM Signals as per SCADA Signal List</p> <p>iv) Integrated Testing of all Signals upto SCADA Master</p>		LS	1
B 1.21	Services of M/s Kalkitech for configuration, integration with both local DRCA System of the respective station & Centralised DRCA system.		LS	1
B 1.22	<p>Training: (Sub-Station Automation & 3rd party items)</p> <p>10 Engineers x 3 man-days (30 mandays) at Vendor's work</p>		LS	1

S.No.	Description	Rating.	Unit	Qty
A	PREWIRED METERING PANELS			
1	Supply of Secure make Apex 150 ABT type meters.(No internal CTR and PTR to be programmed inside Meter)		Nos	12
2	Design, Engineering, Manufacturing, Inspection, loading, Supply, Transport, Unloading at site, Storage, Erection, Testing, Commissioning of Prewired metering panels with Accessories		Nos	2
B	COMMUNICATION ACCESSORIES			
1	Supply and connection of Serial Device server (Make Moxa, Model – Nport 5232)		Nos	4

2	Supply, laying, termination and connection of Armoured CAT6 (Twisted pair cable) between meters to communication panel		mtrs	200
3	RJ45 I/O Boxes with I/Os (4 Port)		Nos	6
4	CAT6 Patch cables for connectivity between I/O and Meters / L3 switches (2 mts)		Nos	18
5	RJ 45 Connectors		Nos	24
6	Media Converters (Optical to Ethernet) (with 1310nm/1550nm) LC SFP type FOT (Make CTC Union, model FMC-2000MS)		Nos	3
1	Services for preparation of cable schedule and ICS, Installation, testing, configuration of ABT Meters and final commissioning of all material mentioned under supply scope.		LS	1
1	TTB		Nos	1
2	Secure Make Apex ABT Meter		Nos	1

S.N o.	Description	Rating.	Unit	Qty
A	PREWIRED METERING PANELS			
1	Design, Engineering, Manufacturing, Inspection, loading, Supply, Transport, Unloading at site, Storage, Erection, Testing, Commissioning of Prewired metering panels with Accessories		Nos	3
B	COMMUNICATION ACCESSORIES			
1	CAT 6 LAN cable (pre-terminated 7 feet)		Nos	20
2	Armoured CAT 6 LAN cable for Interpanel		mtrs	200
3	L3 switch for FO connectivity with minimum 12CU+ 4SFP slots with 80 km loaded 4 No.s SFP (As per specs)		Nos	1
4	Fiber Optic Cable 48 core Armoured Single mode with HDPE duct		mtrs	1000
5	Media Converters (Optical to Ethernet) (with 1310nm/1550nm) LC SFP type FOT Dual AC+DC powersupply		Nos	15
6	FOP Patch chords LC-PC-LC-PC (5 meters) Single mode		Nos	15
7	FOP Patch chords LC-PC-SC-PC (5 meters) Single mode		Nos	8
8	LIU 19 inch rack mountable LC-PC type single mode 48 core (AFS/Commscope/ TE/Tyco make only)		Nos	3
9	LIU Din rail mounting 12 core Single mode LC-PC LIU		Nos	3
10	I/O Box with RJ45 I/O loaded 4 No.s in each box		Nos	10
11	RJ45 connectors		Nos	40
12	Cable dressing, laying, Splicing, interpanel CAT6 LAN cable crimping and routing		Lot	1
1	Services for Supervision during Erection, installation.		LS	1
1	TTB		Nos	1

S.N o.	Description	Rating.	Unit	Qty
	SUPPLY: Protection system			

1	Completely pre-wired Simplex control Type-H Protection panel comprising of protection schemes and accessories as per specification along with IEDs, its networking accessories between IED to gateway, IED to DRCA system, relevant LIUs, switches, patch cords etc. for successful commissioning of underfrequency load shedding scheme.		Set	2
3	Protection Relay integration with SCADA & DRCA system at above mentioned stations: Ethernet Switches, Converters, Communication Cables (FO & UTP) and Networking accessories like LIU, patch panel (for each Ethernet switch), Pre-fabricated Patch cords (Fibre optic, UTP) of suitable length, Conduits for all non-armoured cables, I/O boxes with Quad face plate, RJ45 connectors etc.		Lot	2
Spares				
1	IED of each model number/ order code/ MLFB shall be supplied as spares		Lot	1
2	Auxilliary trip relay		Each Type	1
Services				
1	Services for preparation of cable schedule and ICS, commissioning of protection, automation and communication system along with appropriate human resources, numerical relay testing kit for relay panel commissioning and integration of relays with SCADA, DRCA system to view disturbance record and parameterization from remote		LS	1

S.No.	Description	Preferred make	Unit	Qty
1	12 core Single mode armoured FO-cable	Finolex/Apar/Bir la	metre	500
2	Fiber Termination Box Suitable to terminate 24-core Single Mode underground Fiber optic cable 19" Rack Mounting with Connectors loaded with SM type pigtailed LC type couplers and cassettes. Rodent Proof design.	AFS/Commscope	Nos.	1
3	Fiber Termination Box Suitable to terminate 12-core Single Mode underground Fiber optic cable DIN RAIL Mounting with Connectors loaded with SM type pigtailed LC type couplers and cassettes. Rodent Proof design.	AFS/Commscope/Preston	Nos.	1
4	Simplex FO Single mode patch cord LCPC-SCPC type simplex - 10 meter	AFS/Commscope/Tyco/3M	Nos.	4
5	Simplex FO Single mode patch cord LCPC-LCPC type simplex - 2 meter	AFS/Commscope/Tyco/3M	Nos.	10
6	Simplex FO Single mode patch cord LCPC-LCPC type simplex - 10 meter	AFS/Commscope/Tyco/3M	Nos.	4

7	Simplex FO Single mode patch cord LCPC-FCPC type simplex - 10 meter	AFS/Commscope/Tyco/3M	Nos.	4
8	PVC flexible conduit of 0.75 inch diameter	Reputed make	Meter	200
9	Media converter: Fiber to Ethernet / Single mode / LC type / 1310nm/ 40km and 10/100/1000Mbps ethernet with dual power supply 230VAC and 48-72VDC	CTC Union	Nos.	4
10	Attenuator 10dB single mode LC-PC	AFS/Commscope/Tyco/3M	Nos.	4
11	Armoured CAT6 cable	Reputed Make	Meters	200
12	Jelly filled armoured telephony cable (50 pair) with HDPE duct (40/33mm)	Reputed Make	Meters	500
13	Analog phones with roseette & I/O box with Patch panel 24 port with kronos, CAT6 cables	Reputed make	No.s	4
14	Extension of existing Public address system to new building with required speakers and announcement console. Seamless integration with existing PA system	MEcall	No.s	0
15	Services for Engineering, Erection, Installation, FO cables splicing / termination, CAT6 cables punching / crimping, commissioning services of Communication systems and integration with existing systems		Lot	1

S.No.	Description	Rating.	Unit	Qty
	SITC of following equipment as per specifications			
1	LV CABLES			
1.1	LV Power cables, Aluminum, XLPE, Armored (1.1 kV Class) as per standard specification.		NA	NA
1.2	Control / Instrumentation / SCADA cables, Copper, PVC, Armored (1.1 kV Class)		NA	NA
1.3	Cable carrier system as per specification		NA	NA
2	Earthing:			
2.1	Earthing mat design shall be done by Tata Power. Bidder shall indicate the no and location of risers to be tapped from the mat to the floor but executed by Tata Power. Further earthing arrangements from riser to all the equipments including GIS shall be in the scope of the bidder.		Lot	1
2.2	Procurement of earthing related material and laying for Main Earthing Grid shall not be in scope of the bidder.			1
2.3	Material required for earthing of equipment to riser is in the scope of bidder.			1
2.4	Miscellaneous Support Structures, base frames and fixtures for all equipment		Lot	1
3	Safety:			1
3.1	Safety Equipment's		Lot	1
3.2	Safety Boards for GIS & SAS Panels.		Lot	1
	SLD LOTO Key boards			1
	Tool arrangement boards			1
3.3	LOTO accessories		Lot	1

3.4	Safety Signage boards		Lot	1
3.5	Safety tools & tackles		Lot	1
4	Misc. items			1
4.1	Spares for electrical auxiliaries (As per standard specification mention in Section-B for each equipment/ system within battery limit)		Lot	1
4.2	Supply of ISI marked 33 kV and 1.1 kV insulating mats as per IS 15652 as per specifications		Lot	1
4.3	Supply and installation of metal nameplates per feeder as per Tata Power standard requirement as per specification		Lot	1
4.4	Housekeeping and cleaning/removal of waste material like big rocks and excavated soil, solar panel pallets, plastic waste, wooden material & any other scrap material at sites shall be removed/disposed from plant.		Lot	1
4.5	It is complete liability of contractor for disposing of material undisputedly outside the plant area.			1
4.6	Construction Power supply equipment/system as per Clause no. A2.14 in above section-A.		Lot	1
4.7	PVC flexible conduit rodent proof design with steel wires embedded (200 Mtr)		Lot	1
5	Other Requirements (If any):			
	Total Price			

Except above all other terms & conditions of the original tender document shall remain same.

It may be noted that all future correspondence will be strictly done only with Interested Vendors who have done the above steps (As mentioned in section "B") in time, and only through Tata Power E-tender system.
